



WESTMINSTER

**ENVIRONMENTAL ASSESSMENT  
BIG DRY CREEK INTERCEPTOR SEWER IMPROVEMENTS  
CITY OF WESTMINSTER  
JEFFERSON AND ADAMS COUNTY, COLORADO**

*Prepared for—*

Colorado Department of Public Health and Environment  
4300 Cherry Creek Drive South  
Denver, Colorado 80246

*On behalf of—*

City of Westminster  
4800 W. 92<sup>nd</sup> Ave.  
Westminster, CO 80031

*Prepared by—*

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**May 2020**



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## Acronyms and Abbreviations

APCD	Air Pollution Control Division
APE	Area of Potential Effect
BDCIS	Big Dry Creek Interceptor Sewer
BDCWA	Big Dry Creek Watershed Association
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best management practices
CWA	Clean Water Act
CFR	Code of Federal Regulations
CDPHE	Colorado Department of Public Health and Environment
CDOT	Colorado Department of Transportation
CEQ	Council on Environmental Quality
CDOA	Colorado Department of Agriculture
CIPP	Cured-In-Place Pipe
City	City of Westminster
CPW	Colorado Parks & Wildlife
CEQ	Council on Environmental Quality
dB	decibels
dBA	A-weighted decibels
EA	Environmental Assessment
EDR	Environmental Data Resources
EPA	Environmental Protection Agency
EO	Executive Order
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
IPaC	Information, Planning, and Conservation
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
OHWM	Ordinary High Water Mark
PM <sub>10</sub>	Particulate matter less than 10 microns
RPW	relatively permanent water
Project	Big Dry Creek Interceptor Sewer Improvements
SWMP	Stormwater Management Plan
SHPO	State Historic Preservation Officer
USFWS	United States Fish and Wildlife Service
U.S.C.	United States Code
U.S.	United States

## 1.0 Summary

### 1.1 Project Identification

**Project Name:** Big Dry Creek Interceptor Sewer Improvements  
**Applicant:** City of Westminster  
**Address:** 4800 W. 92nd Avenue, Westminster, CO 80031

### 1.2 Contact Person

Matt Gough, P.E., Vice President  
HDR, Inc.  
419 Canyon Ave., Suite 316  
Fort Collins, CO 80521  
Email: [matt.gough@hdrinc.com](mailto:matt.gough@hdrinc.com)

### 1.3 Assessment Preparation

The preparation of this Environmental Assessment (EA) was done in accordance with the Colorado Environmental Review Process and was prepared by:

Sirena Brownlee  
Senior Environmental Planner  
HDR, Inc.  
419 Canyon Ave., Suite 316  
Fort Collins, CO 80521

Also, in accordance with the State's Environmental Review Process for a State Revolving Fund loan, an EA Checklist has been prepared and can be found in Appendix A of this document.

### 1.4 Abstract

The City of Westminster (City) provides sewer service to over 110,000 people, covers approximately 29.8 square miles, and contains two major sewer basins: Little Dry Creek and Big Dry Creek. The Big Dry Creek basin, which is the focus of this Project, collects and conveys 75 percent of the city's total wastewater flows, generated in the northern portion of the city, to its Big Dry Creek Wastewater Treatment Facility. A major concern for the Big Dry Creek collection system is capacity for existing and future flows. Additionally, hydrogen sulfide corrosion is causing structural integrity concerns for the existing pipes and structures.

The City's proposed Big Dry Creek Interceptor Sewer Improvements Project would allow the City to provide uninterrupted sewer service to the service area and to increase the hydraulic capacity of the system.

Design of the Project would be completed in June 2020. The pipeline Project would be constructed over a period from August 2020 to May 2022. Cured-In-Place Pipe (CIPP) construction would begin in May 2020 and end in July 2021. This EA has been prepared to evaluate the environmental impacts of the proposed Project. Alternative recommendations have been previously analyzed in the *Big Dry Creek Interceptor Sewer Improvements Colorado State Revolving Funds Project Needs Assessment Report* (HDR 2019). Resources that were considered in the EA impacts analysis are air quality, noise, land use, soils and geological resources, surface water and groundwater, wetlands and other waters of the United States, floodplains, wildlife, vegetation, aquatic resources, federal and state listed species, cultural and historic resources, and environmental justice.

## 1.5 Comment Period

In conformance with the requirements of the National Environmental Policy Act (NEPA) and the Colorado Environmental Review Process, a Finding of No Significant Impact (FONSI) would be subject to a 30-day public review period. The FONSI would be distributed to interested persons and agencies for their review. The FONSI would be available for public review at the Colorado Department of Public Health and Environment (CDPHE). Any comments received would be given due consideration. Comments should be addressed to:

*Randi Johnson-Hufford, Project Manager  
Grants and Loans Unit  
Colorado Department of Public Health and Environment  
4300 Cherry Creek Drive South Denver, Colorado 80246-1530*

## 1.6 Privacy Notice

The following privacy notice is relevant to members of the general public who plan to make comments on this EA:

*Your comments on this document are requested. Letters or other written comments provided to the proponent concerning this document may be published in the EA. Comments will normally be addressed in the EA and made available to the public. Any personal information provided will be used only to identify your desire to make a statement during the public comment period or to fulfill requests for copies of the EA or associated documents. Private addresses will be compiled to develop a mailing list for those requesting copies of the EA. However, only the names of the individuals making comments and specific comments will be disclosed; home addresses and telephone numbers will not be published in the EA.*

## 2.0 Purpose and Need For Action

The purpose of the Project is to continue to provide uninterrupted sewer service to the City of Westminster's Big Dry Creek service area, to increase the hydraulic capacity and improve the

condition of the system. The Project is needed because much of the system has both capacity limitations and sections of pipeline in poor condition from hydrogen sulfide corrosion that is causing structural integrity concerns for the existing pipes and structures.

### 3.0 Project Summary

The *Little Dry Creek and Big Dry Creek Sewer Systems Study* (completed in 2011 and updated in 2015 based on the City of Westminster's Comprehensive Plan wastewater flow estimates from 2013) recommended several improvement projects in the Big Dry Creek collection system. A Phase I preliminary design report was completed for the Big Dry Creek Interceptor Sewer (BDCIS) in April 2019 that updated the hydraulic capacity and condition of the BDCIS. The Phase I preliminary design report recommended options for the repair or replacement of these sections of the interceptor system in the Big Dry Creek drainage basin to increase the hydraulic capacity and improve the condition of the system to the city's defined buildout condition(s).

To determine the future model loading scenarios, HDR worked with the City to develop the model conditions that were used to evaluate system capacity. The City analyzed water consumption data and developed land use unit flow factors. The resulting unit flow factors were then used to project future flow condition loading in the BDCIS model. In addition to the capacity evaluation, sewer condition score data were reviewed to identify poor condition pipelines in need of rehabilitation. Details of the modeling and recommended improvements are contained in the *Big Dry Creek Interceptor Sewer Improvements Colorado State Revolving Funds Project Needs Assessment Report* (HDR 2019).

Based on the development outcomes of the models, the BDCIS Project proposes improvements to address existing capacity limitations and condition-related issues. The Project will be broken into several different construction packages to effectively match the construction method with the needed pipeline repair.

This EA addresses the types of anticipated construction packages that are proposed.

#### 3.1 Description of the Project and Service Areas

The Project is located within the city of Westminster and is within two counties, Adams and Jefferson. Wastewater from the northern two thirds of the city flows through the BDCIS wastewater collection system. This 22-mile wastewater system provides service to City customers as far south as 92nd Avenue and extends to the northern boundary of the city. The system consists of large pipes ranging in size from 21 inches to 54 inches in diameter and conveys sewage for subsequent treatment at the City's Big Dry Creek Wastewater Treatment Facility.

Capacity results from the hydraulic model and the pipeline condition data were used to group capacity limitations and poor condition sewer main into Project areas for characterization. Interceptors that were projected to exceed a d/D of 0.8 during peak hour wet weather flows or

had adjusted condition scores of 3 or greater were grouped into Project areas. The areas where the greatest lengths of capacity limited interceptor was projected were grouped together first; starting at 104th Avenue with numbering continued downstream through the parallel interceptor. These capacity limited areas are generally separated where tributary interceptors tie into the main Big Dry Creek interceptor sewer. The remaining isolated capacity limited sewers in other portions of the system were grouped into Project areas along with sections of poor condition interceptor. Note the City's geographic information system data were used to identify interceptors that have already been lined and excluded these pipelines from the evaluation.

The final Project areas are presented in the figures on the following pages. The current BDCIS system is shown on Figure 1. Figure 2 shows the general locations of Project Areas 1, 3, and 9 which are discussed below.

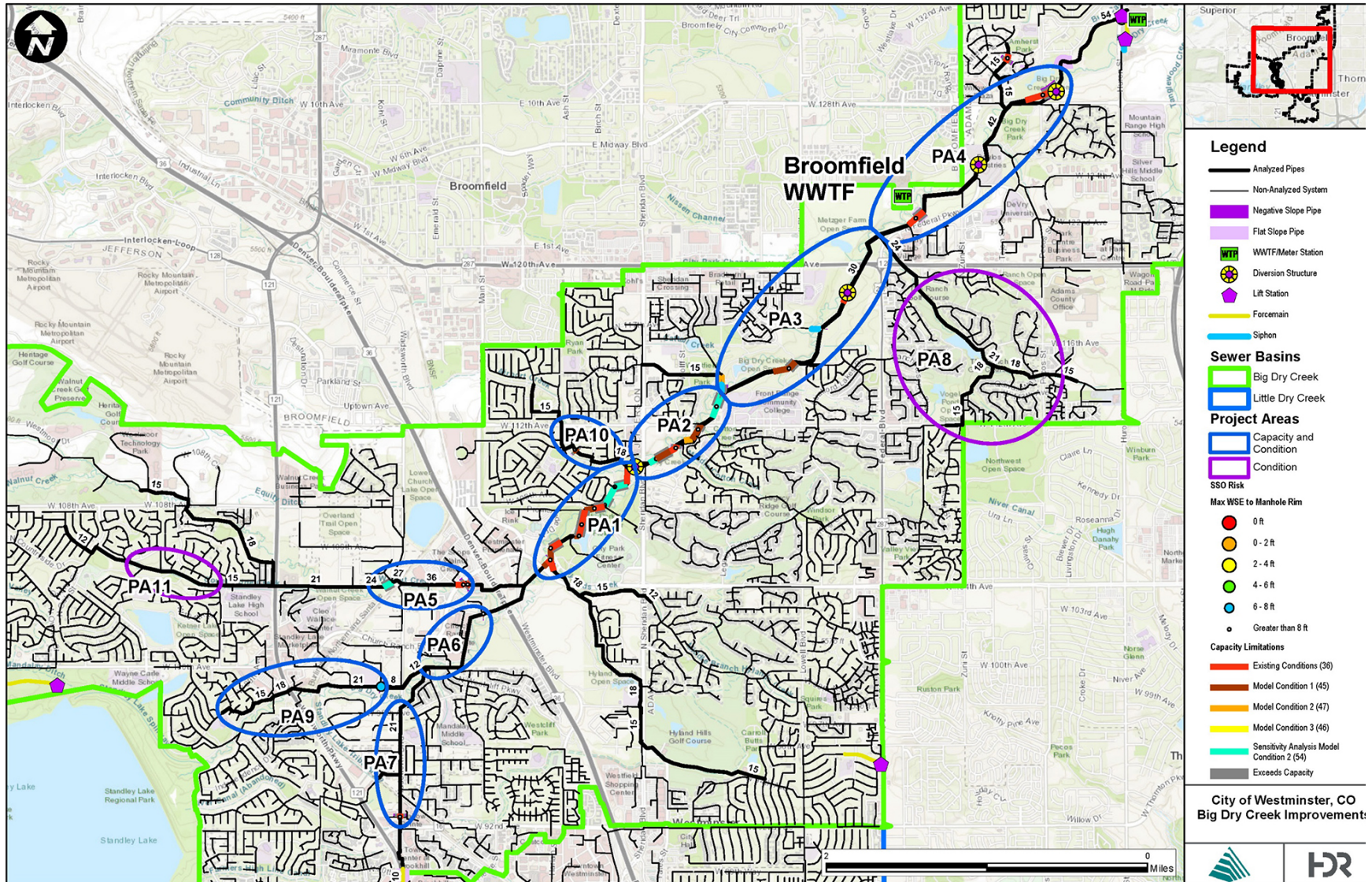
### **3.1.1 Project Area 1**

Project Area 1 is located along the BDCIS between Sheridan Boulevard and 104th Avenue on land owned by City of Westminster. This reach of the BDCIS is a single 30-inch-diameter pipeline with a total length of 6,190 feet. Sewer system modeling has identified capacity restrictions under existing and future condition loading. Previous master planning efforts have also identified poor condition pipe in this reach.



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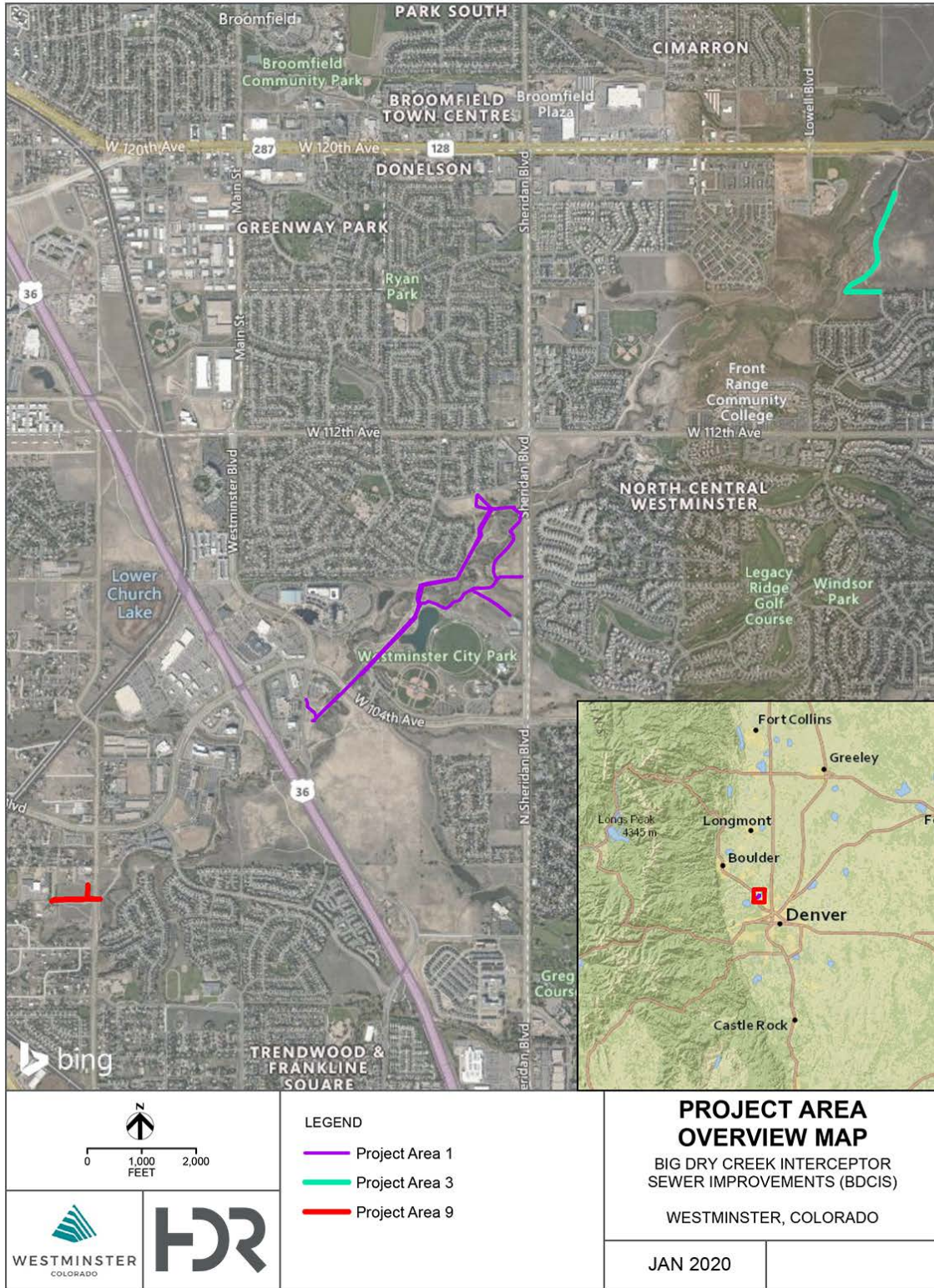
**Figure 1. BDCIS Sewer Basin and Project Areas**





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Figure 2. Project Areas 1, 3, and 9 Overview Map





The recommended alternative for Project Area 1 is the construction of a new 30-inch North Parallel Interceptor pipe. This alternative includes constructing a new parallel interceptor generally following the existing 30-inch interceptor to the north. This Project would require crossing Big Dry Creek at several locations. Additionally, this alternative includes installation of a pipe liner (CIPP) throughout the majority of the existing 30-inch interceptor wherever it has not recently been lined to improve the condition of that interceptor. Figure 3 shows the extent of the recommended improvements including access roads and staging areas for Project Area 1.

### **3.1.2 Project Area 3**

Project Area 3 is located along the BDCIS within Big Dry Creek Open Space land, between the Westfield Village Park Siphon and the Ranch tributary interceptor at West 120th Avenue and Federal Parkway. This reach of the BDCIS is a parallel interceptor, consisting of a 30-inch diameter pipeline and a 30/42-inch diameter pipeline, with a total length of 16,800 feet. Previous master planning efforts have identified poor condition pipe in this reach, particularly in the older 30-inch line, which is being resolved via ongoing lining efforts. The recommended alternative for Project Area 3 is to abandon approximately 300 feet of truss pipe and make the diversion structure a flow through. There is no aboveground construction associated with work in Project Area 3. Figure 2 shows the location of Project Area 3.

### **3.1.3 Project Area 9**

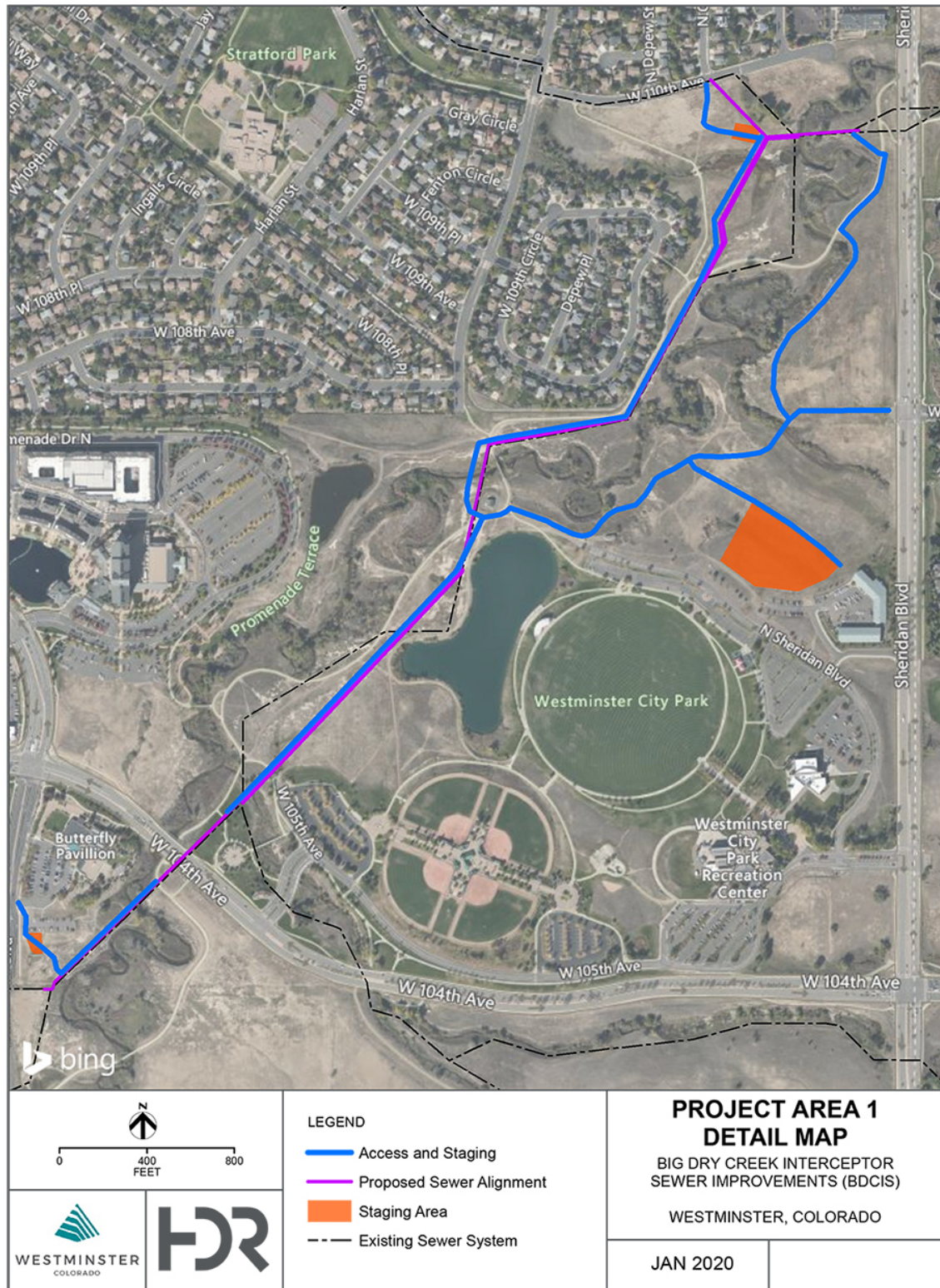
Project Area 9 is located along the BDCIS from the intersection of Yarrow Court and 99th Avenue west to a point near the intersection of Independence Way and 97th Avenue. This section of the BDCIS is approximately 5,800 feet in length and ranges from 12 inches to 21 inches in diameter. The recommended alternative for Project Area 9 includes replacing the existing 12-inch pipe with a 21-inch pipe, flow fill and abandoning the parallel line, and adding a sidewalk for access to the nearby school. Figure 4 shows the recommended improvements for Project Area 9.

### **3.1.4 Project Areas 1, 4, 5, 6, 7, 8, 9, 10 and 11**

Project Areas 1, 4, 5, 6, 7, 8, 9, 10, and 11 all have condition-related issues. This alternative will address all the condition-related issues as a single project to effectively repair structural deficiencies in poor condition sewer pipelines using a CIPP rehabilitation method. The City has used this technology successfully in the past and prefers this method. There is no aboveground construction associated with CIPP work in Project Areas 1 and 4 through 11. Figure 1 shows the locations for the Project Areas 1 and 4 through 11.

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**Figure 3. Project Area 1 Detail Map**





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Figure 4. Project Area 9 Detail Map



### 3.2 Permanent Flow Monitoring

Twenty permanent flow monitoring meters would be installed along the BDCIS in order to identify areas of high infiltration and inflow and locate capacity issues in the sewer collection system. The flow meters would capture data from both dry-weather and wet-weather periods on an annual basis to monitor capacity and infiltration and inflow in the Big Dry Creek system. The data would be used to better understand capacity limitations in the existing system for design of future interceptors and lift stations.

### 3.3 Future Development Loading

To determine the future model loading scenarios, HDR worked with the City on the development model conditions that were used to evaluate system capacity. The City analyzed water consumption data and developed land use unit flow factors. The resulting unit flow factors were then used to project future flow condition loading in the BDCIS model.

The data provided by the City for development of the model is summarized below:

- Land use unit flow factors based on water consumption data analysis.
- Recent Big Dry Creek Wastewater Treatment Facility flow data to validate modeled existing condition sewer flows, unit flow factors, and recent developments from 2011 to 2018.
- List of recent development to update base model flows from 2011 to 2018.
- Land use development scenarios that were used to model three future development outcomes.

Three future development model conditions were developed to represent the 2013 comprehensive plan projections, a modified comprehensive plan projection with more conservative development density assumptions, and a “most likely” development outcome that includes the comprehensive plan amendments at more moderate development densities. Table 1 summarizes the total future condition loading allocated to the model as peak average dry-weather flow in addition to the calibrated 2011 wet-weather flow to develop future condition wet-weather flow scenarios.

The three future development model conditions were then used to determine the impact of the different development assumptions on system capacity.

The development outcomes were used to evaluate system capacity under existing and future conditions. An updated existing condition scenario that includes loading from recent development was modeled to identify existing capacity limitations. Future condition scenarios were developed to identify capacity limitations under projected buildout conditions. Three development outcomes were modeled that reflect different assumptions in development density resulting in spatial variation in loading. In addition to these three development outcomes, a

sensitivity analysis scenario was modeled to determine the impact of wet-weather flow assumptions carried over from the 2011 study that was used as the basis for current modeling. The modeled scenarios were used to identify capacity limitations, confirm the impact of near term BDCIS lining projects to fully commission both parallel interceptor lines, and group capacity limited areas for improvement projects.

**Table 1. Model Condition Loading Summary**

Future Condition Model Scenario	Total Development Loading (gpm)	Total Development Loading (MGD*)
Model Condition 1—Comp Plan Densities	1,184	1.71
Model Condition 2—Comp Plan Amendments, High Density	1,453	2.09
Model Condition 3—Comp Plan Amendments, Moderate Density	1,356	1.95

\*Million gallons per day

In addition to the capacity evaluation, sewer condition score data were reviewed to identify poor condition pipelines in need of rehabilitation. The resulting sewer pipelines with Pipeline Assessment Certification Program scores greater than 3 were grouped into Project areas along with capacity limitations to be addressed as part of the overall BDCIS improvements.

Results from the five model condition scenarios were mapped to identify capacity limitations within interceptors in the Big Dry Creek basin and are included in Appendix B of this document.

## 4.0 Affected Environment and Environmental Impacts of the Proposed Project

### 4.1 Unaffected Resources

The following resource topics were eliminated from detailed analysis because they are not present in the Project area or would receive either negligible or no impact as a result of the Project.

- Hazardous Materials.** Individual Environmental Data Resources (EDR) Radius Map with GeoCheck Reports dated January 7, 2020, were reviewed for Project Areas 1 and 9 where ground disturbance will occur. EDR identified five sites within the designated ASTM search radii (varies from 1/4 to 1 mile) for Project Area 9, and 11 sites within the designated ASTM search radii for Project Area 1. These sites are summarized in Appendix C of this document.

Project construction activities would not occur within any identified sites in the EDR Report. The closest site is the Former Church Ranch located approximately 700 feet northeast and



down-gradient from Project Area 9 on the other side of Wadsworth Boulevard. If a previously unidentified hazardous waste site is located during construction, or staining, odors, or monitoring wells are observed, construction would cease and CDPHE would be notified. Based on the distance to known sites in the EDR database, the proposed Project would have negligible impact on hazardous materials.

- **Human Health and Safety.** The Project is not anticipated to impact health and human safety. Standard safety protocols will be followed during construction.
- **Recreation.** Access to sections of the Big Dry Creek trail may be temporarily disrupted by construction activity in the vicinity of the trail. Construction-related noise would be unlikely to impact use of adjacent trails or recreation facilities because construction would occur primarily on weekdays during normal working hours. This would reduce the potential for impacts to outdoor activities at nearby community recreational resources that most frequently occur in evenings and on weekends. Construction-related traffic should not interfere with access to community recreational resources.

Coordination with the City will occur to ensure that any temporary impacts to Big Dry Creek trail and Open Space are offset through the use of detours and/or flagging and traffic control through areas of construction. The City will work closely with the contractor to look at all options when closing a section of the trail to minimize inconvenience to trail users.

Coordination with the City will occur to ensure that construction minimally affects or does not interfere with recreational events such as organized running and cycling events. Therefore, no long-term adverse effects to existing or planned recreation opportunities are anticipated as a result of the proposed Project.

The Project will ensure that the City can address existing capacity limitations in the sewer system, thus supporting the positive economic contribution of the recreation industry.

- **Transportation.** Construction vehicles used to transport materials to and from Project area would temporarily increase traffic on adjacent roadways. Haul vehicles and heavy trucks would use City approved truck haul routes and additional access routes constructed in Project area as shown on Figure 2 and Figure 3. No road closures or detours are expected. The City will coordinate with the Colorado Department of Transportation (CDOT) should construction activities impact roadways under CDOT jurisdiction. Temporary trail construction detours or closures would be signed and information would be made available on the City's website on multiple webpages, including a page specifically for the Project.
- **Utilities.** Relocation of portions of a 48-inch Regional Partner's Raw Waterline on City Open Space land in Project Area 1 may be required to provide additional design flexibility in the horizontal alignment of the new interceptor, but no other service disruptions are anticipated.
- **Visual Resources.** The sewer interceptor construction activities would result in a buried pipeline with no aboveground structures that would result in visual impacts. One access road would be constructed across a drainage feature in Project Area 1 (Figure 3) that may become permanent for the City to access their land. Short-term visual impacts for trail users and adjacent residences would include construction equipment, signage, and stockpiled and

excavated material associated with construction in the staging areas for the construction duration. The Project would be presented at a City Council meeting and final design would be approved by City Council.

## **4.2 Environmental Resources**

This section describes the environmental resources and conditions most likely to be affected by the Project and provides information to serve as a baseline from which to identify and evaluate potential environmental and socioeconomic impacts that could result from the Project. Baseline conditions represent current conditions. In compliance with NEPA and Council on Environmental Quality (CEQ) guidelines, as amended, the description of the affected environment focuses on those resources and conditions potentially subject to direct or secondary impacts.

## **4.3 Direct and Secondary Impacts**

Construction within the Project area may have direct impacts from trenching for pipeline installation and secondary and cumulative impacts from future development within the Project area. Secondary impacts are those induced or stimulated by, or as a result of, the Project, but occurring later in time or farther away in distance as compared to direct impacts. These impacts can include cumulative, social, and land use impacts, among others. Cumulative impacts are the collective incremental impacts of the Project regardless of the entity undertaking the action. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. From the characteristics of the Project, and descriptive elements of the environmental setting, probable impacts would be direct and/or secondary. Potential secondary and cumulative impacts on the environment from new development such as increased quantity and decreased quality of urban runoff, degradation of wetland and wildlife habitat, and increased air pollution and noise are likely to affect the Project area.

### **4.3.1 Air Quality**

The Air Pollution Control Division (APCD) of the Colorado Department of Public Health and Environment (CDPHE) is the state agency responsible for monitoring air quality in Colorado. The study area is located in the Denver-Metro/North Front Range Region for air quality, which is considered a nonattainment area for ozone and a maintenance area for carbon monoxide and PM<sub>10</sub> (particulate matter less than 10 microns) and an attainment area for the other criteria pollutants. Particulate matter with a diameter of 10 microns or smaller is inhalable and creates a health hazard. PM<sub>10</sub> measurements for the Project area are well within the national ambient standard of 150 micrograms per cubic meter (µg/m<sup>3</sup>) for air quality. The primary source of particulate matter is dust, with secondary sources being from vehicle exhaust (CDPHE 2019).

Since 2002 the region has complied with all National Ambient Air Quality Standards (NAAQS) except for ozone. Since the early 2000s the region exceeded the Environmental Protection Agency's (EPA) ozone standards and was formally designated a "nonattainment" area on

November 20, 2007, for 8-hour ozone. On May 21, 2012, the EPA issued the final rule designating 8-hour ozone non-attainment areas, and again designated the region as a “marginal nonattainment” area. This means that in 2012 the area met the definition of being only slightly over the NAAQS (CDPHE 2019). On December 16, 2019, the EPA announced a final rule to reclassify the Denver Metro/North Front Range ozone nonattainment area from Moderate to Serious nonattainment under the Clean Air Act. The area covered embraces all of Adams, Arapahoe, Boulder, Denver, Douglas, and Jefferson counties as well as the southern portions of Larimer and Weld counties.

The CDPHE APCD was sent a scoping letter and responded that the project is located within the Denver-metropolitan ozone nonattainment area and that the project conforms to the EPA-approved State Implementation Plan. Annual emissions generated from the proposed project are not expected to exceed the de minimis thresholds established in EPA’s General Conformity regulations. As such a detailed conformity analysis is not required for this project. The letter included fugitive dust control measures that must be followed at the site (Appendix H).

**Impacts.** The Project would result in minor, short-term impacts to air quality. Temporary impacts to air quality would occur as a result of the fugitive dust from ground-disturbing activities such as trenching and by wind action on stockpiled materials and air emission exhaust from construction equipment and vehicles. No long term impacts would occur as a result of operation or continued maintenance of the BDCIS.

**Mitigation Measures.** Construction impacts will be offset through fugitive dust control techniques to be determined during final design, and may include the following:

- Minimize wind-blown dust by wetting disturbed areas during construction.
- Use the cleanest fuels available at the time to reduce vehicle exhaust emissions and control excessive idling of construction vehicles.
- Keep construction equipment well maintained to ensure exhaust systems are in good working order and control vehicle speed on unpaved surfaces.
- Wash vehicle wheels when moving from unpaved surfaces to paved surfaces.
- Implement post-construction seeding and maintenance of vegetative ground cover.

#### **4.3.2 Noise**

Noise-sensitive land uses generally are defined as locations where people reside or where the presence of unwanted sound adversely affects the designated use of the land. Typically, noise-sensitive land uses include residential areas, hospitals, places of worship, libraries, and schools, as well as nature and wildlife preserves and parks. Noise-sensitive locations in and near the Project area include the residential areas along the north side of Project Area 1 and Project Area 3 and the Open space trails and recreation facilities. Jefferson Academy Charter School adjacent to Project Area 9 would also be a noise sensitive area. The existing noise environment consists mostly of traffic noise on the local roadways. Sound levels are measured on a



logarithmic scale in decibels (dB). The most common metric for noise is the overall A-weighted sound level measurement which has been adopted by regulatory bodies worldwide. The A-weighting network measures sound as it is heard by humans, thereby providing a measure for evaluating acceptable and unacceptable sound levels. A-weighted measurements are expressed in terms of A-weighted decibels (dBA).

**Impacts.** Construction noise in the Project area would occur on a temporary, intermittent, and localized basis during the construction period of approximately 18 months. Trenching activities are expected to produce associated decibel levels of approximately 64 dBA at 200 feet from trenching (FHWA 2006). The nearest noise-sensitive receptors in Project Area 1 where most of the trenching would occur are residential areas that border the northern section of Project area 1. Background noise levels in neighborhoods adjacent to Project area 1 range from 35 dBA to 50 dBA (FHWA 2019). Trenching in this area would occur over a period of a couple months and is expected to occur during normal daytime working hours only. Construction activities at Project area 9 would also include trenching over a period of a few months. If the charter school is in session during construction there could be temporary noise impacts to students and faculty during the school day. Therefore, construction noise would slightly increase the noise environment within and near the Project area for a short duration of time but would have no longer term impacts.

**Mitigation Measures.** The Project will adhere to all applicable City of Westminster ordinances which restrict work hours to Mondays through Fridays from 7:00 a.m. to 5:00 p.m. to limit the impact of construction equipment and work noise. Weekend and evening work will only be permitted if special circumstances arise.

### 4.3.3 Land Use

Land uses in the Project area include a mixture of residential, commercial, and park/open space. The zoning types in the Project area include the following:

- PUD: Planned unit development
- O-1: Open/agricultural

The majority of the Project area runs parallel to the Big Dry Creek Trail that is managed by the City of Westminster for recreational use of the open space. The trail meanders nearly 12 miles, within Westminster, from Standley Lake Regional Park to Interstate 25 and beyond into Thornton. In addition to the Big Dry Creek trail, the Project area is located near Christopher Fields Softball complex, picnic shelters, Butterfly Pavilion, Westminster skate park, City Park pond, and City Park recreation center. Figure 5 shows land uses in the Project area and surrounding areas.

This Project area falls under the policies as outlined in the *Westminster Comprehensive Plan* (2015), the *Adams County Comprehensive Plan* (2013), and the *Jefferson County Comprehensive Plan* (2017). The 2015 *Westminster Comprehensive Plan* identifies that sewer improvements are necessary to replace aging pipe that is in poor condition and also to improve

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hydraulic capacity to support city growth, development, and redevelopment. The plans provide guidance and long-term visions for land use and growth and development decisions.

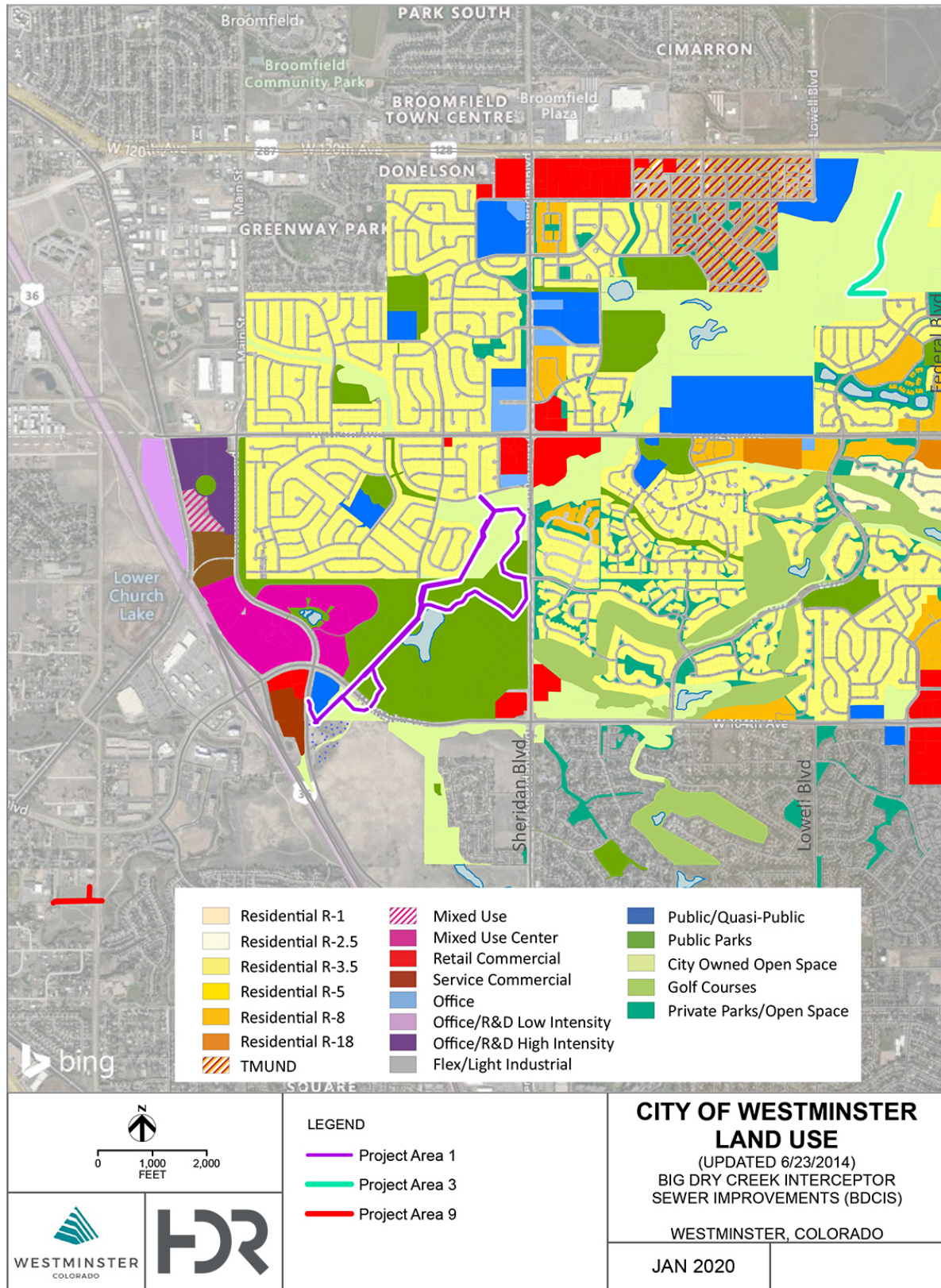
**Impacts.** The Project would result in no changes of existing or planned land uses, nor result in a change to zoning. The Project is consistent with existing City and County comprehensive plans mentioned above.

The Project would provide the needed hydraulic capacity to support city growth, development, and redevelopment. However, the Project on its own is not anticipated to induce growth. Land use and growth management would still primarily be driven by the land use decision and policies as set forth by the City.

**Mitigation Measures.** No mitigation measures are required.

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**Figure 5. Existing Land Uses within the Project Area**



#### 4.3.4 Soils and Geological Resources

A review of Natural Resources Conservation Service (NRCS) soil resources mapping indicates that the soil types in the pipeline alignment areas where ground disturbance would occur are mostly one type: Arvada clay loam, 0 to 2 percent slopes. These soils generally occur on terrace landforms and their associated floodplains and were formed through alluvial processes. Arvada clay loam, 0 to 2 percent slopes, soil map unit are formed from clayey alluvium derived from calcareous shale parent material and are well-drained. Access roads and staging areas in Project Area 1 will occur in areas mapped as Manzanola-Renohill-Stoneham complex, 9 to 15 percent slopes and Platner loam, 3 to 5 percent slopes (NRCS 2019). The Manzanola-Renohill-Stoneham complex occurs on hill slopes and ridges with well-drained soils. The Platner loam complex occurs on interfluves with linear features (NRCS 2019).

The Project area lies within the Central High Plains, Southern Part Major Land Resource Area, part of the Western Great Plains Range and Irrigated Region Land Resource Region (NRCS 2006). The Central High Plains, Southern Part Major Land Resource Area includes smooth to slightly irregular plains consisting of sediments deposited by rivers that drained the young and actively eroding Rocky Mountains. The immediate Project area has been significantly disturbed by urbanization.

The NRCS data were reviewed to determine if there are any soils in the project area or vicinity that would support farming activities. Based on the Web Soil Survey, there are no prime and unique farmlands or farmland of statewide and local importance along the sewer pipeline alignment where most of the ground disturbing activity will occur. However, temporary access roads located in Project Area 1 are located on land that is mapped as prime farmland if irrigated, as shown on Figure 6 (NRCS 2019). Prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is available for these uses. Currently, the area is not under irrigation; therefore, this area would only be considered to be prime farmland if irrigated now or in the future.

Detailed information regarding the soils at the BDCIS Project area can be found in the *Big Dry Creek Interceptor Sewer Preliminary Design, Project Area 1* (Shannon and Wilson 2019).

**Impacts.** Disturbance and compaction of soils as a result of trenching and other construction activities would result in temporary increased potential for erosion and sedimentation. Temporary access road locations in Project Area 1 are mapped as prime farmland if irrigated. However, this area is located on City owned Open Space land and is not available for use as farmland and is not currently irrigated. No permanent loss of prime farmland would occur as a result of construction of temporary access roads.





**Mitigation Measures.** The Project will implement best management practices (BMPs) and engineering controls during construction to prevent and minimize erosion and sedimentation. These measures will be included in the construction plans and outlined in the Stormwater Management Plan (SWMP) to be implemented as part of the Stormwater Discharges Associated with Construction Activities Permit to be obtained from CDPHE.

#### **4.3.5 Surface Water and Groundwater Quality and Quantity**

The Big Dry Creek Watershed originates in unincorporated Jefferson County at the mouth of Coal Creek Canyon at an elevation of approximately 8,000 feet above mean sea level. The headwaters area is located approximately 10 miles west of the City of Westminster. Numerous drainages feed the Big Dry Creek Watershed, of which Big Dry Creek, Little Dry Creek, Walnut Creek, and Woman Creek are the major streams. The flow in the watershed is significantly influenced by the Standley Lake irrigation and water supply reservoir which exists in the upper watershed. The Big Dry Creek channel below Standley Lake is a well-defined meandering channel with a flat, sandy bottom and highly erodible side slopes. The typical tributary channel is broad with native grasses and cattails in low-flow areas. Big Dry Creek flows in a northeasterly direction approximately 33 miles to its confluence with the South Platte River near Fort Lupton in Weld County.

Every 2 years, the Clean Water Act (CWA) requires states to publish an updated list of water bodies that are not meeting their beneficial uses because of excess pollutants; these pollutants can be naturally occurring or a result of human activity. The list, known as the EPA Section 303(d) list, is based on violations of water quality standards and is organized by watersheds, which are further divided into stream segments. Regulation Number 93 satisfies the federal requirements of Section 303(d) reporting and CDPHE assigns total maximum daily loads to these impaired segments, which accelerates their clean-up.

The main stem of Big Dry Creek, which includes the Project area, is listed on the 2018 303(d) List for Colorado for nonattainment of stream standards for *E. coli* for the entire segment (CWQCC 2018). *E. coli* is an indicator of fecal contamination associated with the intestines of warm-blooded animals and is used by the EPA to establish ambient water quality criteria for recreation. Big Dry Creek data shows attainment for all other currently applicable standards with the exception of the *E. coli* at stream monitoring locations that overlap with the Project area. The City of Westminster, along with the City and County of Broomfield, City of Northglenn, and the City of Thornton, conducts annual water quality monitoring in Big Dry Creek through the Big Dry Creek Watershed Association (BDCWA). The BDCWA has 19 years of *E. coli* data collected on a monthly basis at eight instream locations. Significant reductions in Westminster's Waste Water Treatment Plant effluent concentrations are apparent beginning in 2008 following plant upgrades including Ultra Violet treatment and other operational changes. *E. coli* concentrations in 2018 were generally lower than what has been observed since approximately 2010 at most monitoring locations along the creek (Wright Water Engineers, Inc. 2019).

For streams on the 303(d) list a Total Maximum Daily Load (TMDL) is used to determine the maximum amount of a pollutant that a water body may receive and still maintain water quality

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standards. A TMDL was approved for Big Dry Creek in 2016 to address the impairments to the creek (CDPHE 2016). The goal of the TMDL assessment is to protect public health through attainment of the E. coli water quality standards. The current planned improvements to the sewer interceptor would contribute to attaining water quality standards for Big Dry Creek.

The Project area overlies the Denver Basin aquifer which is a 600- to 1,100-foot-thick sequence of moderately consolidated, interbedded shale, claystone, siltstone, and sandstone, in which coal and fossilized plant remains are common. Water-yielding layers of sandstone and siltstone occur in poorly defined irregular beds that are dispersed within relatively thick sequences of claystone and shale. Individual sandstone and siltstone layers commonly are lens-shaped and range in thickness from a few inches to as much as 50 feet. Although the Denver aquifer yields usable quantities of water to wells, claystone and shale are prevalent in this unit and tend to form a leaky confining layer between the overlying Dawson aquifer and the underlying Arapahoe aquifer. Soils and surficial materials in the Denver Basin typically are sufficiently permeable to allow percolation into underlying bedrock aquifers (USGS 2019).

Water quality in the Denver aquifer meets drinking water regulations established by the EPA for public water supplies and generally contains about 100 to 1,000 milligrams per liter of dissolved solids, and is a calcium bicarbonate type near the center of the aquifer and a sodium bicarbonate or sodium sulfate type near the margins of the aquifer. As the calcium bicarbonate water moves through the Denver and underlying aquifers, the water is naturally softened by cation exchange of calcium ions for sodium ions on the surface of clay minerals in the formations. This cation exchange process increases the dissolved-sodium concentration in the water while decreasing the dissolved calcium concentration. As a result, water in the Denver Basin aquifers generally is softer at greater depth (USGS 2019).

There are no sole source aquifers in the Project area or within the state of Colorado (USEPA 2019).

There are no major wells in the Project area. Numerous minor groundwater wells occur throughout the Project area. Permittees include the City of Westminster and City of Northglenn who have permitted uses including monitoring and sampling wells (CDSS 2019).

**Impacts.** Construction of the sewer pipeline across the Big Dry Creek channel results in minor temporary impacts such as short term increases in turbidity and sedimentation (locally and downstream). The sewer interceptor pipeline would cross below the Big Dry Creek channel and its tributaries in several locations. The pipeline would be placed below grade in a trench across the creek and would result in temporary construction impacts to waters of the United States from trenching in the creek bed. Pipeline construction in Big Dry Creek would be completed by installation of cofferdams and may require by-pass pumping. Construction of one temporary access road across Big Dry Creek channel would result in short-term increases in turbidity and sedimentation (locally and downstream).



There are no permanent impacts to wetlands or streams as a result of the sewer pipeline improvements. The acreage of temporary impacts to waters of the United States is presented in Table 2.

**Table 2. Temporary Impacts to Waters of the United States Within the Project Area**

Description	Acreage
Streams	0.03
Wetlands	0.08
Total	0.11

The primary impact to groundwater resources during construction would result from incidental spills of fuels and other hazardous materials from construction equipment. Impacts, however, would be avoided through the Project's Spill Pollution Prevention Plan. No other impacts to groundwater are expected.

**Mitigation Measures.** The Proposed Action would require a General Permit for Stormwater Discharges Associated with Construction Activities from CDPHE, which is required for any proposed Project that would disturb 1 acre or more of land in Colorado. The requirements of the permit include implementation of "control measures" (formerly called "BMPs") to minimize pollutant discharges from construction sites, development and implementation of a SWMP, and regular site inspection and reporting to ensure compliance with permit terms.

- Following completion of waterbody crossings, creek banks will be restored to preconstruction contours or a stable slope.
- The City will obtain a Section 404 Nationwide Permit and adhere to all terms and conditions therein.
- If necessary, the Project would adhere to the terms and conditions of a dewatering permit obtained from CDPHE, as well as adhere to any local regulations.
- The City will develop a Spill Pollution Prevention Plan to avoid or minimize pollutants reaching water resources.

#### **4.3.6 Wetlands and Other Waters of the United States**

HDR delineated potentially jurisdictional waters of the United States, including wetlands, within the Project area on March 11 and 12, 2019, and January 11, 2020.

The field delineation of potential waters of the United States, including wetlands, was conducted in accordance with the U.S. Army Corps of Engineers *1987 Wetlands Delineation Manual* (Environmental Laboratory 1987) and its *Regional Supplement for the Great Plains Region* (USACE 2010). The Wetland Delineation Report is included in Appendix D of this document.

Waters of the United States within the Project area consist of 17 stream segments (Big Dry Creek and its tributaries totaling 1.106 acres), 22 wetlands (totaling 2.109 acres), and 4 open waters considered potentially jurisdictional (Table 3 and 4).

Located in the northern portion of the Project area, streams S-1a, S-1b, and S-1c are perennial streams with average Ordinary High Water Marks (OHWM) of 16, 20, and 21 feet, respectively. All are portions of Big Dry Creek as it meanders northeast through the Project area. The riparian



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corridor consists of willows (*Salix* sp.), eastern cottonwood (*Populus deltoides*), poison hemlock (*Conium maculatum*), curly dock (*Rumex crispus*), and Fuller’s teasel (*Dipsacus fullonum*).

Streams S-1d, S-1e, and S-1f are perennial stream channels with average OHWMs of 15, 16, and 14 feet, respectively. The stream features are also portions of Big Dry Creek as it meanders northeast through Project area. The riparian corridor consists of willows, eastern cottonwood, and Fuller’s teasel with some occasional in-stream cattails (*Typha* sp.). The stream segments have very steep banks due to substantive erosion.

**Table 3. Streams and Open Waters within the Project Area**

Resource ID	Description	Average OHWM width (ft.)*	Classification**	Linear Feet Within Project Area	Acreage Within Project Area
S-1a	Perennial	16	RPW	109	0.040
S-1b	Perennial	20	RPW	100	0.046
S-1c	Perennial	21	RPW	214	0.104
S-1d	Perennial	15	RPW	62	0.022
S-1e	Perennial	16	RPW	223	0.080
S-1f	Perennial	14	RPW	143	0.048
S-1g	Perennial	15	RPW	65	0.023
S-1h	Perennial	18	RPW	235	0.095
S-1i	Perennial	14	RPW	221	0.070
S-1j	Perennial	30	RPW	131	0.091
S-1k	Perennial	13	RPW	176	0.054
S-1l	Perennial	18	RPW	387	0.159
S-1m	Perennial	17	RPW	102	0.041
S-1n	Perennial	21	RPW	206	0.098
S-2	Intermittent	51	RPW	43	0.050
S-3	Perennial	6	RPW	244	0.036
S-4	Intermittent	2	RPW	978	0.049
<b>Total</b>				<b>2,661</b>	<b>1.106</b>

\*OHWM: ordinary high water mark.

\*\*RPW: Relatively permanent water that flows indirectly into traditional navigable water.

Located in the middle portion of the Project area, streams S-1g, S-1h, and S-1i are perennial stream segments with an average OHWMs of 15, 18, and 14 feet, respectively. As with the other stream features before, these three segments are portions of Big Dry Creek as it

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meanders northeast through Project area. The riparian corridor consists of willows and eastern cottonwood.

Located in the southern portion of the Project area, perennial streams S-1j, S-1k, S-1l, S-m, and S-1n are segments of Big Dry Creek. The riparian corridor consists of willows and eastern cottonwood. Streams S-1j, S-1k, S-1l, S-m, and S-1n are perennial stream segments with an average OHWMs of 30, 13, 18, 17, and 21 feet, respectively. The stream segments have very steep banks because of substantive erosion.

Stream S-2 is an intermittent stream channel in the northern portion of the Project area. Stream S-2 is also known as Airport Creek, a tributary of Big Dry Creek. Stream S-2 is lined with concrete as it drops in elevation and converges with Big Dry Creek. Stream S-2 has an average OHWM of 51 feet. The riparian corridor consists of willows and abutting wetlands with cattails and softstem bulrush (*Schoenoplectus tabernaemontani*).

Stream S-3 is a perennial stream in the southern portion of the Project area. Stream S-3 is also known as Hylands Creek, a tributary of Big Dry Creek. Stream S-3 flows northwest into the Project area where it converges with Big Dry Creek, and has an average OHWM of 6 feet. The riparian corridor consists of mainly of willows (Table 4).

Stream S-4 is a relatively narrow intermittent stream, flowing northwest into Big Dry Creek. Within the study area, the stream outlets from a culvert under Sheridan Boulevard. The gentle slope of the landscape allows for wetland hydrology for abutting wetlands. Riparian vegetation includes narrowleaf willow, peachleaf willow (*Salix amygdaloides*), eastern cottonwood, and cattail.

The Project contains 22 non-forested wetlands considered to be potential waters of the United States and a total of 2.109 acres in the project area (Table 4).

**Table 4. Wetlands within the Project Area**

Resource ID	Description*	Classification†	Acreage Within Project Area
W-1	Scrub-shrub	Adjacent	0.016
W-2	Scrub-shrub	Abutting	0.003
W-3	Emergent	Abutting	0.090
W-4	Emergent	Abutting	0.528
W-5	Scrub-shrub	Abutting	0.184
W-6	Scrub-shrub	Abutting	0.022
W-7	Scrub-shrub	Adjacent	0.105
W-8	Emergent	Adjacent	0.012
W-9	Emergent	Adjacent	0.125
W-10	Scrub-shrub	Abutting	0.042

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**Table 4. Wetlands within the Project Area**

Resource ID	Description*	Classification†	Acreage Within Project Area
W-11	Scrub-shrub	Abutting	0.064
W-12	Emergent	Abutting	0.057
W-13	Scrub-shrub	Abutting	0.061
W-14	Scrub-shrub	Abutting	0.124
W-15	Scrub-shrub	Abutting	0.074
W-16	Emergent	Adjacent	0.010
W-17	Emergent	Abutting	0.034
W-18	scrub-shrub	Abutting	0.028
W-19	emergent	Abutting	0.069
W-20	scrub-shrub	Abutting	0.126
W-21	emergent	Abutting	0.314
W-22	emergent	Abutting	0.021
<b>Total</b>			<b>2.109</b>

\*Classification according to Cowardin et al. (1979.)

†Adjacent: Wetland adjacent to a relatively permanent water.

Abutting: Wetland abutting a relatively permanent water.

Scrub-shrub Wetlands W-1 and W-2 are located in the northern portion of the Project area. Species within W-1 include mountain rush (*Juncus articus*) and willow. Scrub-shrub wetlands W-5 and W-6 are located in the middle portion of the Project area. The wetlands are dominated by willows, water sedge (*Carex aquatilis*), and mountain rush. Scrub-shrub wetland W-7 is located in the middle portion of the Project area. Wetland W-7 appears to be overflow for open water OW-4, eventually flowing west to Big Dry Creek during high precipitation events. The wetland is dominated by willows. Wetland W-10, W-11, and W-15 are scrub-shrub wetlands located in the southern portion of the study area and are dominated by willow.

Emergent wetland W-3 is located in the northern portion of the Project area. The wetland is dominated by softstem bulrush and is a product of hydrology from Airport Creek, a tributary of Big Dry Creek, located approximately 250 feet east of the Project area boundary. Wetland W-4 is located in the northern portion of the Project area. The wetland is a product of hydrology from Airport Creek, a tributary of Big Dry Creek as it flows east into the Project area. The wetland is dominated by cattails. Emergent wetland W-8 is a depressional wetland located in the middle portion of the Project area. The wetland is dominated by softstem bulrush. Emergent wetland W-9 is located in the middle portion of the Project area. This wetland is dominated by cattails. Wetland W-12 is located in the southern portion of the Project area. Wetland W-12 abuts Big Dry Creek and is dominated by cattails. Scrub-shrub wetlands W-13 and W-14 are located in the southern portion of the Project area. These wetlands are dominated by willow and abut Big

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Dry Creek near the 104th Avenue Bridge. Emergent wetlands W-16 and W-17 are located in the southern portion of the Project area. Wetland W-16 is abutting Big Dry Creek while wetland W-17 appears to be the result of impervious surface drainage west of the Project area. Wetlands W-16 and W-17 are dominated by mountain rush, willow, cattails, and Fuller's teasel.

The Project team had a teleconference with a USACE representative during Project development. A Project overview was provided, as well as a summary of the aquatic resources present, and different permitting scenarios. The USACE indicated the Project likely qualifies under a Nationwide Permit #12 for Utility Line Activities that would not result in the loss of more than 0.50 acre of waters of the United States or 300 linear feet of stream channel.

**Impacts.** Construction of the new sewer interceptor pipeline and associated temporary access roads would result in 1,438 square feet (0.033 acre) of temporary impacts to Big Dry Creek and its tributaries as shown in Table 5 (Figure 7 through Figure 12).

Construction of the new sewer interceptor pipeline and associated temporary access roads would result in 3,485 square feet (0.080 acre) of temporary impacts to wetlands as shown in Table 6 (Figure 7 through Figure 12).

The sewer pipeline would cross below Big Dry Creek in three locations, Hylands Creek (a tributary of Big Dry Creek) in one location, and Airport Creek (a tributary of Big Dry Creek) in one location and would result in localized increases in turbidity and sedimentation from soil disturbance.

**Table 5. Temporary Stream Impacts within the Project Area**

Resource ID	Acreage
S-1l	0.009
S-1h	0.003
S-1c	0.003
S-1h	0.005
S-3	0.004
S-2	0.009
Total stream impacts	0.033

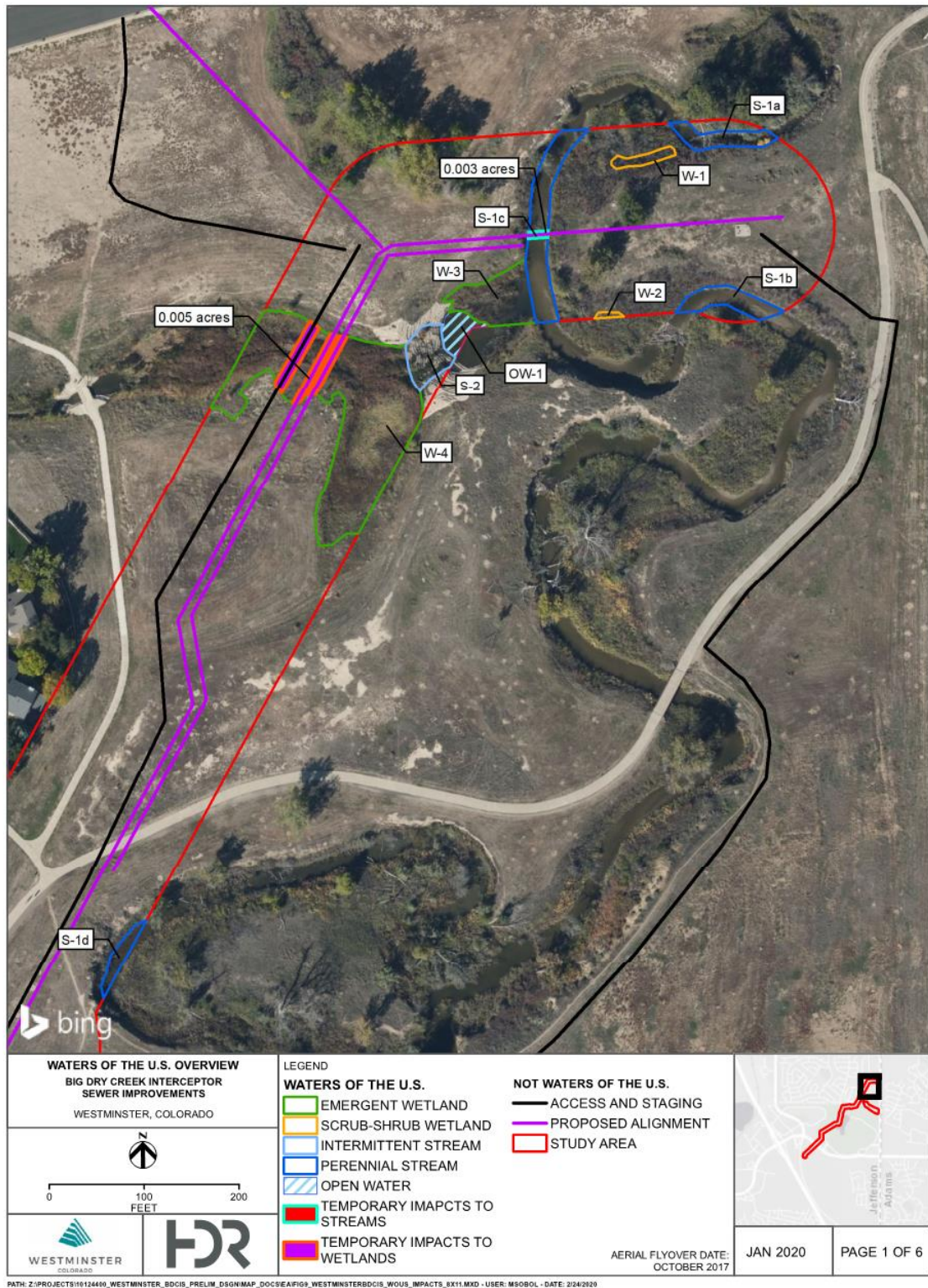
**Table 6. Temporary Wetland Impacts within the Project Area**

Resource ID	Acreage
W-7	0.02
W-16	0.0005
W-21	0.0090
W-4	0.05
Total Wetland impacts	0.080



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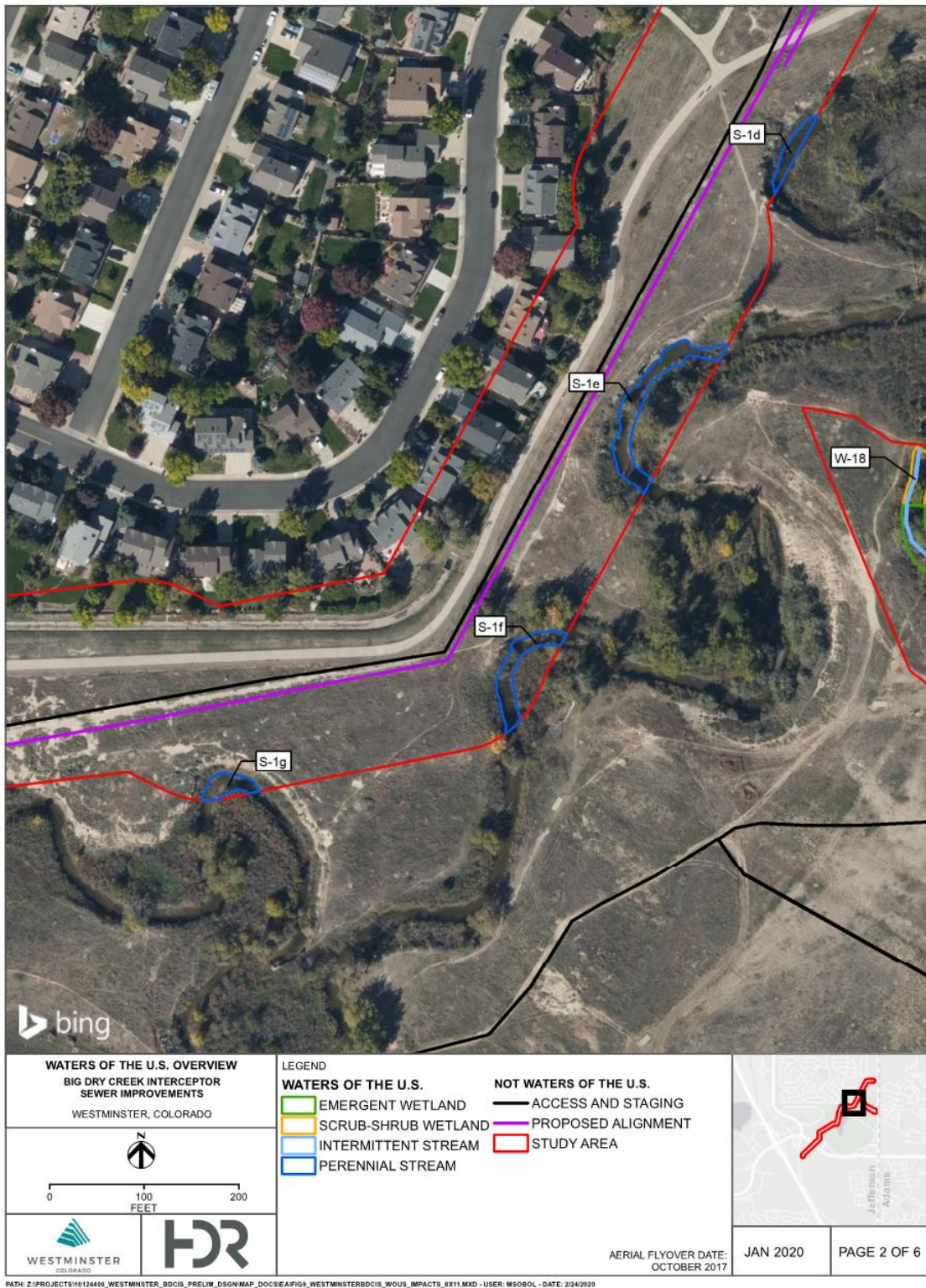
Figure 7. Impacts to Wetlands and other Waters of the United States in the Project Area





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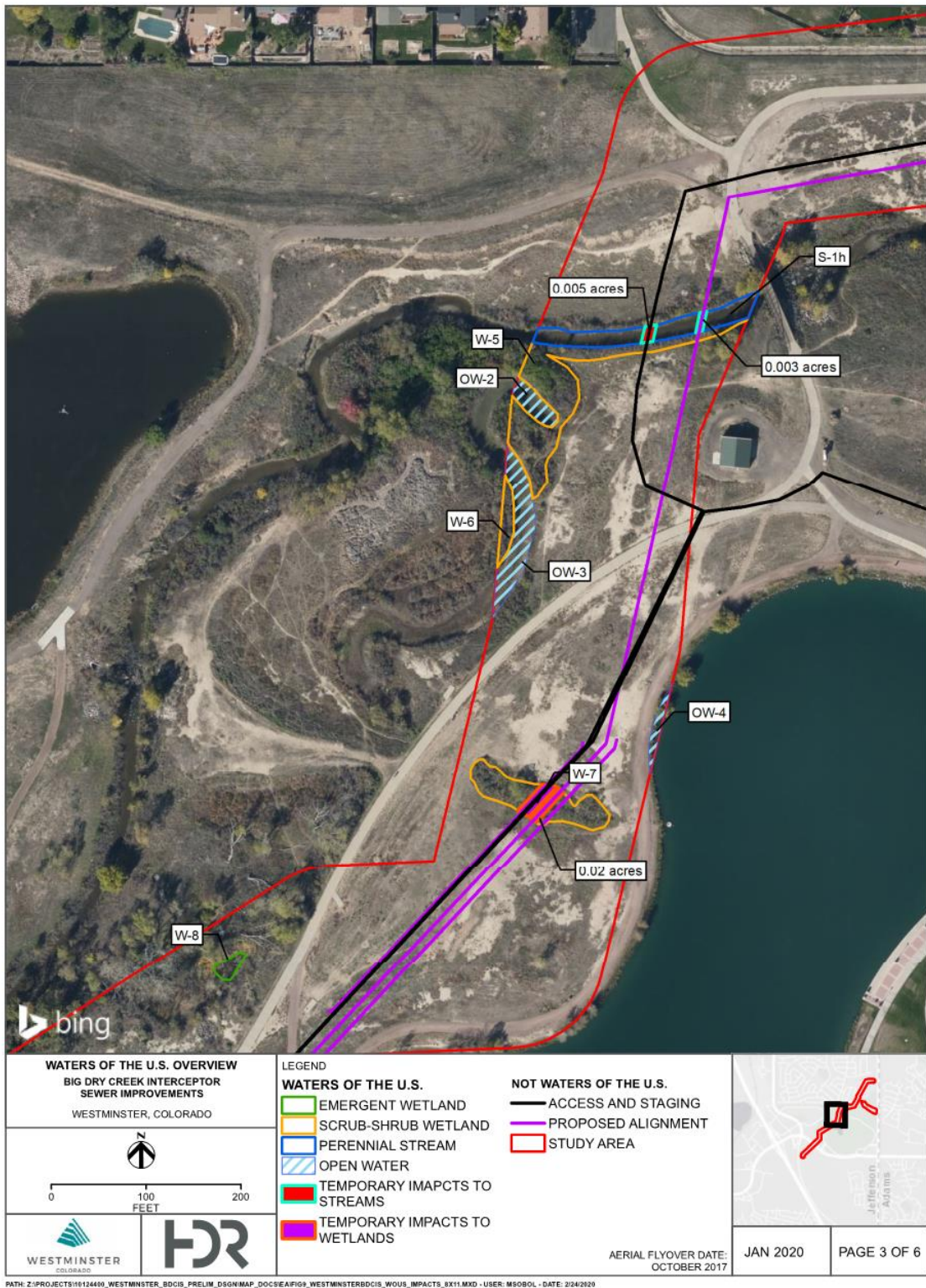
**Figure 8. Impacts to Wetlands and other Waters of the United States in the Project Area**





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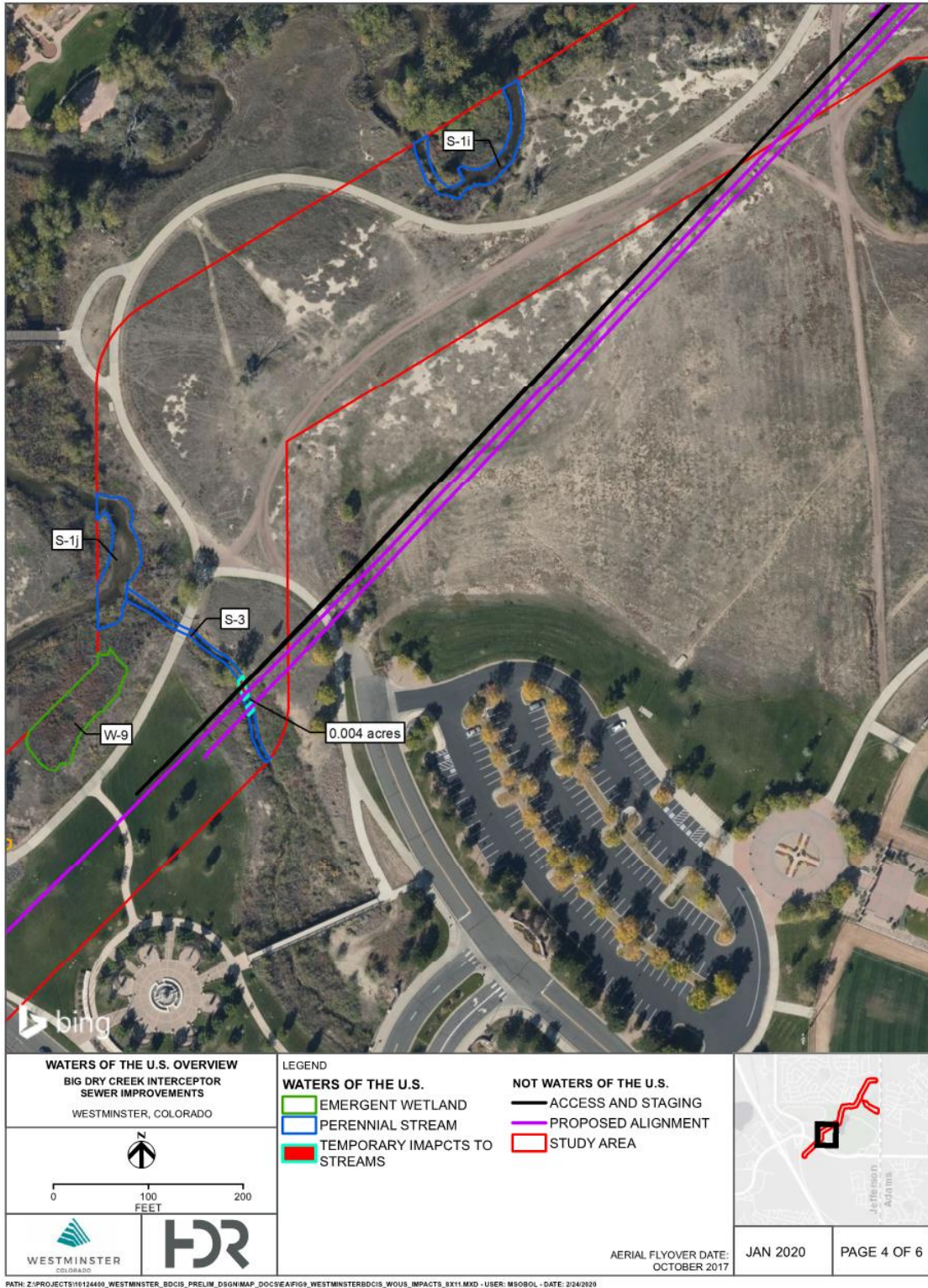
**Figure 9. Impacts to Wetlands and other Waters of the United States in the Project Area**





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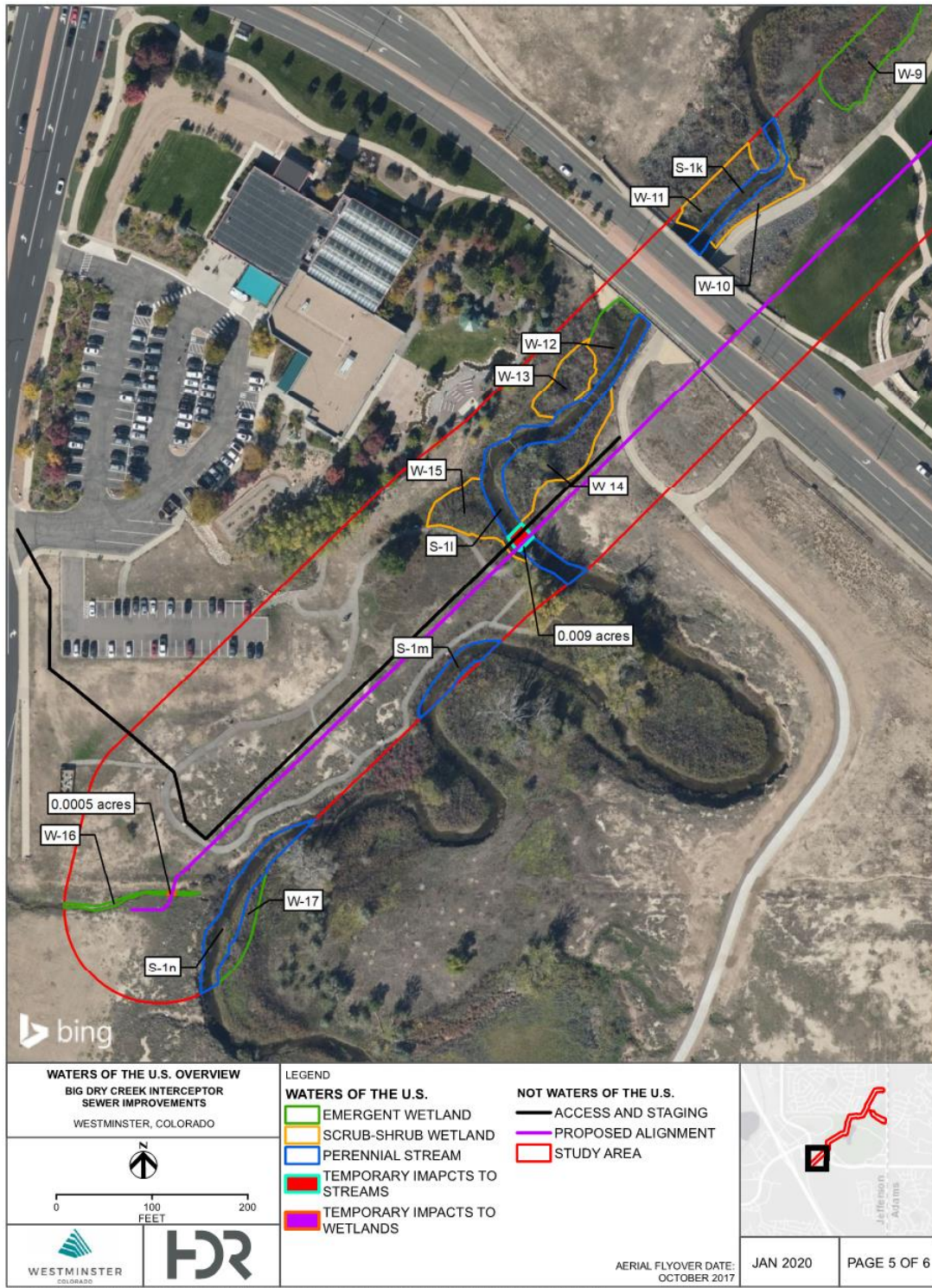
Figure 10. Impacts to Wetlands and other Waters of the United States in the Project Area





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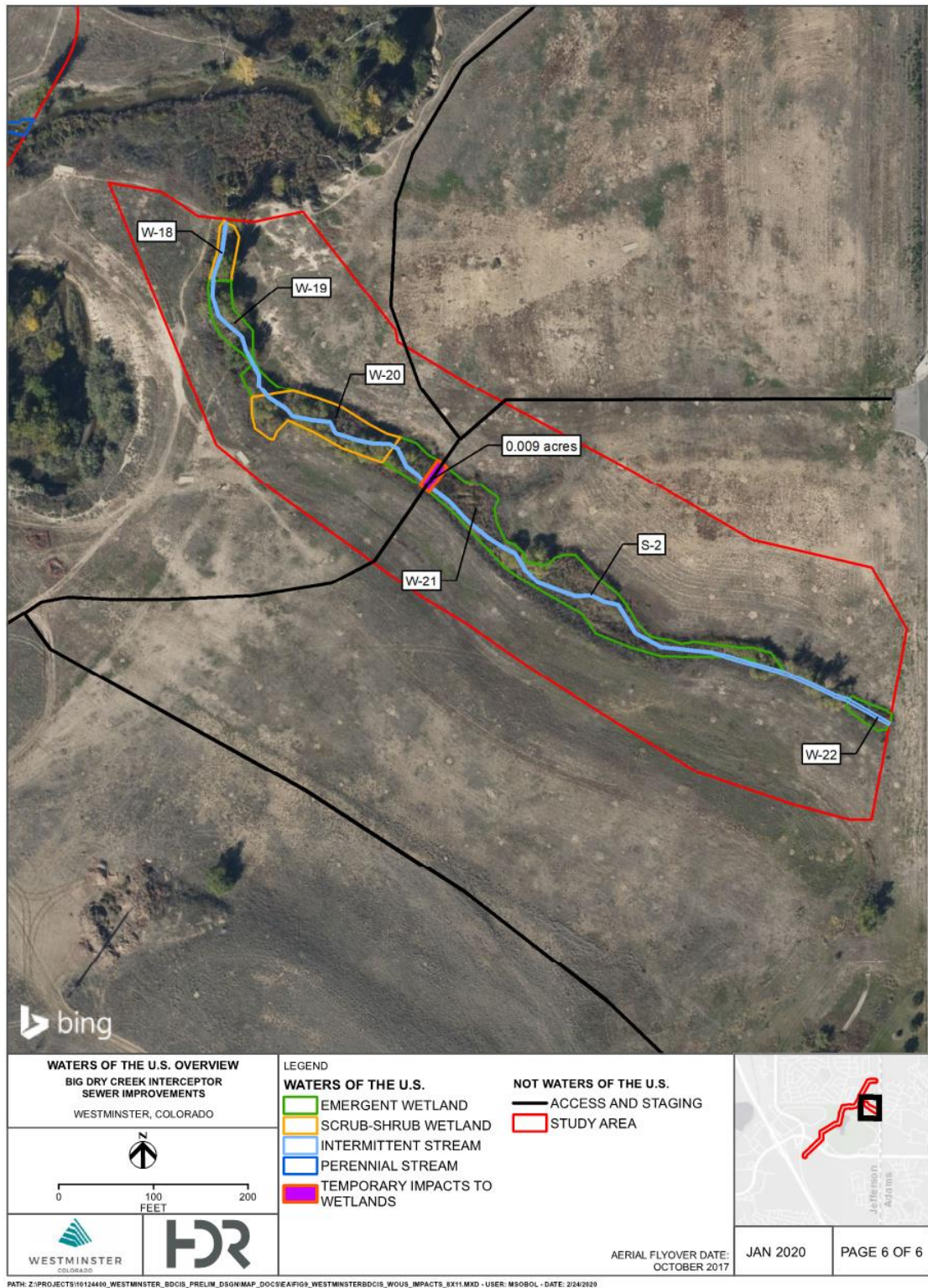
Figure 61. Impacts to Wetlands and other Waters of the United States in the Project Area





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Figure 72. Impacts to Wetlands and other Waters of the United States in the Project Area



**Mitigation Measures.** The City proposes the following mitigation measures to reduce or avoid impacts to wetlands:

- All areas of temporary disturbance will be re-graded to match existing conditions following construction.
- All disturbed wetlands and uplands will be revegetated with a seed mix determined in coordination with the City and Jefferson County.
- The City will obtain a Section 404 Nationwide Permit and adhere to all terms and conditions therein. This permit will be submitted to the USACE during the final design process. Because impacts to wetlands are below 1/10<sup>th</sup> of acre, no compensatory mitigation is proposed as part of this permit.
- BMPs and engineering controls will be implemented during construction to avoid and minimize erosion, sedimentation, and pollution impacts on water resources.

#### **4.3.7 Floodplains**

EO 11988, Floodplain Management, requires Federal agencies to determine whether a project would occur within a floodplain. This determination typically involves consultation of Federal Emergency Management Agency Flood Insurance Rate Maps, which contain enough general information to determine the relationship of the Project area to nearby floodplains. EO 11988 directs Federal agencies to avoid floodplains unless the agency determines that there is no practicable alternative.

Project Areas 1 and 3 are located within the 100-year floodplain of Big Dry Creek and are mapped Zone AE. This area has a known floodplain water surface elevation, and regulations preclude this elevation from being raised. Project Area 9 is located in an area mapped as Special Flood Hazard Area without base flood elevation and Zone X. The CIPP project locations would not have any impact to floodplains because all work is above ground.

**Impacts.** Installation of the new sewer interceptor line is not anticipated to result in a change to existing base flood elevations. While temporary ground disturbance would occur within the floodplain during construction activities, no new impervious area is expected to be created that would displace floodplain area or impact floodplain functions. Once the sewer pipes have been installed and soil backfilled, all disturbed areas will be restored to pre-construction elevations and conditions. Other project components, such as temporary access roads, will be removed entirely after construction or will be located above the 100-year floodplain.

**Mitigation Measures.** The City will obtain a Jefferson County Floodplain Permit prior to work within a mapped floodplain.

## 4.4 Terrestrial and Aquatic Plants and Wildlife

This section describes the general ecological setting of the Project area, including vegetation and noxious weeds and fish and wildlife that are present in the Project area and potential effects the proposed Project may have on those resources. This section also describes measures proposed to mitigate identified adverse effects.

Public concerns expressed through the public involvement process regarding vegetation, noxious weeds, and wildlife include potential impacts to sensitive wildlife species such as bobcat (*Lynx rufus*), and Great Horned Owl (*Bubo virginianus*) nesting and roosting habitat in the Project area. Impacts to these species are discussed in Section 4.4.2.

### 4.4.1 Vegetation and Noxious Weeds

The Project area is located at approximately 5,270 feet above mean sea level. Originally the Project area and surrounding areas consisted of shortgrass prairie vegetation. Remnant species from this vegetation community persist in small pockets throughout the Big Dry Creek Open Space but most of the Project area has been affected by human activities and settlement, including residential and commercial development and agriculture.

The vegetation communities in the Project area consist of grasslands, shrub lands, riparian areas, and wetlands. The Project area includes a variety of native and non-native grasses, shrubs, and trees that are common within the disturbed urban landscape. Upland herbaceous species include smooth brome (*Bromus inermis*), Canada thistle (*Cirsium arvense*), curly dock, cheatgrass (*Bromus tectorum*), western wheatgrass (*Pascopyrum smithii*), salsify (*Tragopogon dubius*), field bindweed (*Convolvulus arvensis*), showy milkweed (*Asclepias speciosa*), American licorice (*Glycyrrhiza lepidota*), Fuller's teasel, horehound (*Marrubium vulgare*), curly cup gumweed (*Grindelia squarrosa*), goldenrod (*Solidago* sp.), prickly pear (*Opuntia* sp.), kochia (*Bassia scoparia*), common sunflower (*Helianthus annuus*), common burdock (*Arctium minus*), evening primrose (*Oenothera* sp.), yucca (*Yucca elata*), catnip (*Nepeta cataria*), blue grama (*Bouteloua gracilis*), alkali sacaton (*Sporobolus airoides*), intermediate wheatgrass (*Thinopyrum intermedium*), common mullein (*Verbascum thapsus*), and lovegrass (*Eragrostis* sp.). Riparian vegetation includes species typical of the Colorado Front Range such as eastern cottonwood, narrowleaf willow, poison hemlock, cattail, reed canarygrass (*Phalaris arundinacea*), softstem bulrush, water sedge, and mountain rush. Wetlands are located along the creek corridor throughout Project area 1 (wetlands are further discussed in Section 4.3.6).

Other native trees and shrubs in the Project area include blue spruce (*Picea pungens*), juniper (*Juniperus* sp.), honey locust (*Gleditsia triacanthos*), four-wing saltbush (*Atriplex canescens*), three-leaf sumac (*Rhus trilobata*), rubber rabbitbrush (*Ericameria nauseosa*), and big sagebrush (*Artemisia tridentata*). Ornamental non-native trees are located in landscaped areas of the Project area.

As defined by the Colorado Department of Agriculture (CDOA), noxious weeds are plants that reduce agricultural productivity, lower real estate values, endanger human health and well-



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being, and damage scenic values (CDOA 2019). The Colorado Noxious Weed Act §§ 35-5.5-101 through 119, Colorado Revised Statute as amended, states that an organized and coordinated effort must be made to stop the spread of noxious weeds.

The CDOA maintains a noxious weed list that designates and classifies noxious weeds according to recommended control. List A species were designated by the Commissioner for eradication. List B species are species the Commissioner, in consultation with the state noxious weed advisory committee, local governments, and other interested parties, developed and implemented into state noxious weed management plans designed to stop the continued spread of these species. List C species are species for which the Commissioner, in consultation with the state noxious weed advisory committee, local governments, and other interested parties, will develop and implement into state noxious weed management plans designed to support the efforts of local governing bodies to facilitate more effective integrated weed management on private and public lands.

The City of Westminster employs integrated methods to manage all CDOA-listed noxious weeds which are present within their properties. The goals of the City’s Noxious Weed Management Program are to:

- Prevent establishment of invasive non-native plant populations.
- Manage Open Space properties to reestablish and maintain healthy, diverse ecosystems.
- Increase effectiveness of noxious weed control by implementing watershed management approach and utilizing adaptive weed management techniques.

A total of seven “List B and C” noxious weed species were identified during wetland and biological surveys in the Project area. No “List A” species were found. The noxious weeds were primarily found adjacent to the Big Dry Creek trail and in areas where black-tailed prairie dog (*Cynomys ludovicianus*) colonies occur. Table 7 presents the common name, scientific name, and state weed list designation.

**Table 7. Noxious Weed Species Observed in the Project area**

Common Name	Scientific Name	State Noxious Weed List
Canada thistle	<i>Cirsium arvense</i>	List B
Common mullein	<i>Verbascum thapsus</i>	List C
Diffuse knapweed	<i>Centaurea diffusa</i>	List B
Downy brome (cheatgrass)	<i>Bromus tectorum</i>	List C
Field bindweed	<i>Convolvulus arvensis</i>	List C
Common burdock	<i>Arctium minus</i>	List B
Poison hemlock	<i>Conium maculatum</i>	List C

#### 4.4.2 Fish and Wildlife

The Big Dry Creek riparian corridor and associated wetlands provides a variety of habitats and resources for wildlife such as movement corridors, and foraging and nesting habitat. Common terrestrial mammals in the Project area include mule deer (*Odocoileus hemionus*), white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), raccoon (*Procyon lotor*), bobcat, cottontail rabbit (*Sylvilagus audubonii*), and striped skunk (*Mephitis mephitis*). Colorado Parks and Wildlife (CPW) identifies the entire Project area as mule deer overall range (CPW 2019a). Terrestrial mammal habitat in the Project area is limited because of the high recreational use and human disturbance but the riparian areas provide a movement corridor and foraging habitat for mammals.

There are several rodent species that are likely to occur in the Project area including black-tailed prairie dog, deer mouse (*Peromyscus maniculatus*), prairie vole (*Microtus ochrogaster*), meadow vole (*Microtus pennsylvanicus*), house mouse (*Mus musculus*), and western harvest mouse (*Reithrodontomys megalotis*).

The Migratory Bird Treaty Act (MBTA) and EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, require federal agencies to support migratory bird conservation. Additionally, the Bald and Golden Eagle Protection Act (BGEPA) affords added protections for eagles.

The MBTA (16 United States Code [U.S.C.] 703–712) is the primary legislation protecting native birds in the United States. The MBTA protects migratory birds and prohibits the taking of migratory birds, their eggs, parts, and nests, except when authorized by the United States Fish and Wildlife Service (USFWS). Under the MBTA, “take” is defined as “to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture or collect.” The act also protects native resident species that are not considered migratory but does not protect introduced bird species. The MBTA essentially includes all species except for introduced upland gamebirds, domestic pigeons, European starlings, and house sparrows.

The BGEPA (16 U.S.C. 668-668c) is the primary law protecting eagles in the United States. The BGEPA prohibits “take” of individual eagles and their parts, nests, or eggs without a permit. The BGEPA defines “take” to include “pursue, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” “Disturb” is further defined as: “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

The riparian habitat along Big Dry Creek provides habitat for a variety of resident and migratory birds. The Project area is mapped as a Canada goose winter and foraging area (CPW 2019b). Large riparian trees along the creek channel provide habitat for nesting and roosting raptors. Additionally, the presence of prairie dogs in the Project area provides a source of prey for raptors. Raptors observed within the study area and surrounding landscape during biological

surveys include Red-Tailed Hawk, Swainson's Hawk (*Buteo swainsoni*), Turkey Vulture (*Cathartes aura*), and American Kestrel (*Falco sparverius*). Great horned owls are known to nest along the Big Dry Creek riparian corridor near the Project area.

Migratory birds documented in the Project area during the biological and wetland surveys include American Robin (*Turdus migratorius*), Black-billed Magpie (*Pica hudsonia*), Black-capped Chickadee (*Parus atricapilla*), Mourning Dove (*Zenaidura macroura*), Northern Flicker (*Colaptes auratus*), Rock Dove (*Columba livia*), Western Meadowlark (*Sturnella neglecta*), and Western Tanager (*Piranga ludoviciana*).

An aquatic monitoring program was initiated in 1997 by the cities of Broomfield, Westminster, and Northglenn to document the abundance and distribution of fish and aquatic macroinvertebrate populations along Big Dry Creek. Fish population sampling in Big Dry Creek conducted in 2016 documented healthy and abundant fish populations. Fish data from the monitoring program and CPW have documented longnose dace (*Rhinichthys cataractae*), creek chub (*Semotilus atromaculatus*), fathead minnow (*Pimephales promelas*), sand shiner (*Notropis stramineus*), white sucker (*Catostomus commersonii*), longnose sucker (*Catostomus commersonii*), black bullhead (*Ameiurus melas*), common carp (*Cyprinus carpio*), largemouth bass (*Micropterus salmoides*), green sunfish (*Lepomis cyanellus*), pumpkinseed sunfish (*Lepomis gibbosus*), and Johnny darter (*Etheostoma nigrum*) (Aquatic Associates, Inc. 2019; CPW 2019c). The most common species were the white sucker and the fathead minnow (Aquatic Associates, Inc. 2019).

**Impacts.** The majority of impacts to vegetation and habitat would be temporary, and post-construction revegetation efforts would restore impacted areas using an approved native seed mix. Some small diameter trees and shrubs in the riparian areas may be removed for access and construction but no large riparian trees would be removed. Soil disturbance from construction equipment could create favorable conditions for noxious weeds to establish or further spread. Construction equipment can carry weed seeds in residual mud or soil on the equipment from one location to another. BMPs and controls for noxious weeds will be implemented to avoid the spread of noxious weeds.

Noise and activity generated during construction activities may temporarily disturb and displace wildlife in the Project area. However, any disturbance experienced by wildlife would be limited to the construction period and is expected to be minor. Wildlife that currently occupy the Project area are likely habituated to noise and human disturbance because of the recreational use of the open space trails and parks and adjacent residential and commercial development. Therefore, the temporary impacts associated with displacement are considered minor.

The Big Dry Creek riparian area contains habitat for nesting raptors. No nests would be directly impacted by project construction. However, indirect impacts such as disturbance by construction workers and noise from equipment may be significant enough to cause stress to nesting raptors and result in abandonment and/or predation of nests. Construction of the Project would occur from August 2020 through May 2022, although the construction period within the riparian habitat would be less than 1 year. No large trees will be removed to accommodate construction.

Raptor management will be guided by CPW Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors (CPW 2008). In order to facilitate compliance with the BGEPA and the CPW Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors, a raptor survey will be conducted prior to the start of construction. If an active raptor nest is observed within 0.5 mile of the Project area, CPW will be notified in order to determine compliance with the CPW Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors guidance.

The temporary impacts to riparian habitat and wetland habitat would slightly reduce habitat availability for migratory birds in the Project area during construction. If construction takes place during the nesting season for migratory birds (April 1 through August 31), nest loss or abandonment may occur. Preconstruction clearance surveys for songbirds and raptors will be conducted prior to any vegetation disturbance during the nesting season by a qualified biologist to identify and avoid active nests.

Trenching within the Big Dry creek channel may temporarily disturb fish and other aquatic species. Trenching in the channel may result in a temporary increase in sediment, which could impact native fish and macro invertebrates. The implementation of water quality BMPs will limit water quality impacts during trenching. The trenching will occur while the channel is dewatered through the use of a coffer dam and bypass culvert for fish passage.

**Mitigation Measures.** The City proposes the following mitigation measures to reduce or avoid impacts to terrestrial and aquatic plants and wildlife:

- Noxious weeds will be managed per City of Westminster and Jefferson and Adams County specifications.
- Areas of ground disturbance will be revegetated with a seed mix determined in coordination with the City and Jefferson County. An upland, wetland and riparian seed mix was developed for the Big Dry Creek Master plan by Iris Mitigation and Design, Inc. that may be used (City of Thornton 2018).
- Vegetation removal and ground disturbance in wetlands and riparian habitat will be minimized to the extent practicable.
- Suitable topsoil will be salvaged to aid in revegetation, where appropriate.
- Trash cans will be wildlife-proofed to avoid attracting wildlife to the construction site.
- The spread of aquatic nuisance species will be prevented by using the following procedures: If heavy equipment is used that was previously working in another stream, river, lake or pond, or wetland, one of the following procedures will be necessary:
  - Remove all mud and debris from equipment and spray/soak equipment with a 1:15 solution of disinfection solution containing the following ingredients:
    - Dialkyl dimethyl ammonium chloride, 5% to 10% by weight
    - Alkyl dimethyl benzyl ammonium chloride, 5% to 10% by weight



- Nonyl phenol ethoxylate, 5% to 10% by weight
- Sodium sesquicarbonate, 1% to 5%
- Ethyl alcohol, 1% to 5%
- Tetrasodium ethylene diaminetetraacetate, 1% to 5%
- Use water to keep the equipment moist for at least 10 minutes and manage rinsewater as a solid waste in accordance with local, county, state, or federal regulations.
- Spray/soak equipment with water greater than 140 degrees Fahrenheit for at least 10 minutes.
- Clean hand tools, boots, and any other equipment that will be used in the water with one of the above options as well. Do not move water from one water body to another. Be sure equipment is dry before using.
- To avoid harming potential migratory birds and their nests, vegetation will be removed in the Project area during the nonbreeding season (September 1 to March 31), if possible.
- If construction would occur during the migratory bird breeding season (April 1 to August 31), preconstruction nest searches will be conducted prior to removal of trees and shrubs to ensure compliance with the MBTA.
- Raptor nest surveys will be required if construction activities are scheduled between February 1 and August 31 and will include a 0.5-mile buffer from the construction site. If raptor nests are identified within the buffer, CPW recommended buffer zones and seasonal restriction dates will be established.

#### **4.4.3 Federally and State-Listed Species**

Under the Endangered Species Act (ESA) (16 U.S.C. 1536), an “endangered species” is defined as any species in danger of extinction throughout all or a significant portion of its range. A “threatened species” is defined as any species likely to become endangered in the foreseeable future. The USFWS also maintains a list of species considered to be candidates for possible listing under the ESA. Although “candidate species” receive no statutory protection under the ESA, the USFWS has attempted to advise government agencies, industry, and the public that these species are at risk and might warrant protection under the ESA.

Based on the USFWS online Information, Planning, and Conservation System (IPaC; USFWS 2020), there are eight federally listed species with the potential to occur in the project vicinity. Based on the general habitat reconnaissance/site visit conducted by HDR in March 2019, there is no suitable habitat for federally listed species in the Project area. No further evaluation is deemed necessary for those species not known or suspected to occur within the study area. Appendix E of this document contains the IPaC reports.

The CPW lists 74 species of amphibians, birds, fish, mammals, reptiles, and mollusks as endangered, threatened, or of special concern within the state of Colorado (CPW 2019d). The distribution and habitat preferences of each state-listed species were identified and the potential

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for each of these species to occur in the study area was analyzed. There are six state-listed birds, fish, and mammal species that potentially occur in the Project area. Table 8 lists the federally listed and state-listed species that may occur within the Project area and their potential for occurrence.

