PUBLIC NOTICE

Alaska Department of Environmental Conservation (DEC)
Wastewater Discharge Authorization Program/401 Certification
555 Cordova Street, Anchorage AK 99501-2617
Phone: 907-269-6285|Email: DEC-401Cert@alaska.gov

Notice of Application for State Water Quality Certification

Public Notice (PN) Date: June 25, 2021 **PN Reference Number: POA-2019-00678**
PN Expiration Date: July 25, 2021 **Waterway: Valdez Bay**

Any applicant for a federal license or permit to conduct an activity that might result in a discharge into navigable waters, in accordance with Section 401 of the Clean Water Act (CWA) of 1977 (PL95-217), also must apply for and obtain certification from the Alaska Department of Environmental Conservation that the discharge will comply with the CWA, the Alaska Water Quality Standards, and other applicable State laws.

Notice is hereby given that a request for a CWA §401 Water Quality Certification of a Department of the Army Permit application, Corps of Engineers' Reference Number POA-2019-00678, Valdez Bay, has been received for the discharge of dredged and/or fill materials into waters of the United States (WOUS), including wetlands, as described below and shown on the enclosed project figures/drawings. The public notice and related project figures/drawings are also accessible from the DEC website at http://dec.alaska.gov/water/wastewater/.

Any person desiring to comment on the project with respect to water quality, may submit comments electronically via the DEC public notice site (**preferred method**) at https://water.alaskadec.commentinput.com/?id=k5Kb7

Alternatively, you may direct written comments or requests for public hearing via email or mail to the address listed above by the Public Notice expiration date. All comments submitted via mail or email should include the PN reference number listed above in the subject heading. Mailed comments must be postmarked on or before the expiration date of the public notice.

Applicant: City of Valdez, Nathan Duval, Assistant City Manager, PO Box 307, Valdez, Alaska 99686, Nduval@valdezak.gov; (907) 835-5478; Agent: DOWL, Adam Morrill, Environmental Specialist, 4041 B Street, Anchorage, Alaska 99503, amorrill@dowl.com, (907) 562-2000

Project Name: City of Valdez Sewer Force Main Replacement

Location: The proposed activity is located within Section 32-35, T. 8-9 S., R. 6 W.; Latitude 61.137900° N., Longitude -146.315400° W.; in Valdez, Alaska.

Purpose: The applicant's stated purpose is to replace lift station 1 and sewer force main serving the City of Valdez. The existing sewer force main consist of 16 and 18-inch asbestos cement pipe constructed in 1970 and needs repair and replacement. The existing main has had numerous breaks, frequently occurring in the tidal flats area. As a result, untreated wastewater had discharged in this area.

Project Description: The applicant proposes placement of approximately 28,000 cubic yards (CY) of material into 4.6 acres WOUS, including wetlands, to replace the lift station 1 and the sewer force main from the animal shelter approximately 3.6 miles to the wastewater treatment plant. The project includes the placement of fill material in waters of the U.S. to construct a new 20-inch high density polyethylene

sewer force main. The sewer force main starts at lift station #1 (near intersection of Pioneer Drive and Richardson Highway) and extends to the city's sewer lagoon (800 Sawmill Drive). The project consists of clean, fill material consisting of 8" minus pit run gravel. Surface fill would be placed over the sewer main north of the Richardson Highway paved trail, and the permanent fill would extend 23 feet into the duck flats wetlands from the toe of slope of the trail. The permanent fill in the duck flats would be six feet deep (adjacent to the trail) 23 feet wide and tapering with a 3:1 slope to existing ground surface. Temporary fill material for horizontal directional drill (HDD) pads would be placed on geotextile fabric approximately 50 feet length by 20 feet width and minimum of 3 feet depth, most of the drill pads will be on permanent fill except one location outside of the duck flats and all temporary fills would be removed post construction. Outside of the duck flats, temporary trenching backfill material would be stockpiled on geotextile fabric and backfilled after sewer force main installation.

There are 13 streams crossed by the project. Nine streams would be crossed by HDD including all anadromous streams within the duck flats. One stream (SC1) is a man-made feature of the wastewater treatment plant would be crossed by open trench. Two natural shallow streams (SC4 and SC5) would be crossed by open trench near the airport access road. Two streams (SC9 and SC11) in the duck flats would be relocated due to fill material placement along the shared path embankment. Trenching would occur outside of the fish spawning window.

After reviewing the application, the Department may certify there is reasonable assurance the activity, and any discharge that might result, will comply with the CWA, the Alaska Water Quality Standards, and other applicable State laws. The Department also may deny or waive certification.

The permit application and associated documents are available for review. For inquires or to request copies of the documents, contact dec-401cert@alaska.gov, or call 907-269-6285.

Disability Reasonable Accommodation Notice

The State of Alaska, Department of Environmental Conservation complies with Title II of the Americans with Disabilities Act (ADA) of 1990. If you are a person with a disability who may need special accommodation in order to participate in this public process, please contact ADA Coordinator Brian Blessington at 907-269-6272 or TDD Relay Service 1-800-770-8973/TTY or dial 711 within 5 days of the expiration date of this public notice to ensure that any necessary accommodations can be provided.

Request for CWA §401 Water Quality Certification

Alaska Department of Environmental Conservation
Division of Water – Wastewater Discharge Authorization Program
555 Cordova Street, Anchorage AK 99501
email: dec-401Cert@alaska.gov Phone: 907-269-6285

I. Identify the applicable federal license or permit

Permit License Number: POA-2019-00678 Federal Agency: ☑ USACE, ☐ FERC, or ☐ Other: _____

II. Project Proponent and Point of Contact

Applicant Information

Nathan (First) Duval (Last)
City of Valdez (Company) Assistant City Manager (Title)
212 Chenega Avenue P.O. Box 307 (Mailing Address Street or PO Box) Valdez (City) Alaska (State) 99686 (Zip)
Nduval@valdezak.gov (Email) 907-835-5478 x 1 (Phone) Fax (optional)

Point of Contact or Agent Information

Adam (First) Morrill (Last)
DOWL (Company) Environmental Specialist (Title)
4041 B Street (Mailing Address Street or PO Box) Anchorage (City) Alaska (State) 99503 (Zip)
amorrill@dowl.com (Email) 907-562-2000 (Phone) Fax (optional)

III. Name, Location, and Description of Project or Activity

City of Valdez, Sewer Force Main Replacement
(Project Name or Title)

Portion of Richardson Highway (Project Street Address (if applicable)) Valdez (City) AK (State) 99686 (Zip) -146.315400 (Longitude (Decimal Degrees, 6 places)) 61.137900 (Latitude (Decimal Degrees, 6 places))

Other Location Descriptions, if known:

State Tax Parcel ID: | City of Valdez (Municipality) | 32-35; 3 (Section) | T8S; T9S (Township) | R6W; R6W (Range) | 09/01/2021 (Estimated Start Date) | 11/30/2022 (Estimated End Date)

Primary Industrial Activity: 237110 (NAICS Code)

Directions to the site:
From Valdez Airport, head west on Airport Road. Turn right on the Richardson Highway and head 3.1 miles to 278 Richardson Hwy, Valdez, AK 99686 for the start of the project.
From Valdez Airport, head west on Airport Road. Turn left on the Richardson Highway and right on Sawmill Dr. to access the end of the project.

Nature of Activity (Description of project, include all features)
See Attachment 1: Supplemental Information.

Project Purpose (Describe the reason of the project)
The existing sewer force main consists of 16- & 18-inch asbestos cement pipe constructed in approximately 1970 and is in need of repair and replacement. The existing main has had numerous breaks, frequently occurring in the tidal flats area. As a result, untreated wastewater has discharged in this area. Access for repair and maintenance efforts in the tidal flats is difficult and expensive. The project purpose is to replace lift station 1 and sewer force main from the animal shelter approximately 3.6 miles to the wastewater treatment plant. Approximately 4,000 people rely on the sewer main for sewage outflow to the wastewater treatment plant east of the City of Valdez. Lift station 1 and the force main pipeline are critical components to the City's entire wastewater collection system.

