



BOARDWALK PIPELINE PROJECT – PHASE II POWHATON CRUDE OIL EXTENSION

**APPLICATION FOR CONDITIONAL USE PERMIT
(WITH SUBMITTAL ITEMS FROM THE AREAS AND ACTIVITIES OF STATE INTEREST CHECKLIST)**

Submitted By:



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1.0 INTRODUCTION

Discovery DJ Services, LLC (“Discovery”), a joint venture between Discovery Midstream Partners, LLC and Ward Petroleum, is submitting this application for a Conditional Use Permit (“CUP”) to Adams County. The application is in accordance with the requirements outlined under Chapter 2 of the Adams County Development Standards and Regulations (“ACDSR”), the Conditional Use Permit Checklist, and additional requested submittal criteria for the Adams County Areas and Activities of State Interest (“AASI”) Checklist, as outlined during the conceptual review process and subsequent Adams County Conceptual Review Meeting Summary Letter dated January 30, 2017 and further discussed under Section 2.4 below.

This CUP application is organized in an order to address the requirements of: i) the CUP Checklist; ii) the specific additional applicable items from the AASI Checklist; and iii) additional information as outlined in the conceptual review summary letter and requested by the Adams County Planning Department (“ACPD”) staff.

1.1 PURPOSE & NEED

Advances in oil and gas extraction technologies have resulted in a substantial increase in oil and gas activities across Colorado, more specifically in the Denver-Julesburg Basin and Wattenberg Fields within Adams County. Crude oil and produced liquids (condensate, produced water) from these wells impede the natural gas production and require transportation to oil and gas facilities for processing, treatment, and either disposal or sale to regional markets. Currently, these liquids are transported by truck from the individual well pads resulting in an increasing number of trucks per day on the local city and county roads and state highways. Similarly, the existing natural gas infrastructure in and around these wells is at capacity or doesn’t exist within areas of new drilling. Centralized collection of these liquids and more efficient means of transportation are required to reduce the local truck traffic and facilitate transportation of the natural gas and produced liquids to locations where they can be processed and sold to meet market demands. The Project is a necessary component of the overall system to gather, process, transport and market the area’s natural resources in the Niobrara and Codell formations.

1.2 PROJECT OVERVIEW

The Boardwalk Pipeline Project included a 29.4-mile natural gas gathering trunkline to a new natural gas compression and processing facility located approximately 4.3-miles northwest of Lochbuie, Colorado in the SW of Section 11, Township 1N, Range 66W where the gas will be processed to recover natural gas liquids (“NGL”)’s for delivery to a nearby third party via a new 0.6-mile NGL sales pipeline. Conversely, pipeline quality natural gas off of the new compression and processing facility will be delivered to a new custody meter station for sales to a third-party transmission pipeline via a new 1.4-mile residue gas sales pipeline. Similarly, a new 12-mile crude oil pipeline was constructed concurrently with the proposed natural gas pipeline from the CDP site to the intersection of E. 120th Ave. and Powhaton Rd., where the crude oil pipeline was capped and inerted in place for future crude oil gathering.

Phase II of the Boardwalk Pipeline Project expands on the Boardwalk Pipeline Project (RCU2016-00016) approved December 13, 2016 by the Adams County Board of County Commissioners and will include, in this CUP, the construction expansion of the capped 8” buried crude oil pipeline system, originating at the northeast corner of the intersection of E. 120th Ave and Powhaton Rd. The 8” crude oil line will be installed parallel to, and in the same right-of-way as, the 12” natural gas line constructed for the Boardwalk Pipeline Project from E. 120th Ave. to E. 168th Ave/WCR 2 (Adams County/Weld County line). This segment is approximately 6 miles long.

Sections 1.2.1 below further describes the key infrastructure located within Adams County:

1.2.1 CRUDE OIL PIPELINE

The crude oil pipeline will be constructed of 8.625” O.D. x 219” W.T., X-52, API 5L, PSL2 or comparable line pipe coated with 12-14 mils of fusion bond epoxy for external corrosion protection. All state highway, railroad, city and county road, and other crossings will be crossed by bore or horizontal directional drill (“HDD”), thereby avoiding surface impacts in these areas, utilizing 8.625” O.D. x 0.322” W.T., X-52, API 5L, PSL2 or comparable crossing pipe coated with 12-14 mils of fusion bond epoxy plus an additional 24-30 mils of abrasive resistant overlay coating.

Although the crude oil pipeline does not fall under the jurisdiction of the Code of Federal Regulations (“CFR”), the pipeline will be designed and constructed to meet the requirements of CFR Part 195 “Transportation of Hazardous Liquids by Pipeline”. In general, under the CFR, Discovery is required to construct the pipeline at a depth of 36 inches below ground level. As an additional recognized safety precaution, Discovery will bury the pipeline a minimum of 48 inches below grade. At all county and / or public roads crossings, the pipeline will be buried a minimum of 60 inches below the bottom of the bar ditches (USDOT and Adams County Public Works Department requires a minimum of 36 inches). Discovery will comply all local irrigation ditch company requirements as well as the Nationwide Plan 12 permit for all waterway crossings, which allow waterways to be open cut or bored depending upon the condition of the waterway.

The crude oil pipeline will be designed to facilitate routine pigging operations as well as in-line inspection of the line as required in accordance with the CFR.

Table 1.2.3 below summarizes key information for the crude oil pipeline.

**Table 1.2.3
Boardwalk Pipeline Project – Phase II
Crude Oil Pipeline – AC East Extension**

Pipeline Diameter	8.625” O.D.
Pipeline Wall Thickness	0.219” W.T. (Line Pipe) / 0.322” W.T. (Crossing Pipe)
Yield Strength	52,000 psi (X-52 Grade)
Total Pipeline Length (Phase II, this CUP)	6.0 miles
Total Pipeline Length in Adams County (“ “)	6.0 miles
Total Parcel / Tract Count In Adams County	25

The ultimate capacity of the crude oil pipeline will be 71,000 barrels per day. Comparatively, a typical crude oil truck holds approximately 200 barrels of crude oil, thus the Boardwalk crude oil pipeline will be able to carry the same amount of crude oil as 355 trucks per day at the ultimate capacity.

1.3 DESCRIPTION OF PREFERRED PIPELINE ROUTE

The proposed route for the crude oil pipeline crosses unincorporated Adams County. As outlined in Figure 1.3 on the following page, the capped pipeline originates at the northeast corner of the intersection of Powhatan Rd. and E. 120th Ave., at which time the natural gas gathering trunkline turns north along Powhatan Rd. until it crosses into Weld County approximately 5,000 ft. east of the intersection of Harvest Rd. and E. 168th Ave. / County Road 2. The 8” crude oil line will be installed parallel to, and in the same right-of-way as, the 12” natural gas line constructed for the Boardwalk Pipeline Project from E. 120th Ave. to E. 168th Ave/WCR 2 (Adams County/Weld County line).

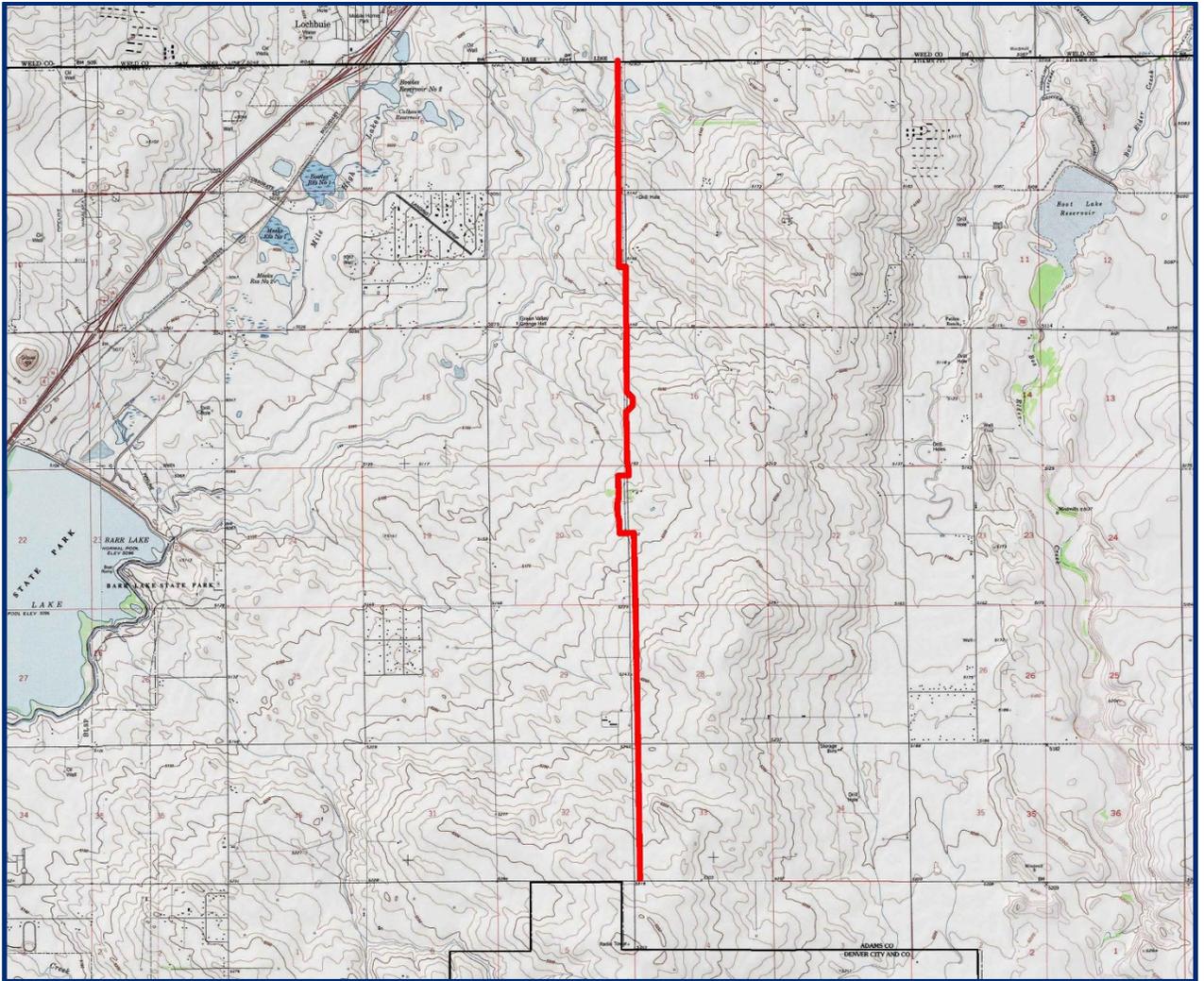


Figure 1.3 – Preferred Pipeline Route, Adams County

A total of 7 crossings, including state highway, railroad, city and county road, and irrigation canals are required. Table 1.3a below and the top of the following page summarizes the Adams County road crossings required along the preferred route. A complete list of other featured crossings along the preferred route is outlined under Table 1.3b below.

Table 1.3a Boardwalk Pipeline Project Adams County Road Crossings			
No.	Road Crossed	Nearest Intersection	Distance to Intersection (Approximate)
1	Powhatan Rd	Powhatan Rd & E 133rd Cir	4,000 ft.
2	Powhatan Rd	Powhatan Rd & E 152nd Ave	5,350 ft.
3	E 152nd Ave	Powhatan Rd & E 152nd Ave	100 ft.
4	Powhatan Rd	Powhatan Rd & E 152nd Ave	2,400 ft.
5	E 160th Ave	Powhatan Rd & E 160th Ave	200 ft.
6	CR 2 / E 168th Ave	Harvest Rd & CR 2 / E 168th Ave	5,100 ft.

Table 1.3b Boardwalk Pipeline Project Adams County Non-County Road Crossings			
No.	Type of Feature	Name / Description	Approximate Crossing Location
1	Canal	Denver – Hudson Canal - Sack	39°59'32"N, 104°40'44"W

1.4 CONSTRUCTION SCHEDULE

Construction activities in Adams County will commence upon approval of the CUP and completion of all conditions of approval. A final schedule for construction of the project has not yet been developed, however it is anticipated that pipeline construction within the County will take approximately 3-4 months, all weather permitting.

Following completion of all design activities and the applicable construction contractor has been selected, Discovery will provide the ACDP a detailed schedule prior to starting construction.

2.0 CONDITIONAL USE PERMIT APPLICATION

This CUP Application has been developed in accordance with the ACDSR, Chapter 2, Section 02-02-08 “Conditional Use Permit” and the submittal criteria identified within the CUP Checklist.

2.1 CONDITIONAL USE PERMIT CHECKLIST

A completed copy of the CUP Checklist has been provided under Exhibit A “Conditional Use Permit Checklist”.

2.2 DEVELOPMENT APPLICATION (SUBMITTAL ITEM A)

A completed Development Application has been provided under Exhibit B “Development Application”.

2.3 APPLICATION FEE

A check for the required \$1,500.00 application fee, made payable to Adams County, is submitted and accompanies this Application.

2.4 CONCEPTUAL REVIEW MEETING SUMMARY LETTER (SUBMITTAL ITEM B)

A Conceptual Review Meeting was held on January 30, 2017 between Discovery and staff members from Adams County Planning Department (“ACPD”) and the Public Works Department, to begin the application process and discuss Discovery’s planned location and scope for the CDP site along with the preferred route for the natural gas pipeline through Adams County. A summary of the County’s preliminary comments along with a breakdown of the applicable submittal requirements for the CUP and additional items that would need to be addressed was provided by the ACPD in a letter dated January 23, 2017, and attached hereto under Exhibit C “Conceptual Review Meeting Summary Letter”. A Conceptual Review Meeting waiver is not applicable.

2.5 NEIGHBORHOOD MEETING SUMMARY

In accordance with ACDSR Section 2-01-02 and following discussions with the ACDP, Discovery will conduct a neighborhood meeting to inform owners of property located within 500 feet of the pipeline permanent right-of-way (“ROW”) in Adams County. Notification of the neighborhood meeting will be mailed to all identified property owners within 500 feet of the Project in accordance with ACDSR Section 2-01-02-03-01. A copy of the notification brochure, along with the required summary of the neighborhood meeting will be provided as an addendum to the Exhibits as Exhibit M “Neighborhood Meeting Notification & Summary”.

2.6 CERTIFICATE OF TAXES PAID

Prior to the commencement of construction activities, Discovery will secure the applicable easements and executed right-of-way agreements authorizing the right to construct, operate, and maintain the 12-inch natural gas and 8-inch crude oil pipelines on all privately and publically owned properties. As easement holder,

Discovery is not responsible for the payment of property taxes on the parcels, as that remains the responsibility of the landowner.

2.7 PROOF OF OWNERSHIP

As described above in Section 2.6, Discovery is not the fee simple estate owner of the properties on which the pipelines which will be located within Adams County. Discovery will acquire the applicable easements and right-of-way agreements from the owners prior to the commencement of construction activities, and will record these executed agreements with the Adams County Clerk and Recorder's office ahead of initiating construction activities. A list of the parcels within Adams County on which the CDP facility and respective pipelines will be located are provided under Exhibit D "Adams County East Extension Line List".

2.8 PROOF OF WATER AND SEWER SERVICE

The operation of the pipelines, will not require water or sanitary services. During the construction phase of the project, water for hydrostatic testing and dust mitigation will be obtained from permitted sources in accordance with the applicable state and local requirements and will be supplied using water trucks. Temporary sanitary facilities will be provided for construction workers at the staging areas along the right-of-way.

2.9 TRI-COUNTY HEALTH DEPARTMENT

A check payable to the Tri-County Health Department in the amount of \$245.00 is being submitted with this Application.

2.10 SOIL AND GEOLOGIC REPORTS

Reference Section 3.9.8.

2.11 PRELIMINARY DRAINAGE STUDY

A detailed drainage study is not required for the pipeline easements as no permanent grade alterations or changes to existing drainage patterns are expected. The areas disturbed during construction of the pipelines will be returned to their original state after installation. There are no impervious surfaces or aboveground structures that are proposed as part of the respective pipelines and will not affect overall drainage patterns.

Prior to construction, a Stormwater Management Plan ("SWMP") will be prepared and submitted to the County, as part of the Erosion and Sediment Control Plan to address water quality issues associate with construction activities. Stormwater Best Management Practices ("BMP")'s will be installed for the construction phase in accordance with the requirements of the SWMP.

2.12 PROOF OF UTILITY SERVICES

No utilities will be required for the installation or operation of the pipeline.

2.13 CERTIFIED BOUNDARY SURVEY OR IMPROVEMENT LOCATION CERTIFICATE (ILC)

Route maps for the respective pipelines are provided under Exhibit E.1 "Discovery Boardwalk Pipeline Route Maps". Upon completion of construction, Discovery will provide Adams County with a legal description of the pipeline route in a format that is consistent with the U.S. Department of Transportation National Pipeline Mapping System requirements.

2.14 PROJECT SITE PLAN

Pipeline alignment sheets, showing the planned location and route of the crude oil pipeline, permanent easement, and temporary construction areas and associated above ground facilities and appurtenances (i.e. block valves, temporary staging areas, etc.) located within Adams County are provided under Exhibit F.1 "Pipeline Alignment Sheets".

Typical ditch details along the pipeline are provided under Exhibit F.2 "Typical Pipeline Ditch Details".