**Table 8. Federal and State-Listed Species that may occur within the Project Area**

Common Name (Scientific)	Status	Habitat Requirements	Potential for Occurrence	Determination of Effect
<b>Mammals</b>				
Canada lynx ( <i>Lynx canadensis</i> )	FT, SE	Found primarily within the subalpine and upper montane forests zones typically from 8,000 to 12,000 feet in elevation. Early successional spruce/fir and lodgepole pine forests used for foraging, mature and old growth spruce/fir and lodgepole pine containing large downed woody debris used for denning. Riparian areas, mixed aspen/conifer, mature spruce/fir, and shrublands to forested lynx habitat also used for foraging.	Unlikely to occur. No suitable habitat is present and action area is below elevation tolerance of species.	No effect.
Black-tailed prairie dog ( <i>Cynomys ludovicianus</i> )	SC	Habitat consists of intermixed shrublands, sagebrush habitat, and/or shortgrass and mixed grass prairie.	Occurs in Project area. Several prairie dog colonies were documented within proposed Project area.	May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.
<b>Birds</b>				
Bald Eagle ( <i>Haliaeetus leucocephalus</i> )	SC	Widespread species nests and roosts in large trees. Typically prefers foraging near waterbodies with abundant prey and large trees for perching.	May occur. Bald Eagles can be found year-round in the Project area and roost sites, winter range and winter forage habitat is mapped in the vicinity of the Project area. No known nest sites are located near the Project area (CPW 2019e).	May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.
Burrowing Owl ( <i>Athene cunicularia</i> )	ST	Prairie dog colonies are primarily used by the owl for nesting and hunting. The owl is a migrant that	Suitable habitat is present in black-tailed prairie dog towns in Project area.	May impact individuals, but is not likely to result in a trend toward

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**Table 8. Federal and State-Listed Species that may occur within the Project Area**

Common Name (Scientific)	Status	Habitat Requirements	Potential for Occurrence	Determination of Effect
		can arrive in March and is typically migrating south by October.		federal listing or loss of viability.
Least Tern* ( <i>Sterna antillarum</i> )	FE, SE	Nests along reservoirs, lakes and rivers with bare sandy shorelines or islands along several rivers in Nebraska.	Unlikely to occur. No suitable habitat in action area. This species is included because it inhabits the middle Platte River.	No effect.
Mexican spotted owl ( <i>Strix occidentalis lucida</i> )	FT, ST	Rocky canyons and mountains with old-growth conifer forests, including pinyon-juniper woodlands. Elevations below 9,500 ft.	Unlikely to occur; habitat requirements are not met within the Project area.	No effect.
American Peregrine Falcon ( <i>Falco peregrinus anatum</i> )	SC	Requires rocky outcrops for nesting. Uses a variety of habitats during the spring and fall migration.	No suitable nesting habitat but could use habitat in study area during migration.	May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.
Piping Plover* ( <i>Charadrius melodus</i> )	FT, ST	Wetlands, lakeshores, and marshes. Nesting habitat is along reservoirs, lakes and rivers with bare sandy/pebbly areas with sparse vegetation.	Unlikely to occur. No suitable habitat in action area. This species is included because it inhabits the middle Platte River.	No effect.
Whooping Crane* ( <i>Grus Americana</i> )	FE, SE	Mid-river sandbars, wet meadows, and reservoir edges along the Platte River in Nebraska.	Unlikely to occur. No suitable habitat in action area. This species is included because it inhabits the middle Platte River.	No effect.
<b>Fish</b>				
Pallid Sturgeon* ( <i>Scaphirhynchus albus</i> )	FE	Inhabits large, silty rivers with a diversity of depths and velocities formed by braided channels, sand bars, sand flats and gravel bars.	Unlikely to occur. No suitable habitat in action area. This species is included because it inhabits the middle Platte River.	No effect.
<b>Amphibians and Reptiles</b>				
Northern leopard frog ( <i>Lithobates pipiens</i> )	SC	Springs, slow streams, marshes, bogs, ponds, canals, flood plains, reservoirs, and lakes;	No known occurrences in Project area but suitable habitat is present along Big Dry	May impact individuals, but is not likely to result in a trend toward

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**Table 8. Federal and State-Listed Species that may occur within the Project Area**

Common Name (Scientific)	Status	Habitat Requirements	Potential for Occurrence	Determination of Effect
		usually they are in or near permanent water with rooted aquatic vegetation.	Creek and adjacent wetlands.	federal listing or loss of viability.
Common garter snake ( <i>Thamnophis sirtalis</i> )	SC	Wetlands, ponds, and the edges of streams	Potential suitable habitat present in wetlands and creeks in the study area	May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.
<b>Flowering Plants</b>				
Ute ladies' tresses orchid ( <i>Spiranthes diluvialis</i> )	FT	Sub-irrigated alluvial soils along streams; open meadows on floodplains including riparian areas.	Unlikely to occur. Upland habitat in the Project area is too dry and in many areas is dominated by aggressive non-native grasses which creates incompatible conditions for Ute ladies' tresses orchid. The wetlands in the Project area are densely vegetated and dominant species in the wetlands (dense cattails and willows) are not typically associated with Ute Ladies' tresses orchid.	No effect
Western prairie fringed orchid* ( <i>Platanthera praeclara</i> )	FT	Occurs in mesic to wet unplowed tallgrass prairies and meadows but have been found in old fields and roadside ditches in Nebraska	Unlikely to occur. No suitable habitat in action area. This species is included because it inhabits the middle Platte River.	No effect

Source: USFWS 2020; CPW 2019d

<sup>1</sup>Status Codes: FE = Federally Endangered; FT = Federally Threatened; SE = State Endangered; ST = State Threatened, SC = State Special Concern.

\* Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.

**Platte River Species.** The five downstream species listed in Table 8 do not occur in the study area but are included because they can be affected by water depletions from the South Platte River downstream. Big Dry Creek is located within the South Platte River basin. These five species include the interior Least Tern, pallid sturgeon, Piping Plover, Whooping Crane, and western prairie fringed orchid. The Project would obtain water from a permitted municipal source



that has already undergone depletion consultation with the USFWS and would not draw water directly from Big Dry Creek; therefore, no impacts would occur to downstream listed species.

#### **4.4.4 State Species of Concern**

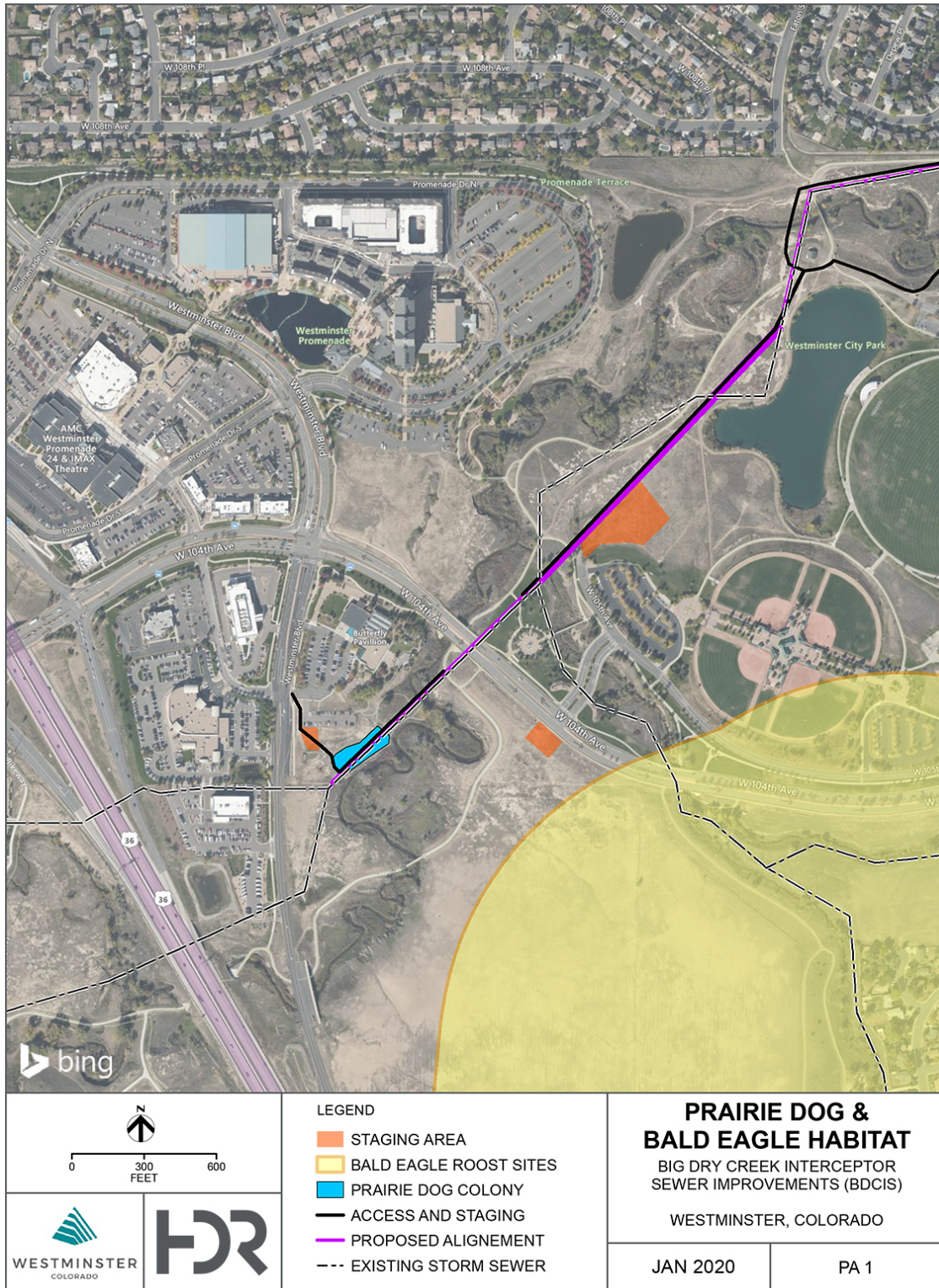
**Black-Tailed Prairie Dog.** Prairie dogs are found throughout the Big Dry Creek trail open space. The entire study area is mapped by CPW as black-tailed prairie dog habitat (CPW 2019f). Prairie dogs provide an important prey resource for numerous predators including coyote, red fox, Bald eagle, and other raptors. During the March 2019 wetland delineation, several active, black-tailed prairie dog colonies were documented within and adjacent to the Project area. One large colony is located near the Butterfly Pavilion Nature Trail on the south side of Project area 1. Approximately 80 active burrows were located within this 0.30 acre colony (Figure 12). Construction activities would temporarily impact 0.05 acre of the mapped prairie dog colony. Human activities and noise during construction could temporarily displace prairie dogs from active construction areas. Construction could result in soil compaction and vegetation removal that may negatively impact prairie dogs. The prairie dog colony is located near a heavily used recreation area along a nature trail for the Butterfly Pavilion. Therefore, these impacts are considered minor to negligible. Prairie dogs would likely recolonize areas temporarily disturbed during construction.

**Bald Eagle.** The Bald Eagle is afforded special protections under the Bald and Golden Eagle Protection Act of 1940 and is also considered a state species of special concern. Colorado populations of Bald Eagles typically nest in large cottonwood trees along rivers and reservoirs. In winter, they may also occur locally in semi-deserts and grasslands, especially near prairie dog towns. Bald Eagle winter forage and winter range habitat is located near the Project area. Additionally, sections of Big Dry Creek riparian habitat and adjacent open space is mapped as a potential roost habitat (Figure 13 and Figure 14). There are no mapped nests sites near the Project area (CPW 2019e). The degree to which Bald Eagles use the Project area is unknown. However, because the Project area is surrounded by development and human activity, the foraging habitat is likely marginal and restricted to areas where there are prairie dog colonies for prey. In Colorado Bald Eagles often rely upon prairie dogs in winter. Therefore, any loss of prairie dog colonies would result in a slight loss of Bald Eagle foraging habitat. No direct or permanent impacts are anticipated.

**American Peregrine Falcon.** The American peregrine falcon has the potential to occur in the Project area. Peregrine falcons breed on cliffs and rock outcrops from 4,500 feet to 10,000 feet in elevation. There is no suitable nesting habitat near the Project area; however, Peregrine falcons may forage in the study area. Construction of the new sewer line could temporarily reduce the availability of prey in the area, which would temporarily impact foraging Peregrine falcons. No direct or permanent impact are anticipated.

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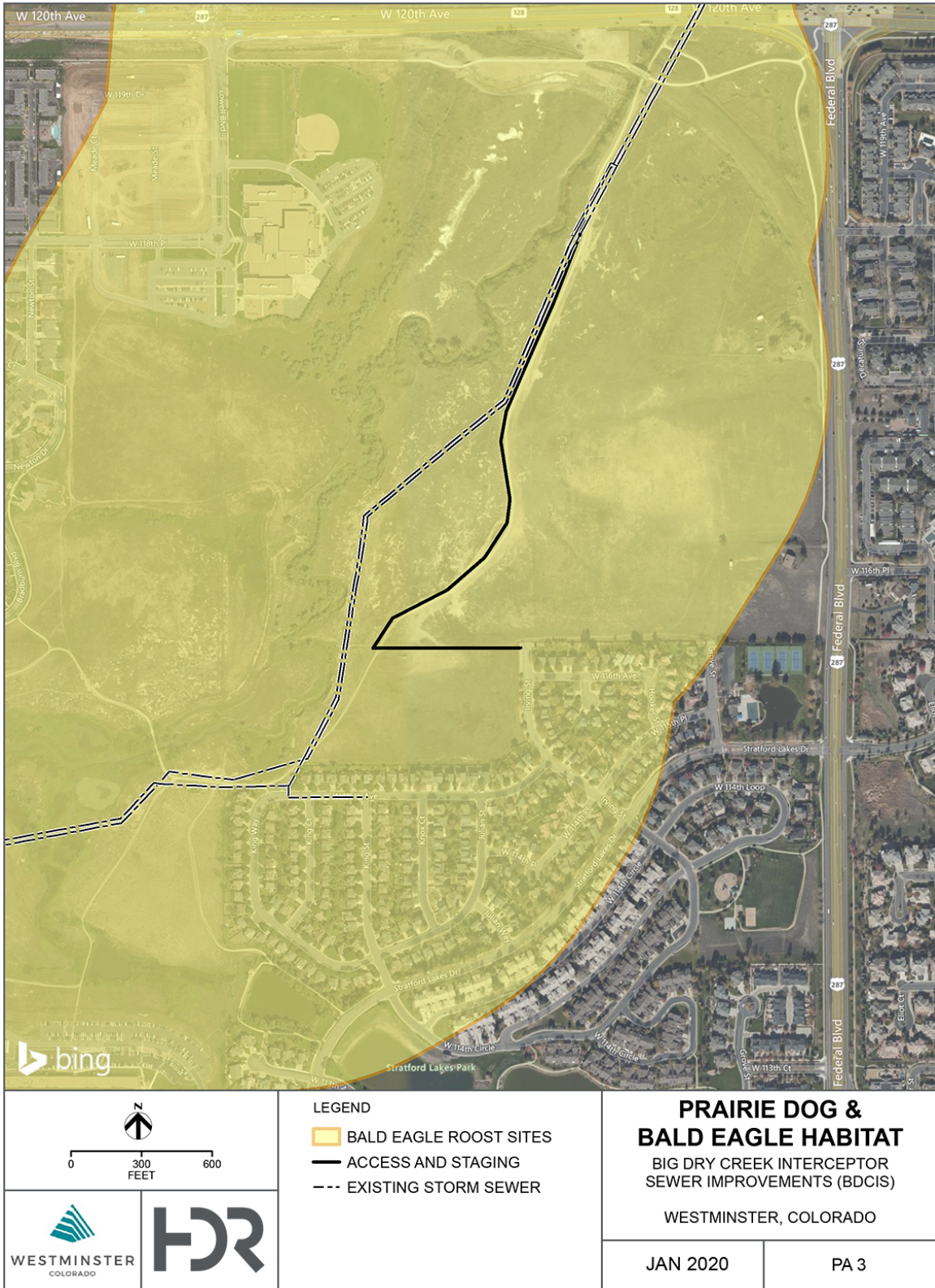
**Figure 83. Prairie Dog and Bald Eagle Habitat in the Project Area**





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Figure 94. Prairie Dog and Bald Eagle Habitat in the Project Area



**Burrowing Owl.** While no Burrowing Owls were observed during surveys conducted in 2019, there is potential habitat associated with prairie dog colonies in the Project area. Burrowing owls use abandoned prairie dog burrows for nesting and roosting. Construction activities would temporarily impact 0.05 acre of the mapped prairie dog colony. Human activities and noise during construction could temporarily displace Burrowing owls from active construction areas. Burrowing owl surveys would be conducted prior to construction to determine their presence in potentially affected habitat.

**Common Garter Snake and Northern Leopard Frog.** The Project could result in direct mortality to common garter snakes and/or the northern leopard frog from construction activity in riparian and wetland habitat. The use of heavy equipment during construction may cause common garter snakes to temporarily avoid riparian areas adjacent to construction activity. Direct impacts to riparian and wetland habitat would be minor and would not result in a permanent loss of habitat for either species.

Indirect impacts such as short-term, localized sedimentation increases could occur when trenching in Big Dry Creek to install the sewer interceptor. Mitigation measures that benefit the common garter snake and northern leopard frog would be outlined in BMPs associated with the CWA 404 Permit

**Mitigation Measures.** The City proposes the following mitigation measures to reduce or avoid impacts to state- and federally listed species:

- Trash cans will be wildlife-proofed to avoid attracting wildlife to the construction site.
- Vegetation removal and ground disturbance will be minimized to the extent practicable.
- To the extent practicable, work in the Big Dry Creek will be limited to minimize impacts to aquatic species and riparian vegetation.
- Areas of ground disturbance will be revegetated with a seed mix determined in coordination with the City and Jefferson County.
- Equipment will be refueled within designated refueling containment areas away from Big Dry Creek and wetlands.
- Prairie dog colonies will be surveyed for burrowing owls prior to any work that would disturb them between March 1 and October 31. Construction occurring between November 1 and March 14 would not require clearance surveys. Where burrowing owls are present, prairie dog removal will be scheduled for November 1 to March 14. If burrowing owls are found within the construction footprint, individual nest burrows and a 150-foot buffer around the burrow will be left undisturbed during construction (CPW 2008).
- Prairie dog removal will be conducted by the contractor and will follow guidelines in conformance with City of Westminster standards.



## 4.5 Cultural, Historic, and Paleontological Resources

Section 106 of the National Historic Preservation Act requires that any federal or federally assisted project and any project requiring federal licensing or permitting must take into account the effects of their undertakings on historic properties. In order to satisfy the Section 106 process, federal agencies must take the following steps:

- Initiate consultation with regulatory agencies and identify concerned Native American tribes and other interested parties.
- Identify (inventory) and evaluate historic properties.
- Identify project effects.
- Consult with affected parties to resolve adverse effects to historic properties.

Properties are evaluated in consultation with the relevant State Historic Preservation Officer (SHPO).

HDR sent a letter to Jason O'Brien, Section 106 Compliance Manager, at the SHPO on November 15, 2019, to inform the agency about the upcoming BDCIS Project. The letter requested information or issues relating to resources that should be considered during project development. On behalf of the City of Westminster and the State Revolving Fund office, HDR coordinated with Mr. O'Brien in determining the size of the Area of Potential Effect (APE). Mr. O'Brien concurred with the APE on December 12, 2019.

A Class III Cultural Resources Survey was conducted on December 13, 2019. The survey recorded two linear cultural resources consisting of segments of Wadsworth Boulevard and Xcel Transmission Line 9055. HDR recommends both as not supporting of the eligibility of their respective resources.

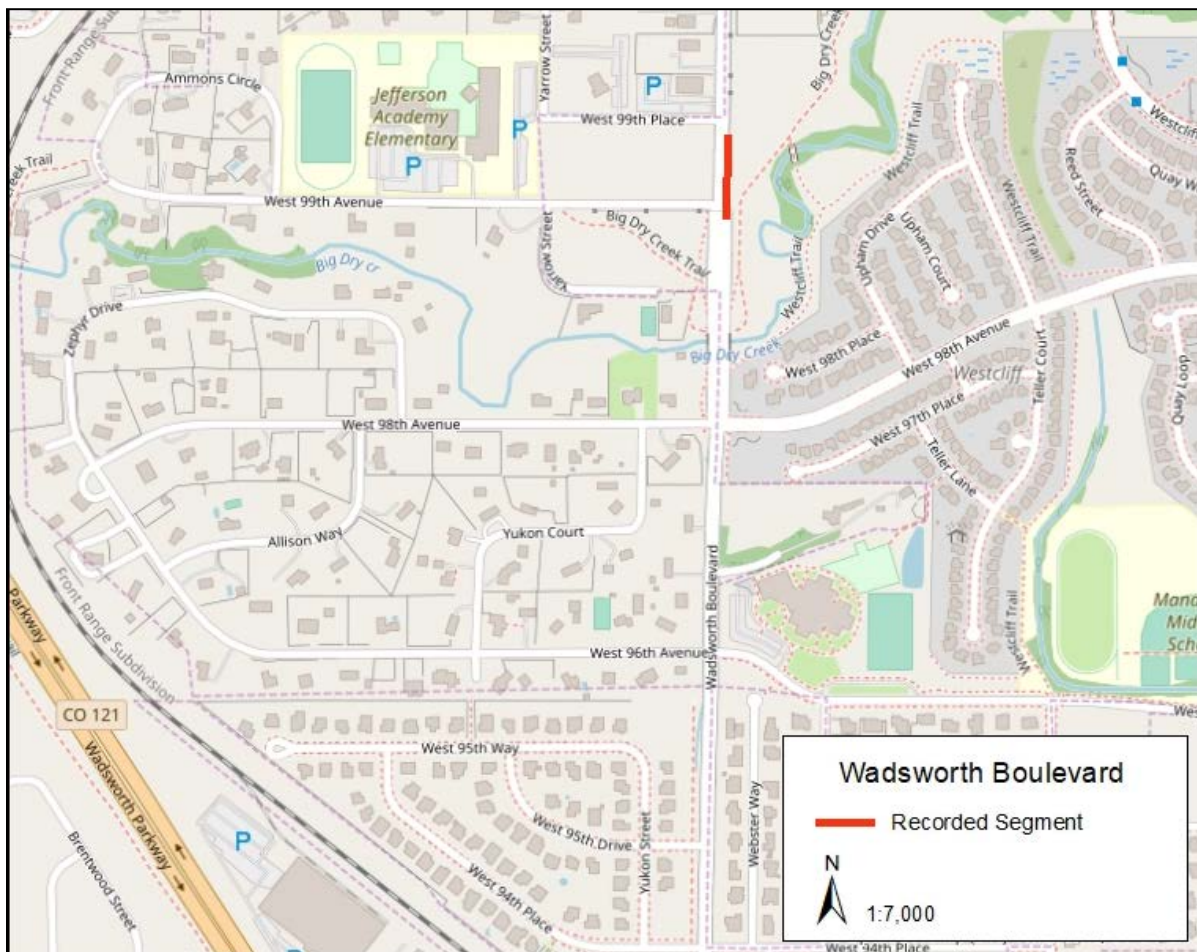
Xcel Transmission Line 9055 is a 115kV line built circa 1956 and has been subjected to periodic maintenance activities. Although these activities have not fundamentally changed the characteristics of the line and integrity of design, and materials and workmanship are retained, modern urban development has altered the original rural landscape of the surroundings, and integrity of setting, feeling, and association have been compromised. The line appears to follow its historic alignment and integrity of location is preserved. The compromised integrity of the site limits its ability to convey its historic identity as a segment of a rural historic transmission line and, therefore, it is recommended as non-supporting.

In 1893 a road named Centre that passed through Arvada was renamed Wadsworth Boulevard in honor of Benjamin Franklin Wadsworth, founder of Arvada. This road was the main north-south regional transportation route in Jefferson County, extending into Adams and Arapahoe Counties and became a part of State Highway 121 in the 1920s. In 1969 Wadsworth Parkway was built to bypass the town of Westminster, and Wadsworth Boulevard between W. 92nd Avenue to State Highway 128 was no longer designated as part of State Highway 121. The

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segment of Wadsworth Boulevard recorded for the current project (Figure 15) is an original segment of Wadsworth Boulevard and is recommended non-supporting of the overall eligibility of Wadsworth Boulevard, due primarily to a loss of integrity. The segment retain integrity of location. There appears to be no major changes to the alignment since construction. However, the segment has been subject to the transformation from a graded road to a four-lane road and no longer retains integrity of design, workmanship, and materials. Additionally, the setting, feeling, and association in Westminster have been compromised by modern development and the shift from operating as a regional transportation route to a local transportation route for Westminster. The compromised integrity of the site limits its ability to convey its historic identity as a segment of Wadsworth Boulevard and it is, therefore, recommended as non-supporting.

**Figure 105. Wadsworth Boulevard Recorded Segment**



A letter dated February 20, 2020 was sent to the Office of Archaeology and Historic Preservation with the site eligibility recommendations. HDR requested concurrence of determination of “no historic properties affected”.

**Impacts.** In a letter dated February 28, 2020, the Colorado SHPO concurred that the proposed project would result in “no historic properties being affected” in regards to the segments of Wadsworth Boulevard and Xcel Transmission Line 9055. Appendix F of this document contains Section 106-related correspondence and documentation.

**Mitigation.** If during the course of the project any ground disturbance exposes artifacts, foundations, or other indications of past human occupation, the ground disturbance will be halted immediately and the SHPO and City of Westminster will be notified for further guidance. In the event that human remains are encountered all construction activities will be halted immediately and the Jefferson County Coroner’s Office will be contacted to determine if the remains are prehistoric, historical, or modern. If determined to be prehistoric or historical the SHPO and City of Westminster will be notified immediately.

#### **4.6 Environmental Justice.**

Executive Order (EO) 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” was issued by the President of the United States on February 11, 1994. As part of the environmental compliance process, agencies are required to identify and address disproportionately high and adverse human health or environmental effects on minority or low-income communities (EO 12898 populations). Federal agencies are directed to ensure that federal programs or activities do not result, either directly or indirectly, in discrimination on the basis of race, color, or national origin.

Per review of the EPA Environmental Justice screening and mapping tool (EPA 2019) the neighborhoods within a 0.50-mile buffer of the Project area have the following demographics:

- Minority population: 21%, compared to a State average of 31%.
- Low income population: 10%, compared to a State average of 28%.

**Impacts.** There would be no displacement of residents or business as a result of the project, nor would there be the acquisition of right-of-way. Construction of the project occurs mostly on City or Jefferson County owned land and would not result in long-term impacts to minority or low-income communities. Short-term, moderate, beneficial effects on the local economy would be expected because of expenditures from the implementation of the construction and infrastructure improvement. All of these impacts would be borne equally by the residents in the Project area. Therefore, the project would not result in disproportionately high and adverse effects to sensitive populations.

**Mitigation Measures.** No mitigation measures are required.

## 4.7 Cumulative Impacts

CEQ regulations stipulate that the cumulative effects analysis in an EA should consider the potential environmental effects resulting from “the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR 1508.7). CEQ guidance in considering cumulative effects affirms this requirement, stating that the first steps in assessing cumulative effects involve defining the scope of the other actions and their interrelationship with a project. The scope must consider other projects that coincide with the location and timetable of a project and other actions. Cumulative effects analyses must also evaluate the nature of interactions among these actions.

The BDCIS project is taking place over 14 miles of the 22-mile pipeline. The pipeline is located along the Big Dry Creek corridor which is owned by the City’s Open Space Department. Land use development or other projects in this corridor are extremely limited because of the Open Space designation. Cumulative effects were evaluated by combining the effects of the project with other past, present, and reasonably foreseeable future actions in the Project area. The past, present, and reasonably foreseeable future projects are presented in Table 9.

**Table 9. Past, Present, and Reasonably Foreseeable Future Actions**

Action/Responsible Party	Description
<b>Past</b>	
Big Dry Creek Sewer Work	Cured-in-place piping work of the 30-inch parallel interceptor sewer was conducted between City Park (located at 104th Avenue and Sheridan Boulevard and the Big Dry Creek Wastewater Treatment Facility at 13150 Huron Street). This project is part of the improvements for the Big Dry Creek basin.
<b>Future</b>	
Big Dry Creek Restoration Activities	The City plans to restore sections of the Big Dry Creek channel and construct storm water improvements in the Big Dry Creek corridor near the current project location.
Big Dry Creek Trail Improvements	The City has identified trail improvements that include a concrete regional trail and soft trail at the Butterfly Pavilion, construction of a trailhead at the existing parking lot for the Butterfly Pavilion and construction of a future pollinator garden. A new pedestrian bridge will be constructed over Big Dry Creek to connect this trail to the existing Big Dry Creek trail. Other trail improvements include a new trail and bridge crossing to connect Promenade Drive South to the Big Dry Creek trail system, a new picnic area, and several realigned trail sections.



**Table 9. Past, Present, and Reasonably Foreseeable Future Actions**

Action/Responsible Party	Description
Private Development	Planned private development projects in the area near City Park Recreation Center may include a new hotel on the southeast corner of Westminster Blvd. and 104 <sup>th</sup> Avenue and several smaller private developments in the early planning stages

Source: City of Westminster 2020

The current and future development projects included in Table 9 would result in additional stress on some of the resources in the City, as discussed below.

**Air Quality.** Cumulative effects to regional or local air quality may result from construction of the projects. Air emissions from other foreseeable future development projects (such as the new hotel and smaller private developments near 104<sup>th</sup> Avenue) are expected from increased traffic and sanding of paved surfaces. This air pollution would contribute to the generally decreasing air quality in the metropolitan area. However, the temporary and minor impacts of the Project would not be expected to noticeably increase the cumulative air quality impacts in the Project area. The City of Westminster will comply with any restrictions in the State Implementation Plan.

**Surface Water, Groundwater, Quality and Quantity.** Cumulative impacts from future City projects could include increased runoff from paved surfaces and increased nonpoint source pollutants entering Big Dry Creek. The Project and all other proposed projects will implement BMPs and engineering controls to prevent and minimize indirect impacts on water resources from the Project.

**Wetlands and Other Waters of the United States.** The Project would result in temporary impacts on jurisdictional wetlands and waters of the United States. No cumulative impacts on wetlands or other waters of the United States would be expected from the Project in combination with current or proposed development because of spatial isolation of other past, present, and reasonably foreseeable future projects. All unavoidable impacts to jurisdictional wetlands/waters under future projects within and in the vicinity of the Project area would be offset by compensatory mitigation per CWA regulations, resulting in no net loss of these resources.

**Terrestrial and Aquatic Plants and Wildlife.** Vegetation clearing and grading during construction of the Project would contribute to minor short-term disturbance and vegetation loss. These impacts would be incremental to other regional effects, occurring as a result of area development including residential and commercial development. Vegetation impacts in the long term would be considered incremental and minor.

Construction activities associated with the project would temporarily displace wildlife as a result of noise and human disturbance. These impacts would be incremental to other regional effects,

including residential and commercial development. Construction activities occurring at the same time and in the same vicinity could have short-term, minor, cumulative effects on wildlife as a result of noise and human activity. All wildlife habitats disturbed because of the Project and by other projects within and in the vicinity of the Project area will be restored per City and State regulations. The Project and all other proposed projects will implement BMPs to prevent and minimize indirect impacts on biological resources.

**Cultural, Historic, and Paleontological Resources.** The Project would not result in cumulative effects to cultural, historic, or paleontological resources, as these resources are anticipated to be unaffected by the Project.

## 4.8 Unavoidable Adverse Impacts

Unavoidable adverse impacts of all construction and development-related projects that may not be fully mitigated include:

- Temporarily disruptions to access to sections of the Big Dry Creek trail and recreation areas by construction activity.
- Construction vehicles used to transport materials to and from Project area would temporarily increase traffic on adjacent roadways.
- Short-term localized construction emissions that impacts air quality.
- Increased traffic from construction activities in the immediate vicinity of the Project area during construction.
- Increased pollution in stormwater runoff from future residential and commercial construction sites and impervious surfaces throughout the Big Dry Creek Sewer Service Area.
- Commitment of resources including capital, manpower, and materials.

## 4.9 Mitigation of Adverse Impacts

The following mitigation alternatives are recommended to minimize or compensate for impacts from the Project:

- If a previously unidentified hazardous waste site is located during construction, or staining, odors, or monitoring wells are observed, construction would cease and CDPHE would be notified. Based on the distance to known sites in the EDR database, the proposed Project would have negligible impact on hazardous materials.
- Coordination with the City will occur to ensure that any temporary impacts to Big Dry Creek trail and Open Space are offset through the use of detours and/or flagging and traffic control through areas of construction.

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- The City will coordinate with the Colorado Department of Transportation (CDOT) should construction activities impact roadways under CDOT jurisdiction. Temporary trail construction detours or closures would be signed and information would be made available on the City's website on multiple webpages, including a page specifically for the Project.
- Fugitive dust control measures included the Land Development Air Pollutant Emissions Notice Form APCD-223 must be followed at site. The Form APCD-223 measures can be found online at <https://www.colorado.gov/pacific/cdphe/air/air-permit>. Dust control measures include but are not limited to minimizing wind-blown dust by wetting disturbed areas during construction, use of chemical stabilizer, controlling vehicle speed, washing vehicle wheels when entering paved surfaces, and revegetation of disturbed areas.
- Use the cleanest fuels available at the time to reduce vehicle exhaust emissions and control excessive idling of construction vehicles.
- Keep construction equipment well maintained to ensure exhaust systems are in good working order.
- Post construction seeding and maintenance of vegetative ground cover.
- Adhere to all applicable City of Westminster noise ordinances which restricts work hours to Mondays through Fridays from 7:00 a.m. to 5:00 p.m. to limit the impact of construction equipment and work noise. Weekend and evening work will only be permitted if special circumstances arise.
- The City will implement a SWMP as part of the Stormwater Discharges Associated with Construction Activities Permit to be obtained from CDPHE.
- If necessary, the project would adhere to the terms and conditions of a dewatering permit obtained from CDPHE, as well as adhere to any local regulations.
- The City will develop a Spill Pollution Prevention Plan to avoid or minimize pollutants reaching water resources.
- The City will obtain a Section 404 Nationwide Permit and adhere to all terms and conditions therein.
- All areas of temporary disturbance areas will be re-graded to match existing condition prior to construction.
- BMPs and engineering controls will be implemented during construction to avoid and minimize erosion, sedimentation, and pollution impacts on water resources.
- The City will obtain a Jefferson County Floodplain Permit prior to work within a mapped floodplain.
- Noxious weeds will be managed per City of Westminster and Jefferson and Adams County specifications.
- Areas of ground disturbance will be revegetated with a seed mix determined in coordination

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with the City of Westminster Open Space and Trails Department and Jefferson County. An upland, wetland and riparian seed mix was developed for the Big Dry Creek Master plan by Iris Mitigation and Design, Inc. that would be used (City of Thornton 2018).

- Vegetation removal and ground disturbance in wetlands and riparian habitat will be minimized to the extent practicable.
- Suitable topsoil will be salvaged to aid in revegetation, where appropriate.
- Trash cans will be wildlife-proofed to avoid attracting wildlife to the construction site.
- The spread of aquatic nuisance species will be prevented by using the following procedures: If heavy equipment is used that was previously working in another stream, river, lake or pond, or wetland, one of the following procedures will necessary:
  - Remove all mud and debris from equipment and spray/soak equipment with a 1:15 solution of disinfection solution containing the following ingredients:
    - Dialkyl dimethyl ammonium chloride, 5- 10% by weight
    - Alkyl dimethyl benzyl ammonium chloride, 5-10% by weight
    - Nonyl phenol ethoxylate, 5-10% by weight
    - Sodium sesquicarbonate, 1-5%
    - Ethyl alcohol, 1-5%
    - Tetrasodium ethylene diaminetetraacetate, 1- 5%
  - Use water to keep the equipment moist for at least 10 minutes and manage rinseate as a solid waste in accordance with local, county, state, or federal regulations.
  - Spray/soak equipment with water greater than 140 degrees Fahrenheit for at least 10 minutes.
  - Clean hand tools, boots, and any other equipment that will be used in the water with one of the above options as well. Do not move water from one water body to another. Be sure equipment is dry before using.
- To avoid harming potential migratory birds and their nests, vegetation will be removed in the project area during the nonbreeding season (September 1 to March 31), if possible.
- If construction would occur during the migratory bird breeding season (April 1 to August 31), preconstruction nest searches will be conducted prior to removal of trees and shrubs to ensure compliance with the MBTA.
- Raptor nest surveys will be required if construction activities are scheduled between February 1 and August 31 and will include a 0.5-mile buffer from the construction site. If raptor nests are identified within the buffer, CPW recommended buffer zones and seasonal restriction dates will be established.
- To the extent practicable, work in the Big Dry Creek will be limited to minimize impacts to



aquatic species and riparian vegetation.

- Equipment will be refueled within designated refueling containment areas away from Big Dry Creek and wetlands.
- Prairie dog colonies will be surveyed for Burrowing Owls prior to any work that would disturb them between March 1 and October 31. Construction occurring between November 1 and March 14 would not require clearance surveys. Where Burrowing Owls are present, Prairie dog removal should be scheduled for November 1 to March 14. If Burrowing Owls are found within the construction footprint, individual nest burrows and a 150-foot buffer around the burrow should be left undisturbed during construction (CPW 2008).
- Prairie dog removal will be conducted by the contractor and will follow City of Westminster standards.
- If during the course of the project any ground disturbance exposes artifacts, foundations, or other indications of past human occupation, the ground disturbance will be halted immediately and the SHPO and City of Westminster will be notified immediately for further guidance. In the event that human remains are encountered all construction activities will be halted immediately and the Jefferson County Coroner's Office will be contacted to determine if the remains are prehistoric, historical or modern. If determined to be prehistoric or historical the SHPO and City of Westminster will be notified immediately.
- The following local plans and regulations contribute mitigation guidelines to prevent environmental impacts from this and other projects:
  - Westminster Comprehensive Plan (2015)
  - Adams County Comprehensive Plan (2013)
  - Jefferson County Comprehensive Plan (2017)
  - Big Dry Creek Watershed Association

## 5.0 Public Participation and Agencies Contacted

The Draft EA and Project Needs Assessment was presented at a City Council Meeting that was open to the public on February 24, 2020. A summary presentation was made describing the intent and extent of the project and information describing the findings in the EA. No public comments were received during the meeting.

Project scoping letters giving a brief description of the project requesting feedback on known issues were sent to the following agencies on November 18, 2019:

- U.S. Fish and Wildlife Service—Mountain Prairie Region Office
- Colorado Historical Society
- U.S. Army Corps of Engineers
- Natural Resources Conservation Service
- Colorado Parks and Wildlife—Headquarters
- Colorado Parks and Wildlife—Northeast Regional Office

- Colorado State Engineer's Office—State Engineer
- Colorado Department of Public Health and Environment, Air Pollution Office
- National Park Service—Intermountain Regional Office

Agency response letters were received from CPW, USFWS and CDPHE Air Pollution Control Division. CPW provided input regarding recommendations for mitigations, primarily to offset impacts to aquatic species and limit the potential spread of invasive species and noxious weeds. USFWS noted that the project falls within the Denver block-clearance zone for the Preble's meadow jumping mouse (*Zapus hudsonius preblei*) and that they are unlikely to occur within the area. USFWS also recommend that the project be assessed for potential Ute ladies'-tresses orchid habitat. HDR assessed the project area for potential Ute ladies'-tresses orchid habitat during spring and summer 2019 and concluded that there is no suitable wetland or wet meadow habitat in the project area. The wetlands in the project area are densely vegetated and dominant species in the wetlands (dense cattails and willows) are not typically associated with Ute Ladies' tresses orchid. Upland habitat in the project area is too dry and in many areas is dominated by non-natives.

The CDPHE Air Pollution Control Division responded that they reviewed the project summary and determined that the project is located within the Denver-metropolitan ozone nonattainment area and the project conforms to the EPA-approved State Implementation Plan. Annual emissions generated from the proposed project are not expected to exceed the de minimis thresholds established in EPA's General Conformity regulations. As such a detailed conformity analysis is not required for this project. Dust mitigation control measures included in the response letter will be adhered to during project construction activities.

Scoping letters that were mailed and comments received are included in Appendix G and Appendix H of this document, respectively.

In addition to the scoping letters referenced above, agency specific teleconference meetings were held on an as needed basis. These included the following:

- State Historic Preservation Officer
- U.S. Army Corps of Engineers

## 6.0 References

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Appendix A.  
CDPHE Environmental Assessment  
Checklist

## ENVIRONMENTAL ASSESSMENT CHECKLIST

Use the Discussion and References space at the end of each section to document your responses. For example, explain how you determined the level of impact and document the reasoning if checking PA (possible adverse) for any resource. Attach additional pages if necessary.

1. Brief project description, including identification of selected alternative:

The City proposes to repair/replace sections of the BDCIS to increase the hydraulic capacity and improve the condition of the system. The recommended alternatives include constructing new parallel interceptor sections, abandoning sections of truss pipe, replacing 12 inch pipe with 21 inch pipe, and lining section of pipe with Cured-In-Place Pipe (CIPP) lining.

2. Describe if the project will improve or maintain water quality, and if the project addresses a TMDL, and/or Watershed Management Plan.

The project will increase hydraulic capacity of certain segments of the BDCIS thereby reducing risk for sanitary sewer overflow and maintaining water quality in Big Dry Creek. CIPP will also improve the stability of the older existing pipe.

3. Provide latitude and longitude of the proposed project (if a transmission / distribution / collection line identify the center point not the whole line):

Approximate center of Project Area 1 -  
39.892538, -105.060518

4. Provide discharge information:

The BDCIS discharges to the Big Dry Creek Wastewater Treatment Facility (BDCWWTF).

5. Provide NPDES/PWSID number:

The BDCWWTF NPDES number is: CO0024171.

6. Provide primary waterbody name and waterbody ID, secondary name (if available), and State designated surface water use:

Big Dry Creek - COSPBD01

7. Did your analysis consider how this project impacts community planning efforts in other areas (i.e. transportation, housing, etc.)?

Yes - The City is in the process of preparing an Environmental Assessment to evaluate the environmental impacts of the proposed action relative to other community planning efforts in the area.

Y = Yes            N = No            PA = Possible Adverse

**1. Physical Aspects - Topography, Geology and Soils**

- Y \_\_\_ N X PA \_\_\_    a.    Are there physical conditions (e.g., steep slopes, shrink-swells soils, etc.) that might be adversely affected by or might affect construction of the WWTF facilities?
- Y \_\_\_ N X PA \_\_\_    b.    Are there similar limiting physical conditions in the planning area that might make development unsuitable?
- Y \_\_\_ N X PA \_\_\_    c.    Are there any unusual or unique geological features that might be affected?
- Y \_\_\_ N X PA \_\_\_    d.    Are there any hazardous areas (slides, faults, etc.) that might affect construction or development?

Discussion and References:

**2. Climate**

- Y \_\_\_ N X PA \_\_\_    a.    Are there any unusual or special meteorological constraints in the planning area that might result in an air quality problem?
- Y \_\_\_ N X PA \_\_\_    b.    Are there any unusual or special meteorological constraints in the planning area that might affect the feasibility of the proposed wastewater treatment alternative?

Discussion and References:

**3. Population**

- Y \_\_\_ N X PA \_\_\_    a.    Are the proposed growth rates excessive (exceeding State projections, greater than 6% per annum for the 20 year planning period)?
- Y \_\_\_ N X PA \_\_\_    b.    Will additional growth be induced or growth in new areas encouraged as a result of facilities construction?
- Y \_\_\_ N X PA \_\_\_    c.    Will the facilities serve areas which are largely undeveloped areas at present?

Discussion and References:



#### 4. Housing, Industrial and Commercial Development and Utilities

- Y \_\_\_ N X PA \_\_\_ a. Will existing homes or business be displaced as a result of construction of this property?
- Y \_\_\_ N X PA \_\_\_ b. Will new housing serviced by this facility affect existing facilities, transportation patterns, environmentally sensitive areas, or be in special hazard or danger zones?
- Y \_\_\_ N X PA \_\_\_ c. Will new housing create strains on other utilities and services - policies, power, water supply, schools, hospital care, etc.?

Discussion and References:

#### 5. Economics and Social Profile

- Y \_\_\_ N X PA \_\_\_ a. Will certain landowners benefit substantially from the development of land due to interceptor routing or WWTP location and size?
- Y \_\_\_ N X PA \_\_\_ b. Will the facilities adversely affect land values?
- Y \_\_\_ N X PA \_\_\_ c. Are any poor or disadvantaged groups especially affected by this project?

Discussion and References:

#### 6. Land Use

- Y \_\_\_ N X PA \_\_\_ a. Will projected growth defeat the purpose of local land use controls (if any)?
- Y \_\_\_ N X PA \_\_\_ b. Is the location of the WWTP or other facilities incompatible with local land use plans?
- Y \_\_\_ N X PA \_\_\_ c. Will inhabited areas be adversely impacted by the project site?
- Y \_\_\_ N X PA \_\_\_ d. Will new development have adverse effects on older existing land uses (agriculture, forest land, etc.)?
- Y \_\_\_ N X PA \_\_\_ e. Will this project contribute to changes in land use in association with recreation (skiing, parks, etc.), mining or other large industrial or energy developments?

Discussion and References:

## 7. Floodplain Development

- Y  N  PA  a. Does the planning area contain 100 year floodplains?  
If yes -
- Y  N  PA  b. Will the project be constructed in a 100 year floodplain?
- Y  N  PA  c. Will the project serve direct or indirect development in a 100 year floodplain anywhere in the planning area?

Discussion and References:

## 8. Wetlands

- Y  N  PA  a. Does the planning area contain wetlands as defined by the U.S. Fish and Wildlife Service?  
If yes -
- Y  N  PA  b. Will any major part of the treatment works be located on wetlands?
- Y  N  PA  c. Will the project serve growth and development which will directly or indirectly affect wetlands?

Discussion and References:

Existing pipeline follows Big Dry Creek. New pipeline will also need to follow the same alignment and therefore be located through areas defined as wetlands.

## 9. Wild and Scenic Rivers

- Y  N  PA  a. Does the planning area contain a designated or proposed wild and scenic river?  
If yes -
- Y  N  PA  b. Will the project be constructed near the river?
- Y  N  PA  c. Will projected growth and development take place contiguous to or upstream from the river segment?
- Y  N  PA  d. Will the river segment be used for disposal of effluent?

Discussion and References:

## 10. Cultural Resources (Archeological/Historical)

- Y  N  PA  a. Are there any properties (historic, architectural, archeological) in the planning area which are listed on or eligible for listing on the National Register of Historic Places?  
If yes -
- Y  N  PA  b. Will the project have direct or indirect adverse impacts on any listed or eligible property?

Discussion and References:

### 11. Flora and Fauna (including endangered species)

- Y \_\_\_ N X PA \_\_\_ a. Are there any designated threatened or endangered species or their habitat in the planning area?
- Y \_\_\_ N X PA \_\_\_ b. Will the project have direct or indirect adverse impacts on any such designated species?
- Y X N \_\_\_ PA \_\_\_ c. Will the project have direct or indirect adverse impacts on fish, wildlife or their habitat including migratory routes, wintering or calving areas?
- Y \_\_\_ N X PA \_\_\_ d. Does the planning area include a sensitive habitat area designed by a local, State or Federal wildlife agency?

#### Discussion and References:

Temporary indirect impacts to migratory birds due to construction noise.

### 12. Recreation and Open Space

- Y \_\_\_ N X PA \_\_\_ a. Will the project eliminate or modify recreational open space, parks or areas of recognized scenic or recreational value?
- Y X N \_\_\_ PA \_\_\_ b. Is it feasible to combine the project with parks, bicycle paths, hiking trails, waterway access and other recreational uses?

#### Discussion and References:

Trail improvements are being considered in the EA.

### 13. Agricultural Lands

- Y \_\_\_ N X PA \_\_\_ a. Does the planning area contain any environmentally significant agricultural lands (prime, unique, statewide importance, local importance, etc.) as defined in the EPA Policy to Protect Environmentally Significant Agricultural Lands dated September 8, 1978?
- Y \_\_\_ N X PA \_\_\_ b. Will the project directly or indirectly encourage the irreversible conversion of Environmentally Significant Agricultural Lands to uses which result in the loss of these lands as an environmental or essential food production resource?

#### Discussion and References:

#### 14. Air Quality

- Y \_\_\_ N X PA \_\_\_ a. Are there any direct air emissions from the project (e.g., odor controls, sludge incinerator) which do not meet Federal and State emission standards contained in the State Air Quality Implementation Plan (SIP)?
- Y \_\_\_ N X PA \_\_\_ b. Is the project service area located in an area without an approved or conditionally approved SIP?
- Y \_\_\_ N X PA \_\_\_ c. Is the increased capacity of the project greater than 1 mgd?
- Y \_\_\_ N X PA \_\_\_ d. Do the population projections used in the facilities plan exceed the State or areawide projections in the SIP by more than 5%?
- Y X N \_\_\_ PA \_\_\_ e. Does the project conform with the requirements of the SIP? (See EPA regulations under Section 316 of the Clean Air Act.)
- Y \_\_\_ N X PA \_\_\_ f. Is the project inconsistent with the SIP of an adjoining State that may be impacted by the Project?
- Y \_\_\_ N X PA \_\_\_ g. Does the project violate national ambient Air Quality Standards in an attainment or unclassified area?
- Y \_\_\_ N X PA \_\_\_ h. Will the facilities create an odor nuisance problem?

Discussion and References:

#### 15. Water Quality and Quantity (Surface/Groundwater)

- Y \_\_\_ N X PA \_\_\_ a. Are present stream classifications in the receiving stream being challenged too low to protect present or recent uses?
- Y \_\_\_ N X PA \_\_\_ b. Is there a substantial risk that the proposed discharge will not meet existing stream standards or will not be of sufficient quality to protect present or recent stream uses?
- Y \_\_\_ N X PA \_\_\_ c. Will construction of the project and development to be served by the project result in non-point water quality problems (sedimentation, urban stormwater, etc.)?
- Y \_\_\_ N X PA \_\_\_ d. Will water rights be adversely affected by the project?
- Y \_\_\_ N X PA \_\_\_ e. Will the project cause a significant amount of water to be transferred from one sub-basin to another (relative to the 7-day, 10 year flow of the diverted basin)?
- Y \_\_\_ N X PA \_\_\_ f. Will stream habitat be affected as a result of the change in flow or stream bank modification?
- Y \_\_\_ N X PA \_\_\_ g. Are stream conditions needed for deciding upon the required limitations inadequately specified in the 208 Plan? If so, have the wasteload allocations calculations been performed and approved by the State and EPA?
- Y \_\_\_ N X PA \_\_\_ h. Is an Antidegradation Review required?
- Y \_\_\_ N X PA \_\_\_ i. Will the project adversely affect the quantity or quality of a groundwater resource?



- Y \_\_\_ N X PA \_\_\_ j. Does the project adversely affect an aquifer used as a potable drinking water supply?
- Y \_\_\_ N X PA \_\_\_ k. Are there additional cost effective water conservation measures that could be adopted by community to reduce sewage generation?

Discussion and References:

### 16. Public Health

- Y \_\_\_ N X PA \_\_\_ a. Will there be adverse direct or indirect noise impacts from the project?
- Y \_\_\_ N X PA \_\_\_ b. Will there be a vector problem (e.g., mosquito) from the project?
- Y \_\_\_ N X PA \_\_\_ c. Will there be any unique public health problems as a result of the project (e.g., increased disease risks)?

Discussion and References: Temporary noise during construction hours for residences and trail users immediately adjacent to construction area. no night or weekend construction.

### 17. Solid Waste (Sludge Management)

- Y \_\_\_ N X PA \_\_\_ a. Will sludge disposal occur in an area with inadequate sanitary landfills or on land unsuitable for land application?
- Y \_\_\_ N X PA \_\_\_ b. Are there special problems with the sludge that makes disposal difficult (hazardous, difficult to treat)?
- Y \_\_\_ N X PA \_\_\_ c. Is the technology selected for sludge disposal controversial?

Discussion and References:

### 18. Energy

- Y \_\_\_ N X PA \_\_\_ a. Are there additional cost effective measures to reduce energy consumption or increase energy recovery which could be included in this project?

Discussion and References:

### 19. Land Application

- Y \_\_\_ N X PA \_\_\_ a. Has a new or unproven technique been selected?
- Y \_\_\_ N X PA \_\_\_ b. Is there considerable public controversy about the project?

- Y \_\_\_ N X PA \_\_\_ c. Will the project require additional water rights or impact existing water Rights?
- Y \_\_\_ N X PA \_\_\_ d. Is the project multi-purpose?

Discussion and References:

**20. Regionalization**

- Y \_\_\_ N X PA \_\_\_ a. Are there jurisdictional disputes or controversy over the project?
- Y \_\_\_ N X PA \_\_\_ b. Is conformance with the 208 plan in question?
- Y \_\_\_ N X PA \_\_\_ c. Is the proliferation of small treatment plants and septic systems creating a significant health problem?
- Y \_\_\_ N X PA \_\_\_ d. Have inter-jurisdictional agreements been signed?

Discussion and References:

**21. Public Participation**

- Y \_\_\_ N X PA \_\_\_ a. Is there a substantial level of public controversy?
- Y X N \_\_\_ PA \_\_\_ b. Is there adequate evidence of public participation in the project?

Discussion and References: A public outreach and involvement plan is ongoing for the duration of the project.

**22. Environmental Laws**

- Y \_\_\_ N X PA \_\_\_ a. Does the project threaten to violate any State, Federal or local law or requirement imposed to protect the environment?

Discussion and References:

Prepared By: Sirena Brownlee, HDR Senior Planner  
 Name, Title, and Affiliation

Date: 12/12/2019

Reviewed By (WQCD): \_\_\_\_\_  
 Name and Title

Date: \_\_\_\_\_

Environmental Determination: (Circle One) CE EA EIS

Appendix B.  
Project Needs Assessment



# Big Dry Creek Interceptor Sewer Improvements

Colorado State Revolving Funds Project Needs  
Assessment

City of Westminster

December 2019





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# 1 Introduction

The City of Westminster (City) provides sewer service to over 110,000 people, covers approximately 29.8 square miles, and contains two major sewer basins: Little Dry Creek (LDC) and Big Dry Creek (BDC). The BDC basin, which is the focus of this project, collects and conveys 75 percent of the City's total wastewater flows, generated in the northern portion of the City, to its Big Dry Creek Wastewater Treatment Facility (BDCWWTF). A major concern for the BDC collection system is capacity for existing and future flows. Additionally, hydrogen sulfide corrosion is causing structural integrity concerns for the existing pipes and structures.

The Little Dry Creek and Big Dry Creek Sewer Systems Study (Study), completed in 2011 and updated in 2015 based on the City's Comprehensive Plan wastewater flow estimates from 2013, recommended several improvement projects in the BDC collection system. A Phase I preliminary design report was completed for the Big Dry Creek Interceptor Sewer (BDCIS) in April 2019 that updated the hydraulic capacity and condition of the BDCIS, and recommended options for the repair/replacement of these sections of the interceptor system in the drainage basin to increase the hydraulic capacity and improve the condition of the system to the City's defined buildout condition(s).

The Big Dry Creek Interceptor Sewer (BDCIS) Project includes improvements to address existing capacity limitations and condition related issues. The project will be broken up into three construction packages:

- Construction Package 1 – Construction of the pipeline sewer improvements for Project Areas 1, 3, and 9.
  - Project is through final grading and stabilization. Site restoration will be part of Construction Package 3.
- Construction Package 2 – Repair pipeline condition of Project Areas 1, 4, 5, 6, 7, 8, 9, 10, and 11.
- Construction Package 3 – Site landscaping restoration for the improvements in Construction Packages 1 and 2.

The purpose of this report is to document the preliminary design for the State Revolving Fund (SRF) Project Needs Assessment.

## 2 Survey

The first phase of the Big Dry Creek Interceptor Sewer Improvements Project involved the completion of an extensive survey program of the existing interceptor sewer system (sewer lines 15" and larger) with the following objectives:



- Develop detailed existing sewer elevation data to refine the hydraulic analysis used to assess system capacity.
- Obtain sewer data (manhole inverts, pipe diameters, alignments and system connectivity) to be used in upcoming rehabilitation and capacity improvement design activities.
- Improve the quality of the city's sewer system GIS data for current and future use on managing those assets.

The survey program was initiated with obtaining rim and invert elevation data on manholes along the main Big Dry Creek Interceptor Sewer (BDCIS), identified as those lines located roughly from the Butterfly Pavilion at 104<sup>th</sup> Avenue and Westminster Boulevard to the City's Big Dry Creek Wastewater Treatment Facility. The survey program then extended into the interceptors tributary to the main BDCIS. The survey program targeted 512 manholes across the interceptor sewers and collected rim and invert elevation data on 481 manholes. The manhole rim and invert elevation data collected enabled a more refined hydraulic analysis within the InfoSewer® model software to better evaluate capacity under existing and future development conditions.

## 3 Future Development Loading

To determine the future model loading scenarios, HDR worked with the City of Westminster (City) to develop the development model conditions that were used to evaluate system capacity. The City analyzed water consumption data and developed land use unit flow factors. The resulting unit flow factors were then used to project future flow condition loading in the BDCIS model.

The data provided by the City for development of the model is summarized below:

- Land use unit flow factors based on water consumption data analysis.
- Recent Big Dry Creek Wastewater Treatment Facility (BDCWWTF) flow data to validate modeled existing condition sewer flows, unit flow factors, and recent developments from 2011 to 2018.
- List of recent development to update base model flows from 2011 to 2018.
- Land use development scenarios that were used to model three future development outcomes.

### 3.1 Land Use Unit Flow Factors

The City analyzed water consumption data to determine wastewater loading factors by land use type which were used to project average dry weather flow for future development conditions. The values presented in Table 1 represents the final unit flow factors from the City's analysis.

**Table 1. Land Use Loading Factors**

Land Use Type	Provided by City		Applied to Model	
	Unit Factor	Units	Unit Factor	Units
Restaurants	2	AF/ac/yr	1.24	gpm/ac
Service	1.59	AF/ac/yr	0.99	gpm/ac
Retail	1.31	AF/ac/yr	0.81	gpm/ac
Office	0.65	AF/ac/yr	0.40	gpm/ac
Industrial	0.35	AF/ac/yr	0.22	gpm/ac
Hotel	8.32	AF/Hotel/yr	5.16	gpm/Hotel
R-50	0.0952	AF/Unit/yr	0.06	gpm/unit
R-36	0.1075	AF/Unit/yr	0.07	gpm/unit
R-18	0.1185	AF/Unit/yr	0.07	gpm/unit
R-8	0.145	AF/Unit/yr	0.09	gpm/unit
R-3.5	0.1556	AF/Unit/yr	0.10	gpm/unit
R-50	5.82	AF/ac	3.61	gpm/ac
R-36	3.81	AF/ac	2.36	gpm/ac
R-18	2.27	AF/ac	1.41	gpm/ac
R-8	1.1	AF/ac	0.68	gpm/ac
R-3.5	0.71	AF/ac	0.44	gpm/ac

### 3.2 Recent Development and Development in Approval Process

A summary of development was provided to create a loading scenario representing existing (2018) conditions to use as a baseline for BDCIS system analysis. This development data represents developments that have been approved/constructed since 2011 or are currently in the development approval process. The land use loading factors developed by the City were applied to this development data to update loading in the model. This was required to bring the model which was developed and calibrated in 2011 to represent 2018 conditions. There were 69 developments approved/constructed since the sewer model was developed in 2011 accounting for a projected flow of approximately 352 gpm (0.51 MGD). There are 27 developments that are currently in the approval process accounting for a projected flow of approximately 203 gpm (0.29 MGD).

### 3.3 Model Validation

Once recent development loading was determined, the resulting BDCIS flows were validated against current BDCWWTF flows as noted in Table 2. The flow data validation

of dry weather flows was within +20% and considered an acceptable based on typical validation ranges.

**Table 2. Model Validation Summary**

Data Source	Flow Component	Flow	Unit	Flow	Unit
2011 Study Average DWF	Model Total Calibrated 2011 ADWF	5,145	gpm	7.41	MGD
	<b>Model BDCIS Calibrated 2011 ADWF</b>	<b>4,474</b>	<b>gpm</b>	<b>6.44</b>	<b>MGD</b>
Projected Recent Development Loading (2011 - 2018)	<b>Recent Development Projected Average DWF</b>	<b>352</b>	<b>gpm</b>	<b>0.51</b>	<b>MGD</b>
	<b>BDCIS Model Validation Flow</b>	<b>4,827</b>	<b>gpm</b>	<b>6.95</b>	<b>MGD</b>
2018 BDCWWTF Data	3-year Average Dry Weather BDCWWTF Flow	4,593	gpm	6.61	MGD
Non-BDCIS Flow	N Huron Flow Approximation	255	gpm	0.37	MGD
	S Huron Flow Approximation	191	gpm	0.28	MGD
	Total	446	gpm	0.64	MGD
	<b>Approximate BDCIS Flow</b>	<b>4,147</b>	<b>gpm</b>	<b>5.97</b>	<b>MGD</b>
	<b>Validation</b>	<b>116%</b>			

### 3.4 Model Condition Development

Three future development model conditions were developed to represent the 2013 comp plan projections, a modified comprehensive plan projection with more conservative development density assumptions, and a “most likely” development outcome that includes the comprehensive plan amendments at more moderate development densities. Table 3 summarizes the total future condition loading allocated to the model as peakable average dry weather flow in addition to the calibrated 2011 wet weather flow to develop future condition wet weather flow scenarios.

**Table 3. Model Condition Loading Summary**

Future Condition Model Scenario	Total Development Loading (gpm)	Total Development Loading (MGD)
<b>Model Condition 1</b> - Comp Plan Densities	1,184	1.71
<b>Model Condition 2</b> - Comp Plan Amendments, High Density	1,453	2.09
<b>Model Condition 3</b> - Comp Plan Amendments, Moderate Density	1,356	1.95

The three future development model conditions were then used to determine the impact of the different development assumptions on system capacity.

## 4 Capacity Limitation Modeling

The development outcomes were used to evaluate system capacity under existing and future conditions. An updated existing condition scenario that includes loading from recent development was modeled to identify existing capacity limitations. Future condition scenarios were developed to identify capacity limitations under projected buildout conditions. Three development outcomes were modeled that reflect different assumptions in development density resulting in spatial variation in loading. In addition to these three development outcomes a sensitivity analysis scenario was modeled to determine the impact of wet weather flow assumptions carried over from the 2011 study that was used as the basis for current modeling. The modeled scenarios were used to identify capacity limitations, confirm the impact of near term BDCIS lining projects to fully commission both parallel interceptor lines, and group capacity limited areas for improvement projects.

In addition to the capacity evaluation, sewer condition score data were reviewed to identify poor condition pipelines in need of rehabilitation. The resulting sewer pipelines with PACP scores greater than 3 were grouped into project areas along with capacity limitations to be addressed as part of the overall BDCIS improvements.

### 4.1 Basis of Capacity Analysis

The existing hydraulic model, developed in 2011 using InfoSewer® by Innovyze®, was used as the basis of the analysis. The model was updated with recent survey data and sewer operations (specifically with regard to diversion structures) to establish a baseline model condition that also reflects 2018 wastewater flows.

As part of the BDCIS project the entire Big Dry Creek interceptor system, consisting of pipes 15-IN in diameter and greater, were surveyed to update the geometry in the model. This was done to verify that accurate information was in the model to evaluate system capacity.

### 4.2 Model Scenarios

The five land use plans developed by the City were used to develop three model conditions representing different development outcomes. These model conditions applied different assumptions on development density, which resulted in variation in total loading and the spatial distribution of loading between scenarios. The four model condition scenarios developed based are summarized below.

1. 2018 Existing Condition Baseline: Includes recently constructed and approved development
2. Model Condition 1: 2013 comprehensive plan development assumptions
3. Model Condition 2: Modified 2013 comprehensive plan development assumptions

4. Model Condition 3: First draft 2019 comprehensive plan development assumptions

Table 4 summarizes the four model condition scenarios analyzed. This table provides the projected dry weather flow for each land use plan, identifies the development outcomes applied in each model condition, and the total dry weather loading.

**Table 4. Model Condition Dry Weather Flow Loading Summary**

Land Use Plan	Base Sanitary Loading (gpm)	Base Sanitary Loading (MGD)	2018 Baseline	Model Condition 1	Model Condition 2	Model Condition 3
2018 Approved Development	352	0.51	x	x	x	x
2018 Development in Approval Process	203	0.29		x	x	x
Land Use Plan 1	446	0.64		x		
Land Use Plan 2	529	0.76			x	
Land Use Plan 3	183	0.26		x		
Land Use Plan 4	369	0.53			x	
Land Use Plan 5 Undeveloped	439	0.63				x
Land Use Plan 5 Underdeveloped	362	0.52				x
Calibrated 2011 Model Dry Weather Flow (MGD)			7.41			
Total Development Loading (MGD)			0.51	1.71	2.09	1.95
<b>Total Dry Weather Loading (MGD)</b>			<b>7.92</b>	<b>9.11</b>	<b>9.50</b>	<b>9.36</b>

To develop the wet weather scenarios used to analyze system capacity, the projected dry-weather loading for each model condition was applied in addition to the calibrated 2011 wet-weather flow and peaked to project wet weather conditions.

Table 5 summarizes the projected peak wet weather flows in the Big Dry Creek Interceptor and the entire Big Dry Creek basin at the BDCWWTF for each model condition.



**Table 5. Model Condition Peak Wet Weather Flow Summary**

Model Scenario	BDCIS Peak WWF (gpm)	BDCWWTF Peak WWF (gpm)
Validated 2018 Existing Condition Baseline	18.24	22.59
Model Condition 1	21.90	26.25
Model Condition 2	23.04	27.39
Model Condition 3	22.62	26.97

### 4.3 Model Results

Results from the five model condition scenarios were mapped to identify capacity limitations within interceptors in the BDC basin. The interceptor capacity was evaluated based on the depth/diameter ratio (d/D) under peak hour wet weather flow conditions. The city’s design standards require interceptors to convey peak wet weather flows at a d/D of 0.8 or less, and this criteria was applied to determine where pipelines were capacity limited. Sanitary sewer overflow (SSO) risk was evaluated where surcharging was projected to occur in the interceptor system.

The 2018 existing condition baseline model results indicate that capacity limitations on the BDC interceptor are significantly reduced when the parallel interceptor sewer capacity is fully utilized through lining and diversion structure optimization. Specifically, capacity limitations are primarily focused the single 30-IN BDC interceptor upstream of Diversion Structure 1 between 104<sup>th</sup> Ave and Sheridan Blvd. Under future model condition scenarios, additional segments of capacity limited interceptor are projected to occur, but tend to be isolated issues instead of long sections of under capacity interceptor. Figure 1 shows the results for each scenario compiled into one figure.

Table 6 provides a summary of capacity limitations from each scenario modeled. The length of capacity limited main does not change between the different development conditions modeled (excepting the sensitivity analysis), but changes in future conditions loading does impacts the amount of pipe exceeding a d/D of 0.8 due to backwater conditions.

**Table 6. Model Condition Capacity Limitation Summary**

Model Scenario	Length main exceeds criteria (backwater and capacity limited)	Length capacity limited main	SSO risk – Within 8-ft of manhole rim	SSO risk – Within 2 ft of rim
2018 Existing Condition Baseline	6,869	3,770	2	0
Model Condition 1	9,552	4,358	2	0
Model Condition 2	10,141	4,358	2	0
Model Condition 3	9,819	4,358	2	0
Model Condition 2 Sensitivity Analysis	12,448	6,376	2	0



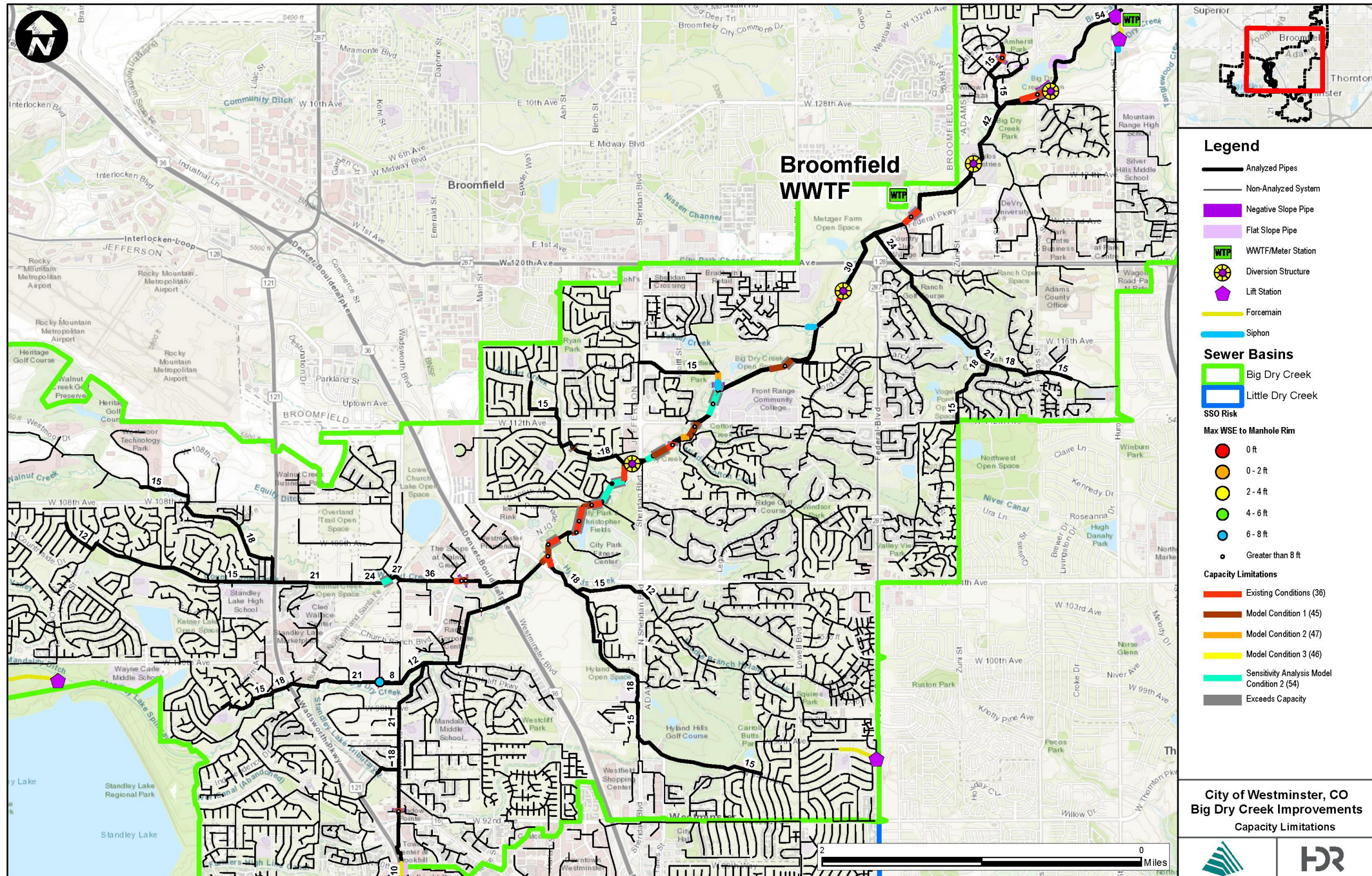


Figure 1. BDCIS Capacity Limitations Based on Model Conditions



## 4.4 Interceptor Condition

Condition data, in the form of PACP scores from previous CCTV inspections, was provided by the City to identify areas that require improvements to address poor condition. The data provided by the City was from inspections performed prior to 2008. To account for degradation over the past ten years, six locations were selected for re-assessment to determine how condition has changed on average over the past eight years.

It was determined, that on average, PACP scores have increased by a score of 1. For this initial assessment of pipeline condition, all PACP scores in the 2011 database were increased by 1, and this adjusted data set was used to identify areas that require improvements to address condition. Any condition related improvements will include confirmation of condition including cleaning and CCTV to re-evaluate current condition.

## 4.5 Project Areas

Capacity results from the hydraulic model and the adjusted pipeline condition data were used to group capacity limitations and poor condition main into project areas for characterization. Interceptors that were projected to exceed a d/D of 0.8 during peak hour wet weather flows or had adjusted condition scores of 3 or greater were grouped into project areas. The areas where the greatest lengths of capacity limited interceptor was projected were grouped together first; starting at 104<sup>th</sup> Avenue with numbering continued downstream through the parallel interceptor. These capacity limited areas are generally separated where tributary interceptors tie into the main BDC interceptor sewer. The remaining isolated capacity limited sewers in other portions of the system were grouped into project areas along with sections of poor condition interceptor. Note the City's GIS data was used to identify interceptors that have already been lined and excluded these pipelines from the evaluation.

The final project areas are presented in the figures below and discussed in greater detail in the appendices of this document. Figure 2 shows the project areas with the model results used to identify capacity limitations. Figure 3 shows the project areas with the adjusted condition data and areas that have been lined as part of previous projects identified.



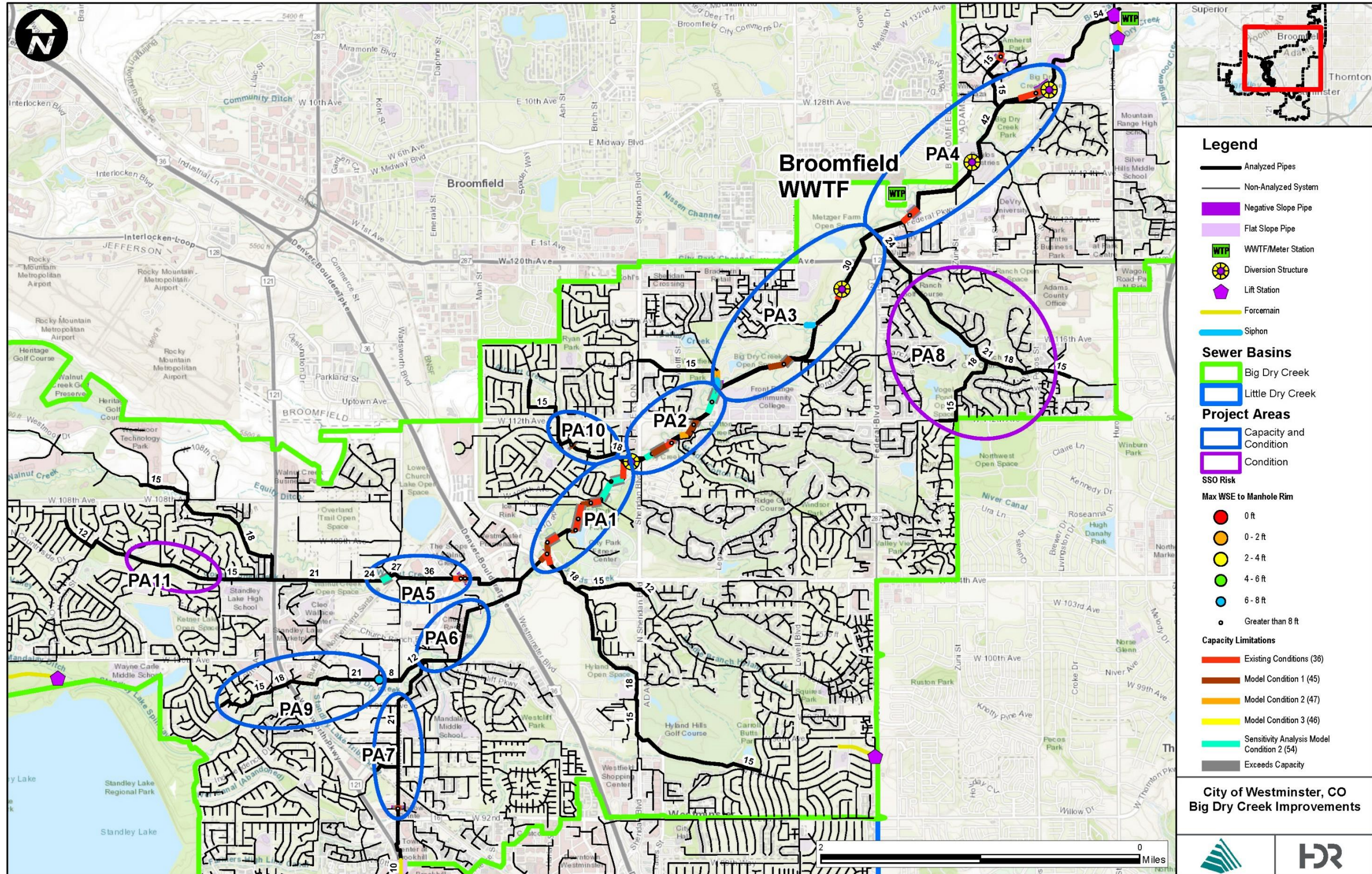


Figure 2. Capacity Limitations Based on Updated Model Conditions



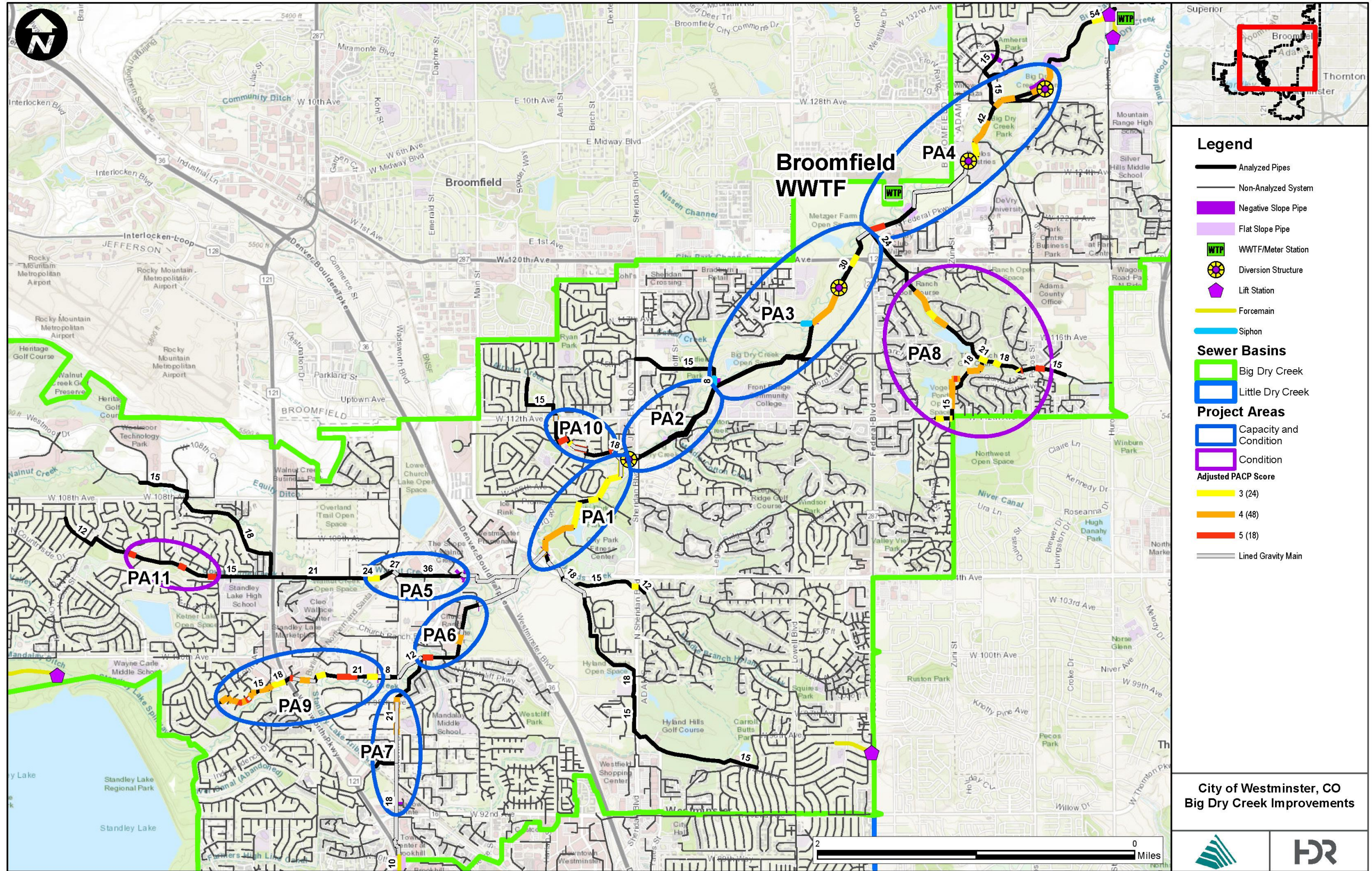


Figure 3. BDCIS Condition Score and Existing Lining



## 5 BDCIS Problem Characterization and Alternatives

A standard approach was followed for the development and evaluation of improvements for the BDCIS system. This process for each project area was: 1) Characterization of problems, 2) Development of improvement alternatives, 3) Non-economic evaluation of alternatives, and 4) Preliminary cost estimate for each alternative. By using this approach, a recommended improvement plan was determined for each project area.

### 5.1 Project Area 1

Project Area 1 is along the Big Dry Creek Interceptor Sewer (BDCIS) generally between Sheridan Boulevard and 104<sup>th</sup> Avenue, near the Butterfly Pavilion. This reach of the BDCIS is a single 30-IN diameter pipeline with a total length of 6,190-FT. Sewer system modeling has identified capacity restrictions under existing and future condition loading. Previous master planning effort have also identified poor condition pipe in this reach. Table 7 provides a summary of the project area.

A number of alternatives were developed and evaluated. Based on the weighted scoring of non-economic criteria as well as the preliminary project cost estimate, the recommended alternative for Project Area 1 is the additions of a North Parallel Interceptor. This alternative includes constructing a new parallel interceptor generally following the existing 30-IN interceptor to the North. Additionally, the North Parallel Interceptor alternative also includes installation of structural liner (CIPP) throughout the majority of the existing 30-IN interceptor wherever it has not recently been lined to improve the condition of that interceptor. Figure 4 shows the extent of the recommended improvements for Project Area 1.

Though the parallel interceptor was not the lowest cost alternative, it does provide significantly more noneconomic benefits when compared to the remove and replace option. The North Parallel Interceptor alternative provides high operational flexibility by providing a parallel interceptor which the City may divert flows to maximize interceptor capacity as well as perform maintenance without the need for bypass pumping. Additionally the North Parallel Interceptor provides high design flexibility should new constraints be uncovered during the design process. The North Parallel interceptor also has significantly less construction risk than the other parallel alternative as it requires less trenchless construction and has a much shallower profile.

Challenges regarding the North Parallel Interceptor include coordination with the Big Dry Creek stabilization project to ensure that creek realignment and stabilization efforts work with the design of the new parallel interceptor. Additionally, coordination of the relocation of the 48-IN Thornton Raw Waterline are critical to provide additional design flexibility in the horizontal alignment of the new parallel interceptor. The preliminary cost estimate for the recommended alternative is \$14,506,000.

**Table 7. Project Area Characterization – BDCIS Project Area 1**

<b>Location:</b>	<b>Big Dry Creek Interceptor – Big Dry Creek open space between Sheridan Boulevard and West 104<sup>th</sup> Avenue, near the Butterfly Pavilion and City Park</b>
<b>Limitation Summary:</b>	<p>Project Driver: Capacity and Condition</p> <p>This project area consists of 6,190-FT of gravity main and has both capacity limitations and sections of pipeline in poor condition.</p> <p>Many pipes in this region have capacity limitations under existing conditions with the majority of this section of interceptor showing capacity limitations under buildout PHWWF.</p>
<b>Diameter Range:</b>	18-IN to 30-IN
<b>Material Types:</b>	RCP, PVC
<b>Condition Score (Average):</b>	3.1: 12 pipes with PACP score of 3 or greater (3,740-FT)
<b>Install/Rehab Date:</b>	<p>Install: 1972 / 1974 / 2007</p> <p>Rehab: 1,730-FT lined since 2009</p>
<b>Limitation Extent (Existing):</b>	2,900-FT: 1,880-FT exceeds capacity, 1,069-FT under backwater conditions
<b>Limitation Extent (Buildout):</b>	5,090-FT: 2,610-FT exceeds capacity, 2,490-FT under backwater conditions
<b>Manhole Surcharging (Existing):</b>	0 manholes surcharge within 6 – 8 ft of rim
<b>Manhole Surcharging (Buildout):</b>	0 manholes surcharge within 6 – 8 ft of rim
<b>Peak Hour WWF</b>	<p>Existing Conditions: 11.1 MGD</p> <p>Buildout Conditions: 16.1 MGD</p>
<b>Accessibility:</b>	Big Dry Creek Corridor; Local and Arterial Roads (W 104 <sup>th</sup> Ave), crosses Big Dry Creek channel
<b>Comments:</b>	<ul style="list-style-type: none"> <li>• Nearly the entire project area exceeds capacity, and has PACP scores greater than 3</li> <li>• This is the only reach of the main Big Dry Creek Interceptor that does not have a parallel interceptor.</li> <li>• There is one negative slope pipe at the upstream end of the project area and one flat slope pipe just upstream of diversion structure 1 that contribute to backwater conditions <ul style="list-style-type: none"> <li>○ The average slope of the three segments (1,140-FT) immediately downstream of the negative slope pipe at the upstream end of the project area is 0.007 ft/ft</li> <li>○ The flat slope pipe is upstream of the diversion structure. The average slope of the six segments (1,290-FT) downstream of the diversion in the new 1999 line is 0.006 ft/ft. The average slope of the four segments (1,290-FT) is 0.003 ft/ft. The parallel trunk lines also cross in this area.</li> </ul> </li> <li>• Improvements are required to address both capacity and condition problems along the entire project area</li> </ul>



Figure 4. Project Area 1 Recommended Improvements



## 5.2 Project Area 3

Project Area 3 is along the Big Dry Creek Interceptor Sewer (BDCIS) in the Big Dry Creek open space, generally between the Westfield Village Park Siphon and The Ranch tributary interceptor at W 120<sup>th</sup> Avenue and Federal Parkway. This reach of the BDCIS is a parallel interceptor, consisting of a 30-IN diameter pipeline and a 30/42-IN diameter pipeline, with a total length of 16,800-FT. Previous master planning effort have identified poor condition pipe in this reach, particularly in the older 30-IN line, which is being resolved via ongoing lining efforts. Table 8 provides a summary of the project area.

**Table 8. Project Area Characterization – BDCIS Project Area 3**

<b>Location:</b>	<b>Big Dry Creek Interceptor – Big Dry Creek open space from Westfield Village Park Siphon to The Ranch tributary line at W 120<sup>th</sup> Ave and Federal Parkway</b>														
<b>Limitation Summary:</b>	Project Driver: Condition This project area consists of 16,800-FT of gravity main and has sections of pipeline in poor condition.														
<b>Diameter Range:</b>	30-IN to 42-IN														
<b>Material Types:</b>	RCP, PVC														
<b>Condition Score (Average):</b>	Old (1970's) line – 3.2: 17 segments with PACP score of 3 or greater (6,280-FT) New (1990's) line – 2.0: 1 Segments with PACP score of 3 or greater (406-FT)														
<b>Install/Rehab Date:</b>	Install: 1971 / 1972 / 1996 / 1999 Rehab: 510-FT lined since 2009														
<b>Limitation Extent (Existing):</b>	380-FT: 60-FT exceeds capacity, 320-FT under backwater conditions														
<b>Limitation Extent (Buildout):</b>	880-FT: 350-FT exceeds capacity, 530-FT under backwater conditions														
<b>Manhole Surcharging (Existing):</b>	0 manholes surcharge within 6 – 8 ft of rim														
<b>Manhole Surcharging (Buildout):</b>	0 manholes surcharge within 6 – 8 ft of rim														
<b>Peak Hour WWF</b>	<table border="1"> <thead> <tr> <th>Parallel Interceptor</th> <th>Existing Conditions (MGD)</th> <th>Buildout Conditions (MGD)</th> </tr> </thead> <tbody> <tr> <td>Old 30-IN (1970's)</td> <td>2.3</td> <td>3.2</td> </tr> <tr> <td>New 42-IN (1990's)</td> <td>12.3</td> <td>17.5</td> </tr> <tr> <td>Total</td> <td>14.6</td> <td>20.6</td> </tr> </tbody> </table>			Parallel Interceptor	Existing Conditions (MGD)	Buildout Conditions (MGD)	Old 30-IN (1970's)	2.3	3.2	New 42-IN (1990's)	12.3	17.5	Total	14.6	20.6
Parallel Interceptor	Existing Conditions (MGD)	Buildout Conditions (MGD)													
Old 30-IN (1970's)	2.3	3.2													
New 42-IN (1990's)	12.3	17.5													
Total	14.6	20.6													
<b>Accessibility:</b>	Big Dry Creek Corridor; crosses Arterial Roads (W 120 <sup>th</sup> Ave)														

<b>Location:</b>	<b>Big Dry Creek Interceptor – Big Dry Creek open space from Westfield Village Park Siphon to The Ranch tributary line at W 120<sup>th</sup> Ave and Federal Parkway</b>
<b>Comments:</b>	<ul style="list-style-type: none"> <li>• The majority of pipe segments in poor condition are located in the old 30-IN line (constructed 1970's) that will be lined as part of the initial improvements</li> <li>• Pipe connectivity was fixed in GIS during survey, from Bradburn siphon downstream to Diversion Structure 2 there may be condition data errors. Figures show poor condition main on new line that should be the old line, the condition summary above assumes the spatial data is incorrect.</li> <li>• The new trunk line constructed in the 1990's crosses the old trunk line constructed in the 1970's at multiple locations</li> <li>• Optimization of diversion structures to fully utilize capacity in both parallel trunk lines eliminates the capacity issues identified in Figure 1, except for the limitation caused by, and located just upstream of, Diversion 2.</li> <li>• Approximately 300-FT of Truss Pipe material at Diversion Structure 2 is in poor condition and will be abandoned as part of improvements in PA3</li> </ul>

A number of alternatives were developed and evaluated. Based on the weighted scoring of non-economic criteria, the preliminary project cost estimate, and subsequent discussions with City Operations staff, the recommended alternative for Project Area 3 is to abandon the 300-FT of truss pipe and make the diversion structure a flow through. Please see Figure 5 for the recommended improvements. The preliminary cost estimate for the recommended alternative is \$333,000.



Figure 5. Project Area 3 – Recommended Alternative – Abandon 300-FT of Truss Pipe

### 5.3 Project Area 9

Project Area 9 is along the Big Dry Creek Interceptor Sewer (BDCIS) from the intersection of Yarrow Ct and 99<sup>th</sup> Avenue west to a point near the intersection of Independence Way and 97<sup>th</sup> Ave. This section of the BDCIS is approximately 5,800-FT in length, ranges from 12-IN to 21-IN in diameter, and is composed of concrete (CP), reinforced concrete (RCP), and polyvinyl chloride (PVC) pipe materials. Table 9 provides a summary of the project area.

**Table 9. Project Area Characterization – Project Area 9**

<b>Location:</b>	<b>Big Dry Creek Interceptor – Big Dry Creek open space from Yarrow St west to Lukas Elementary at the intersection of Independence Way and 97<sup>th</sup> Ave</b>
<b>Limitation Summary:</b>	<p>Project Driver: Capacity and Condition</p> <p>This project area consists of 5,800-FT of gravity main and has both capacity limitations and sections of pipeline in poor condition.</p> <p>The majority of the project area has condition scores of 3 or greater. Capacity limitations occur under both existing and buildout conditions in this area due to negative slope pipes.</p>
<b>Diameter Range:</b>	12-IN to 21-IN
<b>Material Types:</b>	RCP, CP, PVC
<b>Condition Score (Average):</b>	3.6: 22 pipes with PACP score of 3 or greater (4,140-FT)
<b>Install/Rehab Date:</b>	<p>Install: 1972 / 1973 / 1976 / 1978 / 1984 / 1988</p> <p>Rehab: 490-FT lined since 2009</p>
<b>Limitation Extent (Existing):</b>	20-FT: 20-FT exceeds capacity, 0-FT under backwater conditions
<b>Limitation Extent (Buildout):</b>	20-FT: 20-FT exceeds capacity, 0-FT under backwater conditions
<b>Manhole Surcharging (Existing):</b>	1 manhole surcharges within 6 – 8 ft. of rim
<b>Manhole Surcharging (Buildout):</b>	1 manhole surcharges within 6 – 8 ft. of rim
<b>Peak Hour WWF</b>	<p>Existing Conditions: 1.5 MGD</p> <p>Buildout Conditions: 1.9 MGD</p>
<b>Accessibility:</b>	Local and arterial roads (Wadsworth Pkwy, W 99 <sup>th</sup> Ave, W 98 <sup>th</sup> Ave, W 98 <sup>th</sup> Pl, W 97 <sup>th</sup> Ave), BNSF Railroad Crossing
<b>Comments:</b>	<ul style="list-style-type: none"> <li>• There is one negative slope pipe that contributes to backwater conditions at the most downstream end of the project area <ul style="list-style-type: none"> <li>○ This negative slope pipe is directly upstream of a diversion structure. The average slope of the three segments (1,020-FT) immediately upstream of the negative slope pipe is 0.004 ft./ft.</li> </ul> </li> <li>• The capacity limitation at 99<sup>th</sup> and Yarrow has an elevated SSO risk due to shallow manholes</li> </ul>

A number of alternatives were developed and evaluated. The recommended alternative for Project Area 9 includes replacing the existing 12-IN pipe with 21-IN pipe, flow fill and abandon the parallel line, and potentially add a sidewalk for access to the school. Please see Figure 6 for the recommended improvements. The preliminary cost estimate for the recommended alternative is \$652,000.





Figure 6. Project Area 9 Recommended Improvements



## 5.4 Project Areas 1, 4, 5, 6, 7, 8, 9, 10 and 11

Project Areas 1, 4, 5, 6, 7, 8, 9, 10 and 11 all have condition related issues. This improvement will address all the condition related issues as a single project.

**Table 10. Project Area Characterization – BDCIS Project Area 3**

<b>Location:</b>	Big Dry Creek Interceptor – Big Dry Creek open space from Westfield Village Park Siphon to The Ranch tributary line at W 120 <sup>th</sup> Ave and Federal Parkway
<b>Limitation Summary:</b>	Project Driver: Condition This project area consists of pipeline in poor condition.
<b>Diameter Range:</b>	10-IN to 42-IN
<b>Material Types:</b>	RCP
<b>Condition Score (Average):</b>	3 or higher
<b>Accessibility:</b>	Big Dry Creek Corridor; Arterial Roads
<b>Comments:</b>	<ul style="list-style-type: none"> <li>• PA 1: 3,448 LF of 30" Pipe</li> <li>• PA 4: 7,458 LF of 42" Pipe</li> <li>• PA 5: 2,279 LF of 36" Pipe; 370 LF of 27" Pipe; 735 LF of 24" Pipe</li> <li>• PA 6: 3,727 LF of 30" Pipe; 100 LF of 8" Pipe; 100 LF of 10" Pipe</li> <li>• PA 7: 175 LF of 21" Pipe; 750 LF of 18" Pipe; 20 LF of 12" Pipe</li> <li>• PA 8: 4,931 LF of 24" Pipe; 1,132 LF of 21" Pipe; 1,918 LF of 18" Pipe; 4,041 LF of 15" Pipe</li> <li>• PA 9: 3,207 LF of 21" Pipe; 2,045 LF of 18" Pipe; 735 LF of 15" Pipe</li> <li>• PA 10: 2,651 LF of 18" Pipe; 824 LF of 15" Pipe</li> <li>• PA 11: 2,531 LF of 15" Pipe; 532 LF of 12" Pipe; 100 LF of 10" Pipe; 100 LF of 8" Pipe</li> </ul>

Various rehabilitation methods are available to effectively repair structural deficiencies in poor condition sewer pipelines including:

- Sliplining
- Cured-In-Place Pipe (CIPP)
- Pipe Bursting
- Crown Spray
- Open-Cut Removal and Replacement
- Point Repairs

Based on evaluation factors such as durability, hydraulic impact, strength, performance history, cost, product availability, and availability of competitive contractors, CIPP was the recommended rehabilitation method. The City has used this technology successfully in the past and prefers this method. For pipeline rehabilitation, below is a summary of the benefits.

- **Durability:** CIPP is essentially a new pipe within the existing pipe, and can be designed to be structurally independent of the host pipe or partially rely on the host pipe structurally.
- **Hydraulic Impact:** The CIPP liner provides a smooth interior wall surface which reduces the coefficient of friction. CIPP only causes a minimal reduction in cross-sectional pipe area and hydraulic capacity.
- **Strength:** CIPP can restore the structural integrity of the existing pipe, if necessary. The typical flexural strength of CIPP is 4,500 psi. The standard resin typically has a modulus of elasticity of 300,000 psi.
- **Performance History:** CIPP has been used worldwide for pipeline rehabilitations for over 40 years. The City has also conducted CIPP rehabilitation and has had positive results.
- **Cost:** CIPP is typically less expensive than other rehabilitation methods, since it is a trenchless method in which excavations are seldom necessary. The installation is also typically faster than the other rehabilitation methods which reduces costs for traffic control, surface restoration, and bypass pumping.

Based on conditions of the pipeline after cleaning, there may be areas where point repairs are required. Final determination will be made once each segment has been jet cleaned and CCTV'd. Please see Figure 7 for the recommended improvements. The preliminary cost estimate for the recommended alternative is \$18,150,000.



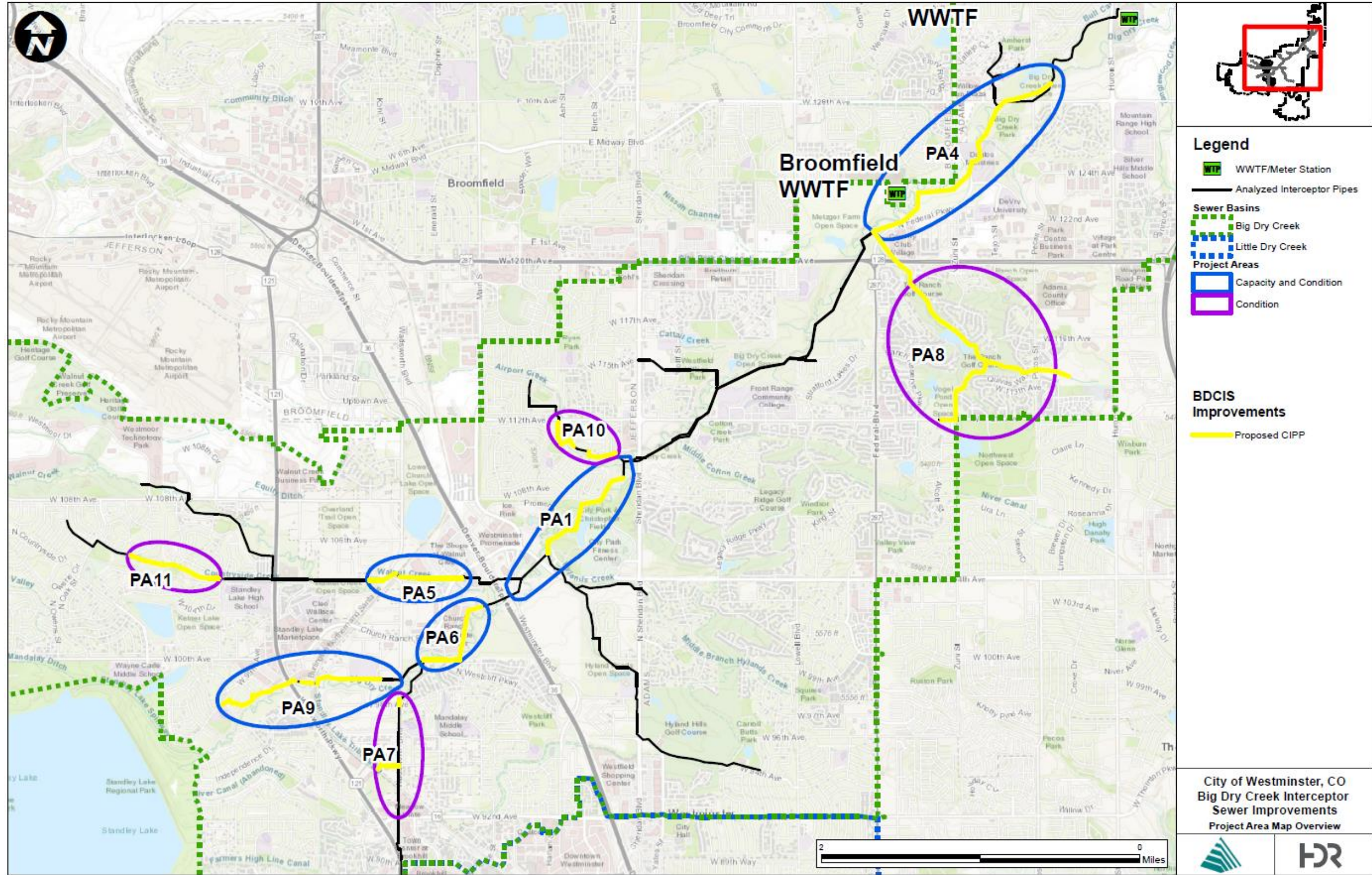


Figure 7. Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11 – Recommended Alternative – CIPP



## 5.5 Permanent Flow Monitoring

The goal of permanent flow monitoring is to install flow meters in the BDCIS so as to identify areas of high I/I and locate capacity issues in the sewer collection system. The flow meters will capture data from both dry-weather and wet-weather periods on an annual basis to monitor capacity and I/I in the BDC system. The data will be used to be better understand capacity limitations in the existing system for design of future interceptors and lift stations. For budgetary purposes, it is assumed that twenty flow meters will be installed throughout the basin. Final locations will be determined during final design. The City is also planning on installing flow meters in the LDC basin. It is likely that the type of equipment selected for use in the LDCIS will also be used for the BDCIS. The preliminary cost estimate for the recommended alternative is \$482,000.

## 5.6 BDCIS Problem Characterization and Alternatives Recommendations

Table 11 provides a summary of the project areas, the recommended improvement and the estimated cost.

**Table 11. Project Area Improvement Summary**

Project Area	Recommended Improvement	Estimated Cost
Project Area 1	New parallel 30-IN sewerline; Existing 30-IN sewerline relocation; 42-IN raw waterline relocation	\$14,506,000
Project Area 3	Abandon truss pipe	\$333,000
Project Area 9	Replace parallel 8-IN/12-IN with 21-IN	\$652,000
Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11	CIPP lining of the following: <ul style="list-style-type: none"> <li>• PA 1: 3,448 LF of 30" Pipe</li> <li>• PA 4: 7,458 LF of 42" Pipe</li> <li>• PA 5: 2,279 LF of 36" Pipe; 370 LF of 27" Pipe; 735 LF of 24" Pipe</li> <li>• PA 6: 3,727 LF of 30" Pipe; 100 LF of 8" Pipe; 100 LF of 10" Pipe</li> <li>• PA 7: 175 LF of 21" Pipe; 750 LF of 18" Pipe; 20 LF of 12" Pipe</li> <li>• PA 8: 4,931 LF of 24" Pipe; 1,132 LF of 21" Pipe; 1,918 LF of 18" Pipe; 4,041 LF of 15" Pipe</li> <li>• PA 9: 3,207 LF of 21" Pipe; 2,045 LF of 18" Pipe; 735 LF of 15" Pipe</li> <li>• PA 10: 2,651 LF of 18" Pipe; 824 LF of 15" Pipe</li> <li>• PA 11: 2,531 LF of 15" Pipe; 532 LF of 12" Pipe; 100 LF of 10" Pipe; 100 LF of 8" Pipe</li> </ul>	\$18,150,000
Flow Monitoring	Installation of approximately 20 flow monitors in the BDC Basin	\$482,000
<b>Total</b>		<b>\$34,123,000</b>

## 6 Environmental and Wetlands

The purpose of this section is to summarize the environmental and wetland considerations for the BDCIS Project Areas 1-4. The project areas are located along Big

Dry Creek which converges with the South Platte River approximately 17 aerial miles northeast.