Types of material being discharged and the amount of each type in cubic yards:

Type	yd^3	Type	yd^3	Type	yd^3
Permanent: clean gravel	24,792	Temporary: backfill material	2,669	Temporary: HDD pads	227

Surface area in acres of wetlands or other waters filled:
Acres: Permanent: 4.6 acres; Temporary: 2.2 acres Or, linear feet: Permanent: 1,938.0 feet; Temporary: 6.6

Is dredging involved? ☐ Yes, ☑ No

a. If yes, how much? _____ acres and volume _____ yd^3.
b. Proposed Placement of dredged material: ☐ Upland, ☐ In water, ☐ Other: _____
c. Has a Tier analysis been conducted of the dredged prism? ☐ Yes, ☐ No; If yes, attach tier analysis and sample results.
(for example of Tier analysis, see EPA Inland Testing Manual or USACE Seattle District Civil Works DMMP User Manual)

Is any portion of the work already complete? ☐ Yes, ☑ No If yes, describe the completed work:

IV. Identify the location and nature of any potential discharge that may result from the proposed project and the location of receiving waters;

Name and location of receiving waters, and geographical extent potentially affected by the proposed discharge:

See Attachment 1: Supplemental Information, Attachment 2: Table 1 Streams, and Attachment 3: Figures.

Is the project within 1,500 feet of a known contaminated site: ☑ Yes, ☐ No (see DEC Contaminated Sites Program).

If yes, describe the identified contaminated site(s) or groundwater plume within 1,500 feet.

ADEC 2264.26.024: On May 8, 2019 a 12,000-gallon, double walled, cathodically-protected steel, 3-compartment, underground storage tank (UST #1) was removed from the ground at the CJ's Cardlock, an unmanned gas station in Valdez. The tank was comprised of three compartments (1A, 1B, and 1C) and contained gasoline and diesel. Soils around the vent piping, dispensers, dispenser piping (double walled), and the UST were sampled and screened in accordance with guidance and regulation. Soils were also sampled from clean and contaminated stockpiles. The area surrounding the UST was wet, and the soil to water interface was encountered at 5 feet below ground surface. One-hundred and twenty-six locations were screened using headspace methods. A total of 16 analytical soil samples and two duplicates were collected and analyzed. Benzene was detected above the DEC migration to groundwater cleanup level. Other contaminants were detected, but at concentrations below cleanup levels.

Parameter(s) of Concern: (check all that apply): ☑ Turbidity, ☑ Sediment, ☑ Petroleum Hydrocarbons, ☐ Metals, ☑ Other,

Describe:

See Attachment 1: Supplemental Information.

Location of potential discharge (Decimal Degrees, 6 places), describe if necessary: Latitude: _____ Longitude: _____

Impaired Waters: Does a discharge of any parameter identified above occur to an impaired waterbody listed as a Category 4 [304(b)] or Category 5 [303(d)] in the current EPA approved Alaska's Integrated Water Quality Monitoring and Assessment Report? (See http://dec.alaska.gov/water/water-quality/impaired-waters.aspx for the most recently approved report and category listings.) ☐ Yes, ☑ No

If determined necessary and requested by the Department, submit sufficient and credible baseline water quality information for the receiving water which meets the requirements of 18 AAC 70.016(a)(6)(A-C).

Social or Economic Importance (18 AAC 70.016(c)(5): Provide information that demonstrates the accommodation of important social or economic development. The applicant shall complete either a social OR economic importance analysis (or both) for each affected community in the area where the receiving water for the proposed discharge is located. (if additional space is needed, attach separate sheet)

(A) **Social Importance Analysis**:
(select one or more areas, and describe below)

- ☑ community services provided;
- ☑ public health or safety improvements;
- ☑ infrastructure improvements;
- ☐ education and training;
- ☐ cultural amenities;
- ☐ recreational opportunities

(B) **Economic Importance Analysis**:
(select one or more areas, and describe below)

- ☐ employment, job availability, and salary impacts;
- ☐ tax base impacts;
- ☐ expanded leases and royalties;
- ☐ commercial activities;
- ☐ access to resources;
- ☐ access to a transportation network

Describe (checked items above or attach as separate document)

Approximately 4,000 people rely on the sewer main for sewage outflow to the wastewater treatment plant east of the City of Valdez. The existing sewer main is aging and in need of repair. It is wrapped in asbestos and susceptible to leaks and breaks. The proposed sewer main would be an upgrade to the existing sewer main and is an investment to prevent the shutdown of services should the existing sewer main fail. The existing sewer main would remain in place to be used for maintenance and a diversion during construction of the proposed sewer main. Many rural Alaskan communities lack adequate sanitation, which causes privacy, safety, and health issues. Having a reliable sewer system in Valdez keeps residents from having to use septic systems that are costly to maintain on an individual basis and have increased transportation costs to deliver to the wastewater treatment plant.

V. Include a description of any methods and means proposed to monitor the discharge and the equipment or measures planned to treat, control, or manage the discharge

(to include best management practices (BMPs) that will be implemented to minimize the environmental impacts.)

SWPPP inspections would be conducted on a regular basis during construction according to construction general permit guidelines as well as monitoring during HDD operations. Monitoring would also occur to confirm conditions of the permit are followed during construction.

For fill material placement, silt fence or turbidity/silt curtains would be used to limit turbidity and sediment inputs to tidal and freshwater wetlands and streams. Geotextile would be placed beneath temporary fill material to ensure all fill is removed.

For HDD, spill cleanup kits would be on-hand to address the potential for a frac-out. An HDD receiving pit would be constructed at the opposite location of the drill rig to catch the drill pipe. HDD drilling fluids will be collected in a containment pit at the site that is located at the HDD rig and HDD bore path entrance. Drilling fluids consisting of bentonite will be removed from the pit, mixed with a hardener to solidify, and disposed of at an existing landfill. The drilling fluid is National Sanitation Foundation Certified for drinking water wells.

VI. Include a list of all other federal, interstate, tribal, state, territorial, or local agency authorizations required for the proposed project, including all approvals or denials already received;

List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in this Application.

Agency	Type of Approval*	Identification Number	Date Applied	Date Approved	Date Denied
USACE	Section 10 & 404	POA-2019-00678	6/24/21		
DOT&PF	ROW Utility		6/18/21		
ADF&G	Title 16 Habitat		4/23/21		
ADEC	Excavation Dewatering Permit				

* Would include but is not restricted to zoning, building, and flood plain permits.

Attachments:

VII. Attachments: Include documentation that a prefiling meeting request was submitted to the certifying authority at least 30 days prior to submitting the certification request;

☑ Prefiling meeting request documentation is attached. (Required)

☐ Copy of the federal license or permit requiring certification under 33 U.S.C. 1341 (Clean Water Act, Section 401) to include all accompanying information, contemporaneous with the submission of the application to the federal licensing or permitting agency.

☐ Other

VIII. Certification Statement:

The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief. The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.

Company or Organization:	Name:	Title:
City of Valdez	Nathan Duval	Assistant City Manager

Phone:	Fax (optional):	Email:
(907)835-5478 x 1		nduvalvaldezak.gov

Mailing Address:	Street (PO Box):		
☑ Check if same as Applicants Info	City:	State:	Zip:

Signature

6-21-21

Date

Submit the CWA §401 Certification Request to DEC-401Cert@alaska.gov.

Include in the subject line the following:

"CWA §401 Certification Request - *<Insert Federal Agency and permit number or license number> - <insert project title>*".