2.15 EXPLANATION OF THE REQUEST AND GENERAL PROJECT OVERVIEW (SUBMITTAL ITEM C)

2.15.1 EXPLANATION OF THE REQUEST

Pursuant to ACDSR Section 2-02-08-01, a conditional use is a land use which is “presumptively compatible with other land uses authorized or permitted in a zone district, but, if approved....require more discretionary review than those uses which are authorized.” Through consultation with the ACDP, Discovery has been advised that the proposed pipelines use is classified as Industrial Use and subject to the County Conditional Use Permit review and approval. Consequently, Discovery respectfully submits this Application for the Board of County Commissioners’ review and approval pursuant to regulations, procedures, and criteria for approval under the ACDSR Section 2-02-08.

2.15.2 CRITERIA FOR APPROVAL

Section 2-02-08-06 of the ACDSR outlines eight (8) criteria for reviewing and approving a proposed conditional use. The following breaks down these criteria and the respective answers thereto for the Project:

1. Criteria: The conditional use is permitted in the applicable zone district.

Response: As outlined under section 2.15.1 above, Discovery has been advised by the ACDP, that the proposed facilities and respective pipeline use is classified as industrial use within the affected Zone Districts A-3 and subject to the County Conditional Use Permit review and approval pursuant to ACDSR Section 3-07-01, pages 3-20 through 3-31.

2. Criteria: The conditional use is consistent with the purpose of these standards and regulations.

Response: Adams County’s land use and development standards and regulations are intended to control and assist in the orderly, efficient, and integrated development of the County, in order to preserve the health, safety, and welfare of the public. These standards and regulations designate, regulate, and restrict the location of the buildings, structures, and use of land for residence, commercial, industry, agriculture or other purposes; regulate and limit the height, number of stories, and size of buildings and other structures hereafter erected or altered; establish minimum requirements for off-street parking, loading, and unloading; regulate and determine the minimum size of lots; regulate and determine the size of yards, landscaping, and other open spaces; regulate the density of population and buildings; and for said purposes, divide the unincorporated area of the County into zone districts of such number, shape and are as may be deemed best suited to carry out these standards and regulations and to provide for their administration, enforcement, and amendment.

Discovery’s proposed facilities and underground pipelines will remain consistent with the purposes as detailed in the Adams County Standards and Regulations. In addition, all required and applicable permits for the Project have been, or will be, obtained from the appropriate Federal, State and Local agencies prior to construction, including:

- ❖ U.S. Fish and Wildlife Service (USFWS)
- ❖ U.S. Army Corp of Engineers (USACE)
- ❖ National Resource Conservation Service (NRCS)
- ❖ Colorado Department of Health and Public Environment (CDPHE)
- ❖ State Historic Preservation Office (SHPO)
- ❖ Colorado Parks & Wildlife (CPW)

3. Criteria: The conditional use will comply with the requirements of these standards and regulations, including but not limited to applicable performance standards.

Response: Discovery will comply with the applicable performance standards as outlined under the Adams County Standards and Regulations, Chapter 4 – Design Requirements and Performance Standards. In addition, Discovery will maintain the facilities and respective pipelines to ensure compliance with federal regulatory requirements (49 CFR Parts 192 and 195, Clean Water Act, etc.).

4. Criteria: The conditional use is compatible with the surrounding area, harmonious with the character of the neighborhood, not detrimental to the immediate area, not detrimental to the future development of the area, and not detrimental to the health, safety, or welfare of the inhabitants of the area and the County. In making this determination, the Planning Commission and the Board of County Commissioners shall find, at a minimum, that the conditional use will not result in excessive traffic generation, noise, vibration, dust, glare, heat, smoke, fumes, gas, odors, or inappropriate hours of operation.

Response: Of all facility locations and route alternatives considered, the preferred pipeline route has minimal impact on existing residential uses and is compatible, complimentary and consistent with agricultural uses (99 percent of the route). In addition:

- ❖ The Discovery route is consistent with the character of the area (i.e. agricultural use co-existing with underground pipelines and utilities).
 - ❖ Where applicable, anticipated future development will be accommodated in the easement agreement terms negotiated with landowners.
 - ❖ Of all facility locations and route alternatives considered, the preferred route has the fewest number of directly impacted businesses and landowners, the least impact on existing traffic patterns, and takes the most direct route practicable.
 - ❖ Of all route alternatives considered, the preferred route has the least environmental impact.
 - ❖ Noise during construction has been partially mitigated by the location of the route, avoiding dense population areas, following unpopulated and rural populated areas and the resulting noise will not be uncharacteristic of typical noise from day-to-day activities in the area.
 - ❖ Dust during construction will be controlled by a dust mitigation plan and will not be uncharacteristic of the dust created by existing agricultural activities.
 - ❖ Pipelines are the safest mode of transportation for natural gas, crude oil, and produced liquids, will in-fact reduce the amount of truck traffic in the area, and are not detrimental to the health, safety, and welfare of inhabitants of the area.
 - ❖ During construction, an increase in traffic will be required and impacts will be mitigated with established traffic plans.
 - ❖ No other off-site impacts to air or water quality are expected as a result of construction or operation of the facilities or respective pipelines.
 - ❖ The respective pipelines will be located underground and their operation would not produce any nuisances to inconveniences to nearby landowners or the general public. The pipelines will not change the existing character or harmony of the current adjacent land uses, reduce the economic viability of any parcels, nor threaten the health, safety, or welfare of the general public.
5. Criteria: The conditional use permit has addressed all off-site impacts.

Response: Discovery has made every effort to address any potential off-site impacts due to the construction or operation of the respective pipelines both in the planning and development of facility locations as well as the preferred pipeline route, the design of the project, and the following operation of the respective facilities and pipelines.

- ❖ During construction, an increase in traffic will be required and impacts will be mitigated with established traffic plans.
 - ❖ As previously noted, dust and noise during construction will be mitigated and will not be uncharacteristic of the dust and noise in the area due to ongoing daily activities.
 - ❖ No other off-site impacts to air or water quality are expected as a result of construction or operation of the respective pipelines.
6. Criteria: The site is suitable for the conditional use including adequate usable space, adequate access, and absence of environmental constraints.

Response: Discovery will obtain sufficient land, right-of-way, and temporary working space along with strategically placed access for ingress / egress to the pipeline right-of-way to safely construct the pipelines and associated facilities.

- ❖ The predominant agricultural land use along the pipeline route is both compatible and complimentary with the required facility and pipeline operations.
7. Criteria: The site plan for the proposed conditional use will provide the most convenient and functional use of the lot including the parking scheme, traffic circulation, open space, fencing, screening, landscaping, signage, and lighting.

Response: Discovery has taken great care in considering the current and potential use of the properties and adjacent lands for the project, talking with both landowners directly impacted by the project, as well as adjacent landowners to ensure the project provides the most convenient and functional use of the properties and right-of-way, including:

- ❖ The underground pipelines will not interfere with the predominant use in the area – agriculture.
 - ❖ The underground pipelines are predominantly routed near and parallel to section lines, property lines, and existing utility corridors so as to minimize impacts on future development.
8. Criteria: Sewer, water, storm water drainage, fire protection, police protection, and roads are to be available and adequate to serve the needs of the conditional use as designed and proposed.

Response: Discovery has considered the utility requirements, fire and police protection, and ingress / egress to from the pipeline rights-of-way in the planning and the design of the project, including:

- ❖ The proposed facilities will not require sewer or water service since they will be unmanned facilities. No storm water drainage infrastructure will be required.
- ❖ All access drives and facility drive gates will be designed to meet the ingress / egress requirements of the respective fire districts.
- ❖ The facilities will not impose an additional burden on police forces beyond their current responsibilities.
- ❖ The pipelines will be located underground and will not require utility services (i.e. sewer, water, storm water drainage, etc.), or the construction of new roads.
- ❖ The pipelines will not impose an additional burden on fire or police forces beyond their current responsibilities

2.16 RE-ZONING APPLICATION

Not applicable. The project does not involve a request for re-zoning.

2.17 SUBMITTAL REQUIREMENTS FOR A SOLID WASTE TRANSFER STATION (SUBMITTAL ITEM E)

Not applicable. The project does not involve a solid waste transfer station.

2.18 SUBMITTAL REQUIREMENTS FOR A SOLID WASTE COMPOSTING FACILITY (SUBMITTAL ITEM F)

Not applicable. The project does not involve a solid waste composting facility.

2.19 SUBMITTAL REQUIREMENTS FOR A SCRAP TIRE RECYCLING FACILITY (SUBMITTAL ITEM G)

Not applicable. The project does not involve a scrap tire recycling facility.

2.20 SUBMITTAL REQUIREMENTS FOR INERT FILL (SUBMITTAL ITEM H)

Not applicable. The project does not involve inert fill.

2.21 PLANNING AND DEVELOPMENT APPLICANT FEEDBACK SURVEY (SUBMITTAL ITEM D)

A completed Applicant Feedback Survey form is provided under Exhibit G "[Applicant Feedback Survey](#)".

2.22 TRAFFIC IMPACT FEE ACKNOWLEDGEMENT AFFIDAVIT (SUBMITTAL ITEM I)

It is acknowledged that Adams County may charge a Traffic Impact Fee in conjunction with the building permit(s) for the Project. A copy of the Traffic Impact Fee Acknowledgement Affidavit is provided under Exhibit H "[Traffic Impact Fee Acknowledgement Affidavit](#)".

2.23 ELECTRONIC VERSION OF THE LEGAL DESCRIPTION

The written descriptions and legal Plats describing the permanent, temporary and construction pipeline easements, prepared and certified by a registered Colorado Professional Land Surveyor will be provided electronically prior to performing any construction activities.

Upon completion of construction, Discovery will provide Adams County with an electronic version of the pipeline alignment in a format that is consistent with the U.S. Department of Transportation National Pipeline Mapping System requirements.

2.24 CERTIFICATE NOTICE TO MINERAL ESTATE OWNERS (SUBMITTAL ITEM J)

Pursuant to CRS Section 24-65.5-102(2)(a), a natural gas pipeline or crude oil pipeline does not constitute an “application for development” that would trigger the requirements of the Surface Development Notification Act, CRS Section 24-65.5-101, et. seq., and therefore is not applicable.

2.25 APPLICANT’S CERTIFICATION CONCERNING QUALIFYING SURFACE DEVELOPMENT, PURSUANT TO C.R.S. 24Z65.5Z 103.3(1)(B) (SUBMITTAL ITEM K)

Pursuant to CRS Section 24-65.5-102(2)(a), a natural gas pipeline or crude oil pipeline does not constitute an “application for development” that would trigger the requirements of the Surface Development Notification Act, CRS Section 24-65.5-101, et. seq., and therefore is not applicable.

2.26 RECORDED COPY OF THE CERTIFICATION CONCERNING QUALIFYING SURFACE DEVELOPMENT (SUBMITTAL ITEM L)

Pursuant to CRS Section 24-65.5-102(2)(a), a natural gas pipeline or crude oil pipeline does not constitute an “application for development” that would trigger the requirements of the Surface Development Notification Act, CRS Section 24-65.5-101, et. seq., and therefore is not applicable.

3.0 ADDITIONAL ITEMS REQUESTED

Pursuant to the Conceptual Review Summary Letter dated January 23, 2017, and attached hereto under Exhibit C “Conceptual Review Meeting Summary Letter”, additional items outlined under the Areas and Activities of State Interest (“AASI”) checklist and requested by ACPD staff are addressed under Sections 3.1 through 3.9 below. A copy of the completed AASI checklist is attached hereto under Exhibit I “Areas and Activities of State Interest Checklist”.

3.1 INFORMATION DESCRIBING THE APPLICANT

3.1.1 APPLICANT & PROJECT OWNER INFORMATION

3.1.1.1 APPLICANT INFORMATION

Discovery DJ Services, LLC
Attn: Mr. Cory Jordan
7859 Walnut Hill Lane, Suite 335
Dallas, TX 75230

3.1.1.2 PROJECT OWNER

Discovery DJ Services, LLC
7859 Walnut Hill Lane, Suite 335
Dallas, TX 75230
(318) 272-1018

3.1.2 CONTACT INFORMATION FOR INDIVIDUALS CONSTRUCTING & OPERATING THE PROJECT

3.1.2.1 PROJECT MANAGER

Cory Jordan
Discovery DJ Services, LLC
7859 Walnut Hill Lane, Suite 335
Dallas, TX 75230
(318) 272-1018

3.1.2.2 CONSTRUCTION MANAGER

Jeff Brewster
Quality Check Energy Services, LLC
Candlewood suites
2204 South medical Center Drive
Brighton, CO 80601

(318) 348-7693

3.1.2.3 ENVIRONMENTAL CONSULTANT

Chad Barnes
Senior Project Manager
SWCA Environmental Consultants
(970) 420-0333
CBARNES@SWCA.COM

3.1.2.4 PROJECT SURVEYOR

Doug W. Chinn, PLS
Acklam, Inc.
195 Telluride St., Ste. 7
Brighton, CO 80601
(720) 685-5905

3.1.2.5 PROJECT ENGINEER

Andy Siegfried
Zion Engineering, LLC
8100 E. Maplewood Ave., Suite 100
Greenwood Village, CO 80111
(303) 941-3547

3.1.2.6 OPERATIONS

Cory Jordan
Discovery DJ Services, LLC
7859 Walnut Hill Lane, Suite 335
Dallas, TX 75230
(318) 272-1018

3.1.3 APPLICANT'S FINANCIAL & TECHNICAL CAPABILITY TO DEVELOP & OPERATE PROJECT

The Applicant is financially capable to develop this Project. The project will be financed using equity from the private equity fund Old Ironsides Energy LLC and the management team. The management team has a \$100,000,000+ equity commitment for the development of greenfield midstream projects in the continental United States, which is substantially more than adequate for the development of the Project.

The Applicant possesses the technical capabilities to oversee the construction and operation of the Project, and is fully responsible for the Project. The Discovery management team recently spun out of Wildcat Midstream Holdings in 2016 where the team safely operated over 200 miles of regulated and non-regulated natural gas and hazardous liquid pipelines and 140,000 Mcf/d of cryogenic natural gas processing and treating assets in the states of Texas and Louisiana.

Only contractors with the experience and expertise to construct this Project will be pre-qualified to bid on this Project.

3.2 INFORMATION DESCRIBING THE PROJECT

3.2.1 DETAILED PLANS & SPECIFICATIONS

Reference Section 2.14 above.

3.2.1.1 PREFERRED ROUTE CONSIDERATIONS & REASONING

The preferred route was selected to mitigate the impacts to local businesses and residential neighborhoods; conform with the comprehensive plans for the city of Brighton, Adams County, the town of Lochbuie, and Weld County; minimize impacts to the environment; and

to the greatest degree possible, the preferences of local city and county landowners. The preferred route is located on lands within Adams County that are zoned as agricultural.

In areas zoned as agricultural, Discovery worked with each respective landowner to develop the preferred alignment to mitigate impacts to activity cultivated fields and productive areas, along with landowner considerations and preferences.

In addition to zoning and landowner considerations, numerous other factors were included in the decision process for the selection of the preferred route. Discovery has reviewed and considered the Adams County Comprehensive Plan as well as the Adams County Transportation Plan in selection of the preferred route, keeping the permanent right-of-way outside of County Road right-of-ways on roads such as E. 120th Ave. which is slated for expansion. The County trails, parks and open space have also been considered in the planning of the preferred route, resulting in no impact.

The preferred route does not cross any canals associated with regional drainage and irrigation, such as the Fulton Canal, Farmers Reservoir and Irrigation Company (“FRICO”), Denver-Hudson Canal and the Denver-Hudson Canal systems.

3.2.2 PROJECT DESIGN, PERMITTING, CONSTRUCTION & OPERATIONS SCHEDULE

The acquisition of land and right-of-way, engineering and design, procurement of equipment and materials, and the selection of the applicable contractor(s) for the project will occur concurrently with the acquisition of the respective local, state, and federal permits required. This shall include, but not be limited to:

- ❖ Finalizing landowner agreements and the acquisition of 30 foot permanent plus 50 foot temporary construction easements and required temporary work space from individual landowners. This is currently underway in both Adams and Weld Counties;
- ❖ Acquire the applicable local, state, and federal permits required for the project, including but not limited to, the applicable CDOT; stormwater general permit with the Colorado Department of Public Health and Environment (“CDPHE”), Water Quality Control Division; CDPHE discharge permit; CDPHE Air Quality Control Division construction air permit, Army Corp of Engineers (“ACOE”) Nationwide #12 permit, and applicable local building permit. A complete list and the current status of the applicable permits is outlined under Exhibit J “Federal, State and Local Permits”;
- ❖ Detailed engineering and design of the respective pipeline. These activities are currently underway;
- ❖ Solicitation, bid and award of the applicable construction contract(s) to third part construction and non-destructive examination contractors;
- ❖ Pre-construction survey of the pipeline alignment;
- ❖ Construction of the respective pipelines in Adams County. Discovery plans to begin construction in Adams County once all permits are received and the required land and right-of-way is acquired.

Following completion of construction, Discovery will commission the crude oil pipeline and place the Project in-service.

Overall, the non-construction activities are anticipated to take approximately 2-4 months, followed by approximately 4-5 months of construction and 1-2 weeks of commissioning.

3.2.3 PROJECT NEED

Advances in oil and gas extraction technologies have resulted in a substantial increase in oil and gas activities across Colorado, more specifically in the Denver-Julesburg Basin and Wattenberg Fields within Adams County. Crude oil and produced liquids (condensate, produced water) from these wells

impede the natural gas production and require transportation to oil and gas facilities for processing, treatment, and either disposal or sale to regional markets. Currently, these liquids are transported by truck from the individual well pads resulting in an increasing number of trucks per day on the local city and county roads and state highways. Similarly, the existing natural gas infrastructure in and around these wells is at capacity or doesn't exist within areas of new drilling. Centralized collection of these liquids and more efficient means of transportation are required to reduce the local truck traffic and facilitate transportation of the natural gas and produced liquids to locations where they can be processed and sold to meet market demands. The Project is a necessary component of the overall system to gather, process, transport and market the area's natural resources in the Niobrara and Codell formations.