## 6.1 Wetland Delineation

On March 11 and 12, 2019, HDR conducted a delineation of potential waters of the U.S. (WOTUS) in support of the requirements for Section 404 of the Clean Water Act for Project Area 1. A desktop analysis was completed for the other project areas that included National Wetlands Inventory data (USFWS 2019a) and soils data (NRCS 2019a and 2019b). A summary of the results from the delineation can be found in the full master plan under separate cover.

## 6.2 Recommendations and Permitting

A Section 404 permit would be required for the placement of fill or dredged material below the ordinary high water mark of Big Dry Creek, its tributaries and abutting wetlands. Construction of the new Project Area 1 sewer line will require crossing Big Dry Creek or adjacent tributaries at six locations. The sewer line will be installed with open cut and trenching methods that may require the excavation of trenches in the creek channel and/or in wetlands. Directional trenching/boring will be employed where feasible to avoid impacts to Waters of the U.S. and wetlands. Open trenching of the sewer line would result in temporary impacts to waters of the U.S., including wetlands. No permanent impacts on any waters of the U.S., including wetlands would occur with the project area.

As currently preliminarily designed (Project Area 1), the proposed work would likely be authorized under a Nationwide Permit (NWP) 12 for Utility Line Activities which covers utility projects that would not result in the loss of more than 0.50 acre of waters of the U.S. or 300 linear feet of stream channel. The proposed project would comply with all applicable Nationwide Permit General and Colorado Regional conditions. No compensatory mitigation will be required because there are no permanent impacts expected. If impacts to wetlands or WOUS result in permanent impacts that are over a 0.1 acre compensatory mitigation would be required.

## 6.3 Threatened and Endangered Species

Based on the U.S. Fish and Wildlife Service (USFWS) online Information, Planning, and Conservation System (IPaC) (USFWS 2019b), there are 10 federally listed species with the potential to occur in the project vicinity. Based on the general habitat reconnaissance/site visit conducted by HDR in March 2019 there is no suitable habitat for federally-listed species in the project area. Therefore, the proposed projects would have no effect to federally-listed species.

# 7 Recommendation Summary

This section summarizes the near term improvements recommended for implementation as part of the BDCIS Improvements Final Design Project.

## 7.1 BDCIS Improvements

Following is a summary of the recommended improvements for each Project Area.

### 7.1.1 Project Area 1

Project Area 1 is along the Big Dry Creek Interceptor Sewer (BDCIS) generally between Sheridan Boulevard and 104<sup>th</sup> Avenue, near the Butterfly Pavilion. This reach of the BDCIS is a single 30-IN diameter pipeline with a total length of 6,190-FT. Sewer system modeling has identified capacity restrictions under existing and future condition loading. Previous master planning effort have also identified poor condition pipe in this reach.

The recommended alternative includes constructing a new parallel interceptor generally following the existing 30-IN interceptor to the North. The preliminary cost estimate for the recommended alternative is \$14,506,000.

### 7.1.2 Project Area 3

Project Area 3 is along the Big Dry Creek Interceptor Sewer (BDCIS) in the Big Dry Creek open space, generally between the Westfield Village Park Siphon and The Ranch tributary interceptor at W 120<sup>th</sup> Avenue and Federal Parkway. This reach of the BDCIS is a parallel interceptor, consisting of a 30-IN diameter pipeline and a 30/42-IN diameter pipeline, with a total length of 16,800-FT. Sewer system modeling has identified capacity restrictions under existing and future condition loading. Previous master planning effort have also identified poor condition pipe in this reach, particularly in the older 30-IN line, which is being resolved via ongoing lining efforts.

The recommended alternative abandonment of approximately 300-FT of truss pipe and converting the Diversion Structure to a flow through structure. The preliminary cost estimate for the recommended alternative is \$333,000.

### 7.1.3 Project Area 9

Project Area 9 is along the Big Dry Creek Interceptor Sewer (BDCIS) from the intersection of Yarrow Ct and 99<sup>th</sup> Avenue west to a point near the intersection of Independence Way and 97<sup>th</sup> Ave. This section of the BDCIS is approximately 5,800-FT in length, ranges from 12-IN to 21-IN in diameter, and is composed of concrete (CP), reinforced concrete (RCP), and polyvinyl chloride (PVC) pipe materials.

The recommended alternative includes replacing 12-IN pie with 21-IN pipe. The preliminary cost estimate for the recommended alternative is \$652,000.

### 7.1.4 Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11

As noted previously, Project Area 1 is along the Big Dry Creek Interceptor Sewer (BDCIS) generally between Sheridan Boulevard and 104<sup>th</sup> Avenue, near the Butterfly Pavilion. This reach of the BDCIS is a single 30-IN diameter pipeline with a total length of 6,190-FT and poor condition pipe.

Project Area 4 is along the Big Dry Creek Interceptor Sewer (BDCIS) in the Big Dry Creek open space, from north of W 120<sup>th</sup> Ave extending to Bull Reservoir just north of W 128<sup>th</sup> Ave. This reach of the BDCIS is a parallel interceptor, consisting of a 30-IN diameter pipeline and a 42-IN diameter pipeline, with a total length just over 18,000-FT. Previous master planning effort have also identified poor condition pipe in this reach.

Project Area 5 is along the Walnut Creek Interceptor Sewer (WCIS) from near where it intersects Reed Street to a point approximately 1,000-FT west of the intersection of Wadsworth Avenue and the Burlington Northern Santa Fe railroad. This section of the WCIS is approximately 3,520-FT in length, ranges from 24-IN to 36-IN in diameter, and is a mixture of reinforced concrete (RCP), polyvinyl chloride (PVC), and vitrified clay pipe (VCP) materials.

Project Area 6 is along the Big Dry Creek Interceptor Sewer (BDCIS) along the Big Dry Creek open space from Highway 36 to Teller Court. This section of the BDCIS is approximately 3,250-FT in length, is 30-IN in diameter, and is composed entirely reinforced concrete pipe (RCP) in poor condition.

Project Area 7 is along the Big Dry Creek Interceptor Sewer (BDCIS) in Wadsworth Avenue from 92<sup>nd</sup> Ave to 98<sup>th</sup> Ave. This section of the BDCIS is approximately 4,760-FT in length, 18-IN and 21-IN in diameter, and is composed of concrete (CP) and poly vinyl chloride (PVC) pipe in poor condition.

Project Area 8 is in The Ranch at 120<sup>th</sup> and Federal. This section of the BDCIS is approximately 12,000-FT in length, 24-IN, 21-IN, 18-IN, and 15-IN in diameter, and is composed of mainly concrete pipe in poor condition.

Project Area 9 is along the Big Dry Creek Interceptor Sewer (BDCIS) from the intersection of Yarrow Ct and 99<sup>th</sup> Avenue west to a point near the intersection of Independence Way and 97<sup>th</sup> Ave. This section of the BDCIS is approximately 5,800-FT in length, ranges from 12-IN to 21-IN in diameter, and is composed of concrete (CP), reinforced concrete (RCP), and polyvinyl chloride (PVC) pipe materials in poor condition.

Project Area 10 is along the Airport Creek Interceptor Sewer (ACIS) from where it intersects 112<sup>th</sup> Avenue to a point approximately 300 feet east of the intersection of Chase Street and 110<sup>th</sup> Avenue. This section of the ACIS is approximately 3,070-FT in length, ranges from 15-IN to 18-IN in diameter, and is vitrified clay pipe (VCP) in poor condition.

Project Area 11 is along the Countryside Creek Interceptor in the Countryside Creek open space between 104<sup>th</sup> Avenue and 106<sup>th</sup> Avenue. This section of the BDCIS is approximately 3,060-FT in length, is 12-IN and 15-IN in diameter, and is composed entirely of vitrified clay pipe (VCP) in poor condition.

The recommended alternative includes CIPP lining of pipe segments in poor condition with a preliminary cost estimate of \$18,150,000.



### 7.1.5 Flow Monitoring

As noted previously, permanent flow monitors will be installed in the BDCIS so as to identify areas of high I/I and locate capacity issues in the sewer collection system. The flow meters will capture data from both dry-weather and wet-weather periods on an annual basis to monitor capacity and I/I in the BDC system. The preliminary cost estimate for the recommended alternative is \$482,000.

### 7.1.6 Project Summary

The BDCIS overall summary of recommended improvements is provided in Table 12.

**Table 12. BDCIS Summary of Improvements and Cost**

Project Area	Recommended Improvement	Estimated Cost
Project Area 1	New parallel 30-IN sewerline; Existing 30-IN sewerline relocation; 42-IN raw waterline relocation	\$14,506,000
Project Area 3	Abandon truss pipe	\$333,000
Project Area 9	Replace parallel 8-IN/12-IN with 21-IN	\$652,000
Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11	CIPP lining of the following: <ul style="list-style-type: none"> <li>• PA 1: 3,448 LF of 30" Pipe</li> <li>• PA 4: 7,458 LF of 42" Pipe</li> <li>• PA 5: 2,279 LF of 36" Pipe; 370 LF of 27" Pipe; 735 LF of 24" Pipe</li> <li>• PA 6: 3,727 LF of 30" Pipe; 100 LF of 8" Pipe; 100 LF of 10" Pipe</li> <li>• PA 7: 175 LF of 21" Pipe; 750 LF of 18" Pipe; 20 LF of 12" Pipe</li> <li>• PA 8:</li> <li>• PA 9: 3,207 LF of 21" Pipe; 2,045 LF of 18" Pipe; 735 LF of 15" Pipe</li> <li>• PA 10: 2,651 LF of 18" Pipe; 824 LF of 15" Pipe</li> <li>• PA 11: 2,531 LF of 15" Pipe; 532 LF of 12" Pipe; 100 LF of 10" Pipe; 100 LF of 8" Pipe</li> </ul>	\$18,150,000
Flow Monitoring	Installation of approximately 20 flow monitors in the BDC Basin	\$482,000
<b>Total</b>		<b>\$34,123,000</b>

Appendix C.  
Environmental Data Resources Radius Map with  
GeoCheck Reports

**Westminster Project #1**

Westminster

Broomfield, CO 80020

Inquiry Number: 5926947.2s

January 07, 2020

# The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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***Thank you for your business.***  
 Please contact EDR at 1-800-352-0050  
 with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### TARGET PROPERTY INFORMATION

#### ADDRESS

WESTMINSTER  
BROOMFIELD, CO 80020

#### COORDINATES

Latitude (North): 39.8893880 - 39° 53' 21.79"  
Longitude (West): 105.0604030 - 105° 3' 37.45"  
Universal Transverse Mercator: Zone 13  
UTM X (Meters): 494835.6  
UTM Y (Meters): 4415272.5  
Elevation: 5277 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5958934 LAFAYETTE, CO  
Version Date: 2013  
  
South Map: 5958882 ARVADA, CO  
Version Date: 2013

### AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20150912  
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:  
 WESTMINSTER  
 BROOMFIELD, CO 80020

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
<a href="#">A1</a>	BRIAL INC DBA MAJEST	11187 SHERIDAN BLVD	RCRA NonGen / NLR, US AIRS	Higher	1 ft.
<a href="#">A2</a>	MAJESTIC CLEANERS &	11187 SHERIDAN BLVD	EDR Hist Cleaner	Higher	1 ft.
<a href="#">B3</a>	WESTMINSTER CITY PAR	10495 SHERIDAN BLVD	AST	Higher	1 ft.
<a href="#">B4</a>	CITY OF WESTMINSTER	10495 SHERIDAN AVE	RCRA-VSQG	Higher	1 ft.
<a href="#">A5</a>	BRIAL INC. DBA MAJES	11187 SHERIDAN BLVD	AIRS, DRYCLEANERS	Lower	122, 0.023, NNE
<a href="#">C6</a>	CIRCLE K STORE #2741	5390 W 112TH AVE	LTANKS, LUST, UST	Higher	239, 0.045, NNE
<a href="#">C7</a>	CIRCLE K STORE #2741	5390 W 112TH AVE	LUST TRUST, AIRS	Higher	239, 0.045, NNE
<a href="#">C8</a>	ULTRAMAR DIAMOND SHA	5390 W 112TH AVE	EDR Hist Auto	Higher	239, 0.045, NNE
<a href="#">9</a>	SCL HEALTH COMMUNITY	6500 W 104TH AVE	RCRA NonGen / NLR	Higher	309, 0.059, WSW
<a href="#">10</a>	MAJESTIC CLEANERS &	5191 W 112TH AVE	EDR Hist Cleaner	Lower	391, 0.074, NNE
<a href="#">11</a>	WESTMINSTER ED	11230 BENTON ST	AST	Higher	458, 0.087, NNE
<a href="#">D12</a>	7-ELEVEN #35357	5190 W 113TH AVE	LTANKS, LUST, UST	Lower	645, 0.122, NNE
<a href="#">D13</a>	CONOCO	5190 W 113TH AVE	EDR Hist Auto	Lower	645, 0.122, NNE
<a href="#">14</a>	MERCEDES-BENZ OF WES	10291 WESTMINSTER BL	AST	Higher	704, 0.133, SW
<a href="#">15</a>	HEWIT HAWN JOINT VEN	10480 SHERIDAN BLVD	LTANKS	Higher	882, 0.167, ESE
<a href="#">16</a>	ANDERSON AMOCO FOOD	7007 CHURCH RANCH BL	LTANKS, LUST, UST	Higher	2138, 0.405, WSW
<a href="#">17</a>	TEN EYCK PROPERTY	108TH AVE & FEDERAL	CORRACTS, RCRA NonGen / NLR, FINDS, ECHO	Higher	2940, 0.557, WNW

# EXECUTIVE SUMMARY

## TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

## DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

## STANDARD ENVIRONMENTAL RECORDS

### ***Federal NPL site list***

NPL..... National Priority List  
Proposed NPL..... Proposed National Priority List Sites  
NPL LIENS..... Federal Superfund Liens

### ***Federal Delisted NPL site list***

Delisted NPL..... National Priority List Deletions

### ***Federal CERCLIS list***

FEDERAL FACILITY..... Federal Facility Site Information listing  
SEMS..... Superfund Enterprise Management System

### ***Federal CERCLIS NFRAP site list***

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

### ***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

### ***Federal RCRA generators list***

RCRA-LQG..... RCRA - Large Quantity Generators  
RCRA-SQG..... RCRA - Small Quantity Generators

### ***Federal institutional controls / engineering controls registries***

LUCIS..... Land Use Control Information System  
US ENG CONTROLS..... Engineering Controls Sites List  
US INST CONTROL..... Sites with Institutional Controls

### ***Federal ERNS list***

ERNS..... Emergency Response Notification System

## EXECUTIVE SUMMARY

### **State- and tribal - equivalent CERCLIS**

SHWS..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

### **State and tribal landfill and/or solid waste disposal site lists**

SWF/LF..... Solid Waste Sites & Facilities

### **State and tribal leaking storage tank lists**

LAST..... Leaking Aboveground Storage Tank Listing  
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

### **State and tribal registered storage tank lists**

FEMA UST..... Underground Storage Tank Listing  
INDIAN UST..... Underground Storage Tanks on Indian Land

### **State and tribal institutional control / engineering control registries**

AUL..... Environmental Covenants and Environmental Use Restrictions List

### **State and tribal voluntary cleanup sites**

VCP..... Voluntary Cleanup & Redevelopment Act Application Tracking Report  
INDIAN VCP..... Voluntary Cleanup Priority Listing

### **State and tribal Brownfields sites**

BROWNFIELDS..... Brownfields Sites Listing

### **ADDITIONAL ENVIRONMENTAL RECORDS**

#### **Local Brownfield lists**

US BROWNFIELDS..... A Listing of Brownfields Sites

#### **Local Lists of Landfill / Solid Waste Disposal Sites**

SWRCY..... Registered Recyclers Listing  
HIST LF..... Historical Landfill List  
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands  
ODI..... Open Dump Inventory  
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations  
IHS OPEN DUMPS..... Open Dumps on Indian Land  
DENVER CO HISTORIC FILL..... Denver City & County Historic Fill Areas

#### **Local Lists of Hazardous waste / Contaminated Sites**

US HIST CDL..... Delisted National Clandestine Laboratory Register  
CDL..... Meth Lab Locations  
US CDL..... National Clandestine Laboratory Register



## EXECUTIVE SUMMARY

### **Local Land Records**

LIENS 2..... CERCLA Lien Information

### **Records of Emergency Release Reports**

HMIRS..... Hazardous Materials Information Reporting System  
CO ERNS..... Spills Database  
SPILLS 90..... SPILLS 90 data from FirstSearch

### **Other Ascertainable Records**

FUDS..... Formerly Used Defense Sites  
DOD..... Department of Defense Sites  
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing  
US FIN ASSUR..... Financial Assurance Information  
EPA WATCH LIST..... EPA WATCH LIST  
2020 COR ACTION..... 2020 Corrective Action Program List  
TSCA..... Toxic Substances Control Act  
TRIS..... Toxic Chemical Release Inventory System  
SSTS..... Section 7 Tracking Systems  
ROD..... Records Of Decision  
RMP..... Risk Management Plans  
RAATS..... RCRA Administrative Action Tracking System  
PRP..... Potentially Responsible Parties  
PADS..... PCB Activity Database System  
ICIS..... Integrated Compliance Information System  
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)  
MLTS..... Material Licensing Tracking System  
COAL ASH DOE..... Steam-Electric Plant Operation Data  
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List  
PCB TRANSFORMER..... PCB Transformer Registration Database  
RADINFO..... Radiation Information Database  
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing  
DOT OPS..... Incident and Accident Data  
CONSENT..... Superfund (CERCLA) Consent Decrees  
INDIAN RESERV..... Indian Reservations  
FUSRAP..... Formerly Utilized Sites Remedial Action Program  
UMTRA..... Uranium Mill Tailings Sites  
LEAD SMELTERS..... Lead Smelter Sites  
US AIRS..... Aerometric Information Retrieval System Facility Subsystem  
US MINES..... Mines Master Index File  
ABANDONED MINES..... Abandoned Mines  
FINDS..... Facility Index System/Facility Registry System  
ECHO..... Enforcement & Compliance History Information  
DOCKET HWC..... Hazardous Waste Compliance Docket Listing  
UXO..... Unexploded Ordnance Sites  
FUELS PROGRAM..... EPA Fuels Program Registered Listing  
AIRS..... Permitted Facility & Emissions Listing  
ASBESTOS..... Asbestos Abatement & Demolition Projects  
METHANE SITE..... Methane Site Investigations - Jefferson County 1980  
Methane Investigation..... Methane Gas & Swamp Findings  
Financial Assurance..... Financial Assurance Information Listing

## EXECUTIVE SUMMARY

LEAD..... LEAD  
MINES..... Permitted Mines Listing  
NPDES..... Permitted Facility Listing  
UIC..... Underground Injection Control  
UMTRA..... Uranium Mill Tailings Sites  
MINES MRDS..... Mineral Resources Data System

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR MGP..... EDR Proprietary Manufactured Gas Plants

### EDR RECOVERED GOVERNMENT ARCHIVES

#### ***Exclusive Recovered Govt. Archives***

RGA LF..... Recovered Government Archive Solid Waste Facilities List  
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### STANDARD ENVIRONMENTAL RECORDS

#### ***Federal RCRA CORRACTS facilities list***

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 12/16/2019 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>TEN EYCK PROPERTY</i></b> EPA ID:: COR000007856	<b><i>108TH AVE &amp; FEDERAL</i></b>	<b><i>WNW 1/2 - 1 (0.557 mi.)</i></b>	<b><i>17</i></b>	<b><i>38</i></b>

## EXECUTIVE SUMMARY

### ***Federal RCRA generators list***

RCRA-VSQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-VSQG list, as provided by EDR, and dated 12/16/2019 has revealed that there is 1 RCRA-VSQG site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CITY OF WESTMINSTER EPA ID:: COR000214536	10495 SHERIDAN AVE	0 - 1/8 (0.000 mi.)	B4	13

### ***State and tribal leaking storage tank lists***

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Health's Leaking Underground Storage Tank List.

A review of the LUST list, as provided by EDR, and dated 03/01/2018 has revealed that there are 3 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CIRCLE K STORE #2741</b> Facility Id: 9487 Status: Closed	<b>5390 W 112TH AVE</b>	<b>NNE 0 - 1/8 (0.045 mi.)</b>	<b>C6</b>	<b>15</b>
<b>ANDERSON AMOCO FOOD</b> Facility Id: 6848 Status: Closed	<b>7007 CHURCH RANCH BL</b>	<b>WSW 1/4 - 1/2 (0.405 mi.)</b>	<b>16</b>	<b>36</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>7-ELEVEN #35357</b> Facility Id: 7121 Status: Closed	<b>5190 W 113TH AVE</b>	<b>NNE 0 - 1/8 (0.122 mi.)</b>	<b>D12</b>	<b>32</b>

LTANKS: Active and Closed OPS Petroleum Release Events in Colorado. Includes the OPS Open Event locations, but also shows locations of closed events (releases that have been issued a No Further Action determination).

A review of the LTANKS list, as provided by EDR, and dated 12/02/2019 has revealed that there are 4 LTANKS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CIRCLE K STORE #2741</b>	<b>5390 W 112TH AVE</b>	<b>NNE 0 - 1/8 (0.045 mi.)</b>	<b>C6</b>	<b>15</b>
HEWIT HAWN JOINT VEN	10480 SHERIDAN BLVD	ESE 1/8 - 1/4 (0.167 mi.)	15	36
<b>ANDERSON AMOCO FOOD</b>	<b>7007 CHURCH RANCH BL</b>	<b>WSW 1/4 - 1/2 (0.405 mi.)</b>	<b>16</b>	<b>36</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>7-ELEVEN #35357</b>	<b>5190 W 113TH AVE</b>	<b>NNE 0 - 1/8 (0.122 mi.)</b>	<b>D12</b>	<b>32</b>

## EXECUTIVE SUMMARY

LUST TRUST: Reimbursement application package. The 1989 Colorado General Assembly established Colorado's Petroleum Storage Tank Fund. The Fund reimburses eligible applicants for allowable costs incurred in cleaning up petroleum contamination from underground and aboveground petroleum storage tanks, as well as for third-party liability expenses. Remediation of contamination caused by railroad or aircraft fuel is not eligible for reimbursement. The Fund satisfies federal Environmental Protection Agency financial assurance requirements. Monies in the Fund come from various sources, predominantly the state environmental surcharge imposed on all petroleum products except railroad or aircraft fuel.

A review of the LUST TRUST list, as provided by EDR, and dated 02/28/2019 has revealed that there is 1 LUST TRUST site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CIRCLE K STORE #2741</b> Facility Id: 9487	<b>5390 W 112TH AVE</b>	<b>NNE 0 - 1/8 (0.045 mi.)</b>	<b>C7</b>	<b>18</b>

### **State and tribal registered storage tank lists**

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The source is the State Oil Inspector's Office's Tank List.

A review of the UST list, as provided by EDR, and dated 12/02/2019 has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CIRCLE K STORE #2741</b> Facility Id: 9487 Tank Status: Currently In Use Tank Tag/Tank Status: 9487-2 Tank Tag/Tank Status: 9487-3 Tank Tag/Tank Status: 9487-1	<b>5390 W 112TH AVE</b>	<b>NNE 0 - 1/8 (0.045 mi.)</b>	<b>C6</b>	<b>15</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>7-ELEVEN #35357</b> Facility Id: 7121 Tank Status: Currently In Use Tank Tag/Tank Status: 7121-2 Tank Tag/Tank Status: 7121-1	<b>5190 W 113TH AVE</b>	<b>NNE 0 - 1/8 (0.122 mi.)</b>	<b>D12</b>	<b>32</b>

AST: The Aboveground Storage Tank database contains registered ASTs. The source is the State Oil Inspector's Office's Tank List.

A review of the AST list, as provided by EDR, and dated 12/02/2019 has revealed that there are 3 AST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WESTMINSTER CITY PAR Tank Status: Currently In Use Facility Id: 18135	10495 SHERIDAN BLVD	0 - 1/8 (0.000 mi.)	B3	12
WESTMINSTER ED	11230 BENTON ST	NNE 0 - 1/8 (0.087 mi.)	11	31



## EXECUTIVE SUMMARY

Tank Status: Currently In Use  
Facility Id: 19629

MERCEDES-BENZ OF WES                      10291 WESTMINSTER BL      SW 1/8 - 1/4 (0.133 mi.)      14      35  
Tank Status: Currently In Use  
Facility Id: 20030

### ADDITIONAL ENVIRONMENTAL RECORDS

#### ***Other Ascertainable Records***

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/16/2019 has revealed that there are 2 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>BRIAL INC DBA MAJEST</b> EPA ID:: COR000012344	<b>11187 SHERIDAN BLVD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A1</b>	<b>8</b>
SCL HEALTH COMMUNITY EPA ID:: COR000246215	6500 W 104TH AVE	WSW 0 - 1/8 (0.059 mi.)	9	30

DRYCLEANERS: A list of drycleaner facilities.

A review of the DRYCLEANERS list, as provided by EDR, and dated 12/02/2019 has revealed that there is 1 DRYCLEANERS site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>BRIAL INC. DBA MAJES</b> Facility Id: 059-1228	<b>11187 SHERIDAN BLVD</b>	<b>NNE 0 - 1/8 (0.023 mi.)</b>	<b>A5</b>	<b>14</b>

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk

## EXECUTIVE SUMMARY

Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 2 EDR Hist Auto sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ULTRAMAR DIAMOND SHA	5390 W 112TH AVE	NNE 0 - 1/8 (0.045 mi.)	C8	29

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CONOCO	5190 W 113TH AVE	NNE 0 - 1/8 (0.122 mi.)	D13	34

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 2 EDR Hist Cleaner sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MAJESTIC CLEANERS &	11187 SHERIDAN BLVD	0 - 1/8 (0.000 mi.)	A2	11

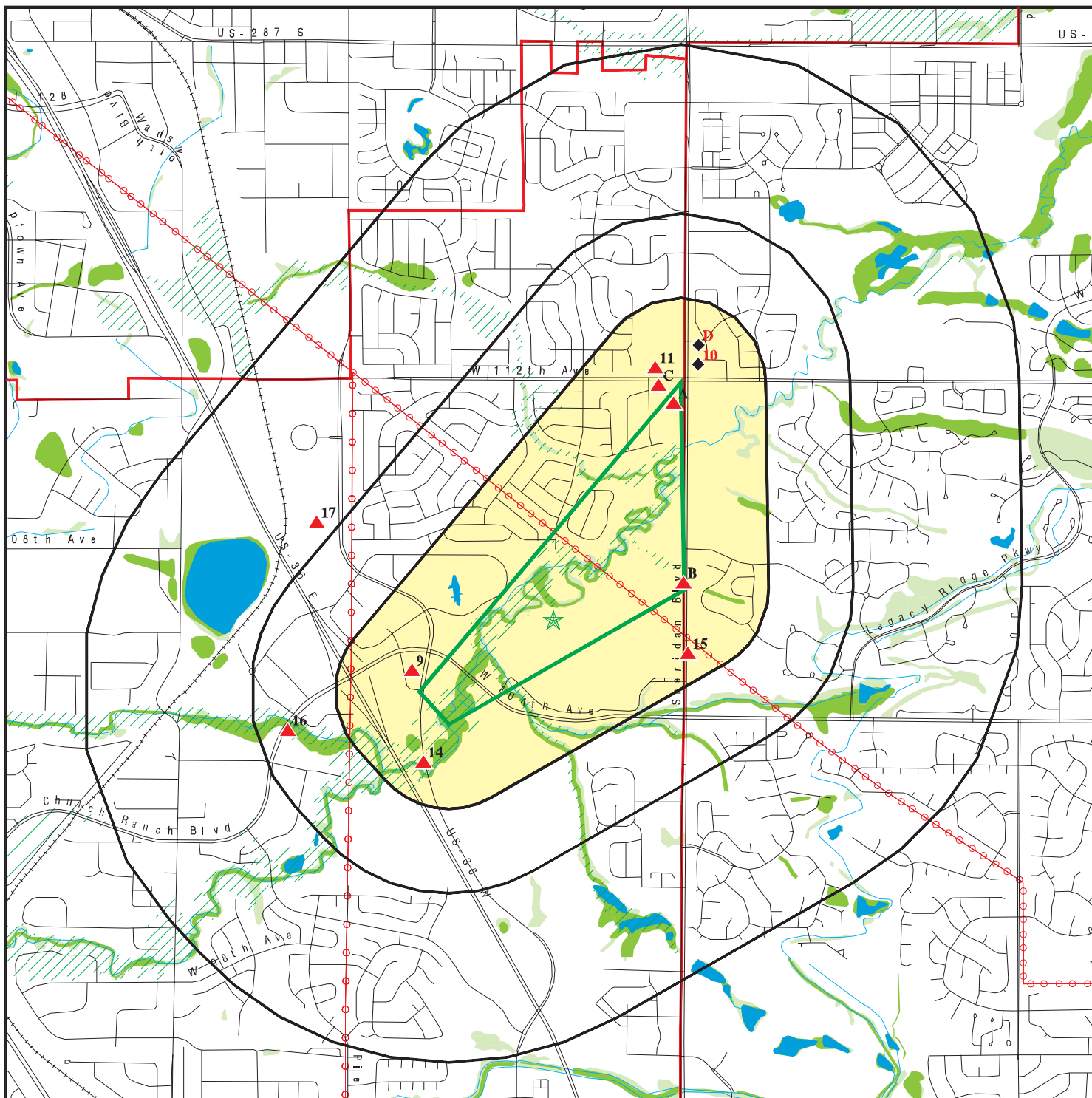
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MAJESTIC CLEANERS &	5191 W 112TH AVE	NNE 0 - 1/8 (0.074 mi.)	10	31

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

<u>Site Name</u>	<u>Database(s)</u>
VILLAGE HOMES II	VCP
VILLAGE HOMES	VCP
SHOENBURG FARM - LOT 2 - NAD	VCP

# OVERVIEW MAP - 5926947.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

County Boundary

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

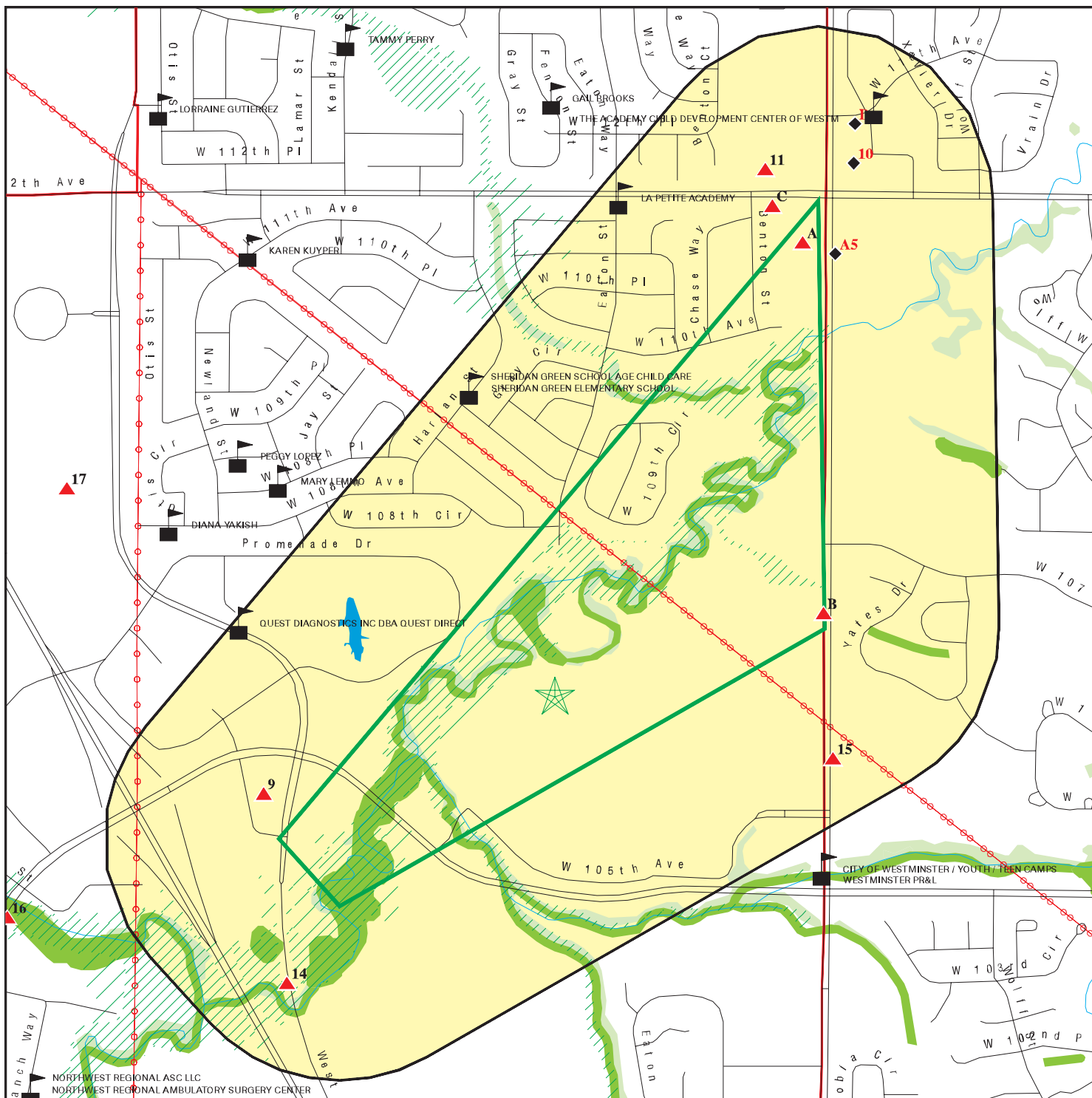
This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Westminster Project #1  
 ADDRESS: Westminster  
 Broomfield CO 80020  
 LAT/LONG: 39.889388 / 105.060403

CLIENT: HDR  
 CONTACT: Todd Wickert  
 INQUIRY #: 5926947.2s  
 DATE: January 07, 2020 4:17 pm



# DETAIL MAP - 5926947.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  County Boundary
-  Power transmission lines
-  Special Flood Hazard Area (1%)
-  0.2% Annual Chance Flood Hazard
-  National Wetland Inventory
-  State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

<p>SITE NAME: Westminster Project #1                  ADDRESS: Westminster                  Broomfield CO 80020                  LAT/LONG: 39.889388 / 105.060403</p>	<p>CLIENT: HDR                  CONTACT: Todd Wickert                  INQUIRY #: 5926947.2s                  DATE: January 07, 2020 4:17 pm</p>
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## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>STANDARD ENVIRONMENTAL RECORDS</b>								
<b><i>Federal NPL site list</i></b>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<b><i>Federal Delisted NPL site list</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Federal CERCLIS list</i></b>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<b><i>Federal CERCLIS NFRAP site list</i></b>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA CORRACTS facilities list</i></b>								
CORRACTS	1.000		0	0	0	1	NR	1
<b><i>Federal RCRA non-CORRACTS TSD facilities list</i></b>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA generators list</i></b>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		1	0	NR	NR	NR	1
<b><i>Federal institutional controls / engineering controls registries</i></b>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	TP		NR	NR	NR	NR	NR	0
<b><i>State- and tribal - equivalent CERCLIS</i></b>								
SHWS	N/A		N/A	N/A	N/A	N/A	N/A	N/A
<b><i>State and tribal landfill and/or solid waste disposal site lists</i></b>								
SWF/LF	0.500		0	0	0	NR	NR	0
<b><i>State and tribal leaking storage tank lists</i></b>								
LUST	0.500		2	0	1	NR	NR	3
LTANKS	0.500		2	1	1	NR	NR	4
LAST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LUST TRUST	0.500		1	0	0	NR	NR	1
<b>State and tribal registered storage tank lists</b>								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		2	0	NR	NR	NR	2
AST	0.250		2	1	NR	NR	NR	3
INDIAN UST	0.250		0	0	NR	NR	NR	0
<b>State and tribal institutional control / engineering control registries</b>								
AUL	0.500		0	0	0	NR	NR	0
<b>State and tribal voluntary cleanup sites</b>								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
<b>State and tribal Brownfields sites</b>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>ADDITIONAL ENVIRONMENTAL RECORDS</b>								
<b>Local Brownfield lists</b>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Landfill / Solid Waste Disposal Sites</b>								
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
DENVER CO HISTORIC FILL	0.500		0	0	0	NR	NR	0
<b>Local Lists of Hazardous waste / Contaminated Sites</b>								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
<b>Local Land Records</b>								
LIENS 2	TP		NR	NR	NR	NR	NR	0
<b>Records of Emergency Release Reports</b>								
HMIRS	TP		NR	NR	NR	NR	NR	0
CO ERNS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
<b>Other Ascertainable Records</b>								
RCRA NonGen / NLR	0.250		2	0	NR	NR	NR	2

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
METHANE SITE	TP		NR	NR	NR	NR	NR	0
Methane Investigation	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		1	0	NR	NR	NR	1
Financial Assurance	TP		NR	NR	NR	NR	NR	0
LEAD	TP		NR	NR	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR MGP	1.000		0	0	0	0	NR	0
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## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR Hist Auto	0.125		2	NR	NR	NR	NR	2
EDR Hist Cleaner	0.125		2	NR	NR	NR	NR	2
<b><u>EDR RECOVERED GOVERNMENT ARCHIVES</u></b>								
<b><i>Exclusive Recovered Govt. Archives</i></b>								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	17	2	2	1	0	22

**NOTES:**

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BRIAL INC DBA MAJESTIC CLEANERS (Continued)**

**1004680308**

Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 02/02/1800  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 07/28/2008  
Site name: BRIAL INC DBA MAJESTIC CLEANERS  
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 08/10/2001  
Site name: MAJESTIC CLEANERS  
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/22/1999  
Site name: MAJESTIC CLEANERS  
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D007  
. Waste name: CHROMIUM  
  
. Waste code: D039  
. Waste name: TETRACHLOROETHYLENE  
  
. Waste code: D040  
. Waste name: TRICHLOROETHYLENE

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 01/15/2010  
Evaluation: FACILITY SELF DISCLOSURE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BRIAL INC DBA MAJESTIC CLEANERS (Continued)**

**1004680308**

Evaluation date: 09/29/2009  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 04/09/2009  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 01/16/2008  
Evaluation: FACILITY SELF DISCLOSURE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

**US AIRS MINOR:**

Envid: 1004680308  
Region Code: 08  
Programmatic ID: AIR CO0000000805901228  
Facility Registry ID: 110009565728  
D and B Number: Not reported  
Primary SIC Code: 7216  
NAICS Code: 812320  
Default Air Classification Code: MIN  
Facility Type of Ownership Code: NON  
Air CMS Category Code: Not reported  
HPV Status: Not reported

**US AIRS MINOR:**

Region Code: 08  
Programmatic ID: AIR CO0000000805901228  
Facility Registry ID: 110009565728  
Air Operating Status Code: OPR  
Default Air Classification Code: MIN  
Air Program: MACT Standards (40 CFR Part 63)  
Activity Date: 2005-04-13 00:00:00  
Activity Status Date: Not reported  
Activity Group: Compliance Monitoring  
Activity Type: Inspection/Evaluation  
Activity Status: Not reported

Region Code: 08  
Programmatic ID: AIR CO0000000805901228  
Facility Registry ID: 110009565728  
Air Operating Status Code: OPR  
Default Air Classification Code: MIN  
Air Program: MACT Standards (40 CFR Part 63)  
Activity Date: 2010-02-10 00:00:00  
Activity Status Date: Not reported  
Activity Group: Compliance Monitoring  
Activity Type: Inspection/Evaluation  
Activity Status: Not reported

Region Code: 08  
Programmatic ID: AIR CO0000000805901228



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**BRIAL INC DBA MAJESTIC CLEANERS (Continued)**

**1004680308**

Facility Registry ID: 110009565728  
 Air Operating Status Code: OPR  
 Default Air Classification Code: MIN  
 Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards  
 Activity Date: 2000-07-31 00:00:00  
 Activity Status Date: Not reported  
 Activity Group: Compliance Monitoring  
 Activity Type: Inspection/Evaluation  
 Activity Status: Not reported

Region Code: 08  
 Programmatic ID: AIR CO0000000805901228  
 Facility Registry ID: 110009565728  
 Air Operating Status Code: OPR  
 Default Air Classification Code: MIN  
 Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards  
 Activity Date: 2005-04-13 00:00:00  
 Activity Status Date: Not reported  
 Activity Group: Compliance Monitoring  
 Activity Type: Inspection/Evaluation  
 Activity Status: Not reported

Region Code: 08  
 Programmatic ID: AIR CO0000000805901228  
 Facility Registry ID: 110009565728  
 Air Operating Status Code: OPR  
 Default Air Classification Code: MIN  
 Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards  
 Activity Date: 2010-02-10 00:00:00  
 Activity Status Date: Not reported  
 Activity Group: Compliance Monitoring  
 Activity Type: Inspection/Evaluation  
 Activity Status: Not reported

**A2** **MAJESTIC CLEANERS & SHIRT LDRY**  
**11187 SHERIDAN BLVD**  
**< 1/8 WESTMINSTER, CO 80020**  
**1 ft.**

**EDR Hist Cleaner 1020033375**  
**N/A**

**Site 2 of 3 in cluster A**

**Relative:  
 Higher**

EDR Hist Cleaner

**Actual:  
 5278 ft.**

Year:	Name:	Type:
2003	MAJESTIC CLEANERS & SHIRT LAUN	Drycleaning Plants, Except Rugs
2004	MAJESTIC CLEANERS & SHIRT LDRY	Drycleaning Plants, Except Rugs
2005	MAJESTIC CLEANERS & SHIRT LDRY	Drycleaning Plants, Except Rugs
2006	MAJESTIC CLEANERS & SHIRT LDRY	Drycleaning Plants, Except Rugs
2007	MAJESTIC CLEANERS & SHIRT LDRY	Drycleaning Plants, Except Rugs
2008	MAJESTIC CLEANERS & SHIRT LDRY	Drycleaning Plants, Except Rugs
2009	MAJESTIC CLEANERS & SHIRT LDRY	Drycleaning Plants, Except Rugs
2010	MAJESTIC CLEANERS & SHIRT LDRY	Drycleaning Plants, Except Rugs

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**B3** WESTMINSTER CITY PARK OPERATIONS CENTER  
10495 SHERIDAN BLVD  
WESTMINSTER, CO 80030

**AST** A100298377  
N/A

< 1/8  
1 ft.

Site 1 of 2 in cluster B

Relative:  
Higher

AST:

Actual:  
5312 ft.

Name: WESTMINSTER CITY PARK OPERATIONS CENTER  
Address: 10495 SHERIDAN BLVD  
City,State,Zip: WESTMINSTER, CO 80030  
Substance: Diesel/Gasoline (Multi-Comp)  
Tank Tag: 18135-1  
Facility ID: 18135  
Owner Name: City Of Westminster  
Owner Address: 4800 W 92nd Ave  
Owner City: Westminster  
Owner State: CO  
Owner Zip: 80031  
Facility Type: Non-Retail  
Facility Category: State/Local Government  
Capacity: 3000  
Tank Status: Currently In Use  
Date Tank Installed: 08/21/2006  
Date Closed: Not reported  
Tank Age: Not reported  
Tank Type: AST  
Latitude: 39.890269  
Longitude: -105.053462

Name: WESTMINSTER CITY PARK OPERATIONS CENTER  
Address: 10495 SHERIDAN BLVD  
City,State,Zip: WESTMINSTER, CO 80030  
Substance: Diesel/Gasoline (Multi-Comp)  
Tank Tag: 18135-1  
Facility ID: 18135  
Owner Name: City Of Westminster  
Owner Address: 4800 W 92nd Ave  
Owner City: Westminster  
Owner State: CO  
Owner Zip: 80031  
Facility Type: Non-Retail  
Facility Category: State/Local Government  
Capacity: 3000  
Tank Status: Currently In Use  
Date Tank Installed: 08/21/2006  
Date Closed: Not reported  
Tank Age: 13  
Tank Type: AST  
Latitude: 39.890269  
Longitude: -105.053462

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**B4**      **CITY OF WESTMINSTER PARKS OPERATIONS CTR**      **RCRA-VSQQ**      **1010314444**  
**10495 SHERIDAN AVE**      **COR000214536**  
**< 1/8**      **WESTMINSTER, CO 80020**  
**1 ft.**

**Site 2 of 2 in cluster B**

**Relative:**  
**Higher**

RCRA-VSQQ:

**Actual:**  
**5311 ft.**

Date form received by agency: 07/05/2011  
Facility name: CITY OF WESTMINSTER PARKS OPERATIONS CTR  
Facility address: 10495 SHERIDAN AVE  
WESTMINSTER, CO 80020  
EPA ID: COR000214536  
Mailing address: SHERIDAN AVE  
WESTMINSTER, CO 80020  
Contact: RICH DAHL  
Contact address: SHERIDAN AVE  
WESTMINSTER, CO 80020  
Contact country: US  
Contact telephone: 303-658-2202  
Telephone ext.: 2202  
Contact email: Not reported  
EPA Region: 08  
Classification: Conditionally Exempt Small Quantity Generator  
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

**Owner/Operator Summary:**

Owner/operator name: CITY OF WESTMINSTER  
Owner/operator address: SHERIDAN AVE  
WESTMINSTER, CO 80020  
Owner/operator country: US  
Owner/operator telephone: Not reported  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Municipal  
Owner/Operator Type: Owner  
Owner/Op start date: 09/22/2006  
Owner/Op end date: Not reported  
  
Owner/operator name: PARKS OPERATIONS CENTER  
Owner/operator address: SHERIDAN AVE  
WESTMINSTER, CO 80020  
Owner/operator country: US  
Owner/operator telephone: Not reported  
Owner/operator email: Not reported  
Owner/operator fax: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CITY OF WESTMINSTER PARKS OPERATIONS CTR (Continued)**

**1010314444**

Owner/operator extension: Not reported  
Legal status: Municipal  
Owner/Operator Type: Operator  
Owner/Op start date: 09/22/2006  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/22/2006  
Site name: CITY OF WESTMINSTER PARKS OPERATIONS CTR  
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001  
Waste name: IGNITABLE WASTE

Violation Status: No violations found

A5  
NNE  
< 1/8  
0.023 mi.  
122 ft.

**BRIAL INC. DBA MAJESTIC CLEANERS**  
**11187 SHERIDAN BLVD UNIT 10**  
**WESTMINSTER, CO 80020**

**AIRES S106452931**  
**DRYCLEANERS N/A**

**Site 3 of 3 in cluster A**

Relative:  
Lower  
Actual:  
5275 ft.

CO AIRS:  
Name: BRIAL INC. DBA MAJESTIC CLEANERS  
Address: 11187 SHERIDAN BLVD UNIT 10  
City,State,Zip: WESTMINSTER, CO  
County/Plant ID: 059-1228  
Contact Person: ENVIRONMENTAL COORDINATOR  
Contact Phone: Not reported  
Latitude: 395353.79  
Longitude: 1050315.52  
SIC Primary: 7216  
NAICS Primary: 812320  
Unique Emmission Unit ID: 1  
Construction Permit Number: 98JE0118  
Emission Unit Description: MULTIMATIC SN: 600195.CN  
Full Pollutant Name: TETRACHLOROETHYLENE (PERC)  
Site-wide Estimated Emissions: 0



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BRIAL INC. DBA MAJESTIC CLEANERS (Continued)**

**S106452931**

Site-wide Estimated Emissions Units: Tons Per Year

**DRYCLEANERS:**

Name: BRIAL INC. DBA MAJESTIC CLEANERS  
Address: 11187 SHERIDAN BLVD UNIT 10  
City,State,Zip: WESTMINSTER, CO 80020-3230  
Facility Id: 059-1228  
Contact Person: ENVIRONMENTAL COORDINATOR  
Site Latitude: 395353.79  
Site Longitude: 1050315.52  
Site UTM Zone: 13  
Site UTM Horiz: 495.357  
Site UTM Vert: 4416.468  
Site Owner Name: AL HOWORKO  
Site Owner Mail Addr: 11187 SHERIDAN BLVD.  
Site Owner Mail City/Zip: WESTMINSTER, 08 80020  
Site Owner Phone: (303)404-2255  
Construction Permit Num: 98JE0118  
Emission Process Desc: DRY CLEANING, PERC  
Annual Throughput: 0  
Annual Throughput Units: GALLONS SOLVENT CONSUMED  
Emission Unit Id: 001  
Emission Process Id: 01  
Emission Unit Desc: MULTIMATIC SN: 600195.CN  
Equipment Manufacturer: MULTIMATIC SHOPSTAR DRY  
Equipment Model: 500  
Serial # Of Equipment: 60-0195-8810

**C6  
NNE  
< 1/8  
0.045 mi.  
239 ft.**

**CIRCLE K STORE #2741185  
5390 W 112TH AVE  
WESTMINSTER, CO 80020**

**LTANKS U003748700  
LUST N/A  
UST**

**Site 1 of 3 in cluster C**

**Relative:  
Higher  
Actual:  
5280 ft.**

**LTANKS:**

Facility ID: 9487  
Name: SHAMROCK #1185  
Address: 5390 W 112TH AVE  
City,State,Zip: WESTMINSTER, CO 80020  
Type: Tier I  
Status: Closed  
Event ID: 8662  
Release Date: Not reported  
Closed Date: 01/18/2002  
Contact: Technical Assistance Line  
Phone: 303-318-8547  
Email: cdle\_ops\_public\_records\_center@state.co.us  
URL: https://opus.cdle.state.co.us/OIS2000/event.asp?h\_id=8662

Facility ID: 9487  
Name: SHAMROCK #1185  
Address: 5390 W 112TH AVE  
City,State,Zip: WESTMINSTER, CO 80020  
Type: Tier I  
Status: Closed  
Event ID: 8624  
Release Date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**U003748700**

Closed Date: 08/07/2001  
Contact: Technical Assistance Line  
Phone: 303-318-8547  
Email: cdle\_ops\_public\_records\_center@state.co.us  
URL: https://opus.cdle.state.co.us/OIS2000/event.asp?h\_id=8624

Facility ID: 9487  
Name: SHAMROCK 1185  
Address: 5390 W 112TH AVE  
City,State,Zip: WESTMINSTER, CO 80020  
Type: Tier I  
Status: Closed  
Event ID: 8201  
Release Date: 08/10/1994  
Closed Date: 10/17/2007  
Contact: Vinny Secondo  
Phone: 303-318-8540  
Email: vinny.secondo@state.co.us  
URL: https://opus.cdle.state.co.us/OIS2000/event.asp?h\_id=8201

**LUST:**

Facility Id: 9487  
**Status: Closed**  
Event ID: 8201  
Confirmed Release: 08/10/1994  
Contact Name: Vinny Secondo  
Contact Phone: 303-318-8540  
Contact Email: Not reported  
Latitude Degrees: 39.899386  
Longitude Degrees: -105.054552

Click here for COSTIS:

**UST:**

Tank Tag: 9487-2  
Substance: Diesel  
Name: CIRCLE K STORE #2741185  
Address: 5390 W 112TH AVE  
City,State,Zip: WESTMINSTER, CO 80020  
Tank Tag: 9487-2  
Substance: Diesel  
Facility ID: 9487  
Owner Name: Circle K Stores Inc. - Rocky Mountain Division  
Owner Address: 5500 S Quebec St Ste 100  
Owner City: Greenwood Village  
Owner State: CO  
Owner Zip: 80111  
Facility Type: Retail  
Facility Category: Retail Gas Station  
Capacity: 12000  
Date Closed: Not reported  
Tank Status: Currently In Use  
Date Tank Installed: 06/01/1990  
Tank Age: 29  
Tank Type: UST  
Latitude: 39.899386

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**U003748700**

Longitude: -105.054552

Tank Tag: 9487-3  
Substance: Gasoline - Premium (PUL)  
Name: CIRCLE K STORE #2741185  
Address: 5390 W 112TH AVE  
City,State,Zip: WESTMINSTER, CO 80020

Tank Tag: 9487-3  
Substance: Gasoline - Premium (PUL)  
Facility ID: 9487  
Owner Name: Circle K Stores Inc. - Rocky Mountain Division  
Owner Address: 5500 S Quebec St Ste 100  
Owner City: Greenwood Village  
Owner State: CO  
Owner Zip: 80111  
Facility Type: Retail  
Facility Category: Retail Gas Station  
Capacity: 12000  
Date Closed: Not reported  
Tank Status: Currently In Use  
Date Tank Installed: 06/01/1990  
Tank Age: 29  
Tank Type: UST  
Latitude: 39.899386  
Longitude: -105.054552

Tank Tag: 9487-1  
Substance: Gasoline - Unleaded Regular (RUL)  
Name: CIRCLE K STORE #2741185  
Address: 5390 W 112TH AVE  
City,State,Zip: WESTMINSTER, CO 80020

Tank Tag: 9487-1  
Substance: Gasoline - Unleaded Regular (RUL)  
Facility ID: 9487  
Owner Name: Circle K Stores Inc. - Rocky Mountain Division  
Owner Address: 5500 S Quebec St Ste 100  
Owner City: Greenwood Village  
Owner State: CO  
Owner Zip: 80111  
Facility Type: Retail  
Facility Category: Retail Gas Station  
Capacity: 12000  
Date Closed: Not reported  
Tank Status: Currently In Use  
Date Tank Installed: 06/01/1990  
Tank Age: 29  
Tank Type: UST  
Latitude: 39.899386  
Longitude: -105.054552

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

C7  
NNE  
< 1/8  
0.045 mi.  
239 ft.

**CIRCLE K STORE #2741185**  
**5390 W 112TH AVE**  
**WESTMINSTER, CO 80020**

**LUST TRUST** **S104532082**  
**AIRS** **N/A**

**Site 2 of 3 in cluster C**

**Relative:**  
**Higher**

**CO LUST TRUST:**

**Actual:**  
**5280 ft.**

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 5475  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: Supplemental  
RAP Status: Approved  
RAP Filed Date: 10/2/2001  
Total Reimbursement: \$5,482.91  
Net Reimbursement: \$5,428.08  
FPR Date: 03/20/2002  
Pay Voucher Date: 04/08/2002  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 6165  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: Supplemental  
RAP Status: Approved  
RAP Filed Date: 5/17/2002  
Total Reimbursement: \$3,495.81  
Net Reimbursement: \$3,460.85  
FPR Date: 07/29/2002  
Pay Voucher Date: 08/13/2002  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Stan Ekiko  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318 - 8512

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 7237

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**S104532082**

Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: Supplemental  
RAP Status: Approved  
RAP Filed Date: 2/20/2003  
Total Reimbursement: \$2,427.40  
Net Reimbursement: \$2,403.13  
FPR Date: 05/02/2003  
Pay Voucher Date: 05/13/2003  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 7630  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: Supplemental  
RAP Status: Approved  
RAP Filed Date: 5/12/2003  
Total Reimbursement: \$3,984.50  
Net Reimbursement: \$3,924.61  
FPR Date: 07/15/2003  
Pay Voucher Date: 07/28/2003  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Jen Lillie Tomas  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8516

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 9532  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Withdrawn  
RAP Filed Date: 5/27/2004  
Total Reimbursement: \$0.00



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**S104532082**

Net Reimbursement: N.A.  
FPR Date: Not reported  
Pay Voucher Date: Not reported  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 10874  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 2/2/2005  
Total Reimbursement: \$2,147.83  
Net Reimbursement: \$2,126.35  
FPR Date: 10/28/2005  
Pay Voucher Date: 11/28/2005  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 11434  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Withdrawn  
RAP Filed Date: 4/11/2005  
Total Reimbursement: \$0.00  
Net Reimbursement: N.A.  
FPR Date: Not reported  
Pay Voucher Date: Not reported  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**S104532082**

Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 11533  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 5/5/2005  
Total Reimbursement: \$2,788.22  
Net Reimbursement: \$2,760.34  
FPR Date: 10/28/2005  
Pay Voucher Date: 11/28/2005  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 12276  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 8/8/2005  
Total Reimbursement: \$3,285.08  
Net Reimbursement: \$3,252.23  
FPR Date: 11/21/2005  
Pay Voucher Date: 12/16/2005  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 12863  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**S104532082**

Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 11/14/2005  
Total Reimbursement: \$2,837.89  
Net Reimbursement: \$2,809.51  
FPR Date: 01/23/2006  
Pay Voucher Date: 02/10/2006  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 12667  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 10/13/2005  
Total Reimbursement: \$2,621.29  
Net Reimbursement: \$2,595.08  
FPR Date: 12/19/2005  
Pay Voucher Date: 01/11/2006  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 13629  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 3/20/2006  
Total Reimbursement: \$5,813.36  
Net Reimbursement: \$5,755.23  
FPR Date: 07/14/2006  
Pay Voucher Date: 07/24/2006

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**S104532082**

Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 13841  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 5/5/2006  
Total Reimbursement: \$3,092.46  
Net Reimbursement: \$3,061.54  
FPR Date: 09/05/2006  
Pay Voucher Date: 09/12/2006  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 13773  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 4/21/2006  
Total Reimbursement: \$3,388.14  
Net Reimbursement: \$3,354.26  
FPR Date: 08/24/2006  
Pay Voucher Date: 09/07/2006  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**S104532082**

Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 14451  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 8/15/2006  
Total Reimbursement: \$2,556.53  
Net Reimbursement: \$2,530.96  
FPR Date: 10/18/2006  
Pay Voucher Date: 11/06/2006  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 14967  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 11/15/2006  
Total Reimbursement: \$2,786.53  
Net Reimbursement: \$2,758.66  
FPR Date: 09/07/2007  
Pay Voucher Date: 09/26/2007  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 15353  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**S104532082**

RAP Status: Approved  
RAP Filed Date: 2/1/2007  
Total Reimbursement: \$2,034.64  
Net Reimbursement: \$2,014.29  
FPR Date: 09/07/2007  
Pay Voucher Date: 09/26/2007  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 15887  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 5/10/2007  
Total Reimbursement: \$1,710.56  
Net Reimbursement: \$1,693.45  
FPR Date: 09/07/2007  
Pay Voucher Date: 09/26/2007  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 16561  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 10/18/2007  
Total Reimbursement: \$473.00  
Net Reimbursement: \$468.27  
FPR Date: 09/09/2008  
Pay Voucher Date: 09/18/2008  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**S104532082**

Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 16933  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 12/28/2007  
Total Reimbursement: \$675.50  
Net Reimbursement: \$668.74  
FPR Date: 09/09/2008  
Pay Voucher Date: 09/18/2008  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 16748  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 11/21/2007  
Total Reimbursement: \$12,813.06  
Net Reimbursement: \$12,684.93  
FPR Date: 09/09/2008  
Pay Voucher Date: 09/18/2008  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8511

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 3017

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**S104532082**

Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: Original  
RAP Status: Approved  
RAP Filed Date: 11/23/1998  
Total Reimbursement: \$30,963.01  
Net Reimbursement: \$20,721.20  
FPR Date: 06/18/1999  
Pay Voucher Date: 07/09/1999  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Chrystalynn  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: No Listing

Facility ID: 9487  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 8201  
RAP ID: 4473  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 1.0  
Total Reimbursement for Event: \$114,990.14  
RAP Type Description: Supplemental  
RAP Status: Approved  
RAP Filed Date: 9/13/2000  
Total Reimbursement: \$32,023.20  
Net Reimbursement: \$30,518.43  
FPR Date: 05/31/2001  
Pay Voucher Date: 06/21/2001  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Susan DeMeules  
Category: Retail Gas Station  
Technical Reviewer: Vinny Secondo  
Technical Reviewer Phone: 303-318-8540  
Fund Analyst Phone: (303) 318-8510

Click here for COSTIS:

**CO AIRS:**

Name: CST METRO LLC DBA CORNER STORE #1185  
Address: 5390 W 112TH AVE  
City,State,Zip: WESTMINSTER, CO 80020  
County/Plant ID: 059-0479  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395357.85  
Longitude: 1050316.64  
SIC Primary: 5541  
NAICS Primary: 447190

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**S104532082**

Unique Emission Unit ID: 1  
Construction Permit Number: 91JE902S  
Emission Unit Description: 3 UNDRGRND GASOLINE TANKS  
Full Pollutant Name: BENZENE  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Name: CST METRO LLC DBA CORNER STORE #1185  
Address: 5390 W 112TH AVE  
City,State,Zip: WESTMINSTER, CO 80020  
County/Plant ID: 059-0479  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395357.85  
Longitude: 1050316.64  
SIC Primary: 5541  
NAICS Primary: 447190  
Unique Emission Unit ID: 1  
Construction Permit Number: 91JE902S  
Emission Unit Description: 3 UNDRGRND GASOLINE TANKS  
Full Pollutant Name: ETHYL BENZENE  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Name: CST METRO LLC DBA CORNER STORE #1185  
Address: 5390 W 112TH AVE  
City,State,Zip: WESTMINSTER, CO 80020  
County/Plant ID: 059-0479  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395357.85  
Longitude: 1050316.64  
SIC Primary: 5541  
NAICS Primary: 447190  
Unique Emission Unit ID: 1  
Construction Permit Number: 91JE902S  
Emission Unit Description: 3 UNDRGRND GASOLINE TANKS  
Full Pollutant Name: HEXANE,N-  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Name: CST METRO LLC DBA CORNER STORE #1185  
Address: 5390 W 112TH AVE  
City,State,Zip: WESTMINSTER, CO 80020  
County/Plant ID: 059-0479  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395357.85  
Longitude: 1050316.64  
SIC Primary: 5541  
NAICS Primary: 447190  
Unique Emission Unit ID: 1  
Construction Permit Number: 91JE902S  
Emission Unit Description: 3 UNDRGRND GASOLINE TANKS  
Full Pollutant Name: TOLUENE  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**CIRCLE K STORE #2741185 (Continued)**

**S104532082**

Name: CST METRO LLC DBA CORNER STORE #1185  
 Address: 5390 W 112TH AVE  
 City,State,Zip: WESTMINSTER, CO 80020  
 County/Plant ID: 059-0479  
 Contact Person: NANCY COEN  
 Contact Phone: (303)373-6044  
 Latitude: 395357.85  
 Longitude: 1050316.64  
 SIC Primary: 5541  
 NAICS Primary: 447190  
 Unique Emmission Unit ID: 1  
 Construction Permit Number: 91JE902S  
 Emission Unit Description: 3 UNDRGRND GASOLINE TANKS  
 Full Pollutant Name: VOLATILE ORGANIC COMPOUNDS  
 Site-wide Estimated Emissions: 2.857858  
 Site-wide Estimated Emissions Units: Tons Per Year

Name: CST METRO LLC DBA CORNER STORE #1185  
 Address: 5390 W 112TH AVE  
 City,State,Zip: WESTMINSTER, CO 80020  
 County/Plant ID: 059-0479  
 Contact Person: NANCY COEN  
 Contact Phone: (303)373-6044  
 Latitude: 395357.85  
 Longitude: 1050316.64  
 SIC Primary: 5541  
 NAICS Primary: 447190  
 Unique Emmission Unit ID: 1  
 Construction Permit Number: 91JE902S  
 Emission Unit Description: 3 UNDRGRND GASOLINE TANKS  
 Full Pollutant Name: XYLENES  
 Site-wide Estimated Emissions: 0  
 Site-wide Estimated Emissions Units: Tons Per Year

**C8**  
**NNE**  
**< 1/8**  
**0.045 mi.**  
**239 ft.**

**ULTRAMAR DIAMOND SHAMROCK CORP**  
**5390 W 112TH AVE**  
**BROOMFIELD, CO 80020**  
**Site 3 of 3 in cluster C**

**EDR Hist Auto 1020786871**  
**N/A**

**Relative:**  
**Higher**  
**Actual:**  
**5280 ft.**

EDR Hist Auto

Year:	Name:	Type:
1995	DIAMOND SHAMROCK INC	Gasoline Service Stations
1996	DIAMOND SHAMROCK INC	Gasoline Service Stations
1997	ULTRAMAR DIAMOND SHAMROCK CORP	Gasoline Service Stations
1998	ULTRAMAR DIAMOND SHAMROCK CORP	Gasoline Service Stations
1999	ULTRAMAR DIAMOND SHAMROCK CORP	Gasoline Service Stations
2000	ULTRAMAR DIAMOND SHAMROCK CORP	Gasoline Service Stations
2001	ULTRAMAR DIAMOND SHAMROCK CORP	Gasoline Service Stations
2002	VALERO ENERGY CORPORATION	Gasoline Service Stations
2003	VALERO ENERGY CORPORATION	Gasoline Service Stations
2004	VALERO ENERGY CORPORATION	Gasoline Service Stations
2005	VALERO ENERGY CORPORATION	Gasoline Service Stations
2006	VALERO ENERGY CORPORATION	Gasoline Service Stations
2007	VALERO ENERGY CORPORATION	Gasoline Service Stations
2008	VALERO ENERGY CORPORATION	Gasoline Service Stations
2009	VALERO ENERGY CORPORATION	Gasoline Service Stations



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ULTRAMAR DIAMOND SHAMROCK CORP (Continued)**

**1020786871**

2010	VALERO ENERGY CORPORATION	Gasoline Service Stations
2011	VALERO ENERGY CORPORATION	Gasoline Service Stations
2012	VALERO ENERGY CORPORATION	Gasoline Service Stations
2013	VALERO ENERGY CORPORATION	Gasoline Service Stations
2014	VALERO ENERGY CORPORATION	Gasoline Service Stations

**9**  
**WSW**  
**< 1/8**  
**0.059 mi.**  
**309 ft.**

**SCL HEALTH COMMUNITY HOSPITAL - WESTMINSTER**  
**6500 W 104TH AVE**  
**WESTMINSTER, CO 80020**

**RCRA NonGen / NLR**    **1024877833**  
**COR000246215**

**Relative:**  
**Higher**

RCRA NonGen / NLR:

**Actual:**  
**5311 ft.**

Date form received by agency: 09/18/2018  
Facility name: SCL HEALTH COMMUNITY HOSPITAL - WESTMINSTER  
Facility address: 6500 W 104TH AVE  
WESTMINSTER, CO 80020  
EPA ID: COR000246215  
Contact: TU NGO  
Contact address: Not reported  
Not reported  
Contact country: Not reported  
Contact telephone: 720-573-5000  
Contact email: TU.NGO@EMERUS.COM  
EPA Region: 08  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 07/16/2018  
Site name: SCL HEALTH COMMUNITY HOSPITAL - WESTMINSTER  
Classification: Not a generator, verified

Violation Status: No violations found

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

10  
NNE  
< 1/8  
0.074 mi.  
391 ft.

**MAJESTIC CLEANERS & SHIRT LDRY**  
5191 W 112TH AVE  
WESTMINSTER, CO 80031

EDR Hist Cleaner 1020033376  
N/A

Relative: EDR Hist Cleaner  
Lower

Actual:  
5276 ft.

Year:	Name:	Type:
2011	MAJESTIC CLEANERS & SHIRT LDRY	Drycleaning Plants, Except Rugs
2012	MAJESTIC CLEANERS & SHIRT LDRY	Drycleaning Plants, Except Rugs
2013	MAJESTIC CLEANERS & SHIRT LDRY	Drycleaning Plants, Except Rugs
2014	MAJESTIC CLEANERS & SHIRT LDRY	Drycleaning Plants, Except Rugs

11  
NNE  
< 1/8  
0.087 mi.  
458 ft.

**WESTMINSTER ED**  
11230 BENTON ST  
WESTMINSTER, CO 80020

AST A100469052  
N/A

Relative:  
Higher

AST:

Actual:  
5279 ft.

Name:	WESTMINSTER ED
Address:	11230 BENTON ST
City,State,Zip:	WESTMINSTER, CO 80020
Substance:	Diesel
Tank Tag:	19629-1
Facility ID:	19629
Owner Name:	HCA Health One LLC DBA North Suburban Med Center
Owner Address:	9191 Grant St
Owner City:	Thornton
Owner State:	CO
Owner Zip:	80229
Facility Type:	Emergency Generator
Facility Category:	Commercial/Industrial
Capacity:	2525
Tank Status:	Currently In Use
Date Tank Installed:	07/30/2014
Date Closed:	Not reported
Tank Age:	Not reported
Tank Type:	AST
Latitude:	39.900194
Longitude:	-105.054057

Name:	WESTMINSTER ED
Address:	11230 BENTON ST
City,State,Zip:	WESTMINSTER, CO 80020
Substance:	Diesel
Tank Tag:	19629-1
Facility ID:	19629
Owner Name:	HCA Health One LLC DBA North Suburban Med Center
Owner Address:	9191 Grant St
Owner City:	Thornton
Owner State:	CO
Owner Zip:	80229
Facility Type:	Emergency Generator
Facility Category:	Commercial/Industrial
Capacity:	2525
Tank Status:	Currently In Use
Date Tank Installed:	07/30/2014
Date Closed:	Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**WESTMINSTER ED (Continued)**

**A100469052**

Tank Age: 5  
 Tank Type: AST  
 Latitude: 39.900194  
 Longitude: -105.054057

**D12**  
**NNE**  
 < 1/8  
 0.122 mi.  
 645 ft.

**7-ELEVEN #35357**  
**5190 W 113TH AVE**  
**WESTMINSTER, CO 80031**

**Site 1 of 2 in cluster D**

**LTANKS** **U003195890**  
**LUST** **N/A**  
**UST**

**Relative:**  
**Lower**  
**Actual:**  
**5276 ft.**

**LTANKS:**

Facility ID: 7121  
 Name: 7-ELEVEN #35357  
 Address: 5190 W 113TH AVE  
 City,State,Zip: WESTMINSTER, CO 80031  
 Type: Tier I  
 Status: Closed  
 Event ID: 12033  
 Release Date: 04/22/2014  
 Closed Date: 06/11/2014  
 Contact: Vinny Secondo  
 Phone: 303-318-8540  
 Email: vinny.secondo@state.co.us  
 URL: [https://opus.cdle.state.co.us/OIS2000/event.asp?h\\_id=12033](https://opus.cdle.state.co.us/OIS2000/event.asp?h_id=12033)

Facility ID: 7121  
 Name: 7-ELEVEN #35357  
 Address: 5190 W 113TH AVE  
 City,State,Zip: WESTMINSTER, CO 80031  
 Type: Tier I  
 Status: Closed  
 Event ID: 12276  
 Release Date: 06/12/2015  
 Closed Date: 12/22/2015  
 Contact: Michelle Howard  
 Phone: 303-318-8507  
 Email: michelle.howard@state.co.us  
 URL: [https://opus.cdle.state.co.us/OIS2000/event.asp?h\\_id=12276](https://opus.cdle.state.co.us/OIS2000/event.asp?h_id=12276)

Facility ID: 7121  
 Name: CONOCOPHILLIPS SITE 6539  
 Address: 5190 W 113TH AVE  
 City,State,Zip: WESTMINSTER, CO 80031  
 Type: Tier I  
 Status: Closed  
 Event ID: 11550  
 Release Date: 11/17/2011  
 Closed Date: 02/09/2012  
 Contact: Erik Gessert  
 Phone: 303-318-8520  
 Email: erik.gessert@state.co.us  
 URL: [https://opus.cdle.state.co.us/OIS2000/event.asp?h\\_id=11550](https://opus.cdle.state.co.us/OIS2000/event.asp?h_id=11550)

**LUST:**  
 Facility Id: 7121  
**Status: Closed**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

7-ELEVEN #35357 (Continued)

U003195890

Event ID: 12276  
Confirmed Release: 06/12/2015  
Contact Name: Michelle Howard  
Contact Phone: 303-318-8507  
Contact Email: Not reported  
Latitude Degrees: 39.9012  
Longitude Degrees: -105.052447

Facility Id: 7121  
**Status: Closed**  
Event ID: 11550  
Confirmed Release: 11/17/2011  
Contact Name: Erik Gessert  
Contact Phone: 303-318-8520  
Contact Email: Not reported  
Latitude Degrees: 39.9012  
Longitude Degrees: -105.052447

Facility Id: 7121  
**Status: Closed**  
Event ID: 12033  
Confirmed Release: 04/22/2014  
Contact Name: Vinny Secondo  
Contact Phone: 303-318-8540  
Contact Email: Not reported  
Latitude Degrees: 39.9012  
Longitude Degrees: -105.052447

[Click here for COSTIS:](#)

UST:

Tank Tag: 7121-2  
Substance: Gasoline - Premium (PUL)  
Name: 7-ELEVEN #35357  
Address: 5190 W 113TH AVE  
City,State,Zip: WESTMINSTER, CO 80031  
Tank Tag: 7121-2  
Substance: Gasoline - Premium (PUL)  
Facility ID: 7121  
Owner Name: 7-Eleven Inc  
Owner Address: PO Box 711  
Owner City: Dallas  
Owner State: TX  
Owner Zip: 75221  
Facility Type: Retail  
Facility Category: Retail Gas Station  
Capacity: 15000  
Date Closed: Not reported  
Tank Status: Currently In Use  
Date Tank Installed: 11/01/1996  
Tank Age: 23  
Tank Type: UST  
Latitude: 39.9012  
Longitude: -105.052447

Tank Tag: 7121-1  
Substance: Gasoline - Unleaded Regular (RUL)

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**7-ELEVEN #35357 (Continued)**

**U003195890**

Name:	7-ELEVEN #35357
Address:	5190 W 113TH AVE
City,State,Zip:	WESTMINSTER, CO 80031
Tank Tag:	7121-1
Substance:	Gasoline - Unleaded Regular (RUL)
Facility ID:	7121
Owner Name:	7-Eleven Inc
Owner Address:	PO Box 711
Owner City:	Dallas
Owner State:	TX
Owner Zip:	75221
Facility Type:	Retail
Facility Category:	Retail Gas Station
Capacity:	15000
Date Closed:	Not reported
Tank Status:	Currently In Use
Date Tank Installed:	11/01/1996
Tank Age:	23
Tank Type:	UST
Latitude:	39.9012
Longitude:	-105.052447

**D13**  
**NNE**  
**< 1/8**  
**0.122 mi.**  
**645 ft.**

**CONOCO**  
**5190 W 113TH AVE**  
**WESTMINSTER, CO 80030**  
**Site 2 of 2 in cluster D**

**EDR Hist Auto 1021268419**  
**N/A**

**Relative:**  
**Lower**

EDR Hist Auto

**Actual:**  
**5276 ft.**

Year:	Name:	Type:
1997	CONOCO	Gasoline Service Stations
1998	CONOCO	Gasoline Service Stations
1999	CONOCO INC	Gasoline Service Stations
2000	CONOCO INC	Gasoline Service Stations
2001	CONOCO INC	Gasoline Service Stations
2002	CONOCO INC	Gasoline Service Stations
2003	CONOCO INC	Gasoline Service Stations
2004	CONOCOPHILLIPS HOLDING COMPANY	Gasoline Service Stations
2005	CONOCOPHILLIPS COMPANY	Gasoline Service Stations
2006	CONOCOPHILLIPS COMPANY	Gasoline Service Stations
2007	CONOCOPHILLIPS COMPANY	Gasoline Service Stations
2008	CONOCOPHILLIPS COMPANY	Gasoline Service Stations
2009	CONOCOPHILLIPS COMPANY	Gasoline Service Stations
2010	CONOCOPHILLIPS COMPANY	Gasoline Service Stations
2011	CONOCOPHILLIPS COMPANY	Gasoline Service Stations
2012	CONOCOPHILLIPS COMPANY	Gasoline Service Stations
2013	CONOCOPHILLIPS COMPANY	Gasoline Service Stations
2014	CONOCOPHILLIPS COMPANY	Gasoline Service Stations, NEC



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

14  
SW  
1/8-1/4  
0.133 mi.  
704 ft.

**MERCEDES-BENZ OF WESTMINSTER**  
**10291 WESTMINSTER BLVD**  
**WESTMINSTER, CO 80020**

**AST A100428925**  
**N/A**

**Relative:**  
**Higher**

AST:

**Actual:**  
**5286 ft.**

Name: MERCEDES-BENZ OF WESTMINSTER  
Address: 10291 WESTMINSTER BLVD  
City,State,Zip: WESTMINSTER, CO 80020  
Substance: Gasoline - Unleaded Regular (RUL)  
Tank Tag: 20030-1  
Facility ID: 20030  
Owner Name: Mercedes-Benz of Westminster  
Owner Address: 10391 Westminster Blvd  
Owner City: Westminster  
Owner State: CO  
Owner Zip: 80020  
Facility Type: Non-Retail  
Facility Category: Commercial/Industrial  
Capacity: 3450  
Tank Status: Currently In Use  
Date Tank Installed: 12/27/2016  
Date Closed: Not reported  
Tank Age: Not reported  
Tank Type: AST  
Latitude: 39.886156  
Longitude: -105.069073

Name: MERCEDES-BENZ OF WESTMINSTER  
Address: 10291 WESTMINSTER BLVD  
City,State,Zip: WESTMINSTER, CO 80020  
Substance: Gasoline - Unleaded Regular (RUL)  
Tank Tag: 20030-1  
Facility ID: 20030  
Owner Name: Mercedes-Benz of Westminster  
Owner Address: 10391 Westminster Blvd  
Owner City: Westminster  
Owner State: CO  
Owner Zip: 80020  
Facility Type: Non-Retail  
Facility Category: Commercial/Industrial  
Capacity: 3450  
Tank Status: Currently In Use  
Date Tank Installed: 12/27/2016  
Date Closed: Not reported  
Tank Age: 3  
Tank Type: AST  
Latitude: 39.886156  
Longitude: -105.069073

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**15**  
**ESE**  
**1/8-1/4**  
**0.167 mi.**  
**882 ft.**

**HEWIT HAWN JOINT VENTURE**  
**10480 SHERIDAN BLVD**  
**WESTMINSTER, CO 80030**

**LTANKS**    **S121704002**  
**N/A**

**Relative:**  
**Higher**  
**Actual:**  
**5356 ft.**

**LTANKS:**  
Facility ID: 12908  
Name: HEWIT HAWN JOINT VENTURE  
Address: 10480 SHERIDAN BLVD  
City,State,Zip: WESTMINSTER, CO 80030  
Type: Tier I  
Status: Closed  
Event ID: 21  
Release Date: 10/21/1993  
Closed Date: 04/26/1995  
Contact: Technical Assistance Line  
Phone: 303-318-8547  
Email: cdle\_ops\_public\_records\_center@state.co.us  
URL: https://opus.cdle.state.co.us/OIS2000/event.asp?h\_id=21

**16**  
**WSW**  
**1/4-1/2**  
**0.405 mi.**  
**2138 ft.**

**ANDERSON AMOCO FOOD SHOPS**  
**7007 CHURCH RANCH BLVD**  
**BROOMFIELD, CO 80021**

**LTANKS**    **U003240192**  
**LUST**       **N/A**  
**UST**

**Relative:**  
**Higher**  
**Actual:**  
**5314 ft.**

**LTANKS:**  
Facility ID: 6848  
Name: ANDERSON AMOCO FOOD SHOPS  
Address: 7007 CHURCH RANCH BLVD  
City,State,Zip: BROOMFIELD, CO 80021  
Type: Tier I  
Status: Closed  
Event ID: 9479  
Release Date: 06/30/2004  
Closed Date: 10/25/2004  
Contact: Technical Assistance Line  
Phone: 303-318-8547  
Email: cdle\_ops\_public\_records\_center@state.co.us  
URL: https://opus.cdle.state.co.us/OIS2000/event.asp?h\_id=9479

**LUST:**  
Facility Id: 6848  
**Status: Closed**  
Event ID: 9479  
Confirmed Release: 06/30/2004  
Contact Name: Technical Assistance Line  
Contact Phone: 303-318-8547  
Contact Email: Not reported  
Latitude Degrees: 39.886848  
Longitude Degrees: -105.072553

Click here for COSTIS:

**UST:**  
Tank Tag: 6848-1  
Substance: Gasoline  
Name: ANDERSON AMOCO FOOD SHOPS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ANDERSON AMOCO FOOD SHOPS (Continued)**

**U003240192**

Address: 7007 CHURCH RANCH BLVD  
City,State,Zip: BROOMFIELD, CO 80021  
Tank Tag: 6848-1  
Substance: Gasoline  
Facility ID: 6848  
Owner Name: Ray Anderson Inc  
Owner Address: 16707 Q St  
Owner City: Omaha  
Owner State: NE  
Owner Zip: 68135  
Facility Type: Retail  
Facility Category: Retail Gas Station  
Capacity: 12000  
Date Closed: 04/15/2004  
Tank Status: Permanently Closed  
Date Tank Installed: 11/15/1995  
Tank Age: 9  
Tank Type: UST  
Latitude: 39.886848  
Longitude: -105.072553

Tank Tag: 6848-2  
Substance: Gasoline  
Name: ANDERSON AMOCO FOOD SHOPS  
Address: 7007 CHURCH RANCH BLVD  
City,State,Zip: BROOMFIELD, CO 80021  
Tank Tag: 6848-2  
Substance: Gasoline  
Facility ID: 6848  
Owner Name: Ray Anderson Inc  
Owner Address: 16707 Q St  
Owner City: Omaha  
Owner State: NE  
Owner Zip: 68135  
Facility Type: Retail  
Facility Category: Retail Gas Station  
Capacity: 12000  
Date Closed: 04/15/2004  
Tank Status: Permanently Closed  
Date Tank Installed: 11/15/1995  
Tank Age: 9  
Tank Type: UST  
Latitude: 39.886848  
Longitude: -105.072553

Tank Tag: 6848-3  
Substance: Gasoline  
Name: ANDERSON AMOCO FOOD SHOPS  
Address: 7007 CHURCH RANCH BLVD  
City,State,Zip: BROOMFIELD, CO 80021  
Tank Tag: 6848-3  
Substance: Gasoline  
Facility ID: 6848  
Owner Name: Ray Anderson Inc  
Owner Address: 16707 Q St  
Owner City: Omaha  
Owner State: NE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

ANDERSON AMOCO FOOD SHOPS (Continued)

U003240192

Owner Zip: 68135  
Facility Type: Retail  
Facility Category: Retail Gas Station  
Capacity: 12000  
Date Closed: 04/15/2004  
Tank Status: Permanently Closed  
Date Tank Installed: 11/15/1996  
Tank Age: 8  
Tank Type: UST  
Latitude: 39.886848  
Longitude: -105.072553

17  
WNW  
1/2-1  
0.557 mi.  
2940 ft.

TEN EYCK PROPERTY  
108TH AVE & FEDERAL BLVD  
WESTMINSTER, CO 80234

CORRACTS 1001195504  
RCRA NonGen / NLR COR000007856  
FINDS  
ECHO

Relative:  
Higher

CORRACTS:

Actual:  
5343 ft.

EPA ID: COR000007856  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 1997-04-29 00:00:00.0  
Action: CA006OU  
NAICS Code(s): Not reported  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000007856  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 1997-04-29 00:00:00.0  
Action: CA999 - Corrective Action Process Terminated  
NAICS Code(s): Not reported  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000007856  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 1997-04-29 00:00:00.0  
Action: CA210T - CA Responsibility Referred To A Non-RCRA Federal Authority,  
Corrective Action referred to another non-RCRA Federal Authority  
NAICS Code(s): Not reported  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000007856  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 1997-04-29 00:00:00.0  
Action: CA100 - RFI Imposition  
NAICS Code(s): Not reported  
Original schedule date: Not reported  
Schedule end date: Not reported

RCRA NonGen / NLR:

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TEN EYCK PROPERTY (Continued)**

**1001195504**

Date form received by agency: 04/29/1997  
Facility name: TEN EYCK PROPERTY  
Facility address: 108TH AVE & FEDERAL BLVD  
E HALF SEC 8 TOWNSHIP 2 S RANGE  
WESTMINSTER, CO 80234  
EPA ID: COR000007856  
Contact: Not reported  
Contact address: Not reported  
Not reported  
Contact country: US  
Contact telephone: Not reported  
Contact email: Not reported  
EPA Region: 08  
Land type: Facility is not located on Indian land. Additional information is not known.  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Corrective Action Summary:

Event date: 04/29/1997  
Event: TYPE OF UNIT - OPERABLE UNIT  
Event date: 04/29/1997  
Event: CA PROCESS IS TERMINATED  
Event date: 04/29/1997  
Event: REFERRED TO A NON-RCRA AUTHORITY-OTHER  
Event date: 04/29/1997  
Event: INVESTIGATION IMPOSITION  
Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 04/29/1997  
Evaluation: FOCUSED COMPLIANCE INSPECTION  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TEN EYCK PROPERTY (Continued)**

**1001195504**

FINDS:

Registry ID: 110064726621

Environmental Interest/Information System

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1001195504  
Registry ID: 110064726621  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110064726621>

Count: 3 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
WESTMINSTER	S123307510	VILLAGE HOMES II	72ND AND DEPEW (NE CORNER)		VCP
WESTMINSTER	S123307501	VILLAGE HOMES	NE OF 72ND AND DEPEW STREET		VCP
WESTMINSTER	S123307574	SHOENBURG FARM - LOT 2 - NAD	7355 N. SHERIDAN BLVD.		VCP

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## STANDARD ENVIRONMENTAL RECORDS

### ***Federal NPL site list***

#### **NPL: National Priority List**

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: N/A
Date Made Active in Reports: 11/20/2019	Last EDR Contact: 01/03/2020
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Quarterly

#### **NPL Site Boundaries**

##### **Sources:**

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 7  
Telephone: 913-551-7247

EPA Region 4  
Telephone 404-562-8033

EPA Region 8  
Telephone: 303-312-6774

EPA Region 5  
Telephone 312-886-6686

EPA Region 9  
Telephone: 415-947-4246

EPA Region 10  
Telephone 206-553-8665

#### **Proposed NPL: Proposed National Priority List Sites**

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: N/A
Date Made Active in Reports: 11/20/2019	Last EDR Contact: 01/03/2020
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Quarterly

#### **NPL LIENS: Federal Superfund Liens**

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991  
Date Data Arrived at EDR: 02/02/1994  
Date Made Active in Reports: 03/30/1994  
Number of Days to Update: 56

Source: EPA  
Telephone: 202-564-4267  
Last EDR Contact: 08/15/2011  
Next Scheduled EDR Contact: 11/28/2011  
Data Release Frequency: No Update Planned

## ***Federal Delisted NPL site list***

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/25/2019  
Date Data Arrived at EDR: 11/07/2019  
Date Made Active in Reports: 11/20/2019  
Number of Days to Update: 13

Source: EPA  
Telephone: N/A  
Last EDR Contact: 01/03/2020  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Quarterly

## ***Federal CERCLIS list***

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019  
Date Data Arrived at EDR: 04/05/2019  
Date Made Active in Reports: 05/14/2019  
Number of Days to Update: 39

Source: Environmental Protection Agency  
Telephone: 703-603-8704  
Last EDR Contact: 04/05/2019  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2019  
Date Data Arrived at EDR: 11/07/2019  
Date Made Active in Reports: 11/21/2019  
Number of Days to Update: 14

Source: EPA  
Telephone: 800-424-9346  
Last EDR Contact: 01/03/2020  
Next Scheduled EDR Contact: 01/27/2020  
Data Release Frequency: Quarterly

## ***Federal CERCLIS NFRAP site list***

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: 800-424-9346
Date Made Active in Reports: 11/21/2019	Last EDR Contact: 01/03/2020
Number of Days to Update: 14	Next Scheduled EDR Contact: 01/27/2020
	Data Release Frequency: Quarterly

## ***Federal RCRA CORRACTS facilities list***

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/16/2019	Source: EPA
Date Data Arrived at EDR: 12/16/2019	Telephone: 800-424-9346
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

## ***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: 303-312-6149
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

## ***Federal RCRA generators list***

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: 303-312-6149
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: 303-312-6149
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

## RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: 303-312-6149
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

## ***Federal institutional controls / engineering controls registries***

### LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/13/2019	Source: Department of the Navy
Date Data Arrived at EDR: 08/20/2019	Telephone: 843-820-7326
Date Made Active in Reports: 08/26/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 6	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: Varies

### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/19/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/20/2019	Telephone: 703-603-0695
Date Made Active in Reports: 08/26/2019	Last EDR Contact: 11/22/2019
Number of Days to Update: 6	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

### US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/19/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/20/2019	Telephone: 703-603-0695
Date Made Active in Reports: 08/26/2019	Last EDR Contact: 11/22/2019
Number of Days to Update: 6	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **Federal ERNS list**

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/09/2019

Date Data Arrived at EDR: 09/09/2019

Date Made Active in Reports: 09/23/2019

Number of Days to Update: 14

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 12/19/2019

Next Scheduled EDR Contact: 04/06/2020

Data Release Frequency: Quarterly

## **State- and tribal - equivalent CERCLIS**

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A

Date Data Arrived at EDR: N/A

Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: Department of Public Health & Environment

Telephone: 303-692-3300

Last EDR Contact: 11/07/2019

Next Scheduled EDR Contact: 02/24/2020

Data Release Frequency: N/A

## **State and tribal landfill and/or solid waste disposal site lists**

SWF/LF: Solid Waste Sites & Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 12/04/2014

Date Data Arrived at EDR: 02/13/2015

Date Made Active in Reports: 03/04/2015

Number of Days to Update: 19

Source: Department of Public Health & Environment

Telephone: 303-692-3300

Last EDR Contact: 11/08/2019

Next Scheduled EDR Contact: 02/17/2020

Data Release Frequency: Annually

## **State and tribal leaking storage tank lists**

LTANKS: Petroleum Release Events Listing

Active and Closed OPS Petroleum Release Events in Colorado. Includes the OPS Open Event locations, but also shows locations of closed events (releases that have been issued a No Further Action determination).

Date of Government Version: 12/02/2019

Date Data Arrived at EDR: 12/04/2019

Date Made Active in Reports: 12/24/2019

Number of Days to Update: 20

Source: Department of Labor & Employment

Telephone: 303-318-8525

Last EDR Contact: 12/04/2019

Next Scheduled EDR Contact: 03/16/2020

Data Release Frequency: Quarterly

LAST: Leaking Aboveground Storage Tank Listing

A listing of leaking aboveground storage tank sites. This list is no longer maintained. For current Leaking AST information, please see LTANKS.

Date of Government Version: 03/01/2018

Date Data Arrived at EDR: 03/07/2018

Date Made Active in Reports: 04/03/2018

Number of Days to Update: 27

Source: Department of Labor & Employment

Telephone: 303-318-8525

Last EDR Contact: 05/31/2018

Next Scheduled EDR Contact: 09/10/2018

Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## LUST: Leaking Underground Storage Tank List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/01/2018	Source: Department of Labor and Employment, Oil Inspection Section
Date Data Arrived at EDR: 03/07/2018	Telephone: 303-318-8521
Date Made Active in Reports: 04/03/2018	Last EDR Contact: 03/07/2018
Number of Days to Update: 27	Next Scheduled EDR Contact: 06/18/2018
	Data Release Frequency: Quarterly

## INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/12/2019	Source: EPA Region 4
Date Data Arrived at EDR: 07/29/2019	Telephone: 404-562-8677
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/03/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/08/2019	Source: EPA, Region 5
Date Data Arrived at EDR: 07/30/2019	Telephone: 312-886-7439
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/11/2019	Source: EPA Region 1
Date Data Arrived at EDR: 07/29/2019	Telephone: 617-918-1313
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/02/2019	Source: EPA Region 8
Date Data Arrived at EDR: 10/22/2019	Telephone: 303-312-6271
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 20	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/16/2019	Source: EPA Region 10
Date Data Arrived at EDR: 07/29/2019	Telephone: 206-553-2857
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/01/2019	Source: EPA Region 6
Date Data Arrived at EDR: 07/29/2019	Telephone: 214-665-6597
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/29/2019	Telephone: 415-972-3372
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 07/02/2019	Source: EPA Region 7
Date Data Arrived at EDR: 10/16/2019	Telephone: 913-551-7003
Date Made Active in Reports: 10/24/2019	Last EDR Contact: 12/16/2020
Number of Days to Update: 8	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## TRUST: Lust Trust Sites

Reimbursement application package. The 1989 Colorado General Assembly established Colorado's Petroleum Storage Tank Fund. The Fund reimburses eligible applicants for allowable costs incurred in cleaning up petroleum contamination from underground and aboveground petroleum storage tanks, as well as for third-party liability expenses. Remediation of contamination caused by railroad or aircraft fuel is not eligible for reimbursement. The Fund satisfies federal Environmental Protection Agency financial assurance requirements. Monies in the Fund come from various sources, predominantly the state environmental surcharge imposed on all petroleum products except railroad or aircraft fuel.

Date of Government Version: 02/28/2019	Source: Department of Labor and Employment, Oil Inspection Section
Date Data Arrived at EDR: 03/01/2019	Telephone: 303-318-8521
Date Made Active in Reports: 04/09/2019	Last EDR Contact: 12/17/2019
Number of Days to Update: 39	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Varies

## **State and tribal registered storage tank lists**

### FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/27/2019	Source: FEMA
Date Data Arrived at EDR: 08/28/2019	Telephone: 202-646-5797
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 10/11/2019
Number of Days to Update: 75	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Varies

### UST: Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 12/02/2019	Source: Department of Labor and Employment, Oil Inspection Section
Date Data Arrived at EDR: 12/12/2019	Telephone: 303-318-8521
Date Made Active in Reports: 12/26/2019	Last EDR Contact: 12/12/2019
Number of Days to Update: 14	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Quarterly

### AST: Aboveground Tank List

Aboveground storage tank locations.

Date of Government Version: 12/02/2019	Source: Department of Labor and Employment, Oil Inspection Section
Date Data Arrived at EDR: 12/12/2019	Telephone: 303-318-8521
Date Made Active in Reports: 12/26/2019	Last EDR Contact: 12/12/2019
Number of Days to Update: 14	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Semi-Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/01/2019	Source: EPA Region 6
Date Data Arrived at EDR: 07/29/2019	Telephone: 214-665-7591
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/02/2019	Source: EPA Region 8
Date Data Arrived at EDR: 10/22/2019	Telephone: 303-312-6137
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 20	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2019	Source: EPA Region 9
Date Data Arrived at EDR: 07/29/2019	Telephone: 415-972-3368
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/08/2019	Source: EPA Region 5
Date Data Arrived at EDR: 07/29/2019	Telephone: 312-886-6136
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations).

Date of Government Version: 04/12/2019	Source: EPA Region 4
Date Data Arrived at EDR: 07/29/2019	Telephone: 404-562-9424
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/03/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/16/2019	Source: EPA Region 10
Date Data Arrived at EDR: 07/30/2019	Telephone: 206-553-2857
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2019	Source: EPA Region 7
Date Data Arrived at EDR: 07/29/2019	Telephone: 913-551-7003
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/11/2019	Source: EPA, Region 1
Date Data Arrived at EDR: 07/30/2019	Telephone: 617-918-1313
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

### **State and tribal institutional control / engineering control registries**

#### AUL: Environmental Real Covenants List

Senate Bill 01-145 gave authority to the Colorado Department of Public Health and Environment to approve requests to restrict the future use of a property using an enforceable agreement called an environmental covenant. When a contaminated site is not cleaned up completely, land use restrictions may be used to ensure that the selected cleanup remedy is adequately protective of human health and the environment.

Date of Government Version: 09/03/2019	Source: Department of Public Health & Environment
Date Data Arrived at EDR: 10/29/2019	Telephone: 303-692-3331
Date Made Active in Reports: 12/13/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 45	Next Scheduled EDR Contact: 02/10/2020
	Data Release Frequency: Varies

### **State and tribal voluntary cleanup sites**

#### VCP: Voluntary Cleanup & Redevelopment Act Application Tracking Report

The Voluntary Cleanup and Redevelopment Act is intended to permit and encourage voluntary cleanups by providing a method to determine clean-up responsibilities in planning the reuse of property. The VCRA was intended for sites which were not covered by existing regulatory programs.

Date of Government Version: 12/06/2018	Source: Department of Public Health and Environmental
Date Data Arrived at EDR: 01/08/2019	Telephone: 303-692-3331
Date Made Active in Reports: 03/11/2019	Last EDR Contact: 10/11/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Semi-Annually

#### INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 12/17/2019
Number of Days to Update: 142	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Varies

#### INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/20/2008  
Date Data Arrived at EDR: 04/22/2008  
Date Made Active in Reports: 05/19/2008  
Number of Days to Update: 27

Source: EPA, Region 7  
Telephone: 913-551-7365  
Last EDR Contact: 04/20/2009  
Next Scheduled EDR Contact: 07/20/2009  
Data Release Frequency: Varies

## ***State and tribal Brownfields sites***

BROWNFIELDS: Brownfields Sites Listing  
Brownfields Sites Listing

Date of Government Version: 10/18/2019  
Date Data Arrived at EDR: 10/18/2019  
Date Made Active in Reports: 12/11/2019  
Number of Days to Update: 54

Source: Department of Public Health & Environment  
Telephone: 303-692-3331  
Last EDR Contact: 10/17/2019  
Next Scheduled EDR Contact: 02/03/2020  
Data Release Frequency: Varies

## **ADDITIONAL ENVIRONMENTAL RECORDS**

### ***Local Brownfield lists***

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/03/2019  
Date Data Arrived at EDR: 06/04/2019  
Date Made Active in Reports: 08/26/2019  
Number of Days to Update: 83

Source: Environmental Protection Agency  
Telephone: 202-566-2777  
Last EDR Contact: 12/16/2019  
Next Scheduled EDR Contact: 03/30/2020  
Data Release Frequency: Semi-Annually

### ***Local Lists of Landfill / Solid Waste Disposal Sites***

SWRCY: Registered Recyclers Listing

A listing of registered recycler locations in the state of Colorado.

Date of Government Version: 09/03/2019  
Date Data Arrived at EDR: 09/09/2019  
Date Made Active in Reports: 09/27/2019  
Number of Days to Update: 18

Source: Department of Public Health & Environment  
Telephone: 303-692-3337  
Last EDR Contact: 12/05/2019  
Next Scheduled EDR Contact: 03/23/2020  
Data Release Frequency: Semi-Annually

HISTORICAL LANDFILL: Historical Landfill List  
Abandoned/Inactive Landfills.

Date of Government Version: 01/31/1993  
Date Data Arrived at EDR: 04/24/1994  
Date Made Active in Reports: 05/30/1994  
Number of Days to Update: 36

Source: Department of Public Health & Environment  
Telephone: 303-692-3300  
Last EDR Contact: 09/05/1996  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands  
Location of open dumps on Indian land.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/1998  
Date Data Arrived at EDR: 12/03/2007  
Date Made Active in Reports: 01/24/2008  
Number of Days to Update: 52

Source: Environmental Protection Agency  
Telephone: 703-308-8245  
Last EDR Contact: 10/28/2019  
Next Scheduled EDR Contact: 02/10/2020  
Data Release Frequency: Varies

## ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985  
Date Data Arrived at EDR: 08/09/2004  
Date Made Active in Reports: 09/17/2004  
Number of Days to Update: 39

Source: Environmental Protection Agency  
Telephone: 800-424-9346  
Last EDR Contact: 06/09/2004  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009  
Date Data Arrived at EDR: 05/07/2009  
Date Made Active in Reports: 09/21/2009  
Number of Days to Update: 137

Source: EPA, Region 9  
Telephone: 415-947-4219  
Last EDR Contact: 10/17/2019  
Next Scheduled EDR Contact: 02/03/2020  
Data Release Frequency: No Update Planned

## IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014  
Date Data Arrived at EDR: 08/06/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service  
Telephone: 301-443-1452  
Last EDR Contact: 11/01/2019  
Next Scheduled EDR Contact: 02/10/2020  
Data Release Frequency: Varies

## DENVER CO HISTORIC FILL: Denver City & County Historic Fill Areas

This dataset denotes the approximate locations of historical fill areas within the City and County of Denver (CCoD) and with within approximately three-quarters of a mile of the CCoD boundaries. The data is of a general nature and obtained from historic and current documents that may not be accurate or precise.

Date of Government Version: 01/11/2018  
Date Data Arrived at EDR: 10/08/2019  
Date Made Active in Reports: 12/05/2019  
Number of Days to Update: 58

Source: City & County of Denver  
Telephone: 720-913-5237  
Last EDR Contact: 10/08/2019  
Next Scheduled EDR Contact: 01/20/2020  
Data Release Frequency: No Update Planned

## **Local Lists of Hazardous waste / Contaminated Sites**

### US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 06/11/2019  
Date Data Arrived at EDR: 06/13/2019  
Date Made Active in Reports: 09/03/2019  
Number of Days to Update: 82

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 11/20/2019  
Next Scheduled EDR Contact: 03/09/2020  
Data Release Frequency: No Update Planned

### CDL: Meth Lab Locations

Meth lab locations that were reported to the Department of Public Health & Environment.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/25/2019  
Date Data Arrived at EDR: 09/26/2019  
Date Made Active in Reports: 11/27/2019  
Number of Days to Update: 62

Source: Department of Public Health and Environment  
Telephone: 303-692-3023  
Last EDR Contact: 12/19/2019  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Quarterly

## US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/11/2019  
Date Data Arrived at EDR: 06/13/2019  
Date Made Active in Reports: 09/03/2019  
Number of Days to Update: 82

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 11/20/2019  
Next Scheduled EDR Contact: 03/09/2020  
Data Release Frequency: Quarterly

## Local Land Records

### LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 10/25/2019  
Date Data Arrived at EDR: 11/07/2019  
Date Made Active in Reports: 11/20/2019  
Number of Days to Update: 13

Source: Environmental Protection Agency  
Telephone: 202-564-6023  
Last EDR Contact: 01/03/2020  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Semi-Annually

## Records of Emergency Release Reports

### HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2019  
Date Data Arrived at EDR: 06/26/2019  
Date Made Active in Reports: 09/23/2019  
Number of Days to Update: 89

Source: U.S. Department of Transportation  
Telephone: 202-366-4555  
Last EDR Contact: 12/06/2019  
Next Scheduled EDR Contact: 04/06/2020  
Data Release Frequency: Quarterly

### SPILLS 2: Spills

A listing of spills reported to the Oil & Gas Conservation Commission

Date of Government Version: 09/23/2019  
Date Data Arrived at EDR: 09/24/2019  
Date Made Active in Reports: 11/21/2019  
Number of Days to Update: 58

Source: Oil & Gas Conservation Commission  
Telephone: 303-894-2100  
Last EDR Contact: 12/19/2019  
Next Scheduled EDR Contact: 04/06/2020  
Data Release Frequency: Quarterly

### CO ERNS: Spills Database

State reported spills.