Instructions for Preparing a Request for CWA §401 Certification for an Individual Permit or License

I. Identify the applicable federal license or permit

Include the Federal Agency's permit license number and identify the corresponding agency for which you are applying for the Alaska DEC CWA §401 certification.

II. Project Proponent and Point of Contact

Enter the name, contact information to include the E-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the application, please attach a sheet with the necessary information. Point of Contact or Agent Information to be completed if you choose to have an agent.

III. Name, Location, and Description of Project or Activity

Project Name: Please provide name identifying the proposed project, e.g., Landmark Plaza, Burned Hills Subdivision, or Edsall Commercial Center. Include location and description of the project or activity.

Estimate Start/End Dates: What are the anticipated start and end dates for project construction?

Location: Provide Latitude and Longitude in decimal degrees with six decimal places, example: 61.216883 N Latitude / -149.878756 W Longitude. Use www.latlong.net if needed for online tool for finding lat/long. Provide street address if applicable, and other location descriptions if known. If the facility or project lacks a street address, indicate the general location of the facility (e.g., intersection of x and y).

Primary Industrial Activity: Identify the Activity Code that best represents the products produced or services rendered for which your facility is primarily engaged. For the North American Industry Classification System (NAICS) see census.gov/eos/www/naics/.

Directions to the site: Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide description of the proposed project location, such as lot numbers, tract numbers, or you may choose to locate the proposed project site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed project site if known.

Nature of the Activity: Describe the overall activity or project. Give appropriate dimensions of structures such as wing walls, dikes (identify the materials to be used in construction, as well as the methods by which the work is to be done), or excavations (length, width, and height). Indicate whether discharge of dredged or fill material is involved. Also, identify any structure to be constructed on a fill, piles, or float-supported platforms. The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper.

Project Purpose: Describe the purpose and need for the proposed project. What will it be used for and why? Also include a brief description of any related activities to be developed as the result of the proposed project. Give the approximate dates you plan to both begin and complete all work.

Types of Material Being Discharged and the Amount of Each Type in Cubic Yards. Describe the material to be discharged and amount of each material to be discharged within Corps jurisdiction. Please be sure this description will agree with your illustrations. Discharge material includes rock, sand, clay, concrete, etc.

Surface Areas of Wetlands or Other Waters Filled. Describe the area to be filled at each location. Specifically identify the surface areas, or part thereof, to be filled. Also include the means by which the discharge is to be done (backhoe, dragline, etc.). If dredged material is to be discharged on an upland site, identify the site and the steps to be taken (if necessary) to prevent runoff from the dredged material back into a waterbody. If more space is needed, attach an extra sheet of paper.

Dredging: Identify if any dredging is involved. If so, quantify the acres and volume to be dredged. Provide an assessment of the dredge prism and sample results to support a Tier analysis. Consult the EPA Inland Testing Manual or the USACE Seattle District Civil Works DMMP User Manual for an example of a Tier analysis of the dredge prism. It is recommended to consult with DEC and Corps prior to conducting sampling during pre-application meetings to avoid delays.

Is any portion of the work already complete: Provide any background on any part of the proposed project already completed. Describe the area already developed, structures completed, any dredged or fill material already discharged, the type of material, volume in cubic yards, acres filled, if a wetland or other waterbody (in acres or square feet). If the work was done under an existing Corps or other federal/state permit, identity the authorization, if possible.

IV. Identify the location and nature of any potential discharge that may result from the proposed project and the location of receiving waters;

Name and Location of potential discharge. Provide latitude and longitude coordinates (Decimal Degrees, 5-digit places) of potential discharge. Describe the location if necessary. Include the geographic extent potentially affected by the proposed discharge.

Contaminated Sites: Identify any known contaminated sites within 1,500 feet of the proposed project discharge, to include those known by the applicant or known DEC identified contaminated site either in "Active" or "Cleanup Complete – Institutional Controls" status. For more information, see DEC Contaminated Sites website (dec.alaska.gov/spar/csp.aspx) for ability to search via map, database, and background summaries.

Parameters of Concern: Identify the parameters of concern that may be present in your discharge. Consider if other parameters may be present from past activities in the area. Describe if known respective concentrations, persistence, and potential impacts to the receiving water and data on parameters that may alter the effects of the discharge to the receiving water.

Impaired Waters: Does a discharge of any parameter identified may occur to an impaired waterbody listed as a Category 4 [304(b)] or Category 5 [303(d)] in the current EPA approved Alaska's Integrated Water Quality Monitoring and Assessment Report?

See http://dec.alaska.gov/water/water-quality/impaired-waters.aspx for the most recently approved report and category listings.

Social or Economic Importance Analysis: select as appropriate and provide a description per 18 AAC 70.016(c)(5).

V. Include a description of any methods and means proposed to monitor the discharge and the equipment or measures planned to treat, control, or manage the discharge

Nature of potential discharge and potential environmental impacts on the receiving water: Provide a brief explanation describing how impacts to waters of the United States are being avoided and minimized on the project site. Include best management practices (BMPs) for sediment and erosion controls that will be implemented to minimize the environmental impacts.

VI. List of all other federal, interstate, tribal, state, territorial, or local agency authorizations required for the proposed project, including all approvals or denials already received;

You may need the approval of other federal, state, or local agencies for your project. Identify any applications you have submitted and the status, if any (approved or denied) of each application. You need not have obtained all other permits before applying for the CWA §401 certification.

VII. Attachments: Include documentation that a prefiling meeting request was submitted to the certifying authority at least 30 days prior to submitting the certification request;

Prefiling meeting request: Include documentation (copy of email) that a prefiling meeting request was submitted to DEC. Acceptable format is an email sent to the DEC 401 Certification email address, dec-401cert@alaska.gov requesting a prefiling meeting request. Include as much information as relevant to describe the nature of your proposed activity. The certifying authority (DEC) may or may not respond depending on the information you provide in the prefiling meeting request.

Provide a copy of the federal license or permit requiring certification under 33 U.S.C. 1341 (Clean Water Act, Section 401) to include all accompanying information, contemporaneous with the submission of the application to the federal licensing or permitting agency. This would include all site drawings and maps and illustrations.

VIII. Certification Statement

As per 18 AAC 15.030 Signing of applications, all permit or approval applications must be signed as follows:

1) in the case of corporations, by a principal executive officer of at least the level of vice president or his duly authorized representative, if the representative is responsible for the overall management of the project or operation;
2) in the case of a partnership, by a general partner;
3) in the case of a sole proprietorship, by the proprietor; and
4) in the case of a municipal, state, federal or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

For more information regarding CWA §401 Certifications, see the DEC website at http://dec.alaska.gov/water/wastewater/wetlands, or contact:

Alaska Department of Environmental Conservation
Division of Water – Wastewater Discharge Authorization Program
555 Cordova Street, Anchorage AK 99501
email: dec-401Cert@alaska.gov Phone: 907-269-6285

Submit the CWA §401 Certification Request to DEC-401Cert@alaska.gov. **Include in the subject line the following**:

"CWA §401 Certification Request - *<Insert Federal Agency and permit number or license number> - <insert project title>*".

ATTACHMENT 1: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

1.0 NATURE OF ACTIVITY

The project includes the placement of fill material in waters of the U.S. to construct a new 20-inch high density polyethylene sewer force main. The sewer force main starts at lift station #1 (near intersection of Pioneer Drive and Richardson Highway) and extends to the city's sewer lagoon (800 Sawmill Drive). The project consists of clean, fill material consisting of 8" minus pit run gravel. Surface fill would be placed over the sewer main north of the Richardson Highway paved trail, and the permanent fill would extend 23 feet into the duck flats wetlands from the toe of slope of the trail. The permanent fill in the duck flats would be six feet deep (adjacent to the trail) 23 feet wide and tapering with a 3:1 slope to existing ground surface. Temporary fill material for horizontal directional drill (HDD) pads would be placed on geotextile fabric approximately 50 feet length by 20 feet width and minimum of 3 feet depth, most of the drill pads will be on permanent fill except one location outside of the duck flats and all temporary fills would be removed post construction. Outside of the duck flats, temporary trenching backfill material would be stockpiled on geotextile fabric and backfilled after sewer force main installation. Most streams would be crossed by HDD and three would be crossed by trenching as identified in Section 2.1 below.