3.2.4 CONSTRUCTION & OPERATION CONSERVATION TECHNIQUES

All pipelines will be buried to provide 48-inches of cover. The pipeline trench will be excavated mechanically; pipe segments will then be strung along the ditch line and then welded together using welders and weld procedures qualified under the requirements of the Code of Federal Regulations; each weld will be examined utilizing industry standard non-destructive examination, or x-ray, procedures by qualified technicians; the coating on the pipeline will be inspected for damage and repaired as necessary and then the line(s) will be lowered into the trench and backfilled. The pipeline(s) will subsequently be pressure tested using water (hydrostatically tested) to industry regulations.

All available topsoil will be conserved through a process known as "double-ditching", which excavates and removes and conserves topsoil where practical. Conserved topsoil will be windrowed separately from the underlying subsoil and stored along the construction right-of-way until the trench is backfilled, unless construction occurs during the winter with frozen soils. Under frozen soil conditions, topsoil salvage may be conserved using the following Best Management Practices ("BMP")'s: 1) topsoil would be ripped to a depth of 6 inches prior to stripping to allow for effective separation from the subsoil; and 2) topsoil would be sheared off from the subsoil layer to approximately 6 inches using appropriate equipment to accomplish topsoil salvage without mixing.

During construction, the Applicant will follow BMPs described in the Stormwater Management Plan. Erosion control BMPs include silt fencing, straw wattles, hay bales, or combinations of these items, depending on the particular area requiring erosion control during construction.

Construction staking will occur to designate the pipeline centerlines and outside construction right-of-way boundaries. The limits of disturbance will be clearly marked/staked prior to construction including the construction right-of-way, temporary use areas / work space, and access roads. Utility lines will be located and marked to prevent accidental damage during pipeline construction. Sensitive areas to be protected from disturbance or that require monitoring will be indicated on engineering documents and construction drawings and staked and marked accordingly in the field prior to construction. The location of access road entry points will be properly marked. Flagging, signs, and other markings identifying the limits of disturbance would be maintained through all phases of construction. A survey crew would be available during construction to replace any stakes that have been damaged or inadvertently removed.

Wildlife and High Interest Species: Wildlife and high interest species surveys will be performed prior to construction and the applicable agencies consulted. This shall include:

- ❖ A Raptor nest survey will be completed if pipeline construction extends or is scheduled for the raptor nesting season (January 15 to July 31). If active raptor nests are found near the ROW (within 0.3 miles) the CDPW will be consulted to determine if any nest protection measures are needed.
- ❖ A nesting Burrowing Owl Survey will be completed if any black-tailed prairie dog towns are crossed during the period of owl activity (March 15 to October 31). If nesting burrowing owls are located consultations would occur with the CDPW to determine if any nest protection measures are needed.
- ❖ A Ute ladies' tresses orchid and Colorado butterfly plant survey would be completed in all wetlands that are proposed to be crossed by trenching. This survey would be completed

during the plants blooming period (late July through August). If either species is located consultation would occur with the USFWS.

- ❖ The Colorado Parks and Wildlife District Wildlife Manager for the area will be consulted prior to construction. If there any issues of wildlife mortality (entrapment in the trench, or other mortality) the District Wildlife Manager will be notified.

Archeology and Paleontology: On call archeologist and paleontologist would be available to consult if any potential archeological (stone tools, fire rings, foundations, bones) or paleontological (fossils) are found during construction/excavation of the trench and ROW. Project construction would be temporarily stopped until review by the archeologist/paleontologist. If needed the State Historic Preservation Office (SHPO) would be consulted. Impacts to historic canal/ditch crossings would be avoided by completing these crossings by horizontal directional drill (“HDD”).

Mobilization: Construction equipment will be transported to the construction right-of-way via tractor trailer and unloaded within designated staging area(s). Transportation equipment will be removed from the site or parked within a staging area once off-loading is completed.

Clearing and Grading: Vegetation will be cleared and the construction right-of-way would be graded, to the degree necessary, to provide for safe and efficient operation of construction equipment and vehicles and to provide space for the storage of subsoil and topsoil. Construction activity and ground disturbance will be limited to approved, staked areas.

Where required, trees will be cut with a chain saw and/or mechanical shears and brush would generally be cut with a hydro-axe or similar equipment. Trees and brush will be cut as close to the ground as possible. Vegetative material will typically be shredded and scattered back across the surface to increase roughness, facilitate seeding establishment, and protect the construction right-of-way. Stumps that are not shredded or chipped and that are incorporated into the topsoil will be removed and disposed of at an approved disposal facility. Vegetation may also be brush-hogged to preserve habitat.

Topsoil will be stockpiled separately from subsoil and will not be used to pad the trench or construct trench breakers. In areas where the construction right-of-way crosses ephemeral drainages, the drainages will not be blocked with topsoil or subsoil piles. Topsoil and subsoil would be placed on the banks of the drainages. Gaps will be left periodically in the topsoil and subsoil piles to avoid ponding and excess diversion of natural runoff during storm events.

Trenching: Trenching will be completed using track hoes or a mechanical trenching machine. The pipeline trench will be to one side of the construction right-of-way to allow for spoil to be placed opposite of the wider working side. It is not anticipated that blasting will be required during pipeline construction.

Access will be provided for landowners and grazing rights holders to move vehicles, equipment, and livestock across the trench where necessary and consistent with prior agreement with landowners. Livestock operators will be contacted and adequate crossing facilities would be provided as needed to ensure livestock are not prevented from reaching water sources because of the open trench.

The contractor will keep wildlife and livestock trails open and passable by adding soft plugs (areas where the trench is excavated and replaced with minimal compaction) during construction. Soft plugs with ramps on either side will be left at all well-defined livestock and wildlife trails and at no more than 0.5-mile intervals along the open trench to allow passage across the trench and to provide a means of escape for livestock and wildlife that may fall into the trench.

Trench breakers constructed of sand bags or polyurethane foam will be installed at specific spacing intervals to impede shallow groundwater from flowing down the trench.

Lowering-in and Padding: Before the pipe section is lowered into the trench, an inspection will be conducted to verify that the pipe is properly fitted and installed in the trench, minimum cover is provided, and the trench bottom is free of rocks and other debris that could damage the external pipe coating. The pipe sections will be simultaneously lifted in position over the trench and lowered in place. Sifted soil fines from the excavated subsoil will provide rock-free pipeline padding and bedding.

Sandbags may be used to pad the bottom of the trench instead of, or in combination with, padding with soil fines. In rocky areas, padding material or a rock shield will be used to protect the pipe and coating. Topsoil will not be used to pad the pipe.

Backfilling Pipeline: Shading and backfill will begin after a section of pipe has been successfully placed in the trench, inspected, and approved for backfill. Backfill will be conducted using a bulldozer or other suitable equipment. Subsoil excavated from the trench will generally be used to backfill the trench, except in rocky areas where imported select fill material may be needed. Backfill will be graded and compacted, where necessary, for ground stability, by tamping or walking with a wheeled or tracked vehicle. Compaction will be conducted to the extent that there would be no voids in the trench. Any excavated materials or materials unfit for backfill will either be utilized elsewhere or properly disposed of in accordance with applicable laws, regulations and landowner agreements.

Cleanup and Restoration: Cleanup and restoration will occur after the pipeline is installed and backfill is completed, or in the spring following construction if weather conditions would inhibit the proper restoration activities, so as to minimize the length of time that the open trench and un-stabilized right-of-way is present. Cleanup of the surface along the construction right-of-way will include removal of construction debris and final grading to the finished contours. Permanent erosion control measures will be installed as required and seeding would occur in accordance with landowner requirements. Invasive and noxious weeds will be controlled after construction until the right-of-way is restored.

Road Crossings: All county road crossings will be completed by conventional bore or directional drill methodology with sufficient depth to maintain a minimum of 60-inches of cover at the lowest bar ditch.

Waterbody Crossings: All streams and named ditch / canal crossings will be completed HDD to avoid disturbance of the stream and ditch bed and banks. Each HDD will begin, end and be of sufficient depth to ensure the pipeline is not subject to the hazard of stream scour during anticipated flood events. If the HDD crossing avoids impact to all associated wetlands, a U.S. Army Corps of Engineers (USACE) 404 permit will not be necessary for this crossing.

In areas with trenched wetland crossings, the construction right-of-way will be reduced from 80 feet in width to 50 feet in width, where only the ditch line will be topsoiled and the drive space will be matted with pipeline mats to mitigate disturbance. Blading would occur only over the trench line and the construction traffic / access area would be matted to avoid vegetation disturbance. If standard open cut construction methods are used in wetland areas, Discovery will obtain the necessary ACOE 404 permits.

3.3 PROPERTY RIGHTS, PERMITS AND OTHER APPROVALS

3.3.1 FEDERAL, STATE & LOCAL PERMITS AND APPROVALS

Discovery has consulted the applicable federal, state, and local permitting authorities for all required occupational, environmental, and building / work permits for the Project and is in the process of obtaining these permits. The following federal and state permits will be required for the Project:

Federal Permits:

Army Corps of Engineers (ACOE)

- ❖ The proposed pipelines will not cross wetland areas, ditches and streams that are under the jurisdiction of the ACOE. Generally, pipeline construction does not result in the permanent fill of wetlands or waters of the U.S. Pipeline construction results in a temporary disturbance without loss or long term impacts. The Project should fall within the Nationwide Permit (Nationwide Permit #12) guidelines with the ACOE. Nationwide permits are regulated under Section 404 of the Clean Water Act. Required mitigation activities include removing all excess materials at wetland and stream crossings; stockpiling and restoring topsoil; and restoration of the wetland or stream channel to pre-construction conditions and contours. Based upon review of National Wetland Inventory maps and aerial photography for the project the Project will not cross more than 500 feet of wetlands. Thus, Preconstruction Notification (“PCN”) with the ACOE not will be required for the project.

❖ State Permits:

Colorado Department of Public Health and Environment (“CDPHE”)

- ❖ Stormwater General Permit: CDPHE Water Quality Control Division. Discovery is in the process of acquiring the Stormwater General Permit, which will be obtained prior to performing any construction activities. A Stormwater Management Plan (“SWMP”) will be prepared as required by CDPHE.
- ❖ A Colorado Discharge Permit System (CDPS) permit: This permit is required from the CDPHE (Water Quality Control Division) for discharge of hydrostatic test water associated with pipeline integrity testing during construction. Required information for the permit includes the name and location of the Project; location of the test water discharge; dates of discharge; volumes of discharge; the source of test water; test water quality; and the BMP’s for the test water discharge location. Testing of discharge water is also required as part of the permit. This permit will be obtained prior to construction once hydrostatic testing details have been determined.

A summary of the applicable permits and their current status is outlined under Exhibit J “Federal, State and Local Permits”. A copy of all permits applicable to Adams County will be provided prior to construction.

As outlined under Sections 2.6 and 2.7 above, Discovery has initiated the acquisition of the applicable pipeline easements, temporary use areas, and rights-of-way with landowners along the preferred route. Copies of all easement, and right-of-way agreements can be provided to the County upon request.

3.3.2 OFFICIAL FEDERAL & STATE AGENCY CONSULTATION COORESPONDENCE

Copies of all federal and state agency consultation correspondence will be provided under separate cover or transmittal.

3.3.3 DESCRIPTION OF WATER TO BE USED BY THE PROJECT

During construction, water will be utilized for dust mitigation and fire prevention purposes as well as for hydrostatic testing of the facility piping and respective pipelines in accordance with the applicable sections of the Code of Federal Regulations. Overall, approximately 544,000 gallons of water is anticipated to be required during construction based upon an estimated winter / spring construction timeline as follows:

Dust Mitigation & Fire Protection	144,000 gallons
Hydrostatic Testing	400,000 gallons

Water during construction will be obtained under permit or written approval from private landowners, as applicable. Table 3.3.3 below outlines potential water sources and their respective amounts:

**Table 3.3.3.
Boardwalk Pipeline Project
Construction Water Sources**

Source	Fill Location	Total Allowable Amount	Public / Private	Governing Agency	County of Source
FRICO	TBD	No Con	Private	CDHPE	Adams
Prairie View Subdivision	Prairie View Subdivision	30,000 gallons / day	Private	CDHPE	Adams

The buried pipelines are not expected to impact the natural aquifer recharge in the area, and the respective pipelines will not require water consumption during operation of the Project.

3.3.4 REGIONAL WATER QUALITY MANAGEMENT PLAN

The Project area is within the Platte River Basin Division and falls under Section 11 of the Statewide Regional Water Quality Plan. As required, a Stormwater Management Plan (“SWMP”) and Erosion and Sediment Control Plan will be prepared and submitted to Adams County prior to construction, outlining the Best Management Practices required. The SWMP and Erosion and Sediment Control Plan will be prepared under the Colorado Department of Public Health and Environment Colorado Discharge Permitting System Permit and in accordance with the Clean Water Act National Pollution Discharge Elimination System regulations and Adams County's Grading Erosion and Sediment Control manual. These plans will address water quality issues associated with construction activities. By following this plan and the practices to be outlined in the SWMP, impacts to water quality or quantity from Project will be negligible and comply with the Statewide Regional Water Quality Plan.

3.4 FINANCIAL FEASIBILITY OF THE PROJECT

Construction of the overall Project in Adams and Weld Counties is estimated to cost \$40,000,000 for all phases. Phase I of the pipelines and facilities in Adams and Weld Counties commenced construction in the Fall of 2016 and is anticipated to take approximately 4-6 months to complete. Phase II is anticipated to commence construction in July of 2017.

This Project is a necessary component of the overall system to gather, process, transport and market the area's natural resources in the Niobrara and Codell formations.

Construction of the Project will provide a path of delivery for resources of the Applicant's customers. Contracts or agreements with third parties for services to design and construct will be managed via private documents.

The Applicant will finance the Project directly. The benefit would be directly to the Applicant, Adams County and indirectly the public, with contractual arrangements with customer(s) to provided minimum revenues to the Applicant.

The cost of mitigation, such as for HDD crossings of streams, boring roads and drainages, and avoidance of endangered species, is included within the total estimated cost of the Project and has not been broken out as line items. Applicant will bear 100% of mitigation costs.

This Project's sponsors, Old Ironsides Energy and Discovery Midstream Partners, will finance the project with equity. Old Ironsides Energy is a \$1.3 billion private equity fund.

3.5 LAND USE

The AASI checklist incorporates six (6) general submittal items for land use. The following outlines these six items and addresses the Project responses to them.

1. *Description of existing land uses within and adjacent to the Impact Area.*

The 5.5-mile pipeline route within Adams County cross lands within zone district A-3 (agricultural uses).

2. *Description of provisions from local land use plans that are applicable to the Project and an assessment of whether the Project shall comply with those provisions*

The local land use plans for the A-3 zone district (agricultural) where the respective pipelines do not directly relate to the proposed Project; however, the presence of these the pipelines are compatible with the existing land uses. The Project will comply with all land use provisions.

3. *Description of impacts and Net Effect that the project would have on land use patterns*

The Project will have no impact on the land use patterns within Adams County. A large majority of the parcels in which the proposed facilities will be located will be able to be utilized for the existing land use and as previously noted, the underground pipelines will have no impact on land use along the right-of-way.

4. *Description of the surrounding and/or impacted community(ies)*

The surrounding communities will have little to no impact by the Project. As noted above, the proposed pipelines will have no impact on the current land use or future development plans of surrounding communities.

5. *Description of the surrounding and/or impacted Cultural Resources*

Reference Section 3.9.10.

6. *Description of existing and unique agricultural land in the area*

The land where the proposed facilities will be located and that along the proposed pipeline route is largely undeveloped land that is utilized as pasture or row crop productions.

3.6 LOCAL GOVERNMENT SERVICES

3.6.1 EXISTING CAPACITY OF AND DEMAND FOR LOCAL GOVERNMENT SERVICES

The Project will utilize existing infrastructure to facilitate construction and ongoing operation activities. These activities will not unduly impact existing roads or require the construction of new permanent public roads. Those vehicles using public roads to access the pipeline right-of-way, will be operated within the county specified and adopted load limits. Any oversized loads will be approved and permitted by the County prior to their utilization of County roads. The existing infrastructure has the capacity to accommodate the activities associated with the construction, operation, and required maintenance of the proposed facilities and respective pipelines.

3.6.2 IMPACTS & NET EFFECTS OF PROJECT ON DEMAND FOR LOCAL GOVERNMENT SERVICES

The Project does not anticipate adversely impacting any local services by Adams County. Those workers associated with the construction of the pipelines are temporary, and will not overly burden the existing capacities of Adams County, or local districts' ability to provide services to its residents. Prior to construction, Discovery will coordinate with local fire protection and emergency services providers. Subsequently, prior to operation of the Project, Discovery will work with the local emergency responders concerning emergency response plans for the pipelines. Following start-up and operation of the Project, Discovery will work with the local emergency responders for periodic training drills, as required. It is not anticipated that the construction and operation of the Project will create additional demand for local government services.

3.6.3 POTENTIAL EFFECT ON THE EXISTING TRANSPORTATION NETWORK

The Project will not impact the existing transportation network. The temporary increase in traffic during construction will be more than offset by the decrease in truck transport traffic associated with the crude oil and liquids production compared to the respective pipeline capacities over the life of the Project.