Date of Government Version: 09/25/2019  
Date Data Arrived at EDR: 09/26/2019  
Date Made Active in Reports: 11/27/2019  
Number of Days to Update: 62

Source: Department of Public Health and Environmental  
Telephone: 303-692-2000  
Last EDR Contact: 12/19/2019  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/15/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/06/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 34	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## Other Ascertainable Records

### RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: 303-312-6149
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

### FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/15/2019	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 05/21/2019	Telephone: 202-528-4285
Date Made Active in Reports: 08/08/2019	Last EDR Contact: 11/19/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Varies

### DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/11/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Semi-Annually

### FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 10/07/2019
Number of Days to Update: 574	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: N/A

### SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2017  
Date Data Arrived at EDR: 02/03/2017  
Date Made Active in Reports: 04/07/2017  
Number of Days to Update: 63

Source: Environmental Protection Agency  
Telephone: 615-532-8599  
Last EDR Contact: 12/02/2019  
Next Scheduled EDR Contact: 02/24/2020  
Data Release Frequency: Varies

## US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/23/2019  
Date Data Arrived at EDR: 09/24/2019  
Date Made Active in Reports: 12/20/2019  
Number of Days to Update: 87

Source: Environmental Protection Agency  
Telephone: 202-566-1917  
Last EDR Contact: 12/19/2019  
Next Scheduled EDR Contact: 04/06/2020  
Data Release Frequency: Quarterly

## EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013  
Date Data Arrived at EDR: 03/21/2014  
Date Made Active in Reports: 06/17/2014  
Number of Days to Update: 88

Source: Environmental Protection Agency  
Telephone: 617-520-3000  
Last EDR Contact: 10/31/2019  
Next Scheduled EDR Contact: 02/17/2020  
Data Release Frequency: Quarterly

## 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017  
Date Data Arrived at EDR: 05/08/2018  
Date Made Active in Reports: 07/20/2018  
Number of Days to Update: 73

Source: Environmental Protection Agency  
Telephone: 703-308-4044  
Last EDR Contact: 11/08/2019  
Next Scheduled EDR Contact: 02/17/2020  
Data Release Frequency: Varies

## TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016  
Date Data Arrived at EDR: 06/21/2017  
Date Made Active in Reports: 01/05/2018  
Number of Days to Update: 198

Source: EPA  
Telephone: 202-260-5521  
Last EDR Contact: 12/20/2019  
Next Scheduled EDR Contact: 03/30/2020  
Data Release Frequency: Every 4 Years

## TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2017  
Date Data Arrived at EDR: 11/16/2018  
Date Made Active in Reports: 11/21/2019  
Number of Days to Update: 370

Source: EPA  
Telephone: 202-566-0250  
Last EDR Contact: 11/22/2019  
Next Scheduled EDR Contact: 03/02/2020  
Data Release Frequency: Annually

## SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 09/30/2018  
Date Data Arrived at EDR: 04/24/2019  
Date Made Active in Reports: 08/08/2019  
Number of Days to Update: 106

Source: EPA  
Telephone: 202-564-4203  
Last EDR Contact: 10/23/2019  
Next Scheduled EDR Contact: 02/03/2020  
Data Release Frequency: Annually

## ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 10/25/2019  
Date Data Arrived at EDR: 11/07/2019  
Date Made Active in Reports: 11/20/2019  
Number of Days to Update: 13

Source: EPA  
Telephone: 703-416-0223  
Last EDR Contact: 01/03/2020  
Next Scheduled EDR Contact: 03/16/2020  
Data Release Frequency: Annually

## RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019  
Date Data Arrived at EDR: 05/02/2019  
Date Made Active in Reports: 05/23/2019  
Number of Days to Update: 21

Source: Environmental Protection Agency  
Telephone: 202-564-8600  
Last EDR Contact: 10/21/2019  
Next Scheduled EDR Contact: 02/03/2020  
Data Release Frequency: Varies

## RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995  
Date Data Arrived at EDR: 07/03/1995  
Date Made Active in Reports: 08/07/1995  
Number of Days to Update: 35

Source: EPA  
Telephone: 202-564-4104  
Last EDR Contact: 06/02/2008  
Next Scheduled EDR Contact: 09/01/2008  
Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: 202-564-6023
Date Made Active in Reports: 11/21/2019	Last EDR Contact: 01/03/2020
Number of Days to Update: 14	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Quarterly

## PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019	Source: EPA
Date Data Arrived at EDR: 10/11/2019	Telephone: 202-566-0500
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 10/11/2019
Number of Days to Update: 70	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Annually

## ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 01/06/2020
Number of Days to Update: 79	Next Scheduled EDR Contact: 04/20/2020
	Data Release Frequency: Quarterly

## FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

## FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

## MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/20/2019	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 06/20/2019	Telephone: 301-415-7169
Date Made Active in Reports: 08/08/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 49	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 12/04/2019
Number of Days to Update: 76	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Varies

## COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 11/25/2019
Number of Days to Update: 251	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Varies

## PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/30/2017	Telephone: 202-566-0517
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 11/06/2019
Number of Days to Update: 15	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Varies

## RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2019	Telephone: 202-343-9775
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 12/20/2019
Number of Days to Update: 84	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Quarterly

## HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

## HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 12/17/2008  
Next Scheduled EDR Contact: 03/17/2008  
Data Release Frequency: No Update Planned

## DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/01/2019  
Date Data Arrived at EDR: 07/31/2019  
Date Made Active in Reports: 10/24/2019  
Number of Days to Update: 85

Source: Department of Transportation, Office of Pipeline Safety  
Telephone: 202-366-4595  
Last EDR Contact: 10/29/2019  
Next Scheduled EDR Contact: 02/10/2020  
Data Release Frequency: Quarterly

## CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2019  
Date Data Arrived at EDR: 10/09/2019  
Date Made Active in Reports: 12/20/2019  
Number of Days to Update: 72

Source: Department of Justice, Consent Decree Library  
Telephone: Varies  
Last EDR Contact: 01/06/2020  
Next Scheduled EDR Contact: 04/20/2020  
Data Release Frequency: Varies

## BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015  
Date Data Arrived at EDR: 02/22/2017  
Date Made Active in Reports: 09/28/2017  
Number of Days to Update: 218

Source: EPA/NTIS  
Telephone: 800-424-9346  
Last EDR Contact: 12/16/2019  
Next Scheduled EDR Contact: 04/06/2020  
Data Release Frequency: Biennially

## INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014  
Date Data Arrived at EDR: 07/14/2015  
Date Made Active in Reports: 01/10/2017  
Number of Days to Update: 546

Source: USGS  
Telephone: 202-208-3710  
Last EDR Contact: 10/06/2019  
Next Scheduled EDR Contact: 01/19/2020  
Data Release Frequency: Semi-Annually

## FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017  
Date Data Arrived at EDR: 09/11/2018  
Date Made Active in Reports: 09/14/2018  
Number of Days to Update: 3

Source: Department of Energy  
Telephone: 202-586-3559  
Last EDR Contact: 11/04/2019  
Next Scheduled EDR Contact: 02/17/2020  
Data Release Frequency: Varies

## UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2019  
Date Data Arrived at EDR: 08/21/2019  
Date Made Active in Reports: 11/11/2019  
Number of Days to Update: 82

Source: Department of Energy  
Telephone: 505-845-0011  
Last EDR Contact: 11/15/2019  
Next Scheduled EDR Contact: 03/02/2020  
Data Release Frequency: Varies

## LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 10/25/2019  
Date Data Arrived at EDR: 11/07/2019  
Date Made Active in Reports: 11/20/2019  
Number of Days to Update: 13

Source: Environmental Protection Agency  
Telephone: 703-603-8787  
Last EDR Contact: 01/03/2020  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Varies

## LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001  
Date Data Arrived at EDR: 10/27/2010  
Date Made Active in Reports: 12/02/2010  
Number of Days to Update: 36

Source: American Journal of Public Health  
Telephone: 703-305-6451  
Last EDR Contact: 12/02/2009  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

## US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

## MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 09/17/2019  
Date Data Arrived at EDR: 09/18/2019  
Date Made Active in Reports: 12/03/2019  
Number of Days to Update: 76

Source: DOL, Mine Safety & Health Administration  
Telephone: 202-693-9424  
Last EDR Contact: 12/02/2019  
Next Scheduled EDR Contact: 03/16/2020  
Data Release Frequency: Quarterly

## US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2019  
Date Data Arrived at EDR: 08/27/2019  
Date Made Active in Reports: 11/11/2019  
Number of Days to Update: 76

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959  
Last EDR Contact: 08/27/2019  
Next Scheduled EDR Contact: 12/09/2019  
Data Release Frequency: Semi-Annually

## US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005  
Date Data Arrived at EDR: 02/29/2008  
Date Made Active in Reports: 04/18/2008  
Number of Days to Update: 49

Source: USGS  
Telephone: 703-648-7709  
Last EDR Contact: 11/22/2019  
Next Scheduled EDR Contact: 03/09/2020  
Data Release Frequency: Varies

## US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011  
Date Data Arrived at EDR: 06/08/2011  
Date Made Active in Reports: 09/13/2011  
Number of Days to Update: 97

Source: USGS  
Telephone: 703-648-7709  
Last EDR Contact: 11/22/2019  
Next Scheduled EDR Contact: 03/09/2020  
Data Release Frequency: Varies

## ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2019  
Date Data Arrived at EDR: 09/10/2019  
Date Made Active in Reports: 10/17/2019  
Number of Days to Update: 37

Source: Department of Interior  
Telephone: 202-208-2609  
Last EDR Contact: 12/04/2019  
Next Scheduled EDR Contact: 03/23/2020  
Data Release Frequency: Quarterly

## FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/12/2019  
Date Data Arrived at EDR: 09/04/2019  
Date Made Active in Reports: 12/03/2019  
Number of Days to Update: 90

Source: EPA  
Telephone: (303) 312-6312  
Last EDR Contact: 12/04/2019  
Next Scheduled EDR Contact: 03/16/2020  
Data Release Frequency: Quarterly

## UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017  
Date Data Arrived at EDR: 01/17/2019  
Date Made Active in Reports: 04/01/2019  
Number of Days to Update: 74

Source: Department of Defense  
Telephone: 703-704-1564  
Last EDR Contact: 10/10/2019  
Next Scheduled EDR Contact: 01/27/2020  
Data Release Frequency: Varies



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 11/20/2019
Number of Days to Update: 71	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

## ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 10/06/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/08/2019	Telephone: 202-564-2280
Date Made Active in Reports: 01/02/2020	Last EDR Contact: 10/08/2019
Number of Days to Update: 86	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Quarterly

## FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/19/2019	Source: EPA
Date Data Arrived at EDR: 08/20/2019	Telephone: 800-385-6164
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 11/19/2019
Number of Days to Update: 83	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Quarterly

## AIRS: Permitted Facility & Emissions Listing

A listing of Air Pollution Control Division permits and emissions data.

Date of Government Version: 12/02/2019	Source: Department of Public Health & Environment
Date Data Arrived at EDR: 12/03/2019	Telephone: 303-692-3213
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/02/2019
Number of Days to Update: 17	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Varies

## ASBESTOS: Asbestos Abatement & Demolition Projects

Asbestos abatement and demolition projects by the contractor.

Date of Government Version: 02/26/2019	Source: Department of Public Health & Environment
Date Data Arrived at EDR: 02/28/2019	Telephone: 303-692-3100
Date Made Active in Reports: 04/09/2019	Last EDR Contact: 10/16/2019
Number of Days to Update: 40	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Semi-Annually

## METHANE SITE: Methane Site Investigations - Jefferson County 1980

The objectives of the study are to define as closely as possible the boundaries of methane producing solid waste landfills.

Date of Government Version: 12/31/1980	Source: Jefferson County Health Department
Date Data Arrived at EDR: 02/13/1995	Telephone: 303-239-7175
Date Made Active in Reports: 04/04/1995	Last EDR Contact: 01/27/1995
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## METHANE INVESTIGATION: Methane Gas & Swamp Findings

The primary objective of this study was to assess methane gas related hazards at selected landfill sites in Colorado. These sites were selected by the Colorado Department of Health following evaluation of responses received from County and Municipal agencies about completed and existing landfills within their jurisdiction.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/15/1979  
Date Data Arrived at EDR: 02/13/1995  
Date Made Active in Reports: 04/04/1995  
Number of Days to Update: 50

Source: Department of Health  
Telephone: 303-640-3335  
Last EDR Contact: 01/27/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## DRYCLEANERS: Drycleaner Facilities

A listing of drycleaning facilities.

Date of Government Version: 12/02/2019  
Date Data Arrived at EDR: 12/03/2019  
Date Made Active in Reports: 12/24/2019  
Number of Days to Update: 21

Source: Department of Public Health & Environment  
Telephone: 303-692-3213  
Last EDR Contact: 12/02/2019  
Next Scheduled EDR Contact: 03/16/2020  
Data Release Frequency: Varies

## Financial Assurance 1: Financial Assurance Information Listing

A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 09/30/2019  
Date Data Arrived at EDR: 10/09/2019  
Date Made Active in Reports: 12/06/2019  
Number of Days to Update: 58

Source: Department of Public Health & Environment  
Telephone: 303-692-3350  
Last EDR Contact: 12/19/2019  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Varies

## Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 09/30/2019  
Date Data Arrived at EDR: 10/09/2019  
Date Made Active in Reports: 12/06/2019  
Number of Days to Update: 58

Source: Department of Public Health & Environment  
Telephone: 303-392-3350  
Last EDR Contact: 12/19/2019  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Quarterly

## LEAD: Lead Abatement Permit Listing

Lead inspection

Date of Government Version: 02/26/2019  
Date Data Arrived at EDR: 02/28/2019  
Date Made Active in Reports: 04/09/2019  
Number of Days to Update: 40

Source: Department of Public Health & Environment  
Telephone: 303-692-2000  
Last EDR Contact: 11/14/2019  
Next Scheduled EDR Contact: 02/17/2020  
Data Release Frequency: Varies

## MINES: Permitted Mines Listing

This dataset represents permitted mines in the State of Colorado

Date of Government Version: 10/15/2019  
Date Data Arrived at EDR: 10/16/2019  
Date Made Active in Reports: 12/09/2019  
Number of Days to Update: 54

Source: Division of Reclamation Mining and safety  
Telephone: 303-866-3567  
Last EDR Contact: 10/16/2019  
Next Scheduled EDR Contact: 01/27/2020  
Data Release Frequency: Semi-Annually

## NPDES: Permitted Facility Listing

A listing of permitted facilities from the Water Quality Control Division.

Date of Government Version: 10/03/2019  
Date Data Arrived at EDR: 12/03/2019  
Date Made Active in Reports: 01/02/2020  
Number of Days to Update: 30

Source: Department of Public Health & Environment  
Telephone: 303-692-3611  
Last EDR Contact: 11/20/2019  
Next Scheduled EDR Contact: 02/10/2020  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## UIC: Underground Injection Control

A list of underground injection wells and their locations.

Date of Government Version: 11/13/2020	Source: Oil & Gas Conservation Commission
Date Data Arrived at EDR: 11/14/2019	Telephone: 303-894-2100
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 36	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: Varies

## UMTRA: Uranium Mill Tailings Sites

There were nine uranium mill tailings sites in Colorado designated for cleanup under the federal Uranium Mill Tailings Radiation Control Act. These nine sites, known commonly as UMTRA sites, were remediated jointly by the State of Colorado and the U.S. Department of Energy during the late 1980's and early 1990's. Mill tailings were removed from 8 of the mill sites and relocated in engineered disposal cells. A disposal cell is designed to encapsulate the material, reduce radon emanation, and prevent the movement of water through the material. At one site, Maybell, CO, the tailings were stabilized in-place at the mill site. After remediation of the tailings was completed, the State and DOE began to investigate the residual impacts to groundwater at the mill sites. The groundwater phase of the UMTRA program is on-going.

Date of Government Version: 11/23/2004	Source: Department of Public Health & Environment
Date Data Arrived at EDR: 03/21/2007	Telephone: 970-248-7164
Date Made Active in Reports: 05/02/2007	Last EDR Contact: 11/22/2019
Number of Days to Update: 42	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Varies

## MINES MRDS: Mineral Resources Data System Mineral Resources Data System

Date of Government Version: 04/06/2018	Source: USGS
Date Data Arrived at EDR: 10/21/2019	Telephone: 703-648-6533
Date Made Active in Reports: 10/24/2019	Last EDR Contact: 11/22/2019
Number of Days to Update: 3	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

## EDR HIGH RISK HISTORICAL RECORDS

### *EDR Exclusive Records*

#### EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

#### EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## EDR RECOVERED GOVERNMENT ARCHIVES

### *Exclusive Recovered Govt. Archives*

#### RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Public Health & Environment in Colorado.

Date of Government Version: N/A  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 01/15/2014  
Number of Days to Update: 198

Source: Department of Public Health & Environment  
Telephone: N/A  
Last EDR Contact: 06/01/2012  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

#### RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Labor and Employment, Oil Inspection Section in Colorado.

Date of Government Version: N/A  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 01/02/2014  
Number of Days to Update: 185

Source: Department of Labor and Employment, Oil Inspection Section  
Telephone: N/A  
Last EDR Contact: 06/01/2012  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## COUNTY RECORDS

### ADAMS COUNTY:

LF ADAMS: Summary Report on Methane Gas Hazards and Surveys Conducted on Domestic and Demolition Landfills in Adams County  
As of May 8, 1978, all known landfills or dumping sites in the Adams County area have been surveyed.

Date of Government Version: 05/08/1978  
Date Data Arrived at EDR: 02/16/1995  
Date Made Active in Reports: 04/04/1995  
Number of Days to Update: 47

Source: Tri-County Health Department  
Telephone: 303-761-1340  
Last EDR Contact: 01/27/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

### ARAPAHOE COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## LF ARAPAHOE: A Survey of Landfills in Arapahoe County

A survey of Arapahoe County was conducted from August through November, 1977, of all open and closed landfills and dumpsites in the county. Each of the sites found was classified as domestic or demolition.

Date of Government Version: 12/31/1978  
Date Data Arrived at EDR: 02/16/1995  
Date Made Active in Reports: 04/04/1995  
Number of Days to Update: 47

Source: Tri-County Health Department  
Telephone: 303-761-1340  
Last EDR Contact: 01/27/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## BOULDER COUNTY:

### LF BOULDER: Old Landfill Sites

Landfill sites in Boulder county.

Date of Government Version: 05/01/1986  
Date Data Arrived at EDR: 11/14/1995  
Date Made Active in Reports: 12/07/1995  
Number of Days to Update: 23

Source: Boulder County Health Department  
Telephone: 303-441-1182  
Last EDR Contact: 01/30/1998  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## DENVER COUNTY:

### LF DENVER: Landfills in Denver County

Landfill sites in the city and county of Denver.

Date of Government Version: 06/23/2017  
Date Data Arrived at EDR: 06/23/2017  
Date Made Active in Reports: 09/06/2017  
Number of Days to Update: 75

Source: City and County of Denver  
Telephone: 720-913-4839  
Last EDR Contact: 12/16/2019  
Next Scheduled EDR Contact: 03/30/2020  
Data Release Frequency: No Update Planned

### LF DENVER CO METHANE: Investigation of Methane Gas Hazards

The purpose of this study was to assess the actual and potential generation, migration, explosive and related problem associated with specified old landfills, and to identify existing and potential problems, suggested strategies to prevent, abate, and control such problems and recommend investigative and monitoring functions as may be deemed necessary. Eight sites determined to be priorities due to population density and potential hazards to population and property were selected by the Colorado Department of Health.

Date of Government Version: 01/01/1981  
Date Data Arrived at EDR: 01/29/2013  
Date Made Active in Reports: 03/08/2013  
Number of Days to Update: 38

Source: City and County of Denver Department of Environmental Health  
Telephone: 720-865-5522  
Last EDR Contact: 01/15/2013  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## DOUGLAS COUNTY:

### LF DOUGLAS: Douglas County Landfill Key

Landfill sites in Douglas county.

Date of Government Version: 06/12/1991  
Date Data Arrived at EDR: 02/16/1995  
Date Made Active in Reports: 04/04/1995  
Number of Days to Update: 47

Source: Tri-County Health Department  
Telephone: 303-761-1340  
Last EDR Contact: 01/27/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## PUEBLO COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## LF PUEBLO: Designated Disposal & Landfill Sites

Only inert materials. Asphalt, cement, dirt & rock unless otherwise specified. These sites are no longer active.

Date of Government Version: 04/30/1990  
Date Data Arrived at EDR: 11/16/1995  
Date Made Active in Reports: 12/07/1995  
Number of Days to Update: 21

Source: Pueblo City-County Health Department  
Telephone: 719-583-4300  
Last EDR Contact: 11/13/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## TRI COUNTY:

### LF TRI: Tri-County Area Solid Waste Facilities List (Adams, Arapahoe and Douglas Counties)

Closed Domestic Landfills in Adams County, Closed Domestic Landfills in Arapahoe County, Closed Demolition Landfills in Arapahoe County, Closed Domestic Landfills in Douglas County.

Date of Government Version: 10/15/1983  
Date Data Arrived at EDR: 02/16/1995  
Date Made Active in Reports: 04/04/1995  
Number of Days to Update: 47

Source: Tri-County Health Department  
Telephone: 303-761-1340  
Last EDR Contact: 01/27/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## WELD COUNTY:

### LF WELD: Solid Waste Facilities in Weld County Solid Waste Facilities in Weld County.

Date of Government Version: 01/16/2018  
Date Data Arrived at EDR: 02/09/2018  
Date Made Active in Reports: 02/23/2018  
Number of Days to Update: 14

Source: Weld County Department of Public Health  
Telephone: 970-304-6415  
Last EDR Contact: 11/08/2019  
Next Scheduled EDR Contact: 02/17/2020  
Data Release Frequency: No Update Planned

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

### CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/14/2019  
Date Data Arrived at EDR: 05/14/2019  
Date Made Active in Reports: 08/05/2019  
Number of Days to Update: 83

Source: Department of Energy & Environmental Protection  
Telephone: 860-424-3375  
Last EDR Contact: 11/11/2019  
Next Scheduled EDR Contact: 02/24/2020  
Data Release Frequency: No Update Planned

### NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019  
Date Data Arrived at EDR: 05/01/2019  
Date Made Active in Reports: 06/21/2019  
Number of Days to Update: 51

Source: Department of Environmental Conservation  
Telephone: 518-402-8651  
Last EDR Contact: 10/29/2019  
Next Scheduled EDR Contact: 02/10/2020  
Data Release Frequency: Quarterly



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018  
Date Data Arrived at EDR: 07/19/2019  
Date Made Active in Reports: 09/10/2019  
Number of Days to Update: 53

Source: Department of Environmental Protection  
Telephone: 717-783-8990  
Last EDR Contact: 10/09/2019  
Next Scheduled EDR Contact: 12/07/2020  
Data Release Frequency: Annually

## WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018  
Date Data Arrived at EDR: 06/19/2019  
Date Made Active in Reports: 09/03/2019  
Number of Days to Update: 76

Source: Department of Natural Resources  
Telephone: N/A  
Last EDR Contact: 12/18/2019  
Next Scheduled EDR Contact: 03/23/2020  
Data Release Frequency: Annually

## Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

## Electric Power Transmission Line Data

Source: Endeavor Business Media

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**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

## AHA Hospitals:

Source: American Hospital Association, Inc.  
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

## Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services  
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

## Nursing Homes

Source: National Institutes of Health  
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

## Public Schools

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

## Private Schools

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Daycare Centers: Daycare Listing  
Source: Department of Human Services  
Telephone: 303-866-5958

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA  
Telephone: 877-336-2627  
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Riparian Vegetation Data  
Source: Division of Wildlife  
Telephone: 970-416-3360

Current USGS 7.5 Minute Topographic Map  
Source: U.S. Geological Survey

### **STREET AND ADDRESS INFORMATION**

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# GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

## TARGET PROPERTY ADDRESS

WESTMINSTER PROJECT #1  
WESTMINSTER  
BROOMFIELD, CO 80020

## TARGET PROPERTY COORDINATES

Latitude (North):	39.889388 - 39° 53' 21.80"
Longitude (West):	105.060403 - 105° 3' 37.45"
Universal Tranverse Mercator:	Zone 13
UTM X (Meters):	494835.6
UTM Y (Meters):	4415272.5
Elevation:	5277 ft. above sea level

## USGS TOPOGRAPHIC MAP

Target Property Map:	5958934 LAFAYETTE, CO
Version Date:	2013
South Map:	5958882 ARVADA, CO
Version Date:	2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

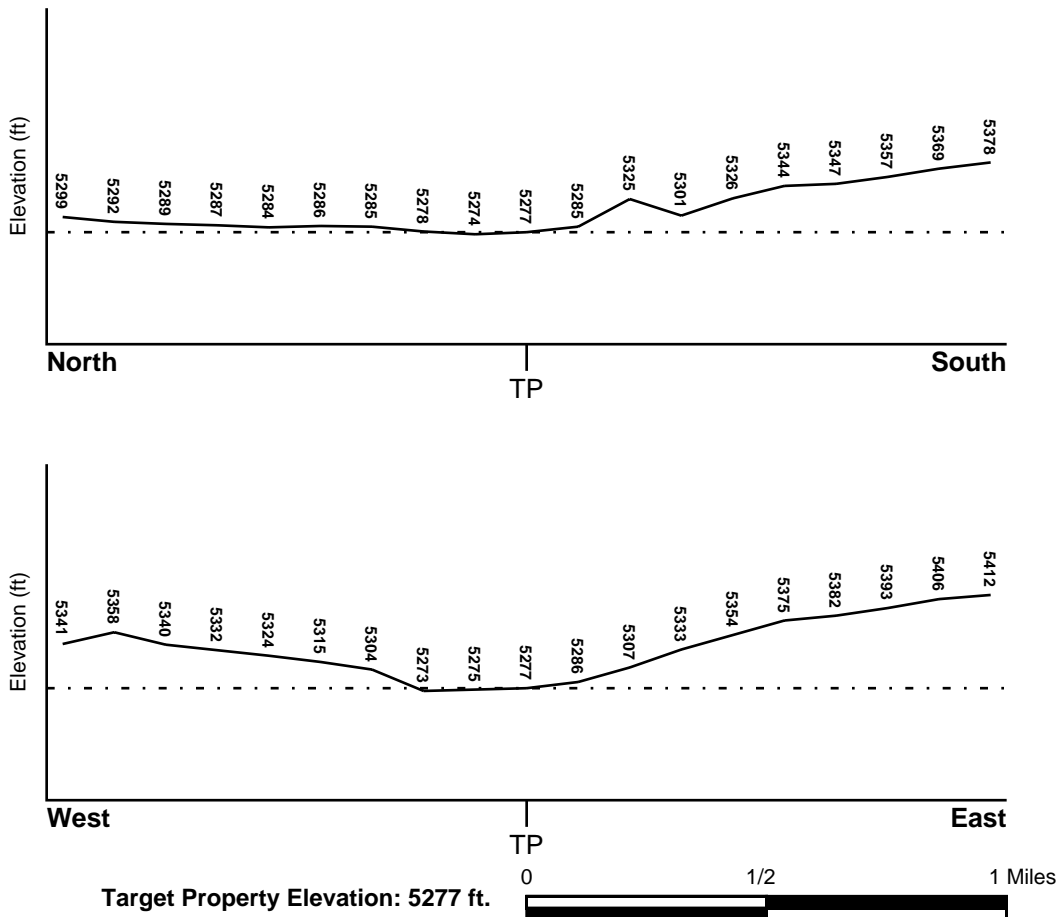
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNW

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## **FEMA FLOOD ZONE**

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
08001C0300H	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
08059C0202F	FEMA FIRM Flood data
08059C0206F	FEMA FIRM Flood data

## **NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
LAFAYETTE	YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

Era:	Mesozoic
System:	Cretaceous
Series:	Navarro Group
Code:	uK4 ( <i>decoded above as Era, System &amp; Series</i> )

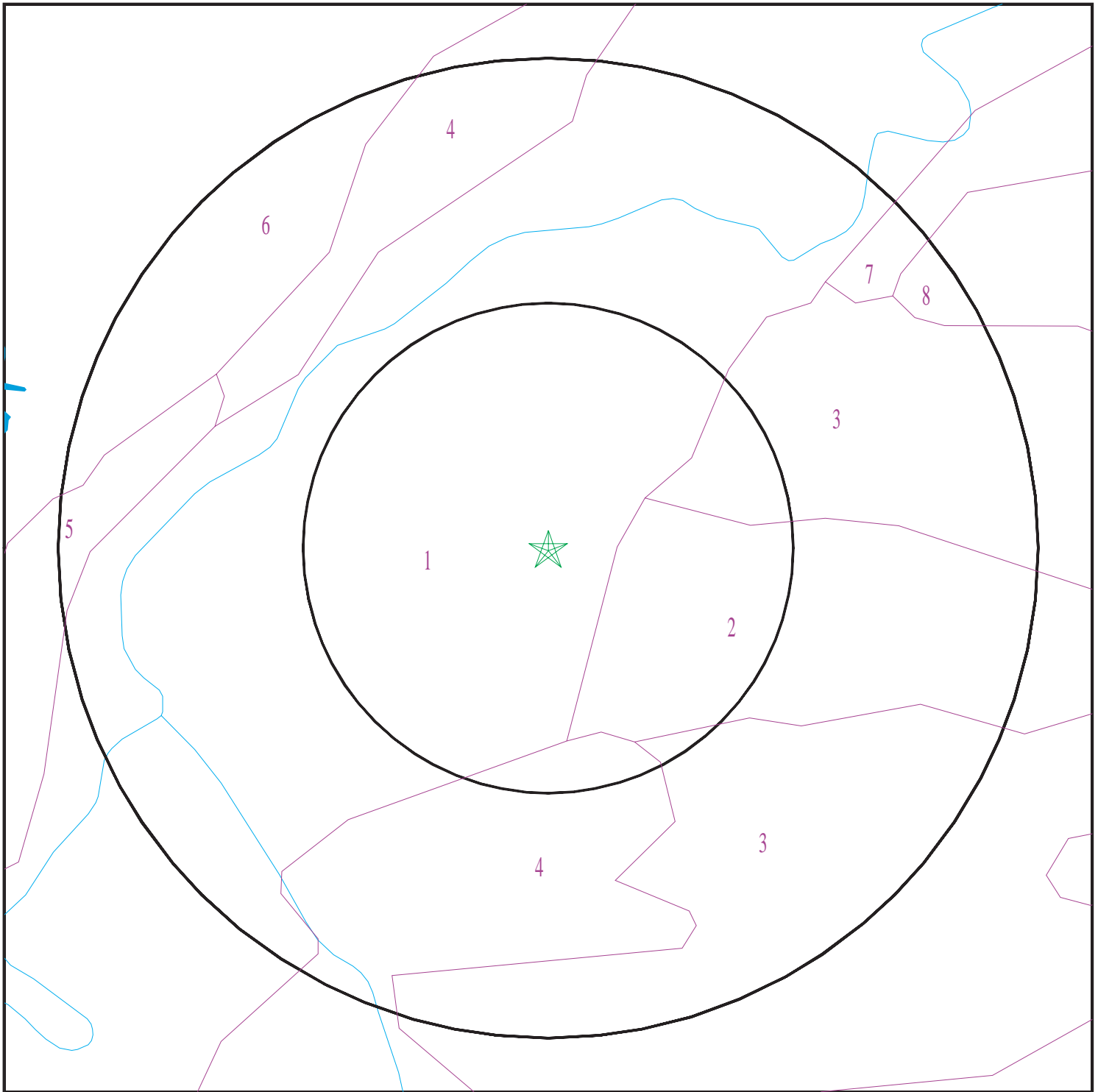
#### **GEOLOGIC AGE IDENTIFICATION**

Category: Stratified Sequence

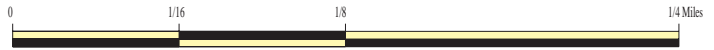
Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).



# SSURGO SOIL MAP - 5926947.2s



- ★ Target Property
- SSURGO Soil
- Water



SITE NAME: Westminster Project #1  
ADDRESS: Westminster  
Broomfield CO 80020  
LAT/LONG: 39.889388 / 105.060403

CLIENT: HDR  
CONTACT: Todd Wickert  
INQUIRY #: 5926947.2s  
DATE: January 07, 2020 4:18 pm

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

### Soil Map ID: 1

Soil Component Name: Arvada

Soil Surface Texture: clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 4.23 Min: 0.42	Max: 9.6 Min: 7.9
2	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 4.23 Min: 0.42	Max: 9.6 Min: 7.9
3	29 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 4.23 Min: 0.42	Max: 9.6 Min: 7.9

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### Soil Map ID: 2

Soil Component Name: Englewood

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 9 Min: 7.9
2	9 inches	38 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 9 Min: 7.9
3	38 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 9 Min: 7.9

### Soil Map ID: 3

Soil Component Name: Ulm

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 8.4 Min: 7.9
2	5 inches	20 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 8.4 Min: 7.9
3	20 inches	50 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 8.4 Min: 7.9
4	50 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 8.4 Min: 7.9

**Soil Map ID: 4**

Soil Component Name: Manzanola

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9
2	5 inches	29 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9
3	29 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9

**Soil Map ID: 5**

Soil Component Name: Manzanola

Soil Surface Texture: cobbly clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	cobbly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9
2	5 inches	29 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9
3	29 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9

**Soil Map ID: 6**

Soil Component Name: Platner

Soil Surface Texture: loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches



## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 42.34 Min: 4.23	Max: 8.4 Min: 7.9
2	7 inches	18 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 42.34 Min: 4.23	Max: 8.4 Min: 7.9
3	18 inches	44 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 42.34 Min: 4.23	Max: 8.4 Min: 7.9
4	44 inches	59 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 42.34 Min: 4.23	Max: 8.4 Min: 7.9

### Soil Map ID: 7

Soil Component Name: Manzanola

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9
2	5 inches	29 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9
3	29 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9

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### Soil Map ID: 8

Soil Component Name: Platner

Soil Surface Texture: loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 4.23	Max: 8.4 Min: 7.9
2	7 inches	18 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 4.23	Max: 8.4 Min: 7.9
3	18 inches	44 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 4.23	Max: 8.4 Min: 7.9
4	44 inches	59 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 4.23	Max: 8.4 Min: 7.9

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## **FEDERAL USGS WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
4	USGS40000213685	1/8 - 1/4 Mile NNE
5	USGS40000213531	1/4 - 1/2 Mile South
9	USGS40000216429	1/2 - 1 Mile East
10	USGS40000213477	1/2 - 1 Mile SSW
11	USGS40000213799	1/2 - 1 Mile NNE
17	USGS40000213587	1/2 - 1 Mile WSW
19	USGS40000213566	1/2 - 1 Mile ESE
35	USGS40000213827	1/2 - 1 Mile NE
43	USGS40000213517	1/2 - 1 Mile ESE
48	USGS40000213409	1/2 - 1 Mile SSW

## **FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## **STATE DATABASE WELL INFORMATION**

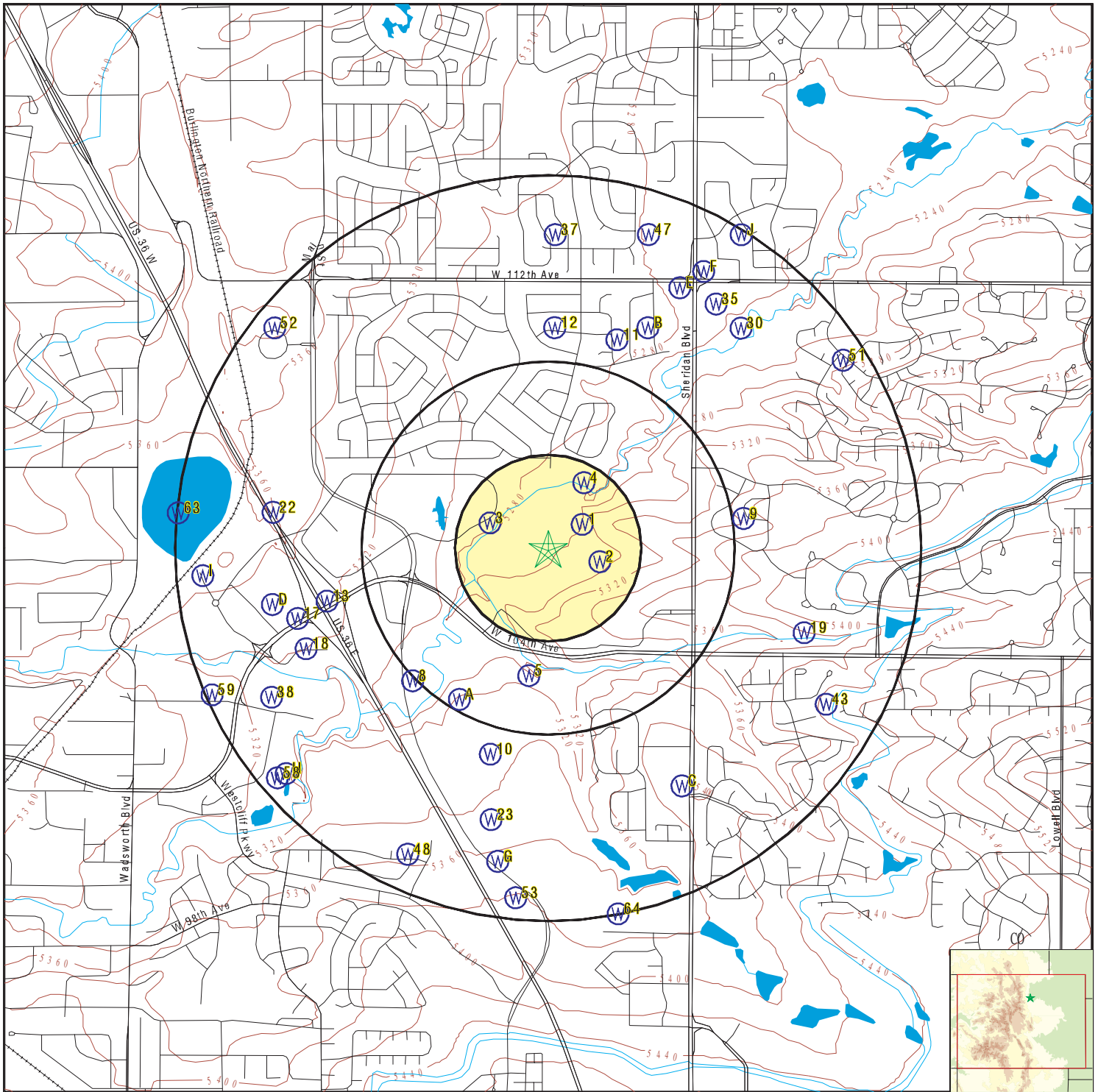
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	CO7000000071748	0 - 1/8 Mile NE
2	CO7000000055249	1/8 - 1/4 Mile ESE
3	CO70000000456976	1/8 - 1/4 Mile WNW
A6	CO7000000055247	1/4 - 1/2 Mile SSW
A7	CO7000000148814	1/4 - 1/2 Mile SSW
8	CO70000000328227	1/2 - 1 Mile SW
12	CO7000000038505	1/2 - 1 Mile North
13	CO70000000253350	1/2 - 1 Mile WSW
B14	CO7000000070753	1/2 - 1 Mile NNE
B15	CO70000000246918	1/2 - 1 Mile NNE
B16	CO70000000452643	1/2 - 1 Mile NNE
18	CO70000000038771	1/2 - 1 Mile WSW
C20	CO7000000058465	1/2 - 1 Mile SSE
C21	CO7000000164379	1/2 - 1 Mile SSE
22	CO70000000328584	1/2 - 1 Mile West
23	CO70000000223188	1/2 - 1 Mile SSW

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
D24	CO700000038463	1/2 - 1 Mile WSW
D25	CO700000039139	1/2 - 1 Mile WSW
D26	CO7000000340474	1/2 - 1 Mile WSW
D27	CO7000000461052	1/2 - 1 Mile WSW
E28	CO700000072335	1/2 - 1 Mile NNE
E29	CO700000072302	1/2 - 1 Mile NNE
30	CO7000000275051	1/2 - 1 Mile NE
E31	CO700000072334	1/2 - 1 Mile NNE
E32	CO7000000484042	1/2 - 1 Mile NNE
E33	CO7000000452219	1/2 - 1 Mile NNE
E34	CO7000000473802	1/2 - 1 Mile NNE
F36	CO7000000109698	1/2 - 1 Mile NNE
37	CO7000000039213	1/2 - 1 Mile North
38	CO7000000120615	1/2 - 1 Mile WSW
F39	CO7000000109694	1/2 - 1 Mile NNE
G40	CO7000000082525	1/2 - 1 Mile South
G41	CO7000000082526	1/2 - 1 Mile South
G42	CO7000000248897	1/2 - 1 Mile South
F44	CO7000000248706	1/2 - 1 Mile NNE
F45	CO7000000109697	1/2 - 1 Mile NNE
H46	CO7000000071747	1/2 - 1 Mile SW
47	CO7000000429773	1/2 - 1 Mile NNE
I49	CO7000000298068	1/2 - 1 Mile West
I50	CO7000000152214	1/2 - 1 Mile West
51	CO7000000262590	1/2 - 1 Mile ENE
52	CO7000000038218	1/2 - 1 Mile NW
53	CO7000000371672	1/2 - 1 Mile South
I54	CO7000000446196	1/2 - 1 Mile West
I55	CO7000000401830	1/2 - 1 Mile West
H56	CO7000000319709	1/2 - 1 Mile SW
H57	CO7000000098917	1/2 - 1 Mile SW
58	CO7000000438199	1/2 - 1 Mile SW
59	CO7000000224471	1/2 - 1 Mile WSW
J60	CO7000000451928	1/2 - 1 Mile NNE
J61	CO7000000109596	1/2 - 1 Mile NNE
J62	CO7000000420665	1/2 - 1 Mile NNE
63	CO7000000038599	1/2 - 1 Mile West
64	CO7000000353735	1/2 - 1 Mile South

# PHYSICAL SETTING SOURCE MAP - 5926947.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Oil, gas or related wells



SITE NAME: Westminster Project #1  
 ADDRESS: Westminster  
 Broomfield CO 80020  
 LAT/LONG: 39.889388 / 105.060403

CLIENT: HDR  
 CONTACT: Todd Wickert  
 INQUIRY #: 5926947.2s  
 DATE: January 07, 2020 4:18 pm



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**1**  
**NE**  
**0 - 1/8 Mile**  
**Higher**

**CO WELLS      CO7000000071748**

CO DWR ID #:	Not Reported	Permit #:	191721-
Well Name:	BH-19B		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	12/05/1995
Expiration Date:	12/05/1997	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**2**  
**ESE**  
**1/8 - 1/4 Mile**  
**Higher**

**CO WELLS      CO7000000055249**

CO DWR ID #:	Not Reported	Permit #:	18463-MH
Well Name:	Not Reported	Well Status:	Permit Expired
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	11/27/1991
Expiration Date:	02/25/1992	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	no data

**3**  
**WNW**  
**1/8 - 1/4 Mile**  
**Higher**

**CO WELLS      CO7000000456976**

CO DWR ID #:	Not Reported	Permit #:	191720-
Well Name:	BH-17B		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	12/05/1995

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Expiration Date:	12/05/1997	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**4**  
**NNE**  
**1/8 - 1/4 Mile**  
**Lower**

**FED USGS      USGS40000213685**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00360901ADB	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19560101
Well Depth:	610	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1956-11-28
Feet below surface:	264.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**5**  
**South**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS40000213531**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306901DCA	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19590101
Well Depth:	696	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1960-10-06
Feet below surface:	550.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**A6**  
**SSW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000055247**

CO DWR ID #:	Not Reported	Permit #:	18461-MH
Well Name:	Not Reported	Well Status:	Permit Expired
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	11/27/1991
Expiration Date:	02/25/1992	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	no data

**A7**  
**SSW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS    CO7000000148814**

CO DWR ID #:	Not Reported	Permit #:	49742-MH
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	03/16/2011
Expiration Date:	06/14/2011	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	One (1) hole to be constructed

**8**  
**SW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000328227**

CO DWR ID #:	Not Reported	Permit #:	285619-
Well Name:	WELL 2	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	05/05/2011
Expiration Date:	Not Reported	Construction Date:	03/20/2011
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	20	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**9**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000216429**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00106819BAB1	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Not Reported	Formation Type:	Laramie Formation
Aquifer Type:	Not Reported	Construction Date:	19580101
Well Depth:	865	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1958-01-06
Feet below surface:	22.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**10**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213477**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306912DAB	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19550101
Well Depth:	60	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1959-01-01
Feet below surface:	12.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**11**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213799**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306901AAA	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19590101
Well Depth:	520	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1959-02-02
Feet below surface:	290.00	Feet to sea level:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Note: Not Reported

**12**  
**North**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000038505**

CO DWR ID #:	Not Reported	Permit #:	5877-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	05/20/1960	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**13**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO70000000253350**

CO DWR ID #:	Not Reported	Permit #:	12993-F
Well Name:	Not Reported	Well Status:	Permit Canceled
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	05/17/1968
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**B14**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000070753**

CO DWR ID #:	Not Reported	Permit #:	26435-MH
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	09/06/1995

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Expiration Date:	12/06/1995	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	X-REF-194381-194383

**B15**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000246918**

CO DWR ID #:	Not Reported	Permit #:	27665-MH
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/26/1996
Expiration Date:	06/26/1996	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**B16**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000452643**

CO DWR ID #:	Not Reported	Permit #:	33465-MH
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	05/21/1998
Expiration Date:	08/21/1998	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**17**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213587**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306902DDA	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19600101
Well Depth:	676	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1960-10-06
Feet below surface:	553.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**18**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000038771**

CO DWR ID #:	Not Reported	Permit #:	13386-F
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Commercial	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	11/07/1968
Expiration Date:	Not Reported	Construction Date:	12/07/1968
Start Use Date:	12/04/1968	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	300	Top of First Perf Casing:	60
Base of Last Perf Casing:	300	Yield (gal/min):	50
Static Water Depth (ft):	40	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	GREENHOUSES

**19**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213566**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306806CAD USGS 395310105024901	Description:	Not Reported
Type:	Well	Drainage Area:	Not Reported
HUC:	10190003	Contrib Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer Type:	Not Reported
Formation Type:	Not Reported	Well Depth:	614
Construction Date:	19590101	Well Hole Depth:	Not Reported
Well Depth Units:	ft		
Well Hole Depth Units:	Not Reported		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground water levels, Number of Measurements:	1	Level reading date:	1960-10-06
Feet below surface:	580.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**C20**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000058465**

CO DWR ID #:	Not Reported	Permit #:	142539-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Upper Arapahoe
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	01/03/1986
Expiration Date:	01/03/1988	Construction Date:	10/11/1985
Start Use Date:	Not Reported	Pump Install Date:	11/21/1985
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	465	Top of First Perf Casing:	380
Base of Last Perf Casing:	465	Yield (gal/min):	0
Static Water Depth (ft):	240	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**C21**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000164379**

CO DWR ID #:	Not Reported	Permit #:	142538-
Well Name:	Not Reported	Well Status:	Permit Canceled
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**22**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000328584**

CO DWR ID #:	Not Reported	Permit #:	960-WCB
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Stock
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Yrly Appropriation:	0	Issue Date:	08/10/1955
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	900	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**23**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO700000023188**

CO DWR ID #:	Not Reported	Permit #:	2001040-AB
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	10/12/2001	Surface Elevation (ft):	0
Well Depth (ft):	260	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	9985 HARLAN ST. WESTMINISTER, CO 80020 TAKEN OUT BY HIGHWAY DEPT.		

**D24**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000038463**

CO DWR ID #:	Not Reported	Permit #:	4860-
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	11/22/1959	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	100	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	12
Static Water Depth (ft):	22	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**D25**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO700000039139**

CO DWR ID #:	Not Reported	Permit #:	28493-
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	08/18/1966	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	130	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	17
Static Water Depth (ft):	20	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**D26**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000340474**

CO DWR ID #:	Not Reported	Permit #:	890-
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	03/14/1958	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	120	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	5
Static Water Depth (ft):	6	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**D27**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000461052**

CO DWR ID #:	Not Reported	Permit #:	962-WCB
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	09/26/1955
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	192	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**E28**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000072335**

CO DWR ID #:	Not Reported	Permit #:	194383-
Well Name:	MW-3	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	1
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	04/22/1996
Expiration Date:	04/22/1998	Construction Date:	09/11/1995
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	17	Top of First Perf Casing:	7
Base of Last Perf Casing:	17	Yield (gal/min):	0
Static Water Depth (ft):	10	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**E29**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000072302**

CO DWR ID #:	Not Reported	Permit #:	194381-
Well Name:	MW-1	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	1
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	04/22/1996
Expiration Date:	04/22/1998	Construction Date:	09/11/1995
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	18	Top of First Perf Casing:	8
Base of Last Perf Casing:	18	Yield (gal/min):	0
Static Water Depth (ft):	12	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**30**  
**NE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS      CO7000000275051**

CO DWR ID #:	Not Reported	Permit #:	10798-TH
Well Name:	Not Reported	Well Status:	Well Abandoned

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	11/05/1985
Expiration Date:	Not Reported	Construction Date:	11/05/1985
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	11/12/1985	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**E31  
NNE  
1/2 - 1 Mile  
Higher**

**CO WELLS    CO700000072334**

CO DWR ID #:	Not Reported	Permit #:	194382-
Well Name:	MW-2	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	1
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	04/22/1996
Expiration Date:	04/22/1998	Construction Date:	09/11/1995
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	19	Top of First Perf Casing:	9
Base of Last Perf Casing:	19	Yield (gal/min):	0
Static Water Depth (ft):	12	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**E32  
NNE  
1/2 - 1 Mile  
Lower**

**CO WELLS    CO7000000484042**

CO DWR ID #:	Not Reported	Permit #:	195056-
Well Name:	MW5	Well Status:	Not Reported
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	05/16/1996
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	6
Division:	1	Comments:	Not Reported



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**E33**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000452219**

CO DWR ID #:	Not Reported	Permit #:	225227-
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	04/24/2000
Expiration Date:	04/24/2002	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	UNKNOWN	Water District:	2
Division:	1	Comments:	Not Reported

**E34**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS      CO7000000473802**

CO DWR ID #:	Not Reported	Permit #:	195055-
Well Name:	MW4	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	05/16/1996
Expiration Date:	05/16/1998	Construction Date:	02/21/1996
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	21	Top of First Perf Casing:	6
Base of Last Perf Casing:	21	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	6
Division:	1	Comments:	Not Reported

**35**  
**NE**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS40000213827**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00206710ABA2	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Valley-Fill Deposits
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	47	Well Depth Units:	ft

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported
Ground water levels, Number of Measurements:	1	Level reading date:	1957-11-05
Feet below surface:	33.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**F36**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS    CO7000000109698**

CO DWR ID #:	Not Reported	Permit #:	246118-
Well Name:	MW-2	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	12/09/2002
Expiration Date:	Not Reported	Construction Date:	10/17/2002
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**37**  
**North**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000039213**

CO DWR ID #:	Not Reported	Permit #:	30863-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	05/29/1967	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	142	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	25
Static Water Depth (ft):	20	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**38**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000120615**

CO DWR ID #:	Not Reported	Permit #:	165-WCB
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	06/06/1955
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	63	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**F39**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS    CO7000000109694**

CO DWR ID #:	Not Reported	Permit #:	246115-
Well Name:	MW-1	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	12/09/2002
Expiration Date:	Not Reported	Construction Date:	10/17/2002
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**G40**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000082525**

CO DWR ID #:	Not Reported	Permit #:	208783-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	1	Issue Date:	03/26/1998
Expiration Date:	Not Reported	Construction Date:	12/31/1955
Start Use Date:	12/31/1955	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	250	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	15
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**G41**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000082526**

CO DWR ID #:	Not Reported	Permit #:	208783--A
Well Name:	98VE045	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	7
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Arapahoe
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/26/1998
Expiration Date:	03/26/2000	Construction Date:	02/18/1998
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	302	Top of First Perf Casing:	180
Base of Last Perf Casing:	300	Yield (gal/min):	8
Static Water Depth (ft):	192	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**G42**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000248897**

CO DWR ID #:	Not Reported	Permit #:	98045-VE
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	02/13/1998
Expiration Date:	Not Reported	Construction Date:	02/18/1998
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	5350
Well Depth (ft):	300	Top of First Perf Casing:	180
Base of Last Perf Casing:	300	Yield (gal/min):	7.5
Static Water Depth (ft):	192	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	PROPERTY LOCATED AT 9985 HARLAN ST. WESTMINSTER, CO 80030.		

**43**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213517**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306806DCC USGS 395300105024501	Description:	Not Reported
Type:	Well	Drainage Area:	Not Reported
HUC:	10190003	Contrib Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer Type:	Not Reported
Formation Type:	Not Reported	Well Depth:	105
Construction Date:	19570101		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		
Ground water levels, Number of Measurements:		1	Level reading date:
Feet below surface:	42.50		1958-11-07
Note:	Not Reported	Feet to sea level:	Not Reported

**F44**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS    CO7000000248706**

CO DWR ID #:	Not Reported	Permit #:	246116-
Well Name:	MW-4	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	12/09/2002
Expiration Date:	Not Reported	Construction Date:	10/17/2002
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**F45**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS    CO7000000109697**

CO DWR ID #:	Not Reported	Permit #:	246117-
Well Name:	MW-3	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	12/09/2002
Expiration Date:	Not Reported	Construction Date:	10/17/2002
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**H46**  
**SW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000071747**

CO DWR ID #:	Not Reported	Permit #:	191719-
Well Name:	BH-14B		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	12/05/1995
Expiration Date:	12/05/1997	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**47**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000429773**

CO DWR ID #:	Not Reported	Permit #:	30108-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	03/22/1967	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	140	Top of First Perf Casing:	40
Base of Last Perf Casing:	140	Yield (gal/min):	16
Static Water Depth (ft):	20	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	no sub. listed

**48**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213409**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306912DCB	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	11	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels, Number of Measurements:	1	Level reading date:	1957-11-29
Feet below surface:	7.20	Feet to sea level:	Not Reported
Note:	Not Reported		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**149**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000298068**

CO DWR ID #:	Not Reported	Permit #:	93837--A
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	2
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	10/03/1977
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**150**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000152214**

CO DWR ID #:	Not Reported	Permit #:	93837-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/29/1978	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	24	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**51**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000262590**

CO DWR ID #:	Not Reported	Permit #:	89825-
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	04/25/1977
Expiration Date:	Not Reported	Construction Date:	Not Reported



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**52**  
**NW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO700000038218**

CO DWR ID #:	0206513	Permit #:	53-RN
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	07/31/1951
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	900	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	6
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**53**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000371672**

CO DWR ID #:	Not Reported	Permit #:	216413-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	1
Well Use:	Household Use Only	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	.33000001	Issue Date:	03/22/1999
Expiration Date:	03/22/2001	Construction Date:	03/26/1999
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	335	Top of First Perf Casing:	155
Base of Last Perf Casing:	335	Yield (gal/min):	0
Static Water Depth (ft):	233	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**I54**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000446196**

CO DWR ID #:	Not Reported	Permit #:	97148--A
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/31/1978
Expiration Date:	Not Reported	Construction Date:	04/14/1978
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	170	Top of First Perf Casing:	50
Base of Last Perf Casing:	170	Yield (gal/min):	11
Static Water Depth (ft):	21	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	7
Division:	1	Comments:	Not Reported

**I55**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000401830**

CO DWR ID #:	Not Reported	Permit #:	97148-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	04/14/1978	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	21	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**H56**  
**SW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000319709**

CO DWR ID #:	Not Reported	Permit #:	54372-F
Well Name:	ARAP #1	Well Status:	Permit Extended
Water Court Case #:	99CW0063	Parcel Size:	135
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Lower Arapahoe
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	08/22/2000
Expiration Date:	08/22/2002	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**H57**  
**SW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO700000098917**

CO DWR ID #:	Not Reported	Permit #:	54373-F
Well Name:	LFH #1	Well Status:	Permit Extended
Water Court Case #:	99CW0063	Parcel Size:	135
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Laramie Fox Hills
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	08/22/2000
Expiration Date:	08/22/2002	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**58**  
**SW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000438199**

CO DWR ID #:	Not Reported	Permit #:	14449-AD
Well Name:	Not Reported	Well Status:	Application Denied
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Irrigation	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	02/01/2001
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**59**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000224471**

CO DWR ID #:	Not Reported	Permit #:	83984-
Well Name:	Not Reported	Well Status:	Well Constructed

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water Court Case #:	Not Reported	Parcel Size:	2.26
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Laramie Fox Hills
Addtl Aquifer:	Not Reported	Irrigation Area:	1 ACRES
Yrly Appropriation:	0	Issue Date:	05/25/1976
Expiration Date:	05/25/1978	Construction Date:	07/13/1976
Start Use Date:	07/13/1976	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	200	Top of First Perf Casing:	130
Base of Last Perf Casing:	200	Yield (gal/min):	14
Static Water Depth (ft):	14	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**J60**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS      CO7000000451928**

CO DWR ID #:	Not Reported	Permit #:	41879-MH
Well Name:	BROOMFIELD PLAZA	Well Status:	Permit Expired
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	03/11/2003
Expiration Date:	05/26/2003	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	3 WELLS No wells installed per letter of 9/23/04		

**J61**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS      CO7000000109596**

CO DWR ID #:	Not Reported	Permit #:	41370-MH
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	10/11/2002
Expiration Date:	01/10/2003	Construction Date:	10/17/2002
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	4 WELLS ALSO SEE 246116-246118

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**J62**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS      CO7000000420665**

CO DWR ID #:	Not Reported	Permit #:	39232-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	08/25/1969	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	25	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	20
Static Water Depth (ft):	4	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**63**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000038599**

CO DWR ID #:	Not Reported	Permit #:	7929-
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	03/01/1961	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	135	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	10
Static Water Depth (ft):	20	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**64**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO70000000353735**

CO DWR ID #:	Not Reported	Permit #:	65398-F
Well Name:	Not Reported	Well Status:	Not Reported
Water Court Case #:	Not Reported	Parcel Size:	70
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Quaternary Alluvium
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	03/06/2008
Expiration Date:	03/06/2009	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	Dewatering System. Well Construction Variance 2007-041A approved by the BOE on April 27, 2007. MPS		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: CO Radon

### Radon Test Results

Zip	Total Sites	Avg	% sites<=4 pCi/L	% sites>4<10 pCi/L	% sites>=10<20 pCi/L	% sites>20 pCi/L
80020	3	5.07	33.33	66.67	0.00	0.00

Federal EPA Radon Zone for JEFFERSON County: 1

- Note: Zone 1 indoor average level > 4 pCi/L.
- : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
- : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 80020

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.400 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	7.050 pCi/L	0%	100%	0%



# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

### Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

## HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

### State Wetlands Data: Riparian Vegetation Data

Source: Division of Wildlife

Telephone: 970-416-3360

## HYDROGEOLOGIC INFORMATION

### AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

### STATE RECORDS

#### Colorado GIS Well Database

Source: Office of State Engineer, Division of Water Resources

Telephone: 303-866-3581

The GIS Well database includes all wells that the Division of Water Resources permits.

## OTHER STATE DATABASE INFORMATION

#### Oil and Gas Well Locations

Source: Department of Natural Resources

Telephone: 303-894-2100

### RADON

#### State Database: CO Radon

Source: Department of Public Health & Environment

Telephone: 303-692-3090

Radon Study in Colorado

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

#### Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

#### Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## STREET AND ADDRESS INFORMATION

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# Westminster Projects #1 and #9 Database Searches

## Westminster Project #9 Site (smaller southwestern site)

An EDR Radius Map With GeoCheck Report dated January 7, 2020 was reviewed for the Site. Based on surface topography and the flow of local creeks and rivers it is assumed shallow groundwater flow is to the east/northeast.

### Westminster Project #9 Site SUMMARY

**No facilities listed in the database pose an environmental threat to the Site; however, see Former Church Ranch Site below.**

See details below.

### Site

No facilities were listed as located on the Site.

### Search Radii

Five facilities were listed with multiple database listings within the ASTM designated search radii.

Devereux Cleo Wallace, 8405 West 100<sup>th</sup> Avenue – is located approximately 500 feet north and cross-gradient to down-gradient. It is listed in the RCRA NonGen/NLR database within the designated search radii. This is a RCRA hazardous waste non-generator with no violations found. This facility does not pose an environmental threat to the Site.

Former Church Ranch, 10050 Wadsworth Boulevard – is located approximately 500 feet northeast and cross-gradient to down-gradient. It is listed in the LTANKs and CO ERNS databases within the designated search radii. The State of CO Oil Inspection Section (OIS) website [https://opus.cdle.state.co.us/OIS2000/event.asp?h\\_id=13138](https://opus.cdle.state.co.us/OIS2000/event.asp?h_id=13138) was reviewed for this facility. **In 2018 during a Phase II investigation of the facility petroleum products were detected in soil and groundwater at the facility near an area where a previous underground fuel storage tank was removed approximately 20 years ago. This is an open brownfield facility and the facility was characterized in 2019. Due to the distance from the Site and its cross-gradient to down-gradient location, with the limited information available in the EDR database and on the OIS website it is HDRs opinion this facility does not pose an environmental threat to the Site; however, if any monitoring wells are observed near the Site or petroleum odors are encountered during excavation it may be prudent to stop work and seek additional information from OIS.**

Circle K Store #2741, 7605 West 101<sup>st</sup> Avenue – is located approximately 1,000 feet north and cross-gradient to down-gradient. It is listed in the LTANKS, LUST, LUST TRUST, UST and AIRs databases within the designated search radii. The State of CO Oil Inspection Section website [https://opus.cdle.state.co.us/OIS2000/event.asp?h\\_id=7607](https://opus.cdle.state.co.us/OIS2000/event.asp?h_id=7607) was reviewed for this facility. This facility had a confirmed release from an underground fuel storage tank in 2006, the area was remediated and

the site was closed in 2014. Due to its closed status, and its distance and cross-gradient to down-gradient location, this facility does not pose an environmental threat to the Site.

Cleo Wallace Center, 8405 Church Ranch Boulevard – is located approximately ½ mile northeast and cross-gradient. It is listed in the LTANKS, UST, LUST, and LUST TRUST databases within the designated search radii. The State of CO Oil Inspection website [https://opus.cdle.state.co.us/OIS2000/event.asp?h\\_id=8952](https://opus.cdle.state.co.us/OIS2000/event.asp?h_id=8952) was reviewed for this facility. This facility had a confirmed release from an underground fuel storage tank in 1990, the area was remediated and the site was closed in 2005. Due to its closed status, and its distance and cross-gradient location, this facility does not pose an environmental threat to the Site.

Dry Cleaning Station, 9940 North Wadsworth Parkway – is located ½ mile east and up-gradient. It is listed in the CORRACTS, RCRA Non Gen/NLR, AIRS, and Drycleaners databases within the designated search radii. This is a dry cleaning facility and Corrective Action site with reported contamination in 2014, and a remedy selected in 2015. Due to its distance from the Site, this facility does not pose an environmental threat to the Site.

### **Orphan Sites**

Two sites were listed with incomplete addresses to map. HDR researched the sites and determined they were more than likely not located in proximity to the Site.

## **Westminster Project #1 Site (larger middle site)**

An EDR Radius Map With GeoCheck Report dated January 7, 2020 was reviewed for the Site. Based on surface topography and the flow of local creeks and rivers it is assumed shallow groundwater flow is to the northeast.

### **Westminster Project #1 Site SUMMARY**

**No facilities listed in the database pose an environmental threat to the Site.**

See details below.

### **Site**

No facilities were listed as located on the Site.

### **Search Radii**

Eleven facilities were listed with multiple database listings within the ASTM designated search radii.

Brial Inc DBA as Majestic Cleaners/Majestic Cleaners and Shirt Laundry, 11187 Sheridan Boulevard – is located approximately 300 feet north and down-gradient. It is listed in the RCRA NonGen/NLR, US AIRs, EDR Historic Cleaners, and Drycleaners databases within the designated search radii. This facility is a drycleaner and RCRA hazardous waste non-generator with no violations. This facility does not pose an environmental threat to the Site.

Westminster City Park/City of Westminster, 10495 Sheridan Boulevard – is located approximately 100 feet east and cross-gradient. It is listed in the AST and RCRA VSQG databases within the designated search radii. This facility currently has a 3,000 gallon gasoline/diesel aboveground storage tank in use, and is a conditionally exempt small quantity generator with no violations. This facility does not pose an environmental threat to the Site.

Circle K Store #2741/Ultramar Diamond Shamrock, 5390 West 112<sup>th</sup> Avenue – is located approximately 500 feet north and down-gradient to cross-gradient. It is listed in the LTANKS, LUST, UST, LUST TRUST, AIRS, and EDR Historic Auto databases within the designated search radii. The State of CO Oil Inspection website [https://opus.cdle.state.co.us/OIS2000/event.asp?h\\_id=8201](https://opus.cdle.state.co.us/OIS2000/event.asp?h_id=8201) was reviewed for this facility. A release from an underground storage tank was reported in 1994, the site was remediated and closed in 2007. Due to its closed status, and its distance and down-gradient to cross-gradient location, this facility does not pose an environmental threat to the Site.

SCL Health Community, 6500 West 104<sup>th</sup> Avenue – is located adjacent north of the northwest corner of the southwestern portion of the Site and up-gradient. It is listed in the RCRA NonGen/NLR database within the designated search radii. This is a RCRA hazardous waste non-generator with no violations found. This facility does not pose an environmental threat to the Site.

Majestic Cleaners, 5191 West 112<sup>th</sup> Avenue – is located approximately 800 feet northeast and down-gradient. It is listed in the EDR Historic Cleaners database within the designated search radii. This facility is a drycleaner. This facility does not pose an environmental threat to the Site.

Westminster ED, 11230 Benton Street – is located approximately 700 feet north and cross-gradient to down-gradient. It is listed in the AST database within the designated search radii. This facility has one 2,525 gallon diesel aboveground storage tank in use. This facility does not pose an environmental threat to the Site.

7-Eleven #35357/Conoco, 5190 West 113<sup>th</sup> Avenue – is located approximately 900 feet northeast and down-gradient. It is listed in the LTANKS, LUST, UST, and EDR Historic Auto databases within the designated search radii. The State of CO Oil Inspection website [https://opus.cdle.state.co.us/OIS2000/facility.asp?h\\_id=7121](https://opus.cdle.state.co.us/OIS2000/facility.asp?h_id=7121) was reviewed. An underground storage tank leaked in 2011 and was closed in 2012, a tank leaked in April 2014 and was closed in June 2014, and a tank leaked in May 2015 and was closed in December 2015. Due to its closed status, and its distance and down-gradient location, this facility does not pose an environmental threat to the Site.

Mercedes-Benz of Westminster, 10291 Westminster Boulevard - is located approximately 600 feet southwest and up-gradient. It is listed in the AST database within the designated search radii. This facility has a 3,450 gallon diesel aboveground storage tank currently in use. This facility does not pose an environmental threat to the Site.

Hewitt Hawn Joint Venture, 10480 Sheridan Boulevard – is located approximately 700 feet southeast and cross-gradient to up-gradient. It is listed in the LTANKS database within the designated search radii. The State of CO Oil Inspection website [https://opus.cdle.state.co.us/OIS2000/event.asp?h\\_id=21](https://opus.cdle.state.co.us/OIS2000/event.asp?h_id=21) was reviewed. This facility had a release from an underground storage tank in 1993, and was closed in 1995. Due to its closed status, and its distance from the site, this facility does not pose an environmental threat to the Site.

Anderson Amoco Food Shops, 7007 Church Ranch Boulevard – is located approximately ½ mile southwest and up-gradient. It is listed in the LTANKS, LUST, and UST databases within the designated search radii. The State of CO Oil Inspection website [https://opus.cdle.state.co.us/OIS2000/facility.asp?h\\_id=6848](https://opus.cdle.state.co.us/OIS2000/facility.asp?h_id=6848) was reviewed. This facility had a release from an underground storage tank in April 2004 and was closed in October 2004. Due to its closed status, and its distance from the site, this facility does not pose an environmental threat to the Site.

Ten Eyck Property, 108<sup>th</sup> Avenue and Federal – is located approximately ½ mile west and cross-gradient to up-gradient. It is listed in the CORRACTS, RCRA Non/Gen/NLR, FINDS and ECHO databases within the designated search radii. This facility had a corrective action process that was initiated and terminated on the same day in 1997, and is a RCRA waste non-generator with no violations found. This facility does not pose an environmental threat to the Site.

### **Orphan Sites**

Three sites were listed with incomplete addresses to map. HDR researched the sites and determined they were more than likely not located in proximity to the Site.



**Westminster #9**

Westminster

Broomfield, CO 80021

Inquiry Number: 5926965.2s

January 07, 2020

# The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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***Thank you for your business.***  
 Please contact EDR at 1-800-352-0050  
 with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### TARGET PROPERTY INFORMATION

#### ADDRESS

WESTMINSTER  
BROOMFIELD, CO 80021

#### COORDINATES

Latitude (North): 39.8767090 - 39° 52' 36.15"  
Longitude (West): 105.0824620 - 105° 4' 56.86"  
Universal Transverse Mercator: Zone 13  
UTM X (Meters): 492948.2  
UTM Y (Meters): 4413866.5  
Elevation: 5334 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5958934 LAFAYETTE, CO  
Version Date: 2013  
  
South Map: 5958882 ARVADA, CO  
Version Date: 2013

### AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20150912  
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:  
 WESTMINSTER  
 BROOMFIELD, CO 80021

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
<a href="#">1</a>	DEVEREUX CLEO WALLAC	8405 W 100TH AVE	RCRA NonGen / NLR	Higher	472, 0.089, NNE
<a href="#">2</a>	FORMER CHURCH RANCH	10050 WADSWORTH BLVD	LTANKS, CO ERNS	Higher	521, 0.099, NE
<a href="#">3</a>	CIRCLE K STORE #2741	7605 W 101ST AVE	LTANKS, LUST, LUST TRUST, UST, AIRS	Higher	1087, 0.206, North
<a href="#">A4</a>	CLEO WALLACE CENTER	8405 CHURCH RANCH BL	LTANKS, UST	Higher	2255, 0.427, WNW
<a href="#">A5</a>	CLEO WALLACE CENTER	8405 CHURCH RANCH BL	LUST, LUST TRUST	Higher	2255, 0.427, WNW
<a href="#">6</a>	DRY CLEANING STATION	9940 N WADSWORTH PKW	CORRACTS, RCRA NonGen / NLR, AIRS, DRYCLEANERS	Higher	2844, 0.539, West

# EXECUTIVE SUMMARY

## TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

## DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

## STANDARD ENVIRONMENTAL RECORDS

### ***Federal NPL site list***

NPL..... National Priority List  
Proposed NPL..... Proposed National Priority List Sites  
NPL LIENS..... Federal Superfund Liens

### ***Federal Delisted NPL site list***

Delisted NPL..... National Priority List Deletions

### ***Federal CERCLIS list***

FEDERAL FACILITY..... Federal Facility Site Information listing  
SEMS..... Superfund Enterprise Management System

### ***Federal CERCLIS NFRAP site list***

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

### ***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

### ***Federal RCRA generators list***

RCRA-LQG..... RCRA - Large Quantity Generators  
RCRA-SQG..... RCRA - Small Quantity Generators  
RCRA-VSQG..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

### ***Federal institutional controls / engineering controls registries***

LUCIS..... Land Use Control Information System  
US ENG CONTROLS..... Engineering Controls Sites List  
US INST CONTROL..... Sites with Institutional Controls

### ***Federal ERNS list***

ERNS..... Emergency Response Notification System

## EXECUTIVE SUMMARY

### **State- and tribal - equivalent CERCLIS**

SHWS..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

### **State and tribal landfill and/or solid waste disposal site lists**

SWF/LF..... Solid Waste Sites & Facilities

### **State and tribal leaking storage tank lists**

LAST..... Leaking Aboveground Storage Tank Listing  
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

### **State and tribal registered storage tank lists**

FEMA UST..... Underground Storage Tank Listing  
AST..... Aboveground Tank List  
INDIAN UST..... Underground Storage Tanks on Indian Land

### **State and tribal institutional control / engineering control registries**

AUL..... Environmental Covenants and Environmental Use Restrictions List

### **State and tribal voluntary cleanup sites**

VCP..... Voluntary Cleanup & Redevelopment Act Application Tracking Report  
INDIAN VCP..... Voluntary Cleanup Priority Listing

### **State and tribal Brownfields sites**

BROWNFIELDS..... Brownfields Sites Listing

### **ADDITIONAL ENVIRONMENTAL RECORDS**

#### **Local Brownfield lists**

US BROWNFIELDS..... A Listing of Brownfields Sites

#### **Local Lists of Landfill / Solid Waste Disposal Sites**

SWRCY..... Registered Recyclers Listing  
HIST LF..... Historical Landfill List  
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands  
ODI..... Open Dump Inventory  
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations  
IHS OPEN DUMPS..... Open Dumps on Indian Land  
DENVER CO HISTORIC FILL..... Denver City & County Historic Fill Areas

#### **Local Lists of Hazardous waste / Contaminated Sites**

US HIST CDL..... Delisted National Clandestine Laboratory Register  
CDL..... Meth Lab Locations

## EXECUTIVE SUMMARY

US CDL..... National Clandestine Laboratory Register

### **Local Land Records**

LIENS 2..... CERCLA Lien Information

### **Records of Emergency Release Reports**

HMIRS..... Hazardous Materials Information Reporting System  
CO ERNS..... Spills Database  
SPILLS 90..... SPILLS 90 data from FirstSearch

### **Other Ascertainable Records**

FUDS..... Formerly Used Defense Sites  
DOD..... Department of Defense Sites  
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing  
US FIN ASSUR..... Financial Assurance Information  
EPA WATCH LIST..... EPA WATCH LIST  
2020 COR ACTION..... 2020 Corrective Action Program List  
TSCA..... Toxic Substances Control Act  
TRIS..... Toxic Chemical Release Inventory System  
SSTS..... Section 7 Tracking Systems  
ROD..... Records Of Decision  
RMP..... Risk Management Plans  
RAATS..... RCRA Administrative Action Tracking System  
PRP..... Potentially Responsible Parties  
PADS..... PCB Activity Database System  
ICIS..... Integrated Compliance Information System  
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)  
MLTS..... Material Licensing Tracking System  
COAL ASH DOE..... Steam-Electric Plant Operation Data  
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List  
PCB TRANSFORMER..... PCB Transformer Registration Database  
RADINFO..... Radiation Information Database  
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing  
DOT OPS..... Incident and Accident Data  
CONSENT..... Superfund (CERCLA) Consent Decrees  
INDIAN RESERV..... Indian Reservations  
FUSRAP..... Formerly Utilized Sites Remedial Action Program  
UMTRA..... Uranium Mill Tailings Sites  
LEAD SMELTERS..... Lead Smelter Sites  
US AIRS..... Aerometric Information Retrieval System Facility Subsystem  
US MINES..... Mines Master Index File  
ABANDONED MINES..... Abandoned Mines  
FINDS..... Facility Index System/Facility Registry System  
ECHO..... Enforcement & Compliance History Information  
DOCKET HWC..... Hazardous Waste Compliance Docket Listing  
UXO..... Unexploded Ordnance Sites  
FUELS PROGRAM..... EPA Fuels Program Registered Listing  
AIRS..... Permitted Facility & Emissions Listing  
ASBESTOS..... Asbestos Abatement & Demolition Projects  
METHANE SITE..... Methane Site Investigations - Jefferson County 1980  
Methane Investigation..... Methane Gas & Swamp Findings



## EXECUTIVE SUMMARY

DRYCLEANERS.....	Drycleaner Facilities
Financial Assurance.....	Financial Assurance Information Listing
LEAD.....	LEAD
MINES.....	Permitted Mines Listing
NPDES.....	Permitted Facility Listing
UIC.....	Underground Injection Control
UMTRA.....	Uranium Mill Tailings Sites
MINES MRDS.....	Mineral Resources Data System

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

### EDR RECOVERED GOVERNMENT ARCHIVES

#### ***Exclusive Recovered Govt. Archives***

RGA LF.....	Recovered Government Archive Solid Waste Facilities List
RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### STANDARD ENVIRONMENTAL RECORDS

#### ***Federal RCRA CORRACTS facilities list***

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 12/16/2019 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>DRY CLEANING STATION</i></b>	<b><i>9940 N WADSWORTH PKW</i></b>	<b><i>W 1/2 - 1 (0.539 mi.)</i></b>	<b><i>6</i></b>	<b><i>35</i></b>

## EXECUTIVE SUMMARY

EPA ID:: COR000203810

### **State and tribal leaking storage tank lists**

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Health's Leaking Underground Storage Tank List.

A review of the LUST list, as provided by EDR, and dated 03/01/2018 has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CIRCLE K STORE #2741</b> Facility Id: 6611 Status: Closed	<b>7605 W 101ST AVE</b>	<b>N 1/8 - 1/4 (0.206 mi.)</b>	<b>3</b>	<b>11</b>
<b>CLEO WALLACE CENTER</b> Facility Id: 8355 Status: Closed	<b>8405 CHURCH RANCH BL</b>	<b>WNW 1/4 - 1/2 (0.427 mi.)</b>	<b>A5</b>	<b>34</b>

LTANKS: Active and Closed OPS Petroleum Release Events in Colorado. Includes the OPS Open Event locations, but also shows locations of closed events (releases that have been issued a No Further Action determination).

A review of the LTANKS list, as provided by EDR, and dated 12/02/2019 has revealed that there are 3 LTANKS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>FORMER CHURCH RANCH</b>	<b>10050 WADSWORTH BLVD</b>	<b>NE 0 - 1/8 (0.099 mi.)</b>	<b>2</b>	<b>9</b>
<b>CIRCLE K STORE #2741</b>	<b>7605 W 101ST AVE</b>	<b>N 1/8 - 1/4 (0.206 mi.)</b>	<b>3</b>	<b>11</b>
<b>CLEO WALLACE CENTER</b>	<b>8405 CHURCH RANCH BL</b>	<b>WNW 1/4 - 1/2 (0.427 mi.)</b>	<b>A4</b>	<b>34</b>

LUST TRUST: Reimbursement application package. The 1989 Colorado General Assembly established Colorado's Petroleum Storage Tank Fund. The Fund reimburses eligible applicants for allowable costs incurred in cleaning up petroleum contamination from underground and aboveground petroleum storage tanks, as well as for third-party liability expenses. Remediation of contamination caused by railroad or aircraft fuel is not eligible for reimbursement. The Fund satisfies federal Environmental Protection Agency financial assurance requirements. Monies in the Fund come from various sources, predominantly the state environmental surcharge imposed on all petroleum products except railroad or aircraft fuel.

A review of the LUST TRUST list, as provided by EDR, and dated 02/28/2019 has revealed that there are 2 LUST TRUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CIRCLE K STORE #2741</b> Facility Id: 6611	<b>7605 W 101ST AVE</b>	<b>N 1/8 - 1/4 (0.206 mi.)</b>	<b>3</b>	<b>11</b>
<b>CLEO WALLACE CENTER</b> Facility Id: 8355	<b>8405 CHURCH RANCH BL</b>	<b>WNW 1/4 - 1/2 (0.427 mi.)</b>	<b>A5</b>	<b>34</b>

## EXECUTIVE SUMMARY

### ***State and tribal registered storage tank lists***

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The source is the State Oil Inspector's Office's Tank List.

A review of the UST list, as provided by EDR, and dated 12/02/2019 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CIRCLE K STORE #2741</b> Facility Id: 6611 Tank Status: Currently In Use Tank Tag/Tank Status: 6611-2 Tank Tag/Tank Status: 6611-1	<b>7605 W 101ST AVE</b>	<b>N 1/8 - 1/4 (0.206 mi.)</b>	<b>3</b>	<b>11</b>

### **ADDITIONAL ENVIRONMENTAL RECORDS**

#### ***Other Ascertainable Records***

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/16/2019 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DEVEREUX CLEO WALLAC EPA ID:: COD983766205	8405 W 100TH AVE	NNE 0 - 1/8 (0.089 mi.)	1	8

## EXECUTIVE SUMMARY








Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.






<u>Site Name</u>	<u>Database(s)</u>
WESTERN STATES RECLAMATION CONSTRU	LTANKS
ALAMO DRAFTHOUSE CINEMA WESTMINSTE	FINDS, ECHO



# DETAIL MAP - 5926965.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites

-  Indian Reservations BIA
-  Special Flood Hazard Area (1%)
-  0.2% Annual Chance Flood Hazard
-  National Wetland Inventory
-  State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

<p>SITE NAME: Westminster #9          ADDRESS: Westminster          Broomfield CO 80021          LAT/LONG: 39.876709 / 105.082462</p>	<p>CLIENT: HDR          CONTACT: Todd Wickert          INQUIRY #: 5926965.2s          DATE: January 07, 2020 4:19 pm</p>
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## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>STANDARD ENVIRONMENTAL RECORDS</b>								
<b><i>Federal NPL site list</i></b>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<b><i>Federal Delisted NPL site list</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Federal CERCLIS list</i></b>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<b><i>Federal CERCLIS NFRAP site list</i></b>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA CORRACTS facilities list</i></b>								
CORRACTS	1.000		0	0	0	1	NR	1
<b><i>Federal RCRA non-CORRACTS TSD facilities list</i></b>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA generators list</i></b>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<b><i>Federal institutional controls / engineering controls registries</i></b>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	TP		NR	NR	NR	NR	NR	0
<b><i>State- and tribal - equivalent CERCLIS</i></b>								
SHWS	N/A		N/A	N/A	N/A	N/A	N/A	N/A
<b><i>State and tribal landfill and/or solid waste disposal site lists</i></b>								
SWF/LF	0.500		0	0	0	NR	NR	0
<b><i>State and tribal leaking storage tank lists</i></b>								
LUST	0.500		0	1	1	NR	NR	2
LTANKS	0.500		1	1	1	NR	NR	3
LAST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0



## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LUST TRUST	0.500		0	1	1	NR	NR	2
<b>State and tribal registered storage tank lists</b>								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	1	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<b>State and tribal institutional control / engineering control registries</b>								
AUL	0.500		0	0	0	NR	NR	0
<b>State and tribal voluntary cleanup sites</b>								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
<b>State and tribal Brownfields sites</b>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>ADDITIONAL ENVIRONMENTAL RECORDS</b>								
<b>Local Brownfield lists</b>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Landfill / Solid Waste Disposal Sites</b>								
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
DENVER CO HISTORIC FILL	0.500		0	0	0	NR	NR	0
<b>Local Lists of Hazardous waste / Contaminated Sites</b>								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
<b>Local Land Records</b>								
LIENS 2	TP		NR	NR	NR	NR	NR	0
<b>Records of Emergency Release Reports</b>								
HMIRS	TP		NR	NR	NR	NR	NR	0
CO ERNS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
<b>Other Ascertainable Records</b>								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
METHANE SITE	TP		NR	NR	NR	NR	NR	0
Methane Investigation	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
LEAD	TP		NR	NR	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR MGP	1.000		0	0	0	0	NR	0
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## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
<b><u>EDR RECOVERED GOVERNMENT ARCHIVES</u></b>								
<b><i>Exclusive Recovered Govt. Archives</i></b>								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	2	4	3	1	0	10

**NOTES:**

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

1  
NNE  
< 1/8  
0.089 mi.  
472 ft.

**DEVEREUX CLEO WALLACE CENTER**  
**8405 W 100TH AVE**  
**WESTMINSTER, CO 80021**

**RCRA NonGen / NLR**    **1000471617**  
**COD983766205**

**Relative:**  
**Higher**

RCRA NonGen / NLR:

**Actual:**  
**5340 ft.**

Date form received by agency: 12/22/2006  
Facility name: DEVEREUX CLEO WALLACE CENTER  
Facility address: 8405 W 100TH AVE  
WESTMINSTER, CO 80021-5512  
EPA ID: COD983766205  
Mailing address: PO BOX 345  
BROOMFIELD, CO 80038  
Contact: DAN TAYLOR  
Contact address: PO BOX 345  
BROOMFIELD, CO 80038  
Contact country: US  
Contact telephone: 303-438-2778  
Contact email: Not reported  
EPA Region: 08  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: DEVEREUX CLEO WALLACE CENTER  
Owner/operator address: PO BOX 345  
BROOMFIELD, CO 80038  
Owner/operator country: US  
Owner/operator telephone: 303-466-7391  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 02/02/1800  
Owner/Op end date: Not reported

Owner/operator name: CLEO WALLACE CENTER  
Owner/operator address: PO BOX 345  
BROOMFIELD, CO 80038  
Owner/operator country: Not reported  
Owner/operator telephone: 303-466-7391  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 02/02/1800  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DEVEREUX CLEO WALLACE CENTER (Continued)**

**1000471617**

On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/08/2000  
Site name: DEVEREUX CLEO WALLACE CENTER  
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/11/1991  
Site name: DEVEREUX CLEO WALLACE CENTER  
Classification: Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D001  
. Waste name: IGNITABLE WASTE

. Waste code: F003  
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005  
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

2  
NE  
< 1/8  
0.099 mi.  
521 ft.

**FORMER CHURCH RANCH  
10050 WADSWORTH BLVD  
WESTMINSTER, CO 80021**

**LTANKS S122880662  
CO ERNS N/A**

**Relative:  
Higher  
Actual:  
5335 ft.**

LTANKS:  
Facility ID: 20371  
Name: FORMER CHURCH RANCH  
Address: 10050 WADSWORTH BLVD  
City,State,Zip: WESTMINSTER, CO 80021

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER CHURCH RANCH (Continued)**

**S122880662**

Type: Not reported  
Status: Brownfield  
Event ID: 13138  
Release Date: 08/28/2018  
Closed Date: Not reported  
Contact: Tim Kelley  
Phone: 303-318-8544  
Email: tim.kelley@state.co.us  
URL: https://opus.cdle.state.co.us/OIS2000/event.asp?h\_id=13138

**CO ERNS:**

Name: Not reported  
Address: 10050 WADSWORTH BLVD  
City,State,Zip: WESTMINSTER, CO 80021  
Lat/Long: Not reported  
Date Entered: 08/28/2018  
Time Entered: 11:17  
Date Reported: 2018-08-28  
Reported Time: 11:04  
Report Taken By: ANN NEDROW  
PRP EMail: sjeffords@vivideg.com  
NRC Number: Not reported  
PRP Name: CHARLES MCKAY  
PRP Contact: CHARLES MCKAY  
PRP Address: Not reported  
PRP City,St,Zip: CO  
PRP County: Not reported  
PRP Phone: 303-469-1873  
Phone Extension: Not reported  
PRP Fax: Not reported  
Mile Post: Not reported  
Event Date: 08/22/2018  
Event Time: 1899-12-30  
Material Type: OIL  
Material1: PETROLEUM PRODUCTS  
Quantity1: Not reported  
Unit1: Not reported  
Water Quantity: Not reported  
Water Unit: Not reported  
Material2: Not reported  
Quantity2: Not reported  
Unit2: Not reported  
Water Quantity2: Not reported  
Water Unit2: Not reported  
Material3: Not reported  
Quantity3: Not reported  
Unit3: Not reported  
Water Quantity3: Not reported  
Water unit3: Not reported  
Source: Other  
Source Type: ground  
Cause: OTHER  
Medium: WATER AND LAND  
Waterway Affected: Not reported  
Deaths: Not reported  
Injuries: Not reported  
Evacuation: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**FORMER CHURCH RANCH (Continued)**

**S122880662**

Evacuation Num: Responders: Fixed Facility: Land Impact: Air Impact: SurfWater Impact: Grd Water Impact: Action: Additional Info: Cause Info:  Comments: Notified:  Responders:	Not reported Not reported False True False False True Not reported Not reported Caller reports doing a Phase II study on the property listed above. He understands that an underground gasoline tank was removed from the property approx. 20 years ago. At a depth of perhaps 18 ft. in the soil sample he got results of Total Petroleum = 265 mg/kg. In the groundwater samples at approx. the same depth he encounter results of benzene = 368 mcg/L, toluene = 631 mcg/L, and 1,3,5 trimethylbenzene = 135 mcg/L. He notified the owner of the property, who asked him to report the results to us.  JEFFERSON COUNTY EH HMWMD: Rob Beierle, Richard Mruz, Ed Smith, Caren Johannes, Susan Newton, Kathryn Stewart, David Foster; OPS: Michelle Howard, Zach Hope, Robert Herbert; WQCD: CPW  Not reported
---	---

**3**  
 North  
 1/8-1/4  
 0.206 mi.  
 1087 ft.

**CIRCLE K STORE #2741150**  
**7605 W 101ST AVE**  
**WESTMINSTER, CO 80021**

**LTANKS** **U003748628**  
**LUST** **N/A**  
**LUST TRUST**  
**UST**  
**AIRS**

**Relative:**  
**Higher**  
  
**Actual:**  
**5346 ft.**

LTANKS: Facility ID: Name: Address: City,State,Zip: Type: Status: Event ID: Release Date: Closed Date: Contact: Phone: Email: URL:  Facility ID: Name: Address: City,State,Zip: Type: Status: Event ID: Release Date: Closed Date: Contact: Phone: Email: URL:	6611 SHAMROCK 1150 7605 W 101ST AVE WESTMINSTER, CO 80021 Tier I Closed 7607 Not reported 09/08/1999 Technical Assistance Line 303-318-8547 cdle_ops_public_records_center@state.co.us <a href="https://opus.cdle.state.co.us/OIS2000/event.asp?h_id=7607">https://opus.cdle.state.co.us/OIS2000/event.asp?h_id=7607</a>  6611 DIAMOND SHAMROCK 1150 7605 W 101ST AVE WESTMINSTER, CO 80021 Tier II Closed 10000 01/30/2006 10/16/2014 Jennifer Strauss 303-318-8548 jennifer.strauss@state.co.us <a href="https://opus.cdle.state.co.us/OIS2000/event.asp?h_id=10000">https://opus.cdle.state.co.us/OIS2000/event.asp?h_id=10000</a>
---	---



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Facility ID: 6611  
Name: DIAMOND SHAMROCK #1150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
Type: Tier I  
Status: Closed  
Event ID: 8694  
Release Date: Not reported  
Closed Date: 08/17/2001  
Contact: Technical Assistance Line  
Phone: 303-318-8547  
Email: cdle\_ops\_public\_records\_center@state.co.us  
URL: https://opus.cdle.state.co.us/OIS2000/event.asp?h\_id=8694

**LUST:**

Facility Id: 6611  
**Status: Closed**  
Event ID: 10000  
Confirmed Release: 01/30/2006  
Contact Name: Jennifer Strauss  
Contact Phone: 303-318-8548  
Contact Email: Not reported  
Latitude Degrees: 39.880399  
Longitude Degrees: -105.081896

[Click here for COSTIS:](#)

**CO LUST TRUST:**

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 13853  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: Original  
RAP Status: Approved  
RAP Filed Date: 5/8/2006  
Total Reimbursement: \$28,365.51  
Net Reimbursement: \$18,265.51  
FPR Date: 07/16/2007  
Pay Voucher Date: 08/01/2007  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Jen Lillie Tomas  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8516

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 14455

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: Supplemental  
RAP Status: Approved  
RAP Filed Date: 8/15/2006  
Total Reimbursement: \$22,986.42  
Net Reimbursement: \$22,986.42  
FPR Date: 07/16/2007  
Pay Voucher Date: 08/01/2007  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Carolyn Skaggs  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8514

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 14879  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: Supplemental  
RAP Status: Approved  
RAP Filed Date: 11/2/2006  
Total Reimbursement: \$4,742.02  
Net Reimbursement: \$4,742.02  
FPR Date: 07/16/2007  
Pay Voucher Date: 08/01/2007  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Carolyn Skaggs  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8514

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 15379  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: Supplemental  
RAP Status: Approved  
RAP Filed Date: 2/7/2007  
Total Reimbursement: \$7,034.39

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Net Reimbursement: \$7,034.39  
FPR Date: 07/16/2007  
Pay Voucher Date: 08/01/2007  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Jen Lillie Tomas  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8516

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 15868  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 5/9/2007  
Total Reimbursement: \$16,235.79  
Net Reimbursement: \$14,658.12  
FPR Date: 09/11/2008  
Pay Voucher Date: 09/11/2008  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 16708  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 11/14/2007  
Total Reimbursement: \$19,158.28  
Net Reimbursement: \$18,903.76  
FPR Date: 09/11/2008  
Pay Voucher Date: 09/11/2008  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 17055  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 1/29/2008  
Total Reimbursement: \$9,854.47  
Net Reimbursement: \$9,854.47  
FPR Date: 09/11/2008  
Pay Voucher Date: 09/11/2008  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 17407  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 4/15/2008  
Total Reimbursement: \$72,435.32  
Net Reimbursement: \$72,435.32  
FPR Date: 09/11/2008  
Pay Voucher Date: 09/11/2008  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 18429  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 11/21/2008  
Total Reimbursement: \$25,317.59  
Net Reimbursement: \$25,258.57  
FPR Date: 07/24/2009  
Pay Voucher Date: 08/05/2009  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 18325  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 10/30/2008  
Total Reimbursement: \$12,280.04  
Net Reimbursement: \$12,262.31  
FPR Date: 07/24/2009  
Pay Voucher Date: 08/05/2009  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 18660  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 1/14/2009  
Total Reimbursement: \$7,981.76  
Net Reimbursement: \$7,902.73  
FPR Date: 07/24/2009  
Pay Voucher Date: 08/05/2009

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 18880  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 2/10/2009  
Total Reimbursement: \$4,593.31  
Net Reimbursement: \$4,371.31  
FPR Date: 07/24/2009  
Pay Voucher Date: 08/05/2009  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 19184  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 4/3/2009  
Total Reimbursement: \$4,485.10  
Net Reimbursement: \$4,485.10  
FPR Date: 07/24/2009  
Pay Voucher Date: 08/05/2009  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 19339  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 4/29/2009  
Total Reimbursement: \$3,640.35  
Net Reimbursement: \$3,640.35  
FPR Date: 07/24/2009  
Pay Voucher Date: 08/05/2009  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 19408  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 5/7/2009  
Total Reimbursement: \$4,496.64  
Net Reimbursement: \$4,496.64  
FPR Date: 07/24/2009  
Pay Voucher Date: 08/05/2009  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 19720  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

RAP Status: Approved  
RAP Filed Date: 6/30/2009  
Total Reimbursement: \$7,258.40  
Net Reimbursement: \$7,258.40  
FPR Date: 08/11/2009  
Pay Voucher Date: 08/24/2009  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 20058  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 9/22/2009  
Total Reimbursement: \$4,549.09  
Net Reimbursement: \$4,549.09  
FPR Date: 10/27/2009  
Pay Voucher Date: 11/19/2009  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 20129  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 10/13/2009  
Total Reimbursement: \$4,537.25  
Net Reimbursement: \$4,255.25  
FPR Date: 11/09/2009  
Pay Voucher Date: 11/25/2009  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 20426  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 12/17/2009  
Total Reimbursement: \$4,526.19  
Net Reimbursement: \$4,526.19  
FPR Date: 07/21/2010  
Pay Voucher Date: 07/29/2010  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 20765  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 3/1/2010  
Total Reimbursement: \$6,396.63  
Net Reimbursement: \$6,396.63  
FPR Date: 07/21/2010  
Pay Voucher Date: 07/29/2010  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 21237

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 6/1/2010  
Total Reimbursement: \$7,980.75  
Net Reimbursement: \$7,980.75  
FPR Date: 08/16/2010  
Pay Voucher Date: 08/26/2010  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 21471  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 7/21/2010  
Total Reimbursement: \$8,341.81  
Net Reimbursement: \$8,341.81  
FPR Date: 10/05/2010  
Pay Voucher Date: 10/21/2010  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 21984  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 11/5/2010  
Total Reimbursement: \$9,019.92

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Net Reimbursement: \$8,997.67  
FPR Date: 02/03/2011  
Pay Voucher Date: 02/17/2011  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 22379  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 2/1/2011  
Total Reimbursement: \$5,593.18  
Net Reimbursement: \$5,453.93  
FPR Date: 05/09/2011  
Pay Voucher Date: 05/25/2011  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 23630  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 12/8/2011  
Total Reimbursement: \$16,600.11  
Net Reimbursement: \$16,600.11  
FPR Date: 01/24/2012  
Pay Voucher Date: 02/17/2012  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 23845  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 1/24/2012  
Total Reimbursement: \$5,211.83  
Net Reimbursement: \$4,733.83  
FPR Date: 03/02/2012  
Pay Voucher Date: 03/28/2012  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 24103  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 3/22/2012  
Total Reimbursement: \$2,735.44  
Net Reimbursement: \$2,735.44  
FPR Date: 05/02/2012  
Pay Voucher Date: 05/10/2012  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 24334  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 5/23/2012  
Total Reimbursement: \$5,229.10  
Net Reimbursement: \$5,226.91  
FPR Date: 07/19/2012  
Pay Voucher Date: 08/09/2012  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 24524  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 6/29/2012  
Total Reimbursement: \$3,419.97  
Net Reimbursement: \$3,419.97  
FPR Date: 10/05/2012  
Pay Voucher Date: Not reported  
Protest Number: Not reported  
Special Conditions: Not reported  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 24791  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 8/31/2012  
Total Reimbursement: \$3,102.33  
Net Reimbursement: \$3,102.33  
FPR Date: 11/26/2012  
Pay Voucher Date: 12/07/2012

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Protest Number: Not reported  
Special Conditions: Remediation shed utility address is 7605 Church Ranch Blvd - CAHII  
10/15/12  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 24939  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 10/16/2012  
Total Reimbursement: \$2,982.68  
Net Reimbursement: \$2,982.68  
FPR Date: 12/28/2012  
Pay Voucher Date: 01/25/2013  
Protest Number: Not reported  
Special Conditions: Remediation shed utility address is 7605 Church Ranch Blvd - CAHII  
10/15/12  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 25300  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 1/29/2013  
Total Reimbursement: \$5,587.37  
Net Reimbursement: \$5,587.37  
FPR Date: 04/03/2013  
Pay Voucher Date: 04/25/2013  
Protest Number: Not reported  
Special Conditions: Remediation shed utility address is 7605 Church Ranch Blvd - CAHII  
10/15/12  
Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 25925  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 4/16/2013  
Total Reimbursement: \$4,345.31  
Net Reimbursement: \$4,345.31  
FPR Date: 05/24/2013  
Pay Voucher Date: 06/06/2013  
Protest Number: Not reported  
Special Conditions: Remediation shed utility address is 7605 Church Ranch Blvd - CAHII  
10/15/12

Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 26205  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 7/2/2013  
Total Reimbursement: \$9,546.54  
Net Reimbursement: \$9,546.54  
FPR Date: 08/28/2013  
Pay Voucher Date: 09/20/2013  
Protest Number: Not reported  
Special Conditions: Remediation shed utility address is 7605 Church Ranch Blvd - CAHII  
10/15/12

Fund Analyst: Joy Shulman  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: (303) 318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 27708  
Commissioned Date: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 6/24/2014  
Total Reimbursement: \$18,849.96  
Net Reimbursement: \$18,849.96  
FPR Date: 08/12/2014  
Pay Voucher Date: 09/11/2014  
Protest Number: Not reported  
Special Conditions: Remediation shed utility address is 7605 Church Ranch Blvd - CAHII  
10/15/12  
Fund Analyst: Charles A Hammonds  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: 303-318-8515  
Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 27874  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 8/7/2014  
Total Reimbursement: \$3,385.41  
Net Reimbursement: \$3,385.41  
FPR Date: 10/13/2014  
Pay Voucher Date: 08/17/2015  
Protest Number: Not reported  
Special Conditions: Remediation shed utility address is 7605 Church Ranch Blvd - CAHII  
10/15/12  
Fund Analyst: John J Bonifacic  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: 303-318-8516  
Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 28750  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 4/3/2015

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Total Reimbursement: \$4,298.04  
Net Reimbursement: \$4,298.04  
FPR Date: 06/08/2015  
Pay Voucher Date: 08/17/2015  
Protest Number: Not reported  
Special Conditions: Remediation shed utility address is 7605 Church Ranch Blvd - CAHII  
10/15/12  
Fund Analyst: Michael Montoya  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: 303-318-8511

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 28236  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 11/10/2014  
Total Reimbursement: \$5,975.35  
Net Reimbursement: \$5,975.35  
FPR Date: 02/26/2015  
Pay Voucher Date: 08/17/2015  
Protest Number: Not reported  
Special Conditions: Remediation shed utility address is 7605 Church Ranch Blvd - CAHII  
10/15/12  
Fund Analyst: Kristine Wilson  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: 303-318-8515

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 28582  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 2/17/2015  
Total Reimbursement: \$4,806.93  
Net Reimbursement: \$4,806.93  
FPR Date: 05/11/2015  
Pay Voucher Date: 08/17/2015  
Protest Number: Not reported  
Special Conditions: Remediation shed utility address is 7605 Church Ranch Blvd - CAHII  
10/15/12

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Fund Analyst: Kristine Wilson  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: 303-318-8515

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 28945  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 6/2/2015  
Total Reimbursement: \$6,736.19  
Net Reimbursement: \$6,736.19  
FPR Date: 07/16/2015  
Pay Voucher Date: 08/10/2015  
Protest Number: Not reported  
Special Conditions: Remediation shed utility address is 7605 Church Ranch Blvd - CAHII  
10/15/12

Fund Analyst: John J Bonifacic  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: 303-318-8516

Facility ID: 6611  
Payee Name: Ultramar Diamond Shamrock  
Event ID: 10000  
RAP ID: 30006  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$392,831.16  
RAP Type Description: eRAP Supplemental  
RAP Status: Approved  
RAP Filed Date: 2/19/2016  
Total Reimbursement: \$1,442.05  
Net Reimbursement: \$1,442.05  
FPR Date: 02/26/2016  
Pay Voucher Date: 03/16/2016  
Protest Number: Not reported  
Special Conditions: Remediation shed utility address is 7605 Church Ranch Blvd - CAHII  
10/15/12

Fund Analyst: Michael Montoya  
Category: Retail Gas Station  
Technical Reviewer: Jennifer Strauss  
Technical Reviewer Phone: 303-318-8548  
Fund Analyst Phone: 303-318-8511

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Click here for COSTIS:

UST:

Tank Tag: 6611-2  
Substance: Gasoline - Premium (PUL)  
Name: CIRCLE K STORE #2741150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
Tank Tag: 6611-2  
Substance: Gasoline - Premium (PUL)  
Facility ID: 6611  
Owner Name: Circle K Stores Inc. - Rocky Mountain Division  
Owner Address: 5500 S Quebec St Ste 100  
Owner City: Greenwood Village  
Owner State: CO  
Owner Zip: 80111  
Facility Type: Retail  
Facility Category: Retail Gas Station  
Capacity: 12000  
Date Closed: Not reported  
Tank Status: Currently In Use  
Date Tank Installed: 06/12/1995  
Tank Age: 24  
Tank Type: UST  
Latitude: 39.880399  
Longitude: -105.081896

Tank Tag: 6611-1  
Substance: Gasoline - Unleaded Regular (RUL)  
Name: CIRCLE K STORE #2741150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
Tank Tag: 6611-1  
Substance: Gasoline - Unleaded Regular (RUL)  
Facility ID: 6611  
Owner Name: Circle K Stores Inc. - Rocky Mountain Division  
Owner Address: 5500 S Quebec St Ste 100  
Owner City: Greenwood Village  
Owner State: CO  
Owner Zip: 80111  
Facility Type: Retail  
Facility Category: Retail Gas Station  
Capacity: 15000  
Date Closed: Not reported  
Tank Status: Currently In Use  
Date Tank Installed: 06/12/1995  
Tank Age: 24  
Tank Type: UST  
Latitude: 39.880399  
Longitude: -105.081896

CO AIRS:

Name: CST METRO LLC DBA CORNER STORE #1150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
County/Plant ID: 059-0787

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395249.43  
Longitude: 1050454.99  
SIC Primary: 5541  
NAICS Primary: 447190  
Unique Emission Unit ID: 1  
Construction Permit Number: 95JE570S  
Emission Unit Description: (2) UST'S  
Full Pollutant Name: BENZENE  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Name: CST METRO LLC DBA CORNER STORE #1150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
County/Plant ID: 059-0787  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395249.43  
Longitude: 1050454.99  
SIC Primary: 5541  
NAICS Primary: 447190  
Unique Emission Unit ID: 1  
Construction Permit Number: 95JE570S  
Emission Unit Description: (2) UST'S  
Full Pollutant Name: ETHYL BENZENE  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Name: CST METRO LLC DBA CORNER STORE #1150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
County/Plant ID: 059-0787  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395249.43  
Longitude: 1050454.99  
SIC Primary: 5541  
NAICS Primary: 447190  
Unique Emission Unit ID: 1  
Construction Permit Number: 95JE570S  
Emission Unit Description: (2) UST'S  
Full Pollutant Name: HEXANE,N-  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Name: CST METRO LLC DBA CORNER STORE #1150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
County/Plant ID: 059-0787  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395249.43  
Longitude: 1050454.99  
SIC Primary: 5541  
NAICS Primary: 447190

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Unique Emission Unit ID: 1  
Construction Permit Number: 95JE570S  
Emission Unit Description: (2) UST'S  
Full Pollutant Name: PARTICULATE MATTER < 10 UM  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Name: CST METRO LLC DBA CORNER STORE #1150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
County/Plant ID: 059-0787  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395249.43  
Longitude: 1050454.99  
SIC Primary: 5541  
NAICS Primary: 447190  
Unique Emission Unit ID: 1  
Construction Permit Number: 95JE570S  
Emission Unit Description: (2) UST'S  
Full Pollutant Name: PARTICULATE MATTER < 2.5 UM  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Name: CST METRO LLC DBA CORNER STORE #1150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
County/Plant ID: 059-0787  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395249.43  
Longitude: 1050454.99  
SIC Primary: 5541  
NAICS Primary: 447190  
Unique Emission Unit ID: 1  
Construction Permit Number: 95JE570S  
Emission Unit Description: (2) UST'S  
Full Pollutant Name: TOLUENE  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Name: CST METRO LLC DBA CORNER STORE #1150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
County/Plant ID: 059-0787  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395249.43  
Longitude: 1050454.99  
SIC Primary: 5541  
NAICS Primary: 447190  
Unique Emission Unit ID: 1  
Construction Permit Number: 95JE570S  
Emission Unit Description: (2) UST'S  
Full Pollutant Name: TOTAL PARTICULATE MATTER  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CIRCLE K STORE #2741150 (Continued)**

**U003748628**

Name: CST METRO LLC DBA CORNER STORE #1150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
County/Plant ID: 059-0787  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395249.43  
Longitude: 1050454.99  
SIC Primary: 5541  
NAICS Primary: 447190  
Unique Emmission Unit ID: 1  
Construction Permit Number: 95JE570S  
Emission Unit Description: (2) UST'S  
Full Pollutant Name: VOLATILE ORGANIC COMPOUNDS  
Site-wide Estimated Emissions: 1.962861  
Site-wide Estimated Emissions Units: Tons Per Year

Name: CST METRO LLC DBA CORNER STORE #1150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
County/Plant ID: 059-0787  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395249.43  
Longitude: 1050454.99  
SIC Primary: 5541  
NAICS Primary: 447190  
Unique Emmission Unit ID: 1  
Construction Permit Number: 95JE570S  
Emission Unit Description: (2) UST'S  
Full Pollutant Name: XYLENES  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Name: CST METRO LLC DBA CORNER STORE #1150  
Address: 7605 W 101ST AVE  
City,State,Zip: WESTMINSTER, CO 80021  
County/Plant ID: 059-0787  
Contact Person: NANCY COEN  
Contact Phone: (303)373-6044  
Latitude: 395249.43  
Longitude: 1050454.99  
SIC Primary: 5541  
NAICS Primary: 447190  
Unique Emmission Unit ID: 2  
Construction Permit Number: 08JE0039.XA  
Emission Unit Description: Soil Vent  
Full Pollutant Name: BENZENE  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

[Click this hyperlink](#) while viewing on your computer to access  
8 additional CO AIRS: record(s) in the EDR Site Report.