2.0 NAME AND LOCATION OF RECEIVING WATERS

2.1 Streams

There are 13 streams crossed by the project (Attachment 2: Table 1 Streams). Nine streams would be crossed by HDD including all anadromous streams within the duck flats (Attachment 3: Figures). One stream (SC1) is a man-made feature of the wastewater treatment plant would be crossed by open trench. Two natural shallow streams (SC4 and SC5) would be crossed by open trench near the airport access road. Alaska Department of Fish and Game (ADF&G) anadromous waters catalog was reviewed, and most streams are identified as anadromous. One of the streams being trenched is identified as anadromous but the anadromous mapping ends on the southside of the Richardson Highway. Two streams (SC9 and SC11) in the duck flats would be relocated due to fill material placement along the shared path embankment. SC9 and SC11 are not mapped as anadromous streams in the ADF&G webmapper, though they are identified in ADF&G anadromous waters catalog within the duck flats salmon habitat. Trenching would occur outside of the fish spawning window. An ADF&G fish habitat permit is being applied for and we anticipate ADF&G providing timing to avoid impacts to anadromous species during construction.

The project activities will mainly be in Section 404 regulated areas and a small portion of the project extends under Section 10 regulated areas. The Section 10 regulated area will be HDD beneath the westernmost stream channel (SC13) near the US Forest Service building.

2.2 Wetlands

For permanent impacts, wetlands consist of 100.0 percent Estuarine Intertidal (E2) wetlands. For temporary impacts, wetlands consist of 9.0 percent Estuarine Intertidal (E2), 46.1 percent Palustrine Emergent (PEM), 11.1 percent Palustrine Forested (PFO), and 33.9 percent Palustrine Scrub Shrub (PSS) (Figure 2A-2E).

Wetlands are under Section 404 jurisdiction regulated by the U.S. Corps of Engineers. All mapped wetlands are directly hydrologically connected to Port Valdez, a Traditionally Navigable Waterway (TNW).

The project is located within the Valdez Arm-Frontal Prince William Sound ten-digit Hydrologic Unit Code (HUC) watershed.

3.0 PARAMETERS OF CONCERN

The water quality parameters of concern are turbidity, sediment, and drilling fluids.

3.1 Turbidity

Turbidity occurs when sediment is transported into water through erosion and deposition. On construction sites, turbidity typically occurs when sediment is exposed or has not reached final stabilization. Turbidity would require a Tier 2 level of protection.

3.1.1 Concentrations and Persistence

Turbidity could occur during construction, resulting in sediment input to surface waterbodies both within and beyond the project boundaries. Sources of turbidity associated with the project include removing vegetation and exposing native soils along with the placement of temporary and permanent fill.

3.1.2 Potential Impacts

Fill material would be placed permanently in tidal and intertidal waters, and wetlands in the duck flats. Temporary fill material in wetlands (located outside the duck flats) will be placed on geotextile.

Permanent fill material would be placed as coverage for the sewer main in the duck flats. Fill placed within the duck flats is especially susceptible to turbidity inputs through tidal fluctuations. High turbidity has many negative effects including suffocating salmon eggs, hindering the breathing of aquatic organisms, and blocking sunlight that affects plant growth and organism food finding.

Temporary fill material would be stockpiled as trench backfill and temporarily placed within wetlands for one HDD pad (see figure x). All other HDD pads would be placed in uplands or utilize overlapping permanent fill locations within the duck flats. Two natural streams and a man-made wastewater outflow stream located east of the duck flats would be crossed by trenching. Two stream segments in the duck flats would be relocated due to permanent fill material being placed adjacent the trail north of the Richardson Highway. Impacts from removing existing

vegetation and exposing native soils would temporarily increase turbidity in wetlands or streams during precipitation events or at stream crossings (until the area is stabilized).

3.1.3 Prevention or Lessoning of Degradation

Best management practices including silt fence and turbidity curtains could be used during construction to minimize sediment inputs leaving the site until final stabilization has been achieved. Temporary fill material would be placed on geotextiles for trenching and HDD work pads and removed post construction. Revegetation of exposed soils would occur as soon as possible (typically within the same season of disturbance) to provide soil stabilization. Stream relocation and trenching would occur during specific seasonal timeframes as specified by ADF&G to prevent impacts to aquatic resources.

3.2 Sediment

Sedimentation occurs when soil particles, including dust are transported by wind or water and ultimately deposited as sediment on the bottoms of wetlands and waterbodies. Sediment would require a Tier 2 level of protection.

3.2.1 Concentrations and Persistence

Sediment will be generated during construction, resulting in sediment input to surface waterbodies both within and beyond the boundaries of the project area. Sources of sedimentation associated with the project include temporary fill placement for an HDD work pad, temporary trench backfill, and permanent fill placement to cover the sewer main in the duck flats.

3.2.2 Potential Impacts

Fill material would be placed in tidal wetlands of the duck flats and in freshwater wetlands along the alignment where the exposed soils may be entrenched in water. Sedimentation may increase turbidity and may suffocate salmon eggs, hinder the breathing of aquatic organisms, and block sunlight affecting plant growth.

3.2.3 Prevention or Lessoning of Degradation

Best management practices would be used during construction to minimize sediment inputs leaving the site until final stabilization has been achieved. Temporary fill material would be placed on geotextiles for trenching and HDD work pads and removed post construction. Silt fencing would prevent entrained sediment from reaching wetlands or streams.

3.3 Petroleum Hydrocarbons

A contaminated site under State of Alaska Department of Environmental Conservation (ADEC) 2264.26.024 (CJ's Cardlock) consists of gasoline and diesel in soils surrounding a previously removed underground storage tank from the former gas station. Benzene was detected above the ADEC migration to groundwater cleanup level. Petroleum hydrocarbons would require a Tier 2 level of protection.

3.3.1 Concentrations and Persistence

Benzene was detected above the ADEC migration to groundwater cleanup level. Other contaminants were detected, but at concentrations below cleanup levels. Sections of the proposed project within 1,500 feet of the contaminated site will be monitored for petroleum concentrations in pumped groundwater during construction.

3.3.2 Potential Impacts

HDD drilling fluids and groundwater pumped during HDD and trench excavation with 1,500 feet of the contaminated site has the potential to contain petroleum contaminants.

3.3.3 Prevention or Lessoning of Degradation

A notice of intent and a certified best management practices plan in accordance with AKG002000 Part 2.2.8 will be filed with ADEC a minimum of 30 days prior to anticipated discharge for excavation dewatering activities associated with the installation of utilities. Groundwater in the project area is typically within three feet of the surface and dewatering activities are anticipated to be conducted for the entire project. In general drilling fluid used within 1,500 feet of contaminated site ADEC 2264.26.024 (CJ's Cardlock) will be collected in a containment pit located next to the HDD rig and sampled for petroleum contaminants. Dewatering occurring within 1,500 feet of the contaminated site will be visually observed and/or sampled for contaminants before discharge to uplands. Any contaminated drilling fluid, soils, or water will be disposed of properly according to ADEC guidance and certified best management practices plan.