3.7 FINANCIAL EFFECTS ON COUNTY RESIDENTS AND LOCAL ECONOMY

Adams County is located in the northeastern quadrant of the Denver metropolitan area and covers over 1,100 square miles of land. It includes the cities of Arvada, Aurora, Bennett, Brighton, Commerce City, Federal Heights, Northglenn, Thornton, Westminster, and a substantial unincorporated area. Table 3.7a below and along the top of the following page outlines the top private, non-retail major employers in Adams County and Table 3.7b breaks down the employment and wage information by industry within the County.

**Table 3.7a
Major Employers – Private Non-Retail
Adams County, Colorado**

Rank	Company	Product / Service	Employment
1	University of Colorado Hospital	Healthcare / Research	6,550
2	Children's Hospital Colorado	Healthcare	5,250
3	United Parcel Service	Parcel Delivery	2,680

Table 3.7a (Cont.)

Major Employers – Private Non-Retail
Adams County, Colorado

Rank	Company	Product / Service	Employment
4	Sturgeon Electric	Electrical Services	1,270
5	HealthONE: North Suburban Medical Center	Healthcare	900
6	ADS Alliance Data Systems	Network & Credit Auth. Services	840
7	Shamrock Foods	Food Distribution	800
8	SROriginals	Bakery Product Manuf. & Dist.	790
9	Centura Health: St. Anthony's North Hospital	Healthcare	790
10	Platte Valley Medical Center	Healthcare	650

Source: Metro Denver Economic Development Corporation, June 2016 (www.metrodenver.org)

Table 3.7b
Employment & Wage Information
Adams County, Colorado

Industry	Avg. No. Establishments	Average Employment	Total Wage	Average Weekly Wage
Agriculture, Forestry, Fishing & Hunting	47	893	\$24,431,037	\$526
Mining	37	272	\$20,850,969	\$1,474
Utilities	27	776	\$57,107,009	\$1,415
Construction	1,226	13,781	\$643,929,661	\$899
Manufacturing	446	10,739	\$617,027,910	\$1,105
Wholesale Trade	986	13,210	\$746,613,821	\$1,087
Retail Trade	955	16,752	\$463,697,733	\$532
Transportation and Warehousing	473	13,476	\$594,864,147	\$849
Information	96	2,101	\$137,417,117	\$1,258
Finance and Insurance	455	2,674	\$109,373,722	\$787
Real Estate and Rental and Leasing	426	2,612	\$93,914,339	\$691
Professional and Technical Services	937	4,880	\$288,539,664	\$1,137
Management of Companies and Enterprises	77	1,653	\$121,687,734	\$1,416
Administrative and Waste Services	560	9,574	\$311,567,394	\$626
Educational Services	131	13,492	\$520,357,268	\$742
Health Care and Social Assistance	595	15,889	\$727,499,122	\$881
Arts, Entertainment, and Recreation	80	1,349	\$26,031,581	\$371
Accommodation and Food Services	656	12,011	\$189,130,068	\$303
Other Services, Ex. Public Admin	697	4,459	\$155,373,725	\$670
Public Administration	63	7,385	\$391,578,949	\$1,020
Unclassified	8	10	\$237,647	\$457

Source: Colorado Department of Labor, September 2011 (<http://www.adamscountyed.com/site-selection/data/labor-market-data>)

The construction of the proposed facilities and respective pipelines in Adams County will not negatively impact the existing tax burden or fee structure for government services applicable to Adams County residents and property owners, but will in fact result in an increased tax revenue for the County.

The daily operation of all phases of the Boardwalk Pipeline Project will create jobs for trade technicians, supervisory personnel, and administrative assistance with an estimated potential annual combined income of \$750,000.

Overall, pipelines are the safest, most reliable, and efficient way to transport natural gas, crude oil, and produced liquids from their point of production to end consumers. The Project will increase the efficiency of transporting the local oil and gas production to the domestic marketplace and will reduce local truck traffic, providing a net reduction in air emissions. These benefits along with the increase in ad valorem tax revenues for Adams County, result in the Project presenting a positive impact on Adams County and the surrounding community.

3.8 RECREATION OPPORTUNITIES

The preferred route crosses private lands and is primarily located in rural areas. Recreation in these areas is limited to dispersed activities including: hunting, hiking, biking, ATV use and other similar activities. The most important developed recreation area in the vicinity of the Project is Barr Lake State Park. This state park is approximately 0.4 to 0.6 miles to the north and northeast of the Project area.

Construction impacts to recreational uses will be minimal, especially considering the typical recreational activities in the area. No impacts to recreational use of Barr Lake State Park would occur during construction activities. Once in-service, there will be no impact to recreational activities.

3.8.1 DESCRIPTION OF PRESENT & POTENTIAL RECREATIONAL USES

A review of the trail, parks and open space maps provide on the Adams County Parks and Community Resources webpage indicates that the proposed route does not cross or impact any existing Adams County parks or trails.

3.8.2 MAP DEPICTING RECREATIONAL USES

A map is not necessary since the preferred route does not cross or impact any existing Adams County Parks or trails.

3.8.3 IMPACTS & NET EFFECTS OF PROJECT ON PRESENT & POTENTIAL RECREATIONAL OPPORTUNITIES

Since the preferred route does not cross any Adams County parks or trails, there will be a zero impact on present and future recreational opportunities.

Based on the Adams County Open Space, Parks and Trails Master Plan dated November 15, 2012, the preferred route would cross not cross any identified.

3.9 ENVIRONMENTAL ANALYSIS

The Project Area will be comprised of approximately 5.5-miles of pipeline right-of-way that will be 80 feet wide (-acres), with a permanent 30 foot easement, 5.5-miles long (-acres). The Project Area originates approximately 250 ft. east of the intersection of Powhaton Rd. and E. 120th Ave., at which time the crude oil pipeline turns north along Powhaton Rd. until it crosses into Weld County approximately 5,000 ft. east of the intersection of Harvest Rd. and E. 168th Ave. / County Road 2.

The following photographs depict the typical terrain, contours, and vegetation of the Project Area.



Image #1 – Powhatan Rd. (Looking North)



Image #2 – Powhatan Rd. & E. 128th Ave. (Looking North)



Image #3 – Powhatan Rd. & E. 160th Ave. (Looking North)



Image #4 – County Rd. 2 Crossing (Looking South)

Sections 3.9.1 through 3.9.13 outline the Project’s potential effects on the Air Quality; Visual Quality; Surface Water Quality; Groundwater Quality and Quantity; Wetland and Riparian Areas; Terrestrial & Aquatics Animals and Habitat; Terrestrial & Aquatic Plant Life; Soils, Geological Conditions & Natural Hazards; Nuisances; Archeological; Hazardous Materials; Benefits and Losses; and Mitigation and how Discovery proposes to comply with the applicable approval criteria in Section 6-17 of the ACDSR Chapter 6.

3.9.1 AIR QUALITY

The project area will be located in an air shed that includes the Denver metropolitan area, the Denver International Airport areas along the Platte River drainage. The region has been designated as a marginal nonattainment area for the 8-hour ozone National Ambient Air Quality Standard. The region has been designated as attainment for all other air quality standards. Table 3.9.1 below summarizes the National Ambient Air Quality Standards.

**Table 3.9.1
 Ambient Air Quality Standards and PSD Increments (ug/m³)**

Pollutant/Averaging Time	NAAQS	CAAQS	PSD Class I Increment ₁	PSD Class II Increment ₁
CO				
1-hour ²	40,000	40,000	-- ³	-- ³
8-hour ²	10,000	10,000	-- ³	-- ³
NO₂				
1-hour ⁸	188	188	-- ³	-- ³
Annual ⁴	100	100	2.5	25
O₃				
8-hour ⁶	147	144	-- ³	-- ³
PM ₁₀				
24-hour ²	150	150	8	30
Annual ⁴	-- ⁵		4	17
PM_{2.5}				
24-hour ⁷	35	35	2	9
Annual ⁴	12	12	1	4
SO₂				
1-hour ⁹	196	196	-- ³	-- ³
3-hour ²	1,300	700	25	512
24-hour ²	-- ⁵		5	91
Annual ⁴	-- ⁵		2	20

¹ The PSD demonstrations serve information purposes only and do not constitute a regulatory PSD increment consumption analysis.

² No more than one exceedance per year.

³ No PSD increments have been established.

⁴ Annual arithmetic mean.

⁵ The NAAQS for this averaging time for this pollutant has been revoked by EPA.

⁶ An area is in compliance with the standard if the fourth-highest daily maximum 8-hour ozone concentrations in a year, averaged over 3 years, is less than or equal to the level of the standard.

⁷ An area is in compliance with the standard if the highest 24-hour PM_{2.5} concentrations in a year, averaged over 3 years, is less than or equal to the level of the standard.

⁸ An area is in compliance with the standard if the 98th percentile of daily maximum 1-hour NO₂ concentrations in a year, averaged over 3 years, is less than or equal to the level of the standard.

⁹ An area is in compliance with the standard if the 99th percentile of daily maximum 1-hour SO₂ concentrations in a year, averaged over 3 years, is less than or equal to the level of the standard.

Winds typically follow the Platte River drainage predominately coming out of the southwest and the northeast. A windrose of wind frequencies monitored at the Ft. St. Vrain power plant area are shown in Figure 3.9.1 below.

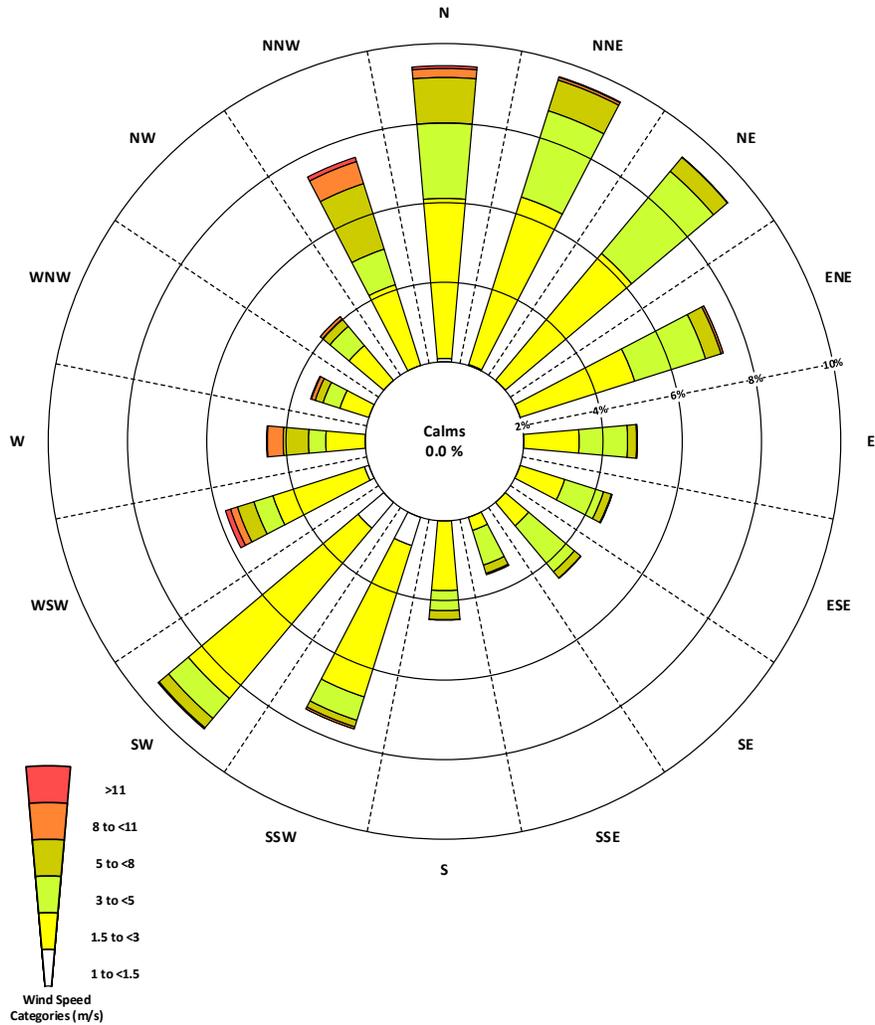


Figure 3.9.1– Wind Frequencies – St. Vrain Power Plant, Adams County

Intermittent and short-term air pollutant emissions during construction activities will occur through the operation of diesel-fired heavy construction equipment. Emissions for primarily fugitive particulate matter (PM₁₀ and PM_{2.5}) will occur from vehicle traffic, pipeline trench excavation and diesel combustion emissions. Emissions of NO_x, SO₂, CO, volatile organic compounds (VOC) and particulate matter (PM₁₀, PM_{2.5}) will occur from the operation of diesel-fired equipment. Water dust suppression will be utilized by the Applicant to mitigate fugitive particulate matter emissions.

Emissions from the processing facilities will be the only source of long term emissions. Low emission internal combustion engines equipped with oxidation catalysts will be utilized to mitigate combustion emissions,, and enclosed flares will be utilized to mitigate process vent VOC emissions. These facilities are also required to secure a construction air permit from the Colorado Department of Health and Environment that will further stipulate emission reducing requirements, as well as monitoring and recording requirements.

3.9.2 VISUAL QUALITY

1. *Map and description of ground cover and vegetation, tree canopies, waterfalls and streams or other natural features.*

Figure 3.9a below shows wetland and stream crossings along the ROW in Adams County. Figure 3.9a also shows vegetation types crossed by the project. The majority of the route in Adams County crosses agricultural lands. The route also crosses areas of native grassland and wetlands. Project construction has been routed in Adams County to avoid removal of all trees and shrub thickets.



Figure 3.9a – Wetland & Stream Crossing Map (3 of 3), Adams County

2. *Description of view sheds, scenic vistas, unique landscapes or land formations.*

The right-of-way in Adams County crosses flat areas of mainly agricultural land. Portions of the right-of-way are located in areas that are undergoing urbanization. The route is located approximately 0.6 miles north of Denver International Airport and 0.3 to 0.5 miles south and west of Barr Lake State Park (Figure 3.9). The view sheds in these areas provide vistas across the Front Range.

3. *Map and description of buildings, structure design and materials to be used for the Project. Include elevations of proposed buildings and other structures.*

The project does not contain any buildings, structures or above grade materials.

4. *Descriptions of the impacts and Net Effect that the Project would have on visual quality.*

During the construction phase, construction equipment (bulldozer, trackhoe, backhoe, trucks, trencher and other equipment) would be visible along the right-of-way. Once construction is complete the right-of-way will be restored to preconstruction conditions and contours. Agricultural land will return to agricultural uses, native grassland habitats would be reseeded. No long term effects to visual quality would occur from pipeline construction.

3.9.3 SURFACE WATER QUALITY

1. *Map and description of all surface waters, including applicable State water quality standards, to be affected by the project.*

No streams, named ditch or wetland crossings in Adams County will be crossed in this crude oil pipeline project.

Figure 3.9 shows stream, ditch and wetland crossings in Adams County. Table 3.9.3 summarizes these crossings (name/type, approximate crossing length and crossing method).

Table 3.9.3 Stream and Wetland Crossings Adams County, Colorado				
WETLAND/STREAM ID	DESCRIPTION	CROSSING DISTANCE	Crossing Method	LOCATION
Adams S9	Unnamed stream flowing ½ mile to Denver-Hudson Canal	<20 feet	OC	1S 65W S9
Adams S10	Denver-Hudson Canal	20 feet	HDD	1S 65W S5
Adams W7	Wetland	275 feet	OC	1S 65W S5
Adams W8	Wetland	230 feet	OC	1S 65W S5

Note: (Wetland/Stream ID corresponds to Figure 3.9)

The route would cross 1 named irrigation ditches/canals. The route does not cross any major streams or rivers. All stream and major ditch/canal crossings would be by HDD.

Project construction is not expected to impact State water quality standards at any crossing locations. Crossings would be made by HDD with no discharge of sediments or pollutants into the stream or ditch/canal.

2. *Descriptions of the immediate and long term impact and Net Effects that the Project would have on the quantity and quality of surface water under both average and worst case conditions.*

All streams and major canals/ditches would be crossed by HDD. No disturbance of stream or ditch bed and banks would occur. Project construction would follow standard BMP's to avoid/minimize offsite sedimentation and erosion. Project construction is expected to have minimal to no impacts to surface water quality.

Project construction is expected to have no impacts to surface water quantity. No permanent dewatering or loss of water flow would occur as a result of project construction. During construction water would be needed for dust control and hydrostatic testing of the pipe. This water would be obtained from local sources and would not impact surface water quantity or flows in any local streams or ditches.

3. *Descriptions of the immediate and long term impacts and Net Effects that the project would have on the meandering characteristics and limits of the streambed under both average and worst case conditions.*

There would be no long or short term impacts to meandering characteristics of streams. All ditch and stream crossings would be made by HDD. HDD crossings would avoid all stream and ditch impacts. No impacts to ditch or streambanks, streambeds, stream or ditch side vegetation, future or current water flows would occur with project construction.

3.9.4 GROUNDWATER QUALITY & QUANTITY

The Project Area is located within the Denver Basin, with a portion of the project in both the Arapahoe Formation and the Denver Formation. The project area also briefly crosses into the South Platte River Alluvial Aquifer which overlays the Denver Basin. The proposed project area does not fall within any Colorado Water Division Designated Basins and is entirely within the Colorado Division of Water Resources South Platte Division. Reference Figures 3.9.4a-c below and on the following pages for the applicable water division and basin delineations, along with the project location.