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**A4**  
**WNW**  
**1/4-1/2**  
**0.427 mi.**  
**2255 ft.**

**CLEO WALLACE CENTER**  
**8405 CHURCH RANCH BLVD**  
**WESTMINSTER, CO 80021**

**LTANKS** **U003401025**  
**UST** **N/A**

**Site 1 of 2 in cluster A**

**Relative:**  
**Higher**  
**Actual:**  
**5374 ft.**

**LTANKS:**  
Facility ID: 8355  
Name: CLEO WALLACE CENTER  
Address: 8405 CHURCH RANCH BLVD  
City,State,Zip: WESTMINSTER, CO 80021  
Type: Tier II  
Status: Closed  
Event ID: 8952  
Release Date: 01/01/1990  
Closed Date: 01/06/2005  
Contact: Technical Assistance Line  
Phone: 303-318-8547  
Email: cdle\_ops\_public\_records\_center@state.co.us  
URL: https://opus.cdle.state.co.us/OIS2000/event.asp?h\_id=8952

**UST:**  
Tank Tag: 8355-1  
Substance: Gasoline  
Name: CLEO WALLACE CENTER  
Address: 8405 CHURCH RANCH BLVD  
City,State,Zip: WESTMINSTER, CO 80021  
Tank Tag: 8355-1  
Substance: Gasoline  
Facility ID: 8355  
Owner Name: Cleo Wallace Center  
Owner Address: 8405 Church Ranch Blvd  
Owner City: Westminster  
Owner State: CO  
Owner Zip: 80021  
Facility Type: Non-Retail  
Facility Category: Other  
Capacity: 1000  
Date Closed: Not reported  
Tank Status: Permanently Closed  
Date Tank Installed: 03/31/1956  
Tank Age: 63  
Tank Type: UST  
Latitude: 39.881946  
Longitude: -105.090473

**A5**  
**WNW**  
**1/4-1/2**  
**0.427 mi.**  
**2255 ft.**

**CLEO WALLACE CENTER**  
**8405 CHURCH RANCH BLVD**  
**WESTMINSTER, CO 80021**

**LUST** **S118998954**  
**LUST TRUST** **N/A**

**Site 2 of 2 in cluster A**

**Relative:**  
**Higher**  
**Actual:**  
**5374 ft.**

**LUST:**  
Facility Id: 8355  
**Status: Closed**  
Event ID: 8952  
Confirmed Release: 01/01/1990  
Contact Name: Technical Assistance Line  
Contact Phone: 303-318-8547



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CLEO WALLACE CENTER (Continued)**

**S118998954**

Contact Email: Not reported  
Latitude Degrees: 39.881946  
Longitude Degrees: -105.090473

[Click here for COSTIS:](#)

**CO LUST TRUST:**

Facility ID: 8355  
Payee Name: Cleo Wallace, Devereux  
Event ID: 8952  
RAP ID: 13308  
Commissioned Date: Not reported  
Cap Status: Not reported  
Eligibility Type Description: Tank Owner/Operator  
Total Percent Reduction: 0.0  
Total Reimbursement for Event: \$48,878.08  
RAP Type Description: Original  
RAP Status: Approved  
RAP Filed Date: 1/27/2006  
Total Reimbursement: \$58,986.14  
Net Reimbursement: \$48,878.08  
FPR Date: 06/16/2006  
Pay Voucher Date: 07/12/2006  
Protest Number: Not reported  
Special Conditions: Org Exemt from Tax unde Section 501(a); payee type change to Other for move into AMANDA  
Fund Analyst: Joy Shulman  
Category: Other  
Technical Reviewer: Larry Delin  
Technical Reviewer Phone: (303) 318-8537  
Fund Analyst Phone: (303) 318-8511

[Click here for COSTIS:](#)

**6**  
**West**  
**1/2-1**  
**0.539 mi.**  
**2844 ft.**

**DRY CLEANING STATION**  
**9940 N WADSWORTH PKWY UNIT 500**  
**WESTMINSTER, CO 80021**

**CORRACTS** **1005441430**  
**RCRA NonGen / NLR** **COR000203810**  
**AIRS**  
**DRYCLEANERS**

**Relative:**  
**Higher**  
**Actual:**  
**5376 ft.**

**CORRACTS:**  
EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2015-08-10 00:00:00.0  
Action: CA400 - Date For Remedy Selection (CM Imposed)  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported  
  
EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2015-08-10 00:00:00.0  
Action: CA300 - CMS Workplan Approved  
NAICS Code(s): 81232

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2015-08-10 00:00:00.0  
Action: CA350 - CMS Approved  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2015-07-23 00:00:00.0  
Action: CA831AS  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2015-04-17 00:00:00.0  
Action: CA300 - CMS Workplan Approved  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2015-04-06 00:00:00.0  
Action: CA260 - CMS Workplan Received  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2015-01-29 00:00:00.0  
Action: CA350 - CMS Approved  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

Actual Date: 2015-01-14 00:00:00.0  
Action: CA310 - CMS Supplemental Information Received  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2015-01-14 00:00:00.0  
Action: CA340 - CMS Report Received  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2014-11-13 00:00:00.0  
Action: CA300 - CMS Workplan Approved  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2014-11-05 00:00:00.0  
Action: CA260 - CMS Workplan Received  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2014-09-16 00:00:00.0  
Action: CA170 - RFI Supplemental Information Deemed Satisfactory  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2014-08-26 00:00:00.0  
Action: CA160 - RFI Supplemental Information Received  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2014-06-18 00:00:00.0  
Action: CA831AS  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2014-06-18 00:00:00.0  
Action: CA834AS  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2014-04-29 00:00:00.0  
Action: CA150 - RFI Workplan Approved  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2014-04-14 00:00:00.0  
Action: CA110 - RFI Workplan Received  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2014-02-25 00:00:00.0  
Action: CA060 - Notice of Contamination  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2014-02-04 00:00:00.0  
Action: CA100 - RFI Imposition  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2014-02-04 00:00:00.0  
Action: CA100 - RFI Imposition  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: COR000203810  
EPA Region: 08  
Area Name: ENTIRE FACILITY  
Actual Date: 2014-02-02 00:00:00.0  
Action: CA060 - Notice of Contamination  
NAICS Code(s): 81232  
Drycleaning and Laundry Services (except Coin-Operated)  
Original schedule date: Not reported  
Schedule end date: Not reported

**RCRA NonGen / NLR:**

Date form received by agency: 11/28/2017  
Facility name: DRY CLEANING STATION  
Facility address: 9940 N WADSWORTH PKWY UNIT 500  
WESTMINSTER, CO 80021  
EPA ID: COR000203810  
Mailing address: N WADSWORTH PKWY UNIT 500  
WESTMINSTER, CO 80021  
Contact: BRADLEY V VAN LINGE  
Contact address: LYTTON AVE STE 150 CORNISH & CAREY COMMERCIAL  
PALO ALTO, CA 94301  
Contact country: US  
Contact telephone: 303-565-6153  
Contact email: BRAD@NEWMARKCCAREY.COM  
EPA Region: 08  
Land type: Private  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

**Owner/Operator Summary:**

Owner/operator name: ARTHUR & KATHY DAWSON  
Owner/operator address: BROADMOOR LOOP  
BROOMFIELD, CO 80023  
Owner/operator country: US  
Owner/operator telephone: 303-565-6153  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 02/18/2014  
Owner/Op end date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

Owner/operator name: COLONNADES  
Owner/operator address: LYTTON AVE STE 150 CORNISH & CAREY COMMERCIAL  
PALO ALTO, CA 94301  
Owner/operator country: US  
Owner/operator telephone: 650-688-8522  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: County  
Owner/Operator Type: Owner  
Owner/Op start date: 04/20/2015  
Owner/Op end date: Not reported

Owner/operator name: FRED & DOROTHY PLUMER  
Owner/operator address: PO BOX 399  
ELISABETH, CO 80107  
Owner/operator country: US  
Owner/operator telephone: 303-646-3755  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 02/02/1800  
Owner/Op end date: Not reported

Owner/operator name: FREDEE INC DBA DRY CLEANING STATION  
Owner/operator address: N WADSWORTH PKWY UNIT 500  
WESTMINSTER, CO 80021  
Owner/operator country: US  
Owner/operator telephone: Not reported  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 06/27/2002  
Owner/Op end date: Not reported

Owner/operator name: FRED & DOROTHY PLUMER  
Owner/operator address: PO BOX 399  
ELISABETH, CO 80107  
Owner/operator country: Not reported  
Owner/operator telephone: 303-646-3755  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 01/01/1800  
Owner/Op end date: Not reported

Owner/operator name: JOHN YOUNGKIM  
Owner/operator address: N WADSWORTH PKWY  
WESTMINSTER, CO 80021  
Owner/operator country: US  
Owner/operator telephone: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 09/06/2005  
Owner/Op end date: Not reported

Owner/operator name: DRY CLEANING STATION  
Owner/operator address: N WADSWORTH PKWY  
WESTMINSTER, CO 80021

Owner/operator country: US  
Owner/operator telephone: Not reported  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 09/06/2005  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 04/20/2015  
Site name: DRY CLEANING STATION  
Classification: Small Quantity Generator

Date form received by agency: 02/18/2014  
Site name: DRY CLEANING STATION  
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 05/07/2012  
Site name: DRY CLEANING STATION  
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 08/30/2005  
Site name: DRY CLEANING STATION  
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 06/27/2002

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

Site name: FREDEE INC DBA DRY CLEANING STATION  
Classification: Small Quantity Generator

Hazardous Waste Summary:

- . Waste code: D001
- . Waste name: IGNITABLE WASTE
  
- . Waste code: D039
- . Waste name: TETRACHLOROETHYLENE
  
- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Corrective Action Summary:

- Event date: 02/02/2014
- Event: NOTICE OF CONTAMINATION
  
- Event date: 02/04/2014
- Event: INVESTIGATION IMPOSITION
  
- Event date: 02/04/2014
- Event: INVESTIGATION IMPOSITION
  
- Event date: 02/25/2014
- Event: NOTICE OF CONTAMINATION
  
- Event date: 04/14/2014
- Event: INVESTIGATION WORKPLAN RECEIVED
  
- Event date: 04/29/2014
- Event: INVESTIGATION WORKPLAN APPROVED
  
- Event date: 06/18/2014
- Event: OTHER REPORT APPROVED
  
- Event date: 06/18/2014
- Event: OTHER REPORT RECEIVED
  
- Event date: 08/26/2014
- Event: INVESTIGATION SUPPLEMENTAL INFORMATION RECEIVED
  
- Event date: 09/16/2014
- Event: INVESTIGATION SUPPLEMENTAL INFO DEEMED SATISFACT
  
- Event date: 11/05/2014
- Event: CMS WORKPLAN RECEIVED



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

Event date: 11/13/2014  
Event: CMS WORKPLAN APPROVED

Event date: 01/14/2015  
Event: CMS REPORT RECEIVED

Event date: 01/14/2015  
Event: CMS SUPPLEMENTAL INFORMATION RECEIVED

Event date: 01/29/2015  
Event: CMS COMPLETE

Event date: 04/06/2015  
Event: CMS WORKPLAN RECEIVED

Event date: 04/17/2015  
Event: CMS WORKPLAN APPROVED

Event date: 07/23/2015  
Event: OTHER REPORT RECEIVED

Event date: 08/10/2015  
Event: CMS WORKPLAN APPROVED

Event date: 08/10/2015  
Event: CMS COMPLETE

Event date: 08/10/2015  
Event: REMEDY DECISION

Facility Has Received Notices of Violations:

Regulation violated: Not reported  
Area of violation: Generators - General  
Date violation determined: 08/06/2015  
Date achieved compliance: 08/31/2015  
Violation lead agency: State  
Enforcement action: COMPLIANCE ADVISORY  
Enforcement action date: 08/06/2015  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: Listing - General  
Date violation determined: 02/18/2014  
Date achieved compliance: 08/31/2015  
Violation lead agency: State  
Enforcement action: COMPLIANCE ADVISORY  
Enforcement action date: 02/18/2014  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: Listing - General  
Date violation determined: 02/18/2014  
Date achieved compliance: 08/31/2015  
Violation lead agency: State  
Enforcement action: COMPLIANCE ADVISORY  
Enforcement action date: 02/12/2014  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: Generators - General  
Date violation determined: 02/12/2014  
Date achieved compliance: 08/31/2015  
Violation lead agency: State  
Enforcement action: COMPLIANCE ADVISORY  
Enforcement action date: 02/12/2014  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: Generators - General  
Date violation determined: 04/10/2007  
Date achieved compliance: 04/20/2007  
Violation lead agency: State  
Enforcement action: COMPLIANCE ADVISORY  
Enforcement action date: 04/10/2007  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Evaluation Action Summary:  
Evaluation date: 02/24/2017  
Evaluation: FACILITY SELF DISCLOSURE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 02/24/2016  
Evaluation: FACILITY SELF DISCLOSURE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

Evaluation date:	08/31/2015
Evaluation:	FOCUSED COMPLIANCE INSPECTION
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	08/06/2015
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	08/06/2015
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - General
Date achieved compliance:	08/31/2015
Evaluation lead agency:	State
Evaluation date:	06/01/2015
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	06/01/2015
Evaluation:	FOCUSED COMPLIANCE INSPECTION
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	02/26/2015
Evaluation:	FACILITY SELF DISCLOSURE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	06/19/2014
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	03/01/2014
Evaluation:	FACILITY SELF DISCLOSURE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	02/18/2014
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Listing - General
Date achieved compliance:	08/31/2015
Evaluation lead agency:	State
Evaluation date:	02/18/2014
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - General

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

Date achieved compliance: 08/31/2015  
Evaluation lead agency: State

Evaluation date: 02/12/2014  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Generators - General  
Date achieved compliance: 08/31/2015  
Evaluation lead agency: State

Evaluation date: 02/07/2013  
Evaluation: FACILITY SELF DISCLOSURE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 02/28/2011  
Evaluation: FACILITY SELF DISCLOSURE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 09/04/2010  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 02/24/2010  
Evaluation: FACILITY SELF DISCLOSURE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 05/14/2009  
Evaluation: FACILITY SELF DISCLOSURE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 11/05/2007  
Evaluation: FACILITY SELF DISCLOSURE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 04/20/2007  
Evaluation: NON-FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 04/10/2007  
Evaluation: FOCUSED COMPLIANCE INSPECTION  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

Evaluation date: 04/10/2007  
Evaluation: FOCUSED COMPLIANCE INSPECTION  
Area of violation: Generators - General  
Date achieved compliance: 04/20/2007  
Evaluation lead agency: State

Evaluation date: 03/13/2007  
Evaluation: FACILITY SELF DISCLOSURE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 08/30/2005  
Evaluation: COMPLIANCE ASSISTANCE VISIT  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

**CO AIRS:**

Name: DRY CLEANING STATION  
Address: 9940 WADSWORTH PKWY # 500  
City,State,Zip: WESTMINSTER, CO  
County/Plant ID: 059-1308  
Contact Person: ART DAWSON  
Contact Phone: (303)469-7020  
Latitude: 395236.81  
Longitude: 1050541.37  
SIC Primary: 7216  
NAICS Primary: 812320  
Unique Emission Unit ID: 1  
Construction Permit Number: 02JE0334  
Emission Unit Description: DRY-TO-DRY.CN  
Full Pollutant Name: TETRACHLOROETHYLENE (PERC)  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

Name: FREDEE, INC. DBA DRY CLEANING STATION  
Address: 9940 WADSWORTH PKWY UNIT 500  
City,State,Zip: WESTMINSTER, CO  
County/Plant ID: 001-1379  
Contact Person: JOELLE JENSEN  
Contact Phone: (303)469-7020  
Latitude: 395236.83  
Longitude: 1050541.38  
SIC Primary: 7216  
NAICS Primary: 812320  
Unique Emission Unit ID: 1  
Construction Permit Number: Not reported  
Emission Unit Description: DRY CLEANING  
Full Pollutant Name: TETRACHLOROETHYLENE (PERC)  
Site-wide Estimated Emissions: 0  
Site-wide Estimated Emissions Units: Tons Per Year

**DRYCLEANERS:**

Name: DRY CLEANING STATION  
Address: 9940 WADSWORTH PKWY # 500  
City,State,Zip: WESTMINSTER, CO 80021-4248

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DRY CLEANING STATION (Continued)**

**1005441430**

Facility Id: 059-1308  
Contact Person: ART DAWSON  
Site Latitude: 395236.81  
Site Longitude: 1050541.37  
Site UTM Zone: 13  
Site UTM Horiz: 491.891  
Site UTM Vert: 4414.098  
Site Owner Name: ART DAWSON  
Site Owner Mail Addr: 9940 WADSWORTH PKWY  
Site Owner Mail City/Zip: WESTMINSTER, 08 80021  
Site Owner Phone: (303)469-7020  
Construction Permit Num: 02JE0334  
Emission Process Desc: PERC USAGE  
Annual Throughput: 0  
Annual Throughput Units: GALLONS SOLVENT CONSUMED  
Emission Unit Id: 001  
Emission Process Id: 01  
Emission Unit Desc: DRY-TO-DRY.CN  
Equipment Manufacturer: Not reported  
Equipment Model: Not reported  
Serial # Of Equipment: Not reported

Name: FREDEE, INC. DBA DRY CLEANING STATION  
Address: 9940 WADSWORTH PKWY UNIT 500  
City,State,Zip: WESTMINSTER, CO 80021-4243  
Facility Id: 001-1379  
Contact Person: JOELLE JENSEN  
Site Latitude: 395236.83  
Site Longitude: 1050541.38  
Site UTM Zone: 13  
Site UTM Horiz: 491.891  
Site UTM Vert: 4414.098  
Site Owner Name: JOELLE JENSEN  
Site Owner Mail Addr: 9940 N. WADSWORTH PKWY #500  
Site Owner Mail City/Zip: WESTMINSTER, 08 80021  
Site Owner Phone: (303)469-7020  
Construction Permit Num: Not reported  
Emission Process Desc: DRY CLEANING  
Annual Throughput: 0  
Annual Throughput Units: GALLONS SOLVENT CONSUMED  
Emission Unit Id: 001  
Emission Process Id: 01  
Emission Unit Desc: DRY CLEANING  
Equipment Manufacturer: Not reported  
Equipment Model: Not reported  
Serial # Of Equipment: Not reported

Count: 2 records.

ORPHAN SUMMARY

<u>City</u>	<u>EDR ID</u>	<u>Site Name</u>	<u>Site Address</u>	<u>Zip</u>	<u>Database(s)</u>
BROOMFIELD	S123425981	WESTERN STATES RECLAMATION CONSTRU	SW CORNER 96TH ST & CARBON RD	80020	LTANKS
WESTMINSTER	1024154542	ALAMO DRAFTHOUSE CINEMA WESTMINSTE	8905 WESTMINSTER BLVD	80031	FINDS, ECHO

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## STANDARD ENVIRONMENTAL RECORDS

### ***Federal NPL site list***

#### **NPL: National Priority List**

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: N/A
Date Made Active in Reports: 11/20/2019	Last EDR Contact: 01/03/2020
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Quarterly

#### **NPL Site Boundaries**

##### **Sources:**

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 7  
Telephone: 913-551-7247

EPA Region 4  
Telephone 404-562-8033

EPA Region 8  
Telephone: 303-312-6774

EPA Region 5  
Telephone 312-886-6686

EPA Region 9  
Telephone: 415-947-4246

EPA Region 10  
Telephone 206-553-8665

#### **Proposed NPL: Proposed National Priority List Sites**

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: N/A
Date Made Active in Reports: 11/20/2019	Last EDR Contact: 01/03/2020
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Quarterly

#### **NPL LIENS: Federal Superfund Liens**

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991  
Date Data Arrived at EDR: 02/02/1994  
Date Made Active in Reports: 03/30/1994  
Number of Days to Update: 56

Source: EPA  
Telephone: 202-564-4267  
Last EDR Contact: 08/15/2011  
Next Scheduled EDR Contact: 11/28/2011  
Data Release Frequency: No Update Planned

## ***Federal Delisted NPL site list***

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/25/2019  
Date Data Arrived at EDR: 11/07/2019  
Date Made Active in Reports: 11/20/2019  
Number of Days to Update: 13

Source: EPA  
Telephone: N/A  
Last EDR Contact: 01/03/2020  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Quarterly

## ***Federal CERCLIS list***

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019  
Date Data Arrived at EDR: 04/05/2019  
Date Made Active in Reports: 05/14/2019  
Number of Days to Update: 39

Source: Environmental Protection Agency  
Telephone: 703-603-8704  
Last EDR Contact: 04/05/2019  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2019  
Date Data Arrived at EDR: 11/07/2019  
Date Made Active in Reports: 11/21/2019  
Number of Days to Update: 14

Source: EPA  
Telephone: 800-424-9346  
Last EDR Contact: 01/03/2020  
Next Scheduled EDR Contact: 01/27/2020  
Data Release Frequency: Quarterly

## ***Federal CERCLIS NFRAP site list***

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: 800-424-9346
Date Made Active in Reports: 11/21/2019	Last EDR Contact: 01/03/2020
Number of Days to Update: 14	Next Scheduled EDR Contact: 01/27/2020
	Data Release Frequency: Quarterly

## ***Federal RCRA CORRACTS facilities list***

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/16/2019	Source: EPA
Date Data Arrived at EDR: 12/16/2019	Telephone: 800-424-9346
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

## ***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: 303-312-6149
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

## ***Federal RCRA generators list***

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: 303-312-6149
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: 303-312-6149
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

## RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: 303-312-6149
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

## ***Federal institutional controls / engineering controls registries***

### LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/13/2019	Source: Department of the Navy
Date Data Arrived at EDR: 08/20/2019	Telephone: 843-820-7326
Date Made Active in Reports: 08/26/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 6	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: Varies

### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/19/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/20/2019	Telephone: 703-603-0695
Date Made Active in Reports: 08/26/2019	Last EDR Contact: 11/22/2019
Number of Days to Update: 6	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

### US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/19/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/20/2019	Telephone: 703-603-0695
Date Made Active in Reports: 08/26/2019	Last EDR Contact: 11/22/2019
Number of Days to Update: 6	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **Federal ERNS list**

### ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/09/2019  
Date Data Arrived at EDR: 09/09/2019  
Date Made Active in Reports: 09/23/2019  
Number of Days to Update: 14

Source: National Response Center, United States Coast Guard  
Telephone: 202-267-2180  
Last EDR Contact: 12/19/2019  
Next Scheduled EDR Contact: 04/06/2020  
Data Release Frequency: Quarterly

## **State- and tribal - equivalent CERCLIS**

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: Department of Public Health & Environment  
Telephone: 303-692-3300  
Last EDR Contact: 11/07/2019  
Next Scheduled EDR Contact: 02/24/2020  
Data Release Frequency: N/A

## **State and tribal landfill and/or solid waste disposal site lists**

### SWF/LF: Solid Waste Sites & Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 12/04/2014  
Date Data Arrived at EDR: 02/13/2015  
Date Made Active in Reports: 03/04/2015  
Number of Days to Update: 19

Source: Department of Public Health & Environment  
Telephone: 303-692-3300  
Last EDR Contact: 11/08/2019  
Next Scheduled EDR Contact: 02/17/2020  
Data Release Frequency: Annually

## **State and tribal leaking storage tank lists**

### LTANKS: Petroleum Release Events Listing

Active and Closed OPS Petroleum Release Events in Colorado. Includes the OPS Open Event locations, but also shows locations of closed events (releases that have been issued a No Further Action determination).

Date of Government Version: 12/02/2019  
Date Data Arrived at EDR: 12/04/2019  
Date Made Active in Reports: 12/24/2019  
Number of Days to Update: 20

Source: Department of Labor & Employment  
Telephone: 303-318-8525  
Last EDR Contact: 12/04/2019  
Next Scheduled EDR Contact: 03/16/2020  
Data Release Frequency: Quarterly

### LAST: Leaking Aboveground Storage Tank Listing

A listing of leaking aboveground storage tank sites. This list is no longer maintained. For current Leaking AST information, please see LTANKS.

Date of Government Version: 03/01/2018  
Date Data Arrived at EDR: 03/07/2018  
Date Made Active in Reports: 04/03/2018  
Number of Days to Update: 27

Source: Department of Labor & Employment  
Telephone: 303-318-8525  
Last EDR Contact: 05/31/2018  
Next Scheduled EDR Contact: 09/10/2018  
Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## LUST: Leaking Underground Storage Tank List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/01/2018	Source: Department of Labor and Employment, Oil Inspection Section
Date Data Arrived at EDR: 03/07/2018	Telephone: 303-318-8521
Date Made Active in Reports: 04/03/2018	Last EDR Contact: 03/07/2018
Number of Days to Update: 27	Next Scheduled EDR Contact: 06/18/2018
	Data Release Frequency: Quarterly

## INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/12/2019	Source: EPA Region 4
Date Data Arrived at EDR: 07/29/2019	Telephone: 404-562-8677
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/03/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/08/2019	Source: EPA, Region 5
Date Data Arrived at EDR: 07/30/2019	Telephone: 312-886-7439
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/11/2019	Source: EPA Region 1
Date Data Arrived at EDR: 07/29/2019	Telephone: 617-918-1313
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/02/2019	Source: EPA Region 8
Date Data Arrived at EDR: 10/22/2019	Telephone: 303-312-6271
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 20	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/16/2019	Source: EPA Region 10
Date Data Arrived at EDR: 07/29/2019	Telephone: 206-553-2857
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/01/2019	Source: EPA Region 6
Date Data Arrived at EDR: 07/29/2019	Telephone: 214-665-6597
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/29/2019	Telephone: 415-972-3372
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 07/02/2019	Source: EPA Region 7
Date Data Arrived at EDR: 10/16/2019	Telephone: 913-551-7003
Date Made Active in Reports: 10/24/2019	Last EDR Contact: 12/16/2020
Number of Days to Update: 8	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## TRUST: Lust Trust Sites

Reimbursement application package. The 1989 Colorado General Assembly established Colorado's Petroleum Storage Tank Fund. The Fund reimburses eligible applicants for allowable costs incurred in cleaning up petroleum contamination from underground and aboveground petroleum storage tanks, as well as for third-party liability expenses. Remediation of contamination caused by railroad or aircraft fuel is not eligible for reimbursement. The Fund satisfies federal Environmental Protection Agency financial assurance requirements. Monies in the Fund come from various sources, predominantly the state environmental surcharge imposed on all petroleum products except railroad or aircraft fuel.

Date of Government Version: 02/28/2019	Source: Department of Labor and Employment, Oil Inspection Section
Date Data Arrived at EDR: 03/01/2019	Telephone: 303-318-8521
Date Made Active in Reports: 04/09/2019	Last EDR Contact: 12/17/2019
Number of Days to Update: 39	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Varies

## **State and tribal registered storage tank lists**

### FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/27/2019	Source: FEMA
Date Data Arrived at EDR: 08/28/2019	Telephone: 202-646-5797
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 10/11/2019
Number of Days to Update: 75	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Varies

### UST: Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 12/02/2019	Source: Department of Labor and Employment, Oil Inspection Section
Date Data Arrived at EDR: 12/12/2019	Telephone: 303-318-8521
Date Made Active in Reports: 12/26/2019	Last EDR Contact: 12/12/2019
Number of Days to Update: 14	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Quarterly

### AST: Aboveground Tank List

Aboveground storage tank locations.

Date of Government Version: 12/02/2019	Source: Department of Labor and Employment, Oil Inspection Section
Date Data Arrived at EDR: 12/12/2019	Telephone: 303-318-8521
Date Made Active in Reports: 12/26/2019	Last EDR Contact: 12/12/2019
Number of Days to Update: 14	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Semi-Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/01/2019	Source: EPA Region 6
Date Data Arrived at EDR: 07/29/2019	Telephone: 214-665-7591
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/02/2019	Source: EPA Region 8
Date Data Arrived at EDR: 10/22/2019	Telephone: 303-312-6137
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 20	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2019	Source: EPA Region 9
Date Data Arrived at EDR: 07/29/2019	Telephone: 415-972-3368
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/08/2019	Source: EPA Region 5
Date Data Arrived at EDR: 07/29/2019	Telephone: 312-886-6136
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations).

Date of Government Version: 04/12/2019	Source: EPA Region 4
Date Data Arrived at EDR: 07/29/2019	Telephone: 404-562-9424
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/03/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/16/2019	Source: EPA Region 10
Date Data Arrived at EDR: 07/30/2019	Telephone: 206-553-2857
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2019	Source: EPA Region 7
Date Data Arrived at EDR: 07/29/2019	Telephone: 913-551-7003
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

## INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/11/2019	Source: EPA, Region 1
Date Data Arrived at EDR: 07/30/2019	Telephone: 617-918-1313
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/04/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

### ***State and tribal institutional control / engineering control registries***

#### AUL: Environmental Real Covenants List

Senate Bill 01-145 gave authority to the Colorado Department of Public Health and Environment to approve requests to restrict the future use of a property using an enforceable agreement called an environmental covenant. When a contaminated site is not cleaned up completely, land use restrictions may be used to ensure that the selected cleanup remedy is adequately protective of human health and the environment.

Date of Government Version: 09/03/2019	Source: Department of Public Health & Environment
Date Data Arrived at EDR: 10/29/2019	Telephone: 303-692-3331
Date Made Active in Reports: 12/13/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 45	Next Scheduled EDR Contact: 02/10/2020
	Data Release Frequency: Varies

### ***State and tribal voluntary cleanup sites***

#### VCP: Voluntary Cleanup & Redevelopment Act Application Tracking Report

The Voluntary Cleanup and Redevelopment Act is intended to permit and encourage voluntary cleanups by providing a method to determine clean-up responsibilities in planning the reuse of property. The VCRA was intended for sites which were not covered by existing regulatory programs.

Date of Government Version: 12/06/2018	Source: Department of Public Health and Environmental
Date Data Arrived at EDR: 01/08/2019	Telephone: 303-692-3331
Date Made Active in Reports: 03/11/2019	Last EDR Contact: 10/11/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Semi-Annually

#### INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 12/17/2019
Number of Days to Update: 142	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Varies

#### INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/20/2008  
Date Data Arrived at EDR: 04/22/2008  
Date Made Active in Reports: 05/19/2008  
Number of Days to Update: 27

Source: EPA, Region 7  
Telephone: 913-551-7365  
Last EDR Contact: 04/20/2009  
Next Scheduled EDR Contact: 07/20/2009  
Data Release Frequency: Varies

## ***State and tribal Brownfields sites***

BROWNFIELDS: Brownfields Sites Listing  
Brownfields Sites Listing

Date of Government Version: 10/18/2019  
Date Data Arrived at EDR: 10/18/2019  
Date Made Active in Reports: 12/11/2019  
Number of Days to Update: 54

Source: Department of Public Health & Environment  
Telephone: 303-692-3331  
Last EDR Contact: 10/17/2019  
Next Scheduled EDR Contact: 02/03/2020  
Data Release Frequency: Varies

## **ADDITIONAL ENVIRONMENTAL RECORDS**

### ***Local Brownfield lists***

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/03/2019  
Date Data Arrived at EDR: 06/04/2019  
Date Made Active in Reports: 08/26/2019  
Number of Days to Update: 83

Source: Environmental Protection Agency  
Telephone: 202-566-2777  
Last EDR Contact: 12/16/2019  
Next Scheduled EDR Contact: 03/30/2020  
Data Release Frequency: Semi-Annually

### ***Local Lists of Landfill / Solid Waste Disposal Sites***

SWRCY: Registered Recyclers Listing

A listing of registered recycler locations in the state of Colorado.

Date of Government Version: 09/03/2019  
Date Data Arrived at EDR: 09/09/2019  
Date Made Active in Reports: 09/27/2019  
Number of Days to Update: 18

Source: Department of Public Health & Environment  
Telephone: 303-692-3337  
Last EDR Contact: 12/05/2019  
Next Scheduled EDR Contact: 03/23/2020  
Data Release Frequency: Semi-Annually

HISTORICAL LANDFILL: Historical Landfill List  
Abandoned/Inactive Landfills.

Date of Government Version: 01/31/1993  
Date Data Arrived at EDR: 04/24/1994  
Date Made Active in Reports: 05/30/1994  
Number of Days to Update: 36

Source: Department of Public Health & Environment  
Telephone: 303-692-3300  
Last EDR Contact: 09/05/1996  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands  
Location of open dumps on Indian land.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/1998  
Date Data Arrived at EDR: 12/03/2007  
Date Made Active in Reports: 01/24/2008  
Number of Days to Update: 52

Source: Environmental Protection Agency  
Telephone: 703-308-8245  
Last EDR Contact: 10/28/2019  
Next Scheduled EDR Contact: 02/10/2020  
Data Release Frequency: Varies

## ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985  
Date Data Arrived at EDR: 08/09/2004  
Date Made Active in Reports: 09/17/2004  
Number of Days to Update: 39

Source: Environmental Protection Agency  
Telephone: 800-424-9346  
Last EDR Contact: 06/09/2004  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009  
Date Data Arrived at EDR: 05/07/2009  
Date Made Active in Reports: 09/21/2009  
Number of Days to Update: 137

Source: EPA, Region 9  
Telephone: 415-947-4219  
Last EDR Contact: 10/17/2019  
Next Scheduled EDR Contact: 02/03/2020  
Data Release Frequency: No Update Planned

## IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014  
Date Data Arrived at EDR: 08/06/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service  
Telephone: 301-443-1452  
Last EDR Contact: 11/01/2019  
Next Scheduled EDR Contact: 02/10/2020  
Data Release Frequency: Varies

## DENVER CO HISTORIC FILL: Denver City & County Historic Fill Areas

This dataset denotes the approximate locations of historical fill areas within the City and County of Denver (CCoD) and with within approximately three-quarters of a mile of the CCoD boundaries. The data is of a general nature and obtained from historic and current documents that may not be accurate or precise.

Date of Government Version: 01/11/2018  
Date Data Arrived at EDR: 10/08/2019  
Date Made Active in Reports: 12/05/2019  
Number of Days to Update: 58

Source: City & County of Denver  
Telephone: 720-913-5237  
Last EDR Contact: 10/08/2019  
Next Scheduled EDR Contact: 01/20/2020  
Data Release Frequency: No Update Planned

## **Local Lists of Hazardous waste / Contaminated Sites**

### US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 06/11/2019  
Date Data Arrived at EDR: 06/13/2019  
Date Made Active in Reports: 09/03/2019  
Number of Days to Update: 82

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 11/20/2019  
Next Scheduled EDR Contact: 03/09/2020  
Data Release Frequency: No Update Planned

### CDL: Meth Lab Locations

Meth lab locations that were reported to the Department of Public Health & Environment.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/25/2019  
Date Data Arrived at EDR: 09/26/2019  
Date Made Active in Reports: 11/27/2019  
Number of Days to Update: 62

Source: Department of Public Health and Environment  
Telephone: 303-692-3023  
Last EDR Contact: 12/19/2019  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Quarterly

## US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/11/2019  
Date Data Arrived at EDR: 06/13/2019  
Date Made Active in Reports: 09/03/2019  
Number of Days to Update: 82

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 11/20/2019  
Next Scheduled EDR Contact: 03/09/2020  
Data Release Frequency: Quarterly

## Local Land Records

### LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 10/25/2019  
Date Data Arrived at EDR: 11/07/2019  
Date Made Active in Reports: 11/20/2019  
Number of Days to Update: 13

Source: Environmental Protection Agency  
Telephone: 202-564-6023  
Last EDR Contact: 01/03/2020  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Semi-Annually

## Records of Emergency Release Reports

### HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2019  
Date Data Arrived at EDR: 06/26/2019  
Date Made Active in Reports: 09/23/2019  
Number of Days to Update: 89

Source: U.S. Department of Transportation  
Telephone: 202-366-4555  
Last EDR Contact: 12/06/2019  
Next Scheduled EDR Contact: 04/06/2020  
Data Release Frequency: Quarterly

### SPILLS 2: Spills

A listing of spills reported to the Oil & Gas Conservation Commission

Date of Government Version: 09/23/2019  
Date Data Arrived at EDR: 09/24/2019  
Date Made Active in Reports: 11/21/2019  
Number of Days to Update: 58

Source: Oil & Gas Conservation Commission  
Telephone: 303-894-2100  
Last EDR Contact: 12/19/2019  
Next Scheduled EDR Contact: 04/06/2020  
Data Release Frequency: Quarterly

### CO ERNS: Spills Database

State reported spills.

Date of Government Version: 09/25/2019  
Date Data Arrived at EDR: 09/26/2019  
Date Made Active in Reports: 11/27/2019  
Number of Days to Update: 62

Source: Department of Public Health and Environmental  
Telephone: 303-692-2000  
Last EDR Contact: 12/19/2019  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/15/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/06/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 34	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## Other Ascertainable Records

### RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: 303-312-6149
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

### FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/15/2019	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 05/21/2019	Telephone: 202-528-4285
Date Made Active in Reports: 08/08/2019	Last EDR Contact: 11/19/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Varies

### DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/11/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Semi-Annually

### FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 10/07/2019
Number of Days to Update: 574	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: N/A

### SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2017	Telephone: 615-532-8599
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 12/02/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: Varies

## US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/23/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/24/2019	Telephone: 202-566-1917
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/19/2019
Number of Days to Update: 87	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

## EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 10/31/2019
Number of Days to Update: 88	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Quarterly

## 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 11/08/2019
Number of Days to Update: 73	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Varies

## TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 06/21/2017	Telephone: 202-260-5521
Date Made Active in Reports: 01/05/2018	Last EDR Contact: 12/20/2019
Number of Days to Update: 198	Next Scheduled EDR Contact: 03/30/2020
	Data Release Frequency: Every 4 Years

## TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2017  
Date Data Arrived at EDR: 11/16/2018  
Date Made Active in Reports: 11/21/2019  
Number of Days to Update: 370

Source: EPA  
Telephone: 202-566-0250  
Last EDR Contact: 11/22/2019  
Next Scheduled EDR Contact: 03/02/2020  
Data Release Frequency: Annually

## SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 09/30/2018  
Date Data Arrived at EDR: 04/24/2019  
Date Made Active in Reports: 08/08/2019  
Number of Days to Update: 106

Source: EPA  
Telephone: 202-564-4203  
Last EDR Contact: 10/23/2019  
Next Scheduled EDR Contact: 02/03/2020  
Data Release Frequency: Annually

## ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 10/25/2019  
Date Data Arrived at EDR: 11/07/2019  
Date Made Active in Reports: 11/20/2019  
Number of Days to Update: 13

Source: EPA  
Telephone: 703-416-0223  
Last EDR Contact: 01/03/2020  
Next Scheduled EDR Contact: 03/16/2020  
Data Release Frequency: Annually

## RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019  
Date Data Arrived at EDR: 05/02/2019  
Date Made Active in Reports: 05/23/2019  
Number of Days to Update: 21

Source: Environmental Protection Agency  
Telephone: 202-564-8600  
Last EDR Contact: 10/21/2019  
Next Scheduled EDR Contact: 02/03/2020  
Data Release Frequency: Varies

## RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995  
Date Data Arrived at EDR: 07/03/1995  
Date Made Active in Reports: 08/07/1995  
Number of Days to Update: 35

Source: EPA  
Telephone: 202-564-4104  
Last EDR Contact: 06/02/2008  
Next Scheduled EDR Contact: 09/01/2008  
Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: 202-564-6023
Date Made Active in Reports: 11/21/2019	Last EDR Contact: 01/03/2020
Number of Days to Update: 14	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Quarterly

## PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019	Source: EPA
Date Data Arrived at EDR: 10/11/2019	Telephone: 202-566-0500
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 10/11/2019
Number of Days to Update: 70	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Annually

## ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 01/06/2020
Number of Days to Update: 79	Next Scheduled EDR Contact: 04/20/2020
	Data Release Frequency: Quarterly

## FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

## FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

## MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/20/2019	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 06/20/2019	Telephone: 301-415-7169
Date Made Active in Reports: 08/08/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 49	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 12/04/2019
Number of Days to Update: 76	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Varies

## COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 11/25/2019
Number of Days to Update: 251	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Varies

## PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/30/2017	Telephone: 202-566-0517
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 11/06/2019
Number of Days to Update: 15	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Varies

## RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2019	Telephone: 202-343-9775
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 12/20/2019
Number of Days to Update: 84	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Quarterly

## HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

## HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 12/17/2008  
Next Scheduled EDR Contact: 03/17/2008  
Data Release Frequency: No Update Planned

## DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/01/2019  
Date Data Arrived at EDR: 07/31/2019  
Date Made Active in Reports: 10/24/2019  
Number of Days to Update: 85

Source: Department of Transportation, Office of Pipeline Safety  
Telephone: 202-366-4595  
Last EDR Contact: 10/29/2019  
Next Scheduled EDR Contact: 02/10/2020  
Data Release Frequency: Quarterly

## CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2019  
Date Data Arrived at EDR: 10/09/2019  
Date Made Active in Reports: 12/20/2019  
Number of Days to Update: 72

Source: Department of Justice, Consent Decree Library  
Telephone: Varies  
Last EDR Contact: 01/06/2020  
Next Scheduled EDR Contact: 04/20/2020  
Data Release Frequency: Varies

## BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015  
Date Data Arrived at EDR: 02/22/2017  
Date Made Active in Reports: 09/28/2017  
Number of Days to Update: 218

Source: EPA/NTIS  
Telephone: 800-424-9346  
Last EDR Contact: 12/16/2019  
Next Scheduled EDR Contact: 04/06/2020  
Data Release Frequency: Biennially

## INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014  
Date Data Arrived at EDR: 07/14/2015  
Date Made Active in Reports: 01/10/2017  
Number of Days to Update: 546

Source: USGS  
Telephone: 202-208-3710  
Last EDR Contact: 10/06/2019  
Next Scheduled EDR Contact: 01/19/2020  
Data Release Frequency: Semi-Annually

## FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017  
Date Data Arrived at EDR: 09/11/2018  
Date Made Active in Reports: 09/14/2018  
Number of Days to Update: 3

Source: Department of Energy  
Telephone: 202-586-3559  
Last EDR Contact: 11/04/2019  
Next Scheduled EDR Contact: 02/17/2020  
Data Release Frequency: Varies

## UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2019  
Date Data Arrived at EDR: 08/21/2019  
Date Made Active in Reports: 11/11/2019  
Number of Days to Update: 82

Source: Department of Energy  
Telephone: 505-845-0011  
Last EDR Contact: 11/15/2019  
Next Scheduled EDR Contact: 03/02/2020  
Data Release Frequency: Varies

## LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 10/25/2019  
Date Data Arrived at EDR: 11/07/2019  
Date Made Active in Reports: 11/20/2019  
Number of Days to Update: 13

Source: Environmental Protection Agency  
Telephone: 703-603-8787  
Last EDR Contact: 01/03/2020  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Varies

## LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001  
Date Data Arrived at EDR: 10/27/2010  
Date Made Active in Reports: 12/02/2010  
Number of Days to Update: 36

Source: American Journal of Public Health  
Telephone: 703-305-6451  
Last EDR Contact: 12/02/2009  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

## US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

## MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 09/17/2019  
Date Data Arrived at EDR: 09/18/2019  
Date Made Active in Reports: 12/03/2019  
Number of Days to Update: 76

Source: DOL, Mine Safety & Health Administration  
Telephone: 202-693-9424  
Last EDR Contact: 12/02/2019  
Next Scheduled EDR Contact: 03/16/2020  
Data Release Frequency: Quarterly

## US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2019  
Date Data Arrived at EDR: 08/27/2019  
Date Made Active in Reports: 11/11/2019  
Number of Days to Update: 76

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959  
Last EDR Contact: 08/27/2019  
Next Scheduled EDR Contact: 12/09/2019  
Data Release Frequency: Semi-Annually

## US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005  
Date Data Arrived at EDR: 02/29/2008  
Date Made Active in Reports: 04/18/2008  
Number of Days to Update: 49

Source: USGS  
Telephone: 703-648-7709  
Last EDR Contact: 11/22/2019  
Next Scheduled EDR Contact: 03/09/2020  
Data Release Frequency: Varies

## US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011  
Date Data Arrived at EDR: 06/08/2011  
Date Made Active in Reports: 09/13/2011  
Number of Days to Update: 97

Source: USGS  
Telephone: 703-648-7709  
Last EDR Contact: 11/22/2019  
Next Scheduled EDR Contact: 03/09/2020  
Data Release Frequency: Varies

## ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2019  
Date Data Arrived at EDR: 09/10/2019  
Date Made Active in Reports: 10/17/2019  
Number of Days to Update: 37

Source: Department of Interior  
Telephone: 202-208-2609  
Last EDR Contact: 12/04/2019  
Next Scheduled EDR Contact: 03/23/2020  
Data Release Frequency: Quarterly

## FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/12/2019  
Date Data Arrived at EDR: 09/04/2019  
Date Made Active in Reports: 12/03/2019  
Number of Days to Update: 90

Source: EPA  
Telephone: (303) 312-6312  
Last EDR Contact: 12/04/2019  
Next Scheduled EDR Contact: 03/16/2020  
Data Release Frequency: Quarterly

## UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017  
Date Data Arrived at EDR: 01/17/2019  
Date Made Active in Reports: 04/01/2019  
Number of Days to Update: 74

Source: Department of Defense  
Telephone: 703-704-1564  
Last EDR Contact: 10/10/2019  
Next Scheduled EDR Contact: 01/27/2020  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 11/20/2019
Number of Days to Update: 71	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

## ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 10/06/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/08/2019	Telephone: 202-564-2280
Date Made Active in Reports: 01/02/2020	Last EDR Contact: 10/08/2019
Number of Days to Update: 86	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Quarterly

## FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/19/2019	Source: EPA
Date Data Arrived at EDR: 08/20/2019	Telephone: 800-385-6164
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 11/19/2019
Number of Days to Update: 83	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Quarterly

## AIRS: Permitted Facility & Emissions Listing

A listing of Air Pollution Control Division permits and emissions data.

Date of Government Version: 12/02/2019	Source: Department of Public Health & Environment
Date Data Arrived at EDR: 12/03/2019	Telephone: 303-692-3213
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/02/2019
Number of Days to Update: 17	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Varies

## ASBESTOS: Asbestos Abatement & Demolition Projects

Asbestos abatement and demolition projects by the contractor.

Date of Government Version: 02/26/2019	Source: Department of Public Health & Environment
Date Data Arrived at EDR: 02/28/2019	Telephone: 303-692-3100
Date Made Active in Reports: 04/09/2019	Last EDR Contact: 10/16/2019
Number of Days to Update: 40	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Semi-Annually

## METHANE SITE: Methane Site Investigations - Jefferson County 1980

The objectives of the study are to define as closely as possible the boundaries of methane producing solid waste landfills.

Date of Government Version: 12/31/1980	Source: Jefferson County Health Department
Date Data Arrived at EDR: 02/13/1995	Telephone: 303-239-7175
Date Made Active in Reports: 04/04/1995	Last EDR Contact: 01/27/1995
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## METHANE INVESTIGATION: Methane Gas & Swamp Findings

The primary objective of this study was to assess methane gas related hazards at selected landfill sites in Colorado. These sites were selected by the Colorado Department of Health following evaluation of responses received from County and Municipal agencies about completed and existing landfills within their jurisdiction.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/15/1979  
Date Data Arrived at EDR: 02/13/1995  
Date Made Active in Reports: 04/04/1995  
Number of Days to Update: 50

Source: Department of Health  
Telephone: 303-640-3335  
Last EDR Contact: 01/27/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## DRYCLEANERS: Drycleaner Facilities

A listing of drycleaning facilities.

Date of Government Version: 12/02/2019  
Date Data Arrived at EDR: 12/03/2019  
Date Made Active in Reports: 12/24/2019  
Number of Days to Update: 21

Source: Department of Public Health & Environment  
Telephone: 303-692-3213  
Last EDR Contact: 12/02/2019  
Next Scheduled EDR Contact: 03/16/2020  
Data Release Frequency: Varies

## Financial Assurance 1: Financial Assurance Information Listing

A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 09/30/2019  
Date Data Arrived at EDR: 10/09/2019  
Date Made Active in Reports: 12/06/2019  
Number of Days to Update: 58

Source: Department of Public Health & Environment  
Telephone: 303-692-3350  
Last EDR Contact: 12/19/2019  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Varies

## Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 09/30/2019  
Date Data Arrived at EDR: 10/09/2019  
Date Made Active in Reports: 12/06/2019  
Number of Days to Update: 58

Source: Department of Public Health & Environment  
Telephone: 303-392-3350  
Last EDR Contact: 12/19/2019  
Next Scheduled EDR Contact: 04/13/2020  
Data Release Frequency: Quarterly

## LEAD: Lead Abatement Permit Listing

Lead inspection

Date of Government Version: 02/26/2019  
Date Data Arrived at EDR: 02/28/2019  
Date Made Active in Reports: 04/09/2019  
Number of Days to Update: 40

Source: Department of Public Health & Environment  
Telephone: 303-692-2000  
Last EDR Contact: 11/14/2019  
Next Scheduled EDR Contact: 02/17/2020  
Data Release Frequency: Varies

## MINES: Permitted Mines Listing

This dataset represents permitted mines in the State of Colorado

Date of Government Version: 10/15/2019  
Date Data Arrived at EDR: 10/16/2019  
Date Made Active in Reports: 12/09/2019  
Number of Days to Update: 54

Source: Division of Reclamation Mining and safety  
Telephone: 303-866-3567  
Last EDR Contact: 10/16/2019  
Next Scheduled EDR Contact: 01/27/2020  
Data Release Frequency: Semi-Annually

## NPDES: Permitted Facility Listing

A listing of permitted facilities from the Water Quality Control Division.

Date of Government Version: 10/03/2019  
Date Data Arrived at EDR: 12/03/2019  
Date Made Active in Reports: 01/02/2020  
Number of Days to Update: 30

Source: Department of Public Health & Environment  
Telephone: 303-692-3611  
Last EDR Contact: 11/20/2019  
Next Scheduled EDR Contact: 02/10/2020  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## UIC: Underground Injection Control

A list of underground injection wells and their locations.

Date of Government Version: 11/13/2020

Date Data Arrived at EDR: 11/14/2019

Date Made Active in Reports: 12/20/2019

Number of Days to Update: 36

Source: Oil & Gas Conservation Commission

Telephone: 303-894-2100

Last EDR Contact: 11/07/2019

Next Scheduled EDR Contact: 02/24/2020

Data Release Frequency: Varies

## UMTRA: Uranium Mill Tailings Sites

There were nine uranium mill tailings sites in Colorado designated for cleanup under the federal Uranium Mill Tailings Radiation Control Act. These nine sites, known commonly as UMTRA sites, were remediated jointly by the State of Colorado and the U.S. Department of Energy during the late 1980's and early 1990's. Mill tailings were removed from 8 of the mill sites and relocated in engineered disposal cells. A disposal cell is designed to encapsulate the material, reduce radon emanation, and prevent the movement of water through the material. At one site, Maybell, CO, the tailings were stabilized in-place at the mill site. After remediation of the tailings was completed, the State and DOE began to investigate the residual impacts to groundwater at the mill sites. The groundwater phase of the UMTRA program is on-going.

Date of Government Version: 11/23/2004

Date Data Arrived at EDR: 03/21/2007

Date Made Active in Reports: 05/02/2007

Number of Days to Update: 42

Source: Department of Public Health & Environment

Telephone: 970-248-7164

Last EDR Contact: 11/22/2019

Next Scheduled EDR Contact: 03/02/2020

Data Release Frequency: Varies

## MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 04/06/2018

Date Data Arrived at EDR: 10/21/2019

Date Made Active in Reports: 10/24/2019

Number of Days to Update: 3

Source: USGS

Telephone: 703-648-6533

Last EDR Contact: 11/22/2019

Next Scheduled EDR Contact: 03/09/2020

Data Release Frequency: Varies

## EDR HIGH RISK HISTORICAL RECORDS

### *EDR Exclusive Records*

#### EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A

Date Data Arrived at EDR: N/A

Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: EDR, Inc.

Telephone: N/A

Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## EDR RECOVERED GOVERNMENT ARCHIVES

### *Exclusive Recovered Govt. Archives*

#### RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Public Health & Environment in Colorado.

Date of Government Version: N/A  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 01/15/2014  
Number of Days to Update: 198

Source: Department of Public Health & Environment  
Telephone: N/A  
Last EDR Contact: 06/01/2012  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

#### RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Labor and Employment, Oil Inspection Section in Colorado.

Date of Government Version: N/A  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 01/02/2014  
Number of Days to Update: 185

Source: Department of Labor and Employment, Oil Inspection Section  
Telephone: N/A  
Last EDR Contact: 06/01/2012  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## COUNTY RECORDS

### ADAMS COUNTY:

LF ADAMS: Summary Report on Methane Gas Hazards and Surveys Conducted on Domestic and Demolition Landfills in Adams County  
As of May 8, 1978, all known landfills or dumping sites in the Adams County area have been surveyed.

Date of Government Version: 05/08/1978  
Date Data Arrived at EDR: 02/16/1995  
Date Made Active in Reports: 04/04/1995  
Number of Days to Update: 47

Source: Tri-County Health Department  
Telephone: 303-761-1340  
Last EDR Contact: 01/27/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

### ARAPAHOE COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## LF ARAPAHOE: A Survey of Landfills in Arapahoe County

A survey of Arapahoe County was conducted from August through November, 1977, of all open and closed landfills and dumpsites in the county. Each of the sites found was classified as domestic or demolition.

Date of Government Version: 12/31/1978  
Date Data Arrived at EDR: 02/16/1995  
Date Made Active in Reports: 04/04/1995  
Number of Days to Update: 47

Source: Tri-County Health Department  
Telephone: 303-761-1340  
Last EDR Contact: 01/27/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## BOULDER COUNTY:

### LF BOULDER: Old Landfill Sites

Landfill sites in Boulder county.

Date of Government Version: 05/01/1986  
Date Data Arrived at EDR: 11/14/1995  
Date Made Active in Reports: 12/07/1995  
Number of Days to Update: 23

Source: Boulder County Health Department  
Telephone: 303-441-1182  
Last EDR Contact: 01/30/1998  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## DENVER COUNTY:

### LF DENVER: Landfills in Denver County

Landfill sites in the city and county of Denver.

Date of Government Version: 06/23/2017  
Date Data Arrived at EDR: 06/23/2017  
Date Made Active in Reports: 09/06/2017  
Number of Days to Update: 75

Source: City and County of Denver  
Telephone: 720-913-4839  
Last EDR Contact: 12/16/2019  
Next Scheduled EDR Contact: 03/30/2020  
Data Release Frequency: No Update Planned

### LF DENVER CO METHANE: Investigation of Methane Gas Hazards

The purpose of this study was to assess the actual and potential generation, migration, explosive and related problem associated with specified old landfills, and to identify existing and potential problems, suggested strategies to prevent, abate, and control such problems and recommend investigative and monitoring functions as may be deemed necessary. Eight sites determined to be priorities due to population density and potential hazards to population and property were selected by the Colorado Department of Health.

Date of Government Version: 01/01/1981  
Date Data Arrived at EDR: 01/29/2013  
Date Made Active in Reports: 03/08/2013  
Number of Days to Update: 38

Source: City and County of Denver Department of Environmental Health  
Telephone: 720-865-5522  
Last EDR Contact: 01/15/2013  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## DOUGLAS COUNTY:

### LF DOUGLAS: Douglas County Landfill Key

Landfill sites in Douglas county.

Date of Government Version: 06/12/1991  
Date Data Arrived at EDR: 02/16/1995  
Date Made Active in Reports: 04/04/1995  
Number of Days to Update: 47

Source: Tri-County Health Department  
Telephone: 303-761-1340  
Last EDR Contact: 01/27/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## PUEBLO COUNTY:



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## LF PUEBLO: Designated Disposal & Landfill Sites

Only inert materials. Asphalt, cement, dirt & rock unless otherwise specified. These sites are no longer active.

Date of Government Version: 04/30/1990  
Date Data Arrived at EDR: 11/16/1995  
Date Made Active in Reports: 12/07/1995  
Number of Days to Update: 21

Source: Pueblo City-County Health Department  
Telephone: 719-583-4300  
Last EDR Contact: 11/13/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## TRI COUNTY:

### LF TRI: Tri-County Area Solid Waste Facilities List (Adams, Arapahoe and Douglas Counties)

Closed Domestic Landfills in Adams County, Closed Domestic Landfills in Arapahoe County, Closed Demolition Landfills in Arapahoe County, Closed Domestic Landfills in Douglas County.

Date of Government Version: 10/15/1983  
Date Data Arrived at EDR: 02/16/1995  
Date Made Active in Reports: 04/04/1995  
Number of Days to Update: 47

Source: Tri-County Health Department  
Telephone: 303-761-1340  
Last EDR Contact: 01/27/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## WELD COUNTY:

### LF WELD: Solid Waste Facilities in Weld County Solid Waste Facilities in Weld County.

Date of Government Version: 01/16/2018  
Date Data Arrived at EDR: 02/09/2018  
Date Made Active in Reports: 02/23/2018  
Number of Days to Update: 14

Source: Weld County Department of Public Health  
Telephone: 970-304-6415  
Last EDR Contact: 11/08/2019  
Next Scheduled EDR Contact: 02/17/2020  
Data Release Frequency: No Update Planned

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

### CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/14/2019  
Date Data Arrived at EDR: 05/14/2019  
Date Made Active in Reports: 08/05/2019  
Number of Days to Update: 83

Source: Department of Energy & Environmental Protection  
Telephone: 860-424-3375  
Last EDR Contact: 11/11/2019  
Next Scheduled EDR Contact: 02/24/2020  
Data Release Frequency: No Update Planned

### NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019  
Date Data Arrived at EDR: 05/01/2019  
Date Made Active in Reports: 06/21/2019  
Number of Days to Update: 51

Source: Department of Environmental Conservation  
Telephone: 518-402-8651  
Last EDR Contact: 10/29/2019  
Next Scheduled EDR Contact: 02/10/2020  
Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018  
Date Data Arrived at EDR: 07/19/2019  
Date Made Active in Reports: 09/10/2019  
Number of Days to Update: 53

Source: Department of Environmental Protection  
Telephone: 717-783-8990  
Last EDR Contact: 10/09/2019  
Next Scheduled EDR Contact: 12/07/2020  
Data Release Frequency: Annually

## WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018  
Date Data Arrived at EDR: 06/19/2019  
Date Made Active in Reports: 09/03/2019  
Number of Days to Update: 76

Source: Department of Natural Resources  
Telephone: N/A  
Last EDR Contact: 12/18/2019  
Next Scheduled EDR Contact: 03/23/2020  
Data Release Frequency: Annually

## Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

## Electric Power Transmission Line Data

Source: Endeavor Business Media

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**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

## AHA Hospitals:

Source: American Hospital Association, Inc.  
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

## Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services  
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

## Nursing Homes

Source: National Institutes of Health  
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

## Public Schools

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

## Private Schools

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Daycare Centers: Daycare Listing  
Source: Department of Human Services  
Telephone: 303-866-5958

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA  
Telephone: 877-336-2627  
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Riparian Vegetation Data  
Source: Division of Wildlife  
Telephone: 970-416-3360

Current USGS 7.5 Minute Topographic Map  
Source: U.S. Geological Survey

## **STREET AND ADDRESS INFORMATION**

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## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

WESTMINSTER #9  
WESTMINSTER  
BROOMFIELD, CO 80021

### TARGET PROPERTY COORDINATES

Latitude (North):	39.876709 - 39° 52' 36.15"
Longitude (West):	105.082462 - 105° 4' 56.86"
Universal Transverse Mercator:	Zone 13
UTM X (Meters):	492948.2
UTM Y (Meters):	4413866.5
Elevation:	5334 ft. above sea level

### USGS TOPOGRAPHIC MAP

Target Property Map:	5958934 LAFAYETTE, CO
Version Date:	2013
South Map:	5958882 ARVADA, CO
Version Date:	2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

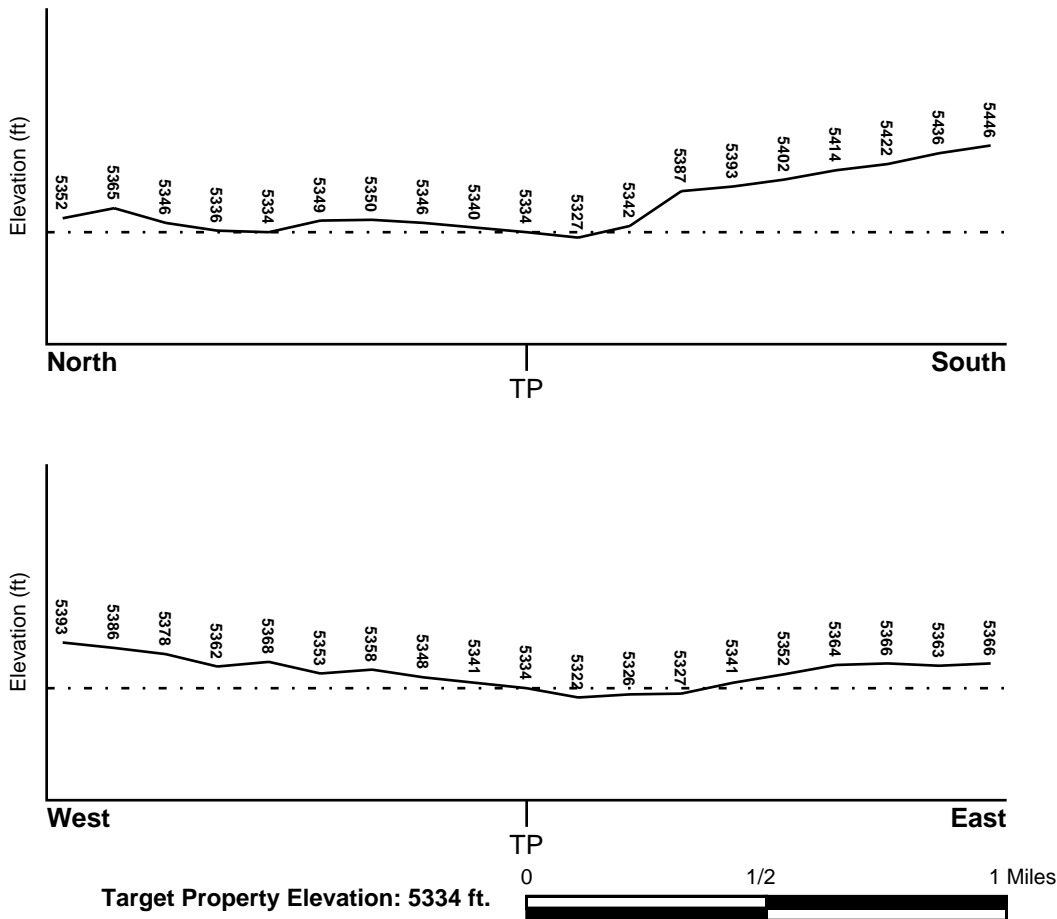
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## **FEMA FLOOD ZONE**

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
08001C0300H	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
08059C0202F	FEMA FIRM Flood data
08059C0201F	FEMA FIRM Flood data

## **NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
LAFAYETTE	YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

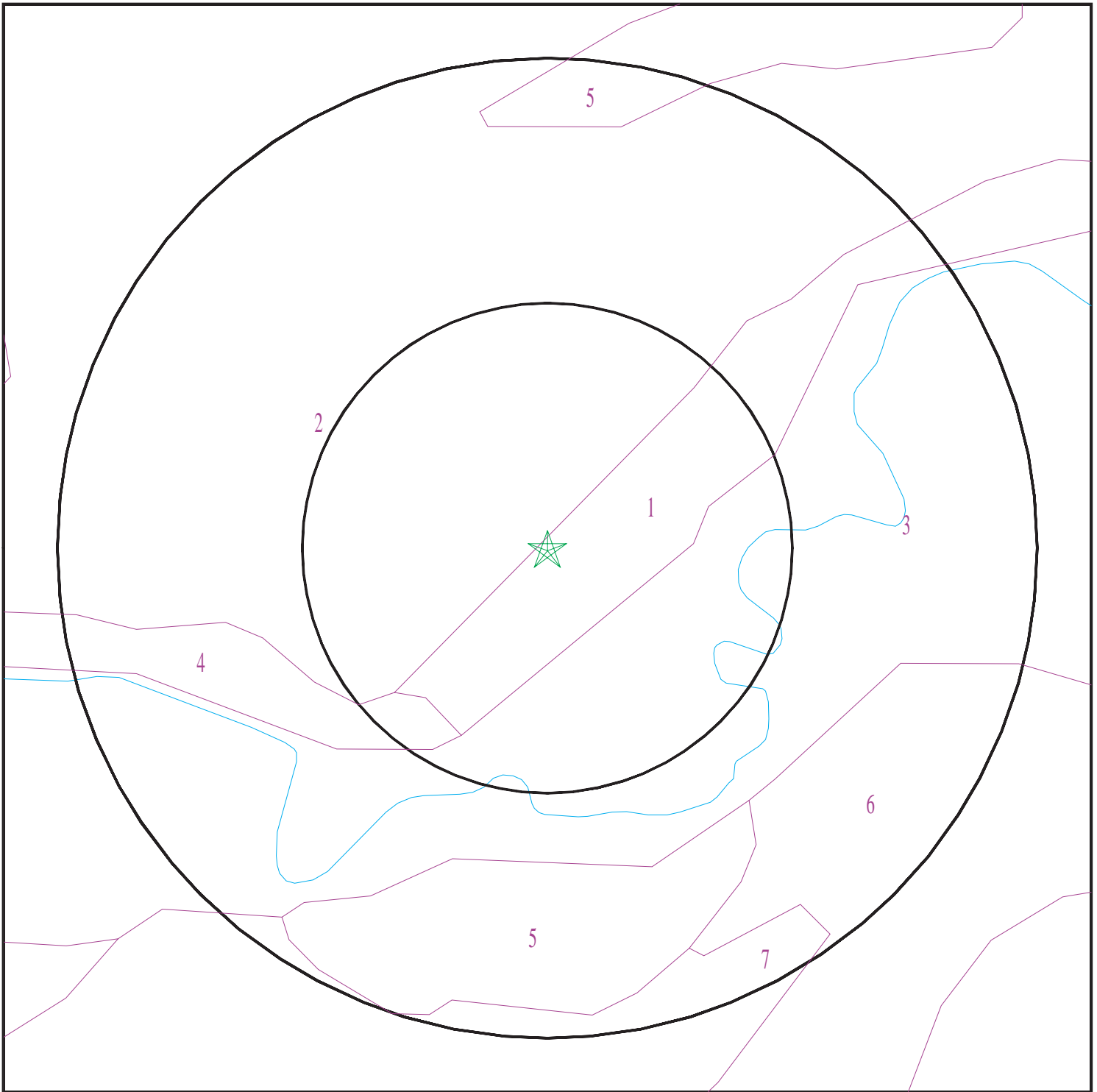
Era:	Mesozoic
System:	Cretaceous
Series:	Navarro Group
Code:	uK4 ( <i>decoded above as Era, System &amp; Series</i> )

#### **GEOLOGIC AGE IDENTIFICATION**

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 5926965.2s



- ★ Target Property
- SSURGO Soil
- Water



SITE NAME: Westminster #9  
ADDRESS: Westminster  
Broomfield CO 80021  
LAT/LONG: 39.876709 / 105.082462

CLIENT: HDR  
CONTACT: Todd Wickert  
INQUIRY #: 5926965.2s  
DATE: January 07, 2020 4:19 pm



# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

### Soil Map ID: 1

Soil Component Name: Manzanola

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9
2	5 inches	29 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9
3	29 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**Soil Map ID: 2**

Soil Component Name: Nunn

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.4
2	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.4
3	29 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.4

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### Soil Map ID: 3

Soil Component Name: Arvada

Soil Surface Texture: clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 9.6 Min: 7.9
2	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 9.6 Min: 7.9
3	29 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 9.6 Min: 7.9

### Soil Map ID: 4

Soil Component Name: Manzanola

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9
2	5 inches	29 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9
3	29 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9

### Soil Map ID: 5

Soil Component Name: Ulm

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 8.4 Min: 7.9
2	5 inches	20 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 8.4 Min: 7.9
3	20 inches	50 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 8.4 Min: 7.9
4	50 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 8.4 Min: 7.9

**Soil Map ID: 6**

Soil Component Name: Ulm

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 8.4 Min: 7.9
2	5 inches	20 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 8.4 Min: 7.9
3	20 inches	50 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 8.4 Min: 7.9
4	50 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 8.4 Min: 7.9

**Soil Map ID: 7**

Soil Component Name: Manzanola

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9
2	5 inches	29 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9
3	29 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 8.4 Min: 7.9

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
B6	USGS40000213402	1/8 - 1/4 Mile West
C8	USGS40000213410	1/8 - 1/4 Mile WNW
D10	USGS40000213387	1/8 - 1/4 Mile WSW
I31	USGS40000213478	1/4 - 1/2 Mile North
K37	USGS40000213459	1/4 - 1/2 Mile NW
L42	USGS40000213321	1/4 - 1/2 Mile South
43	USGS40000213405	1/4 - 1/2 Mile West
K52	USGS40000213462	1/4 - 1/2 Mile NW
O58	USGS40000213483	1/4 - 1/2 Mile NW
O59	USGS40000213484	1/4 - 1/2 Mile NW
M63	USGS40000213495	1/4 - 1/2 Mile NNW
64	USGS40000213460	1/4 - 1/2 Mile WNW
P65	USGS40000213343	1/4 - 1/2 Mile SW
66	USGS40000213320	1/4 - 1/2 Mile SSE
M69	USGS40000213514	1/4 - 1/2 Mile NNW
84	USGS40000213257	1/2 - 1 Mile South
U85	USGS40000213397	1/2 - 1 Mile West
V88	USGS40000213299	1/2 - 1 Mile SE
92	USGS40000213427	1/2 - 1 Mile West
99	USGS40000213366	1/2 - 1 Mile ESE
Z106	USGS40000213216	1/2 - 1 Mile SSW
AA107	USGS40000213215	1/2 - 1 Mile SSE
Z114	USGS40000213207	1/2 - 1 Mile SSW
AA121	USGS40000213206	1/2 - 1 Mile SSE
AD139	USGS40000213179	1/2 - 1 Mile South
152	USGS40000213409	1/2 - 1 Mile East
158	USGS40000213330	1/2 - 1 Mile WSW
AL167	USGS40000213146	1/2 - 1 Mile South
AL168	USGS40000213147	1/2 - 1 Mile South
173	USGS40000213587	1/2 - 1 Mile NE
AL177	USGS40000213134	1/2 - 1 Mile South
183	USGS40000213370	1/2 - 1 Mile ESE
AJ191	USGS40000213178	1/2 - 1 Mile SE
AJ192	USGS40000213180	1/2 - 1 Mile SE
204	USGS40000213298	1/2 - 1 Mile ESE
AS210	USGS40000213448	1/2 - 1 Mile WNW
212	USGS40000213145	1/2 - 1 Mile SSE
AS215	USGS40000213449	1/2 - 1 Mile WNW
220	USGS40000213667	1/2 - 1 Mile North
221	USGS40000213217	1/2 - 1 Mile SW



# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	CO7000000482377	0 - 1/8 Mile NNW
A2	CO7000000150607	0 - 1/8 Mile NNW
3	CO7000000071743	0 - 1/8 Mile ENE
B4	CO7000000163637	0 - 1/8 Mile WSW
A5	CO7000000355502	0 - 1/8 Mile North
7	CO7000000197330	1/8 - 1/4 Mile North
D9	CO7000000423488	1/8 - 1/4 Mile West
C11	CO7000000397905	1/8 - 1/4 Mile WNW
E12	CO7000000205289	1/8 - 1/4 Mile NNW
D13	CO7000000061714	1/8 - 1/4 Mile WSW
D14	CO7000000061715	1/8 - 1/4 Mile WSW
D15	CO7000000483146	1/8 - 1/4 Mile WSW
D16	CO7000000074518	1/8 - 1/4 Mile WSW
E17	CO7000000305551	1/8 - 1/4 Mile NNW
E18	CO7000000190195	1/8 - 1/4 Mile NNW
19	CO7000000320278	1/4 - 1/2 Mile SW
20	CO7000000071744	1/4 - 1/2 Mile ENE
F21	CO7000000119385	1/4 - 1/2 Mile NNW
G22	CO7000000205204	1/4 - 1/2 Mile West
G23	CO7000000209193	1/4 - 1/2 Mile West
24	CO7000000113377	1/4 - 1/2 Mile NE
H25	CO7000000163636	1/4 - 1/2 Mile SSW
H26	CO7000000039062	1/4 - 1/2 Mile SSW
H27	CO7000000347274	1/4 - 1/2 Mile SSW
H28	CO7000000163643	1/4 - 1/2 Mile SSW
F29	CO7000000189205	1/4 - 1/2 Mile North
30	CO7000000163776	1/4 - 1/2 Mile SW
J32	CO7000000038876	1/4 - 1/2 Mile West
J33	CO7000000039073	1/4 - 1/2 Mile West
J34	CO7000000039274	1/4 - 1/2 Mile West
H35	CO7000000205197	1/4 - 1/2 Mile SSW
I36	CO7000000397986	1/4 - 1/2 Mile North
K38	CO7000000142444	1/4 - 1/2 Mile NW
K39	CO7000000209356	1/4 - 1/2 Mile NW
K40	CO7000000209381	1/4 - 1/2 Mile NW
L41	CO7000000056658	1/4 - 1/2 Mile South
J44	CO7000000378401	1/4 - 1/2 Mile West
K45	CO7000000039402	1/4 - 1/2 Mile WNW
K46	CO7000000039084	1/4 - 1/2 Mile WNW
K47	CO7000000038263	1/4 - 1/2 Mile WNW
K48	CO7000000163707	1/4 - 1/2 Mile WNW
K49	CO7000000351615	1/4 - 1/2 Mile WNW
K50	CO7000000303617	1/4 - 1/2 Mile WNW

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
K51	CO7000000294090	1/4 - 1/2 Mile WNW
M53	CO7000000429315	1/4 - 1/2 Mile NNW
M54	CO7000000434332	1/4 - 1/2 Mile NNW
N55	CO7000000244693	1/4 - 1/2 Mile North
56	CO7000000246754	1/4 - 1/2 Mile NNE
N57	CO7000000100166	1/4 - 1/2 Mile North
P60	CO7000000269079	1/4 - 1/2 Mile SW
P61	CO7000000347275	1/4 - 1/2 Mile SW
P62	CO7000000420858	1/4 - 1/2 Mile SW
67	CO7000000206368	1/4 - 1/2 Mile SSE
68	CO7000000055248	1/4 - 1/2 Mile NE
70	CO7000000163806	1/4 - 1/2 Mile WNW
Q71	CO7000000260277	1/4 - 1/2 Mile North
Q72	CO7000000163604	1/4 - 1/2 Mile North
Q73	CO7000000470069	1/4 - 1/2 Mile North
Q74	CO7000000429765	1/4 - 1/2 Mile North
R75	CO7000000082695	1/2 - 1 Mile NNE
R76	CO7000000339032	1/2 - 1 Mile NNE
Q77	CO7000000334934	1/2 - 1 Mile North
S78	CO7000000438199	1/2 - 1 Mile ENE
S79	CO7000000098917	1/2 - 1 Mile ENE
S80	CO7000000319709	1/2 - 1 Mile ENE
T81	CO7000000205144	1/2 - 1 Mile NNW
T82	CO7000000207479	1/2 - 1 Mile NNW
83	CO7000000335293	1/2 - 1 Mile WNW
V86	CO7000000205265	1/2 - 1 Mile SSE
V87	CO7000000391785	1/2 - 1 Mile SSE
W89	CO7000000393506	1/2 - 1 Mile SSE
W90	CO7000000437314	1/2 - 1 Mile SSE
91	CO7000000224471	1/2 - 1 Mile NNE
X93	CO7000000121249	1/2 - 1 Mile NW
X94	CO7000000256198	1/2 - 1 Mile NW
X95	CO7000000462629	1/2 - 1 Mile NW
U96	CO7000000197905	1/2 - 1 Mile West
U97	CO7000000218735	1/2 - 1 Mile West
98	CO7000000071747	1/2 - 1 Mile ENE
Y100	CO7000000079971	1/2 - 1 Mile SSW
Y101	CO7000000076747	1/2 - 1 Mile SSW
Y102	CO7000000329508	1/2 - 1 Mile SSW
Y103	CO7000000288754	1/2 - 1 Mile SSW
104	CO7000000218737	1/2 - 1 Mile West
105	CO7000000120615	1/2 - 1 Mile NE
AB108	CO7000000163714	1/2 - 1 Mile SE
AB109	CO7000000038714	1/2 - 1 Mile SE
AB110	CO7000000448911	1/2 - 1 Mile SE
AB111	CO7000000487534	1/2 - 1 Mile SE
AB112	CO7000000473168	1/2 - 1 Mile SE
Z113	CO7000000080243	1/2 - 1 Mile SSW
115	CO7000000480607	1/2 - 1 Mile NNW
Z116	CO7000000311480	1/2 - 1 Mile SSW
Z117	CO7000000415782	1/2 - 1 Mile SSW
Z118	CO7000000077618	1/2 - 1 Mile SSW

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
Z119	CO700000072882	1/2 - 1 Mile SSW
Z120	CO7000000466379	1/2 - 1 Mile SSW
AA122	CO7000000453168	1/2 - 1 Mile SSE
AA123	CO7000000221450	1/2 - 1 Mile SSE
Z124	CO7000000256435	1/2 - 1 Mile SSW
AC125	CO7000000256904	1/2 - 1 Mile West
126	CO7000000228411	1/2 - 1 Mile North
AC127	CO7000000118980	1/2 - 1 Mile West
AC128	CO7000000365428	1/2 - 1 Mile West
AC129	CO7000000142998	1/2 - 1 Mile West
AC130	CO7000000115660	1/2 - 1 Mile West
AC131	CO7000000114740	1/2 - 1 Mile West
AC132	CO7000000365437	1/2 - 1 Mile West
AC133	CO7000000114739	1/2 - 1 Mile West
134	CO7000000446916	1/2 - 1 Mile SE
AC135	CO7000000115662	1/2 - 1 Mile West
136	CO7000000330423	1/2 - 1 Mile North
AC137	CO7000000115661	1/2 - 1 Mile West
138	CO7000000055246	1/2 - 1 Mile WSW
AE140	CO7000000199526	1/2 - 1 Mile SSE
AE141	CO7000000163788	1/2 - 1 Mile SSE
142	CO7000000451889	1/2 - 1 Mile NW
AE143	CO7000000247169	1/2 - 1 Mile SSE
AE144	CO7000000246849	1/2 - 1 Mile SSE
AE145	CO7000000344773	1/2 - 1 Mile SSE
AD146	CO7000000246116	1/2 - 1 Mile South
AF147	CO7000000038225	1/2 - 1 Mile NNW
AF148	CO7000000038502	1/2 - 1 Mile NNW
AF149	CO7000000121247	1/2 - 1 Mile NNW
AG150	CO7000000038739	1/2 - 1 Mile SSE
AG151	CO7000000273995	1/2 - 1 Mile SSE
AH153	CO7000000205981	1/2 - 1 Mile SSE
AH154	CO7000000038924	1/2 - 1 Mile SSE
155	CO7000000038771	1/2 - 1 Mile NE
AI156	CO7000000401830	1/2 - 1 Mile NNE
AH157	CO7000000420735	1/2 - 1 Mile SSE
AI159	CO7000000446196	1/2 - 1 Mile NNE
AJ160	CO7000000079447	1/2 - 1 Mile SSE
AK161	CO7000000128490	1/2 - 1 Mile West
AK162	CO7000000113372	1/2 - 1 Mile West
AK163	CO7000000114352	1/2 - 1 Mile West
AK164	CO7000000115274	1/2 - 1 Mile West
AK165	CO7000000116736	1/2 - 1 Mile West
AK166	CO7000000443157	1/2 - 1 Mile West
AM169	CO7000000461052	1/2 - 1 Mile NNE
AM170	CO7000000038463	1/2 - 1 Mile NNE
AM171	CO7000000039139	1/2 - 1 Mile NNE
AM172	CO7000000340474	1/2 - 1 Mile NNE
AN174	CO7000000101796	1/2 - 1 Mile SSW
AN175	CO7000000125314	1/2 - 1 Mile SSW
AN176	CO7000000118179	1/2 - 1 Mile SSW
178	CO7000000405513	1/2 - 1 Mile SE

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
179	CO7000000329814	1/2 - 1 Mile WNW
AO180	CO7000000436670	1/2 - 1 Mile West
AI181	CO7000000152214	1/2 - 1 Mile NNE
AI182	CO7000000298068	1/2 - 1 Mile NNE
AP184	CO7000000435368	1/2 - 1 Mile South
AO185	CO7000000039569	1/2 - 1 Mile West
AQ186	CO7000000357754	1/2 - 1 Mile SSE
AQ187	CO7000000163713	1/2 - 1 Mile SSE
AQ188	CO7000000486715	1/2 - 1 Mile SSE
AQ189	CO7000000408395	1/2 - 1 Mile SSE
AP190	CO7000000426424	1/2 - 1 Mile South
AO193	CO7000000206361	1/2 - 1 Mile West
AP194	CO7000000250583	1/2 - 1 Mile South
AP195	CO7000000183571	1/2 - 1 Mile South
AR196	CO7000000155654	1/2 - 1 Mile South
AR197	CO7000000399540	1/2 - 1 Mile South
198	CO7000000320498	1/2 - 1 Mile NW
AR199	CO7000000155653	1/2 - 1 Mile South
AR200	CO7000000155650	1/2 - 1 Mile South
201	CO7000000253350	1/2 - 1 Mile NE
AR202	CO7000000451697	1/2 - 1 Mile South
AR203	CO7000000313017	1/2 - 1 Mile South
AR205	CO7000000155652	1/2 - 1 Mile South
AR206	CO7000000155649	1/2 - 1 Mile South
AR207	CO7000000431675	1/2 - 1 Mile South
AR208	CO7000000277625	1/2 - 1 Mile South
AR209	CO7000000155648	1/2 - 1 Mile South
AR211	CO7000000298142	1/2 - 1 Mile South
213	CO7000000328227	1/2 - 1 Mile ENE
214	CO7000000121250	1/2 - 1 Mile West
216	CO7000000312322	1/2 - 1 Mile ESE
AT217	CO7000000367067	1/2 - 1 Mile North
AT218	CO7000000038791	1/2 - 1 Mile North
AT219	CO7000000425116	1/2 - 1 Mile North
222	CO7000000038599	1/2 - 1 Mile North



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**A1**  
**NNW**  
**0 - 1/8 Mile**  
**Higher**

**CO WELLS      CO7000000482377**

CO DWR ID #:	Not Reported	Permit #:	26298-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	03/29/1966	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	90	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	10
Static Water Depth (ft):	11	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**A2**  
**NNW**  
**0 - 1/8 Mile**  
**Higher**

**CO WELLS      CO7000000150607**

CO DWR ID #:	Not Reported	Permit #:	26298--A
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	01/09/1975
Expiration Date:	Not Reported	Construction Date:	04/11/1975
Start Use Date:	Not Reported	Pump Install Date:	04/26/1975
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	90	Top of First Perf Casing:	26
Base of Last Perf Casing:	90	Yield (gal/min):	10
Static Water Depth (ft):	11	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**3**  
**ENE**  
**0 - 1/8 Mile**  
**Lower**

**CO WELLS      CO7000000071743**

CO DWR ID #:	Not Reported	Permit #:	191714-
Well Name:	BH-8B		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	12/05/1995
Expiration Date:	12/05/1997	Construction Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**B4**  
**WSW**  
**0 - 1/8 Mile**  
**Higher**

**CO WELLS    CO7000000163637**

CO DWR ID #:	Not Reported	Permit #:	13942-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	01/09/1963	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	71	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	8
Static Water Depth (ft):	10	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	ALSO INCLUDES LOTS 7,8,9,18-20 AND SOUTH 1/2 OF LOT 17		

**A5**  
**North**  
**0 - 1/8 Mile**  
**Higher**

**CO WELLS    CO7000000355502**

CO DWR ID #:	Not Reported	Permit #:	74060-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	04/25/1974
Expiration Date:	Not Reported	Construction Date:	04/06/1976
Start Use Date:	04/06/1976	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	215	Top of First Perf Casing:	50
Base of Last Perf Casing:	215	Yield (gal/min):	15
Static Water Depth (ft):	12	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**B6**  
**West**  
**1/8 - 1/4 Mile**  
**Higher**

**FED USGS      USGS40000213402**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306911BDB	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	484	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels, Number of Measurements:	1	Level reading date:	1960-10-06
Feet below surface:	362.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**7**  
**North**  
**1/8 - 1/4 Mile**  
**Higher**

**CO WELLS      CO7000000197330**

CO DWR ID #:	Not Reported	Permit #:	138112-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	1
Well Use:	Household Use Only	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	12/10/1984
Expiration Date:	Not Reported	Construction Date:	01/03/1985
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	REINSTATED 4/3/2014 JLV

**C8**  
**WNW**  
**1/8 - 1/4 Mile**  
**Higher**

**FED USGS      USGS40000213410**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00206914BAA1 WHITMORE	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Alluvium and Terrace Deposits
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**D9**  
**West**  
**1/8 - 1/4 Mile**  
**Higher**

**CO WELLS      CO7000000423488**

CO DWR ID #:	Not Reported	Permit #:	2303-AD
Well Name:	Not Reported	Well Status:	Application Denied
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Irrigation	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	09/03/1970
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	SEE HEARING: 70-SE-08

**D10**  
**WSW**  
**1/8 - 1/4 Mile**  
**Higher**

**FED USGS      USGS40000213387**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306914ACC USGS 395233105050701	Description:	Not Reported
Type:	Well	Drainage Area:	Not Reported
HUC:	10190003	Contrib Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Contrib Drainage Area Units:	Not Reported	Aquifer Type:	Not Reported
Formation Type:	Not Reported	Well Depth:	23
Construction Date:	19560101	Well Hole Depth:	Not Reported
Well Depth Units:	ft		
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1956-07-25
Feet below surface:	9.30	Feet to sea level:	Not Reported
Note:	Not Reported		

**C11**  
**WNW**  
**1/8 - 1/4 Mile**  
**Higher**

**CO WELLS      CO7000000397905**

CO DWR ID #:	Not Reported	Permit #:	234339-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	1
Well Use:	Household Use Only	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	.33000001	Issue Date:	06/27/2001
Expiration Date:	06/27/2003	Construction Date:	09/13/2001
Start Use Date:	Not Reported	Pump Install Date:	01/03/2002
Well Plug Date:	Not Reported	Surface Elevation (ft):	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Depth (ft):	280	Top of First Perf Casing:	100
Base of Last Perf Casing:	280	Yield (gal/min):	7
Static Water Depth (ft):	152	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**E12  
NNW  
1/8 - 1/4 Mile  
Higher**

**CO WELLS    CO7000000205289**

CO DWR ID #:	Not Reported	Permit #:	44263-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	01/20/1971	Pump Install Date:	12/04/1995
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	125	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	10
Static Water Depth (ft):	28	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	WELL LOCATED AT 7900 W. 101ST AVE.

**D13  
WSW  
1/8 - 1/4 Mile  
Higher**

**CO WELLS    CO7000000061714**

CO DWR ID #:	Not Reported	Permit #:	160054-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Quaternary Alluvium
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	05/16/1991
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	12/31/1960	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	65	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**D14  
WSW  
1/8 - 1/4 Mile  
Higher**

**CO WELLS    CO7000000061715**

CO DWR ID #:	Not Reported	Permit #:	160054--A
Well Name:	REPLACES LR	Well Status:	Not Reported
Water Court Case #:	Not Reported	Parcel Size:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	05/16/1991
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**D15**  
**WSW**  
**1/8 - 1/4 Mile**  
**Higher**

**CO WELLS    CO7000000483146**

CO DWR ID #:	Not Reported	Permit #:	91110-VE
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	04/12/1991
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**D16**  
**WSW**  
**1/8 - 1/4 Mile**  
**Higher**

**CO WELLS    CO7000000074518**

CO DWR ID #:	Not Reported	Permit #:	196012-
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	1
Well Use:	Household Use Only	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	06/25/1996
Expiration Date:	06/25/1998	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**E17**

**NNW**

**1/8 - 1/4 Mile  
Higher**

**CO WELLS      CO7000000305551**

CO DWR ID #:	Not Reported	Permit #:	17252-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	09/03/1963
Expiration Date:	Not Reported	Construction Date:	08/26/1963
Start Use Date:	08/26/1963	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	20	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	Well location = 7795 W 101 St., Broomfield. Replaced by 17252-A, drilled 12-13-2007.		

**E18**

**NNW**

**1/8 - 1/4 Mile  
Higher**

**CO WELLS      CO7000000190195**

CO DWR ID #:	Not Reported	Permit #:	11955-
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/22/1962	Pump Install Date:	Not Reported
Well Plug Date:	12/13/2013	Surface Elevation (ft):	0
Well Depth (ft):	60	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	3
Static Water Depth (ft):	30	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	10055 WADSWORTH AVE

**19**

**SW**

**1/4 - 1/2 Mile  
Higher**

**CO WELLS      CO7000000320278**

CO DWR ID #:	Not Reported	Permit #:	18462-MH
Well Name:	Not Reported	Well Status:	Permit Expired
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	11/27/1991
Expiration Date:	02/25/1992	Construction Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	no data

**20**  
**ENE**  
**1/4 - 1/2 Mile**  
**Lower**

**CO WELLS    CO7000000071744**

CO DWR ID #:	Not Reported	Permit #:	191715-
Well Name:	BH-12B		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	12/05/1995
Expiration Date:	12/05/1997	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**F21**  
**NNW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS    CO7000000119385**

CO DWR ID #:	Not Reported	Permit #:	17252--A
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	1
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Upper Arapahoe
Addtl Aquifer:	Not Reported	Irrigation Area:	1 ACRES
Yrly Appropriation:	0	Issue Date:	12/20/2004
Expiration Date:	12/20/2007	Construction Date:	12/13/2007
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	5350
Well Depth (ft):	136	Top of First Perf Casing:	96
Base of Last Perf Casing:	136	Yield (gal/min):	0
Static Water Depth (ft):	80	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**G22**  
**West**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000205204**

CO DWR ID #:	Not Reported	Permit #:	15984-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	07/06/1963	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	70	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	9
Static Water Depth (ft):	24	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**G23**  
**West**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000209193**

CO DWR ID #:	Not Reported	Permit #:	15984--A
Well Name:	REPLACE 015984	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	09/23/1987
Expiration Date:	Not Reported	Construction Date:	09/17/1987
Start Use Date:	Not Reported	Pump Install Date:	09/15/1987
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	70	Top of First Perf Casing:	12
Base of Last Perf Casing:	70	Yield (gal/min):	14
Static Water Depth (ft):	14	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**24**  
**NE**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000113377**

CO DWR ID #:	Not Reported	Permit #:	42163-MH
Well Name:	STANDLY SHORES 66	Well Status:	Permit Expired
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	05/20/2003
Expiration Date:	08/16/2003	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	6 HOLES No wells installed per letter of 9/23/04		

**H25**  
**SSW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS    CO7000000163636**

CO DWR ID #:	Not Reported	Permit #:	13631-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	12/17/1962	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	200	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	4
Static Water Depth (ft):	30	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**H26**  
**SSW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS    CO7000000039062**

CO DWR ID #:	Not Reported	Permit #:	25181-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	02/22/1995
Expiration Date:	05/22/1995	Construction Date:	Not Reported
Start Use Date:	08/31/1965	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	310	Top of First Perf Casing:	110
Base of Last Perf Casing:	310	Yield (gal/min):	8
Static Water Depth (ft):	67	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	NO SUB. LISTED

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**H27**  
**SSW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000347274**

CO DWR ID #:	Not Reported	Permit #:	19171-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	04/07/1964	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	200	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	6
Static Water Depth (ft):	90	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**H28**  
**SSW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000163643**

CO DWR ID #:	Not Reported	Permit #:	16928-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	08/05/1963	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	208	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	8
Static Water Depth (ft):	110	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**F29**  
**North**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000189205**

CO DWR ID #:	Not Reported	Permit #:	228957-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	1
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Arapahoe
Addtl Aquifer:	Not Reported	Irrigation Area:	3200 SQ.FT.
Yrly Appropriation:	0	Issue Date:	09/27/2000
Expiration Date:	09/27/2002	Construction Date:	05/02/2001
Start Use Date:	Not Reported	Pump Install Date:	Not Reported



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	400	Top of First Perf Casing:	260
Base of Last Perf Casing:	400	Yield (gal/min):	6
Static Water Depth (ft):	30	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	7755 W 102 AVE

**30**  
**SW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000163776**

CO DWR ID #:	Not Reported	Permit #:	88932-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	02/24/1977	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	60	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**I31**  
**North**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS40000213478**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00206914BDA ARAPMAS05	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Denver Basin aquifer system		
Formation Type:	Arapahoe Conglomerate Member of Laramie Formation		
Aquifer Type:	Not Reported	Construction Date:	20010502
Well Depth:	400	Well Depth Units:	ft
Well Hole Depth:	410	Well Hole Depth Units:	ft

**J32**  
**West**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000038876**

CO DWR ID #:	Not Reported	Permit #:	16570-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	07/15/1963	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	130	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	15
Static Water Depth (ft):	30	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**J33**  
**West**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS    CO7000000039073**

CO DWR ID #:	Not Reported	Permit #:	25754-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	11/03/1965	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	140	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	2
Static Water Depth (ft):	24	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**J34**  
**West**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS    CO7000000039274**

CO DWR ID #:	Not Reported	Permit #:	33215-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	03/19/1968	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	115	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	20
Static Water Depth (ft):	15	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	ADDED SUBDIVISION INFO(JMB 8/8/07)

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**H35**  
**SSW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000205197**

CO DWR ID #:	Not Reported	Permit #:	14679-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	05/29/1991
Start Use Date:	04/10/1963	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	405	Top of First Perf Casing:	200
Base of Last Perf Casing:	405	Yield (gal/min):	10
Static Water Depth (ft):	200	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**I36**  
**North**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000397986**

CO DWR ID #:	Not Reported	Permit #:	281--A
Well Name:	Not Reported	Well Status:	Permit Expired
Water Court Case #:	Not Reported	Parcel Size:	.5
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	1000 SQ.FT.
Yrly Appropriation:	0	Issue Date:	03/19/2002
Expiration Date:	03/19/2004	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	APPLICANT CALLED INFO DESK ON 2/26/04 AND SAID HE WOULD NOT BE USING THIS PERMIT. HE CALLED IN RESPONSE TO NOTICE REC D. ADVISING THE PERMIT WAS DUE TO EXPIRE.		