3.4 Drilling Fluids (HDD)

HDD is a process for installing underground utilities without disturbing the surface vegetation and soils. HDD starts near the surface. Less excavation is needed when compared to boring or jacking. HDD drills at an angle into the ground from near the surface and turns the hole to near horizontal when the selected depth is reached. The drill hole is turned up at an angle back to the surface near the end of the drilling procedure. HDD uses drilling fluid to stabilize the surrounding wet soil as it is penetrated. The drilling fluid creates a cake wall that stops wet soil from migrating into the drill / pipe hole. HDD is suitable to muddy conditions without creating voids. The pipe is pulled back through the stabilized hole after it is drilled. The less turns or angles the drill hole makes the easier the pipe pull back is, and the less likely there will be breaches in the hole or cave-ins. HDD takes clear solid surface length on each side of the drilling for the drilling equipment on one side and pipe laid out to pull back through the drill hole on the other side.

Drilling fluids would be used for lubrication during HDD under wetlands, streams, and roads. HDD's would begin on a fill work pad, travel beneath wetlands, streams, and roads to an exit area where the main would be daylighted. Drilling fluids would require a Tier 2 level of protection.

3.4.1 Concentrations and Persistence

Drilling fluids would be used to lubricate the drill during boring operations and keep the walls of the bore from collapsing. There are 9 HDD bores proposed on the project.

3.4.2 Potential Impacts

When crossing under wetlands and streams by HDD, there is the potential for a frac-out in the soft mud found in the duck flats and sandy soils east of the duck flats. If drilling mud reaches the surface the mud would fill wetlands, coating vegetation. If drilling mud reaches streams the mud could suffocate salmon eggs, hinder the breathing of aquatic organisms, and block sunlight affecting plant growth.

3.4.3 Prevention or Lessoning of Degradation

Drilling fluids are National Sanitation Foundation Certified for drinking water wells. Engineering design have been used to determine the necessary depths for HDD bores to limit the potential for frac-out. Best management practices would be used during construction to minimize frac-outs and will be determined by the contractor. Spill cleanup procedures would be in place prior to HDD operations to ensure a frac-out is contained. Drilling fluids consisting of bentonite would be removed from the project area, mixed with a hardener to solidify, and disposed of at an existing landfill.

4.0 WORKS CITED

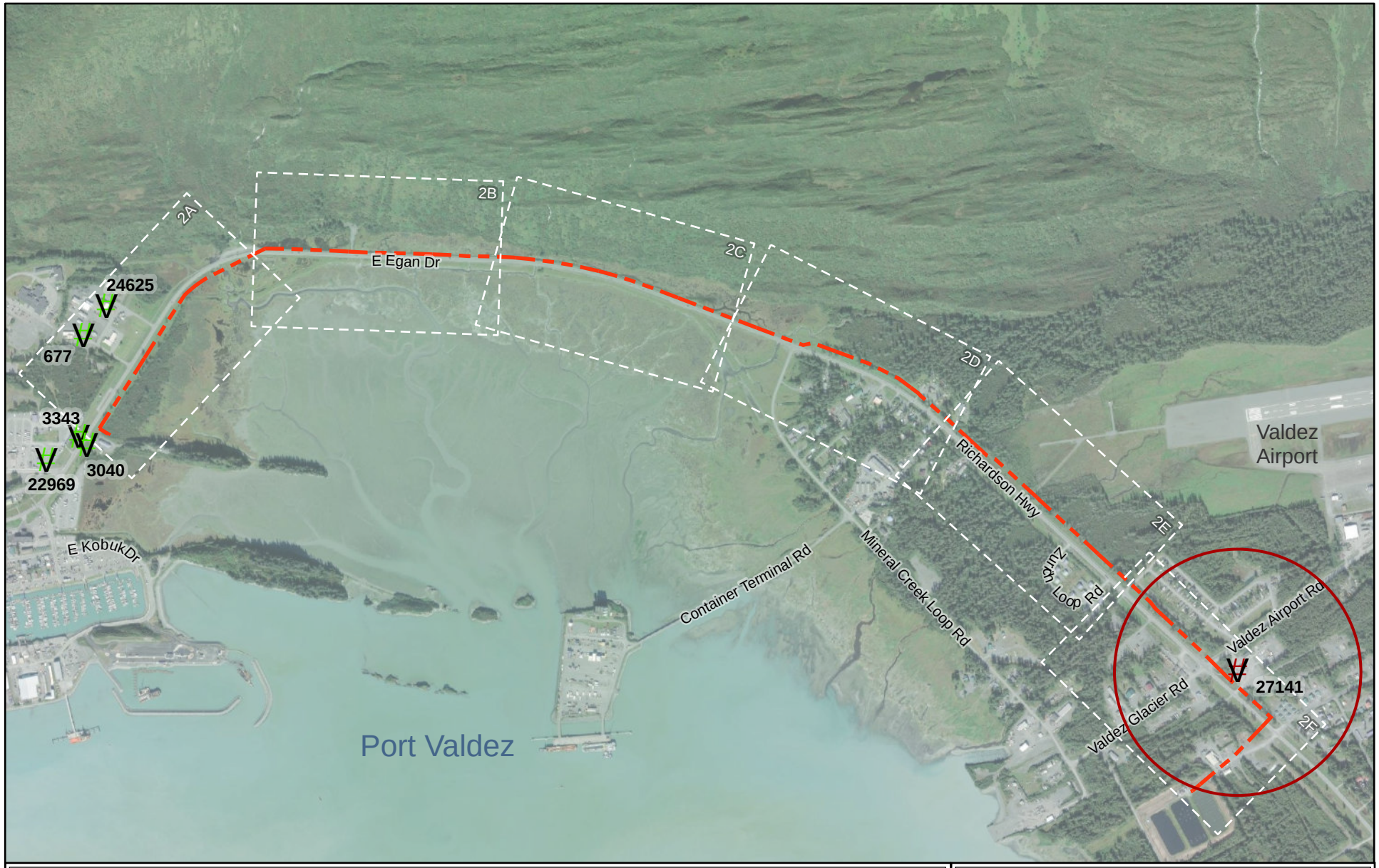
Alaska Department of Fish and Game. (ADF&G). 2020. Alaska Fish Resource Monitor. Viewed September 2020 at https://adfg.maps.arcgis.com/apps/MapSeries/index.html?appid=a05883caa7ef4f7ba17c99274f2c198f.

ATTACHMENT 2: TABLE 1 STREAMS

Stream ID	Crossing Method	AWC Code	Species	Fish Culvert RGG Rating	Culvert Site ID	Stream Name	Latitude	Longitude	Stream Width, ft	Depth, ft*	Substrate	Gradient, %	Notes
SC1	Open Trench	221-60-11390	CHs,COp,Ps	Red	187264	Unnamed	61.120943	-146.265249	10.0**	1	Cobble	2.2	
SC2	HDD	N/A	N/A	Red	6259	Unnamed (DOWL Mapped)	61.124177	-146.265387	25.0**	0.3	Cobble, gravel, silt	0.11	
SC3	HDD	221-60-11410	CHs,COsr,Psr	Red	6258	Pipe Creek	61.126998	-146.271716	23.3*	0.87	Gravel	0.7	
SC4	Open Trench	221-60-11420	CHs,Ps	Gray	6257	Unnamed	61.129540	-146.277531	16.3*	1.14	Gravel	0.75	Shallow crossing
SC5	Open Trench	221-60-11421-2020 See Notes	COr	N/A		Unnamed (DOWL Mapped)	61.130873	-146.279772	5.0**	1.5	Gravel	0.75	Anadromous stream designation ends at Richardson Hwy; shallow crossing
SC6	HDD	N/A	N/A	Red	187263	Unnamed	61.130885	-146.279822	10.0**	1.11	Gravel	1.4	No ADF&G Culvert data for Richardson Hwy Crossing. Stream Measurement taken near Mineral Creek Loop Rd Crossing
SC7	HDD	221-60-11425	CHs,COs,Ps,Ss	Gray	6256	Siwash Creek	61.132221	-146.282804	15.2*	0.88	Gravel	0.24	
SC8	HDD	221-60-11440	CHs,Ps	Green	6255	Unnamed	61.135365	-146.294676	10.2*	3.3	Cobble, gravel, silt	0.18	
SC9	Fill placement	221-60-11440-0910	CHsr,Ppr	N/A	N/A	Unnamed (DOWL Mapped)	61.136419	-146.300204	24.6***	1	Silt	0.25	This tidally influenced stream would be relocated.
SC10	HDD	221-60-11440-0910	CHsr,Ppr	Green	6254	Unnamed (DOWL Mapped)	61.137948	-146.311901	10.0**	1	Cobble	0.25	
SC11	HDD, Fill placement	221-60-11440-0910	CHsr,Ppr	Green	6253	Unnamed (DOWL Mapped)	61.138086	-146.316544	5.0**	2	Cobble	0.25	This tidally influenced stream would be relocated.
SC12	HDD	221-60-11440-0910	CHsr,Ppr	Green	6252	Unnamed (DOWL Mapped)	61.138197	-146.324065	5.0**	1.5	Cobble	0.25	
SC13	HDD	221-60-11450	CHsr,Psr	Green	6251	Crooked Creek	61.137913	-146.334099	16.3*	0.5	Cobble, gravel	0.41	