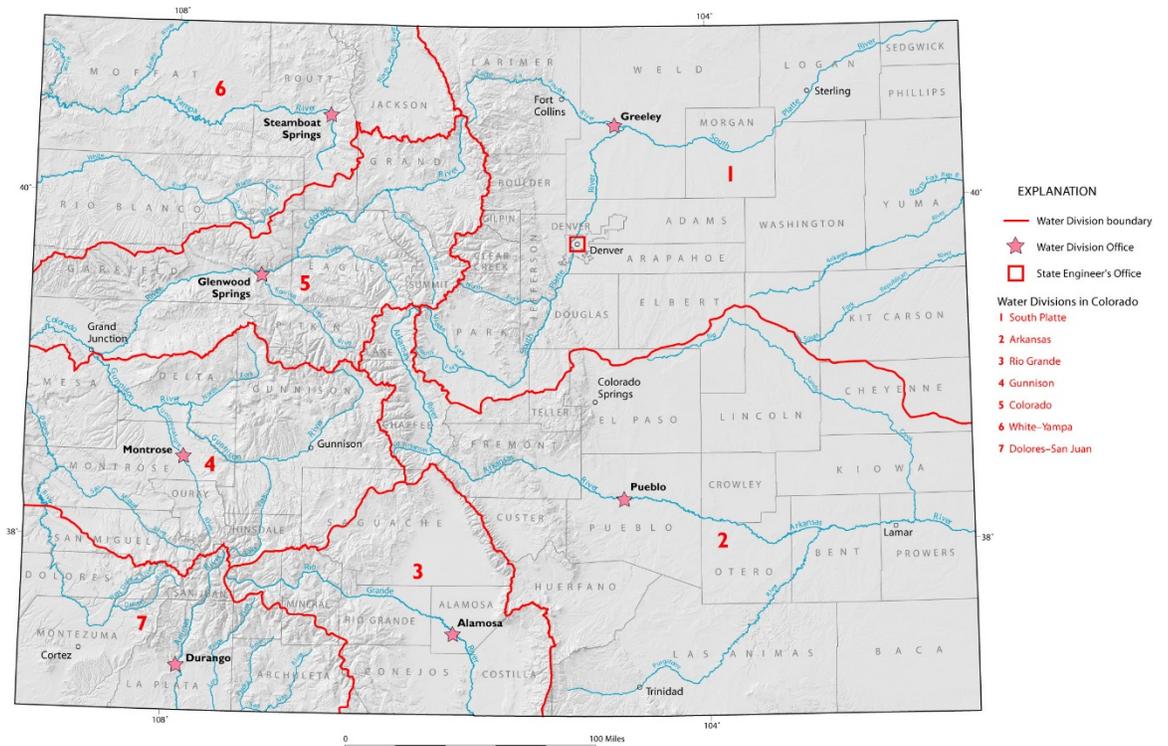


Figure 3.9.4a – Colorado Division of Water Resources, Water Division Map

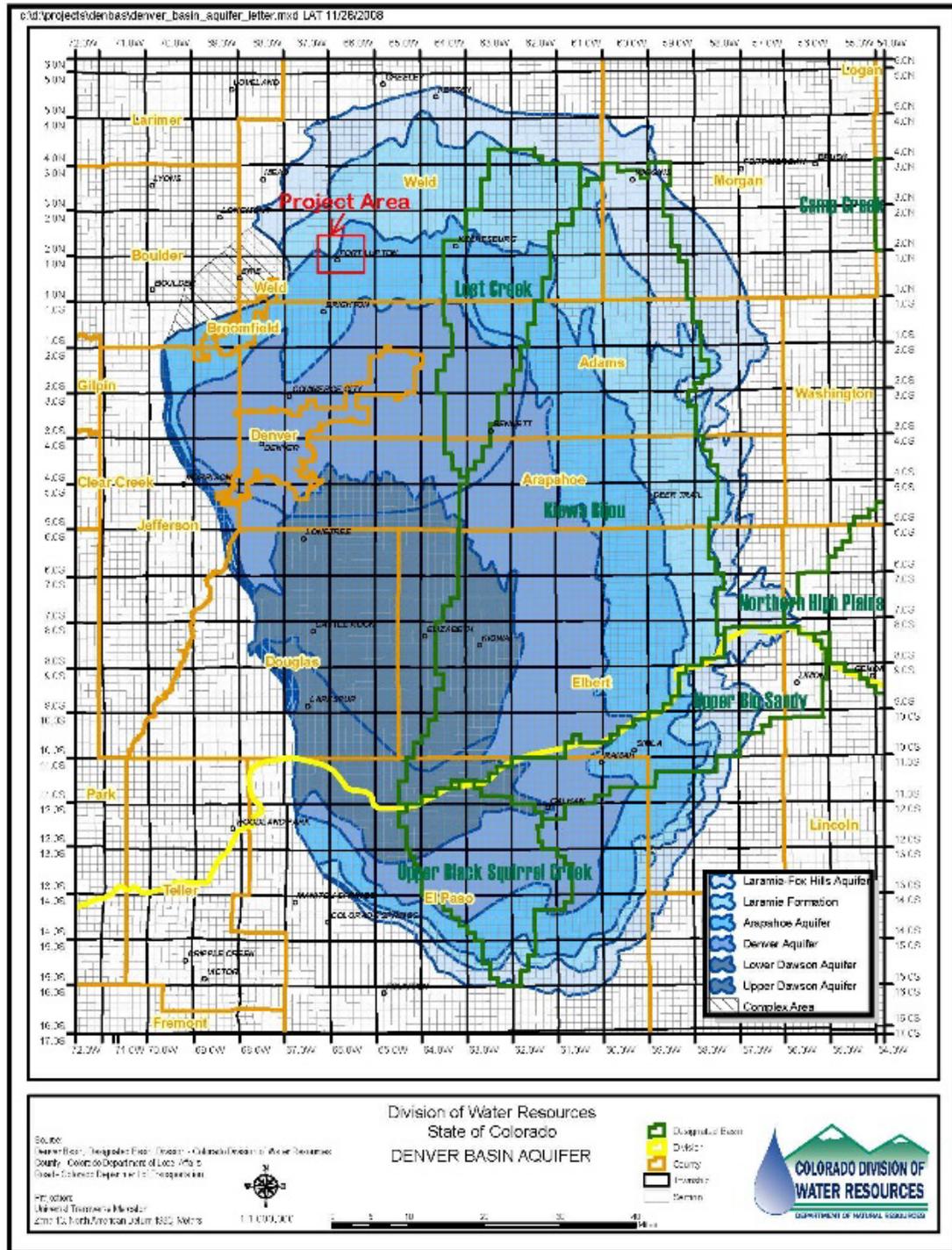


Figure 3.9.4b – Division of Water Resources, Denver Basin Aquifer Map

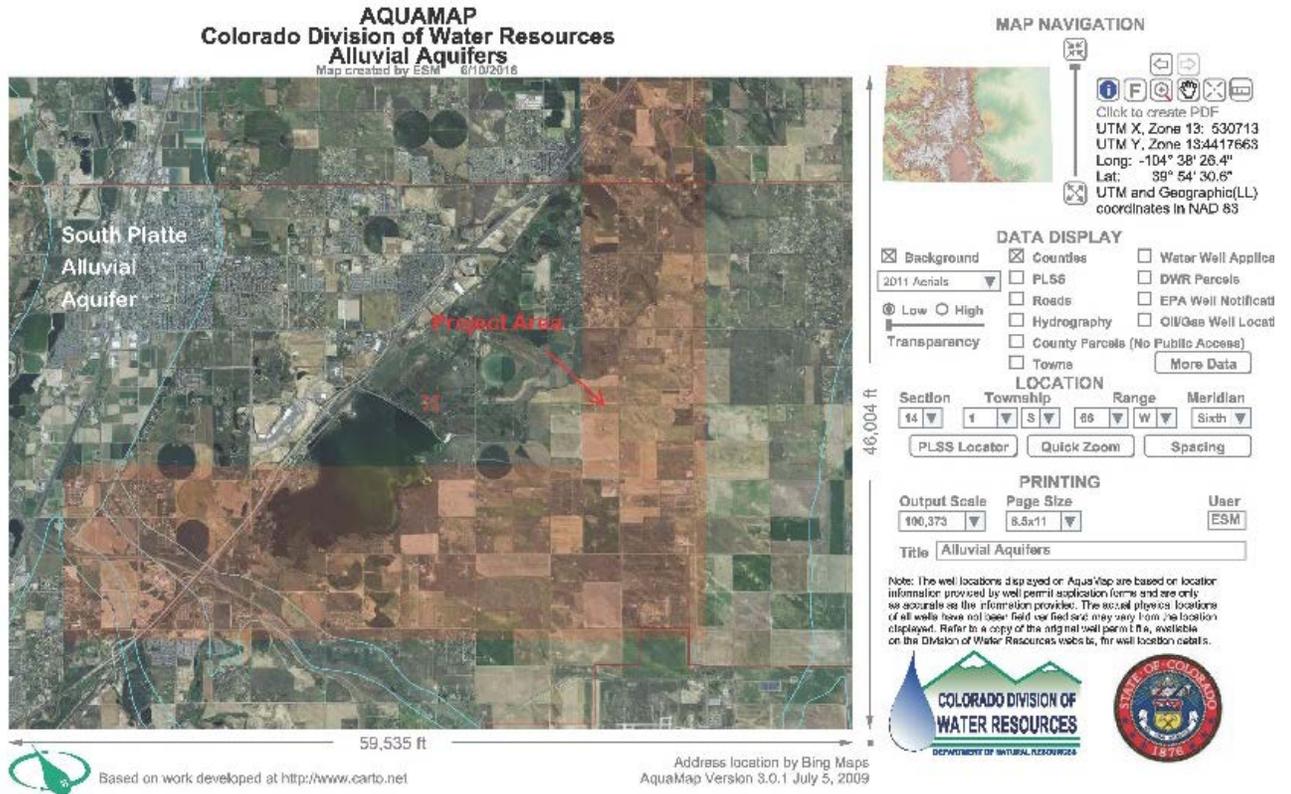


Figure 3.9.4c – Project Area & South Platte Alluvial Aquifer Delineation Map, Adams County

The Denver Basin – Denver and Arapahoe Aquifers

The Denver Basin is a structural sedimentary basin and is a layered, multi-aquifered system. In the Project area, groundwater typically flows from south to north towards the South Platte River as outlined in Figure 3.9.4d below and continued on the following page.

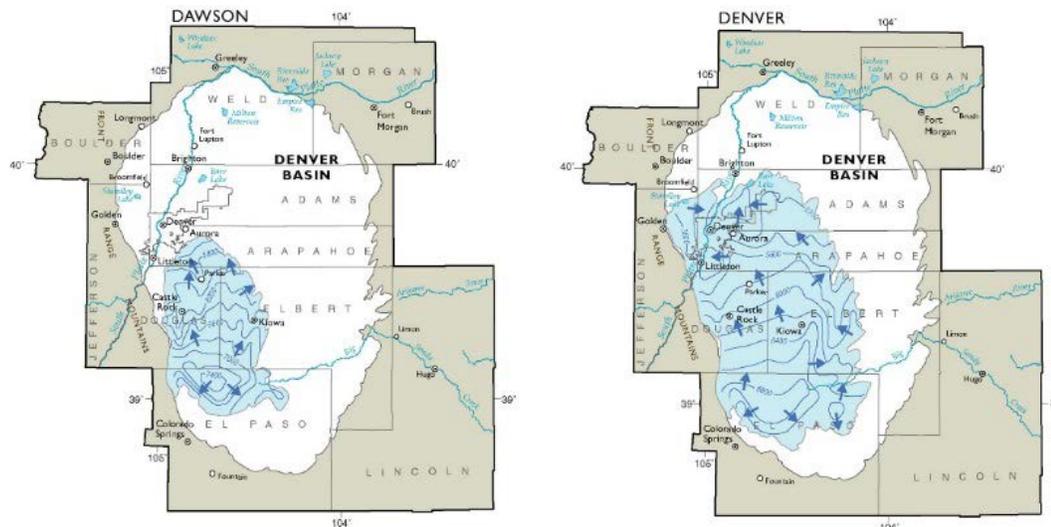


Figure 3.9.4d – Denver Basin, Groundwater Flow Patterns

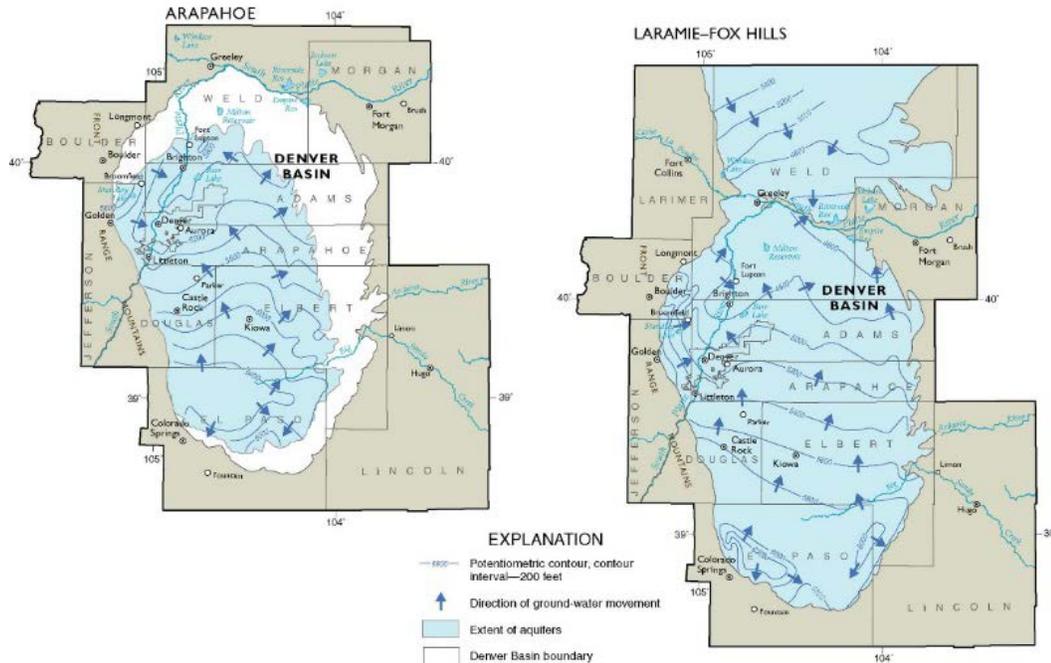


Figure 3.9.4d (cont.) – Denver Basin, Groundwater Flow Patterns

The Denver Basin is a heavily used system and the demand for water has changed the natural groundwater flow processes. Historical discharge to streams and alluvial aquifers has been reduced and in some cases eliminated. The proposed pipeline, however, will be buried approximately 48-inches below existing grade and therefore should have no impact on groundwater quality or quantity in the Denver Basin Aquifers. The Depth to the Arapahoe and Denver Bedrock Aquifers is a half-mile or more below at the surface.

The groundwater in the Arapahoe and Denver Basins has Total Dissolved Solids that range from 400 to 1000 milligrams per liter. Values and delineations are outlined in Figure 3.9.4e below and continued on the following page.