**K37**  
**NW**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS40000213459**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306911BBA	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19560101

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Depth:	822	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported
Ground water levels, Number of Measurements:		1	Level reading date:
Feet below surface:	490.00		1960-10-06
Note:	Not Reported	Feet to sea level:	Not Reported

**K38**  
**NW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS    CO7000000142444**

CO DWR ID #:	Not Reported	Permit #:	151186-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	12/31/1958	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	150	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	10
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**K39**  
**NW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS    CO7000000209356**

CO DWR ID #:	Not Reported	Permit #:	11603-AD
Well Name:	Not Reported	Well Status:	Application Denied
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/30/1988
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**K40**  
**NW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS    CO7000000209381**

CO DWR ID #:	Not Reported	Permit #:	151186--A
Well Name:	REPLACE LR	Well Status:	Well Constructed

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	05/16/1988
Expiration Date:	05/16/1990	Construction Date:	06/07/1988
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	150	Top of First Perf Casing:	90
Base of Last Perf Casing:	150	Yield (gal/min):	6
Static Water Depth (ft):	70	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**L41**  
**South**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS    CO7000000056658**

CO DWR ID #:	Not Reported	Permit #:	106757-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Stock
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	05/25/1979
Expiration Date:	Not Reported	Construction Date:	11/05/1979
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	260	Top of First Perf Casing:	160
Base of Last Perf Casing:	260	Yield (gal/min):	3
Static Water Depth (ft):	42	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**L42**  
**South**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS    USGS40000213321**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306914ABC	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19560101
Well Depth:	8	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1958-10-27
Feet below surface:	4.80	Feet to sea level:	Not Reported
Note:	Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**43**  
**West**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS40000213405**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306911CDB	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19560101
Well Depth:	32	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels, Number of Measurements:	1	Level reading date:	1962-04-09
Feet below surface:	15.70	Feet to sea level:	Not Reported
Note:	Not Reported		

**J44**  
**West**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000378401**

CO DWR ID #:	Not Reported	Permit #:	143866-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Stock	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	05/16/1986
Expiration Date:	Not Reported	Construction Date:	06/10/1987
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	360	Top of First Perf Casing:	200
Base of Last Perf Casing:	360	Yield (gal/min):	2.5
Static Water Depth (ft):	125	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**K45**  
**WNW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000039402**

CO DWR ID #:	Not Reported	Permit #:	41646-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/15/1970	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	115	Top of First Perf Casing:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Base of Last Perf Casing:	0	Yield (gal/min):	10
Static Water Depth (ft):	28	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**K46  
WNW  
1/4 - 1/2 Mile  
Higher**

**CO WELLS      CO700000039084**

CO DWR ID #:	Not Reported	Permit #:	26635-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	05/12/1966	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	140	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	7
Static Water Depth (ft):	42	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**K47  
WNW  
1/4 - 1/2 Mile  
Higher**

**CO WELLS      CO700000038263**

CO DWR ID #:	Not Reported	Permit #:	1188-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	05/22/1958	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	60	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	20
Static Water Depth (ft):	12	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**K48  
WNW  
1/4 - 1/2 Mile  
Higher**

**CO WELLS      CO7000000163707**

CO DWR ID #:	Not Reported	Permit #:	39124-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	09/11/1969	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	90	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	5
Static Water Depth (ft):	22	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**K49  
WNW  
1/4 - 1/2 Mile  
Higher**

**CO WELLS    CO7000000351615**

CO DWR ID #:	Not Reported	Permit #:	44264-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	01/15/1971	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	105	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	14
Static Water Depth (ft):	23	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	LOT NUMBER UNCLEAR ON PERMIT.

**K50  
WNW  
1/4 - 1/2 Mile  
Higher**

**CO WELLS    CO7000000303617**

CO DWR ID #:	Not Reported	Permit #:	21429-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	09/01/1964
Expiration Date:	Not Reported	Construction Date:	09/05/1964
Start Use Date:	09/05/1964	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	175	Top of First Perf Casing:	17
Base of Last Perf Casing:	175	Yield (gal/min):	2
Static Water Depth (ft):	16	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**K51**  
**WNW**  
 1/4 - 1/2 Mile  
 Higher

**CO WELLS      CO7000000294090**

CO DWR ID #:	Not Reported	Permit #:	20285-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/13/1964	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	150	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	8
Static Water Depth (ft):	22	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**K52**  
**NW**  
 1/4 - 1/2 Mile  
 Higher

**FED USGS      USGS40000213462**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00206914    G-44	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**M53**  
**NNW**  
 1/4 - 1/2 Mile  
 Higher

**CO WELLS      CO7000000429315**

CO DWR ID #:	Not Reported	Permit #:	185437-
Well Name:	MW-3	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/16/1995
Expiration Date:	03/16/1997	Construction Date:	06/04/1994
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	18	Top of First Perf Casing:	8
Base of Last Perf Casing:	18	Yield (gal/min):	0
Static Water Depth (ft):	12	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**M54**  
**NNW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000434332**

CO DWR ID #:	Not Reported	Permit #:	185436-
Well Name:	MW-2	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/16/1995
Expiration Date:	03/16/1997	Construction Date:	06/04/1994
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	19	Top of First Perf Casing:	8
Base of Last Perf Casing:	18	Yield (gal/min):	0
Static Water Depth (ft):	13	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**N55**  
**North**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000244693**

CO DWR ID #:	Not Reported	Permit #:	114806-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	07/01/1980
Start Use Date:	09/04/1980	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	138	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	10
Static Water Depth (ft):	70	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	ALSO INCLUDES BLOCK B23

**56**  
**NNE**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000246754**

CO DWR ID #:	Not Reported	Permit #:	49329-F
Well Name:	Not Reported	Well Status:	Permit Expired
Water Court Case #:	Not Reported	Parcel Size:	6.0500002
Well Use:	Stock	Addtl Well Use:	Not Reported
Special Use:	Issued Pursuant To Sb5 --137(4)	Addtl Aquifer:	Not Reported
Primary Aquifer:	Lower Arapahoe	Yrly Appropriation:	0
Irrigation Area:	0 acres	Expiration Date:	12/15/1998
Issue Date:	12/15/1997	Start Use Date:	Not Reported
Construction Date:	Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pump Install Date:	Not Reported	Well Plug Date:	Not Reported
Surface Elevation (ft):	0	Well Depth (ft):	0
Top of First Perf Casing:	0	Base of Last Perf Casing:	0
Yield (gal/min):	0	Static Water Depth (ft):	0
Groundwater Basin:	Not Reported	Mgmt District:	Not Reported
Water District:	2	Division:	1
Comments:	Not Reported		

**N57**  
**North**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS    CO7000000100166**

CO DWR ID #:	Not Reported	Permit #:	230665-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	1.7
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	12/20/2000
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	12/30/1952	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	21	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	15
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	Long section more than 5280 E-W. The well is west of Wadsworth Blvd. Lot 489800.		

**O58**  
**NW**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS    USGS40000213483**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00206914    G-45	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**O59**  
**NW**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS    USGS40000213484**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00206914    G-45A	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**P60  
SW  
1/4 - 1/2 Mile  
Higher**

**CO WELLS    CO7000000269079**

CO DWR ID #:	Not Reported	Permit #:	16927-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	07/18/1963	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	198	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	15
Static Water Depth (ft):	90	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**P61  
SW  
1/4 - 1/2 Mile  
Higher**

**CO WELLS    CO7000000347275**

CO DWR ID #:	Not Reported	Permit #:	22933-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	02/26/1965	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	270	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	10
Static Water Depth (ft):	95	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**P62  
SW  
1/4 - 1/2 Mile  
Higher**

**CO WELLS    CO7000000420858**

CO DWR ID #:	Not Reported	Permit #:	15506-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/10/1963	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	70	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	7
Static Water Depth (ft):	28	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**M63  
NNW  
1/4 - 1/2 Mile  
Higher**

**FED USGS      USGS40000213495**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00206914    G-43	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**64  
WNW  
1/4 - 1/2 Mile  
Higher**

**FED USGS      USGS40000213460**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306911CAA	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19560101
Well Depth:	25	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1958-11-12
Feet below surface:	7.90	Feet to sea level:	Not Reported
Note:	Not Reported		

**P65  
SW  
1/4 - 1/2 Mile  
Higher**

**FED USGS      USGS40000213343**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306914BAA USGS 395220105051701	Description:	Not Reported
Type:	Well	Drainage Area:	Not Reported
HUC:	10190003	Contrib Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Contrib Drainage Area Unts:	Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19560101	Well Depth:	21
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels, Number of Measurements:	1	Level reading date:	1958-10-22
Feet below surface:	4.70	Feet to sea level:	Not Reported
Note:	Not Reported		

**66**  
**SSE**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS40000213320**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306914AAD	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19560101
Well Depth:	21	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels, Number of Measurements:	1	Level reading date:	1962-04-09
Feet below surface:	5.20	Feet to sea level:	Not Reported
Note:	Not Reported		

**67**  
**SSE**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000206368**

CO DWR ID #:	Not Reported	Permit #:	91762-
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	07/21/1977
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	TRACT A

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**68**  
**NE**  
**1/4 - 1/2 Mile**  
**Lower**

**CO WELLS      CO7000000055248**

CO DWR ID #:	Not Reported	Permit #:	18462-MH
Well Name:	Not Reported	Well Status:	Permit Expired
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	11/27/1991
Expiration Date:	02/25/1992	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	no data

**M69**  
**NNW**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS40000213514**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00206914BAC1	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Alluvium and Terrace Deposits
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**70**  
**WNW**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000163806**

CO DWR ID #:	Not Reported	Permit #:	118367-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	02/28/1981	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	ALSO LOT 74

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**Q71**  
**North**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000260277**

CO DWR ID #:	Not Reported	Permit #:	20231-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	06/11/1964
Expiration Date:	Not Reported	Construction Date:	06/10/1964
Start Use Date:	06/13/1964	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	115	Top of First Perf Casing:	52
Base of Last Perf Casing:	106	Yield (gal/min):	12
Static Water Depth (ft):	26	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**Q72**  
**North**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000163604**

CO DWR ID #:	Not Reported	Permit #:	5299-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	03/21/1960	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	102	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	7
Static Water Depth (ft):	25	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	TRACT B10

**Q73**  
**North**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS      CO7000000470069**

CO DWR ID #:	Not Reported	Permit #:	281-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	08/28/1957
Expiration Date:	Not Reported	Construction Date:	08/18/1957
Start Use Date:	08/18/1957	Pump Install Date:	Not Reported



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	100	Top of First Perf Casing:	60
Base of Last Perf Casing:	100	Yield (gal/min):	10
Static Water Depth (ft):	90	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**Q74**  
**North**  
**1/4 - 1/2 Mile**  
**Higher**

**CO WELLS    CO7000000429765**

CO DWR ID #:	Not Reported	Permit #:	19955-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	05/20/1964	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	102	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	10
Static Water Depth (ft):	21	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**R75**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000082695**

CO DWR ID #:	Not Reported	Permit #:	32826-MH
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/05/1998
Expiration Date:	06/05/1998	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	03/23/1998	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**R76**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000339032**

CO DWR ID #:	Not Reported	Permit #:	15344-
Well Name:	Not Reported	Well Status:	Well Constructed

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	05/18/1963	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	122	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	20
Static Water Depth (ft):	30	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	ALSO INCLUDES TRACT 57D

**Q77**  
**North**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO700000334934**

CO DWR ID #:	Not Reported	Permit #:	191718-
Well Name:	BH-11B		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	12/05/1995
Expiration Date:	12/05/1997	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**S78**  
**ENE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS    CO700000438199**

CO DWR ID #:	Not Reported	Permit #:	14449-AD
Well Name:	Not Reported	Well Status:	Application Denied
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Irrigation	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	02/01/2001
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**S79**  
**ENE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS      CO700000098917**

CO DWR ID #:	Not Reported	Permit #:	54373-F
Well Name:	LFH #1	Well Status:	Permit Extended
Water Court Case #:	99CW0063	Parcel Size:	135
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Laramie Fox Hills
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	08/22/2000
Expiration Date:	08/22/2002	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**S80**  
**ENE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS      CO7000000319709**

CO DWR ID #:	Not Reported	Permit #:	54372-F
Well Name:	ARAP #1	Well Status:	Permit Extended
Water Court Case #:	99CW0063	Parcel Size:	135
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Lower Arapahoe
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	08/22/2000
Expiration Date:	08/22/2002	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**T81**  
**NNW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000205144**

CO DWR ID #:	Not Reported	Permit #:	1245-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/14/1958	Pump Install Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	105	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	20
Static Water Depth (ft):	50	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**T82  
NNW  
1/2 - 1 Mile  
Higher**

**CO WELLS    CO7000000207479**

CO DWR ID #:	Not Reported	Permit #:	1245--A
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Arapahoe
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	04/16/1982
Expiration Date:	Not Reported	Construction Date:	05/20/1982
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	140	Top of First Perf Casing:	80
Base of Last Perf Casing:	140	Yield (gal/min):	15
Static Water Depth (ft):	50	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**83  
WNW  
1/2 - 1 Mile  
Higher**

**CO WELLS    CO7000000335293**

CO DWR ID #:	Not Reported	Permit #:	185435-
Well Name:	MW-1	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/16/1995
Expiration Date:	03/16/1997	Construction Date:	06/04/1994
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	19	Top of First Perf Casing:	9
Base of Last Perf Casing:	19	Yield (gal/min):	0
Static Water Depth (ft):	13	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**84  
South  
1/2 - 1 Mile  
Higher**

**FED USGS    USGS40000213257**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00206923BAD G-42A	Type:	Well

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**U85**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS USGS40000213397**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306911CCA USGS 395235105053201		
Type:	Well	Description:	Not Reported
HUC:	10190003	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19580101	Well Depth:	32
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1958-04-05
Feet below surface:	16.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**V86**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS CO7000000205265**

CO DWR ID #:	Not Reported	Permit #:	40405-
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	02/25/1970
Expiration Date:	Not Reported	Construction Date:	03/09/1970
Start Use Date:	03/09/1970	Pump Install Date:	04/30/1970
Well Plug Date:	12/05/1994	Surface Elevation (ft):	0
Well Depth (ft):	100	Top of First Perf Casing:	61
Base of Last Perf Casing:	76	Yield (gal/min):	8
Static Water Depth (ft):	46	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	LOT 24

**V87**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS CO7000000391785**

CO DWR ID #:	Not Reported	Permit #:	40405--A
Well Name:	Not Reported	Well Status:	Well Constructed



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**W90**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000437314**

CO DWR ID #:	Not Reported	Permit #:	12721-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	09/07/1962	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	170	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	15
Static Water Depth (ft):	100	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**91**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS      CO7000000224471**

CO DWR ID #:	Not Reported	Permit #:	83984-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	2.26
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Laramie Fox Hills
Addtl Aquifer:	Not Reported	Irrigation Area:	1 ACRES
Yrly Appropriation:	0	Issue Date:	05/25/1976
Expiration Date:	05/25/1978	Construction Date:	07/13/1976
Start Use Date:	07/13/1976	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	200	Top of First Perf Casing:	130
Base of Last Perf Casing:	200	Yield (gal/min):	14
Static Water Depth (ft):	14	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**92**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213427**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306911CCA USGS 395242105053301	Description:	Not Reported
Type:	Well	Drainage Area:	Not Reported
HUC:	10190003	Contrib Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer Type:	Not Reported
Formation Type:	Not Reported	Well Depth:	32
Construction Date:	19560101	Well Hole Depth:	Not Reported
Well Depth Units:	ft		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Hole Depth Units: Not Reported

Ground water levels, Number of Measurements:	1	Level reading date:	1958-11-10
Feet below surface:	11.90	Feet to sea level:	Not Reported
Note:	Not Reported		

**X93  
NW  
1/2 - 1 Mile  
Higher**

**CO WELLS      CO7000000121249**

CO DWR ID #:	Not Reported	Permit #:	1571-WCB
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Commercial	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	12/06/1956
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	1032	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**X94  
NW  
1/2 - 1 Mile  
Higher**

**CO WELLS      CO7000000256198**

CO DWR ID #:	Not Reported	Permit #:	41832-MH
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	02/18/2003
Expiration Date:	04/24/2003	Construction Date:	01/27/2003
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	02/17/2005	Surface Elevation (ft):	0
Well Depth (ft):	24	Top of First Perf Casing:	15
Base of Last Perf Casing:	24	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	2 WELLS 8405 church ranch rd

**X95  
NW  
1/2 - 1 Mile  
Higher**

**CO WELLS      CO7000000462629**

CO DWR ID #:	Not Reported	Permit #:	20529-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/30/1964	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	88	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	5
Static Water Depth (ft):	30	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**U96**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000197905**

CO DWR ID #:	Not Reported	Permit #:	52150-MH
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	01/08/2014
Expiration Date:	04/08/2014	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	01/17/2014	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	Three (3) holes to be constructed. Three AB reports received.		

**U97**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000218735**

CO DWR ID #:	Not Reported	Permit #:	52651-MH
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	06/20/2014
Expiration Date:	09/18/2014	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	Twelve (12) holes to be constructed. Six holes WU d all in the NW of the NW. Another Six came in under 53084-MH.		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**98**  
**ENE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS      CO7000000071747**

CO DWR ID #:	Not Reported	Permit #:	191719-
Well Name:	BH-14B		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	12/05/1995
Expiration Date:	12/05/1997	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**99**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213366**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306913BAB	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	20	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels, Number of Measurements:	1	Level reading date:	1959-09-08
Feet below surface:	4.30	Feet to sea level:	Not Reported
Note:	Not Reported		

**Y100**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000079971**

CO DWR ID #:	Not Reported	Permit #:	31107-MH
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	07/08/1997
Expiration Date:	10/08/1997	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	6
Division:	1	Comments:	Not Reported

**Y101**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000076747**

CO DWR ID #:	Not Reported	Permit #:	29477-MH
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	10/15/1996
Expiration Date:	01/15/1997	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	X-REF-201648-201651

**Y102**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO70000000329508**

CO DWR ID #:	Not Reported	Permit #:	34439-MH
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	09/16/1998
Expiration Date:	12/16/1998	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**Y103**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000288754**

CO DWR ID #:	Not Reported	Permit #:	46855-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/23/1971	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	205	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	15
Static Water Depth (ft):	95	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**104**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000218737**

CO DWR ID #:	Not Reported	Permit #:	53084-MH
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	Quaternary Alluvium
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	11/05/2014
Expiration Date:	02/03/2015	Construction Date:	11/20/2014
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	5374
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	Fifteen holes to be constructed. Six WCR received.		

**105**  
**NE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS      CO7000000120615**

CO DWR ID #:	Not Reported	Permit #:	165-WCB
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	06/06/1955
Expiration Date:	Not Reported	Construction Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	63	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**Z106**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213216**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306914ACC USGS 395204105051001		
Type:	Well	Description:	Not Reported
HUC:	10190003	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19550101	Well Depth:	34
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

**AA107**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213215**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306911DCA	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19480101
Well Depth:	615	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1948-11-01
Feet below surface:	245.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**AB108**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000163714**

CO DWR ID #:	Not Reported	Permit #:	40555-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Start Use Date:	03/10/1970	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	225	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	10
Static Water Depth (ft):	135	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AB109**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO700000038714**

CO DWR ID #:	Not Reported	Permit #:	11548-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	04/26/1962	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	100	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	6
Static Water Depth (ft):	70	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AB110**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000448911**

CO DWR ID #:	Not Reported	Permit #:	46821-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/22/1971	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	200	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	15
Static Water Depth (ft):	105	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AB111**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000487534**

CO DWR ID #:	0206166	Permit #:	46570-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/18/1971	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	215	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	15
Static Water Depth (ft):	12	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AB112**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000473168**

CO DWR ID #:	Not Reported	Permit #:	46820-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/23/1971	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	204	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	15
Static Water Depth (ft):	95	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**Z113**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000080243**

CO DWR ID #:	Not Reported	Permit #:	206097-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	10/21/1997
Expiration Date:	10/21/1999	Construction Date:	07/09/1997
Start Use Date:	Not Reported	Pump Install Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	12	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**Z114**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS USGS40000213207**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306914ACC USGS 395203105051101		
Type:	Well	Description:	Not Reported
HUC:	10190003	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19580101	Well Depth:	18
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels, Number of Measurements:	1	Level reading date:	1958-03-31
Feet below surface:	6.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**115**  
**NNW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS CO7000000480607**

CO DWR ID #:	Not Reported	Permit #:	92953-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/15/1978	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**Z116**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS CO7000000311480**

CO DWR ID #:	Not Reported	Permit #:	201649-
Well Name:	JF30/MW-3	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/20/1997
Expiration Date:	03/20/1999	Construction Date:	10/29/1996
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	10	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**Z117**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000415782**

CO DWR ID #:	Not Reported	Permit #:	201648-
Well Name:	JF30/MW-4	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/20/1997
Expiration Date:	03/20/1999	Construction Date:	10/29/1996
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	11	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**Z118**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000077618**

CO DWR ID #:	Not Reported	Permit #:	201650-
Well Name:	JF30/MW-2	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/20/1997
Expiration Date:	03/20/1999	Construction Date:	10/29/1996
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	10	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**Z119**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO700000072882**

CO DWR ID #:	Not Reported	Permit #:	201651--A
Well Name:	MW6	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	10/28/1998
Expiration Date:	10/28/2000	Construction Date:	09/17/1998
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	5420
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	7	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	8
Division:	1	Comments:	ALSO MH34439

**Z120**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000466379**

CO DWR ID #:	Not Reported	Permit #:	201651-
Well Name:	JF30/MW-1	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/20/1997
Expiration Date:	03/20/1999	Construction Date:	10/29/1996
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	9	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AA121**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213206**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00206923ACA1	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Denver Basin aquifer system		
Formation Type:	Arapahoe Conglomerate Member of Laramie Formation		
Aquifer Type:	Not Reported	Construction Date:	19730628
Well Depth:	447	Well Depth Units:	ft

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported
Ground water levels, Number of Measurements:	2	Level reading date:	1978-06-27
Feet below surface:	171.60	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1973-06-28	Feet below surface:	160.00
Feet to sea level:	Not Reported	Note:	Not Reported

**AA122**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000453168**

CO DWR ID #:	Not Reported	Permit #:	46766-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/21/1971	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	400	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	15
Static Water Depth (ft):	161	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AA123**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000221450**

CO DWR ID #:	Not Reported	Permit #:	46766--A
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	1.6
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	06/22/1984
Expiration Date:	Not Reported	Construction Date:	06/08/1984
Start Use Date:	06/26/1984	Pump Install Date:	06/25/1984
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	400	Top of First Perf Casing:	160
Base of Last Perf Casing:	380	Yield (gal/min):	15
Static Water Depth (ft):	161	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**Z124**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000256435**

CO DWR ID #:	Not Reported	Permit #:	259757-
Well Name:	MW-8	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	10/13/2004
Expiration Date:	Not Reported	Construction Date:	07/27/2004
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AC125**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000256904**

CO DWR ID #:	Not Reported	Permit #:	253068-
Well Name:	MW-7	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	09/25/2003
Expiration Date:	Not Reported	Construction Date:	06/02/2003
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	12	Top of First Perf Casing:	3
Base of Last Perf Casing:	12	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**126**  
**North**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000228411**

CO DWR ID #:	Not Reported	Permit #:	87429-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	1
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	11/17/1976
Expiration Date:	Not Reported	Construction Date:	03/24/1977
Start Use Date:	12/26/1977	Pump Install Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	275	Top of First Perf Casing:	130
Base of Last Perf Casing:	275	Yield (gal/min):	30
Static Water Depth (ft):	30	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AC127**

**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000118980**

CO DWR ID #:	Not Reported	Permit #:	259716-
Well Name:	MW-10	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	10/12/2004
Expiration Date:	Not Reported	Construction Date:	03/18/2004
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	10
Base of Last Perf Casing:	20	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AC128**

**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000365428**

CO DWR ID #:	Not Reported	Permit #:	253069-
Well Name:	MW-8	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	09/25/2003
Expiration Date:	Not Reported	Construction Date:	06/02/2003
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	12	Top of First Perf Casing:	3
Base of Last Perf Casing:	12	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AC129**

**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000142998**

CO DWR ID #:	Not Reported	Permit #:	254660-
Well Name:	MW-5	Well Status:	Well Constructed

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	01/08/2004
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	16	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	no date as to when well was completed. ADB 1-13-04		

**AC130**  
West  
1/2 - 1 Mile  
Higher

**CO WELLS    CO7000000115660**

CO DWR ID #:	Not Reported	Permit #:	254657-
Well Name:	MW-4	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	01/08/2004
Expiration Date:	Not Reported	Construction Date:	08/28/2003
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AC131**  
West  
1/2 - 1 Mile  
Higher

**CO WELLS    CO7000000114740**

CO DWR ID #:	Not Reported	Permit #:	253067-
Well Name:	MW-3	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	09/25/2003
Expiration Date:	Not Reported	Construction Date:	06/02/2003
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	20	Top of First Perf Casing:	10
Base of Last Perf Casing:	20	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AC132**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000365437**

CO DWR ID #:	Not Reported	Permit #:	254658-
Well Name:	MW-9	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	01/08/2004
Expiration Date:	Not Reported	Construction Date:	08/28/2003
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AC133**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000114739**

CO DWR ID #:	Not Reported	Permit #:	253066-
Well Name:	MW-1	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	09/25/2003
Expiration Date:	Not Reported	Construction Date:	06/02/2003
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	20	Top of First Perf Casing:	10
Base of Last Perf Casing:	20	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**134**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000446916**

CO DWR ID #:	Not Reported	Permit #:	109381-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	08/08/1979
Expiration Date:	Not Reported	Construction Date:	10/11/1979
Start Use Date:	10/11/1979	Pump Install Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	400	Top of First Perf Casing:	200
Base of Last Perf Casing:	400	Yield (gal/min):	6
Static Water Depth (ft):	150	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AC135**

**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000115662**

CO DWR ID #:	Not Reported	Permit #:	254661-
Well Name:	MW-6		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	01/08/2004
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**136**

**North**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000330423**

CO DWR ID #:	Not Reported	Permit #:	50966-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Stock
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	125	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	15
Static Water Depth (ft):	90	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AC137**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000115661**

CO DWR ID #:	Not Reported	Permit #:	254659-
Well Name:	MW-2	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	01/08/2004
Expiration Date:	Not Reported	Construction Date:	08/28/2003
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**138**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000055246**

CO DWR ID #:	Not Reported	Permit #:	18460-MH
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	11/27/1991
Expiration Date:	02/25/1992	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	no data

**AD139**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213179**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306911CDD	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19230101
Well Depth:	425	Well Depth Units:	ft

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported
Ground water levels, Number of Measurements:	1	Level reading date:	1933-01-01
Feet below surface:	203.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**AE140**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000199526**

CO DWR ID #:	Not Reported	Permit #:	92945--A
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	1
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Upper Arapahoe
Addtl Aquifer:	Not Reported	Irrigation Area:	.75 ACRES
Yrly Appropriation:	0	Issue Date:	03/24/2003
Expiration Date:	03/24/2005	Construction Date:	04/23/2003
Start Use Date:	Not Reported	Pump Install Date:	05/16/2003
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	268	Top of First Perf Casing:	180
Base of Last Perf Casing:	268	Yield (gal/min):	10
Static Water Depth (ft):	111	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AE141**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000163788**

CO DWR ID #:	Not Reported	Permit #:	92945-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/21/1978	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	155	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	23
Division:	1		
Comments:	WELL LOCATED AT 7085 W. 94TH AVE. BROOMFIELD, CO 80021.		

**142**  
**NW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000451889**

CO DWR ID #:	Not Reported	Permit #:	41398-MH
Well Name:	Not Reported	Well Status:	Well Abandoned

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	10/21/2002
Expiration Date:	10/03/2002	Construction Date:	07/08/2002
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	02/17/2005	Surface Elevation (ft):	0
Well Depth (ft):	22	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	7WELLS LEFT 2 MESSAGES FOR HIGH PLAINS DRILLING FOR LOCATION INFO BEFORE THEY RESPONDED. JHON ROHDE OF CLAYTON SERVICES FOR THE LOCATION INFO ON 10-21-02. ADS 10-21-02. 8405 church ranch rd. no data		

**AE143**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000247169**

CO DWR ID #:	Not Reported	Permit #:	178692-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Stock
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	1.5	Issue Date:	06/08/1994
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	03/12/1971	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	250	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	12
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	7
Division:	1		
Comments:	LOTS 15,16; 1ST USE 1946; 4.6 AC PARCEL; 1SF, 1/2 AC IRR, DOM ANIM		

**AE144**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000246849**

CO DWR ID #:	Not Reported	Permit #:	95201-VE
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	Upper Arapahoe
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	05/26/1995
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	LOTS 15 & 16

**AE145**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000344773**

CO DWR ID #:	Not Reported	Permit #:	178692--A
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	4.5999999
Well Use:	Domestic	Addtl Well Use:	Stock
Special Use:	Not Reported	Primary Aquifer:	Upper Dawson
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	07/19/1995
Expiration Date:	07/19/1997	Construction Date:	05/29/1995
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	275	Top of First Perf Casing:	200
Base of Last Perf Casing:	275	Yield (gal/min):	7
Static Water Depth (ft):	205	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	95VE201

**AD146**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000246116**

CO DWR ID #:	Not Reported	Permit #:	47386-DW
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Dewatering	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	09/12/2007
Expiration Date:	12/06/2007	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	One (1) hole to be constructed

**AF147**  
**NNW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000038225**

CO DWR ID #:	Not Reported	Permit #:	176-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	W3202	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	08/15/1957
Expiration Date:	Not Reported	Construction Date:	08/28/1957
Start Use Date:	08/28/1957	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	40	Top of First Perf Casing:	15
Base of Last Perf Casing:	40	Yield (gal/min):	10
Static Water Depth (ft):	30	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AF148**  
**NNW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO700000038502**

CO DWR ID #:	Not Reported	Permit #:	5732-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	04/27/1960	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	92	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	7
Static Water Depth (ft):	15	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AF149**  
**NNW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000121247**

CO DWR ID #:	Not Reported	Permit #:	1339-WCB
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Stock
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	07/19/1956
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	130	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AG150**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000038739**

CO DWR ID #:	Not Reported	Permit #:	12320-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	08/03/1962	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	206	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	5
Static Water Depth (ft):	165	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AG151**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000273995**

CO DWR ID #:	Not Reported	Permit #:	16343-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	07/03/1963	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	180	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	20
Static Water Depth (ft):	110	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**152**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213409**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306912DCB	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	11	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground water levels, Number of Measurements:	1	Level reading date:	1957-11-29
Feet below surface:	7.20	Feet to sea level:	Not Reported
Note:	Not Reported		

**AH153**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000205981**

CO DWR ID #:	0207016	Permit #:	16599-F
Well Name:	Not Reported	Well Status:	Permit Expired
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Irrigation	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	11/02/1972
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AH154**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000038924**

CO DWR ID #:	Not Reported	Permit #:	18494-F
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Irrigation	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	5 acres
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/23/1974	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	447	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	30
Static Water Depth (ft):	160	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**155**  
**NE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS    CO7000000038771**

CO DWR ID #:	Not Reported	Permit #:	13386-F
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Commercial	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Yrly Appropriation:	0	Issue Date:	11/07/1968
Expiration Date:	Not Reported	Construction Date:	12/07/1968
Start Use Date:	12/04/1968	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	300	Top of First Perf Casing:	60
Base of Last Perf Casing:	300	Yield (gal/min):	50
Static Water Depth (ft):	40	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	GREENHOUSES

**AH156**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000401830**

CO DWR ID #:	Not Reported	Permit #:	97148-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	04/14/1978	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	21	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AH157**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000420735**

CO DWR ID #:	Not Reported	Permit #:	174990-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Stock
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	1	Issue Date:	12/03/1993
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	300	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	15
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	LR 1940 WELL; 1SF,ANIMALS,1A IRRIG; 10A,BLKS 13&14,GREENLAWN ACRES		



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**158**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213330**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306914BBC	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19570101
Well Depth:	22.6	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels, Number of Measurements:	1	Level reading date:	1958-10-24
Feet below surface:	14.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**A1159**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000446196**

CO DWR ID #:	Not Reported	Permit #:	97148--A
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	03/31/1978
Expiration Date:	Not Reported	Construction Date:	04/14/1978
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	170	Top of First Perf Casing:	50
Base of Last Perf Casing:	170	Yield (gal/min):	11
Static Water Depth (ft):	21	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	7
Division:	1	Comments:	Not Reported

**AJ160**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000079447**

CO DWR ID #:	Not Reported	Permit #:	46570--A
Well Name:	Not Reported	Well Status:	Not Reported
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	UPPER ARAPAHOE	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	09/08/1997
Expiration Date:	09/08/1999	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AK161**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000128490**

CO DWR ID #:	Not Reported	Permit #:	2007029-AB
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	06/30/2006	Surface Elevation (ft):	0
Well Depth (ft):	19	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	10 wells

**AK162**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000113372**

CO DWR ID #:	Not Reported	Permit #:	42152-MH
Well Name:	STANDLEY SHORES	Well Status:	Permit Issued; Completion Status Unknown
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	05/20/2003
Expiration Date:	08/16/2003	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	6 holes 253066-069

**AK163**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000114352**

CO DWR ID #:	Not Reported	Permit #:	42456-MH
Well Name:	STANDLEY STORES	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	08/19/2003
Expiration Date:	11/19/2003	Construction Date:	08/28/2003
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	15	Top of First Perf Casing:	5
Base of Last Perf Casing:	15	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	4 WELLS, permit nos. 254657-254660

### AK164

**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000115274**

CO DWR ID #:	Not Reported	Permit #:	42774-MH
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	10/29/2003
Expiration Date:	01/29/2004	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

### AK165

**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000116736**

CO DWR ID #:	Not Reported	Permit #:	43326-MH
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	03/29/2004
Expiration Date:	06/29/2004	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	2 WELLS

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AK166**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000443157**

CO DWR ID #:	Not Reported	Permit #:	42674-MH
Well Name:	STANDLEY SHORES 66	Well Status:	Permit Expired
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	10/08/2003
Expiration Date:	01/07/2004	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	No wells installed per letter of 9/23/04		

**AL167**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213146**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306914BAB USGS 395153105050201		
Type:	Well	Description:	Not Reported
HUC:	10190003	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19430101	Well Depth:	360
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

**AL168**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213147**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306914BAB USGS 395153105050501		
Type:	Well	Description:	Not Reported
HUC:	10190003	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19430101	Well Depth:	399
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:      1      Level reading date:      1954-03-06

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Feet below surface:	255.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**AM169**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS    CO7000000461052**

CO DWR ID #:	Not Reported	Permit #:	962-WCB
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	09/26/1955
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	192	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AM170**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS    CO7000000038463**

CO DWR ID #:	Not Reported	Permit #:	4860-
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	11/22/1959	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	100	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	12
Static Water Depth (ft):	22	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AM171**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS    CO7000000039139**

CO DWR ID #:	Not Reported	Permit #:	28493-
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	08/18/1966	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	130	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	17
Static Water Depth (ft):	20	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AM172**  
**NNE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS    CO7000000340474**

CO DWR ID #:	Not Reported	Permit #:	890-
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	03/14/1958	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	120	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	5
Static Water Depth (ft):	6	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**173**  
**NE**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS    USGS40000213587**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306902DDA	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19600101
Well Depth:	676	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels, Number of Measurements:	1	Level reading date:	1960-10-06
Feet below surface:	553.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**AN174**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000101796**

CO DWR ID #:	Not Reported	Permit #:	39501-MH
Well Name:	Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	03/22/2001
Expiration Date:	06/22/2001	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AN175**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000125314**

CO DWR ID #:	Not Reported	Permit #:	45772-MH
Well Name:	MW-9	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	11/23/2005
Expiration Date:	02/19/2006	Construction Date:	12/05/2005
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	5420
Well Depth (ft):	25	Top of First Perf Casing:	15
Base of Last Perf Casing:	25	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	2 holes to be constructed

**AN176**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000118179**

CO DWR ID #:	Not Reported	Permit #:	43804-MH
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	07/19/2004
Expiration Date:	10/14/2004	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AL177**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213134**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306914BAB USGS 395152105050201		
Type:	Well	Description:	Not Reported
HUC:	10190003	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19590101	Well Depth:	616
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1960-10-06
Feet below surface:	570.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**178**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000405513**

CO DWR ID #:	Not Reported	Permit #:	14037-
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	UNKNOWN	Water District:	2
Division:	1	Comments:	Not Reported

**179**  
**WNW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000329814**

CO DWR ID #:	Not Reported	Permit #:	32686-MH
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	02/09/1998
Expiration Date:	05/09/1998	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	09/02/1999	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	3 wells

**AO180**

**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000436670**

CO DWR ID #:	Not Reported	Permit #:	52178-MH
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	01/14/2014
Expiration Date:	04/14/2014	Construction Date:	01/17/2014
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	5391
Well Depth (ft):	20	Top of First Perf Casing:	10
Base of Last Perf Casing:	20	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	Four (4) holes to be constructed. Three WCR received.		

**AI181**

**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000152214**

CO DWR ID #:	Not Reported	Permit #:	93837-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/29/1978	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	24	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AI182**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000298068**

CO DWR ID #:	Not Reported	Permit #:	93837--A
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	2
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	10/03/1977
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**183**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213370**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306912DCD	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19560101
Well Depth:	21	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1958-10-22
Feet below surface:	6.50	Feet to sea level:	Not Reported
Note:	Not Reported		

**AP184**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000435368**

CO DWR ID #:	Not Reported	Permit #:	114159-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	10/23/1963	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AO185**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO700000039569**

CO DWR ID #:	0205445	Permit #:	53781-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Stock
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	03/21/1972
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	01/01/1930	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AQ186**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000357754**

CO DWR ID #:	Not Reported	Permit #:	40434-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	03/02/1970	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	220	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	25
Static Water Depth (ft):	135	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AQ187**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000163713**

CO DWR ID #:	Not Reported	Permit #:	40554-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	03/17/1970	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	225	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	3
Static Water Depth (ft):	14	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AQ188**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000486715**

CO DWR ID #:	Not Reported	Permit #:	40520-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	03/06/1970	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	220	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	25
Static Water Depth (ft):	135	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AQ189**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000408395**

CO DWR ID #:	Not Reported	Permit #:	8888-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/13/1961	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	112	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	30
Static Water Depth (ft):	9	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AP190**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000426424**

CO DWR ID #:	Not Reported	Permit #:	66953-F
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	2.8299999
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Dewatering	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	03/26/2008
Expiration Date:	Not Reported	Construction Date:	11/30/2007
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1		
Comments:	Permit is valid. No pump is required since the water is moved by gravity.		

**AJ191**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213178**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00206923ADA1	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	225	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**AJ192**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213180**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00206923ADA	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Denver Basin aquifer system	Aquifer Type:	Not Reported
Formation Type:	Denver Formation	Well Depth:	225
Construction Date:	19710617	Well Hole Depth:	Not Reported
Well Depth Units:	ft		
Well Hole Depth Units:	Not Reported		

Ground water levels, Number of Measurements:	2	Level reading date:	1971-06-18
Feet below surface:	120.00	Feet to sea level:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Note: Not Reported

Level reading date:	1971-06-17	Feet below surface:	120.00
Feet to sea level:	Not Reported	Note:	Not Reported

**AO193**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000206361**

CO DWR ID #:	0205445	Permit #:	53781--A
Well Name:	Not Reported		
Well Status:	Permit Issued; Completion Status Unknown		
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Stock
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	06/24/1977
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AP194**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000250583**

CO DWR ID #:	Not Reported	Permit #:	947-WCB
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Not Reported	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	11/25/1953
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	203	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AP195**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000183571**

CO DWR ID #:	Not Reported	Permit #:	36364-
Well Name:	Not Reported	Well Status:	Permit Expired
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	01/03/1969
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AR196**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000155654**

CO DWR ID #:	Not Reported	Permit #:	2012055-AB
Well Name:	MW12	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	11/21/2011	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AR197**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS    CO7000000399540**

CO DWR ID #:	Not Reported	Permit #:	2012053-AB
Well Name:	MW10	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	01/16/2012
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	01/16/2012	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**198**  
**NW**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000320498**

CO DWR ID #:	Not Reported	Permit #:	9437-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	08/09/1961	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	70	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	2
Static Water Depth (ft):	25	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AR199**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000155653**

CO DWR ID #:	Not Reported	Permit #:	2012054-AB
Well Name:	MW11	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	11/21/2011	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AR200**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000155650**

CO DWR ID #:	Not Reported	Permit #:	2012049-AB
Well Name:	MW06	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	01/16/2012	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**201**  
**NE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS      CO7000000253350**

CO DWR ID #:	Not Reported	Permit #:	12993-F
Well Name:	Not Reported	Well Status:	Permit Canceled
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	05/17/1968
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AR202**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000451697**

CO DWR ID #:	Not Reported	Permit #:	2012050-AB
Well Name:	MW07	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	11/21/2011	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AR203**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000313017**

CO DWR ID #:	Not Reported	Permit #:	2012046-AB
Well Name:	MW02	Well Status:	Well Abandoned

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	11/18/2011	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**204  
ESE  
1/2 - 1 Mile  
Higher**

**FED USGS USGS40000213298**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306913ABC	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19570101
Well Depth:	22	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported
Ground water levels,Number of Measurements:	1	Level reading date:	1958-11-03
Feet below surface:	4.40	Feet to sea level:	Not Reported
Note:	Not Reported		

**AR205  
South  
1/2 - 1 Mile  
Higher**

**CO WELLS CO7000000155652**

CO DWR ID #:	Not Reported	Permit #:	2012051-AB
Well Name:	MW08	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	11/21/2011	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AR206**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000155649**

CO DWR ID #:	Not Reported	Permit #:	2012048-AB
Well Name:	MW05	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	11/18/2011
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	11/18/2011	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AR207**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000431675**

CO DWR ID #:	Not Reported	Permit #:	2012047-AB
Well Name:	MW04	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	01/16/2012	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AR208**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000277625**

CO DWR ID #:	Not Reported	Permit #:	2012052-AB
Well Name:	MW09	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Plug Date:	01/16/2012	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AR209**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000155648**

CO DWR ID #:	Not Reported	Permit #:	2012045-AB
Well Name:	MW01	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	11/18/2011	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AS210**  
**WNW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213448**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306910DAC	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19560101
Well Depth:	50	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1962-04-09
Feet below surface:	17.40	Feet to sea level:	Not Reported
Note:	Not Reported		

**AR211**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000298142**

CO DWR ID #:	Not Reported	Permit #:	2012056-AB
Well Name:	MW03	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	01/16/2012	Surface Elevation (ft):	0
Well Depth (ft):	0	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**212**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213145**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306913CBA	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	7.4	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1962-04-09
Feet below surface:	5.30	Feet to sea level:	Not Reported
Note:	Not Reported		

**213**  
**ENE**  
**1/2 - 1 Mile**  
**Lower**

**CO WELLS      CO7000000328227**

CO DWR ID #:	Not Reported	Permit #:	285619-
Well Name:	WELL 2	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Other	Addtl Well Use:	Not Reported
Special Use:	Monitoring Well	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	05/05/2011
Expiration Date:	Not Reported	Construction Date:	03/20/2011
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	20	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**214**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000121250**

CO DWR ID #:	Not Reported	Permit #:	955-WCB
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Not Reported	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	12/20/1954
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	960	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AS215**  
**WNW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000213449**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306910DBB	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	25	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1960-12-15
Feet below surface:	15.00	Feet to sea level:	Not Reported
Note:	Not Reported		

**216**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000312322**

CO DWR ID #:	Not Reported	Permit #:	20198-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	06/18/1964	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	360	Top of First Perf Casing:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Base of Last Perf Casing:	0	Yield (gal/min):	10
Static Water Depth (ft):	60	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AT217**  
**North**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000367067**

CO DWR ID #:	Not Reported	Permit #:	1273-WCB
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	0	Issue Date:	05/25/1956
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	Not Reported	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	102	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	0	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AT218**  
**North**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000038791**

CO DWR ID #:	Not Reported	Permit #:	14013-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported
Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	02/06/1963	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	60	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	0
Static Water Depth (ft):	19	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**AT219**  
**North**  
**1/2 - 1 Mile**  
**Higher**

**CO WELLS      CO7000000425116**

CO DWR ID #:	Not Reported	Permit #:	8454-
Well Name:	Not Reported	Well Status:	Well Constructed
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0
Yrly Appropriation:	1	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	04/28/1961	Pump Install Date:	Not Reported
Well Plug Date:	Not Reported	Surface Elevation (ft):	0
Well Depth (ft):	100	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	10
Static Water Depth (ft):	40	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

**220**  
North  
1/2 - 1 Mile  
Higher

**FED USGS      USGS40000213667**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306902BDD USGS 395327105045501		
Type:	Well	Description:	Not Reported
HUC:	10190003	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Formation Type:	Laramie Formation	Aquifer Type:	Not Reported
Construction Date:	19560101	Well Depth:	1100
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

**221**  
SW  
1/2 - 1 Mile  
Higher

**FED USGS      USGS40000213217**

Organization ID:	USGS-CO	Organization Name:	USGS Colorado Water Science Center
Monitor Location:	SC00306915AAA	Type:	Well
Description:	Not Reported	HUC:	10190003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19560101
Well Depth:	30	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1958-10-24
Feet below surface:	18.30	Feet to sea level:	Not Reported
Note:	Not Reported		

**222**  
North  
1/2 - 1 Mile  
Higher

**CO WELLS      CO7000000038599**

CO DWR ID #:	Not Reported	Permit #:	7929-
Well Name:	Not Reported	Well Status:	Well Abandoned
Water Court Case #:	Not Reported	Parcel Size:	0
Well Use:	Domestic	Addtl Well Use:	Not Reported



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Special Use:	Not Reported	Primary Aquifer:	All Unnamed Aquifers
Addtl Aquifer:	Not Reported	Irrigation Area:	0 acres
Yrly Appropriation:	0	Issue Date:	Not Reported
Expiration Date:	Not Reported	Construction Date:	Not Reported
Start Use Date:	03/01/1961	Pump Install Date:	Not Reported
Well Plug Date:	01/21/2004	Surface Elevation (ft):	0
Well Depth (ft):	135	Top of First Perf Casing:	0
Base of Last Perf Casing:	0	Yield (gal/min):	10
Static Water Depth (ft):	20	Groundwater Basin:	Not Reported
Mgmt District:	Not Reported	Water District:	2
Division:	1	Comments:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

Federal EPA Radon Zone for JEFFERSON County: 1

- Note: Zone 1 indoor average level > 4 pCi/L.
- : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
- : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for JEFFERSON COUNTY, CO

Number of sites tested: 62

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	3.993 pCi/L	64%	36%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	5.565 pCi/L	50%	47%	3%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

### Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

## HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

### State Wetlands Data: Riparian Vegetation Data

Source: Division of Wildlife

Telephone: 970-416-3360

## HYDROGEOLOGIC INFORMATION

### AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

### STATE RECORDS

#### Colorado GIS Well Database

Source: Office of State Engineer, Division of Water Resources

Telephone: 303-866-3581

The GIS Well database includes all wells that the Division of Water Resources permits.

## OTHER STATE DATABASE INFORMATION

#### Oil and Gas Well Locations

Source: Department of Natural Resources

Telephone: 303-894-2100

### RADON

#### State Database: CO Radon

Source: Department of Public Health & Environment

Telephone: 303-692-3090

Radon Study in Colorado

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

#### Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

#### Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## STREET AND ADDRESS INFORMATION

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Appendix D.  
Wetland Delineation Report



# Delineation of Potential Waters of the U.S.

Big Dry Creek Interceptor Sewer Improvements Project

January 2020



**HDR ROLE**

Contractor

**LOCATION**

Westminster, Colorado

**TYPE OF WORK**

Delineation and Proposed  
Jurisdictional Determination  
of Waters of the U.S.

**PREPARED BY**

HDR Inc.  
Denver, Colorado

**AUTHORS**

Sirena Brownlee  
Tara Kent

# Delineation of Potential Waters of the U.S.

Prepared for:  
City of Westminster

*January 2020*



## Acronyms and Abbreviations

BDC	Big Dry Creek
BDCIS	Big Dry Creek Interceptor Sewer
CFR	Code of Federal Regulations
CWA	Clean Water Act
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
GPS	Global Positioning System
HDR	HDR, Inc.
LDC	Little Dry Creek
LRR	Land Resource Region
MLRA	Major Land Resource Area
OBL	Obligate
OHWM	ordinary high water mark
Project	Big Dry Creek Interceptor Sewer Improvements Project
RPW	relatively permanent water
SWANCC	Solid Waste Agency of Northern Cook County
TNW	traditional navigable water
UPL	Upland
U.S.	United States
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
WOTUS	Waters of the U.S.



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# 1 Introduction

The City of Westminster (City) provides sewer service to over 110,000 people, covers approximately 29.8 square miles, and contains two major sewer basins: Little Dry Creek and Big Dry Creek. The Big Dry Creek basin, which is the focus of this Project, collects and conveys 75 percent of the city's total wastewater flows, generated in the northern portion of the city, to its Big Dry Creek Wastewater Treatment Facility. A major concern for the Big Dry Creek collection system is capacity for existing and future flows. Additionally, hydrogen sulfide corrosion is causing structural integrity concerns for the existing pipes and structures. Due to concerns regarding the BDCIS collection system's capacity for existing and future flows, the City proposes to construct the Big Dry Creek Interceptor Sewer development project (Project).

The recommended alternative is the construction of a new 30-inch North Parallel Interceptor pipe in Project Area 1 along Big Dry Creek. This alternative includes constructing a new parallel interceptor generally following the existing 30-inch interceptor to the north. This Project would require crossing Big Dry Creek at several locations.

On March 11 and 12, 2019, HDR, Inc. (HDR) environmental scientists Sirena Brownlee and Tara Kent conducted a delineation of potential waters of the U.S. (WOTUS) for the City of Westminster in support of the requirements for Section 404 of the Clean Water Act (CWA). An additional survey was conducted January 12, 2020 by Professional Wetland Scientist, Ryan Hammons, with HDR to accommodate an added access road. The project study area includes an area approximately 100 feet off of the centerline of the proposed new sewer line near Big Dry Creek, as well as associated access roads, and totals approximately 34 acres in size (**Appendix A**).

This report presents the results of the delineation and review of potentially jurisdictional WOTUS. The results are followed by a discussion of potential permitting requirements and recommendations based on the findings. All assumptions regarding potential jurisdiction are preliminary; they are based on data collected and the experience of the HDR delineators in the region.

## 2 Project Study Area

The project is located entirely within the City of Westminster, Jefferson County, Colorado, within the Lafayette (2016) United States (U.S.) Geological Survey quadrangle unit, and within Sections 12 and 13 of Township 2 South, and Range 69 West. The northern terminus of the project is located at approximate coordinates 39.8969, -105.0537 and the southern terminus of the project is located at approximate coordinates 39.8853, -105.0668 (WGS 84).

The majority of the project study area and surroundings have been impacted by urban development including residential, commercial, recreation, and transportation use.

### 2.1 Climate

The project study area lies within the Central High Plains, Southern Part Major Land Resource Area (MLRA), part of the Western Great Plains Range and Irrigated Region Land Resource

Region (LRR) (USDA, 2006). The Central High Plains, Southern Part MLRA includes smooth to slightly irregular plains consisting of sediments deposited by rivers that drained the young and actively eroding Rocky Mountains. The immediate project study area has been significantly disturbed by urbanization.

The climate in the project study area is semiarid. Annual precipitation in the project study area ranges from 12 to 18 inches, with the greatest amount of precipitation received during the spring and summer. Fall and winter are comparatively dry (USDA, 2006). The average annual precipitation is 17 inches, based on a 30-year average (1981 – 2010) (NOAA, 2011). The average annual temperature is 45 to 55 degrees Fahrenheit, while the freeze-free period averages 160 days and ranges from 135 to 190 days (USDA, 2006).

## 2.2 Plant Communities

Vegetation in the project study area primarily includes grasses, shrubs, and trees that are common within the disturbed urban landscape. Upland herbaceous species include smooth brome (*Bromus inermis*), Canada thistle (*Cirsium arvense*), curly dock (*Rumex crispus*), cheatgrass (*Bromus tectorum*), western wheatgrass (*Pascopyrum smithii*), salsify (*Tragopogon dubius*), field bindweed (*Convolvulus arvensis*), showy milkweed (*Asclepias speciosa*), American licorice (*Glycyrrhiza lepidota*), Fuller's teasel (*Dipsacus fullonum*), horehound (*Marrubium vulgare*), curly cup gumweed (*Grindelia squarrosa*), goldenrod (*Solidago* sp.), prickly pear (*Opuntia* sp.), kochia (*Bassia scoparia*), common sunflower (*Helianthus annuus*), common burdock (*Arctium minus*), evening primrose (*Oenothera* sp.), yucca (*Yucca elata*), willow-herb (*Epilobium* sp.), catnip (*Nepeta cataria*), blue grama (*Bouteloua gracilis*), alkali sacaton (*Sporobolus airoides*), intermediate wheatgrass (*Thinopyrum intermedium*), common mullein (*Verbascum thapsus*), and lovegrass (*Eragrostis* sp.).

Trees and shrubs observed during the March 2019 survey included eastern cottonwood (*Populus deltoides*), rubber rabbitbrush (*Ericameria nauseosa*), narrowleaf willow (*Salix exigua*), blue spruce (*Picea pungens*), juniper (*Juniperus* sp.), three-leaf sumac (*Rhus trilobata*), honey locust (*Gleditsia triacanthos*), four-wing saltbush (*Atriplex canescens*), and big sagebrush (*Artemisia tridentata*).

Throughout the project study area, Big Dry Creek has experienced urbanization of waterways which includes areas of severe erosion, a modified concrete drop structure and rock riprap modified channel banks. Riparian species included species typical of the Colorado Front Range and include eastern cottonwood, willow (*Salix* spp.), poison hemlock (*Conium maculatum*), cattail (*Typha* sp.), softstem bulrush (*Schoenoplectus tabernaemontani*) water sedge (*Carex aquatilis*), and mountain rush (*Juncus articus*)

## 2.3 Soils

The soil types in the project study area are of one type: Arvada clay loam, 0 to 2 percent slopes, soil map unit. These soils generally occur on terrace landforms and their associated floodplains and were formed through alluvial processes. Arvada clay loam, 0 to 2 percent slopes, soil map unit are formed from clayey alluvium derived from calcareous shale parent material and are well-drained (NRCS, 2019; **Appendix A**).

Arvada clay loam, 0 to 2 percent slopes, soils are not listed on the National Hydric Soil List for Colorado (NRCS, 2014).

### **2.3.1 Hydrology**

Aquatic resources in the project study area drain northeast via Big Dry Creek which converges with the South Platte River approximately 17 aerial miles northeast. The South Platte River flows northeast and converges with the Missouri River in eastern Nebraska and eventually drains into the Mississippi River in eastern Missouri.

## **3 Regulatory Background**

### **3.1 Regulatory Agencies**

Agencies that regulate impacts to the nation's surface water resources within Colorado are the USACE, the U.S. Environmental Protection Agency (USEPA), the Colorado Division of Water Resources, and the Colorado Department of Health and Environment Water Quality Control Division. Waters of the U.S. are protected under Sections 401 and 404. The USACE has the primary regulatory authority for enforcing Section 404 requirements for jurisdictional WOTUS, including wetlands. The USEPA has final authority in jurisdictional determination rulings.

The stated objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 404 of the Act requires the issuance of a permit by the USACE for the release of dredged or fill material into jurisdictional "Waters of the United States."

### **3.2 Definitions**

The Code of Federal Regulations (33 CFR 328.3) defines waters of the U.S. as:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
- All interstate waters including interstate wetlands.
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
  - Which are, or could be, used by interstate or foreign travelers for recreational or other purposes; or
  - From which fish or shellfish are, or could be, taken and sold in interstate or foreign commerce; or
  - Which are used, or could be used, for industrial purposes by industries in interstate commerce.

- All impoundments of waters otherwise defined as waters of the U.S. under the definition.
- Tributaries of waters of the U.S. identified above.
- The territorial seas.
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in the paragraphs above. The term “adjacent” means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by human made dikes or barriers, natural river berms, beach dunes, and the like are “adjacent wetlands.”

### **3.2.1 Streams and Open Waters**

In general, the jurisdictional extent of a stream or open water is defined by the ordinary high water mark (OHWM), which is delineated as the line on the shore/bank established by flowing and/or standing water. It is marked by such characteristics as a clear, natural line impressed on the bank; erosion shelving; changes in the character of soil; destruction of terrestrial vegetation; presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas.

### **3.2.2 Wetlands**

Wetlands can be WOTUS and are defined by 33 CFR 328.3 (b) as areas that are *inundated or saturated by surface or ground water at a frequency and duration sufficient to support—and that under normal circumstances do support—a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.* However, temporarily or seasonally flooded depressions that receive overland storm runoff or overbank floodwaters can meet the three criteria and be considered wetlands. This is often due to the slowly permeable soils that remain inundated or saturated and result in anaerobic, hydric soils after just 12 to 14 consecutive days.

If a wetland is observed in the project study area, wetlands would be determined by the positive indication of three criteria: hydrophytic vegetation, hydrology, and hydric soils. If evidence of the three criteria were found, a Wetland Determination Data Form would be completed on site. Recorded information would include the dominant plant species in each vegetation layer (i.e., tree, sapling/shrub, herbaceous, and vine). The indicator status of each recorded plant species would be determined from the *North American Digital Flora: National Wetland Plant List, version 2.4.0* (Lichvar et al., 2016).

Hydrophytic (wetland) vegetation includes those plants typically adapted for life in saturated soil conditions. Plant indicator status categories include obligate wetland species (OBL), facultative wetland plants (FACW), facultative plants (FAC), facultative upland plants (FACU), or obligate upland plants (UPL). These Indicator Status Categories are defined in **Table 1**. Typically, if more than 50 percent of the dominant species within a sample plot are OBL, FACW, or FAC indicator, the hydrophytic vegetation criteria are satisfied (USACE, 2010).

The determination of wetland hydrology is based on the presence of at least one primary or two secondary indicators of a prolonged hydroperiod (i.e., period of inundation/saturation). Primary



indicators include surface water, high water table, saturation, water marks, sediment deposits, drift deposits, algal mat or crust, iron deposits, inundation visible on aerial imagery, water-stained leaves, aquatic fauna, marl deposits, hydrogen sulfide odor, oxidized rhizospheres along living roots, presence of reduced iron, recent iron reduction in tilled soils, and thin muck surface. Secondary indicators include surface soil cracks, sparsely vegetated concave surface, drainage patterns, moss trim lines, dry-season water table, crayfish burrows, saturation visible on aerial imagery, geomorphic position, shallow aquitard, FAC-neutral test, and sphagnum moss.

**Table 1. Plant Indicator Status Categories (Lichvar et al., 2016)**

Indicator Category	Indicator Symbol	Definition
Obligate Wetland Plants	OBL	Plants that almost always occur (estimated probability >99%) in wetlands under natural conditions, but which may also occur rarely (estimated probability <1%) in non-wetlands.
Facultative Wetland Plants	FACW	Plants that usually occur (estimated probability 67 to 99% in wetlands), but also occur (estimated probability 1 to 33% in non-wetlands).
Facultative Plants	FAC	Plants with a similar likelihood (estimated probability 34 to 66%) of occurring in both wetlands and non-wetlands.
Facultative Upland Plants	FACU	Plants that sometimes occur (estimated probability 1 to <33%) in wetlands, but occur more often (estimated probability 67 to 99%) in non-wetlands.
Obligate Upland Plants	UPL	Plants that rarely occur (estimated probability <1%) in wetlands, but occur almost always (estimated probability >99%) in non-wetlands under natural conditions.
No indicator Status	NI	Insufficient information available to determine indicator status.

Hydric soils are defined as soils that are flooded, ponded, or saturated long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile. The determination of hydric soils is generally based on the presence of indicators of an aquatic moisture regime and hydric conditions. Aquic moisture regimes occur under anaerobic conditions and could develop from continuous saturation for at least 5 percent of the growing season. At least one positive hydric soil indicator at each site is required to classify the soil as hydric. For example, soils in prolonged anaerobic conditions undergo chemical reduction of iron and manganese, thereby producing low-chroma soil colors. Additionally, if reduced iron and manganese in inundated or saturated soil is exposed to oxygen in other areas of the soil ped (e.g., root pores and ped faces), areas of concentrated high-chroma mottles develop that are referred to as redoximorphic features. During a field survey, colors of the soil profile matrix and mottles are identified using Munsell® soil color charts. Additional characteristics of soil profile, texture, color, topography, and field indicators of hydrology are also considered in determining the presence of hydric soil.

## 4 Waters of the U.S. Delineation

### 4.1 Methods

Before field surveys were conducted, the following data sources were reviewed for information on vegetation patterns, topography, drainage, and potential or known wetlands in the project vicinity:

- Aerial Imagery—Recent and historic imagery from 1993 through 2018;
- Topographic map – U.S. Geological Survey (**Appendix A**);
- National Wetlands Inventory data (USFWS, 2019) (**Appendix A**);
- Soils data (NRCS, 2019a and 2019b) (**Appendix A**); and
- General ecological description of the project area (USDA, 2006).

Based on the review of maps, areas potentially containing wetlands and other aquatic resources were evaluated using routine on-site delineation methods. HDR Environmental Scientists Sirena Brownlee and Tara Kent conducted a field delineation on March 11 and 12, 2019, and HDR Professional Wetland Scientist Ryan Hammons on January 20, 2020. The field delineation of potential WOTUS, including wetlands, was conducted in accordance with the *USACE 1987 Wetlands Delineation Manual* (Environmental Laboratory, 1987) and its *Regional Supplement for the Great Plains Region* (USACE, 2010). Spatial data on the extent of aquatic resources, including wetlands, within the proposed project area was collected by HDR using ESRI ArcCollector software accompanied by an EOS Arrow 100 sub-meter bluetooth antennae. Following the collection of spatial data, acres and/or linear feet of aquatic resources were calculated in ArcGIS 10.7.1 for the project study area.

### 4.2 Results

This section summarizes the results of the field delineation for potential jurisdictional WOTUS, including wetlands, within the project study area. Figures showing the general location of the project study area and potential jurisdictional WOTUS within the project study area are located in **Appendix A**. Representative site photographs can be found in **Appendix B**. Representative wetland determination dataforms are provided in **Appendix C**.

Waters of the U.S. within the project study area consist of 17 stream segments, 22 wetlands, and four open waters considered potentially jurisdictional (**Table 2**).

**Table 2. Summary of Waters of the U.S. within the Project Study Area**

Resource ID	Acreage Within Study Area
Streams	1.106
Wetlands	2.109
Open Waters	0.146
<b>Total</b>	<b>3.361</b>

#### 4.2.1 Streams

The project study area includes 17 stream segments totaling 3,639 linear feet (1.099 acres) of perennial and intermittent stream channels (**Table 3**).

**Table 3. Streams within the Project Study Area**

Resource ID	Description	OHWL (ft.)*	Classification	Linear Feet Within Project Study Area	Acreage Within Project Study Area
S-1a	Perennial	16	RPW	109	0.040
S-1b	Perennial	20	RPW	100	0.046
S-1c	Perennial	21	RPW	214	0.104
S-1d	Perennial	15	RPW	62	0.022
S-1e	Perennial	16	RPW	223	0.080
S-1f	Perennial	14	RPW	143	0.048
S-1g	Perennial	15	RPW	65	0.023
S-1h	Perennial	18	RPW	235	0.095
S-1i	Perennial	14	RPW	221	0.070
S-1j	Perennial	30	RPW	131	0.091
S-1k	Perennial	13	RPW	176	0.054
S-1l	Perennial	18	RPW	387	0.159
S-1m	Perennial	17	RPW	102	0.041
S-1n	Perennial	21	RPW	206	0.098
S-2	Intermittent	51	RPW	43	0.050
S-3	Perennial	6	RPW	244	0.036
S-4	Intermittent	2	RPW	978	0.049

<b>Total</b>	-	-	-	<b>3,639</b>	<b>1.106</b>
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\*OHWM: average ordinary high water mark width

\*\*RPW: Relatively permanent water that flows indirectly into a traditional navigable water

Located in the northern portion of the project study area, streams S-1a, S-1b, and S-1c are perennial streams with average OHWMs of 16, 20, and 21 feet, respectively. All are portions of Big Dry Creek as it meanders northeast through the project study area. The riparian corridor consists of willows, eastern cottonwood, poison hemlock, curly dock and Fuller's teasel.

Streams S-1d, S-1e, and S-1f are perennial stream channels with average OHWMs of 15, 16, and 14 feet, respectively. The stream features are also portions of Big Dry Creek as it meanders northeast through project study area. The riparian corridor consists of willows, eastern cottonwood, and Fuller's teasel with some occasional in-stream cattails. The stream segments have very steep banks due to substantive erosion.

Located in the middle portion of the project study area streams S-1g, S-1h, and S-1i are perennial stream segments with an average OHWMs of 15, 18, and 14 feet, respectively. As with the other stream features before, these 3 segments are portions of Big Dry Creek as it meanders northeast through project study area. The riparian corridor consists of willows and eastern cottonwood.

Located in the southern portion of the project study area, perennial streams S-1j, S-1k, S-1l, S-1m, and S-1n are segments of Big Dry Creek. The riparian corridor consists of willows and eastern cottonwood. Streams S-1j, S-1k, S-1l, S-1m, and S-1n are perennial stream segments with an average OHWMs of 30, 13, 18, 17, and 21 feet, respectively. The stream segments have very steep banks due to substantive erosion.

Stream S-2 is an intermittent stream channel in the northern portion of the project study area. Stream S-2 is also known as Airport Creek, a tributary of Big Dry Creek. Stream S-2 is lined with concrete as it drops in elevation and converges with Big Dry Creek. Stream S-2 has an average OHWM of 51 feet. The riparian corridor consists of willows and abutting wetlands with cattails and bulrush.

Stream S-3 is a perennial stream in the southern portion of the project study area. Stream S-3 is also known as Hylands Creek, a tributary of Big Dry Creek. Stream S-3 flows northwest into the project study area where it converges with Big Dry Creek, and has an average OHWM of 6 feet. The riparian corridor consists of mainly of willows.

Stream S-4 is a relatively narrow intermittent stream, flowing northwest into Big Dry Creek. Within the study area, the stream outlets from a culvert under Sheridan Boulevard. The gentle slope of the landscape allows for wetland hydrology for abutting wetlands. Riparian vegetation includes narrowleaf willow, peachleaf willow (*Salix amygdaloides*), eastern cottonwood, and cattail.

#### 4.2.2 Wetlands

The project study area contains 22 non-forested wetlands considered to be potential WOTUS and total 2.109 acres (**Table 4**).

<b>Table 4. Wetlands within the Project Study Area</b>			
<b>Resource ID</b>	<b>Description<sup>*</sup></b>	<b>Classification<sup>**</sup></b>	<b>Acreage Within Study Area<sup>†</sup></b>
W-1	scrub-shrub	Adjacent	0.016
W-2	scrub-shrub	Abutting	0.003
W-3	emergent	Abutting	0.090
W-4	emergent	Abutting	0.528
W-5	scrub-shrub	Abutting	0.184
W-6	scrub-shrub	Abutting	0.022
W-7	scrub-shrub	Adjacent	0.105
W-8	emergent	Adjacent	0.012
W-9	emergent	Adjacent	0.125
W-10	scrub-shrub	Abutting	0.042
W-11	scrub-shrub	Abutting	0.064
W-12	emergent	Abutting	0.057
W-13	scrub-shrub	Abutting	0.061
W-14	scrub-shrub	Abutting	0.124
W-15	scrub-shrub	Abutting	0.074
W-16	emergent	Adjacent	0.010
W-17	emergent	Abutting	0.034
W-18	scrub-shrub	Abutting	0.028
W-19	emergent	Abutting	0.069
W-20	scrub-shrub	Abutting	0.126
W-21	emergent	Abutting	0.314
W-22	emergent	Abutting	0.021
<b>Total</b>	<b>-</b>	<b>-</b>	<b>2.109</b>

<sup>\*</sup>Class structure under Cowardin classification system (Cowardin et al. 1979)

<sup>\*\*</sup>RPW: Relatively permanent water that flows indirectly into traditional navigable water;

Adjacent: Wetland adjacent to a relatively permanent water

Abutting: Wetland abutting a relatively permanent water.

Scrub-shrub Wetlands W-1 and W-2 are located in the northern portion of the project study area. Species within W-1 include mountain rush and willow. Within the project study area, wetlands W-1 and W-2 are 0.016 and 0.003 acre in size. The wetlands are represented by wetland determination dataforms DP-1 and DP-2.

Emergent wetland W-3 is located in the northern portion of the project study area. The wetland is dominated by softstem bulrush and is a product of hydrology from Airport Creek, a tributary of Big Dry Creek, located approximately 250 feet east of the project study area boundary. Within the project study area, W-3 is 0.090 acre in size. The wetland is represented by wetland determination dataforms DP-6 and DP-7.

Wetland W-4 is located in the northern portion of the project study area. The wetland is a product of hydrology from Airport Creek, a tributary of Big Dry Creek as it flows east into the project study area. The wetland is dominated by cattails and represented by wetland determination dataforms DP-4 and DP-7. Within the project study area, W-4 is 0.528 acre in size.

Scrub-shrub wetlands W-5 and W-6 are located in the middle portion of the project study area. Within the project study area, W-5 and W-6 are 0.184 and 0.022 acre in size. The wetlands are dominated by willows, water sedge, and mountain rush and are represented by wetland determination dataforms DP-8 and DP-9.

Scrub-shrub wetland W-7 is located in the middle portion of the project study area. Wetland W-7 appears to be overflow for open water OW-4, eventually flowing west to Big Dry Creek during high precipitation events. The wetland is dominated by willows and represented by wetland determination dataforms DP-3 and DP-7. Within the project study area, W-7 is 0.105 acre in size.

Emergent wetland W-8 is a depressional wetland located in the middle portion of the project study area. The wetland is dominated by softstem bulrush and represented by wetland determination dataforms DP-6 and DP-7. Within the project study area, W-8 is 0.012 acre in size.

Wetland W-9 is located in the middle portion of the project study area. This wetland is dominated by cattails and is represented by wetland determination dataforms DP-2 and DP-4. Within the study area, W-9 is 0.125 acre in size.

Wetland W-10, W-11, and W-15 are scrub-shrub wetlands located in the southern portion of the study area. These wetlands are dominated by willow and are represented by wetland determination dataforms DP-2 and DP-3. Within the project study area, W-10, W-11, and W-15 are 0.042, 0.064, and 0.074 acre in size.

Wetland W-12 is located in the southern portion of the project study area. Wetland W-12 abuts Big Dry Creek and is dominated by cattails. Wetland W-12 is represented by wetland determination dataforms DP-2 and DP-4. Within the study area, W-12 is 0.057 acre in size.

Scrub-shrub wetlands W-13 and W-14 are located in the southern portion of the project study area. These wetlands are dominated by willow and abut Big Dry Creek near the 104<sup>th</sup> Avenue bridge. Wetlands W-13 and W-14 are represented by wetland determination dataforms DP-2 and DP-3. Within the project study area, wetlands W-12 and W-14 are 0.057 and 0.124 acre in size, respectively.

Emergent wetlands W-16 and W-17 are located in the southern portion of the project study area. Wetland W-16 is abutting Big Dry Creek while wetland W-17 appears to be the result of impervious surface drainage west of the project study area. Wetlands W-16 and W-17 are dominated by mountain rush and contain willow, cattails, and Fuller's teasel. The wetlands are represented by wetland determination dataforms DP-1 and DP-2. Within the project study area, wetlands W-16 and W-17 are 0.010 and 0.034 acre in size, respectively.

Palustrine shrub-scrub wetlands W-18 and W-20 are located in the eastern portion of the project study area. These wetlands abut an unnamed drainage to Big Dry Creek. Wetlands W-18 and W-20 are dominated by coyote willow and poison hemlock. Wetlands W-18 and W-20 are represented by wetland determination dataforms DP-10 and DP-11. Within the project study area, wetlands W-18 and W-20 are 0.028 and 0.126 acre in size, respectively.

Emergent wetlands W-19, W-21, and W-22 are located in the northeastern portion of the project study area. These wetlands abut an unnamed drainage of Big Dry Creek and other scrub-shrub wetlands (W-18 and W-20). Wetland W-19, W-21, and W-22 are dominated by cattails and are represented by wetland dataforms DP-11 and DP-12. Within the project study area, wetlands W-19, W-21, and W-22 are 0.069, 0.314, and 0.021 acre in size, respectively.

#### **4.2.3 Open Waters**

The project study area contains four open water features considered potentially jurisdictional (**Table 5**).

Located in the northern portion of the project study area, open water OW-1 is a stagnant to low-flow area of stream S-2 as it converges with stream S-1c. Riparian vegetation includes willow and softstem bulrush. Within the project study area, open water OW-1 is 0.027 acre in size. Because of its connectivity to Big Dry Creek, open water OW-1 is considered potentially jurisdictional.

Located in the middle portion of the project study area, open waters OW-2 and OW-3 are back water sloughs and receive hydrology from Big Dry Creek to the west. Riparian vegetation observed during the March 2019 survey included willow, softstem bulrush, water sedge, and mountain rush. Because of its connectivity to Big Dry Creek, open waters OW-2 and OW-3 are considered potentially jurisdictional. Within the project study area, open water OW-2 and OW-3 are 0.078 and 0.027 acre in size.

Open water OW-4 is also known as City Park Pond. Riparian vegetation included peachleaf willow and grasses. Because of its connectivity to Big Dry Creek, open water OW-4 is considered potentially jurisdictional. Within the project study area, open water OW-4 is 0.014 acre in size.

**Table 5. Open Waters within the Project Study Area**

<b>Resource ID</b>	<b>Description*</b>	<b>Acreage Within Project Study Area</b>
OW-1	Abutting	0.027
OW-2	Abutting	0.078
OW-3	Abutting	0.027
OW-4	Adjacent	0.014
<b>Total</b>	<b>-</b>	<b>0.146</b>

\*Adjacent: Wetland or Open Water adjacent to a relatively permanent water  
Abutting: Wetland abutting a relatively permanent water.

## 5 Conclusions and Recommendations

Based on this delineation and review of potential WOTUS, including wetlands, the approximate 34-acre project study area contains 17 stream segments, totaling 3,639 linear feet (1.106 acres), 22 wetlands totaling 2.109 acres, and four open water features totaling 0.146 acre.

### 5.1 Regulatory and Permitting Discussion

This delineation of potential WOTUS in the Project's study area are based on the best professional judgment of HDR's team of wetland delineators who have experience with similar resources in the region. However, it does not constitute an Approved Jurisdictional Determination, which can only be officially rendered by the USACE Omaha District Regulatory Branch and the USEPA through the formal review process. HDR recommends that City of Westminster coordinate with the USACE, Omaha District Regulatory Branch if impacts to features identified as potential WOTUS would result from the proposed project.

### 5.2 Other Clean Water Act Permitting Requirements

Section 401 of the CWA requires that projects permitted under Section 404 permits meet conditions to ensure water quality protection during and following placement of fill into WOTUS (e.g., construction activities). Within Colorado, the Colorado Department of Public Health and Environment administers the Section 401 water quality certification program.

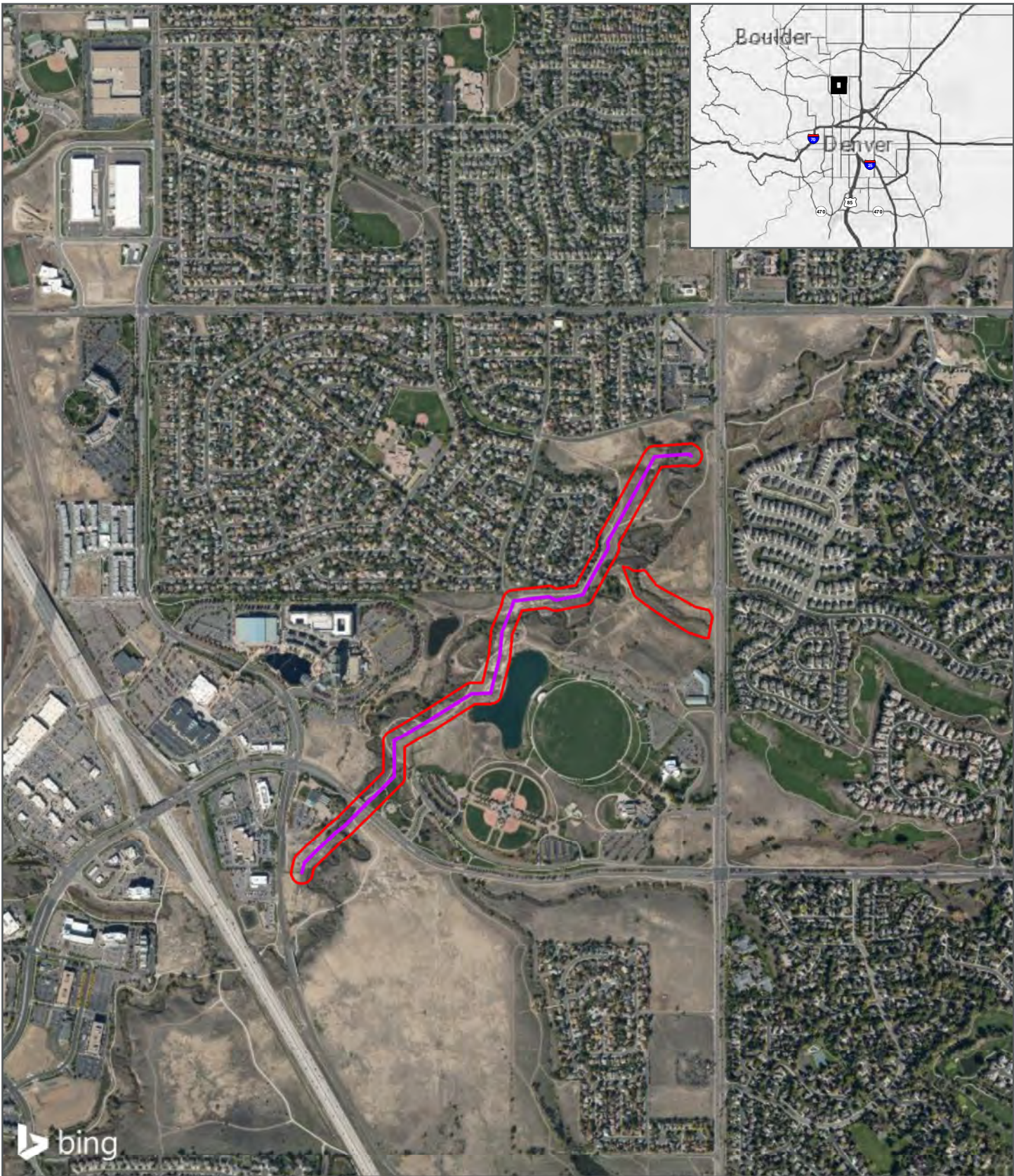


## 6 References

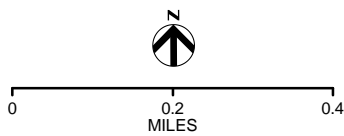
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## **Appendix A. Figures**



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LEGEND

- PROPOSED ALIGNMENT
- STUDY AREA

**GENERAL LOCATION**

BIG DRY CREEK INTERCEPTOR  
SEWER IMPROVEMENTS (BDCIS)

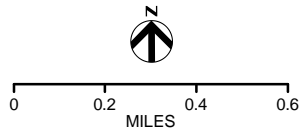
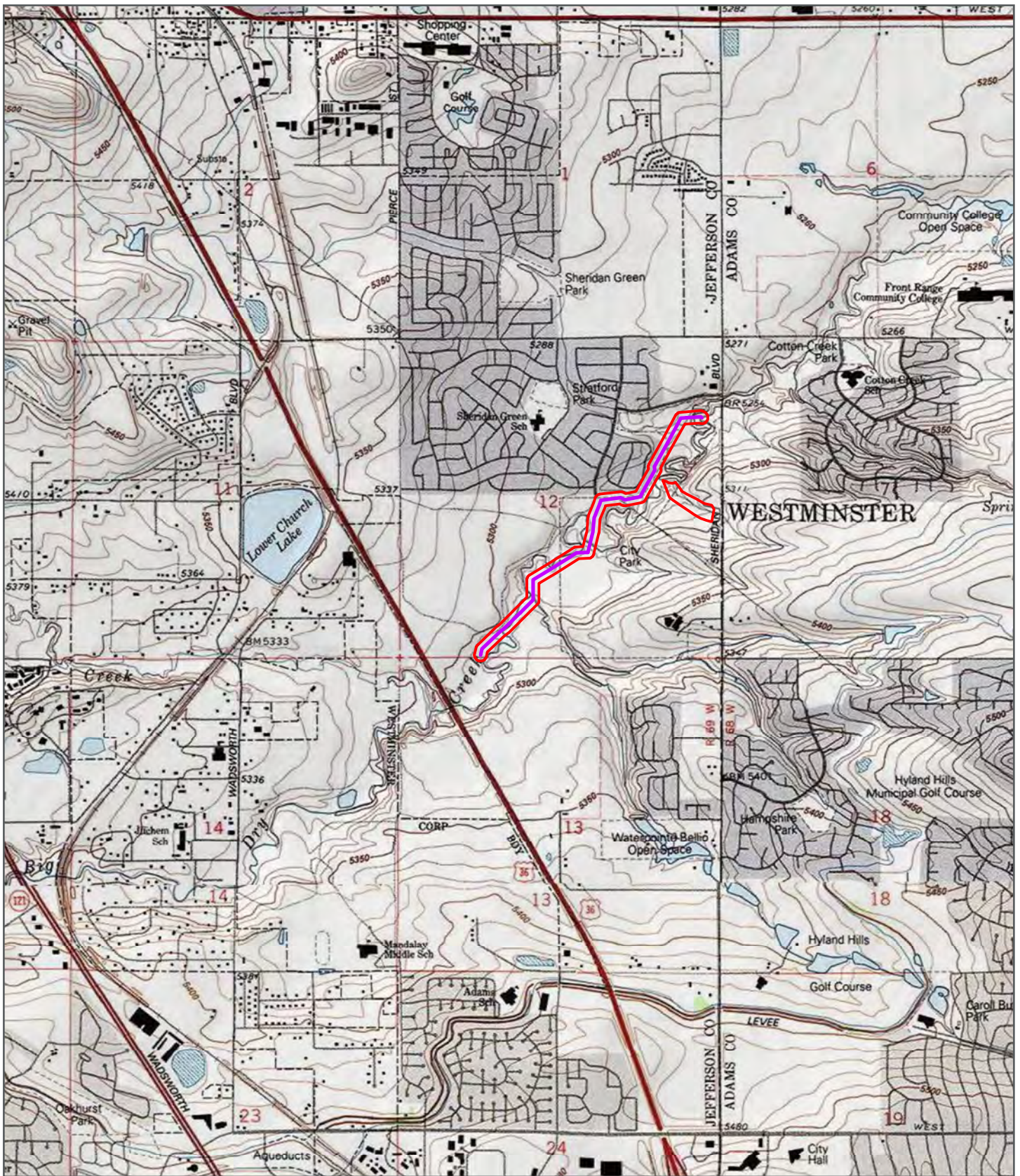
WESTMINSTER, COLORADO



APRIL 2019

FIGURE 1





- LEGEND**
- PROPOSED ALIGNMENT
  - STUDY AREA

**GENERAL LOCATION  
(USGS TOPO)**

BIG DRY CREEK INTERCEPTOR  
SEWER IMPROVEMENTS (BDCIS)

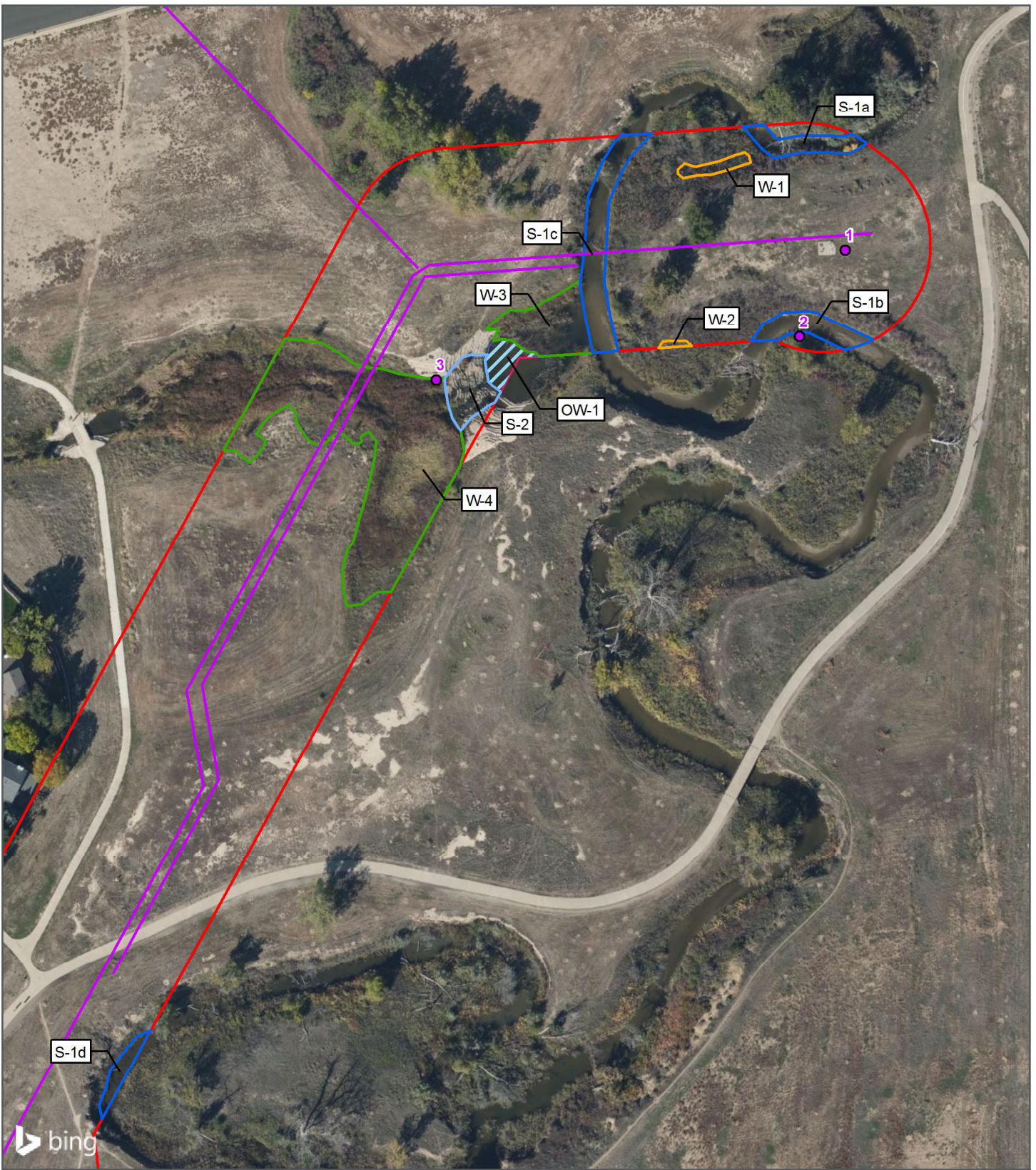
WESTMINSTER, COLORADO



APRIL 2019

FIGURE 2





**WATERS OF THE U.S. OVERVIEW**  
**BIG DRY CREEK INTERCEPTOR**  
**SEWER IMPROVEMENTS**  
 WESTMINSTER, COLORADO

0 100 FEET 200

**WESTMINSTER**  
 COLORADO

**HDR**

LEGEND

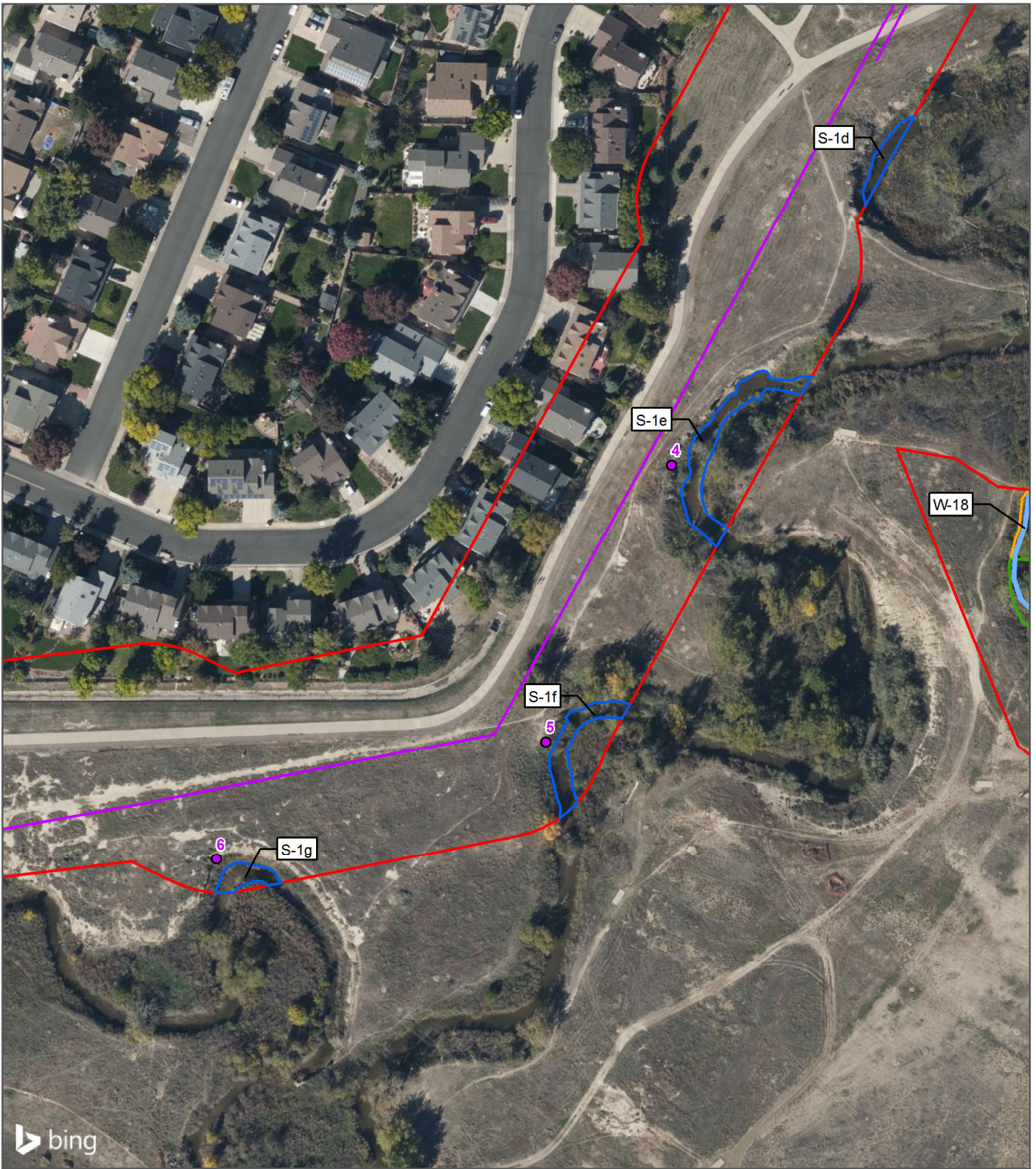
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PERENNIAL STREAM	PROPOSED ALIGNEMENT
EMERGENT WETLAND	WETLAND DATAPPOINT
SCRUB-SHRUB WETLAND	STUDY AREA
OPEN WATER	

AERIAL FLYOVER DATE: OCTOBER 2017

JAN 2020

PAGE 1 OF 6





**WATERS OF THE U.S. OVERVIEW**  
**BIG DRY CREEK INTERCEPTOR**  
**SEWER IMPROVEMENTS**  
 WESTMINSTER, COLORADO

0 100 FEET 200

WESTMINSTER COLORADO

**HDR**

LEGEND

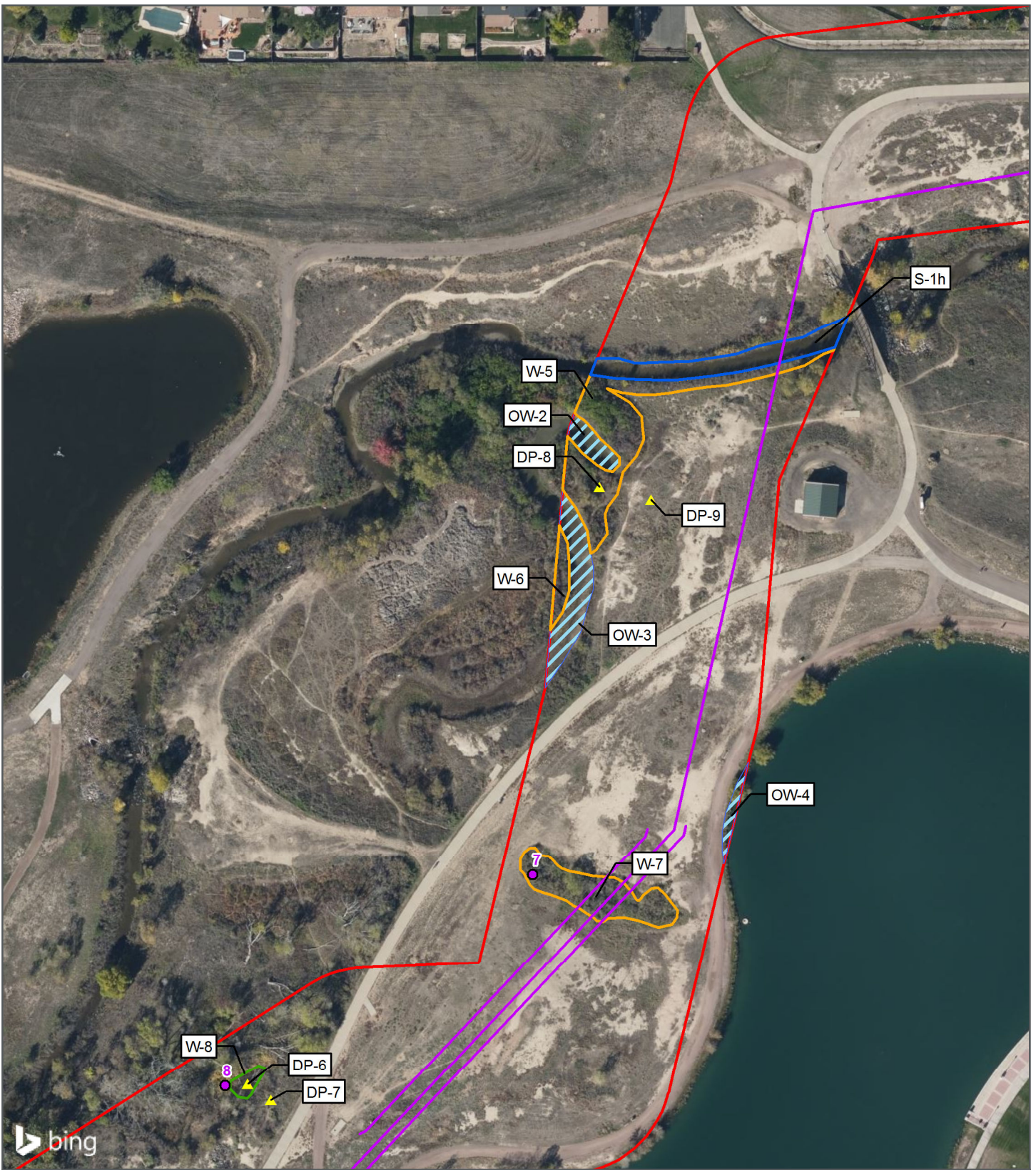
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PERENNIAL STREAM	PROPOSED ALIGNEMENT
EMERGENT WETLAND	WETLAND DATAPOINT
SCRUB-SHRUB WETLAND	STUDY AREA
OPEN WATER	

AERIAL FLYOVER DATE: OCTOBER 2017

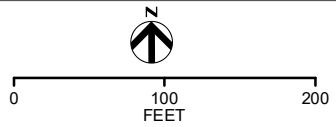
JAN 2020

PAGE 2 OF 6

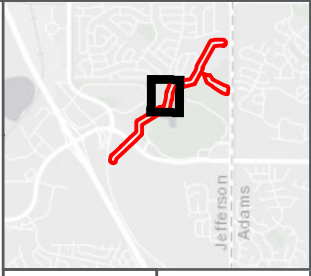




**WATERS OF THE U.S. OVERVIEW**  
**BIG DRY CREEK INTERCEPTOR**  
**SEWER IMPROVEMENTS**  
 WESTMINSTER, COLORADO



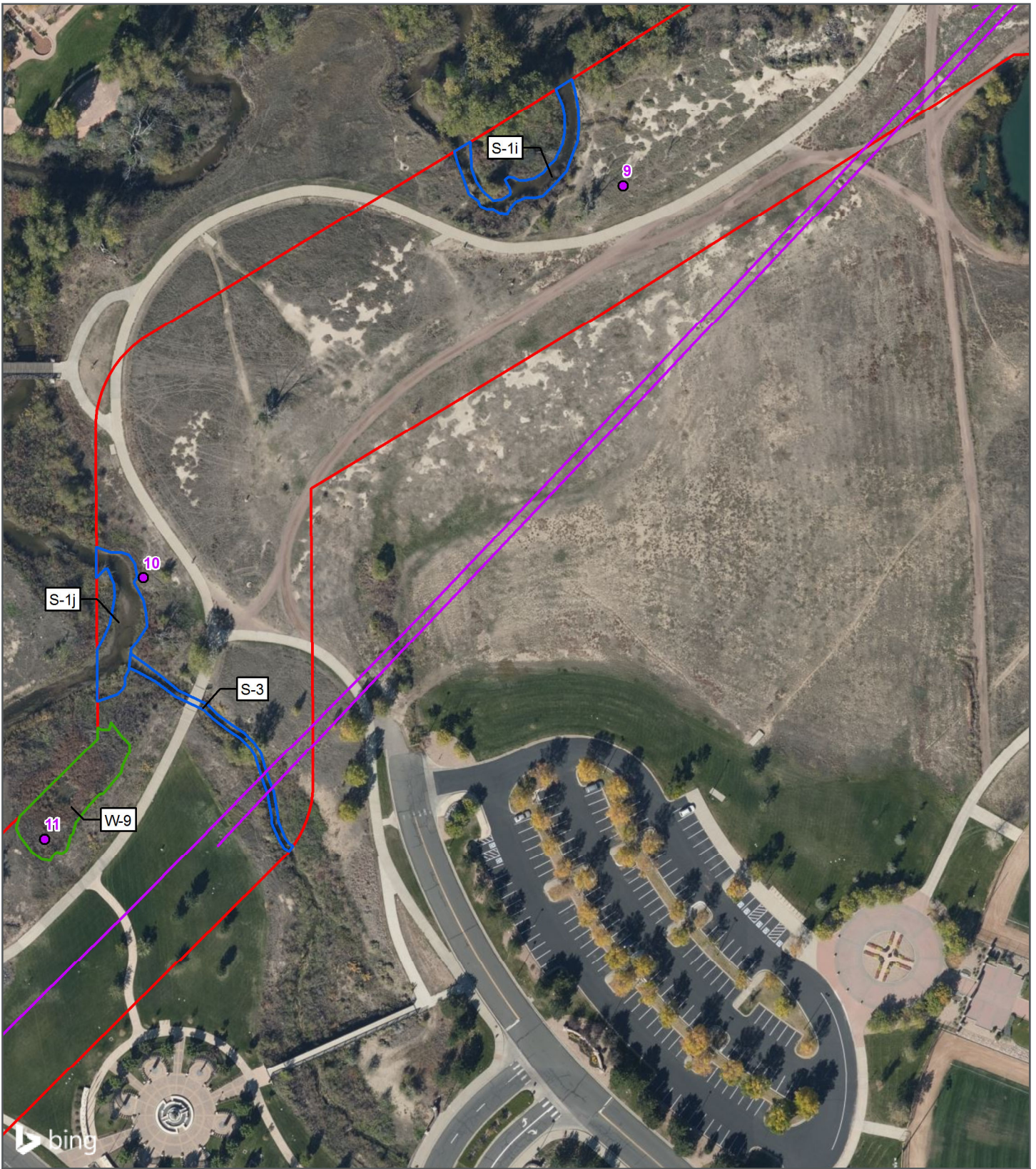
LEGEND	
WATERS OF THE U.S.	NOT WATERS OF THE U.S.
INTERMITTENT STREAM	ACCESS AND STAGING
PERENNIAL STREAM	PROPOSED ALIGNEMENT
EMERGENT WETLAND	WETLAND DATAPOINT
SCRUB-SHRUB WETLAND	STUDY AREA
OPEN WATER	