* Largest measurement taken from ADF&G survey (09/2018)
** Estimate from DOWL fieldwork 9/2019
*** Estimate from Aerial (aerial date: 6/10/2018)

ATTACHMENT 3: FIGURES



DEC Contaminated Sites within 1500'

- Proposed Project Alignment
- 1500-ft Buffer
- Active
- Cleanup Complete

0 500 1,000 2,000 Feet

N

Location Map and Contaminated Sites

City of Valdez Sewer Force Main Replace

DOWL

Date: March 05, 2021

Figure 1

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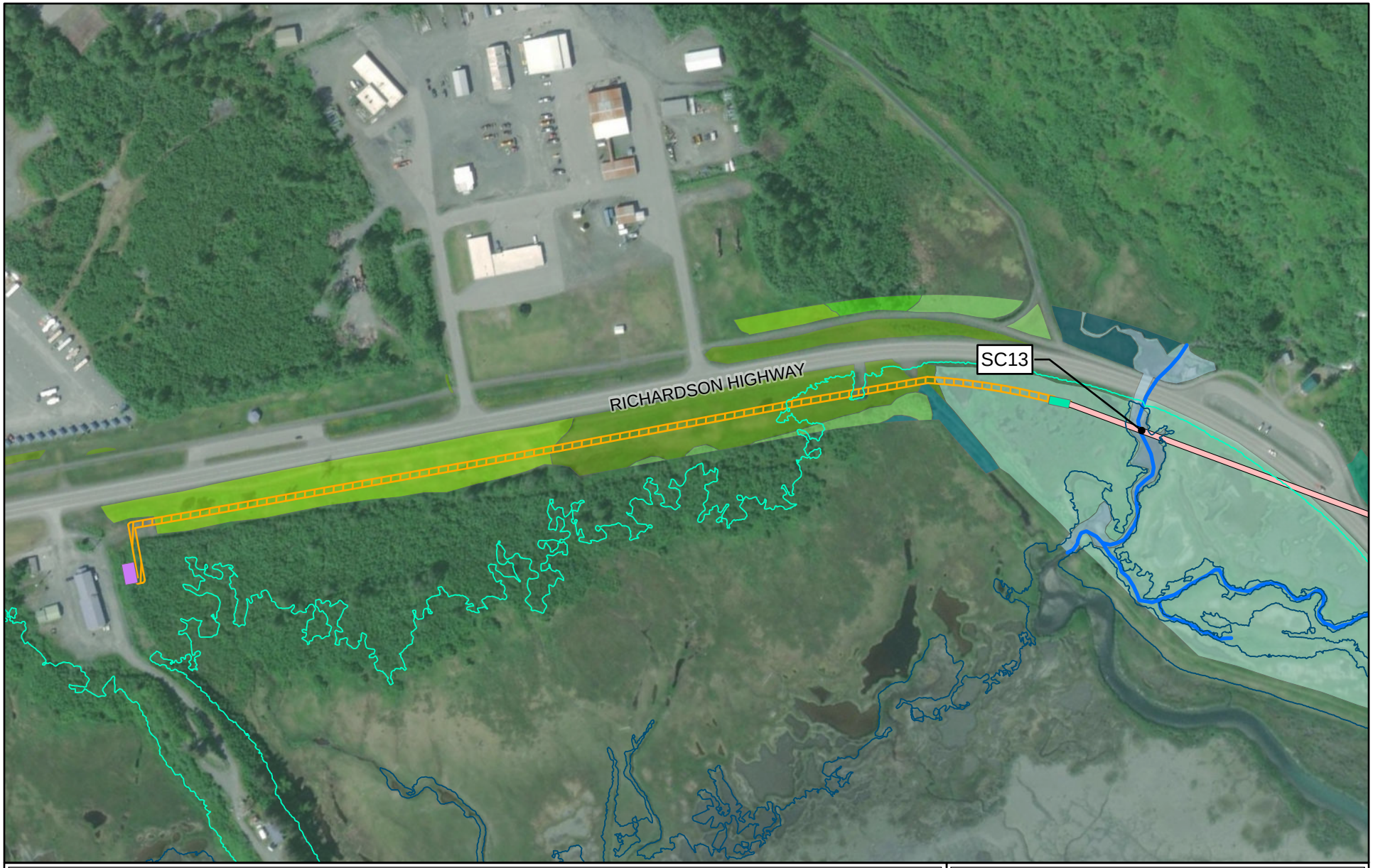

Stream Channel
High Tide Line (15 feet)
Mean High Water (11 feet)
HDD Crossings

Fill Footprint
Lift Station Pad, Permanent
HDD Pad, Temporary
Fill Footprint, Temporary

Wetland Cowardin Classification
(Within Study Area)
E2EM1/USN
E2EM1N
E2EM1P
E2SBN
E2SS1N
PEM1B
PEM1C
PSS1B
PSS1C