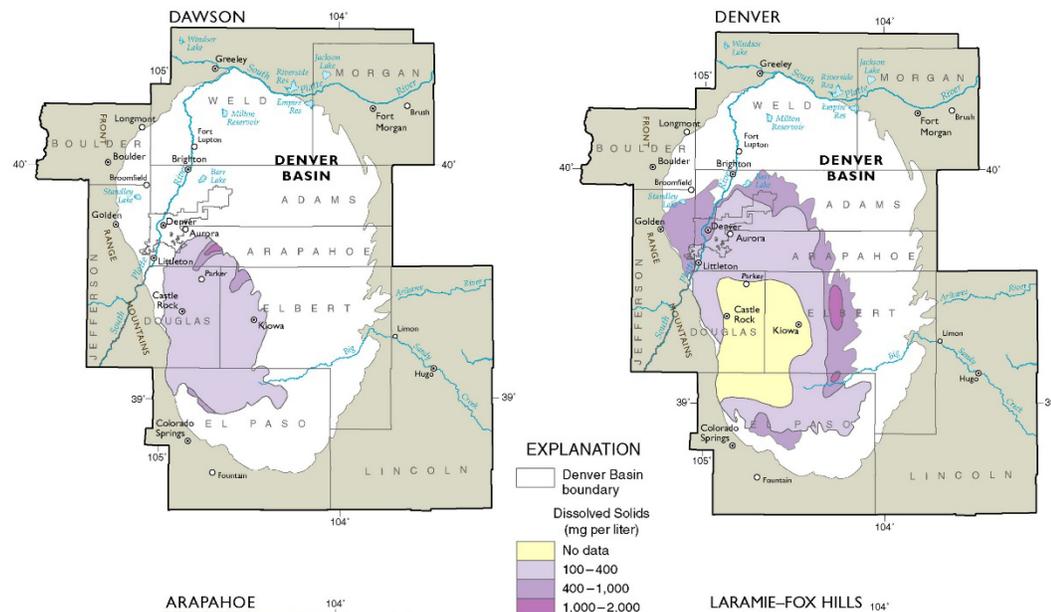


Figure 3.9.4e – Denver Basin, Total Dissolved Solids

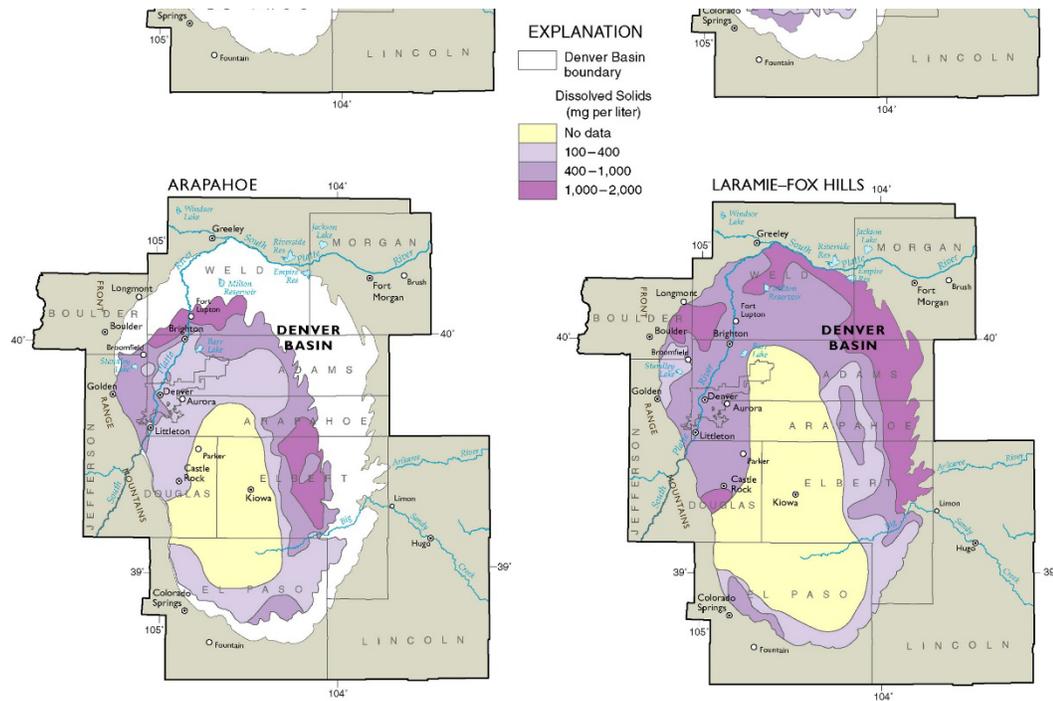


Figure 3.9.4e (cont.) – Denver Basin, Total Dissolved Solids

The South Platte River Basin

The South Platte River Alluvial Aquifer is fed by surface waters within the Project Area. Similar to the Denver Basin, the general flow is south to north as most surface water within the Project area are tributaries of the South Platte River as outlined in Figure 3.9.4f below.

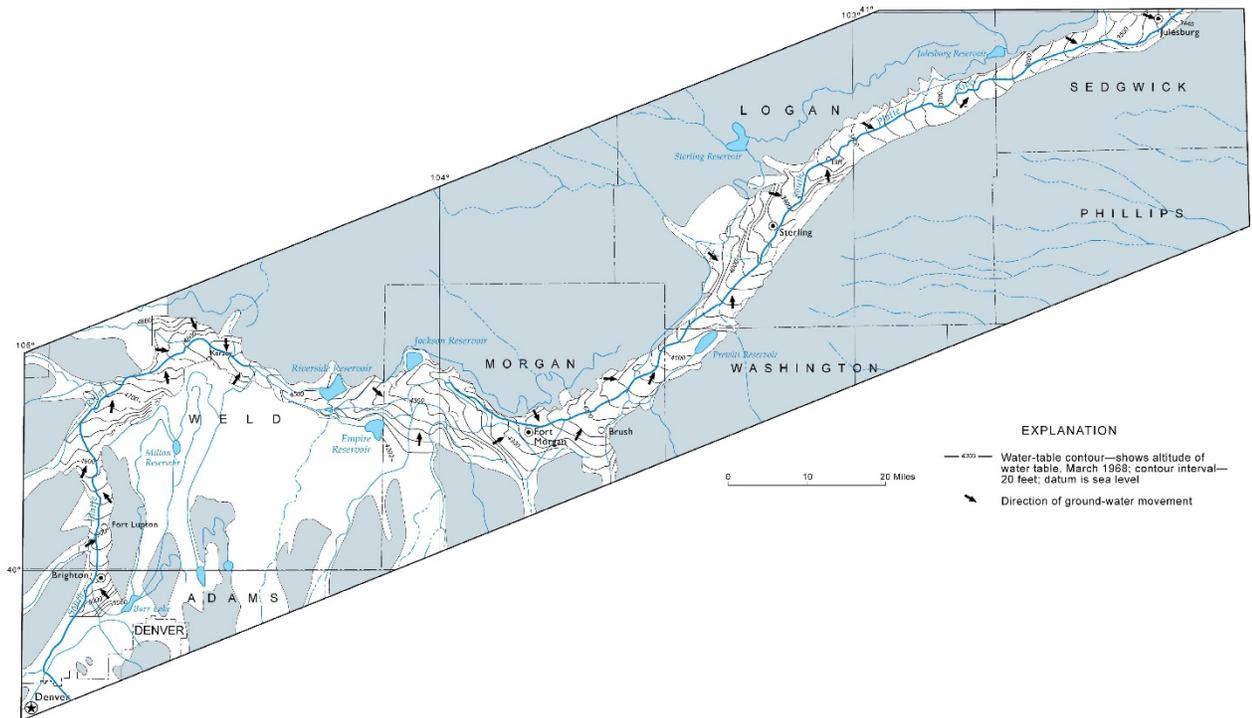


Figure 3.9.4f – South Platte River Basin, Groundwater Flow Patterns

It is possible that alluvial groundwater flow in the Lower South Platte Alluvial Aquifer could be impacted if trenching intersects with shallow groundwater. However, the route crosses through very few floodplains or areas with riparian vegetation, and therefore it is not anticipated that much shallow groundwater will be encountered. Additionally, the historical depths to the alluvial aquifer in the Project area are between 10 and 50 feet as outlined in Figure 3.9.4g below.

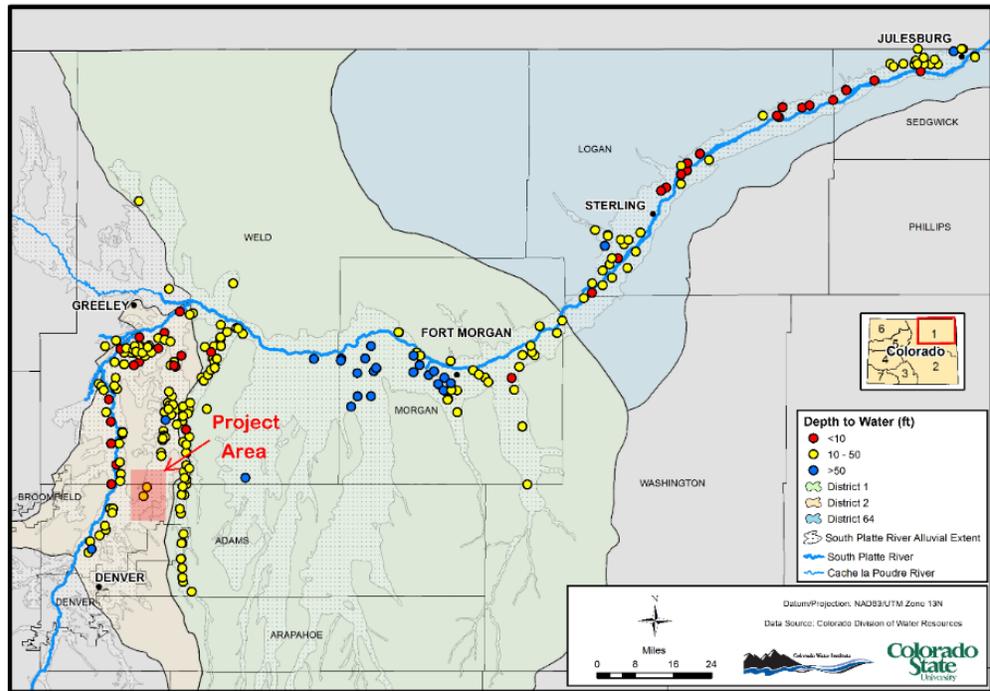


Figure 3.9.4g – South Platte River Alluvial Aquifer, Groundwater Table Depths

As mentioned above, the pipeline will be located 48-inches below grade, with a bottom of ditch depth of approximately 66-inches, and therefore no impact on groundwater is anticipated. Similarly, horizontal directional drill crossings associated with the construction of the respective pipelines will be at 30 ft. depths or less. If groundwater is encountered during trenching or horizontal directional drill activities, de-watering methods may be employed and the water will be pumped and discharged to alluvial/colluvial sediments close to the pipeline trench. During construction, the applicable BMP's will be employed to mitigate any erosion issues, in accordance with the written Stormwater Management Plan.

The groundwater in the Lower South Platte River Aquifer has Total Dissolved Solids that range from 1000 to 2000 milligrams per liter. Values and delineations are outlined under Figure 3.9.4h below.

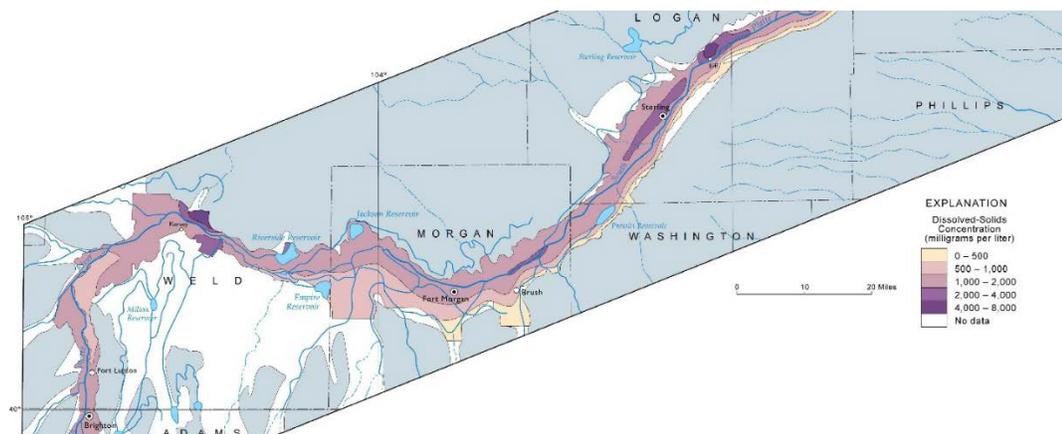


Figure 3.9.4h – South Platte River Alluvial Aquifer, Total Dissolved Solids

Colorado Division of Water Resources South Platte Division

In the South Platte Division, the Colorado Division of Water Resources lists that 167,750 “wells constructed” producing between 0 and 9,000 gallons per minute (gpm). The lower capacity wells (<100 gpm) are primarily used for domestic household use and livestock watering. The higher capacity wells are used for industrial, municipal and irrigation purposes. Water well application locations are depicted in the Figure 3.9.4j below. Similarly, Figure 3.9.4k on the following page outlines current wells and well fields within the Project area. Denver Aquifer wells typically have flowrates between 50-150 gallons and has about 800 high-capacity wells with total annual permitted withdrawals of more than 72600 acre-feet. Arapahoe wells can yield up to 800 gallons per minute. Arapahoe Aquifer has more than 1000 high-capacity wells with maximum total annual withdrawals of more than 168,700 acre feet. The Projects area does include both domestic and agricultural water wells. The Applicant will coordinate with private landowners to ensure that groundwater quality is not affected by construction or operation of the Project.

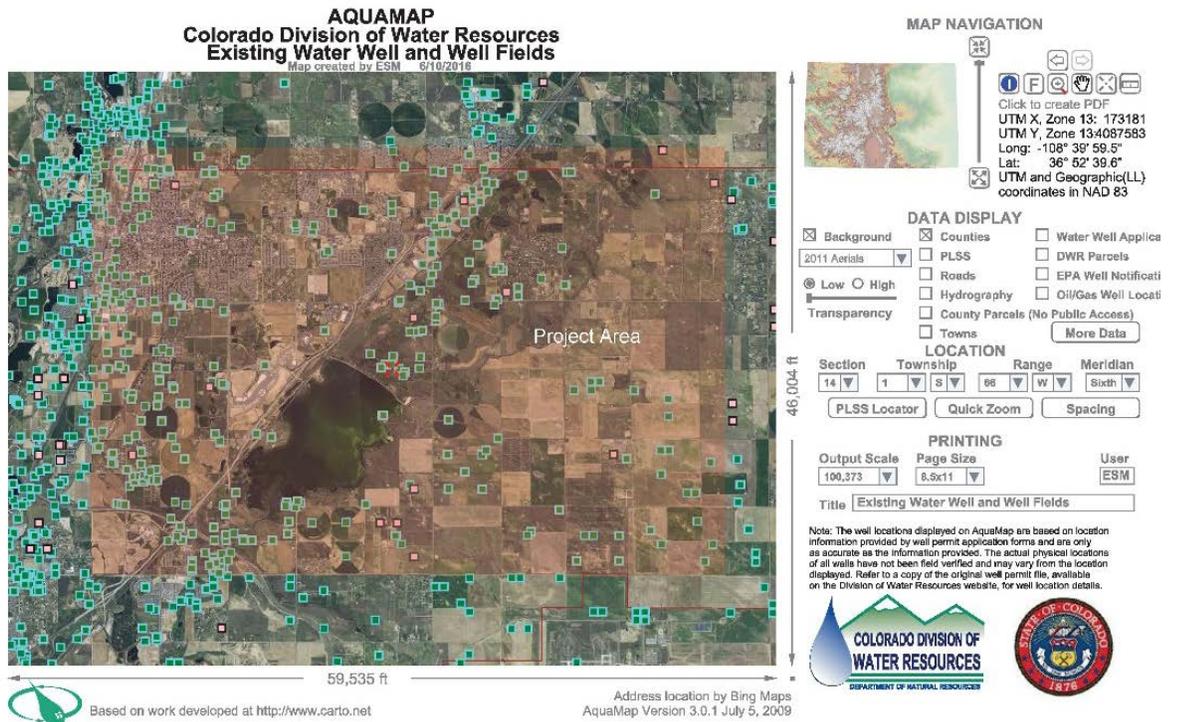


Figure 3.9.4j – Water Well Applications within the Project Area

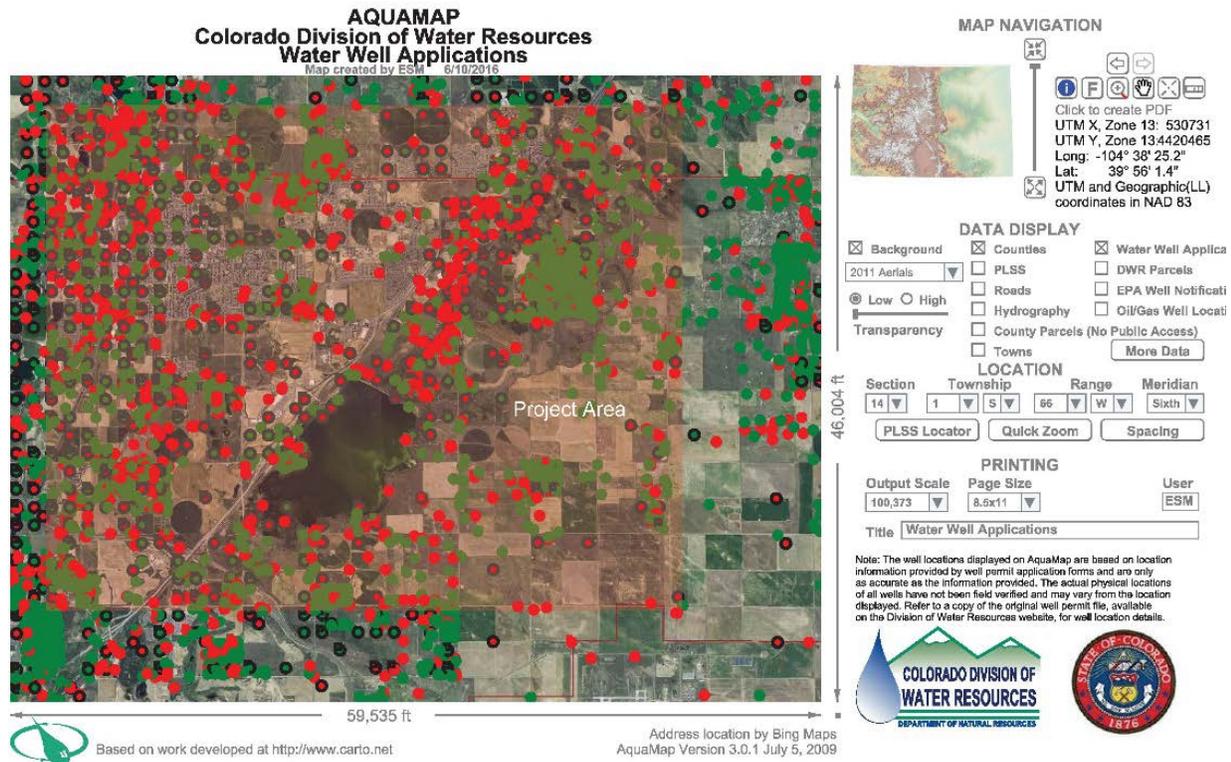


Figure 3.9.4k – Existing Water Wells and Well Fields within the Project Area

Alluvial groundwater flow could be impacted if trenching intersects with shallow groundwater which could occur in areas with riparian vegetation or developing floodplains. If groundwater is encountered during trenching or horizontal directional drill activities, de-watering methods may be employed and the water will be pumped and discharged to alluvial/colluvial sediments close to the pipeline trench. During construction, the applicable BMP's will be employed to mitigate any erosion issues, in accordance with the written Stormwater Management Plan. If necessary, trench breakers will be installed to keep seasonal high water tables from diverting any flow to the pipeline trench.