AERIAL FLYOVER DATE: OCTOBER 2017

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**WATERS OF THE U.S. OVERVIEW**  
**BIG DRY CREEK INTERCEPTOR**  
**SEWER IMPROVEMENTS**  
 WESTMINSTER, COLORADO

0 100 FEET 200

WESTMINSTER COLORADO

**HDR**

LEGEND

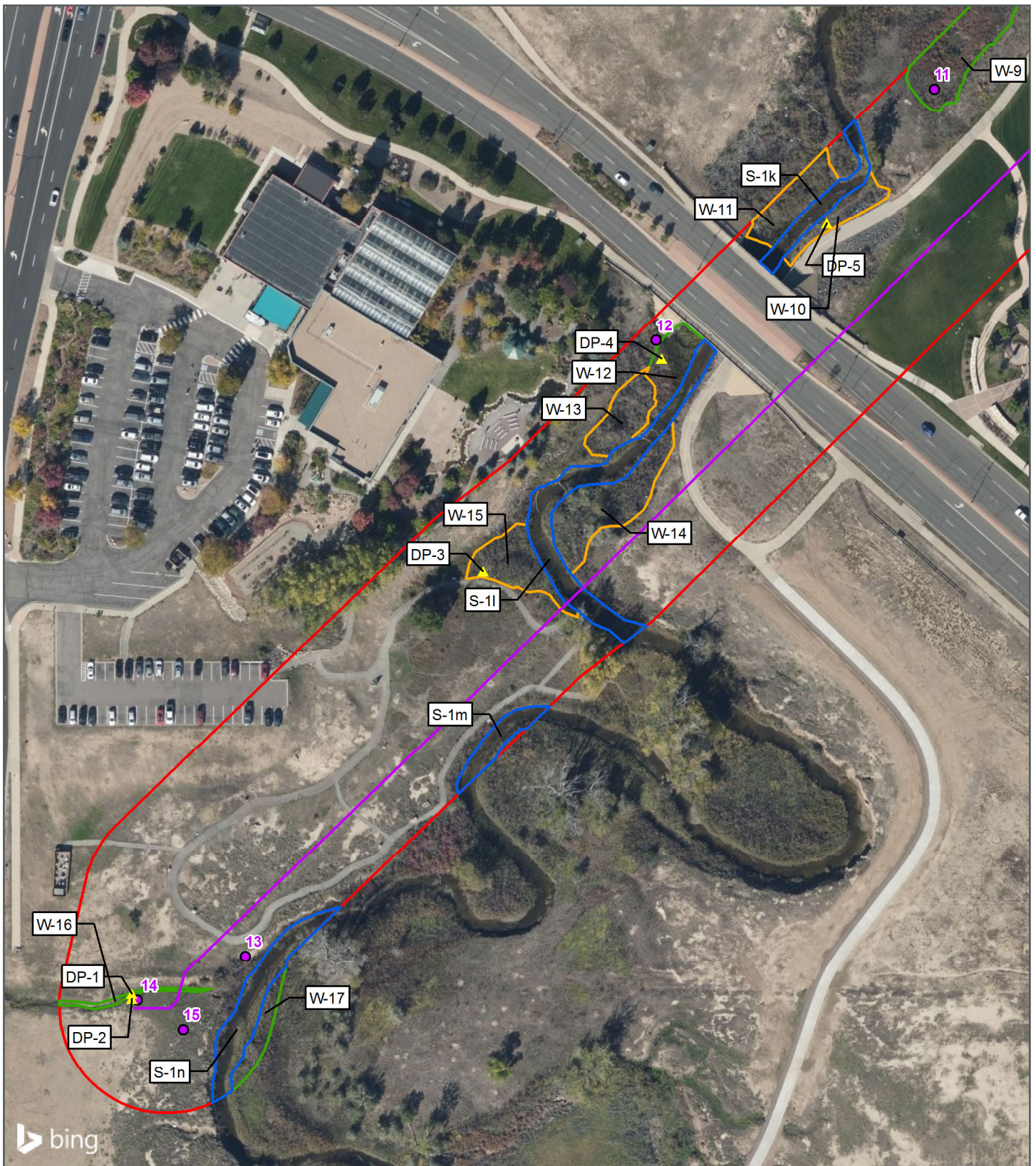
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PERENNIAL STREAM	PROPOSED ALIGNEMENT
EMERGENT WETLAND	WETLAND DATAPOINT
SCRUB-SHRUB WETLAND	STUDY AREA
OPEN WATER	

AERIAL FLYOVER DATE: OCTOBER 2017

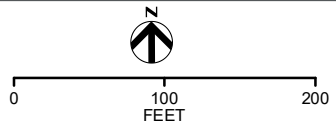
JAN 2020

PAGE 4 OF 6





**WATERS OF THE U.S. OVERVIEW**  
**BIG DRY CREEK INTERCEPTOR**  
**SEWER IMPROVEMENTS**  
 WESTMINSTER, COLORADO



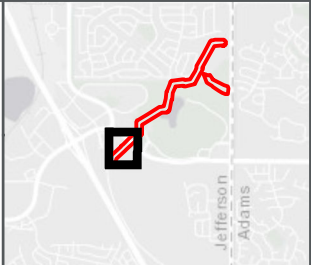
LEGEND

**WATERS OF THE U.S.**

- ▭ INTERMITTENT STREAM
- ▭ PERENNIAL STREAM
- ▭ EMERGENT WETLAND
- ▭ SCRUB-SHRUB WETLAND
- ▭ OPEN WATER

**NOT WATERS OF THE U.S.**

- ▬ ACCESS AND STAGING
- ▬ PROPOSED ALIGNEMENT
- ▲ WETLAND DATAPOINT
- ▭ STUDY AREA

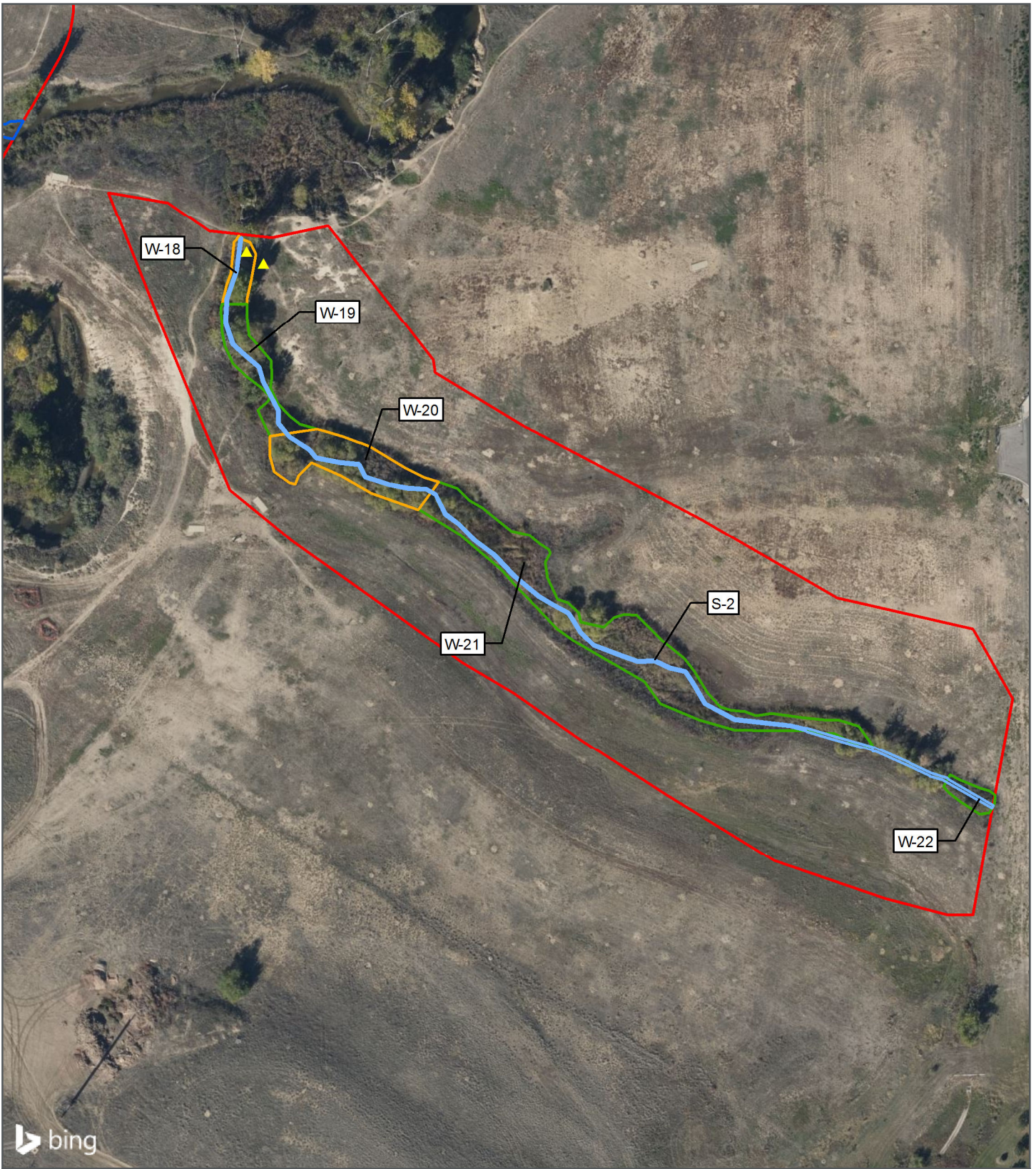


AERIAL FLYOVER DATE: OCTOBER 2017

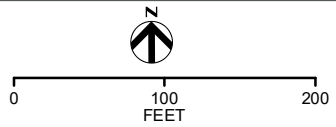
JAN 2020

PAGE 5 OF 6

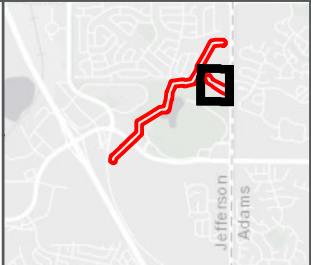




**WATERS OF THE U.S. OVERVIEW**  
**BIG DRY CREEK INTERCEPTOR**  
**SEWER IMPROVEMENTS**  
 WESTMINSTER, COLORADO



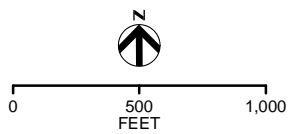
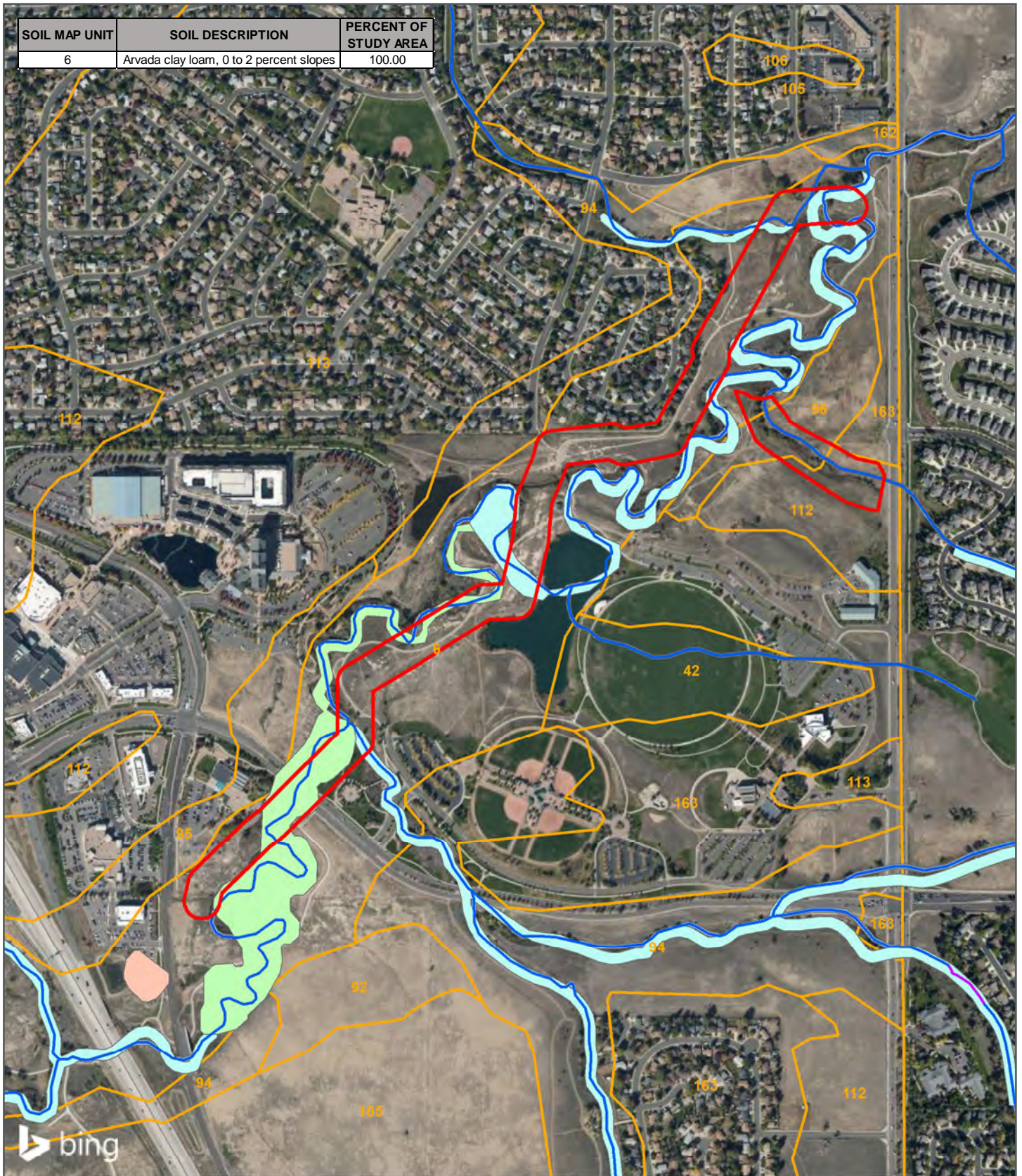
- LEGEND
- |                           |                               |
|---------------------------|-------------------------------|
| <b>WATERS OF THE U.S.</b> | <b>NOT WATERS OF THE U.S.</b> |
| INTERMITTENT STREAM       | ACCESS AND STAGING            |
| PERENNIAL STREAM          | PROPOSED ALIGNEMENT           |
| EMERGENT WETLAND          | WETLAND DATAPPOINT            |
| SCRUB-SHRUB WETLAND       | STUDY AREA                    |
| OPEN WATER                |                               |



AERIAL FLYOVER DATE: OCTOBER 2017



SOIL MAP UNIT	SOIL DESCRIPTION	PERCENT OF STUDY AREA
6	Arvada clay loam, 0 to 2 percent slopes	100.00



**LEGEND**

- STUDY AREA
- SOILS (NRCS)
- STREAM (NHD)**
- ArtificialPath
- StreamRiver
- WETLAND TYPE (NWI)**
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

AERIAL FLYOVER DATE: OCTOBER 2017

**NRCS SOILS, NWI, NHD**

BIG DRY CREEK INTERCEPTOR  
SEWER IMPROVEMENTS (BDCIS)

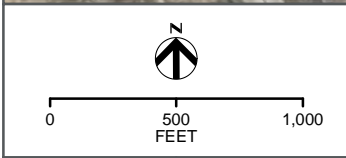
WESTMINSTER, COLORADO



APRIL 2019

FIGURE 4





LEGEND

- STUDY AREA
- 100-YEAR FLOODPLAIN



AERIAL FLYOVER DATE: OCTOBER 2017

**FEMA NATIONAL FLOOD HAZARD**

BIG DRY CREEK INTERCEPTOR  
SEWER IMPROVEMENTS (BDCIS)  
WESTMINSTER, COLORADO

APRIL 2019

FIGURE 5

## **Appendix B. Representative Site Photographs**





**Photo 1.** Looking west at the northern terminus of the BDCIS project. Note the sign reads “City of Westminster Utility Facility Interceptor Diversion Structure #1.”



**Photo 2.** Looking west (upstream) at stream S-1b in the northern portion of the project study area. Note the large amounts of riprap stabilizing the northern bank of the creek.



**Photo 3.** Looking west at emergent wetland W-4. Note the monotypic stand of cattails (*Typha* sp.).



**Photo 4.** Looking east at stream S-1e in the northern portion of the project study area.



**Photo 5.** Looking south (upstream) at stream S-1f as it meanders northeast in the middle portion of the project study area.



**Photo 6.** Looking north-northwest at stream S-1g in the middle portion of the project study area. Note the large amount of stream bank erosion and slumping occurring on the northern bank.





**Photo 7.** Looking east at scrub-shrub wetland W-7 in the middle portion of the project study area.



**Photo 8.** Looking east at depressional emergent wetland W-8 in the middle portion of the project study area.



**Photo 9.** Looking northeast in the middle portion of the project study area. Note the extent of upland shrub rubber rabbitbrush (*Ericameria nauseosa*).



**Photo 10.** Looking south at stream S-1j in the southern portion of the project study area. Note the large amount of stream bank erosion and slumping occurring on the stream bank in the background.



**Photo 11.** Looking northeast at cattail wetland W-9 in the southern portion of the project study area. The depressional wetland is dominated by cattails.



**Photo 12.** Looking southeast at emergent wetland W-12 in the southern portion of the project study area. The wetland abuts Big Dry Creek near the 104th Avenue bridge crossing.





**Photo 13.** Looking northeast at stream S-1n in the southern portion of the project study area. Note the large amount of stream bank erosion and slumping occurring on the stream bank along the western bank (left).



**Photo 14.** Looking east at wetland W-16 in the southern portion of the project study area.



**Photo 15.** Looking north at the southern terminus of the BDCIS project. Note the manhole cover to the sewer interceptor lines.



**Photo 16.** Looking south at wetland W-18 in the northeastern portion of the project study area.



**Photo 17.** Looking southwest at wetland W-20 in the northeastern portion of the project study area. Wetland W-19 is adjacent and on the right, dominated by cattails.



**Photo 18.** Looking east at wetland W-21 in the northeastern portion of the project study area.



**Photo 19.** Looking west at emergent wetland W-22 on the left, uplands on the right.

## **Appendix C. Wetland Determination Dataforms**



## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Westminster BDCIS City/County: Jefferson County Sampling Date: 11 March 2019  
 Applicant/Owner: City of Westminster State: CO Sampling Point: DP-1  
 Investigator(s): Sirena Brownlee and Tara Kent Section, Township, Range: Section 12, T2S R69W  
 Landform (hillslope, terrace, etc.): depression/drainage Local relief (concave, convex, none): concave Slope (%): 0-1  
 Subregion (LRR): G- Western Great Plains Range & Irrigated Lat: 39.8853879614 Long: -105.067180854 Datum: NAD83  
 Soil Map Unit Name: Arvada clay loam, 0 to 2 percent slopes NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland is thin drainage strip, draining imperious area to the west. WETS Table showed wetter conditions than normal.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				
1. <u>Salix exigua</u>	<u>35</u>	<u>yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
35 = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )				
1. <u>Juncus balticus</u>	<u>40</u>	<u>yes</u>	<u>FACW</u>	
2. <u>Typha latifolia</u>	<u>10</u>	<u>no</u>	<u>OBL</u>	
3. <u>Dipsacus fullonum</u>	<u>5</u>	<u>no</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
55 = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum <u>20</u>				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)  
 Total Number of Dominant Species Across All Strata: 2 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
 OBL species 10 x 1 = 10  
 FACW species 75 x 2 = 150  
 FAC species 0 x 3 = 0  
 FACU species 5 x 4 = 20  
 UPL species 0 x 5 = 0  
 Column Totals: 90 (A) 180 (B)  
 Prevalence Index = B/A = 2.0

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is >50%  
 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes  No

Remarks:

**SOIL**

Sampling Point: DP-1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/1	100					sandy-clay	organics
2-3	10YR 4/2	50					sand	fill materials
3-6	10 YR 6/2	50					sand	fill materials

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
  - Coast Prairie Redox (A16) (LRR F, G, H)
  - Dark Surface (S7) (LRR G)
  - High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
  - Reduced Vertic (F18)
  - Red Parent Material (TF2)
  - Very Shallow Dark Surface (TF12)
  - Other (Explain in Remarks)
- <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: fill material  
 Depth (inches): 6

Hydric Soil Present? Yes  No

Remarks:

Somewhat frozen soils and fill materials throughout profile

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

Wetland Hydrology Present? Yes  No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Passed FAC Neutral Test 2:0



## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Westminster BDCIS City/County: Jefferson County Sampling Date: 11 March 2019  
 Applicant/Owner: City of Westminster State: CO Sampling Point: DP-2  
 Investigator(s): Sirena Brownlee and Tara Kent Section, Township, Range: Section 12, T2S R69W  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 0-1  
 Subregion (LRR): G- Western Great Plains Range & Irrigated Lat: 39.8853744488 Long: -105.06718112 Datum: NAD83  
 Soil Map Unit Name: Arvada clay loam, 0 to 2 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point is south of wetland datapoint. WETS Table showed wetter conditions than normal.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>Ericameria nauseosa</u>	<u>35</u>	<u>yes</u>	<u>UPL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
<u>35</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Typha latifolia</u>	_____	<u>yes</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>65</u>				

Remarks:

remnants of last year's vegetation present.

**SOIL**

Sampling Point: DP-2

<b>Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)</b>								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 4/2	100					clay	
4-6	10YR 5/4	50					sandy-clay	
	10YR 4/2	50						
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.								
<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR I, J</b> )		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Coast Prairie Redox (A16) ( <b>LRR F, G, H</b> )		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Dark Surface (S7) ( <b>LRR G</b> )		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1)			<input type="checkbox"/> High Plains Depressions (F16)		
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR F</b> )			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<b>(LRR H outside of MLRA 72 &amp; 73)</b>		
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR F, G, H</b> )			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) ( <b>LRR G, H</b> )			<input type="checkbox"/> High Plains Depressions (F16)	<b>(MLRA 72 &amp; 73 of LRR H)</b>		<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) ( <b>LRR F</b> )								
<b>Restrictive Layer (if present):</b>								
Type: <u>mixed/fill material and frozen soils</u>								
Depth (inches): <u>6</u>						<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks:								

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>					
<u>Primary Indicators (minimum of one required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)			<input type="checkbox"/> Salt Crust (B11)		
<input type="checkbox"/> High Water Table (A2)			<input type="checkbox"/> Aquatic Invertebrates (B13)		
<input type="checkbox"/> Saturation (A3)			<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		
<input type="checkbox"/> Water Marks (B1)			<input type="checkbox"/> Dry-Season Water Table (C2)		
<input type="checkbox"/> Sediment Deposits (B2)			<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<b>(where tilled)</b>	
<input type="checkbox"/> Drift Deposits (B3)			<b>(where not tilled)</b>		
<input type="checkbox"/> Algal Mat or Crust (B4)			<input type="checkbox"/> Presence of Reduced Iron (C4)		
<input type="checkbox"/> Iron Deposits (B5)			<input type="checkbox"/> Thin Muck Surface (C7)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Water-Stained Leaves (B9)			<input type="checkbox"/> Frost-Heave Hummocks (D7) ( <b>LRR F</b> )		
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					
Failed FAC Neutral Test 0:1					

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Westminster BDCIS City/County: Jefferson County Sampling Date: 11 March 2019  
 Applicant/Owner: City of Westminster State: CO Sampling Point: DP-3  
 Investigator(s): Sirena Brownlee and Tara Kent Section, Township, Range: Section 12, T2S R69W  
 Landform (hillslope, terrace, etc.): toeslope Local relief (concave, convex, none): none Slope (%): 0-2  
 Subregion (LRR): G- Western Great Plains Range & Irrigated Lat: 39.8864652387 Long: -105.066008863 Datum: NAD83  
 Soil Map Unit Name: Arvada clay loam, 0 to 2 percent slopes NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland is downslope from the Butterfly Pavilion and its parking lot. Wetland begins just west of culvert mouth. WETS Table showed wetter conditions than normal.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
0 = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of:</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>65</u></td> <td>x 2 = <u>130</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>14</u></td> <td>x 4 = <u>56</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>84</u> (A)</td> <td><u>                    </u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.40</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>65</u>	x 2 = <u>130</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>14</u>	x 4 = <u>56</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>84</u> (A)	<u>                    </u> (B)	Prevalence Index = B/A = <u>2.40</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>65</u>	x 2 = <u>130</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>14</u>	x 4 = <u>56</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>84</u> (A)	<u>                    </u> (B)																			
Prevalence Index = B/A = <u>2.40</u>																				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																				
1. <u>Salix exigua</u>	<u>65</u>	<u>yes</u>	<u>FACW</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
65 = Total Cover																				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																				
1. <u>Dipsacus fullonum</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>																	
2. <u>Asclepias speciosa</u>	<u>5</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Nepeta cataria</u>	<u>2</u>	<u>no</u>	<u>FACU</u>																	
4. <u>Glycyrrhiza lepidota</u>	<u>2</u>	<u>no</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
19 = Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
0 = Total Cover																				
% Bare Ground in Herb Stratum <u>10</u>																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

Remarks:

**SOIL**

Sampling Point: DP-3

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/4	100					Loamy-clay	
2-6	10YR 3/2	100					Loamy-clay	
6-9	10 YR 3/2	90	10YR 5/8	10	C	M	clay-sand-silt	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16)
- (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: fill material  
 Depth (inches): 6

Hydric Soil Present? Yes  No

Remarks:

Riprap throughout the wetland.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

Wetland Hydrology Present? Yes  No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Failed FAC Neutral Test 1:1

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: Westminster BDCIS City/County: Jefferson County Sampling Date: 11 March 2019  
 Applicant/Owner: City of Westminster State: CO Sampling Point: DP-4  
 Investigator(s): Sirena Brownlee and Tara Kent Section, Township, Range: Section 12, T2S R69W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1  
 Subregion (LRR): G- Western Great Plains Range & Irrigated Lat: 39.8870056661 Long: -105.065412239 Datum: NAD83  
 Soil Map Unit Name: Arvada clay loam, 0 to 2 percent slopes NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland is abutting creek, southwest of the 104th avenue bridge WETS Table showed wetter conditions than normal.	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0 = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Typha sp.</u>	<u>98</u>	<u>yes</u>	<u>OBL</u>	
2. <u>Rumex crispus</u>	<u>2</u>	<u>no</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
100 = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)  
 Total Number of Dominant Species Across All Strata: 1 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: 98 Multiply by: \_\_\_\_\_  
 OBL species 98 x 1 = 98  
 FACW species 0 x 2 = 0  
 FAC species 2 x 3 = 6  
 FACU species 0 x 4 = 0  
 UPL species 0 x 5 = 0  
 Column Totals: 100 (A) 104 (B)  
 Prevalence Index = B/A = 1.04

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is >50%  
 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes  No

Remarks:  
**Typha is remnants from last year's growth.**



## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Westminster BDCIS City/County: Jefferson County Sampling Date: 11 March 2019  
 Applicant/Owner: City of Westminster State: CO Sampling Point: DP-5  
 Investigator(s): Sirena Brownlee and Tara Kent Section, Township, Range: Section 12, T2S R69W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1  
 Subregion (LRR): G- Western Great Plains Range & Irrigated Lat: 39.8873505682 Long: -105.064861713 Datum: NAD83  
 Soil Map Unit Name: Arvada clay loam, 0 to 2 percent slopes NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland is abutting creek, north side of the 104th avenue bridge. Riparian riprap is embedded in the wetland. WETS Table showed wetter conditions than normal.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				
1. <u>Salix exigua</u>	<u>75</u>	<u>yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
75 = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )				
1. <u>Typha sp.</u>	<u>20</u>	<u>yes</u>	<u>OBL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
20 = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)  
 Total Number of Dominant Species Across All Strata: 2 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
 OBL species 20 x 1 = 20  
 FACW species 75 x 2 = 150  
 FAC species 0 x 3 = 0  
 FACU species 0 x 4 = 0  
 UPL species 0 x 5 = 0  
 Column Totals: 95 (A) 170 (B)  
 Prevalence Index = B/A = 1.79

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is >50%  
 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes  No

Remarks:  
 Typha is remnants from last year's growth. Salix exigua has been cut to the ground.



**SOIL**

Sampling Point: DP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 2/1	100					organics	
1-5	10YR 3/2	92	10YR 5/8	8	C	M	loamy-clay	
5-9	10YR 5/3	90	10YR 5/8	10	C	M	loamy-clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> (LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/> High Plains Depressions (F16)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	<input type="checkbox"/> (MLRA 72 & 73 of LRR H)	

<b>Restrictive Layer (if present):</b> Type: <u>riprap</u> Depth (inches): <u>6</u>	Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:  
Riprap is embedded throughout the wetland for bank stabilization of Big Dry Creek.

**HYDROLOGY**

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> (where tilled)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Passed FAC Neutral Test 2:0



## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Westminster BDCIS City/County: Jefferson County Sampling Date: 11 March 2019  
 Applicant/Owner: City of Westminster State: CO Sampling Point: DP-6  
 Investigator(s): Sirena Brownlee and Tara Kent Section, Township, Range: Section 12, T2S R69W  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 2-3  
 Subregion (LRR): G- Western Great Plains Range & Irrigated Lat: 39.8899319822 Long: -105.061781826 Datum: NAD83  
 Soil Map Unit Name: Arvada clay loam, 0 to 2 percent slopes NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland is a depression between Big Dry Creek and trail. WETS Table showed wetter conditions than normal.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
0 = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of:</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>90</u></td> <td>x 1 = <u>90</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>90</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.0</u>	Total % Cover of:	Multiply by:	OBL species <u>90</u>	x 1 = <u>90</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>90</u> (A)	<u>90</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>90</u>	x 1 = <u>90</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>90</u> (A)	<u>90</u> (B)																	
0 = Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
0 = Total Cover																		
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																		
1. <u>Schoenoplectus tabernaemontani</u>	<u>90</u>	<u>yes</u>	<u>OBL</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
90 = Total Cover																		
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
0 = Total Cover																		
% Bare Ground in Herb Stratum <u>10</u>																		
<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																		
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																		

Remarks:  
**The bulrush is dead remnants from last year.**

**SOIL**

Sampling Point: DP-6

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR F)**
- 1 cm Muck (A9) **(LRR F, G, H)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) **(LRR I, J)**
  - Coast Prairie Redox (A16) **(LRR F, G, H)**
  - Dark Surface (S7) **(LRR G)**
  - High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
  - Reduced Vertic (F18)
  - Red Parent Material (TF2)
  - Very Shallow Dark Surface (TF12)
  - Other (Explain in Remarks)
- <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes     No

Remarks:

Soils inundated and assumed hydric.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) **(LRR F)**

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): 3  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

Wetland Hydrology Present?    Yes     No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Passed FAC Neutral Test 1:0  
 Standing water is some area with saturation in all other areas.

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Westminster BDCIS City/County: Jefferson County Sampling Date: 11 March 2019  
 Applicant/Owner: City of Westminster State: CO Sampling Point: DP-7  
 Investigator(s): Sirena Brownlee and Tara Kent Section, Township, Range: Section 12, T2S R69W  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 5-7  
 Subregion (LRR): G- Western Great Plains Range & Irrigated Lat: 39.8898919237 Long: -105.061705555 Datum: NAD83  
 Soil Map Unit Name: Arvada clay loam, 0 to 2 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:  <div style="border: 1px solid black; padding: 5px; min-height: 40px;">                     WETS Table showed wetter conditions than normal.                 </div>	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of:</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>70</u></td> <td>x 5 = <u>350</u></td> </tr> <tr> <td>Column Totals: <u>70</u> (A)</td> <td><u>350</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>5.0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>70</u>	x 5 = <u>350</u>	Column Totals: <u>70</u> (A)	<u>350</u> (B)	Prevalence Index = B/A = <u>5.0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>70</u>	x 5 = <u>350</u>																			
Column Totals: <u>70</u> (A)	<u>350</u> (B)																			
Prevalence Index = B/A = <u>5.0</u>																				
<u>65</u> = Total Cover																				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																				
1. <u>Ericameria nauseosa</u>	<u>65</u>	<u>yes</u>	<u>UPL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>65</u> = Total Cover																				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																				
1. <u>Solidago sp.</u>	<u>5</u>	<u>yes</u>	<u>UPL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
<u>5</u> = Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum <u>20</u>																				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks:																				

**SOIL**

Sampling Point: DP-7

<b>Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)</b>								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 5/3	97	10YR 6/8	3	C	M	sandy-loam-clay	

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Westminster BDCIS City/County: Jefferson County Sampling Date: 11 March 2019  
 Applicant/Owner: City of Westminster State: CO Sampling Point: DP-8  
 Investigator(s): Sirena Brownlee and Tara Kent Section, Township, Range: Section 12, T2S R69W  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 2-3  
 Subregion (LRR): G- Western Great Plains Range & Irrigated Lat: 39.8914537494 Long: -105.060606399 Datum: NAD83  
 Soil Map Unit Name: Arvada clay loam, 0 to 2 percent slopes NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland abuts Big Dry Creek. Some areas of wetland contained standing water but most did not, likely from recent snow melt. WETS Table showed wetter conditions than normal.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				
1. <u>Salix exigua</u>	25	yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
25 = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )				
1. <u>Carex aquatilis</u>	25	yes	OBL	
2. <u>Juncus articus ssp. littoralis</u>	20	yes	FACW	
3. <u>Schoenoplectus tabernaemontani</u>	10	no	OBL	
4. <u>Dipsacus fullonum</u>	10	no	FACU	
5. <u>Rumex crispus</u>	5	no	FAC	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
70 = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum <u>10</u>				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)  
 Total Number of Dominant Species Across All Strata: 3 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
 OBL species 35 x 1 = 35  
 FACW species 45 x 2 = 90  
 FAC species 5 x 3 = 15  
 FACU species 10 x 4 = 40  
 UPL species 0 x 5 = 0  
 Column Totals: 95 (A) 180 (B)  
 Prevalence Index = B/A = 1.89

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is >50%  
 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes  No

Remarks:

**SOIL**

Sampling Point: DP-8

<b>Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)</b>								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 2/1	98	10YR 5/8	2	C	PL	clay	contains roots and organics
4-9	10YR 4/1	85	10YR 5/8	15	C	M	clay-loam	

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Westminster BDCIS City/County: Jefferson County Sampling Date: 11 March 2019  
 Applicant/Owner: City of Westminster State: CO Sampling Point: DP-9  
 Investigator(s): Sirena Brownlee and Tara Kent Section, Township, Range: Section 12, T2S R69W  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 5-6  
 Subregion (LRR): G- Western Great Plains Range & Irrigated Lat: 39.8914206887 Long: -105.060435886 Datum: NAD83  
 Soil Map Unit Name: Arvada clay loam, 0 to 2 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <b>WETS Table showed wetter conditions than normal.</b>	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of:</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>25</u> (A)</td> <td><u>110</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.4</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>25</u> (A)	<u>110</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>15</u>	x 4 = <u>60</u>																	
UPL species <u>10</u>	x 5 = <u>50</u>																	
Column Totals: <u>25</u> (A)	<u>110</u> (B)																	
<u>0</u> = Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																		
1. <u>Bromus briziformis</u>	<u>10</u>	<u>yes</u>	<u>UPL</u>															
2. <u>Bassia scoparia</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>															
3. <u>Unknown aster</u>	<u>5</u>	<u>no</u>	_____															
4. <u>Pascopyrum smithii</u>	<u>5</u>	<u>no</u>	<u>FACU</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
<u>30</u> = Total Cover																		
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
% Bare Ground in Herb Stratum <u>70</u>																		
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																		
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																		
Remarks:																		



**SOIL**

Sampling Point: DP-9

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-9	10YR 3/3	95					sandy-clay	
	10YR 5/6	5						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:

Soil has a mixed profile with some fill material. A nearby mammal burrow has evidence of gravelly fill materials.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

Wetland Hydrology Present? Yes  No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Failed FAC Neutral Test 0:2



## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Westminster BDCIS City/County: Jefferson County Sampling Date: January 12, 2020  
 Applicant/Owner: City of Westminster State: CO Sampling Point: DP-10  
 Investigator(s): Ryan Hammons Section, Township, Range: Section 12, T2S R69W  
 Landform (hillslope, terrace, etc.): small tributary/drainage Local relief (concave, convex, none): concave Slope (%): 1-2  
 Subregion (LRR): G- Western Great Plains Range & Irrigated Lat: 39.893048 Long: -105.055855 Datum: NAD83  
 Soil Map Unit Name: Arvada clay loam, 0 to 2 percent slopes NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland is along a small creek in an urban environment, a city park w/ disc golf. Gentle, hilly slopes offer adjacent wetlands. WETS Table showed normal conditions.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Populus deltoides</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>30</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>65</u></td> <td>x 2 = <u>130</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x 3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>115</u> (A)</td> <td><u>310</u> (B)</td> </tr> </tbody> </table> Prevalence Index = B/A = <u>2.7</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>65</u>	x 2 = <u>130</u>	FAC species <u>30</u>	x 3 = <u>90</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>115</u> (A)	<u>310</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>65</u>	x 2 = <u>130</u>																	
FAC species <u>30</u>	x 3 = <u>90</u>																	
FACU species <u>10</u>	x 4 = <u>40</u>																	
UPL species <u>10</u>	x 5 = <u>50</u>																	
Column Totals: <u>115</u> (A)	<u>310</u> (B)																	
<u>80</u> = Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																		
1. <u>Salix exigua</u>	<u>60</u>	<u>yes</u>	<u>FACW</u>															
2. <u>Rosa woodsii</u>	<u>10</u>	<u>no</u>	<u>FACU</u>															
3. <u>Symphoricarpos albus</u>	<u>10</u>	<u>no</u>	<u>UPL</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>80</u> = Total Cover																		
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																		
1. <u>Conium maculatum</u>	<u>5</u>	<u>yes</u>	<u>FACW</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
<u>5</u> = Total Cover																		
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
% Bare Ground in Herb Stratum <u>15</u>																		
Remarks:																		

**SOIL**

Sampling Point: DP-10

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/1	100		0			clay-loam	soil frozen on top layer
2-5	10YR 3/1	100		0			clay	
5-14	10YR 3/2	100		0			clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
  - Coast Prairie Redox (A16) (LRR F, G, H)
  - Dark Surface (S7) (LRR G)
  - High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
  - Reduced Vertic (F18)
  - Red Parent Material (TF2)
  - Very Shallow Dark Surface (TF12)
  - Other (Explain in Remarks)
- <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

Somewhat frozen soils. Some white pubescence on roots in soils, possible from willows. No redox. Problematic soils, soils slightly to strongly saline which can result in high pH soils. High pH soils do not readily display redoximorphic features.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

Wetland Hydrology Present? Yes  No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Outside of growing season. Minimal drift deposits. Assumed wetland hydrology. Passed FAC Neutral Test 2:0

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Westminster BDCIS City/County: Jefferson County Sampling Date: January 12, 2020  
 Applicant/Owner: City of Westminster State: CO Sampling Point: DP-11  
 Investigator(s): Ryan Hammons Section, Township, Range: Section 12, T2S R69W  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 20  
 Subregion (LRR): G- Western Great Plains Range & Irrigated Lat: 39.893017 Long: -105.055799 Datum: NAD83  
 Soil Map Unit Name: Arvada clay loam, 0 to 2 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Datapoint is on slope going down towards creek. WETS Table showed normal conditions.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				
1. <u>Ericameria nauseosa</u>	5	yes	UPL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
5 = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )				
1. <u>Agropyron cristatum</u>	35	yes	UPL	
2. <u>Bassia scoparia</u>	20	yes	FACU	
3. <u>Artemisia ludoviciana</u>	10	no	UPL	
4. <u>Pascopyrum smithii</u>	10	no	FACU	
5. <u>Solidago sp.</u>	7	no	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
82 = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum <u>18</u>				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)  
 Total Number of Dominant Species Across All Strata: 3 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
 OBL species 0 x 1 = 0  
 FACW species 0 x 2 = 0  
 FAC species 0 x 3 = 0  
 FACU species 30 x 4 = 120  
 UPL species 50 x 5 = 250  
 Column Totals: 80 (A) 370 (B)  
 Prevalence Index = B/A = 4.6

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes  No

Remarks:

**SOIL**

Sampling Point: DP-11

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR F)**
- 1 cm Muck (A9) **(LRR F, G, H)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) **(LRR I, J)**
- Coast Prairie Redox (A16) **(LRR F, G, H)**
- Dark Surface (S7) **(LRR G)**
- High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

Remarks:

Didn't disturb soil on hillslope. Assumed upland based on vegetation and landscape position.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) **(LRR F)**

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC Neutral Test

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Westminster BDCIS City/County: Jefferson County Sampling Date: January 12, 2020  
 Applicant/Owner: City of Westminster State: CO Sampling Point: DP-12  
 Investigator(s): Ryan Hammons Section, Township, Range: Section 12, T2S R69W  
 Landform (hillslope, terrace, etc.): small tributary/drainage Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): G- Western Great Plains Range & Irrigated Lat: 39.892322 Long: -105.055031 Datum: NAD83  
 Soil Map Unit Name: Manzanola-Renohill-Stoneham complex, 9 to 15 percent slopes NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <b>Wetland is a cattail depression along drainage feature.</b> <b>WETS Table showed normal conditions.</b>	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0 = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )				
1. <u>Typha spp.</u>	<u>90</u>	<u>yes</u>	<u>OBL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
90 = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum <u>10</u>				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)  
 Total Number of Dominant Species Across All Strata: 1 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: 90 Multiply by: \_\_\_\_\_  
 OBL species 90 x 1 = 90  
 FACW species 0 x 2 = 0  
 FAC species 0 x 3 = 0  
 FACU species 0 x 4 = 0  
 UPL species 0 x 5 = 0  
 Column Totals: 90 (A) 90 (B)  
 Prevalence Index = B/A = 1.0

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is >50%  
 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes  No

Remarks:  
**remnants of last year's vegetation growth present.**

**SOIL**

Sampling Point: DP-12

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR F)**
- 1 cm Muck (A9) **(LRR F, G, H)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) **(LRR I, J)**
  - Coast Prairie Redox (A16) **(LRR F, G, H)**
  - Dark Surface (S7) **(LRR G)**
  - High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
  - Reduced Vertic (F18)
  - Red Parent Material (TF2)
  - Very Shallow Dark Surface (TF12)
  - Other (Explain in Remarks)
- <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

Frozen soils with water. Assumed wetland soils based on vegetation and frozen surface water.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- Presence of Reduced Iron (C4) **(where not tilled)**
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) **(LRR F)**

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): 2  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

Wetland Hydrology Present? Yes  No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Outside of growing season. Assumed wetland hydrology based on vegetation and frozen surface water. Passed FAC Neutral Test 1:0

Appendix E.  
USFWS IPaC Reports



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Colorado Ecological Services Field Office  
Denver Federal Center  
P.O. Box 25486  
Denver, CO 80225-0486  
Phone: (303) 236-4773 Fax: (303) 236-4005  
<http://www.fws.gov/coloradoES>  
<http://www.fws.gov/platteriver>

In Reply Refer To:

January 10, 2020

Consultation Code: 06E24000-2019-SLI-0658

Event Code: 06E24000-2020-E-01518

Project Name: Big Dry Creek Interceptor project PA3

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered



species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
  - Wetlands
-



## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Colorado Ecological Services Field Office**

Denver Federal Center  
P.O. Box 25486  
Denver, CO 80225-0486  
(303) 236-4773

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## Project Summary

Consultation Code: 06E24000-2019-SLI-0658

Event Code: 06E24000-2020-E-01518

Project Name: Big Dry Creek Interceptor project PA3

Project Type: WASTEWATER PIPELINE

Project Description: replace or repair sewer line

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.90878148741224N105.03011226654053W>



Counties: Adams, CO

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## Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 5 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.
-

## Birds

NAME	STATUS
<p><b>Least Tern</b> <i>Sterna antillarum</i></p> <p>Population: interior pop.            No critical habitat has been designated for this species.            This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> <li>Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.</li> </ul> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/8505">https://ecos.fws.gov/ecp/species/8505</a></p>	Endangered
<p><b>Mexican Spotted Owl</b> <i>Strix occidentalis lucida</i></p> <p>There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.            Species profile: <a href="https://ecos.fws.gov/ecp/species/8196">https://ecos.fws.gov/ecp/species/8196</a></p>	Threatened
<p><b>Piping Plover</b> <i>Charadrius melodus</i></p> <p>Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.            There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.            This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> <li>Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.</li> </ul> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a></p>	Threatened
<p><b>Whooping Crane</b> <i>Grus americana</i></p> <p>Population: Wherever found, except where listed as an experimental population            There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.            This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> <li>Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.</li> </ul> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a></p>	Endangered

## Fishes

NAME	STATUS
<p><b>Pallid Sturgeon</b> <i>Scaphirhynchus albus</i></p> <p>No critical habitat has been designated for this species.            This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> <li>Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.</li> </ul> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/7162">https://ecos.fws.gov/ecp/species/7162</a></p>	Endangered

## Flowering Plants

NAME	STATUS
<p>Ute Ladies'-tresses <i>Spiranthes diluvialis</i></p> <p>No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2159">https://ecos.fws.gov/ecp/species/2159</a></p>	Threatened
<p>Western Prairie Fringed Orchid <i>Platanthera praeclara</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"><li>Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.</li></ul> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/1669">https://ecos.fws.gov/ecp/species/1669</a></p>	Threatened

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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# USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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# Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Oct 15 to Jul 31
<b>Golden Eagle <i>Aquila chrysaetos</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a>	Breeds Jan 1 to Aug 31

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NAME	BREEDING SEASON
Lark Bunting <i>Calamospiza melanocorys</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 10 to Aug 15
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
Willow Flycatcher <i>Empidonax traillii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/3482">https://ecos.fws.gov/ecp/species/3482</a>	Breeds May 20 to Aug 31

## Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .



- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

## Migratory Birds FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and

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how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

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**What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

**Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

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# Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

## FRESHWATER EMERGENT WETLAND

- [PEM1Ah](#)
-



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Colorado Ecological Services Field Office  
Denver Federal Center  
P.O. Box 25486  
Denver, CO 80225-0486  
Phone: (303) 236-4773 Fax: (303) 236-4005  
<http://www.fws.gov/coloradoES>  
<http://www.fws.gov/platteriver>

In Reply Refer To:

January 15, 2020

Consultation Code: 06E24000-2019-SLI-0657

Event Code: 06E24000-2020-E-01567

Project Name: Big Dry Creek Interceptor project PA1

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered



species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
  - Wetlands
-



## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Colorado Ecological Services Field Office**

Denver Federal Center  
P.O. Box 25486  
Denver, CO 80225-0486  
(303) 236-4773

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## Project Summary

Consultation Code: 06E24000-2019-SLI-0657

Event Code: 06E24000-2020-E-01567

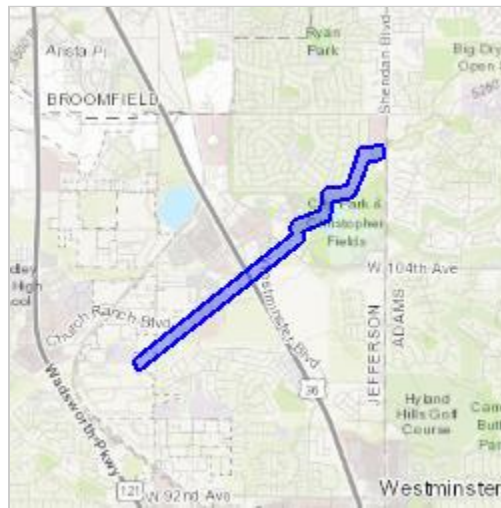
Project Name: Big Dry Creek Interceptor project PA1

Project Type: WASTEWATER PIPELINE

Project Description: Repair/ replacement of the BDCIS to increase the hydraulic capacity and improve the condition of the sewer system

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.88625397379553N105.06684238286991W>



Counties: Adams, CO | Jefferson, CO

## Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 5 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Mammals

NAME	STATUS
Canada Lynx <i>Lynx canadensis</i> Population: Wherever Found in Contiguous U.S. There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/3652">https://ecos.fws.gov/ecp/species/3652</a>	Threatened

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## Birds

NAME	STATUS
<p><b>Least Tern</b> <i>Sterna antillarum</i></p> <p>Population: interior pop.            No critical habitat has been designated for this species.            This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> <li>Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.</li> </ul> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/8505">https://ecos.fws.gov/ecp/species/8505</a></p>	Endangered
<p><b>Mexican Spotted Owl</b> <i>Strix occidentalis lucida</i></p> <p>There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.            Species profile: <a href="https://ecos.fws.gov/ecp/species/8196">https://ecos.fws.gov/ecp/species/8196</a></p>	Threatened
<p><b>Piping Plover</b> <i>Charadrius melodus</i></p> <p>Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.            There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.            This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> <li>Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.</li> </ul> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a></p>	Threatened
<p><b>Whooping Crane</b> <i>Grus americana</i></p> <p>Population: Wherever found, except where listed as an experimental population            There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.            This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> <li>Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.</li> </ul> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a></p>	Endangered

## Fishes

NAME	STATUS
<p><b>Pallid Sturgeon</b> <i>Scaphirhynchus albus</i></p> <p>No critical habitat has been designated for this species.            This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> <li>Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.</li> </ul> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/7162">https://ecos.fws.gov/ecp/species/7162</a></p>	Endangered

## Flowering Plants

NAME	STATUS
<b>Ute Ladies'-tresses <i>Spiranthes diluvialis</i></b> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2159">https://ecos.fws.gov/ecp/species/2159</a>	<b>Threatened</b>
<b>Western Prairie Fringed Orchid <i>Platanthera praeclara</i></b> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"><li>▪ Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.</li></ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/1669">https://ecos.fws.gov/ecp/species/1669</a>	<b>Threatened</b>

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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# USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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# Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Oct 15 to Jul 31
<b>Golden Eagle <i>Aquila chrysaetos</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a>	Breeds Jan 1 to Aug 31

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NAME	BREEDING SEASON
Lark Bunting <i>Calamospiza melanocorys</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 10 to Aug 15
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
Willow Flycatcher <i>Empidonax traillii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/3482">https://ecos.fws.gov/ecp/species/3482</a>	Breeds May 20 to Aug 31

## Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .

- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

**Breeding Season (■)**

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

**Survey Effort (|)**

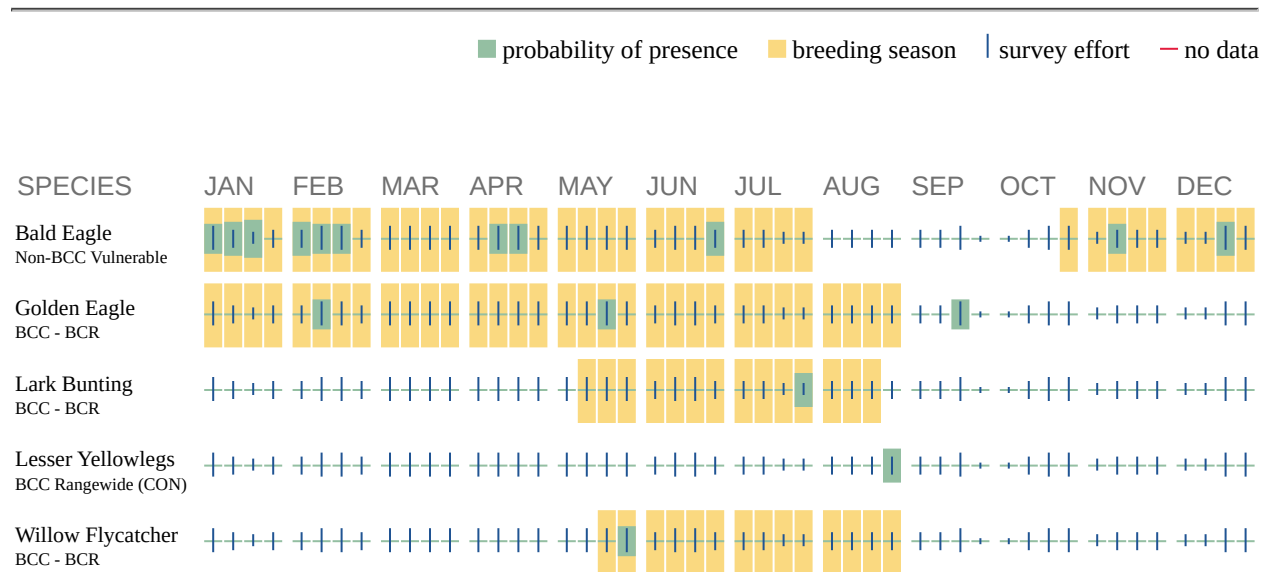
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

**No Data (-)**

A week is marked as having no data if there were no survey events for that week.

**Survey Timeframe**

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

## Migratory Birds FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and

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how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

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**What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

**Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

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# Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

## FRESHWATER EMERGENT WETLAND

- [PEM1A](#)
- [PEM1C](#)
- [PEM1F](#)

## FRESHWATER FORESTED/SHRUB WETLAND

- [PSS1A](#)

## FRESHWATER POND

- [PABFx](#)
- [PUBF](#)
- [PUBGx](#)

## RIVERINE

- [R4SBA](#)
  - [R4SBC](#)
  - [R5UBH](#)
-

Appendix F.  
SHPO Documentation and Correspondence





# A Class III Cultural Resource Survey of the Big Dry Creek Interceptor Sewer Improvements Project

Jefferson County  
January 2020

City of Westminster

**Colorado State Permit: CO 75745**



# **A Class III Cultural Resource Survey of the Big Dry Creek Interceptor Sewer Improvements Project**

City of Westminster

Jefferson County

## **HDR EOC**

9781 S Meridian Blvd, Suite  
400, Englewood, CO 80112-  
5936  
(303) 754-4200

## **TYPE OF WORK**

Cultural Survey

## **PRINCIPAL INVESTIGATOR**

Kevin P. Gilmore, PhD, RPA

## **AUTHOR(S)**

Lars Boyd  
Megan Mueller

**DATE:** January 2020

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## Abstract

HDR conducted a Class III cultural resource survey for the City of Westminster (City) in Jefferson County, Colorado. The City proposes to make improvements to the Big Dry Creek Interceptor Sewer (BDCIS). The project improvements (Project) consist of two related efforts that will involve surface ground disturbance. In Area 1 of the Project 6190 feet of new 30-inch diameter interceptor pipe will be installed between Sheridan Boulevard and 104th Avenue. The new pipe will parallel an existing 30-inch interceptor line to the north of the existing pipeline. The existing line will be reinforced through the installation of a cured-in-place pipe. In Area 9 of the Project 5800 feet of existing pipeline will be replaced. The existing pipeline varies between 12 and 21 inches in diameter and will be replaced with a uniform 21-inch pipe. The section of pipeline that will be replaced extends from the intersection of Yarrow Court and 99th Avenue west to a point near the intersection of Independence Way and 97th Avenue. Associated with this effort is construction of a proposed sidewalk providing access to a nearby school. The Project's Area of Potential Effect (APE) encompasses all Project design elements and is 69.9 acres in size, all of which is on City property.

Two historical sites were identified within the APE. They are one segment of Wadsworth Boulevard (5JF4508.4) and one segment of Xcel Transmission Line 9055 (5JF7747.1). Both segments are recommended non-supporting of the National Register of Historic Places eligibility of the linear site as a whole, and no further work is recommended. One previously recorded prehistoric site, 5JF838, was relocated based on the datum, however the construction of N Sheridan Boulevard and associated landscaping has destroyed the site.

Pending concurrence of the Office of Archaeology and Historic Preservation (OAHP) with the site eligibility recommendations, a determination of "no historic properties affected" is recommended for the Project pursuant to 36 Code of Federal Regulations (CFR) § 800.5 of the National Historic Preservation Act (1966, as amended in 2000) (NHPA). No further work is necessary.



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## Abbreviations and Acronyms

°F	degrees Fahrenheit
°C	degrees Celsius
APE	Area of Potential Effect
BDCIS	Big Dry Creek Interceptor Sewer
CCPA	Colorado Council of Professional Archaeologists
CFR	Code of Federal Regulations
GPS	Global Positioning System
NHPA	National Historic Preservation Act of 1966
NRHP	National Register of Historic Places
OAHP	Office of Archaeology and Historic Preservation
USGS	United States Geological Survey



History Colorado-Office of Archaeology and Historic Preservation  
**COLORADO CULTURAL RESOURCE SURVEY**  
Cultural Resource Survey Management Information Form

**I. PROJECT SIZE**

Total federal acres in project	<u>0.0</u>	Total federal acres surveyed	<u>0.0</u>
Total state acres in project	<u>0.0</u>	Total state acres surveyed	<u>0.0</u>
Total private acres in project	<u>0.0</u>	Total private acres surveyed	<u>0.0</u>
Total other acres in project	<u>69.9</u>	Total other acres surveyed	<u>69.9</u>

**II. PROJECT LOCATION**

County: Jefferson  
 USGS Quad Map: Lafayette (1994)  
 Principal Meridian: 6th

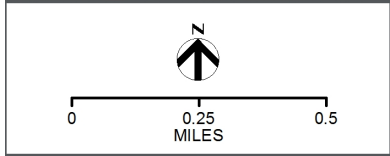
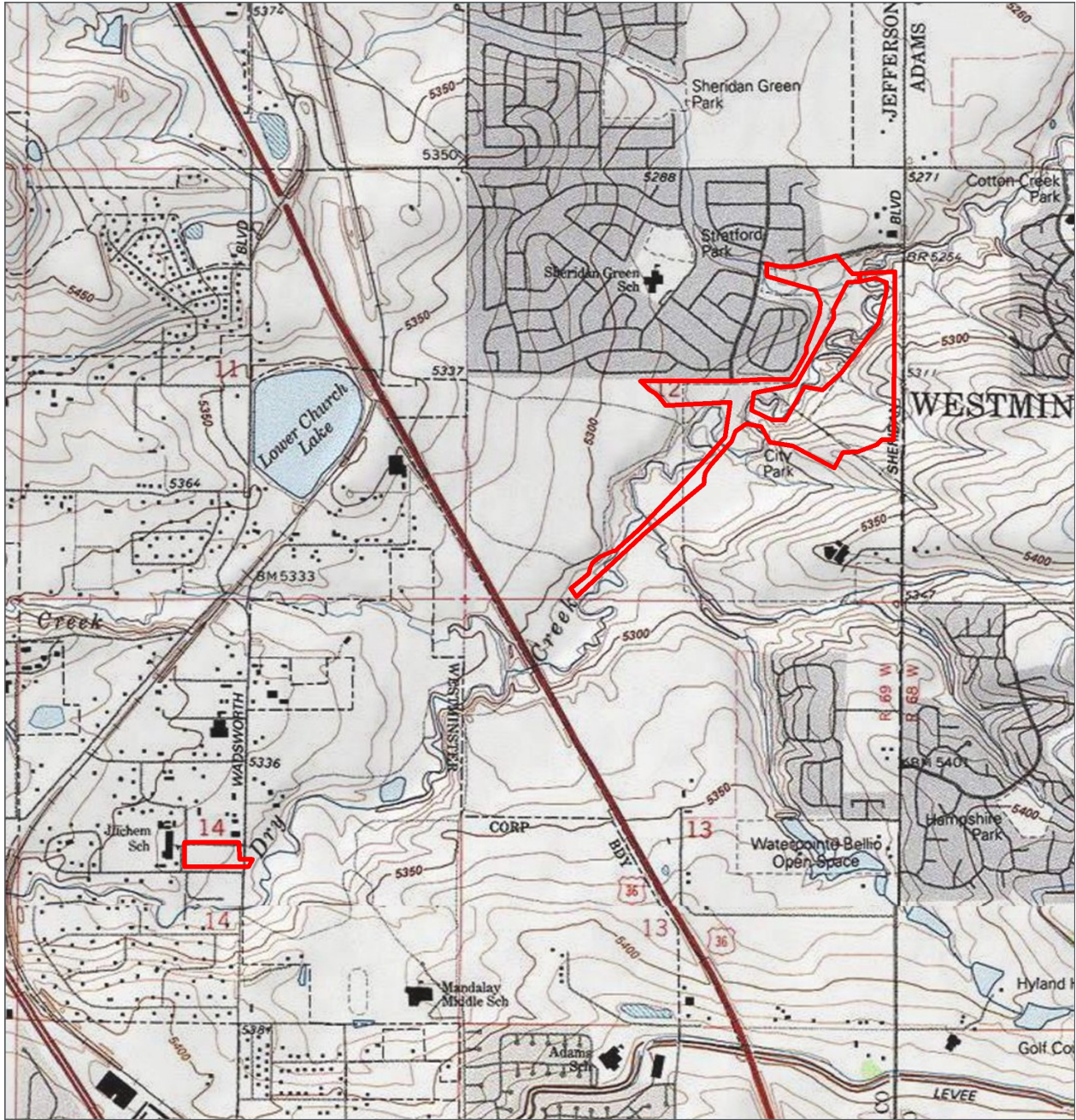
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>E</u>	<u>1/2</u>	<u>NE</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>	<u>SW</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>SW</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>	<u>SW</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>X</u>	<u>1/4</u>	<u>SW</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>	<u>SW</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>N</u>	<u>1/2</u>	<u>NE</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>	<u>SW</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>X</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>	<u>NW</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>NW</u>	<u>1/4</u>	<u>NW</u>	<u>1/4</u>	<u>NW</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>E</u>	<u>1/2</u>	<u>NW</u>	<u>1/4</u>	<u>NW</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>X</u>	<u>1/4</u>	<u>N</u>	<u>1/2</u>	<u>NE</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>N</u>	<u>1/2</u>	<u>SW</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>N</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>SW</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>X</u>	<u>1/4</u>	<u>X</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>SE</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>	<u>NW</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>S</u>	<u>1/2</u>	<u>SW</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>12</u>	<u>SW</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>14</u>	<u>SW</u>	<u>1/4</u>	<u>NW</u>	<u>1/4</u>	<u>NW</u>	<u>1/4</u>	<u>SE</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>14</u>	<u>S</u>	<u>1/2</u>	<u>NE</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>	<u>SW</u>	<u>1/4</u>
Township	<u>2S</u>	Range	<u>69W</u>	Section	<u>14</u>	<u>SE</u>	<u>1/4</u>	<u>NW</u>	<u>1/4</u>	<u>NE</u>	<u>1/4</u>	<u>SW</u>	<u>1/4</u>





**III. SITES**


Site Number	Site Type				Eligibility							Effect			Treatment / Management Recommendations							Comments	
	Prehistoric	Historic	Paleontological	Unknown	Eligible	Needs Data	Not Eligible	Contributing	Non-Contributing	Supporting	Non-Supporting	No Historic Properties Affected	No Adverse Effect	Adverse Effect	No Further Work	Avoid / Preserve	Monitor	Test	Excavate	Archival Research	Archival Documentation		Other
<b>SITES</b>																							
5JF838	X					X								X									Destroyed by development
5JF4508.4		X								X				X									
5JF7747.1		X								X				X									



USGS 7.5' Quadrangle  
Lafayette, CO (1994)  
T: 1S R: 69W S: 12,14  
Meridian: 6th

**BDCIS IMPROVEMENTS**  
**CULTURAL RESOURCE SURVEY**  
PROJECT LOCATION



 Area of Potential Effect

Sources: USA Topo Maps      PROJECTION:  
NAD 1983 UTM ZONE 13N  
1:24,000

PATH: J:\2019\19-096 WESTMINSTER BDCIS EA (MUELLER)\7.2 WORK IN PROGRESS\MAP DOCS\DRIFT\WESTMINSTER BLM SHPO 85X65.MXD - USER: KLEMBERG - DATE: 1/13/2020

# 1 Introduction

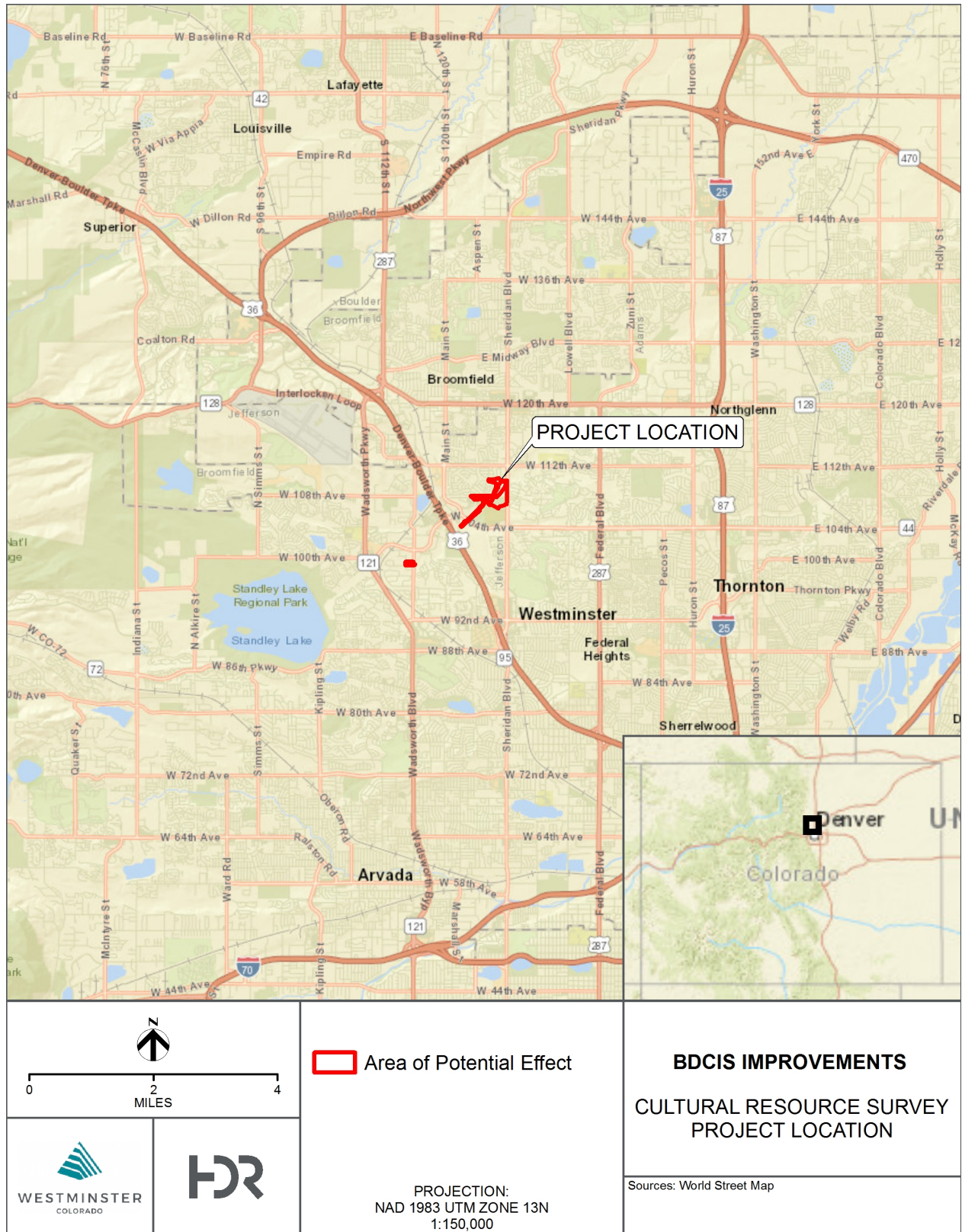
HDR conducted a Class III cultural resource survey for the City of Westminster (City) in Jefferson County, Colorado. The City proposes to make improvements to the Big Dry Creek Interceptor Sewer (BDCIS). The project improvements (Project) consist of two related efforts that will involve surface ground disturbance. In Area 1 of the Project 6190 feet of new 30-inch diameter interceptor pipe will be installed between Sheridan Boulevard and 104th Avenue. The new pipe will parallel an existing 30-inch interceptor line to the north of the existing pipeline. The existing line will be reinforced through the installation of a cured-in-place pipe. In Area 9 of the Project 5800 feet of existing pipeline will be replaced. The existing pipeline varies between 12 and 21 inches in diameter and will be replaced with a uniform 21-inch pipe. The section of pipeline that will be replaced extends from the intersection of Yarrow Court and 99th Avenue west to a point near the intersection of Independence Way and 97th Avenue. Associated with this effort is construction of a proposed sidewalk providing access to a nearby school. The Class III survey was conducted pursuant to 36 Code of Federal Regulations (CFR) § 800 of the National Historic Preservation Act (1966, as amended in 2000) (NHPA). The required determination of effects for Section 106 compliance is presented in this report.

The project APE encompass all Project design elements and has a total area of 69.9 acres, all of which the City owns (Figure 1). The cultural resource survey was conducted on December 13, 2019. HDR archaeological personnel consisted of field supervisor Megan Mueller and field technician Lars Boyd, supervised by Kevin Gilmore. Kevin Gilmore meets the Secretary of the Interior's Professional Qualification Standards for archaeology.





Figure 1. Project location.



PATH: J:\2019\19-096 WESTMINSTER BDCIS EA (MUELLER)\7.2 WORK IN PROGRESS\MAP DOCS\DRAWING\WESTMINSTER PROJECT\LOCATION 85X65.MXD - USER: KLEMBERG - DATE: 12/19/2019

## 2 Environment

### Physiography

The Project area is on the Colorado Piedmont north of Denver. The piedmont is an area where much of the original overlying Tertiary-aged mantle of sediments has been removed by erosion (Fenneman 1931). The mean annual temperature in Westminster is 49.8 degrees Fahrenheit (°F) (9.9 degrees Celsius [°C]). July is generally the warmest month, with a mean maximum temperature of 88°F (31.1°C) and a mean minimum temperature of 55.7°F (13.2°C). Temperatures are lowest in December with a mean maximum temperature of 45.9°F (7.7°C) and a mean minimum temperature of 15.8°F (-9°C). Mean annual precipitation is 18.2 inches (Weatherbase 2020).

### Soils and Geology

The Study Area is within the floodplain of Big Dry Creek, a tributary of the South Platte River. Soils in the Project area are primarily a mixture of Arvada clay loam developed in calcareous shale, Manzanola-Renohill-Stoneham complex clay loam developed in calcareous clayey alluvium, Platner-Urban land complex clay loam developed in calcareous alluvium, and Ulm-Urban land complex clay loam developed in calcareous shale. These soils generally have depths over 200 centimeters (NRCS 2020). The area is underlain by deep deposits of Pleistocene loess overlying sedimentary bedrock of the late Cretaceous and Paleocene-age Arapahoe, Dawson, and Denver formations (Madole et al 2005).

### Flora and Fauna

Most of the area near the Project is covered with grassland vegetation. Historically, major species included buffalograss (*Buchloe dactyloides*), blue grama (*Chondrosium gracile*), Junegrass (*Koeleria macrantha*), and western wheatgrass (*Pascopyrum smithii*), with lesser amounts of forbs including pincushion cactus (*Coryphantha vivipara*) and prickly pear (*Opuntia polyacantha*). Common animal species in the area include mule deer (*Odocoileus hemionus*), pronghorn (*Antilocapra americana*), coyote (*Canis latrans*), black-tailed jackrabbit (*Lepus californicus*), black-tailed prairie dog (*Cynomys ludovicianus*), and deer mice (*Peromyscus maniculatus*). Common bird and reptile species include ferruginous hawk (*Buteo regalis*), lark bunting (*Calamospiza melanocorys*), western meadowlark (*Sturnella neglecta*), and western rattlesnake (*Crotalus viridis*) (Mutel and Emerick 1992).

### Current Land Use

Modern land use in the Project area is dominated by recreation. The Westminster City Park covers a majority of the Project, where numerous trails, parking spaces, and a disk golf course have been constructed. Project area land outside of the Westminster City Park consists of undeveloped land owned by the City.



### 3 Culture History and Previous Work

#### Culture History of the Region

The Colorado Office of Archaeology and Historic Preservation (OAHP) and the Colorado Council of Professional Archaeologists (CCPA) provide prehistoric and historic contexts as guides for the research and management of the state’s cultural resources. These documents define a framework of contexts and themes, divided by regional chronology. The prehistory of the Project area is covered by the Platte River Basin prehistoric context (Gilmore et al. 1999). Additional resources provided specific references to areas within the Project area since the OAHP and CCPA contexts discuss broader themes. The prehistoric context focuses on Native American history from 12,000 BP to AD 1860 and the historic context for Colorado focuses on Euro-American history from the 1600s to the 1960s (Church et al. 2007).

#### Prehistoric Context

Based on the prehistoric context for the Platte River Basin, the prehistoric culture history of the region is divided into four major stages: Paleoindian, Archaic, Late Prehistoric, and Protohistoric (Gilmore et al. 1999). These stages are further subdivided into cultural periods, as discussed below. The cultural stages and periods are presented in Table 1.

**Table 1. Cultural Prehistory of the Platte River Basin (adapted from Gilmore et al. 1999 and others).**

Stage	Period	Date Range
<b>Paleoindian</b>		<b>ca. 10,000 - 5550 BC</b>
	Pre-Clovis	ca. 16,050 – 10,050 BC
	Clovis tradition	10,050 - 9050 BC
	Folsom tradition	9050 - 8050 BC
	Plano tradition and Foothills-Mountain tradition	8050 - 5550 BC
<b>Archaic</b>		<b>5550 BC – AD 150.</b>
	Early Archaic	5550 - 3050 BC
	Middle Archaic	3050 - 1050 BC
	Late Archaic	1050 BC – AD 150
<b>Late Prehistoric</b>		<b>AD 150 – 1540</b>
	Early Ceramic	AD 150 – 1150
	Middle Ceramic	AD 1150 – 1550
<b>Protohistoric</b>		<b>AD 1550 – 1860</b>

During the Paleoindian stage, people of the Platte River Basin hunted now-extinct megafauna, including mammoth. As the climate dried toward the end of the Pleistocene, and the megafauna

became extinct, people adapted their subsistence strategies to new conditions. The Archaic stage represents this transition from a big-game orientation to a diversified resource base that included more small game procurement and a greater emphasis on wild plant resources. During the Late Prehistoric stage, populations increased, groups became less mobile, and ceramic technology and the bow and arrow were adopted. The Protohistoric stage is marked by the introduction of European trade goods into the material assemblage of native groups.

### **Paleoindian Stage (ca. 10,000-5550 BC)**

During the late Pleistocene and early Holocene, the eastern Colorado plains were cooler and wetter than today. Now-extinct megafauna, including mammoth, camel, and sloth, were plentiful. The majority of cultural remains that date to the Paleoindian stage are kill and game processing sites.

There is some evidence of pre-Clovis occupation of eastern Colorado, but this evidence is sparse and difficult to interpret. Sites once thought to contain pre-Clovis occupations, like the Lamb Springs site south of Denver, have been reinterpreted as representing mixed deposits with artifacts from younger Paleoindian components mistakenly associated with deeper non-cultural paleontological deposits (Rancier et al. 1982). Other sites, like the Scott Spring site south of Denver, contain bones that were possibly broken by human action and dated to 22,500 to 19,000 BP. The sites are buried in Pleistocene sediments but are devoid of stone tools (Dominguez et al. 2013). There is better evidence of pre-Clovis presence in the plains states surrounding Colorado, with sites containing evidence of bone tool industries in Nebraska, Kansas, and Oklahoma dating to the Last Glacial Maximum (20,000 to 14,000 BP) or earlier (Holen and Holen 2013).

The Paleoindian stage proper is subdivided into three periods, and these periods are characterized by cultures that made large, finely crafted flaked-stone tools. The Clovis period is noted for its large, fluted lanceolate projectile points used to hunt mammoth and mastodon. The Folsom period is defined by smaller fluted lanceolate dart points and a subsistence strategy focusing on large, extinct species of bison. During the Plano period, people made smaller projectile points. Lanceolate and stemmed dart points ascribed to the Hell Gap, Agate Basin, Cody, Firstview, and Kersey complexes are typical of Plano period sites (Chenault 1999). Later Paleoindian cultures of the Mountain/Foothills tradition had a much broader subsistence base, relying on both large and small game. Evidence also suggests that a greater variety of vegetal resources was used. These late Paleoindian cultures had an essentially Archaic adaptation, and many projectile points produced by these people (both lanceolate and stemmed types) exhibit a characteristic parallel oblique flaking pattern (Kornfeld et al. 2010).

### **Archaic Stage (5550 BC–AD 150)**

Archaeologists ascribe the changes in material culture that define the Archaic stage as representing adaptations to the disappearance of the last megafauna and the onset of warmer and drier climatic conditions during the middle Holocene. Subsistence strategies emphasized a more generalized resource base utilizing large and small game with significant amounts of plant resources, which is reflected in the significant increase in ground stone on Archaic stage sites compared to the previous Paleoindian stage. Although somewhat poorly understood, the Archaic stage in eastern Colorado is generally divided into Early, Middle, and Late periods.

The Early Archaic period (5550-3050 BC) coincides with the middle Holocene, which was characterized by lengthy periods of drought and, in some places, increased temperature that may





have made the higher elevations in the mountains and foothills more attractive (Benedict 1979; Benedict and Olson 1978; Dean et al. 1996). The paucity of sites dating to the Early Archaic on the plains lead to the hypothesis that the plains were for the most part abandoned by humans during the middle Holocene in favor of the higher elevations, but this perceived decrease in population density may be due in part to erosional or depositional processes that resulted in the destruction or deep burial of sites dating to this period on the plains.

In general, occupations dating to the Middle Archaic period (3050-1050 BC) are more common than Early Archaic period sites in eastern Colorado, and this may in part represent expansion of human populations from the mountains and foothills onto the plains. Environmental conditions during this time are characterized by a trend toward increased moisture compared to the middle Holocene, and this may have influenced subsistence strategies resulting in greater population density on the plains (Gilmore 2012). Material culture differences are marked by a shift from the large side and corner-notched projectile points of the Early Archaic to lanceolate and stemmed-indented forms known as the McKean Complex (Kornfeld et al. 2010). Characteristic projectile points include the stemmed Duncan and Hanna types, McKean lanceolate, and side-notched Mallory points. A fourth Middle Archaic point type, the MM6, also occurs in eastern Colorado, most commonly in association with McKean types at sites within the hogback valleys at the foot of the Rocky Mountains (Irwin-Williams and Irwin 1966).

Generally, Late Archaic period (1050 BC–AD 150) components east of the Continental Divide in Colorado are more common than Middle Archaic components. The Late Archaic period is recognized archaeologically by a return to corner and some side-notched dart point styles. Subsistence patterns were largely similar to those of earlier periods (Tate 1999:94-95). The majority of documented occupations from this time period are from multicomponent sites and so there is the potential for the mixing of components. Single-component Late Archaic sites are not common and could contribute important information to our knowledge of the Late Archaic period. A period of increased drought on the plains from 250 BC to AD 100, may have influenced the cultural changes that define the transition between the Late Archaic period and the Early Ceramic period in the archaeological record (Gilmore 2008).

### **Late Prehistoric Stage (AD 150–1550)**

The Late Prehistoric stage is differentiated archaeologically from the previous Late Archaic period primarily by the adoption of two technological innovations; first the bow, which is presumed to have significantly increased hunting efficiency, and several centuries later ceramic technology, which allowed for more efficient cooking of small seeds and other plant foods that required boiling to make more nutrients available. Population increased throughout the Late Prehistoric stage, peaking between AD 1100 and 1200 (Gilmore 2008). The Late Prehistoric is divided into the Early Ceramic period (AD 150–1150), which shares similarities in subsistence patterns and material culture with Plains Woodland groups to the east on the Central Plains, and the Middle Ceramic period (AD 1150–1540), which shares some material culture similarities with Plains Village cultures of the Central Plains.

Early Ceramic period components are recognized in the archaeological record of the Platte River Basin by the appearance of small, corner-notched projectile points indicating the switch from atlatl and dart to the bow and arrow, the adoption of ceramics in the form of characteristic sub-conical, cord-marked ceramic vessels, and an increase in the occurrence of habitation structures. The Early



Ceramic period was a time of rapid population increase in eastern Colorado, a trend that began in the latter part of the Late Archaic period and accelerated to the end of the period (Gilmore 2008), and the innovations of the bow and ceramics adopted early in this period, as well as decreasing mobility through the period may have been in response to this growth in population. A greater number of people living in smaller, confined territories could create resource stress that may have driven the adoption of technologies that allowed for the more efficient use of the plants and animals available to people within diminished territories.

The Middle Ceramic period (AD 1150–1550) is identified archaeologically by a shift to small side and tri-notched points and in eastern Colorado the presence of components with material culture similar to that of the Upper Republican aspect of the Plains Village tradition (Gilmore 1999). On the Central Plains, Upper Republican groups lived in small hamlets of earth lodges, grew corn and other cultigens and hunted bison. However, in eastern Colorado (other than the Apishapa of the Arkansas basin), Middle Ceramic people are characterized as living in smaller, more mobile groups than the previous Early Ceramic period, and after peaking at AD 1100–1200, population seems to have decreased significantly. This decrease and dispersal of population may be associated with the Medieval Climate Anomaly (ca. AD 950–1300), a period of higher frequency drought and greater variability in temperature and effective moisture on the plains (Gilmore 2008).

### **Protohistoric State (AD 1550–1860)**

The Protohistoric stage is characterized by the influence of (if not direct contact with) Europeans on western Native American populations. Protohistoric components are recognized in the archaeological record by the presence of small side-, tri-, and un-notched projectile points; diagnostic ceramics; and European artifacts such as trade beads, metal, and mass produced cultural material. Ethnographic data indicate the foothills area was the western boundary for Plains Indian occupations. Ethnographic and archaeological data suggest the Apache occupied eastern Colorado from the late thirteenth century AD until about AD 1750, at which time the Comanche and Ute, among others, controlled Colorado. By AD 1830, the Arapaho and Cheyenne were moving into eastern Colorado, and they dominated this portion of Colorado until the US government began moving indigenous peoples to reservations (Clark 1999).

## **Historical Context**

This section discusses the European and Euro-American activities in the region beginning with the early explorers of the late eighteenth century and ending with developments in the mid-twentieth century.

### **Early Exploration**

The earliest significant foray into Colorado by Europeans was a prospecting expedition into the San Juan Mountains led by Juan de Rivera in 1761 (Athearn 1992). Early American and British exploration of the state was sporadic due to Spanish resistance and was limited to small numbers of fur trappers that surreptitiously entered the region in the 1810s. After Mexican independence in 1821, fur trappers expanded throughout the mountain portions of the state. In the 1840s and 1850s, early government exploration of the area often used experienced trappers as guides. Few sites from this period have been identified in Colorado and most are associated with fur trading posts like Fort St. Vrain or Fort Vasquez. Sites from the fur trade and early exploration would be difficult to differentiate from contemporary Native American sites as they are mostly small, temporary sites with



artifact assemblages similar to Protohistoric sites. Most would have been along drainages where thick vegetation and subsequent alluvial deposition would make them difficult to find. Traps, trapping equipment, firearms, and cutting tools will often be the only archaeological evidence left of this early period (Horn et al. 2007).

### **Project Area Historical Development**

Beginning with the discovery of gold in Little Dry Creek in the late 1850s and later encouraged by the Homestead Act of 1862, settlers of European descent were drawn toward the area now known as Westminster. In 1859, Jim Baker was one of the earliest settlers in this area where he operated a store and a toll ferry across Clear Creek. However, Baker left in 1871 for Snake River, Wyoming (City of Westminster 2019). The first permanent settler in the Westminster area was Pleasant DeSpain, who built his home on 160 acres of farmland near the intersection of what is now 76th Avenue and Lowell Boulevard in 1871. Soon after, other settlers were encouraged to migrate to the area. This farming community was initially known as Despain Junction, and in 1911 was incorporated as the Town of Westminster (Noel 1997:122; City of Westminster 2019). Many homesteaders could not endure the difficulties of farming in Colorado and sold their land during the latter half of the 19th and early 20th centuries to C.J. Harris, a real estate developer, who subdivided the farms and sold the parcels to fruit farmers. The town continued to grow and orchards planted in the early part of the century became a large attraction for Denver area residents in the 1920s through the early 1950s (City of Westminster 2019).

Life in the area moved at a slow pace until after World War II. Following the war, the increasing population in the area created a need for housing, streets and other infrastructure, and during this time the majority of the areas orchards were sold for development of subdivisions. In 1953 the population was approximately 2,500 and by 1960 the population had increased to 13,850. Between 1970 and 1971, the city's boundary increased from 4.5 square miles to 28 square miles. Today, 113,479 people call Westminster home (City of Westminster 2019).

### **Transportation**

Wadsworth Boulevard, named in honor of Benjamin Franklin Wadsworth, founder of Arvada, defines the west side of Westminster, while Federal Boulevard defines the east side (Jefferson County Historical Commission 2015). Wadsworth Boulevard and Federal Boulevard have been main Westminster north-south thoroughfares since the early days of the community. Wadsworth Boulevard connected rural areas to Arvada and was the main thoroughfare in that town. Federal Boulevard connected rural areas to Denver and was a main thoroughfare in that city. The Denver Boulder Turnpike, completed in 1952, divided the quiet, rural town of Westminster and brought thousands of drivers through the town. Today, US36 (the former Turnpike) is one of the busiest highways in Colorado (City of Westminster 2019).

### **Electrification**

Denver hosted the first demonstration of electricity in Colorado with the construction of an exhibition arc light plant in 1881 (Robertson 1982). Additionally, the state's first hydroelectric facility was built in Aspen in 1885 (Schweigert 1998). Electrical development in the state progressed quickly. 48 generating stations were in operation by 1902, producing a combined total of over 60 million kilowatt hours. The mining industry was the primary driver for early electrical development with projects in Aspen, Leadville, and Telluride. Residential electrification spurred development in large urban

centers, such as Denver and Colorado Springs. Electrical development prior to the 1920s was often confined to individual municipalities or mining districts. From the 1920s to the 1930s the focus shifted to creating interconnected transmission systems (CSPC 1938). Although development during this period included rural, cross-regional lines, these did not usually result in rural electrification. High costs limited connections to homes and businesses adjacent to the line and distribution lines were uncommon in rural areas. Westminster was receiving electric light and power from the Public Service Company of Colorado by at least 1924 (CSPC 1938).

## File Search and Literature Review

Prior to initiating field investigations, HDR requested a file search and literature review from OAHF. The file search identified 12 previous surveys within 0.25 mile of the APE (Table 2). These surveys were initiated by urban development and road construction.

These prior surveys documented 25 cultural resources within 0.25 mile of the APE (Table 3). Resources consisted of prehistoric lithic scatters, open camps, agricultural complexes, bridges, architectural sites, culverts, and road segments. Of the total cultural resources, 3 are isolated finds.

**Table 2. Previously recorded cultural resource surveys within 0.25 mile of the APE.**

Report No.	Year	Report Name	Author(s)
AM.CH.NR1	1985	Archaeological Clearance of Project FR 287-3(36) on State Highway 287 at West 120th Avenue	Angulski, Debra
JF.CH.NR25	1990	Archaeological Survey of the 104th/US 36 Phase II Extension, Jefferson County, Colorado	Angulski, Debra
JF.CH.NR52	2007	An intensive Archaeological Inventory of Old Wadsworth Road at Big Dry Creek in Westminster, Jefferson County, Colorado (CDOT# STE M356-020)	Hand, O.D.
JF.CH.NR54	2007	Paleontological Technical Report: Old Wadsworth Boulevard and Big Dry Creek Categorical Exclusion Project, City of Westminster, Jefferson County, Colorado	Murphey, Paul C. and David Daitch
JF.CH.R12	1990	Survey Report, CDOH Project CC 11-0036-08, 104th and US 36 Interchange, Phase II	Pearce, Sally
JF.CH.R50	2005	104th Avenue and Sheridan Boulevard Intersection Improvements, Class III Cultural Resource Survey Report, Jefferson County, Colorado (SEI 2004-169)	Greenberg, Marc E.
JF.CH.R8	1988	Results of a Cultural Resource Inventory for the Proposed West 104th/ US Highway 36 Interchange, Jefferson County, Colorado	Joyner, Kathryn L.
JF.H.R3	2004	A Cultural Resources Inventory of the Proposed US 36 Underpass at Church Ranch Boulevard, Jefferson County, Colorado	Gantt, Erik M.
JF.LG.R78	2009	Westminster Selective Intensive Survey Jefferson County, Cultural Resource Survey, 2008-2009, Westminster (CLG 08-08-21710-018)	N/A



**Table 2. Previously recorded cultural resource surveys within 0.25 mile of the APE.**

Report No.	Year	Report Name	Author(s)
MC.CH.R192	2006	US Highway 36 Environmental Impact Statement: Results of an Archaeological Survey of the Highway and Railroad Corridors, Adams, Boulder, Broomfield, Denver and Jefferson Counties, Colorado and Addendum	Tucker, JR, Gordon C., Juston J. Fariello and Robert J. Mutaw and Feldman, Jessica (Addendum)
MC.CH.R59	1995	Cultural Resource Investigations along US Highway 36 Between Sheridan Boulevard and State Highway 121, Broomfield and Jefferson Counties, Colorado (C 0361-046)	N/A
MC.HW.R6	1980	Cultural Response Inventory Report Proposed North Sheridan Boulevard Expansion Project, Jefferson and Adams Counties, Addendum	Engleman, Craig A.

**Table 3. Previously recorded cultural resources within 0.25 mile of the APE.**

Site No.	Name/Description	Resource Type	NRHP Eligibility from Previous Investigation*	NRHP Eligibility Date
5AM635	Merritt Hutton Jr. High Site	Historical Archaeology, Prehistoric Archaeology	Needs data (F)	1993
5AM666	Stuffy Nose Site	Historical Archaeology, Prehistoric Archaeology	No Assessment Given	1993
5AM670	Emmy Montoya Site	Prehistoric Archaeology	No Assessment Given	1993
5AM671	IF- Chert Debitage	Prehistoric Archaeology	Not Eligible (F)	1993
5AM672	IF- Chert Debitage	Prehistoric Archaeology	Not Eligible (F)	1993
5AM2706	Big Dry Creek Bridge E-16-GA	Historical Archaeology, Historic	Not Eligible (O)	2014
5AM2830	Metzger Farm/ Loch-In-Vale Farms	Historical Archaeology, Historic	Listed on NRHP	2013
5AM3076.1	Calkins Ditch	Historical Archaeology, Historic	Non-supporting	2017
5AM3203	Big Dry Creek Bridge E-16-GB	Historical Archaeology, Historic	Not Eligible (O)	2014
5AM3204	Barber Property	Historical Archaeology, Historic	Not Eligible (O)	2014
5JF519.3	Colorado & Southern Railroad	Historic	Eligible (O)	1990
5JF649	Open Lithic Scatter	Prehistoric Archaeology	Not Eligible (F)	2001
5JF720	Grumpy Terrace	Prehistoric Archaeology	Not Eligible (F)	1991



**Table 3. Previously recorded cultural resources within 0.25 mile of the APE.**

Site No.	Name/Description	Resource Type	NRHP Eligibility from Previous Investigation*	NRHP Eligibility Date
5JF838	Merritt Hutton Junior High American History Class-1992	Prehistoric Archaeology	Not Eligible (F)	1992
5JF971	Church Ranch (Centennial Farm)	Historical Archaeology, Historic	Eligible (O)	2009
5JF987	Jessica Goud's Site	Prehistoric Archaeology	No Assessment Given	1994
5JF2243	Denver/Boulder Turnpike/ US Highway 36	Historical Archaeology, Historic	Needs Data (F)	1999
5JF2243.1	Denver/Boulder Turnpike/ US Highway 36- Segment	Historical Archaeology, Historic	Not Eligible (O)	2004
5JF2244	Culvert E-16-FS	Historical Archaeology, Historic	Not Eligible (O)	2002
5JF3753	Concrete Box	Historical Archaeology	Not Eligible (O)	2004
5JF3754	IF- Quartzite Debitage	Prehistoric Archaeology	Not Eligible (O)	2004
5JF4657	Green Residence	Historic	Not Eligible (O)	2009
5JF4661	Kneifl Residence	Historic	Not Eligible (O)	2008
5JF4789	Fossilized Bone	Paleontological	No Assessment Given	2004
5JF6973	Juchem School/ Jefferson Academy Charter Elementary School	Historic	Not Eligible (O)	2011

\* (F) indicates Field recommendation; (O) indicates Official determination



## 4 Field Methods

The Class III pedestrian survey of the APE was conducted on December 13, 2019. Weather was clear, cool, and windy with temperatures around 40°F (4°C). The APE was surveyed by two HDR archaeologists with a 15-m transect spacing. Ground visibility was good (75 -90 percent). All erosional cuts and rodent burrows were closely inspected for cultural materials.

All cultural resources were recorded on Colorado Management Data forms and on the appropriate component forms. Cultural resources that did not meet the definition of a site were recorded on Isolated Find Records. Digital photographs, field notes, global positioning system (GPS) data, maps, and other data pertaining to the Project are stored at HDR.

HDR uses the following guidelines for defining sites and isolated finds:

- A prehistoric isolate may be one to five surface artifacts with no associated cultural feature, such as hearths, rock alignments, or rock circles.
- Historical isolates may be defined as simple features without associated artifacts, or any number of artifacts that lack variation and represent limited human activity, such as small can dumps, section markers, one to three aspen trees with inscriptions more than 50 years old, or up to three prospect pits with no associated artifacts.
- Prehistoric sites have more than five surface artifacts or a feature (hearth, rock alignment, or organic soil stain) with associated artifacts. Culturally modified trees are sites if their modification is from the prehistoric period.
- Historical artifact scatters with more than five items and historical features with associated artifacts are considered sites.
- Prospect pits with more than a few associated artifacts or tools are considered sites. In addition, four or more prospect pits within a 100-m radius are considered prospecting complex sites.
- Four or more aspen trees with inscriptions older than 50 years are sites.
- Roads older than 50 years will be recorded as sites.

Eligibility recommendation for sites are based on National Register of Historic Places (NRHP) criteria (NPS 1997). To warrant consideration for listing on the NRHP, a site must meet at least one of the four following criteria:

- A. The resource is associated with events that have made a significant contribution to the broad pattern of history.
- B. The resource is associated with lives of people significant in the past.
- C. The resource embodies distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic value; or represents a significant and distinguishable entity whose components may lack individual distinction.
- D. The resource has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting at least one of the above criteria, a site must retain several, if not most, of the aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. Integrity is defined as the authenticity of a property's historic identity, as shown by the survival of physical characteristics it possessed in the past, and its capacity to convey information about a culture or people, historic patterns, or architectural or engineering design or technology. Location refers to the place where an event occurred or a property was constructed. Design considers elements such as the plan, form, and style of a property. Setting is the property's physical environment. Materials refer to the physical elements used to construct the property. Workmanship refers to the craftsmanship of the property's builders. Feeling is the property's ability to convey a sense of historical time and place. Association refers to the link between the property and a historic event, pattern of events, or person.

Linear sites are unique in regard to recording and evaluation. Considered structures under National Park Service definitions, linear sites represent a resource type where length greatly exceeds width. These resources often extend beyond the scope of a given project. According to Colorado OAHP guidelines, individual segments of linear resources can be recorded within a given project (OAHP n.d.). Linear resources are evaluated using the criteria discussed above to determine significance. The Colorado OAHP considers all linear sites not recorded for their entire length eligible for the purposes of Section 106 consultation. Individual segments are then assessed for integrity and are found to either support or not support the eligibility of the entire resource. Typically, adverse effects on non-supporting segments will not detrimentally affect the remaining resource, whereas adverse effects on supporting segments may adversely affect the entire resource.



## 5 Results and Evaluations

The Class III survey identified two historical sites. The sites consist of one segment of Wadsworth Boulevard and one segment of Xcel Transmission Line 9055. One previously recorded site (5JF838, a prehistoric open lithic scatter), recorded in 1992, was mapped in OAHF files as within the APE, but subsequent to recording was apparently destroyed by development.

### **Site 5JF4508.4 – Wadsworth Boulevard**

**Site Type:** Historic

**Cultural Affiliation:** Euro-American

**NRHP Eligibility:** Non-Supporting

Site 5JF4508.4 is a segment of Wadsworth Boulevard. The original construction date of this road is unknown. However, the portion of the road passing through Arvada was originally named Centre but was renamed Wadsworth Boulevard in 1893 to honor Benjamin Franklin Wadsworth, the founder of Arvada (Jefferson County Historical Commission 2015). This road was the main north-south regional transportation route in Jefferson County and extended into adjoining Adams and Arapahoe counties. Early in the 1900s the road was graded and graveled. In the 1920s Wadsworth Boulevard became part of State Highway 121. Between 1920 and 1958 the road was paved with asphalt and widened to a four-lane road to accommodate increased traffic. In 1969, a five-mile-long bypass called Wadsworth Parkway was built at 92nd Avenue in Westminster. As a result of the bypass construction, Wadsworth Boulevard from 92nd Avenue to Colorado State Highway 128 was removed from the route of State Highway 121.

This segment of Wadsworth Boulevard (Figure 2), a portion of old State Highway 121, is recommended non-supporting of the overall eligibility of Wadsworth Boulevard, due primarily to a loss of integrity. The segment does retain integrity of location and setting, since there appears to be no major changes to the alignment or surrounding built environment since construction. However, the segment has been rebuilt from a graded gravel road to a paved four-lane road and no longer retains integrity of design, workmanship, and materials. In addition, the aspect of feeling and association has been compromised by subsequent development and the change from regional transportation route to local transportation route. The compromised integrity of the site limits its ability to convey its historic identity as a segment of Wadsworth Boulevard. No further work is recommended.



**Figure 2: Wadsworth Boulevard facing south from W 99th Place intersection.**



**Site 5JF7747.1 – Xcel Transmission Line 9055**

**Site Type:** Historic

**Cultural Affiliation:** Euro-American

**NRHP Eligibility:** Non-Supporting

Xcel Transmission Line 9055 is a 115 kilovolt electrical transmission line with H-frame structures that was built ca. 1956 during the post-World War II suburban development of Westminster. The line extends 12.35 miles from the Semper Substation to the Cherokee Switchyard Substation. Site 5JF7747.1 is a 0.44 mile segment of Xcel Transmission Line 9055 (Figure 3). This segment has been subject to periodic maintenance activities, but these have not fundamentally changed the characteristics of the line and the integrity of design, materials, and workmanship are retained. However, modern urban development has altered the original rural landscape of the surroundings and the integrity of the setting, feeling, and association have been compromised. The line appears to follow its historic alignment and the integrity of location is preserved. The compromised integrity of the site limits its ability to convey its historic identity as a segment of a rural transmission line. Xcel Transmission line 9055 was not recorded in its entirety and is treated as potentially eligible per OAHF guidelines. If the line as a whole is determined eligible this segment is recommended as non-supporting of the NRHP eligibility of the linear site as a whole. No further work is recommended.

**Figure 3: Xcel Transmission Line 9055 facing southeast.**



### **Site 5JF838– Meritt Hutton Junior High American History Class-1992**

**Site Type:** Prehistoric

**Cultural Affiliation:** Unknown

**NRHP Eligibility:** Not Eligible

Site 5JF838 was recorded, tested and partially collected in 1992 by the Meritt Hutton Junior High American History class as mitigation for the construction of the Westminster disc golf course. The site was described as a prehistoric lithic scatter on a previously plowed agricultural field that overlooks Big Dry Creek. The artifacts associated with the site included projectile points, tested cores, utilized flakes, lithic debitage and a scraper. A single cluster of fire-cracked rock was the only feature recorded. The majority of the lithic artifacts recovered were manufactured from petrified wood, with the remaining artifacts manufactured out of various types of chert and quartzite. Only the lithic tools were collected. Subsurface testing was noted on the original site form; however, there are no details regarding the type or extent of this testing. The site was recommended not eligible for inclusion in the NRHP. There is no official State Historic Preservation Office determination of NRHP eligibility.

During this survey the original site datum, a transmission line pole, was relocated; however, no cultural material was observed. Aerial imagery shows that sometime between 1993 and 1999 the area within the site boundary has been subject to a substantial amount a modern development, which includes the construction of North Sheridan Boulevard through the southern portion of the site (Figure 4), buried utilities through the center portion, and extensive sculpting and landscaping through the northern portion. As a result, no surface indications of the site were observed, and the

site is presumed to have been destroyed during development. HDR agrees with the previous recommendation of not eligible for inclusion in the NRHP. No further work is recommended.

**Figure 4. 5JF838 site overview facing north.**





## 6 Management Summary and Recommendations

HDR conducted a Class III cultural resource survey for the City of Westminster (City) in Jefferson County, Colorado. The City proposes to make improvements to the Big Dry Creek Interceptor Sewer (BDCIS). The project improvements (Project) consist of two related efforts that will involve ground disturbance. In Area 1 of the Project, 6190 feet of new 30-inch diameter interceptor pipe will be installed between Sheridan Boulevard and 104th Avenue. The new pipe will parallel an existing 30-inch interceptor line to the north of the existing pipeline. The existing line will be reinforced through the installation of a cured-in-place pipe. In Area 9 of the Project, 5800 feet of existing pipeline will be replaced. The existing pipeline varies between 12 and 21 inches in diameter and will be replaced with a uniform 21-inch pipe. The section of pipeline that will be replaced extends from the intersection of Yarrow Court and 99th Avenue west to a point near the intersection of Independence Way and 97th Avenue. Associated with this effort is construction of a proposed sidewalk providing access to a nearby school. The Project's Area of Potential Effect (APE) encompasses all Project design elements and is 69.9 acres in size, all of which is on City property.