0 150 300
Feet

Plan View

City of Valdez Sewer Force Main Replace

DOWL

Date: March 05, 2021

Figure 2A

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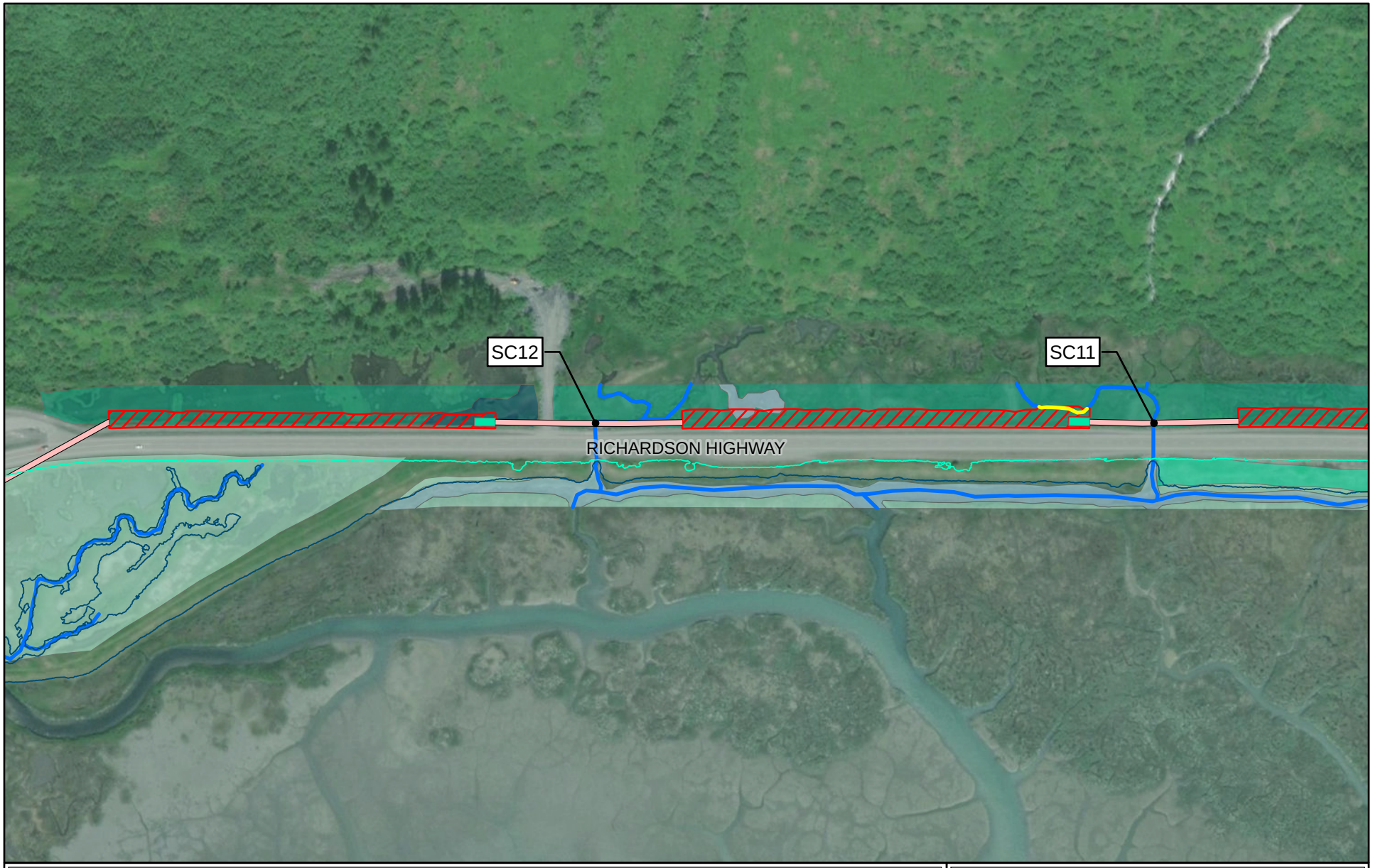

Stream Channel
Impacted Stream Channel
High Tide Line (15 feet)
Mean High Water (11 feet)
HDD Crossings

Fill Footprint
HDD Pad, Temporary
Fill Footprint, Permanent

Wetland Cowardin Classification
(Within Study Area)
E2EM1/USN
E2EM1B
E2EM1N
E2EM1P
E2SBN

N

0 150 300
Feet

Plan View

City of Valdez Sewer Force Main Replace

DOWL

Date: March 05, 2021

Figure 2B

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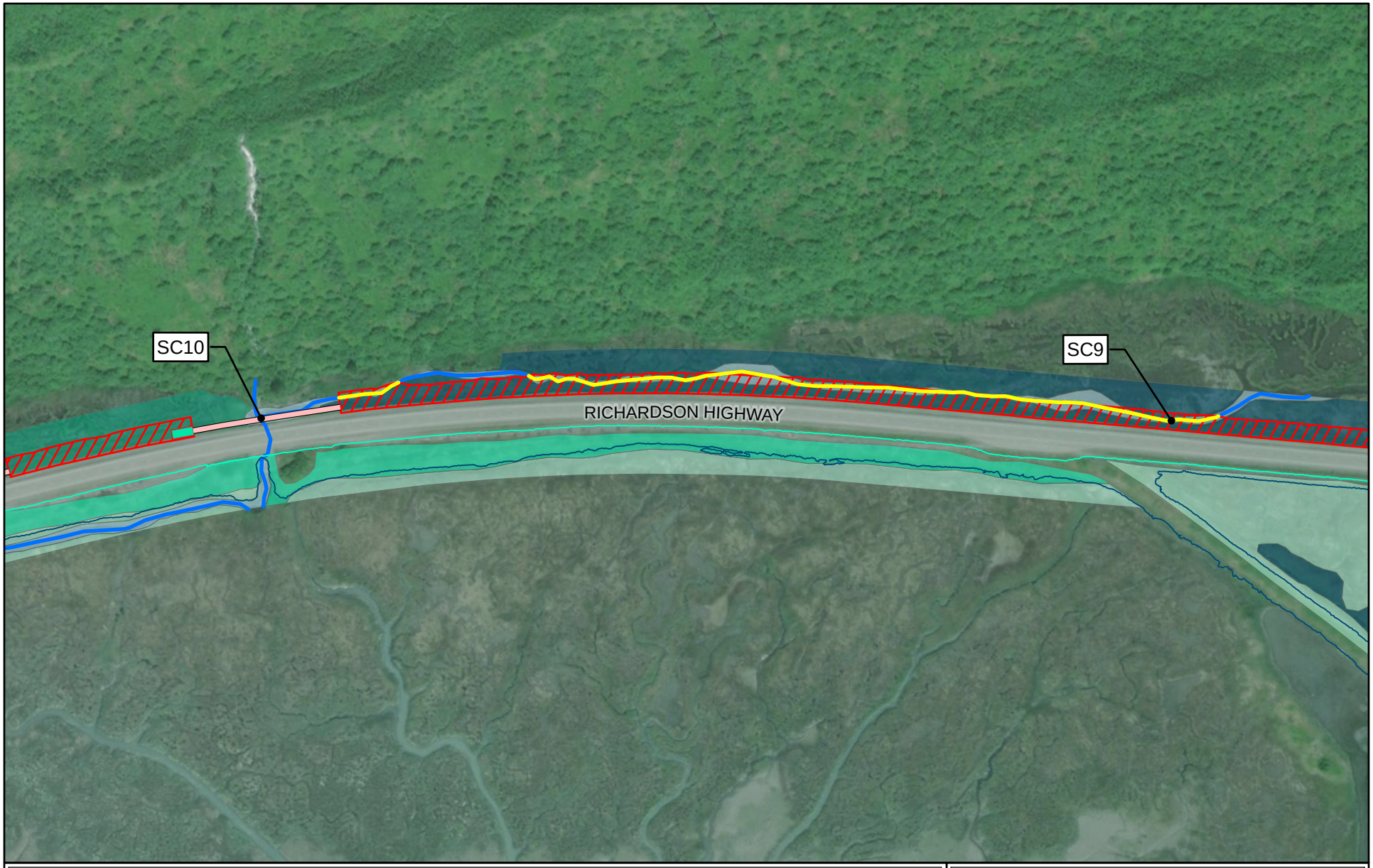

Stream Channel
Impacted Stream Channel
High Tide Line (15 feet)
Mean High Water (11 feet)
HDD Crossings

Fill Footprint
HDD Pad, Temporary
Fill Footprint, Permanent

Wetland Cowardin Classification
(Within Study Area)
E2EM1/USN
E2EM1B
E2EM1N
E2EM1P
E2SBN