Overall, the Project area should have no impact on groundwater.

3.9.5 WETLANDS & RIPARIAN AREAS

1. *Map and description of all floodplains, wetlands, and riparian areas to be affected by the project, including a description of each type of wetlands, species composition, and biomass.*

Do disturbance of wetland or riparian habitat will be occur for this pipeline project.

2. *Description of the source of water interacting with the surface systems to create each wetland (i.e., side-slope runoff, over-bank flooding, groundwater seepage, etc.).*

The majority of wetlands surrounding the project area are fed by groundwater via a high water table. Standing water and saturated soils are present at most wetland areas. Seepage from irrigation and ditches also provides or supplements the hydrology of some wetland areas.

3. *Description of the impacts and Net Effect that the Project would have on the floodplains, delineated flood hazard zone(s), wetlands and riparian areas.*

Do disturbance of wetland or riparian habitat will be occur for this pipeline project.

3.9.6 TERRESTRIAL & AQUATIC ANIMALS AND HABITAT

1. *Map and description of terrestrial and aquatic animals including the status and relative importance of game and non-game wildlife, livestock and other animals.*

The project is located in an area with extensive human disturbance (agriculture, roads, houses). Wildlife species present include those that are adapted to human use and presence. Wildlife species that are common in the area include: coyote; red fox; a variety of small mammals (deer mouse, house mouse, jackrabbit, cottontail rabbit); a variety of birds (meadow lark, mourning dove, house finch, English sparrow, horned lark, black-billed magpie, starling, American kestrel, red-tailed hawk, ring-necked pheasant, Canada goose, and other species); and a few reptiles (western terrestrial garter snake, gopher snake) and amphibians (bullfrog, leopard frog, spadefoot toad, tiger salamander) (Andrews and Righter 1992, Colorado Division of Parks and Wildlife 2016, Fitzgerald et al. 1994, Hammerson 1999).

Figures 3.9.6a-3.9.6f below and on the following pages show locations of important wildlife habitat areas near or crossed by the project (Colorado Division of Parks and Wildlife 2016). The project crosses yearlong white-tailed and mule deer range. Deer concentration areas are located at Barr Lake. There are no mapped or known big game migration corridors in the area. The route crosses approximately 4,600 feet of black-tailed prairie dog colonies (Figure 3.9.6f). Several raptor species have the potential to nest in the area (the most common: red-tailed hawk, Swainson's hawk, northern harrier, American kestrel, great-horned owl).

**Figure 3.9.6a – Bald Eagle Nest and 0.5 mile Buffer, Barr Lake State Park
(Red Circle, Purple Circles are inactive nests)**

Figure 3.9.6b – Great Blue Heron Rookery and 0.25 mile Buffer, Barr Lake State Park





Figure 3.9.6f – Black Tailed Prairie Dog Crossings, Adams County

2. *A description of stream flows and lake levels needed to protect the aquatic environment.*

The project would not impact stream flows or lake levels. All streams and ditches would be crossed by HDD with no disturbance of the stream bed or bank. No lakes would be crossed or impacted by project construction.

3. *Description of threatened or endangered animal species and their habitat.*

LWR reviewed habitat conditions on the site to determine if the area provides potential habitat to any federally listed species that are protected under the Endangered Species Act (ESA). Species that are federally listed (formerly listed as Endangered or Threatened) are protected by the ESA. The U.S. Fish and Wildlife Service (USFWS) is the federal agency responsible for administering the ESA. An USFWS ECOS-IPaC data base search was completed for the project. Based on a search of the USFWS ECOS-IPaC review there are several listed species that have the potential to occur in the project area (USFWS 2016b). Table 3.9.6 on the following pages summarizes species that have the potential to occur in the vicinity of the proposed project as well as the potential for the species to occur in the area.

Table 3.9.6
Federally-Listed and Proposed Threatened and Endangered Species
Potentially Occurring in the Area (USFWS 2016b)

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Potential to Occur on the Site, Project Effects Determination
Plants			
Colorado Butterfly Plant	FT	Grows on sub-irrigated alluvial soils at elevations between 5000 and 6400 feet. Populations are	Potential habitat areas (wetland) are crossed. There are no known locations within 50 miles of the project. Past

Gaura neomexicana var. coloradensis		commonly found in floodplains and drainage bottoms and in depressions along slow-moving streams.	surveys in the general area have been negative. The species is unlikely to be present
Ute Ladies'-tresses Spiranthes diluvialis	FT	Areas with seasonally wet soils and wet meadows nears springs, lakes, or perennial streams and their associated flood plains below 6,500 feet above sea level in the South Platte River Drainage	Potential habitat area (wetland) are crossed. There are no known locations of this plant species in the area. Past surveys in this area have been negative. The species is unlikely to be present
Western Prairie Fringed Orchid Platanthera praeclara	FT	The species occurs in Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and Oklahoma. Upstream depletions to the Platte River system in Colorado and Wyoming may affect the species in Nebraska.	Occurs in native mid and tall grass prairie habitat. No occurrence in Colorado. Any depletion of water that flows to the South Platte River system that results from project development could impact this species. This project would not require water depletions and would not impact this species No Effect
Fish			
Pallid Sturgeon Scaphirhynchus albus	FE	Riverine Zones, Platte River	No potential to occur on site. Any depletion of water that flows to the South Platte River system that results from project development could impact this species. This project would not require water depletions and would not impact this species. No Effect

**Table 3.9.6 (Cont.)
Federally-Listed and Proposed Threatened and Endangered Species
Potentially Occurring in the Area (USFWS 2016b)**

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Potential to Occur on the Site, Project Effects Determination
Birds			
Least Tern Sterna antillarum	FE	Sandy beaches, shorelines, islands	No potential habitat on site. Any depletion of water that flows to the South Platte River system that results from project

			development could impact this species. This project would not require water depletions and would not impact this species.
Bald eagle <i>Haliaeetus leucocephalus</i>	Delisted	Many wetland and forest habitats; typically associated with reservoirs, deep-water lakes, large rivers, and some coastal wetlands. Generally nest in large trees, typically conifers, near water bodies.	Could be present on the site foraging, especially in winter. Bald Eagle nest site, roost site and foraging area at Barr Lake.
Mexican Spotted Owl <i>Strix occidentalis lucida</i>	FT	Residents of old-growth or mature forests that possess complex structural components (uneven aged stands, high canopy closure, multi-storied levels, high tree density). Canyons with riparian or conifer communities are also important components.	The project area is located on the plains. There is no potential habitat for this species on or near the site. It is highly unlikely that this species occurs on or near the site No Effect
Piping Plover <i>Charadrius melodus</i>	FT	Sandy beaches, shorelines, islands.	No potential habitat on the site. Any depletion of water that flows to the South Platte River system that results from project development could impact this species. This project would not require water depletions and would not impact this species No Effect

**Table 3.9.6 (Cont.)
Federally-Listed and Proposed Threatened and Endangered Species
Potentially Occurring in the Area (USFWS 2016b)**

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Potential to Occur on the Site, Project Effects Determination
Birds (Cont.)			
Whooping Crane <i>Grus americana</i>	FE	Wetlands, lakes, agricultural fields, pastures	A very rare migrant in the region. No potential habitat for the species on site. Any depletion of water that flows to the South Platte River system that results from project development could impact this species. This project would not

			require water depletions and would not impact this species No Effect
Mammals			
Preble's Meadow Jumping Mouse Zapus hudsonius preblei	FT	Thick shrubby and tree dominated riparian zones.	The project does not cross any good potential habitat. There is no thick riparian habitat on Third Creek. Past trapping in good habitat in this area has been negative. Unlikely to impact this species.

Notes:

1. Regulatory Status:

FT = Federally-listed as threatened

FE = Federally-listed as endangered

Sources: USFWS 2016. USFWS Species List, Boardwalk Project

Project construction is unlikely to impact any Federally listed species.

The route does cross potential habitat for the Ute ladies' tresses orchid and Colorado butterfly plant at wetland crossings. There are no known locations for either plant species within 30miles of the project area. However, surveys for these two plant species were be completed during the summer of 2016 and none were found. If either species is located consultation would be completed with the USFWS.

4. *Map and description of critical wildlife habitat and livestock range to be affected by the project including migration routes, calving areas, summer and winter range, and spawning beds.*

The project area does not cross or impact critical wildlife habitat areas. There are no big game winter concentration areas or migration corridors in the area. The nearest important wildlife habitat area is located at Barr Lake State Park (approximately 0.4 to 0.6 miles north and northeast of the right-of-way). Barr Lake State Park supports a bald eagle nest, bald eagle roost, bald eagle winter concentration area, bald eagle foraging area, osprey nest, Great blue heron rookery, mule and white-tailed deer concentration areas, other raptor nests, and good potential nesting habitat to a wide-variety of neotropical migrating birds (Figures 3.9.6a – 3.9.6f, CDOW 2016).

The most important wildlife habitat areas crossed by the ROW include wetlands, native grassland areas and black-tailed prairie dog colonies (Figures 3.9a, 3.9.6f). Important wildlife habitat areas (bald eagle nest and roost sites, great-blue heron rookery, osprey nest, white-pelican concentration area, mule and white-tailed deer concentration areas, and important nesting habitat for neotropical migrating birds is present around Barr Lake.

The Project does not cross any important fisheries, aquatic habitats and no spawning beds.

5. *Description of the impacts and Net Effect that the Project would have on terrestrial and aquatic animals, habitat and food chain.*

Project construction would cause the temporary disturbance of 148.4 acres of agricultural lands, 21.7 acres of native grasslands, and 0 acres of wetlands. Disturbance of these habitat areas would be limited to one growing season. Once construction is completed the ROW would be restored to preconstruction conditions and contours, topsoil would be replaced, and the ROW would be

reseeded (not on agricultural lands). The temporary loss of habitat is not anticipated to impact any populations of local wildlife, or wildlife food chains.

Project construction related disturbance (traffic, noise, and increased human activity) could result in the temporary displacement of wildlife near construction zones. Limited mortality of small and less mobile animals (small mammals, some reptiles and amphibians) would occur with construction. No long term disturbance impacts would occur once construction along the ROW is completed and the ROW is restored.

ROW restoration, preconstruction raptor and burrowing owl surveys (if construction is proposed during the nesting season for these species), HDD of stream and canal crossings and other mitigation/minimization and restoration measures proposed will help reduce impacts to wildlife and habitats (see Section 5 Wildlife and Habitat Conservation Measures).

3.9.7 TERRESTRIAL & AQUATIC PLANT LIFE

1. *Map and description of terrestrial and aquatic plant life including the type and density, and threatened or endangered plant species and habitat.*

Figure 3.9a above shows vegetation types crossed by the proposed route. Table 3.9.7 below shows the length of crossing of each vegetation type.

Table 3.9.7 Vegetation Types Crossed by Boardwalk Pipeline System			
	Agriculture	Native Grassland	Wetlands
Miles	15.3 (80,784 Feet)	2.2 (11,810 Feet)	0.5 (2,900 Feet)
Acres of Temporary Impact	148.4	21.7	3.3
Acres of Permanent Impact	10.0 (Note 1)		

Notes:

1. CDP Facility Site.

The route crosses areas of agricultural lands, native grassland and wetlands.

Agricultural lands crossed include irrigated lands (corn, alfalfa, truck crops), dryland (mainly winter wheat), and pasture lands (seeded grassland/pasture areas)

The native grasslands areas crossed by the route typically occur on very sandy soil areas that are not suitable to farming. Dominant plants include: blue grama, side-oats grama, western wheatgrass, needle and thread grass, yucca, prickly pear cactus, and sand sagebrush. The quality of native grassland areas crossed tends to be reduced due to past livestock grazing and invasive plant species (weeds).

Wetlands that are crossed include palustrine emergent wetlands associated with areas of high ground water.

2. *Descriptions of the impacts and Net Effect that the Project would have on terrestrial and aquatic plant life.*

Table 3.9.7 above shows the acres of temporary and permanent impacts to plant communities. Temporary impacts to 148.4 acres of agricultural lands, 21.7 acres of native grasslands, and 3.3 acres of wetlands would occur with project construction. After construction the ROW would be restored to preconstruction conditions and contours, topsoils would be replaced and the ROW would be reseeded. A temporary impact to the vegetation in the right-of-way would occur for 1-2 growing seasons.

Note: there are no impacts to aquatic plant life other than that discussed regarding wetlands.

3.9.8 SOILS, GEOLOGICAL CONDITIONS & NATURAL HAZARDS

1. *Map and description of soil, geologic conditions, and Natural Hazards including but not limited to soil types, drainage areas, slopes, avalanche areas, debris fans, mud flows, rock slide areas, faults and fissures, seismic history, and wildfire hazard areas.*

Figures 3.9.8a and 3.9.8b below and on the following page outline the soil types crossed by the pipeline route.

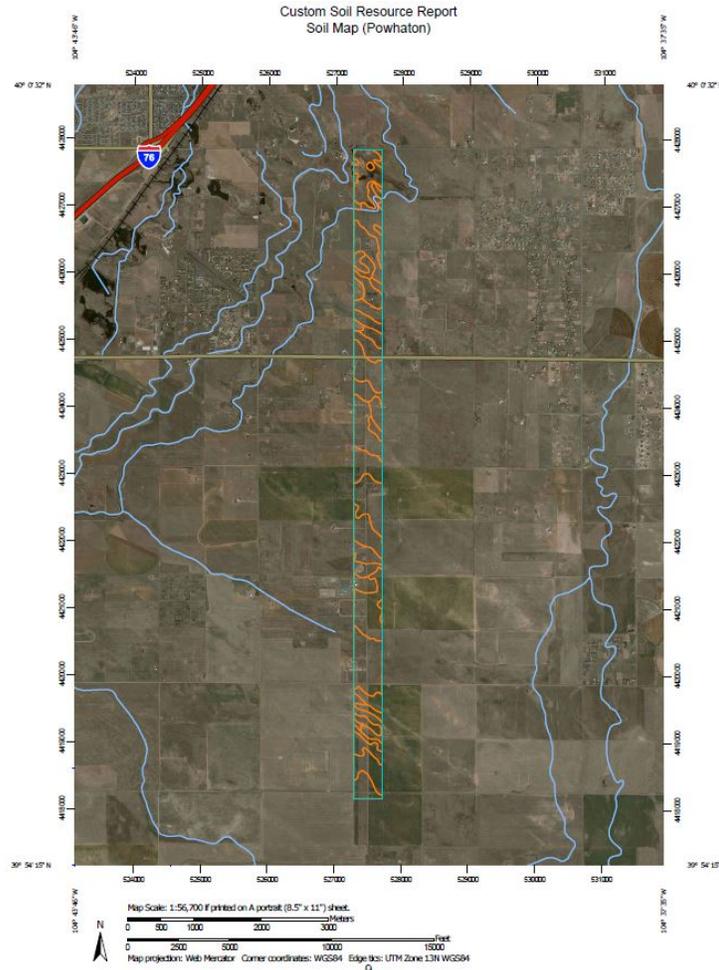


Figure 3.9.8 – Boardwalk Pipeline Project – Phase II Powhatan Crude Oil – Soils, Adams County (Map)
Source: websoilsurvey.sc.egov.usda.gov

There are no mapped faults within 30 miles of the project area (USGS 2016). There is a 0.01-0.02 probability of a greater than 5.0 earthquake occurring in the area within 50 years (USGS 2009). There are no known geological hazards (landslides, steep slope areas, potential mud flows) in the Project area.

Due to the lack of identified natural hazards, it is highly unlikely the Project area will be affected by a natural hazard nor would the Project exacerbate the potential of generating a natural hazard.

The USGS soil descriptions as well as a full report for the Project area soils is provided under Exhibit K.1 “[USGS Soils Report](#)”. In addition, geotechnical investigations of the soils along the pipeline route have been performed at select crossing locations along the pipeline route. A copy of the Terracon Consultants, Inc. geotech report 25165244 dated May 16, 2016 is provided under Exhibit K.2 “[Terracon Geotech Report](#)”.

2. *Descriptions of the risks to the Project from Natural Hazards.*

There is a low risk to the project from natural hazards. Topography is gentle along the ROW. There are no steep slopes, areas with landslide risk, or fault areas (USGS 2016) along the route.

3. *Descriptions of the impact and net effect of the project on soil and geologic conditions in the area, and their effects on streambed meander limits and aquifer recharge areas.*

Pipeline construction is not anticipated to impact long term soil productivity. Soil stockpiling would prevent the mixing of topsoil and subsoil by using soil segregation methods. The top 6-12 inches **(additional topsoil depth may be required across agricultural lands if requested by landowners)** of topsoil will be segregated from the subsoil and stockpiled in a separate pile. Topsoil will be stripped and stockpiled from the ditch line and adjacent spoil areas. Traditionally, vegetation is cleared with a bulldozer down to bare soil across the entire construction ROW. In order to minimize disturbance and the need for extensive use of restoration treatments, the contractor will attempt to minimize the ROW width wherever possible. Where possible, vegetation will be crushed by track vehicles or cut with a brush hog instead of cleared. Clearing will be necessary over the trench and possibly the passing lane, depending on fire protection needs for welding operations. Additional disturbance may occur if soil padding is used to work over adjacent pipelines. Wherever blading occurs, topsoil will be salvaged, stored separately and protected.