Two historical sites were identified within the APE. They are one segment of Wadsworth Boulevard (5JF4508.4) and one segment of Xcel Transmission Line 9055 (5JF7747.1). Both segments are recommended non-supporting of the National Register of Historic Places eligibility of the linear site as a whole, and no further work is recommended. One previously recorded prehistoric site, 5JF838, was relocated based on the datum, however no surface indications of the site were observed in the field, and the site is presumed to have been destroyed during the construction of North Sheridan Boulevard and associated landscaping.

Pending concurrence of the OAHP with the site eligibility recommendations, a determination of "no historic properties affected" is recommended for the Project pursuant to 36 Code of Federal Regulations (CFR) § 800.5 of the National Historic Preservation Act (1966, as amended in 2000) (NHPA). No further work is necessary.



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## Appendix A. Map of Sites

(1:24,000 maps)



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## Appendix B. Site Forms



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HISTORY *Colorado*

FEB 28 2020

Patrick J. Pfaltzgraff  
Director, Water Quality Control Division  
Colorado Department of Public Health and Environment  
4300 Cherry Creek Drive S.  
Denver, CO 80246

Re: State Revolving Fund, Big Dry Creek Interceptor Sewer Improvements, City of Westminster,  
Jefferson County (HC #76876)

Dear Mr. Pfaltzgraff:

Thank you for your correspondence dated February 21, 2020 and received by our office on February 21, 2020 regarding the consultation of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

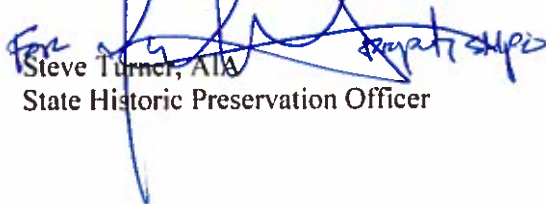
After review of the provided information, we do not object to the proposed Area of Potential Effects (APE) for the above project. We concur that 5JF.838 is *not eligible* for the National Register of Historic Places (NRHP), and that segments 5JF.4508.4 and 5JF.7747.1 are *non-supporting* to the overall eligibility of their resources.

Our office has reviewed the scope of work and assessment of adverse effects, we concur with the recommended finding of *no historic properties affected* [36 CFR 800.4(d)(1)] under Section 106 for 5JF.838, and we concur with the recommended finding of *no adverse effect* [36 CFR 800.5(d)(1)] under Section 106 for 5JF.4508.4 and 5JF.7747.1.

Should unidentified archaeological resources be discovered in the course of the undertaking, work must be interrupted until the resources have been evaluated in terms of the National Register eligibility criteria (36 CFR 60.4) in consultation with our office pursuant to 36 CFR 800.13. Also, should the consulted-upon scope of the work change please contact our office for continued consultation under Section 106 of the National Historic Preservation Act.

If there are any questions please contact Jason O'Brien, Section 106 Compliance Manager, at (303) 866-2673 or [Jason.obrien@state.co.us](mailto:Jason.obrien@state.co.us).

Sincerely,

  
Steve Turner, AIA  
State Historic Preservation Officer

Appendix G.  
Agency Scoping Letters Sent



November 15, 2019

Drue DeBerry  
Acting Colorado Field Supervisor  
USFWS Mountain-Prairie Region Office  
Colorado field office  
P.O. BOX 25486 DFC (MS 65412)  
Denver, CO 80225-0486

**Subject: Big Dry Creek Interceptor Sewer Improvements Project**

Dear Mr. DeBerry:

This letter is to inform you about the upcoming Big Dry Creek Interceptor Sewer Improvements Project (hereafter BDCIS or “the project”), and request any information or issues relating to resources you believe should be considered during project development. The City of Westminster (City) provides sewer service to over 110,000 people, covers approximately 29.8 square miles, and contains two major sewer basins: Little Dry Creek (LDC) and Big Dry Creek (BDC). The BDC basin, which is the focus of this project, collects and conveys 75 percent of the City’s total wastewater flows, generated in the northern portion of the City, to its Big Dry Creek Wastewater Treatment Facility. A major concern for the BDCIS is capacity for existing and future flows. Additionally, hydrogen sulfide corrosion is causing structural integrity concerns for the existing pipes and structures. The City is in the process of evaluating the repair/replacement of the BDCIS to increase the hydraulic capacity and improve the condition of the system. The City is in the process of preparing an Environmental Assessment (EA) to evaluate the environmental impacts of the proposed action relative to reasonable alternatives. The purpose of the public scoping process is to facilitate determination of the nature and range of issues to be addressed in the EA.

**Project Description**

This section summarizes the improvements recommended for implementation as part of the BDCIS Project. The locations of the proposed project areas described below are shown in the attached maps.

- **Project Area 1.** The recommended alternative includes constructing a new parallel interceptor generally following the existing 30 inch interceptor to the North.
- **Project Area 3.** The recommended alternative abandonment of approximately 300 feet of truss pipe and converting the Diversion Structure to a flow through structure.
- **Project Area 9.** The recommended alternative includes replacing 12 inch pipe with 21 inch pipe.

- **Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11.** The recommended alternative includes Cured-In-Place Pipe lining of pipe segments that have been identified as poor condition.

Besides the recommended improvements to the sewer line, the project also proposes to install permanent flow monitoring equipment in the BDCIS. The flow meters will capture data from both dry-weather and wet-weather periods to monitor capacity and infiltration and inflow in the BDCIS system. The data will be used to better understand capacity in the existing system for design of future interceptors and lift stations.

### Comments

As part of the EA process, we are requesting input from agencies and the public. We welcome any information or concerns you wish to share. The information will be used to help us prepare the EA, which itself will be subject to a separate public comment period. Please provide written comments or provide other information regarding the action at your earliest convenience, but no later than 30 days from the receipt of this letter. Please send comments to:

Sirena Brownlee  
HDR Engineering  
419 Canyon Avenue, Suite 316  
Fort Collins, CO 80521  
Email: [sirena.brownlee@hdrinc.com](mailto:sirena.brownlee@hdrinc.com)

Please note that comments, including names and street addresses of respondents, will be available for public review at the City of Westminster and will be subject to disclosure under the Freedom of Information Act (FOIA). They may also be published as part of the EA. Individual respondents may request confidentiality. If you wish to withhold your name and/or address from public review or disclosure under the FOIA, you must state this prominently at the beginning of your written comment. The City will honor such requests to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, are available for public inspection in their entirety.

Sincerely,



Julie Koehler, PE  
Utilities Engineering Manager  
City of Westminster

cc: File



### Project Area 1 Recommended Improvements

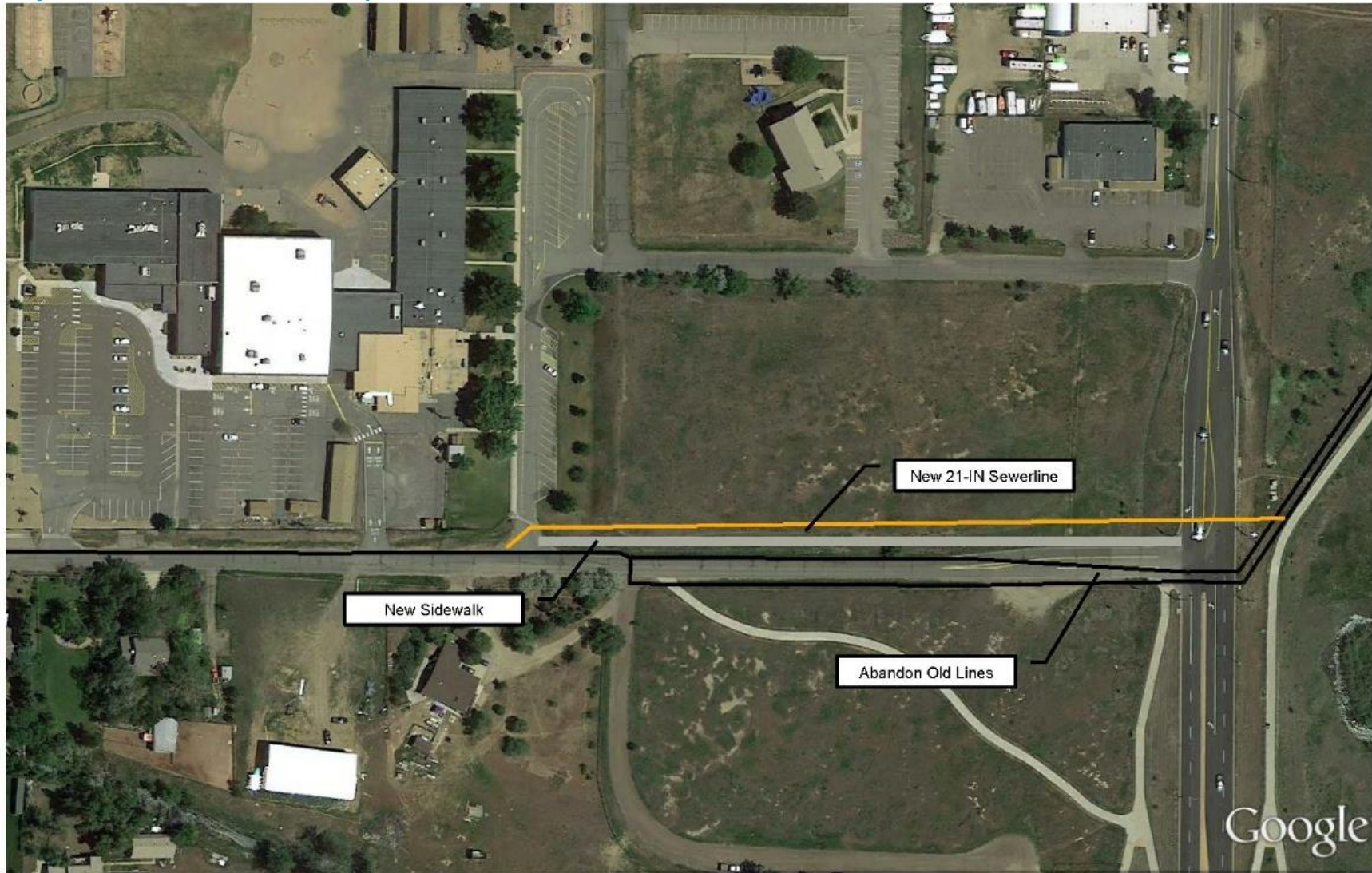


### Project Area 3 Recommended Improvements—Abandon 300-feet of Truss Pipe



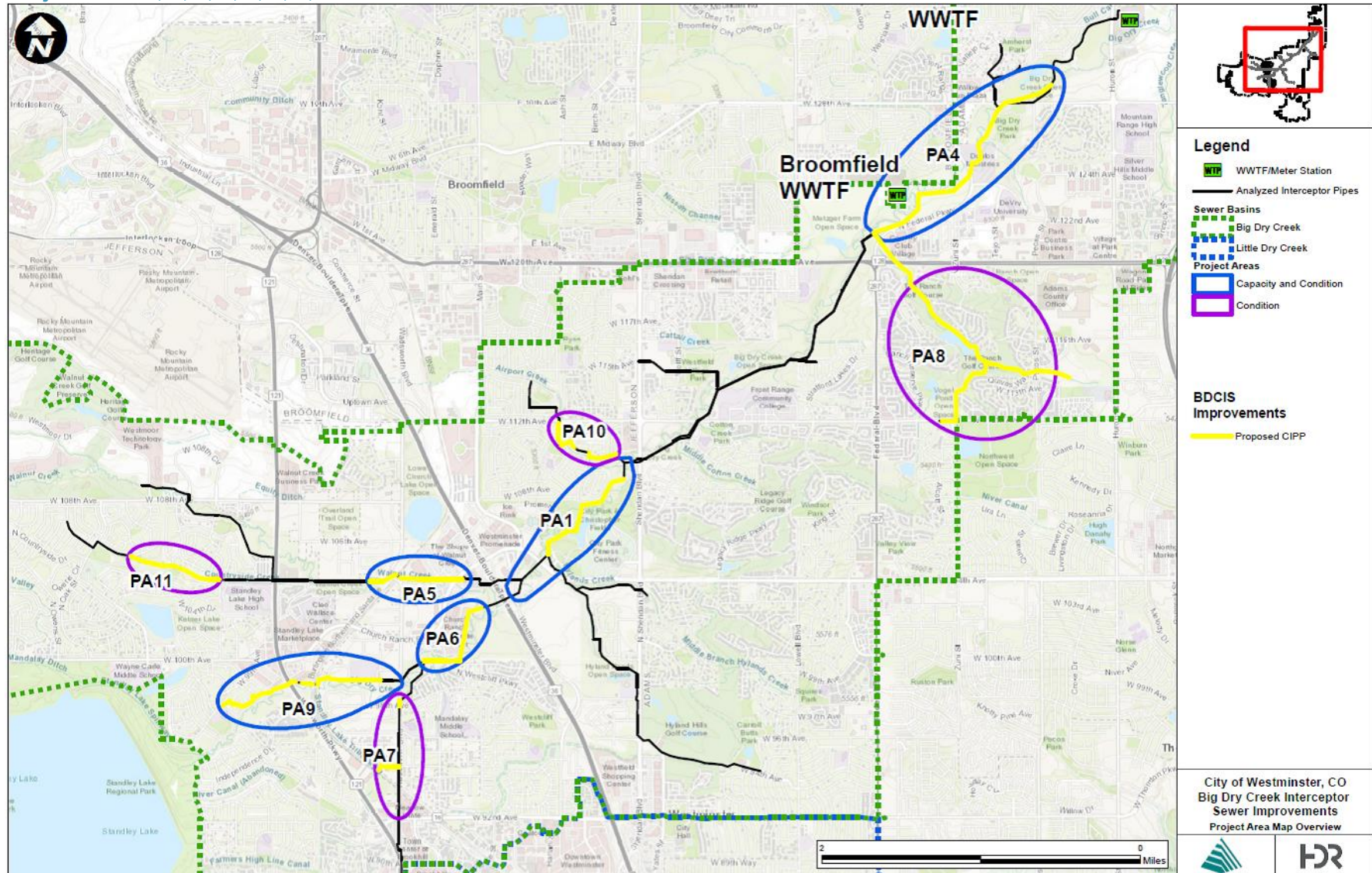


### Project Area 9 Recommended Improvements





**Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11—Recommended Alternative—CIPP**



City of Westminster, CO  
 Big Dry Creek Interceptor  
 Sewer Improvements  
 Project Area Map Overview





November 15, 2019

Jason O'Brien  
Section 106 Compliance Manager  
Colorado Historical Society  
1200 Broadway  
Denver, CO 80203-2137

**Subject: Big Dry Creek Interceptor Sewer Improvements Project**

Dear Mr. O'Brien:

This letter is to inform you about the upcoming Big Dry Creek Interceptor Sewer Improvements Project (hereafter BDCIS or “the project”), and request any information or issues relating to resources you believe should be considered during project development. The City of Westminster (City) provides sewer service to over 110,000 people, covers approximately 29.8 square miles, and contains two major sewer basins: Little Dry Creek (LDC) and Big Dry Creek (BDC). The BDC basin, which is the focus of this project, collects and conveys 75 percent of the City’s total wastewater flows, generated in the northern portion of the City, to its Big Dry Creek Wastewater Treatment Facility. A major concern for the BDCIS is capacity for existing and future flows. Additionally, hydrogen sulfide corrosion is causing structural integrity concerns for the existing pipes and structures. The City is in the process of evaluating the repair/replacement of the BDCIS to increase the hydraulic capacity and improve the condition of the system. The City is in the process of preparing an Environmental Assessment (EA) to evaluate the environmental impacts of the proposed action relative to reasonable alternatives. The purpose of the public scoping process is to facilitate determination of the nature and range of issues to be addressed in the EA.

**Project Description**

This section summarizes the improvements recommended for implementation as part of the BDCIS Project. The locations of the proposed project areas described below are shown in the attached maps.

- **Project Area 1.** The recommended alternative includes constructing a new parallel interceptor generally following the existing 30 inch interceptor to the North.
- **Project Area 3.** The recommended alternative abandonment of approximately 300 feet of truss pipe and converting the Diversion Structure to a flow through structure.
- **Project Area 9.** The recommended alternative includes replacing 12 inch pipe with 21 inch pipe.
- **Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11.** The recommended alternative includes Cured-In-Place Pipe lining of pipe segments that have been identified as poor condition.

Besides the recommended improvements to the sewer line, the project also proposes to install permanent flow monitoring equipment in the BDCIS. The flow meters will capture data from both dry-weather and wet-weather periods to monitor capacity and infiltration and inflow in the BDCIS system. The data will be used to better understand capacity in the existing system for design of future interceptors and lift stations.

## Comments

As part of the EA process, we are requesting input from agencies and the public. We welcome any information or concerns you wish to share. The information will be used to help us prepare the EA, which itself will be subject to a separate public comment period. Please provide written comments or provide other information regarding the action at your earliest convenience, but no later than 30 days from the receipt of this letter. Please send comments to:

Sirena Brownlee  
HDR Engineering  
419 Canyon Avenue, Suite 316  
Fort Collins, CO 80521  
Email: [sirena.brownlee@hdrinc.com](mailto:sirena.brownlee@hdrinc.com)

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Sincerely,



Julie Koehler, PE  
Utilities Engineering Manager  
City of Westminster

cc: File



### Project Area 1 Recommended Improvements

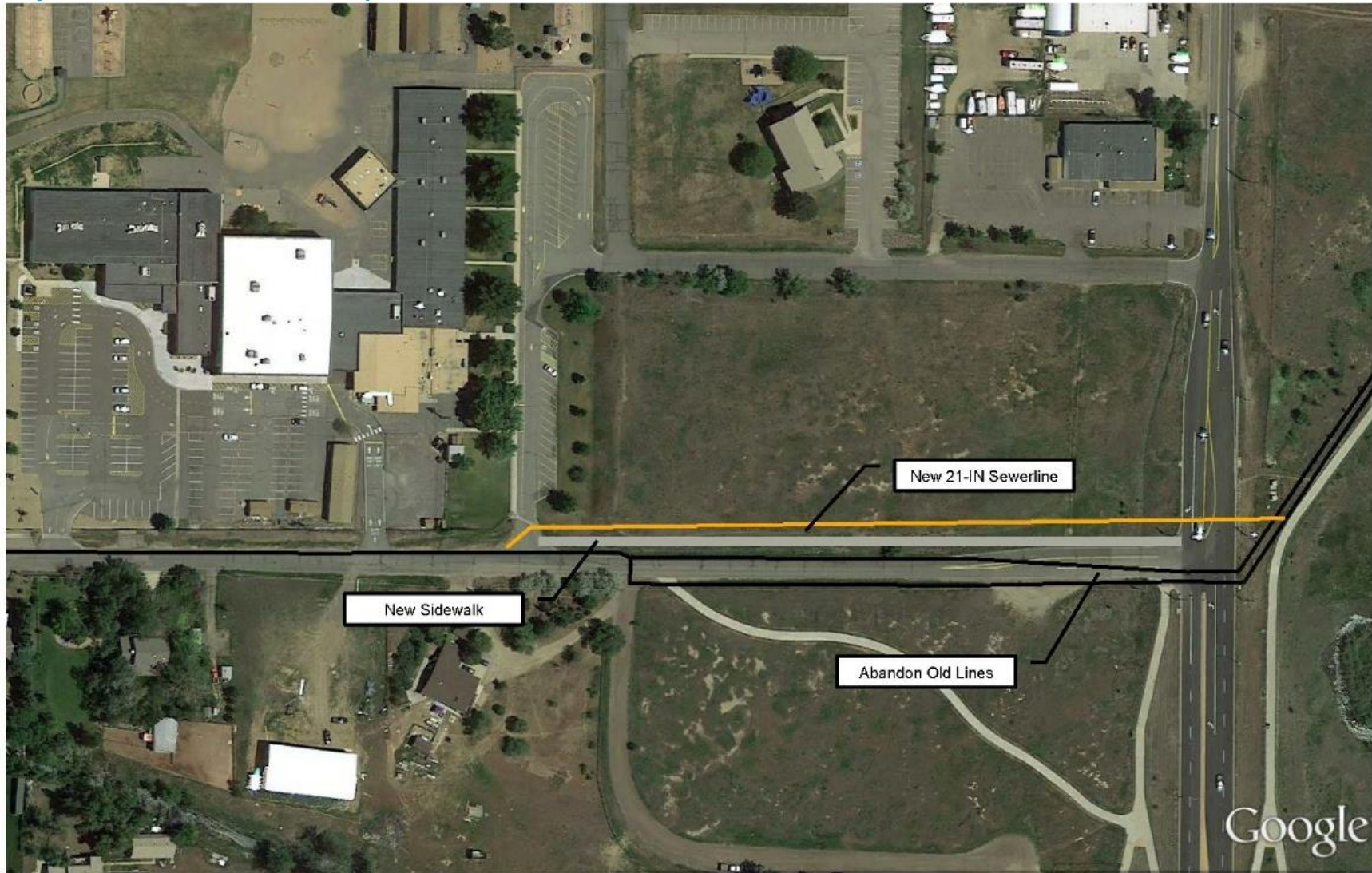


### Project Area 3 Recommended Improvements—Abandon 300-feet of Truss Pipe



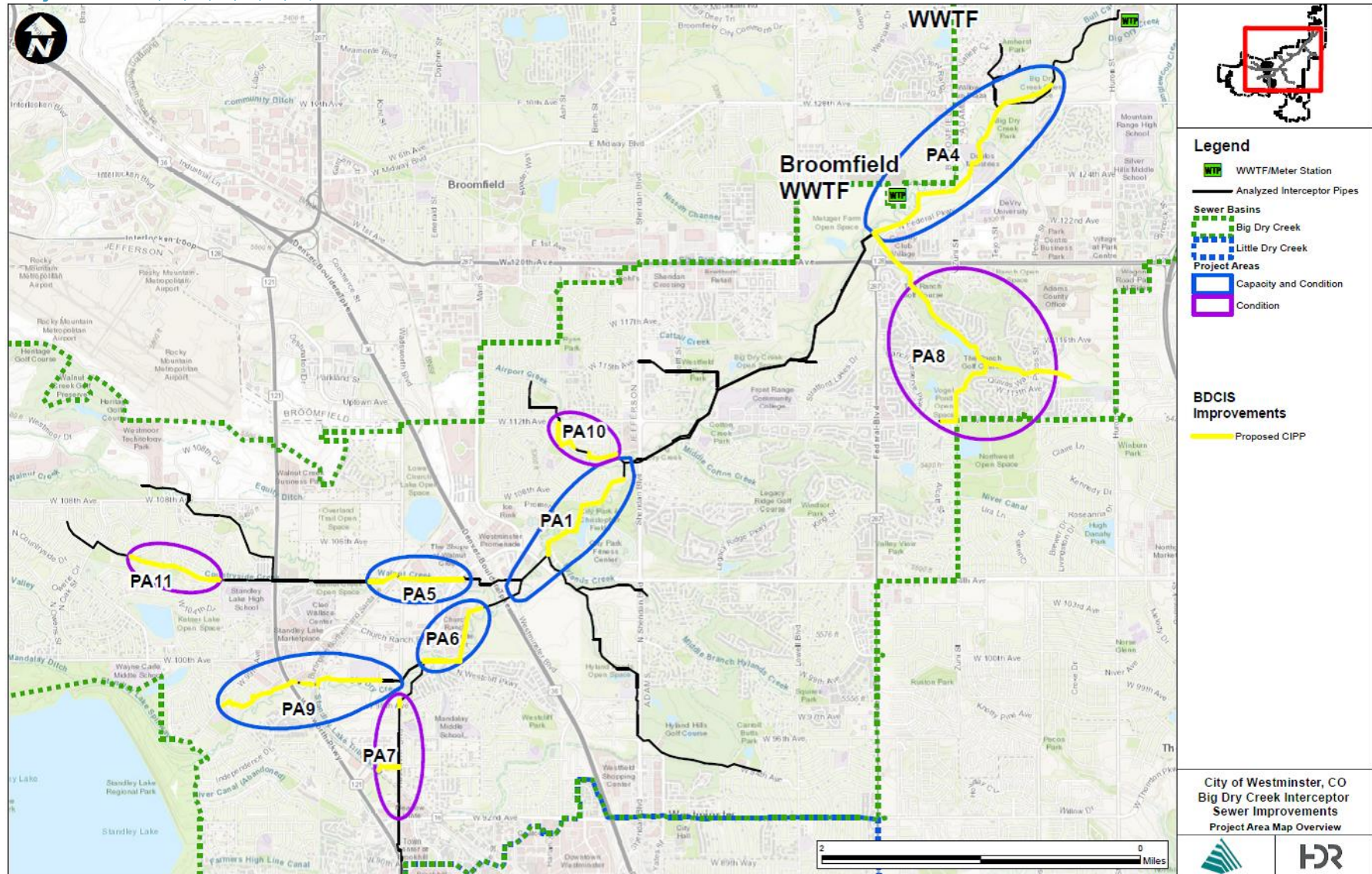


### Project Area 9 Recommended Improvements





**Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11—Recommended Alternative—CIPP**



City of Westminster, CO  
 Big Dry Creek Interceptor  
 Sewer Improvements  
 Project Area Map Overview





November 15, 2019

Kiel Downing  
Regulatory Program Manager  
U.S. Army Corps of Engineers Omaha District  
9307 South Wadsworth Blvd.  
Littleton, CO 80128

**Subject: Big Dry Creek Interceptor Sewer Improvements Project**

Dear Mr. Downing:

This letter is to inform you about the upcoming Big Dry Creek Interceptor Sewer Improvements Project (hereafter BDCIS or “the project”), and request any information or issues relating to resources you believe should be considered during project development. The City of Westminster (City) provides sewer service to over 110,000 people, covers approximately 29.8 square miles, and contains two major sewer basins: Little Dry Creek (LDC) and Big Dry Creek (BDC). The BDC basin, which is the focus of this project, collects and conveys 75 percent of the City’s total wastewater flows, generated in the northern portion of the City, to its Big Dry Creek Wastewater Treatment Facility. A major concern for the BDCIS is capacity for existing and future flows. Additionally, hydrogen sulfide corrosion is causing structural integrity concerns for the existing pipes and structures. The City is in the process of evaluating the repair/replacement of the BDCIS to increase the hydraulic capacity and improve the condition of the system. The City is in the process of preparing an Environmental Assessment (EA) to evaluate the environmental impacts of the proposed action relative to reasonable alternatives. The purpose of the public scoping process is to facilitate determination of the nature and range of issues to be addressed in the EA.

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- **Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11.** The recommended alternative includes Cured-In-Place Pipe lining of pipe segments that have been identified as poor condition.

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Julie Koehler, PE  
Utilities Engineering Manager  
City of Westminster

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### Project Area 1 Recommended Improvements

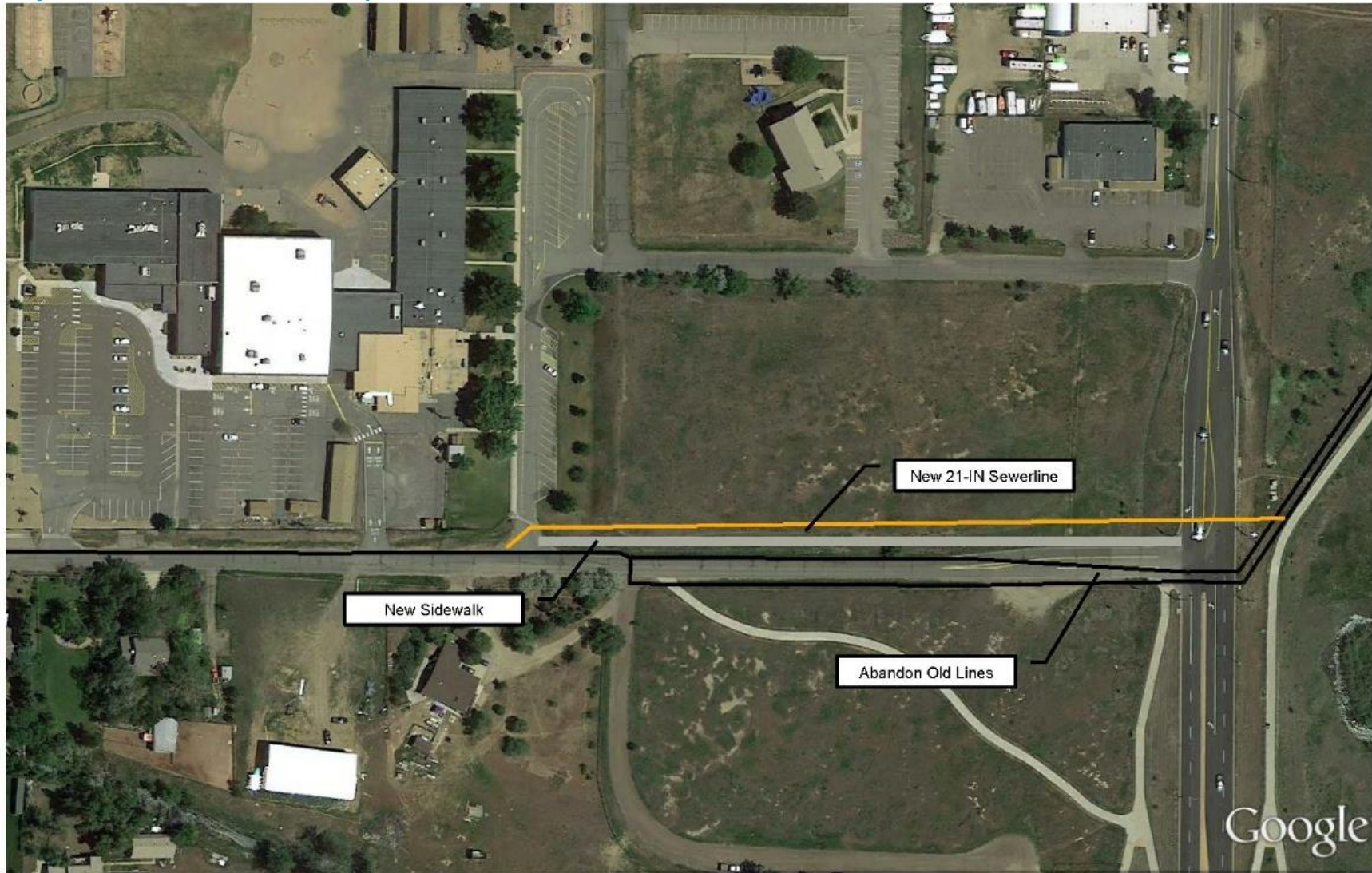


### Project Area 3 Recommended Improvements—Abandon 300-feet of Truss Pipe



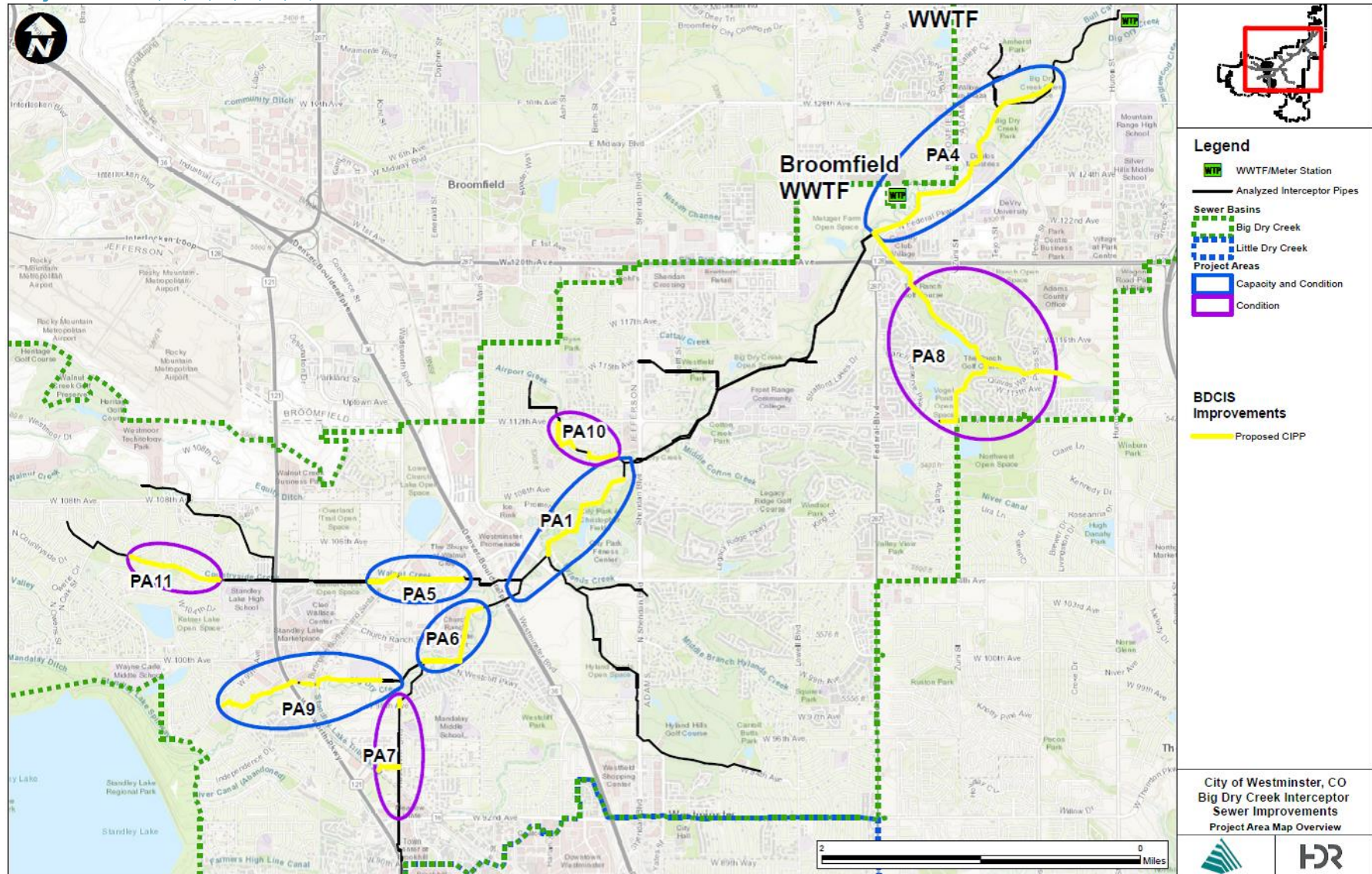


### Project Area 9 Recommended Improvements





**Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11—Recommended Alternative—CIPP**



City of Westminster, CO  
 Big Dry Creek Interceptor  
 Sewer Improvements  
 Project Area Map Overview







November 15, 2019

John Andrews  
State Conservation Engineer  
Natural Resources Conservation Service  
Denver Federal Center, Building 56, Room 2604  
PO Box 25426  
Denver, CO 80225-0426

**Subject: Big Dry Creek Interceptor Sewer Improvements Project**

Dear Mr. Andrews:

This letter is to inform you about the upcoming Big Dry Creek Interceptor Sewer Improvements Project (hereafter BDCIS or “the project”), and request any information or issues relating to resources you believe should be considered during project development. The City of Westminster (City) provides sewer service to over 110,000 people, covers approximately 29.8 square miles, and contains two major sewer basins: Little Dry Creek (LDC) and Big Dry Creek (BDC). The BDC basin, which is the focus of this project, collects and conveys 75 percent of the City’s total wastewater flows, generated in the northern portion of the City, to its Big Dry Creek Wastewater Treatment Facility. A major concern for the BDCIS is capacity for existing and future flows. Additionally, hydrogen sulfide corrosion is causing structural integrity concerns for the existing pipes and structures. The City is in the process of evaluating the repair/replacement of the BDCIS to increase the hydraulic capacity and improve the condition of the system. The City is in the process of preparing an Environmental Assessment (EA) to evaluate the environmental impacts of the proposed action relative to reasonable alternatives. The purpose of the public scoping process is to facilitate determination of the nature and range of issues to be addressed in the EA.

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- **Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11.** The recommended alternative includes Cured-In-Place Pipe lining of pipe segments that have been identified as poor condition.

Besides the recommended improvements to the sewer line, the project also proposes to install permanent flow monitoring equipment in the BDCIS. The flow meters will capture data from both dry-weather and wet-weather periods to monitor capacity and infiltration and inflow in the BDCIS system. The data will be used to better understand capacity in the existing system for design of future interceptors and lift stations.

### Comments

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Sincerely,



Julie Koehler, PE  
Utilities Engineering Manager  
City of Westminster

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### Project Area 1 Recommended Improvements

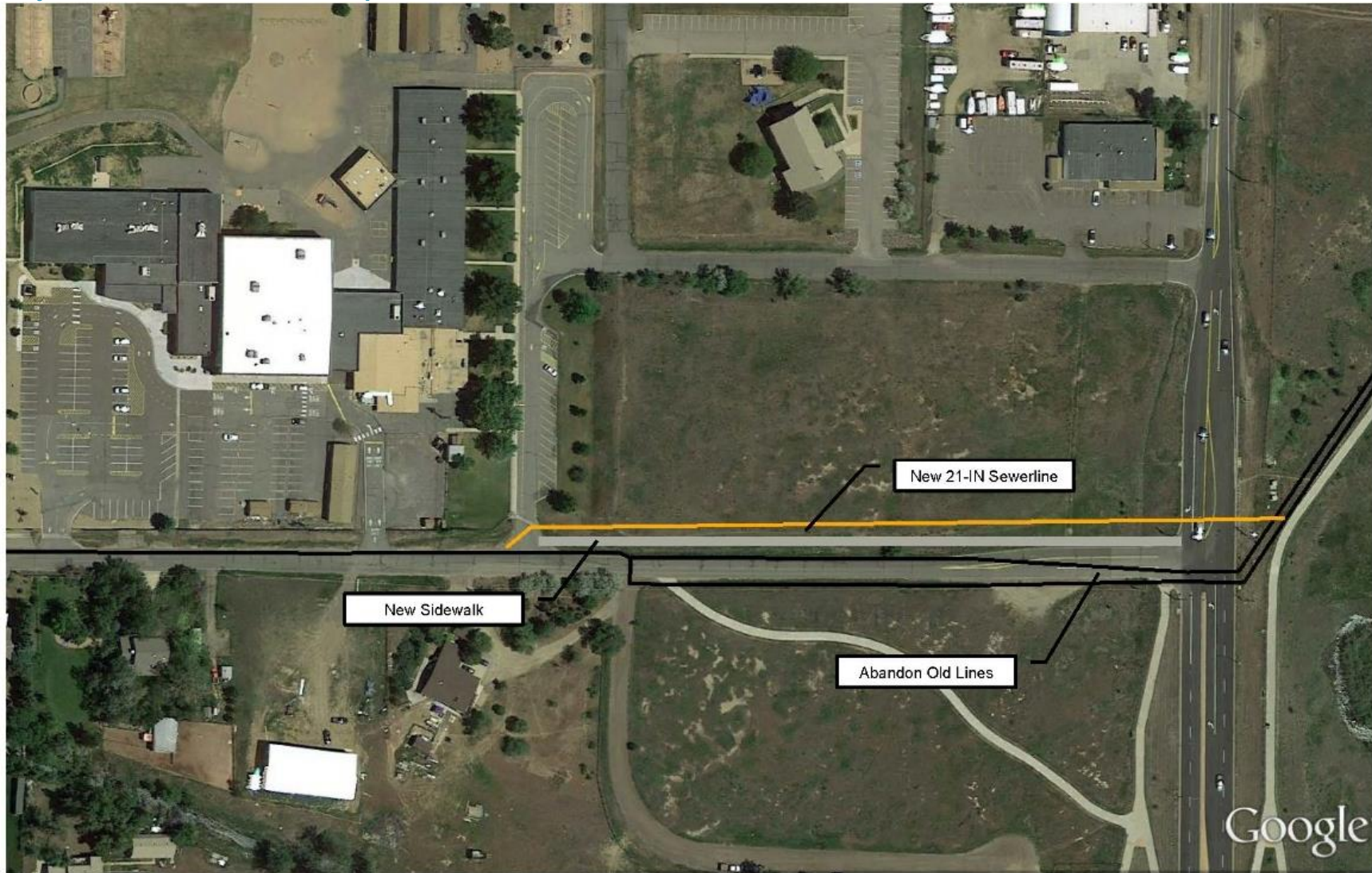




### Project Area 3 Recommended Improvements—Abandon 300-feet of Truss Pipe

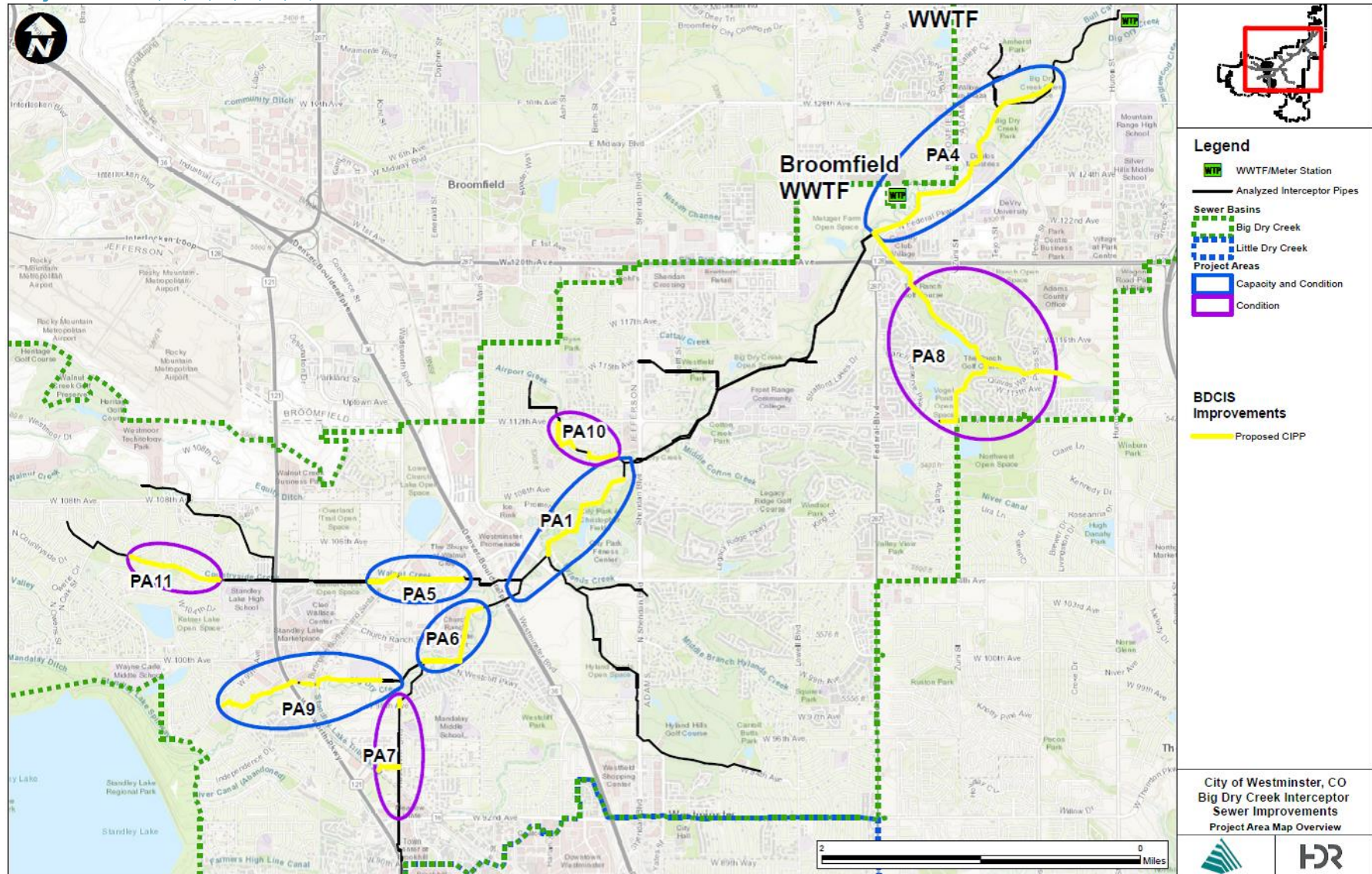


### Project Area 9 Recommended Improvements





**Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11—Recommended Alternative—CIPP**





November 15, 2019

Mark Leslie  
Northeast Regional Manager  
CPW  
6060 Broadway  
Denver, CO 80216

**Subject: Big Dry Creek Interceptor Sewer Improvements Project**

Dear Mr. Leslie:

This letter is to inform you about the upcoming Big Dry Creek Interceptor Sewer Improvements Project (hereafter BDCIS or “the project”), and request any information or issues relating to resources you believe should be considered during project development. The City of Westminster (City) provides sewer service to over 110,000 people, covers approximately 29.8 square miles, and contains two major sewer basins: Little Dry Creek (LDC) and Big Dry Creek (BDC). The BDC basin, which is the focus of this project, collects and conveys 75 percent of the City’s total wastewater flows, generated in the northern portion of the City, to its Big Dry Creek Wastewater Treatment Facility. A major concern for the BDCIS is capacity for existing and future flows. Additionally, hydrogen sulfide corrosion is causing structural integrity concerns for the existing pipes and structures. The City is in the process of evaluating the repair/replacement of the BDCIS to increase the hydraulic capacity and improve the condition of the system. The City is in the process of preparing an Environmental Assessment (EA) to evaluate the environmental impacts of the proposed action relative to reasonable alternatives. The purpose of the public scoping process is to facilitate determination of the nature and range of issues to be addressed in the EA.

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- **Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11.** The recommended alternative includes Cured-In-Place Pipe lining of pipe segments that have been identified as poor condition.

Besides the recommended improvements to the sewer line, the project also proposes to install permanent flow monitoring equipment in the BDCIS. The flow meters will capture data from both dry-weather and wet-weather periods to monitor capacity and infiltration and inflow in the BDCIS system. The data will be used to better understand capacity in the existing system for design of future interceptors and lift stations.

## Comments

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Sincerely,



Julie Koehler, PE  
Utilities Engineering Manager  
City of Westminster

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### Project Area 1 Recommended Improvements

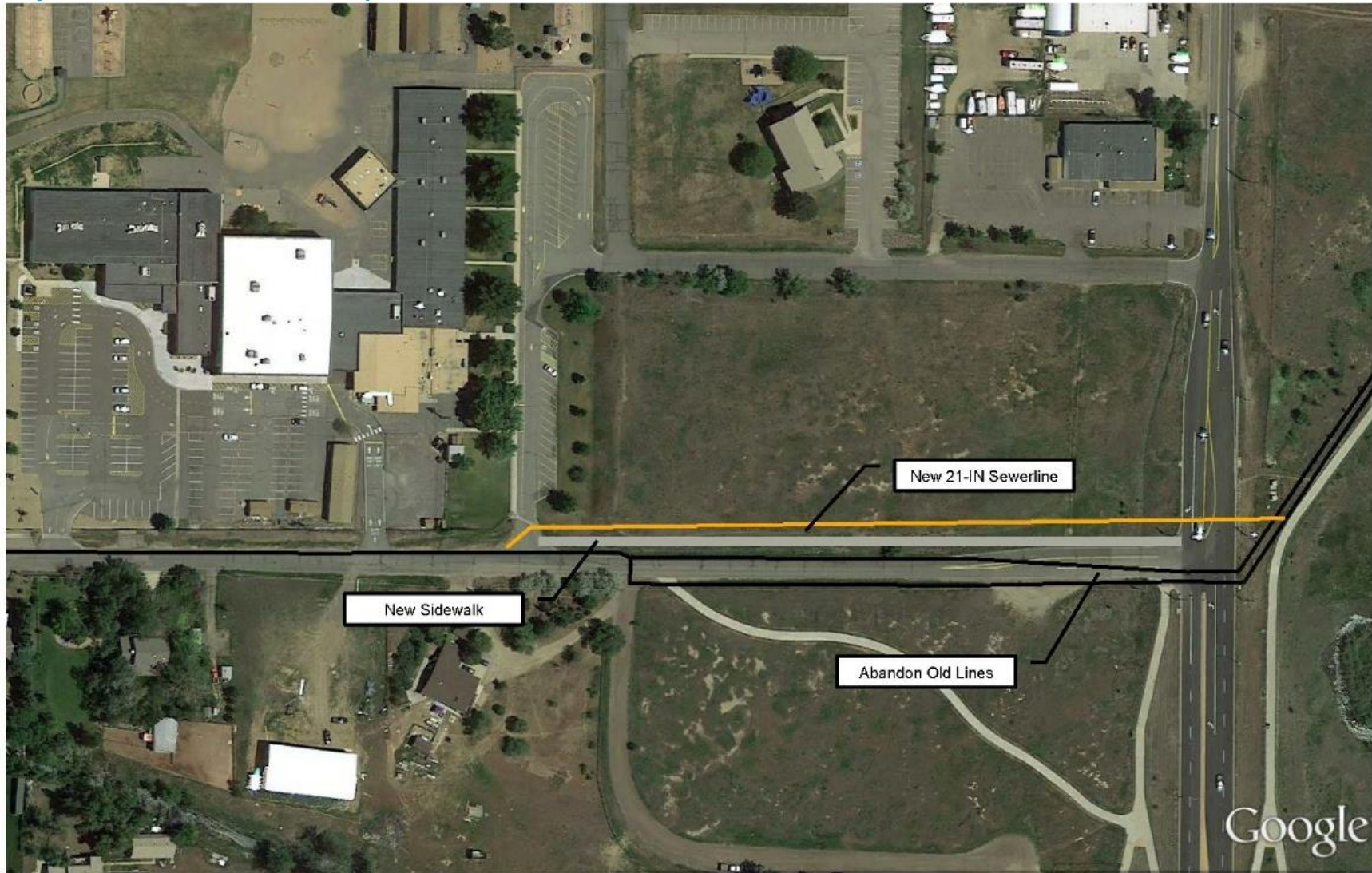


### Project Area 3 Recommended Improvements—Abandon 300-feet of Truss Pipe



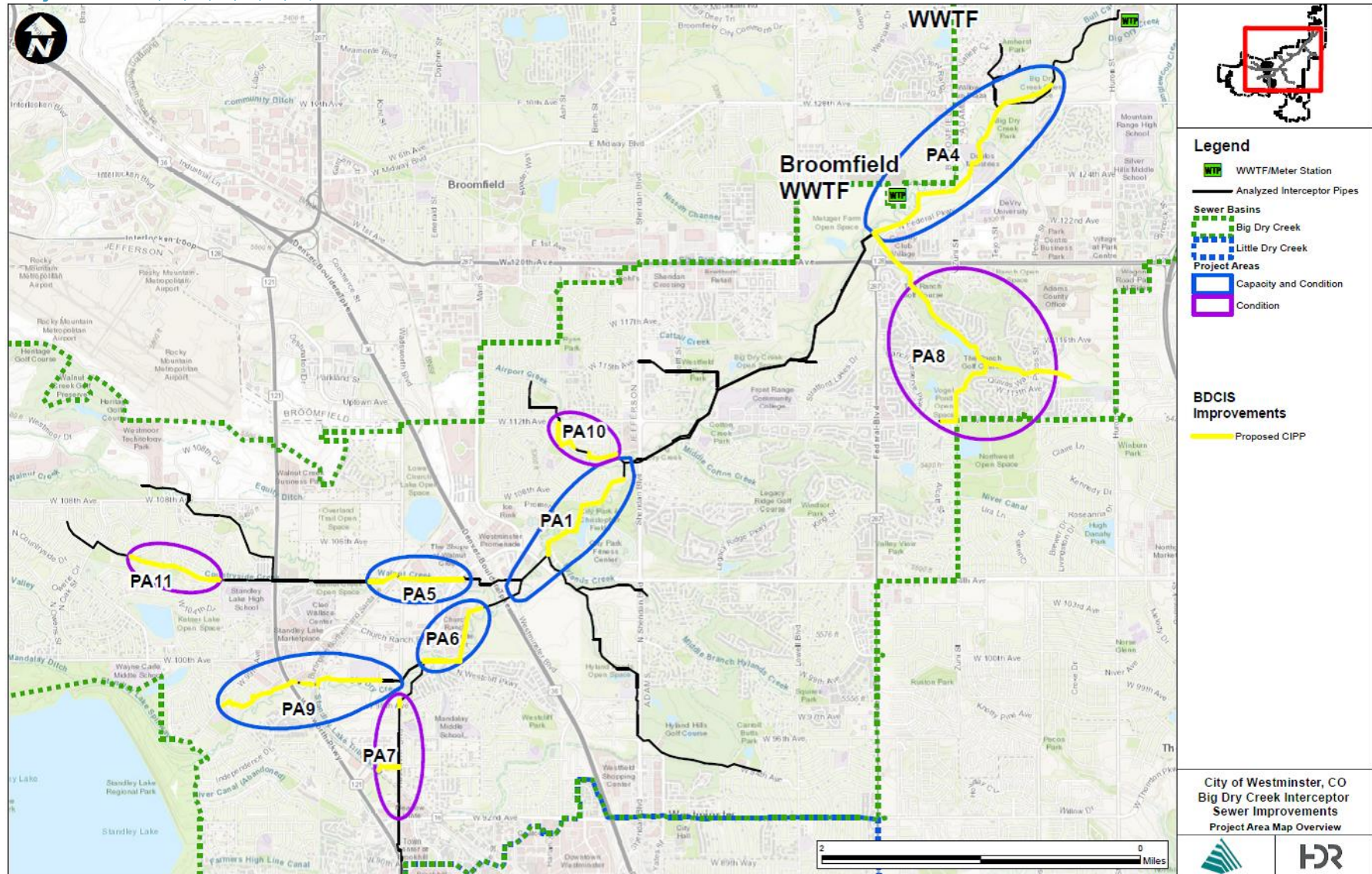


### Project Area 9 Recommended Improvements





**Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11—Recommended Alternative—CIPP**





November 15, 2019

Kevin Rein  
State Engineer  
Colorado State Engineer's Office  
1313 Sherman St, Suite 821  
Denver, CO 80203

**Subject: Big Dry Creek Interceptor Sewer Improvements Project**

Dear Mr. Rein:

This letter is to inform you about the upcoming Big Dry Creek Interceptor Sewer Improvements Project (hereafter BDCIS or "the project"), and request any information or issues relating to resources you believe should be considered during project development. The City of Westminster (City) provides sewer service to over 110,000 people, covers approximately 29.8 square miles, and contains two major sewer basins: Little Dry Creek (LDC) and Big Dry Creek (BDC). The BDC basin, which is the focus of this project, collects and conveys 75 percent of the City's total wastewater flows, generated in the northern portion of the City, to its Big Dry Creek Wastewater Treatment Facility. A major concern for the BDCIS is capacity for existing and future flows. Additionally, hydrogen sulfide corrosion is causing structural integrity concerns for the existing pipes and structures. The City is in the process of evaluating the repair/replacement of the BDCIS to increase the hydraulic capacity and improve the condition of the system. The City is in the process of preparing an Environmental Assessment (EA) to evaluate the environmental impacts of the proposed action relative to reasonable alternatives. The purpose of the public scoping process is to facilitate determination of the nature and range of issues to be addressed in the EA.

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Besides the recommended improvements to the sewer line, the project also proposes to install permanent flow monitoring equipment in the BDCIS. The flow meters will capture data from both dry-weather and wet-weather periods to monitor capacity and infiltration and inflow in the BDCIS system. The data will be used to better understand capacity in the existing system for design of future interceptors and lift stations.

## Comments

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Julie Koehler, PE  
Utilities Engineering Manager  
City of Westminster

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### Project Area 1 Recommended Improvements

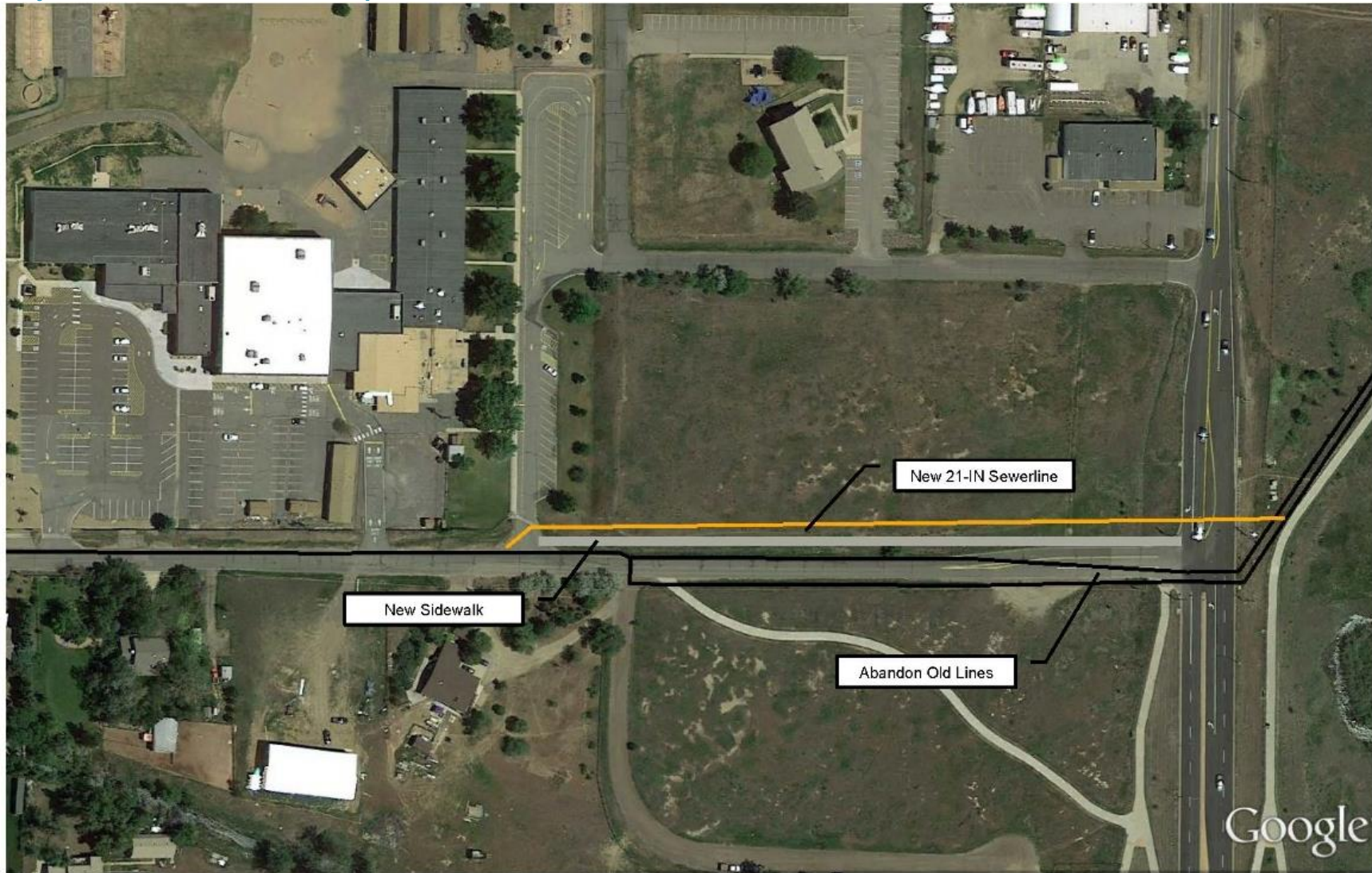




### Project Area 3 Recommended Improvements—Abandon 300-feet of Truss Pipe

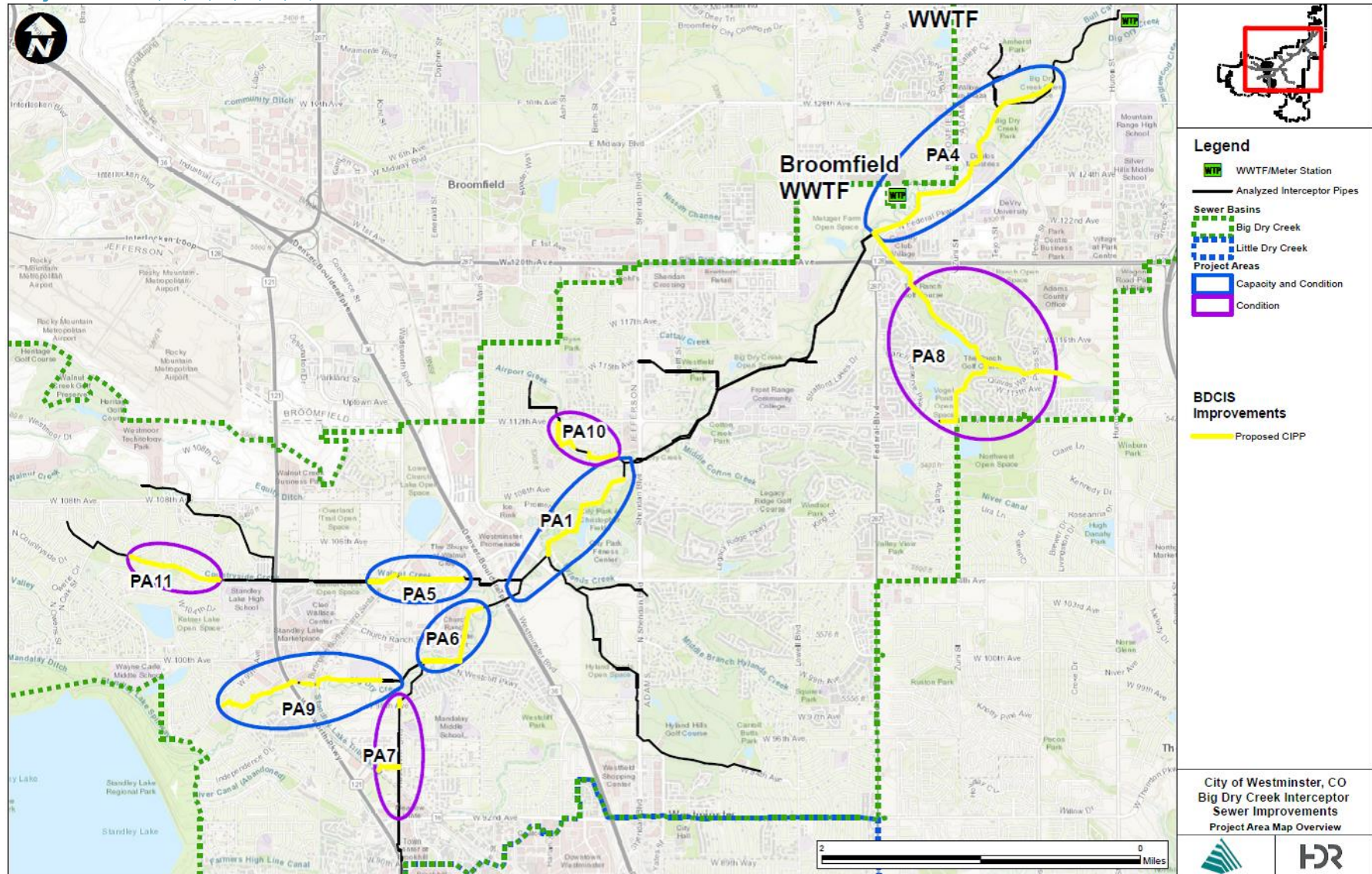


### Project Area 9 Recommended Improvements





**Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11—Recommended Alternative—CIPP**



City of Westminster, CO  
 Big Dry Creek Interceptor  
 Sewer Improvements  
 Project Area Map Overview





November 15, 2019

Mark McMillan  
Colorado Air Pollution Office  
Colorado Department of Public Health and Environment  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

**Subject: Big Dry Creek Interceptor Sewer Improvements Project**

Dear Mr. McMillan:

This letter is to inform you about the upcoming Big Dry Creek Interceptor Sewer Improvements Project (hereafter BDCIS or “the project”), and request any information or issues relating to resources you believe should be considered during project development. The City of Westminster (City) provides sewer service to over 110,000 people, covers approximately 29.8 square miles, and contains two major sewer basins: Little Dry Creek (LDC) and Big Dry Creek (BDC). The BDC basin, which is the focus of this project, collects and conveys 75 percent of the City’s total wastewater flows, generated in the northern portion of the City, to its Big Dry Creek Wastewater Treatment Facility. A major concern for the BDCIS is capacity for existing and future flows. Additionally, hydrogen sulfide corrosion is causing structural integrity concerns for the existing pipes and structures. The City is in the process of evaluating the repair/replacement of the BDCIS to increase the hydraulic capacity and improve the condition of the system. The City is in the process of preparing an Environmental Assessment (EA) to evaluate the environmental impacts of the proposed action relative to reasonable alternatives. The purpose of the public scoping process is to facilitate determination of the nature and range of issues to be addressed in the EA.

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Julie Koehler, PE  
Utilities Engineering Manager  
City of Westminster

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### Project Area 1 Recommended Improvements

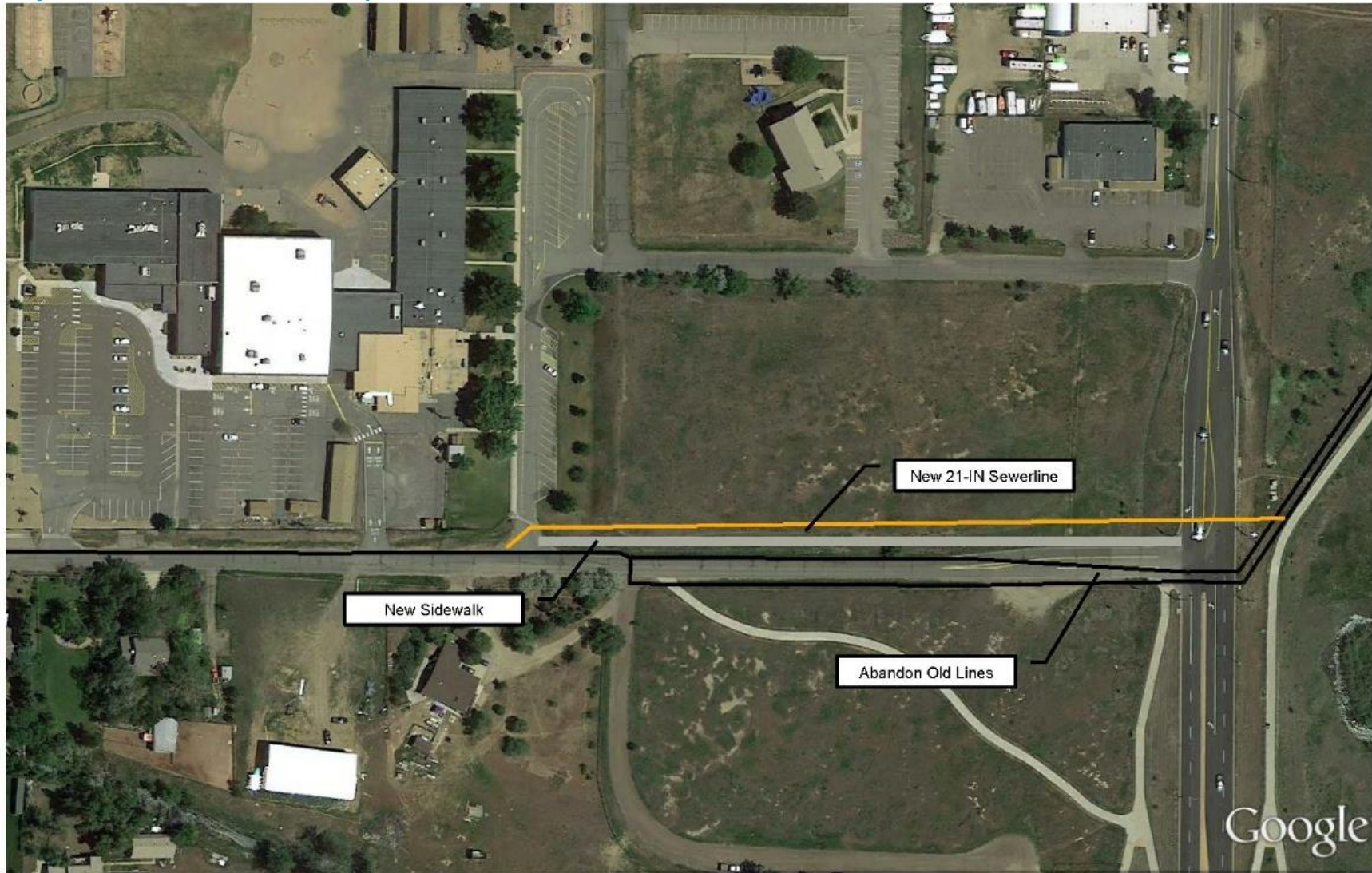


### Project Area 3 Recommended Improvements—Abandon 300-feet of Truss Pipe



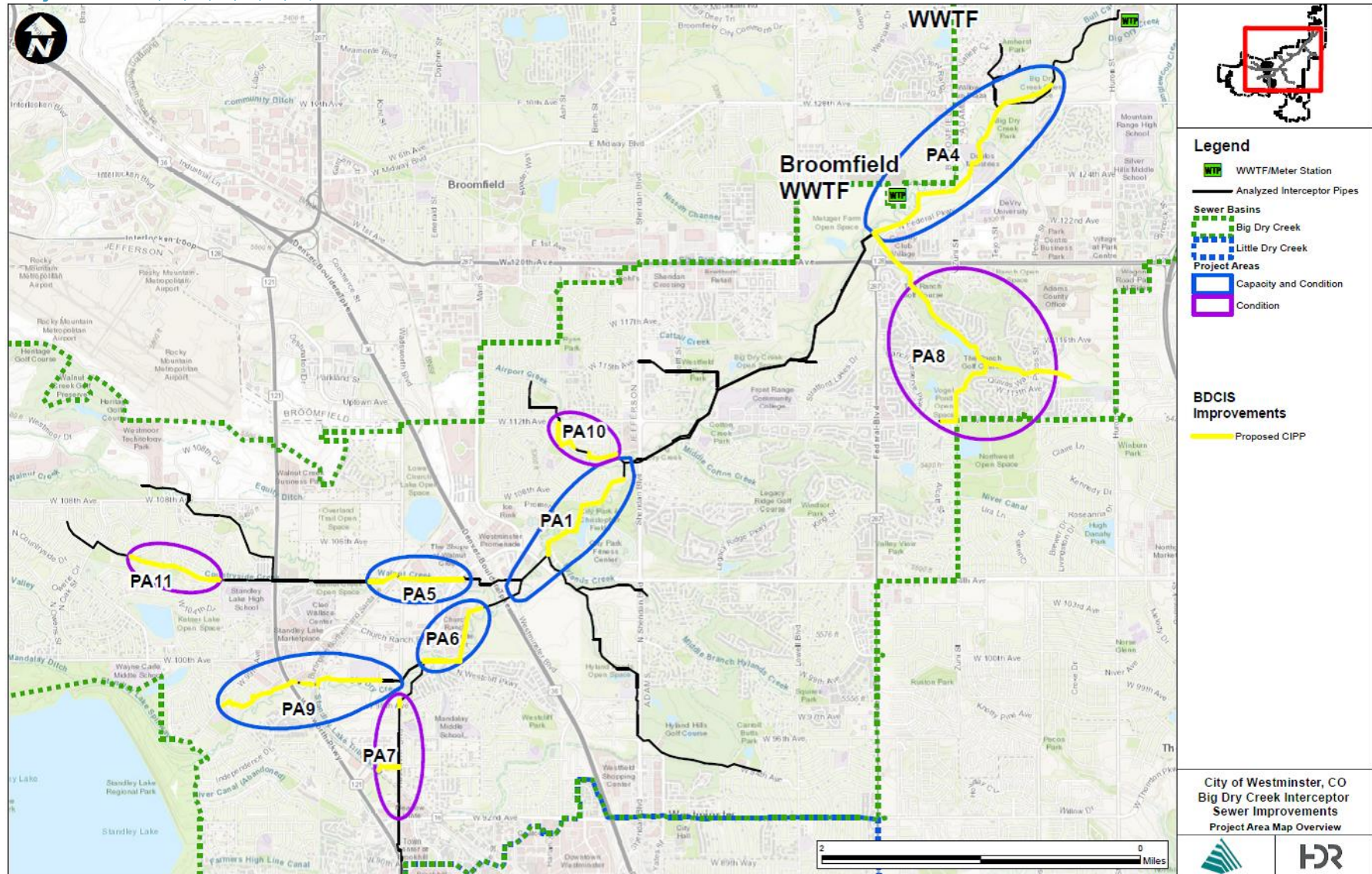


### Project Area 9 Recommended Improvements





**Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11—Recommended Alternative—CIPP**





November 15, 2019

Gary Weiner  
Intermountain Regional Office  
National Park Service  
Attn: Environmental Quality  
12795 West Alameda Parkway  
Lakewood, CO 80228

**Subject: Big Dry Creek Interceptor Sewer Improvements Project**

Dear Mr. Weiner:

This letter is to inform you about the upcoming Big Dry Creek Interceptor Sewer Improvements Project (hereafter BDCIS or “the project”), and request any information or issues relating to resources you believe should be considered during project development. The City of Westminster (City) provides sewer service to over 110,000 people, covers approximately 29.8 square miles, and contains two major sewer basins: Little Dry Creek (LDC) and Big Dry Creek (BDC). The BDC basin, which is the focus of this project, collects and conveys 75 percent of the City’s total wastewater flows, generated in the northern portion of the City, to its Big Dry Creek Wastewater Treatment Facility. A major concern for the BDCIS is capacity for existing and future flows. Additionally, hydrogen sulfide corrosion is causing structural integrity concerns for the existing pipes and structures. The City is in the process of evaluating the repair/replacement of the BDCIS to increase the hydraulic capacity and improve the condition of the system. The City is in the process of preparing an Environmental Assessment (EA) to evaluate the environmental impacts of the proposed action relative to reasonable alternatives. The purpose of the public scoping process is to facilitate determination of the nature and range of issues to be addressed in the EA.

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Sincerely,



Julie Koehler, PE  
Utilities Engineering Manager  
City of Westminster

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### Project Area 1 Recommended Improvements

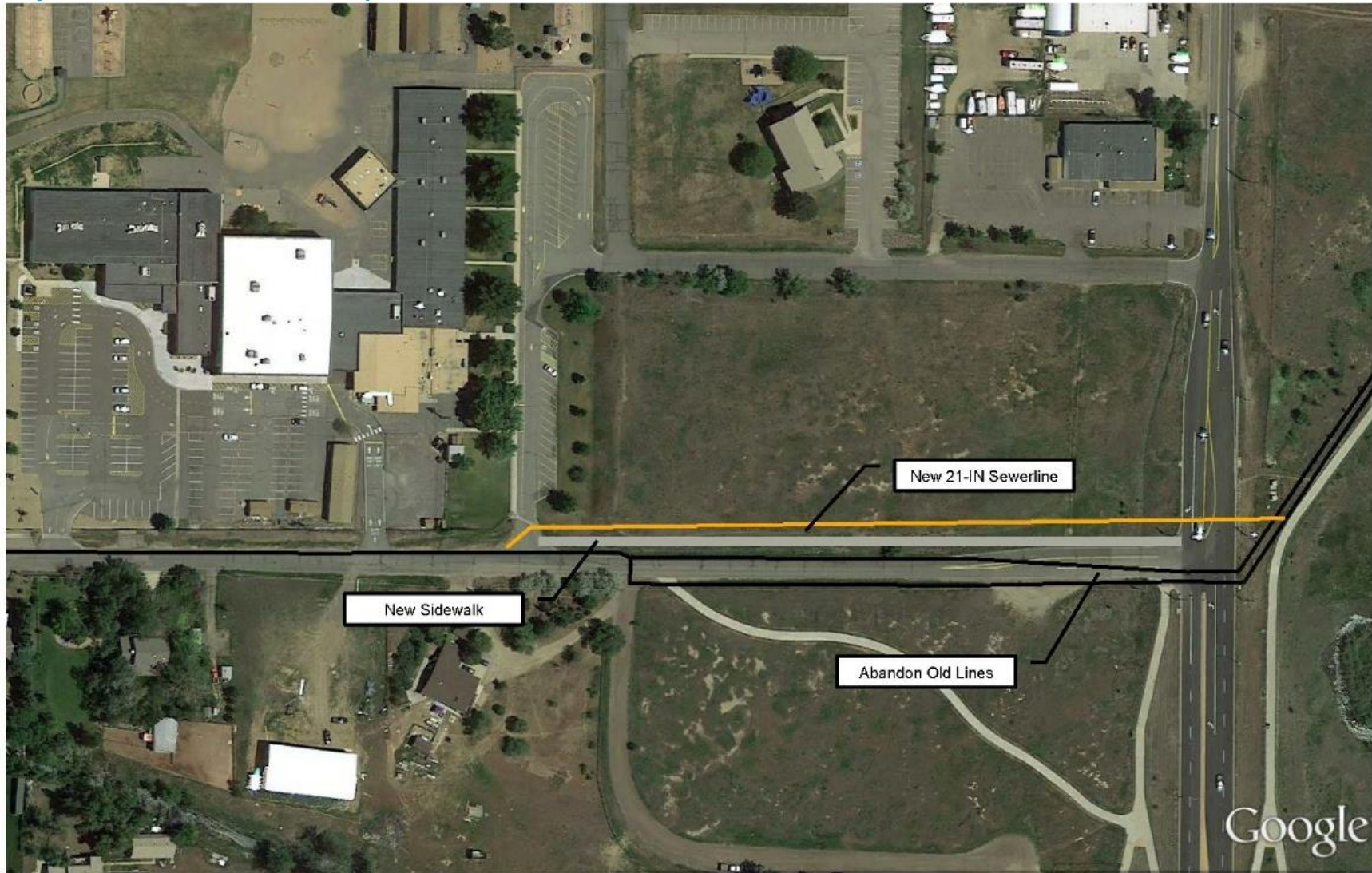


### Project Area 3 Recommended Improvements—Abandon 300-feet of Truss Pipe



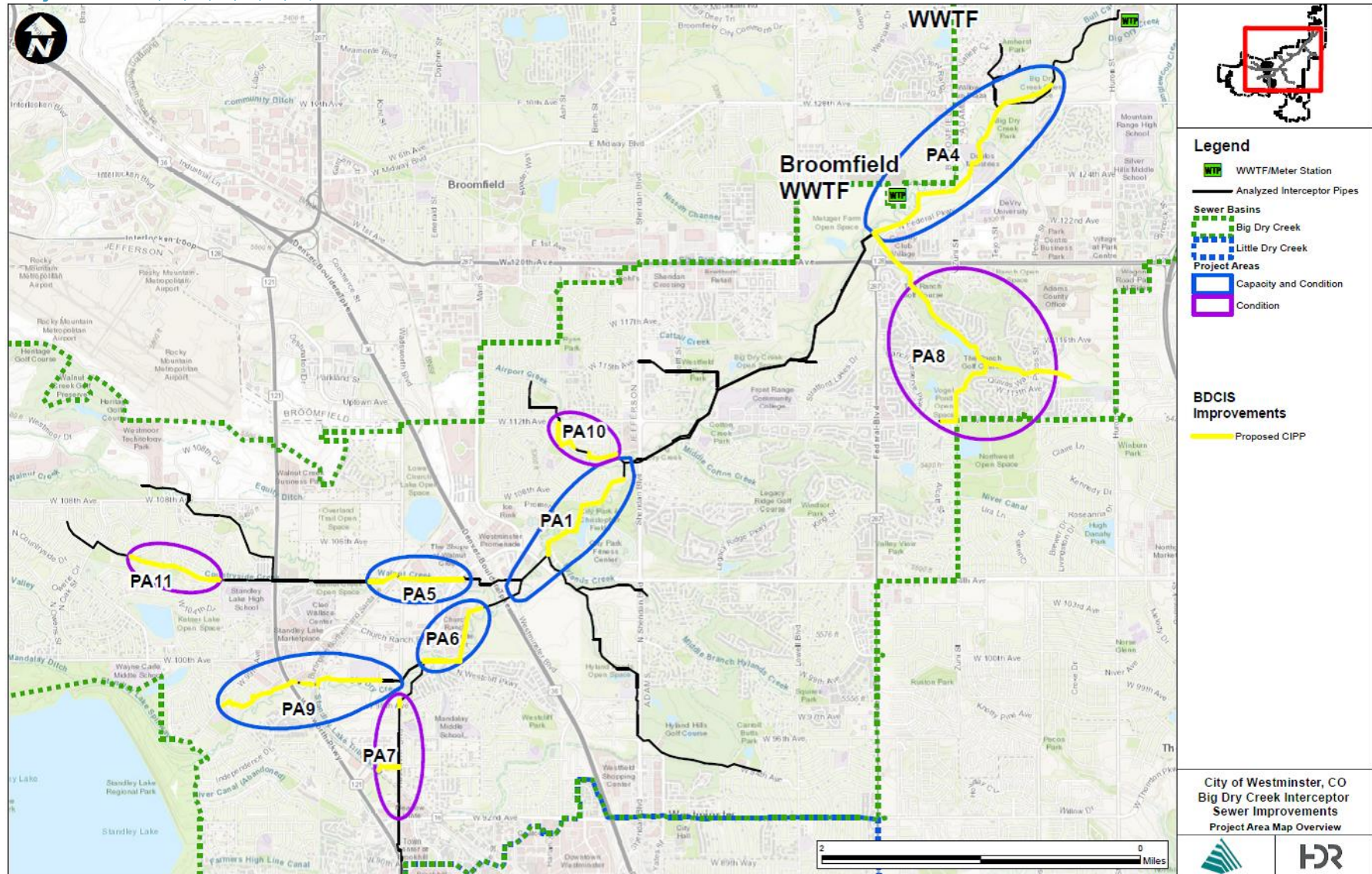


### Project Area 9 Recommended Improvements





**Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11—Recommended Alternative—CIPP**





November 15, 2019

Lisa Devore  
Air Quality Engineering and Planner  
CDPHE  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

**Subject: Big Dry Creek Interceptor Sewer Improvements Project**

Dear Ms. Devore:

This letter is to inform you about the upcoming Big Dry Creek Interceptor Sewer Improvements Project (hereafter BDCIS or “the project”), and request any information or issues relating to resources you believe should be considered during project development. The City of Westminster (City) provides sewer service to over 110,000 people, covers approximately 29.8 square miles, and contains two major sewer basins: Little Dry Creek (LDC) and Big Dry Creek (BDC). The BDC basin, which is the focus of this project, collects and conveys 75 percent of the City’s total wastewater flows, generated in the northern portion of the City, to its Big Dry Creek Wastewater Treatment Facility. A major concern for the BDCIS is capacity for existing and future flows. Additionally, hydrogen sulfide corrosion is causing structural integrity concerns for the existing pipes and structures. The City is in the process of evaluating the repair/replacement of the BDCIS to increase the hydraulic capacity and improve the condition of the system. The City is in the process of preparing an Environmental Assessment (EA) to evaluate the environmental impacts of the proposed action relative to reasonable alternatives. The purpose of the public scoping process is to facilitate determination of the nature and range of issues to be addressed in the EA.

**Project Description**

This section summarizes the improvements recommended for implementation as part of the BDCIS Project. The locations of the proposed project areas described below are shown in the attached maps.

- **Project Area 1.** The recommended alternative includes constructing a new parallel interceptor generally following the existing 30 inch interceptor to the North.
- **Project Area 3.** The recommended alternative abandonment of approximately 300 feet of truss pipe and converting the Diversion Structure to a flow through structure.
- **Project Area 9.** The recommended alternative includes replacing 12 inch pipe with 21 inch pipe.
- **Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11.** The recommended alternative includes Cured-In-Place Pipe lining of pipe segments that have been identified as poor condition.

Besides the recommended improvements to the sewer line, the project also proposes to install permanent flow monitoring equipment in the BDCIS. The flow meters will capture data from both dry-weather and wet-weather periods to monitor capacity and infiltration and inflow in the BDCIS system. The data will be used to better understand capacity in the existing system for design of future interceptors and lift stations.

## Comments

As part of the EA process, we are requesting input from agencies and the public. We welcome any information or concerns you wish to share. The information will be used to help us prepare the EA, which itself will be subject to a separate public comment period. Please provide written comments or provide other information regarding the action at your earliest convenience, but no later than 30 days from the receipt of this letter. Please send comments to:

Sirena Brownlee  
HDR Engineering  
419 Canyon Avenue, Suite 316  
Fort Collins, CO 80521  
Email: [sirena.brownlee@hdrinc.com](mailto:sirena.brownlee@hdrinc.com)

Please note that comments, including names and street addresses of respondents, will be available for public review at the City of Westminster and will be subject to disclosure under the Freedom of Information Act (FOIA). They may also be published as part of the EA. Individual respondents may request confidentiality. If you wish to withhold your name and/or address from public review or disclosure under the FOIA, you must state this prominently at the beginning of your written comment. The City will honor such requests to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, are available for public inspection in their entirety.

Sincerely,



Julie Koehler, PE  
Utilities Engineering Manager  
City of Westminster

cc: File



### Project Area 1 Recommended Improvements

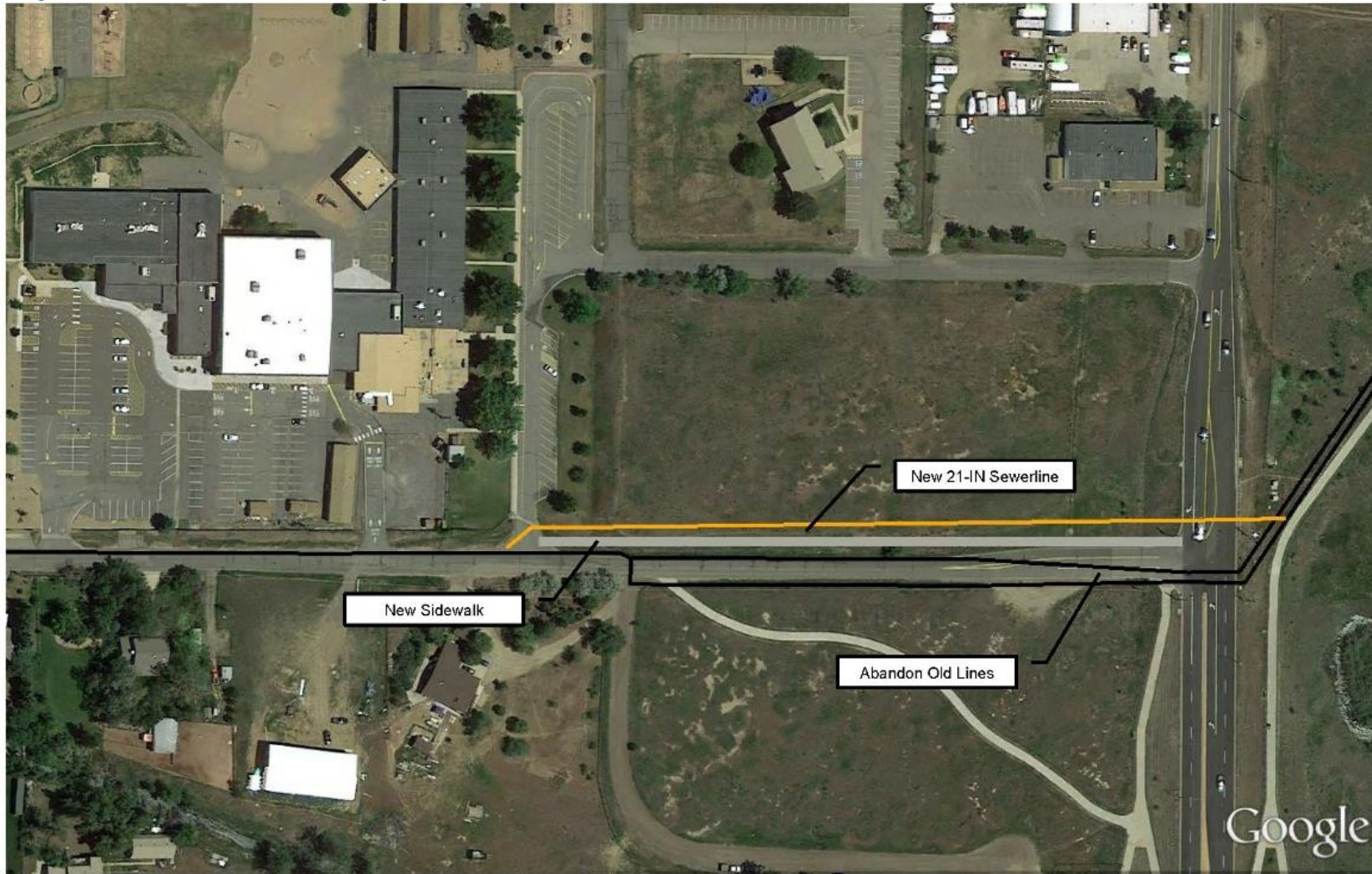


### Project Area 3 Recommended Improvements—Abandon 300-feet of Truss Pipe



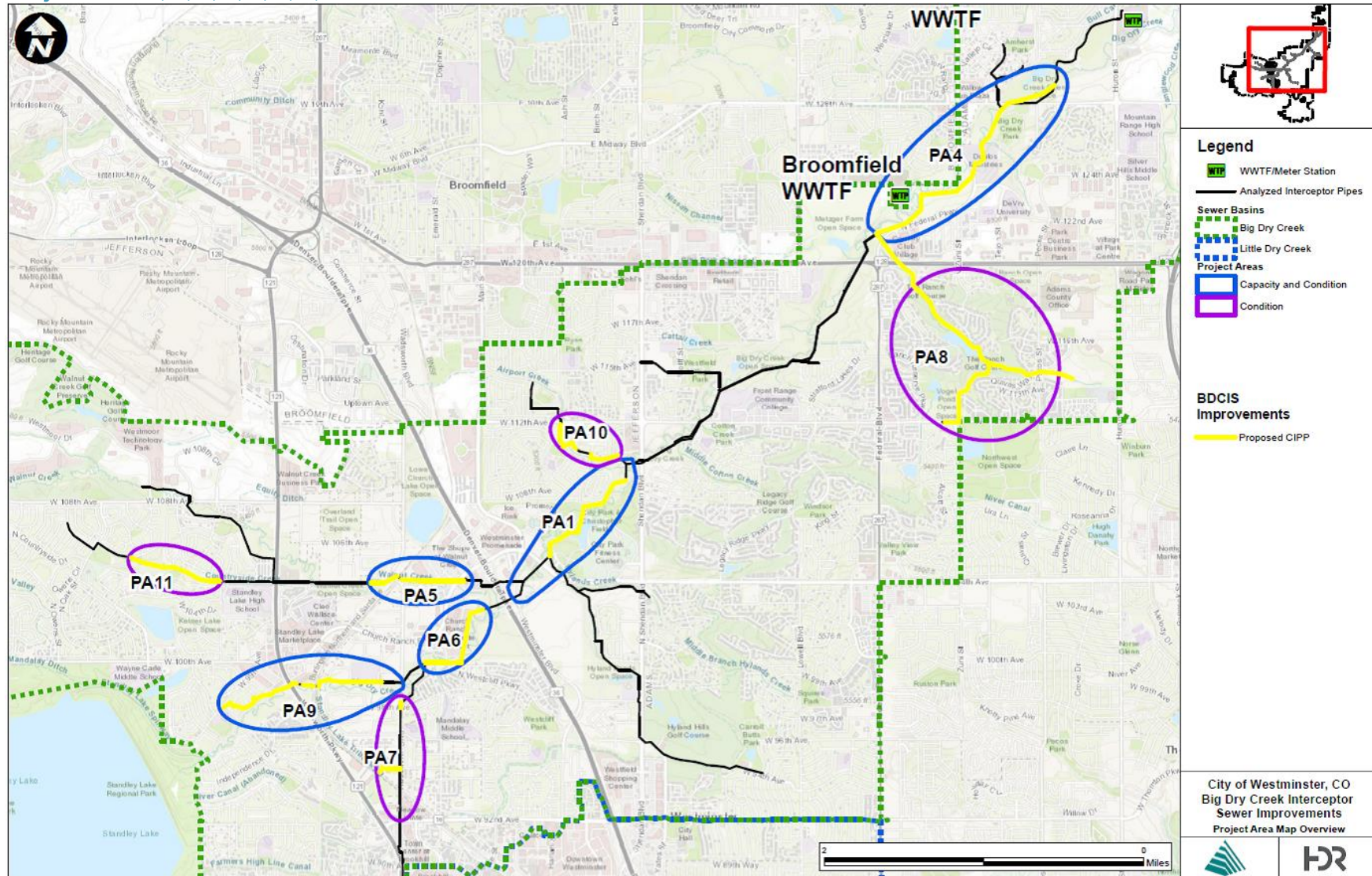


### Project Area 9 Recommended Improvements





**Project Area 1, 4, 5, 6, 7, 8, 9, 10 and 11—Recommended Alternative—CIPP**





Appendix H.  
Agency Scoping Letters Received



# COLORADO

## Parks and Wildlife

Department of Natural Resources

Northeast Regional Office  
6060 Broadway  
Denver, CO 80216  
P 303.291.7227 | F 303.291.7114

December 19, 2019

Ms. Sirena Brownlee  
HDR Engineering  
419 Canyon Avenue, Suite 316  
Fort Collins, CO 80521

Dear Ms. Brownlee:

This letter is in response to your request for comments regarding the upcoming Big Dry Creek Interceptor Sewer Improvements Project (hereafter BDCIS) by the City of Westminster. You requested information or issues relating to resources that should be considered during project development and stated that this project is currently in the scoping process. These comments will be used in preparing an Environmental Assessment (EA) to evaluate the environmental impacts of the proposed action relative to reasonable alternatives.

The BDCIS lies within the Big Dry Creek drainage basin and in close proximity to Big Dry Creek itself. Previous fish population surveys have shown that Big Dry Creek contains many different species of fish: Creek Chub, Fathead Minnow, Longnose Dace, White Sucker, Black Bullhead, Common Carp, Largemouth Bass (incidental), Pumpkinseed Sunfish (incidental), Sand Shiner, Green Sunfish, Longnose Sucker, and Johnny Darter.

CPW recommends that all practical efforts be expended to avoid and/or minimize instream work. Where practical, equipment should be operated from banks or shoulders above riparian and wetland areas. Where instream work is required, such work should be performed during low-or-no-flow periods, and the use of heavy equipment in streambeds, especially in live or flowing water, should be minimized. The appropriate Best Management Practices (BMP's) should be used to minimize soil erosion and mobilization of sediment into Big Dry Creek.

The spread of aquatic nuisance species shall be prevented using the following procedures: If heavy equipment is used that was previously working in another stream, river, lake, pond, or wetland, one of the following procedures will be necessary:

- a. Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with a solution of commercial grade quaternary ammonium disinfectant compound containing at least 8.0% active ingredient diluted in solution to achieve at least 0.8% concentration (roughly 12 ounces of product per gallon of water). Specifically, a 1:15 solution of Quat4 or Super HDQ Neutral institutional cleaner and water, can be used for effective treatment. Treated equipment should be kept moist for at least 10 minutes, managing rinsate as a solid waste in accordance with local, county, state, or federal regulations, OR



- b. Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with water hotter than 140 degrees Fahrenheit for at least 10 minutes.
- c. Clean hand tools, boots, and any other equipment that will be used in the water with one of the above options as well. Do not move water from one water body to another. Be sure equipment is dry before using.

Thank you for the opportunity to comment. If you have any questions, please do not hesitate to contact Paul Winkle, Aquatic Biologist, at (303) 916-1043.

Sincerely,

A handwritten signature in black ink that reads "Mark Leslie". The signature is written in a cursive, slightly slanted style.

Mark Leslie  
Northeast Regional Manager

Cc: Tom Kroening, Matt Martinez, Matt Nicholl, Jordan Likes, Paul Winkle



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
134 Union Boulevard, Suite 670  
Lakewood, Colorado 80228



In Reply Refer to:  
FWS/IR05/07

TAILS number: 06E24000-2020-TA-0351

January 16, 2020

Sirena Brownlee  
HDR Engineering  
419 Canyon Avenue, Suite 316  
Fort Collins, Colorado 80521

Dear Ms. Brownlee:

On November 19, 2019, the U.S. Fish and Wildlife Service (Service) received your letter requesting written comments on the Big Dry Creek Interceptor Sewer Improvements Project in Westminster, Colorado. The letter describes the project's purpose and provides a summary of the improvements associated with the project. The City of Westminster is receiving funding from the Colorado Department of Public Health and the Environment. In addition, the project will require authorization from the U.S. Army Corps of Engineers and an Environmental Assessment is being prepared. Our review was performed consistent with our authority under the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*).

We reviewed your letter and maps and noted that the project falls within the Denver block-clearance zone for the Preble's meadow jumping mouse (*Zapus hudsonius preblei*) so although habitat may be present, we do not think the Preble's meadow jumping mouse is likely to occur within the area. We recommend areas affected by the project be assessed for their ability to support the Ute ladies'-tresses orchid (*Spiranthes diluvialis*). Further, consultation on the project's effects on listed species occurring downstream in Nebraska may be necessary if the project will result in water depletions to the Platte River.

INTERIOR REGION 5  
MISSOURI BASIN

KANSAS, MONTANA\*, NEBRASKA, NORTH DAKOTA,  
SOUTH DAKOTA

\*PARTIAL

INTERIOR REGION 7  
UPPER COLORADO RIVER BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

We appreciate the opportunity to review and comment and look forward to our future involvement in this project. If we can be of further assistance, please contact Alison Deans Michael of my staff by email at [alison\\_michael@fws.gov](mailto:alison_michael@fws.gov) or by phone at (303) 236-4758.

Sincerely,

Liisa Schmoele  
Assistant Field Supervisor  
Colorado Field Office - Lakewood



Dedicated to protecting and improving the health and environment of the people of Colorado

Sirena Brownlee  
 HDR Engineering  
 419 Canyon Avenue, Suite 316  
 Fort Collins, CO 80521

RE: Big Dry Creek Interceptor Sewer Improvement Project

Dear Sirena Brownlee,

The Colorado Department of Public Health and Environment’s Air Pollution Control Division (APCD or Division) received a request for an air quality administrative review concerning proposed Big Dry Creek Interceptor Sewer Improvement Project. The Division has reviewed the project summary and has determined that the project is located within the Denver-metropolitan ozone nonattainment area and the project conforms to the EPA-approved State Implementation Plan (SIP). Annual emissions generated from the proposed project are not expected to exceed the de minimis thresholds established in EPA’s General Conformity regulations. As such a detailed conformity analysis is not required for this project.

Please review the dust mitigation information included below. Please note that the following requirements may not be inclusive of the regulations the proposed project will be subject to. It is the responsibility of the involved parties to determine what regulations they are subject to and follow them accordingly.

**Land Development**

Under Colorado air quality regulations, land development refers to all land clearing activities, including but not limited to land preparation such as excavating or grading, for residential, commercial or industrial development. Land development activities release fugitive dust, a pollutant regulation by the Division. Small land development activities are not subject to the same reporting and permitting requirements as large land activities. Specifically, land development activities that are less than 25 contiguous acres and less than 6 months in duration do not need to report air emissions to the Division. **It is important to note that even if a permit is not required, fugitive dust control measures included the Land Development Air Pollutant Emissions Notice (APEN) Form APCD-223 must be followed at the site.** Fugitive dust control techniques commonly included in the plan are included in the table below.

Control Options for Unpaved Roadways	
Watering	Use of chemical stabilizer
Paving	Controlling vehicle speed
Graveling	
Control Options for Mud and Dirt Carry-Out Onto Paved Surfaces	
Gravel entry ways	Washing vehicle wheels
Covering the load	Not overfilling trucks
Control Options for Disturbed Areas	
Watering	Application of a chemical stabilizer
Revegetation	Controlling vehicle speed
Compaction	Furrowing the soil
Wind Breaks	Minimizing the areas of disturbance
	Synthetic or Natural Cover for Slopes

A copy of the APEN Form APCD-223 is included with this letter. For future reference, please refer to the website <https://www.colorado.gov/pacific/cdphe/air/air-permit> for information on land use APENs and permit forms. Click on “Land Development” to access the land development specific APEN form. Please contact Chip Hancock, Construction Permits Unit Supervisor, at 303-692-3168 if you have any specific questions about APENs and permit forms.



**VOC and Hazardous Air Pollutants (HAPS) Analysis for Wastewater Projects**

Wastewater projects may use the following chart to estimate VOC and HAPS emissions in order to determine if they are required to submit an APEN under Regulation Number 3.

Pollutant	Emission Factor Lb/MM gallon	Reporting Threshold
VOC	3.49414	1 ton/year OR 2 ton/year
Hexane	0.41207	250 lbs/year
Perchloroethylene	0.00890	
Benzene	0.22873	
Toluene	0.00267	
Total Xylene	0.00267	
Ammonia	19.0000	

Please contact Chip Hancock, Construction Permits Unit Supervisor, at 303-692-3168 if you have any questions about the above calculation.

**Odor**

All businesses in Colorado are subject to AQCC Regulation Number 2 (Odor Emission) and a permit may be required for the installation of odor control equipment. Please refer to AQCC Number 2 for guidance on odor suppression actions. You may also view the complete regulatory language at <https://www.colorado.gov/pacific/cdphe/aqcc-regs>.

If you have any other questions or need additional assistance, please call or e-mail me directly. Thank you for contacting the Air Pollution Control Division about requirements for your project.

Sincerely,



Richard Coffin  
Planner  
Planning and Policy Program  
Air Pollution Control Division  
Colorado Department of Public Health and Environment  
303-692-3127 / [richard.coffin@state.co.us](mailto:richard.coffin@state.co.us)