The pipeline is not anticipated to cross any areas of exposed bedrock. Pipeline installation would be within areas of mixed soil with scattered rocks.

The project will not impact streambed meander limits and aquifer recharge areas. Ditch and stream crossings would be by HDD with no disturbance of the stream or ditch bed and bank. The pipeline would be constructed in a shallow trench (approximately 4 feet), the pipeline would not impact aquifer recharge.

3.9.9 NUISANCES

Descriptions and maps showing the range of noise, glare, dust, fumes, vibration, and odor levels caused by the Project, along with an indication of their significance.

Localized areas of construction noise, and fugitive dust would occur along the pipeline route. Fugitive dust, dirt and mud on roadways would be reduced by following BMP's that will be outlined in the project Stormwater Management Plan. Watering of construction sites will be used as needed to control fugitive dust. Vehicle construction entrances will be used to minimize dirt and mud on public roads where construction traffic enters and exits. Road cleaning will be completed as needed if dirt builds up at construction entrances and exits onto public roads.

Project related trash will be collected on a daily basis and restricted to appropriate receptacles. All construction materials will be contained within the construction ROW or construction work areas.

Localized levels of increased noise will occur temporarily near each construction spread. This noise will be generally restricted to day light hours (note: HDD sites will operate over a 24 hour period). Noise in any area should be restricted to a few days, just during active construction in an area. The pipeline has been routed to avoid most areas of potential conflicts. Construction related noise would be similar to ongoing agricultural activities.

3.9.10 AREAS OF PALEONTOLOGICAL, HISTORICAL & ARCHEOLOGICAL IMPORTANCE

1. *Map and description of all sites of paleontological, historic or archaeological interest.*

The route crosses areas of mainly Pleistocene and Holocene alluvium and sand/ aolian deposits (Colorado Geological Survey 2016). These formations have the potential for more recent Pleistocene and Holocene fossils. The pipeline will be buried in an approximately 4-5 foot deep trench, this trench will be located in areas of soil and subsoil. These soil layers have the potential to support more recent fossils from these epochs.

Centennial Archaeology, LLC completed a Class I Cultural Resource Review for the project (Centennial 2016). The file search was performed through the Colorado Office of Archaeology and Historic Preservation (OAHP) and consisted of an examination of the Compass database and a request of a GIS clip of sites and surveys in the file search area. Class I results, include records

of all archaeological investigations that have been conducted, and all cultural resources (prehistoric and historic archaeological sites as well as historic resources) that have been recorded in the aforementioned sections. The results also include any National Register of Historic Places (NRHP) properties and districts. Historic U.S. Geologic Service (USGS) maps and General Land Office (GLO) records were also consulted in an effort to identify historic trails, transportation routes, homesteads, or other historic resources that intersect the study area.

Results of the Class I Cultural Resource survey completed for the Project are provided under Exhibit L "Class I Cultural Resource Report" (Centennial Archeology, LLC 2016).

Twenty-six of the previously recorded sites in the Class I study area are located in Adams County. Eighteen of these sites are historic in age, while the remaining eight sites are prehistoric. Of the 18 historic sites, seven have been evaluated as NRHP eligible, and eleven are not eligible. Seven of the prehistoric sites are evaluated as not eligible, and one is assessed as needs data.

A review of historic 1:24,000 scale 7.5 minute USGS topographic maps for Adams County, including the Brighton (1965) and Mile High Lakes (1966) quadrangles, shows 114 buildings within the study area that are 50 years in age or older, if they are still in existence. These maps also depict three irrigation features crossing through the study area in Adams County, including the Fulton Ditch, the O'Brian Canal, and the Denver-Hudson Canal. The 1965 and 1966 maps also suggest that numerous roads intersecting the study area are at least 50 years old, including I76, Highway 85, East 120th Ave., East 128th Ave., East 132nd Ave., East 136th Ave., East 152nd Ave., East 160th Ave., Potomac St., Sable Blvd., Crystal St., Kennedy Ave., Fairplay St., Granby St., Picadilly Rd., Gun Club Rd., and Powhaton Rd. Additionally, the Chicago, Burlington, and Quincy Railroad (now the Burlington and Northern Railroad) is also shown intersecting the study area on the 1965 Brighton quadrangle.

A GLO survey plat from 1865 of Township 1S, Range 66W shows an unnamed road trending northwest/southeast through sections 30, 31, 29, 32, and 33. This road would have passed within the buffered Class I study area. The 1867 survey plat of Township 1S, Range 65 W shows an unnamed road or trail trending northwest/southeast that intersects the study area in the NE ¼ of the NE ¼ of Section 17 and the NW ¼ of the NW ¼ of Section 16. No other structures were depicted on the GLO survey plats for Adams County in the Class I study area.

Table 3.9.10 below and on the following page summarizes past surveys of Cultural Resources near the Project area Adams County (Centennial Archeology, LLC 2016).

**Table 3.9.10
Past Cultural Resource Surveys in the Project Area
Adams County, Colorado**

Survey ID	County	Year	Project Name	Organization
AM.CH.NR5	Adams	1986	ARCHAEOLOGICAL SURVEY OF A PORTION OF STATE HIGHWAY 51, ADAMS COUNTY, COLORADO	Colorado Department of Highways
AM.CH.R12	Adams	1990	CULTURAL RESOURCE SURVEY OF INTERSTATE 76 BETWEEN STATE HIGHWAY 51 AND BROMLEY LANE, ADAMS COUNTY, COLORADO	Colorado Department of Transportation
AM.CH.R13	Adams	1989	PROJECT I 076-1 (138): SH 51 TO BROMLEY LANE	Sally Pearce
AM.CH.R19	Adams	1992	AN ARCHAEOLOGICAL AND HISTORICAL SURVEY OF THE INTERSTATE 76 - 120TH AVENUE INTERCHANGE, ADAMSCOUNTY	Centennial Archaeology, Inc.

AM.CH.R3	Adams	1988	E-470 ROADWAY PROJECT, I-76 INTERCHANGE	Front Range Research Associates
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**Table 3.9.10 (Cont.)
Past Cultural Resource Surveys in the Project Area
Adams County, Colorado**

Survey ID	County	Year	Project Name	Organization
AM.E.NR1	Adams	2000	TRI-STATE GENERATION BRIGHTON SUBSTATION, ADAMS COUNTY, COLORADO. (FEC #62 00170)	Foothills Engineering Consultants
AM.FH.R1	Adams	2012	CLASS III CULTURAL RESOURCE INVENTORY FOR THE UNITED POWER III TRANSMISSION SYSTEM IMPROVEMENT PROJECT IN ADAMS COUNTY, COLORADO	Tetra Tech EC, Inc.
MC.AE.R26	Adams, Denver, Weld	2012	A CLASS III CULTURAL AND CLASS I PALEONTOLOGICAL RESOURCES SURVEY OF SPREAD1 OF THE FRONT RANGE PIPELINE PROJECT (AND ADDENDUM A), WELD, ADAMS, ARAPAHOE, ELBERT, AND EL PASO COUNTIES, COLORADO	Atkins North America, Inc.
MC.CH.R101	Adams, Morgan	1988	ARCHAEOLOGICAL INVESTIGATIONS OF A SAMPLE OF THE PROPOSED UPERCONDUCTING SUPER COLLIDER ACCESS ROADS IN ADAMS AND MORGAN COUNTIES, COLORADO	Colorado Department of Highways
MC.CH.R157	Adams	1998	HISTORIC RESOURCES SURVEY REPORT: E-470 SEGMENT IV, 120TH AVENUE TO I-25 NORTH	Hermesen Consultants
MC.CH.R3	Adams, Denver	1988	FINAL REPORT OF CULTURAL RESOURCE INVENTORY FOR THE PROPOSED E-470 CORRIDOR, DOUGLAS, ARAPAHOE, DENVER, BROOMFIELD, AND ADAMS COUNTIES, COLORADO	Colorado Department of Highways
MC.CH.R88	Adams, Weld	1999	AN ARCHAEOLOGICAL INVENTORY OF THE ENRON COMMUNICATIONS WYOMING/COLORADO BORDER TO DENVER SEGMENT, WASATCH REACH FIBER BUILD, NORTHERN COLORADO	Centennial Archaeology, Inc.
MC.E.R28	Weld	1998	KN WATTENBERG TRANSMISSION, L.L.C. FRONT RUNNER PIPELINE SYSTEM ADAMS AND WELD	Greystone

			COUNTIES, COLORADO: CULTURAL RESOURCE INVENTORY REPORT #6	
MC.E.R34	Adams, Denver, Weld	2001	AN INTENSIVE CULTURAL RESOURCE SURVEY ALONG INTERSTATE 25 BETWEEN 120TH AVENUE AND STATE HIGHWAY 7, ADAMS COUNTY	Colorado Department of Transportation

2. *Description of the impacts and Net Effect of the Project on sites of paleontological, historic or archaeological interest.*

No impacts to paleontological resources are anticipated with project construction. Construction is unlikely to impact bedrock geological formation. More recent fossils could be present in sandy areas and subsoil areas. A qualified paleontologist will be on call during the construction phase. If fossils, bones, potential fossils are encountered construction will be temporarily halted in that area until site review by the paleontologist.

Impacts to known cultural resource sites are not expected in Adams County. The only resources within or near the ROW are the historic canals. All canals will be crossed by using HDD. The HDD technique will avoid all impacts to the bed and banks of canals. Potential impacts to cultural resources (historical sites, prehistoric sites) have been minimized by pipeline routing to avoid and known sites or buildings. A qualified archeologist will be on call during the construction phase. If bones, fire pits, stone tools, trash middens, foundations or other potential cultural resources are encountered construction will be temporarily halted in that area until site review by the archaeologist. The State Historic Preservation Office will be consulted if needed to determine appropriate mitigation of any discovered cultural sites.

3.9.11 HAZARDOUS MATERIALS DISCRPTION

1. *Description of all hazardous, toxic, and explosive substances to be used, stored, transported, disturbed or produced in connection with the Project, including the type and amount of such substances, their location, and the practices and procedures to be implemented to avoid accidental release and exposure, and any foreseeable impacts to the environment of such substances.*

No toxic or explosive substances will be stored along the right-of-way, or in the associated construction areas. Upon installation of the pipelines, the line will transport crude oil.

While the crude oil pipeline will not be placed in service initially, and the specifications of the crude oil have yet to be determined, it is anticipated to be a light sweet oil with an API gravity of approximately 34 degrees.

The Project will be managed and maintenance will be performed on the respective pipelines in order to mitigate risk, including but not limited to:

- ❖ The crude oil pipeline will be designed to Federal Safety Standards contained in 49 CFR Part 192 and 49 CFR Part 195 respectively in addition to national engineering design codes for pipelines set forth by the American Society of Mechanical Engineers, and Colorado Oil and Gas Pipeline Safety Regulations.
- ❖ The crude oil pipeline will be operated to Federal Safety Standards contained in 49 CFR Part 192 and 49 CFR Part 195 respectively, as well as Discovery’s internal operating standards and practices, and written maintenance procedures.
- ❖ The State of Colorado mandates excavation safety procedures through legal requirements for utility notification, or “one call” systems, which require advance notification of utilities prior to any excavation in the vicinity of the pipelines.
- ❖ The pipelines will be protected from corrosion by a cathodic protection system and monitored 24 hours / day by a Supervisory Control and Data Acquisition (“SCADA”) system.

- ❖ In addition, Discovery will, as required by Federal Regulations, operate the pipelines under a comprehensive Pipeline Integrity Management Program and develop Emergency Response Plans, as required.

There are no chemical or waste storage facilities associated with the Project.

Pipeline burial depths will conform to U.S. Department of Transportation, state, and local requirements with a minimum depth of cover of 48-inches.

Routine maintenance of the Project will be performed on scheduled intervals, and as needed basis in accordance with the guidelines and requirements set forth by the U.S. Department of Transportation and Discovery's internal maintenance procedures, which meet or exceed regulatory requirements. Trained and qualified technicians will be stationed out of the compression and processing facility located in Weld County to facilitate the proper maintenance of the Project. Maintenance activities associated with the Project will include, but not be limited to:

- ❖ Implementation of a damage prevention program, including observation of any construction activities by others on or near the permanent easement; participation in the State's one-call program and responding to one-calls.
 - ❖ Implementation of a public education program;
 - ❖ Installation and maintenance of pipeline markers;
 - ❖ Inspection and maintenance of corrosion control systems;
 - ❖ Inspection of block valves;
 - ❖ Inspection of crossings by other pipelines, highways, utilities;
 - ❖ Inspection and maintenance of safety, control, mechanical and electrical equipment;
 - ❖ Maintenance of communication equipment; and
 - ❖ Calibration of all instruments to comply with USDOT regulations.
2. *Location of storage areas designated for equipment, fuel, lubricants, chemical and waste storage with an explanation of spill containment measures.*

Temporary storage areas and laydown yards will be required during construction for construction personnel vehicles, staging of contractor equipment and materials, and general construction activities. The project will incorporate one (1) 5 acre storage area located at the CDP site in Adams County.

Following construction, there will be no storage of fuels, lubricants chemicals or waste at the CDP site or on pipeline right-of-way except on a temporary basis during maintenance activities.

3. *Reportable quantities, emergency response plan, spill prevention, and counter measures plan due to the proposed project.*

A Spill Response and Emergency Plan specific to the area will be developed for the Project, providing detail for responding to spills during all weather conditions. It will provide detailed information on response procedures to be followed and actions taken in the event of a spill or release. The plan will include the type and location of equipment and type of personnel training required to implement the plan. Containment and cleanup procedures will also be addressed. The plan will include:

- ❖ Notification procedures for initiating the response and for regulatory reporting;
- ❖ Description of initial response actions, including immediate response steps, securing the source of the spill / release, safety and health considerations, emergency medical treatments, sampling procedures, storage/disposal of waste materials and documentation of the response;
- ❖ Description of response teams and their responsibilities;

- ❖ Command posts and staging areas;
- ❖ Communication equipment;
- ❖ Resources available for response;

Measures to contain or control any spill that may occur and to contact appropriate emergency offices and personnel are formulated and designed in accordance with federal, state, and local requirements.

3.9.12 BALANCE BETWEEN BENEFITS & LOSSES

1. *Description of foreseeable benefits of natural, agricultural, recreational, range or industrial resources within the County and opportunities to develop those resources in the future.*

Project construction would allow local fossil fuels to be developed and marketed. The gathering line would allow for the safe transport of locally produced fossil fuels.

2. *Description of foreseeable losses of natural, agricultural, recreational, range or industrial resources within the County and loss of opportunities to develop those resources in the future.*

Project construction and operation would result in the temporary loss of production of 148.4 acres of agricultural lands, 21.7 acres of rangeland, 3.3 acres of wetlands. Impacts to these areas are not anticipated to extend past 1-2 growing seasons. Impacts to agriculture, range resources, recreation would be short term.

The pipeline right-of-way has been routed with landowner input to maximize use of existing ROW's, property boundaries, and avoid potential future conflicts with land use and development.

3.9.13 MONITORING & MITIGATION PLAN

1. *Description of all Mitigation for the Project.*

- a. *Describe how and when Mitigation shall be implemented and financed.*

Mitigation will be completed during construction, and after construction until the ROW has been restored. The project proponent will fund all mitigation and restoration activities.

- b. *Describe impacts that are unavoidable that cannot be mitigated.*

All disturbed areas will be restored to preconstruction uses and vegetation.

2. *Description of methodology used to measure impacts of the project and effectiveness of proposed Mitigation measures.*

The project will follow restoration requirements of the Colorado General Stormwater Permit (requires restoration of the entire ROW to 70% vegetation cover), Air Quality General Permit (recovery of tank vapors, complete combustion with enclosed flare in upset conditions), Army Corps of Engineers 404 Permit (requires restoration of all disturbed wetlands to 80% cover) and other appropriate permits.

ROW restoration will be also completed according to the requirements of individual landowners.

3. *Description, location and intervals of proposed monitoring to ensure that Mitigation shall be effective.*

Construction monitoring for stormwater, erosion control, air quality, wildlife, cultural and historic resources (on call experts) and other resources will be completed during the entire construction phase. If there are issues related to these and other resources project construction may be temporarily halted, additional BMP's or other measures may be added to mitigate impacts.

Post construction monitoring will be completed for stormwater/erosion, ROW restoration, and weed control until all permit requirements have been met and all landowners requirements have been met.

4.0 SAFETY

4.1 SAFETY MEASURES

The pipeline will be covered under an Emergency Response Plan. The pipeline will be designed and constructed per code. Control and shut off valves will be strategically placed along the pipeline route and are required to be inspected twice a year on our mainline system. Overpressure protection devices will be installed and inspected annually or as required by code. Additionally, a hydrostatic test will be performed prior to start up. The pipeline will be protected with a leak detection system and monitored by a 24 hour control room through a SCADA system. The pipeline will be identified through pipeline markers. The pipeline will be cathodically protected to mitigate corrosion as well as above ground portions will be inspected through an atmospheric inspection program. Company employees are covered under training programs, including our Operator Qualification Program. Moreover, the company follows a detailed Public Awareness program.

4.2 TYPICAL INCIDENT RESPONSE PROTOCOL

Discovery maintains an emergency response plan which addresses responses to leaks or spills. This response plan contains detailed information on the steps needed to address any emergency event reasonably anticipated to be encountered during pipeline operations. The response plan contains contact information, detailed step by step spill/leak response information, emergency phone numbers for local responders and spill/leak contractors. The response plan is reviewed on a regular basis.

4.3 APPLICANT'S SAFETY RECORD

Discovery has no recordable or non-recordable incidents.