0 150 300
Feet

Plan View

City of Valdez Sewer Force Main Replace

DOWL

Date: March 05, 2021

Figure 2C

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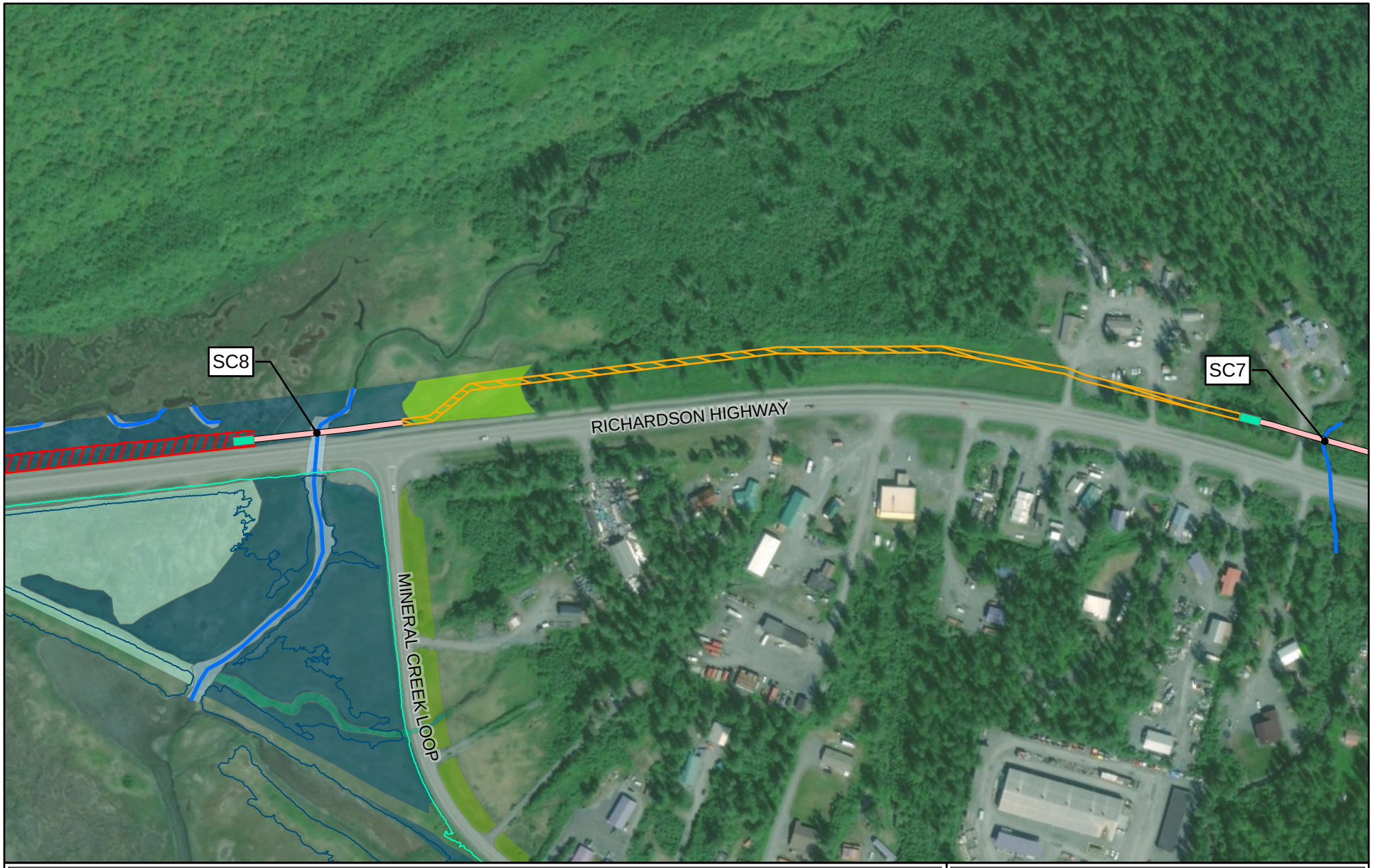

Stream Channel
High Tide Line (15 feet)
Mean High Water (11 feet)
HDD Crossings

Fill Footprint
HDD Pad, Temporary
Fill Footprint, Permanent
Fill Footprint, Temporary

Wetland Cowardin Classification
(Within Study Area)
E2EM1/USN
E2EM1N
E2EM1P
E2SBN
PEM1B
PEM1C

0 150 300
Feet

Plan View

City of Valdez Sewer Force Main Replace

DOWL

Date: March 05, 2021

Figure 2D

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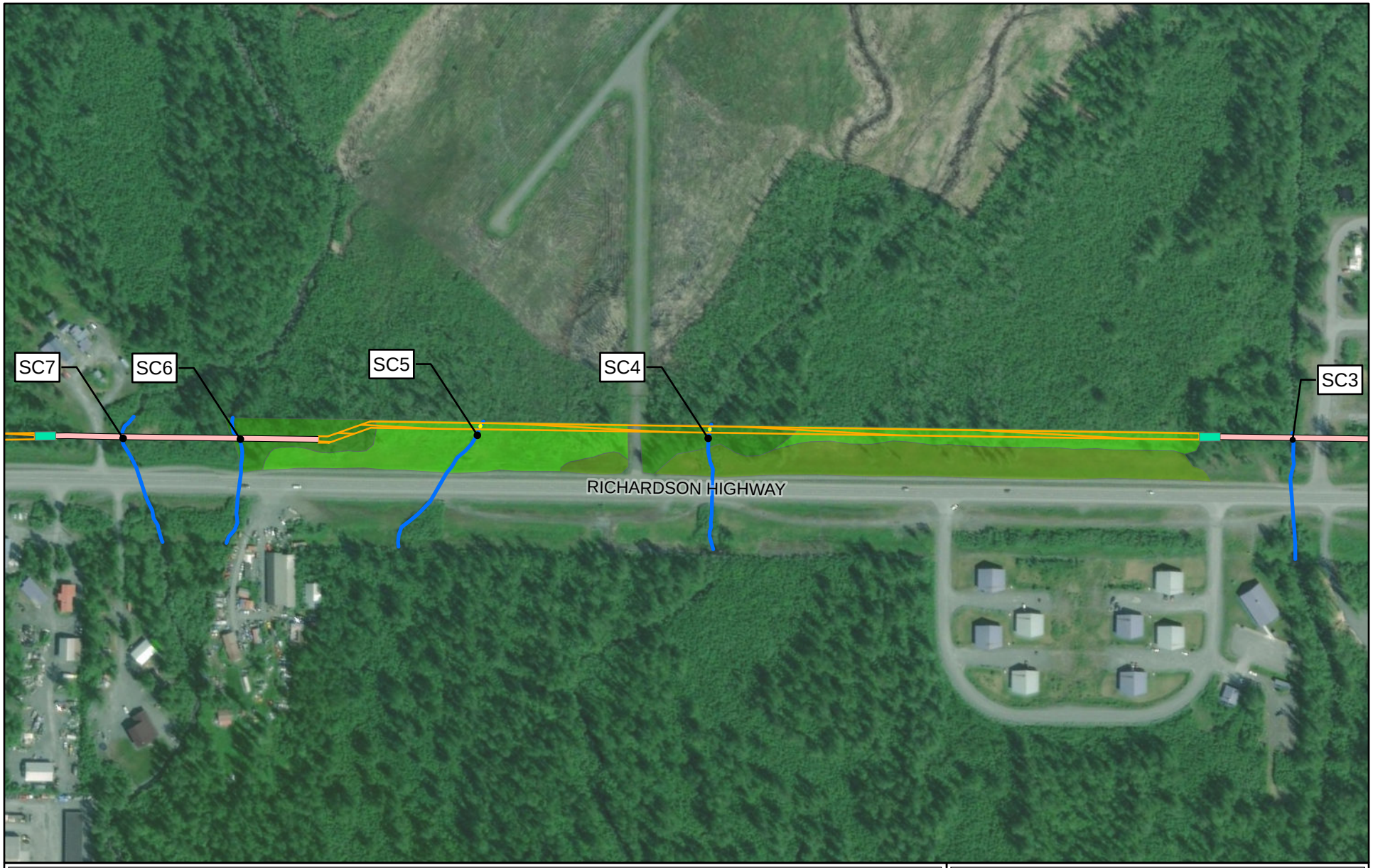

Stream Channel
Impacted Stream Channel
HDD Crossings

Fill Footprint
HDD Pad, Temporary
Fill Footprint, Temporary

Wetland Cowardin Classification
(Within Study Area)
PEM1C
PFO1B
PSS1C

0 150 300
Feet

Plan View

City of Valdez Sewer Force Main Replace

DOWL

Date: March 05, 2021

Figure 2E

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Stream Channel
Impacted Stream Channel
HDD Crossings

Fill Footprint
End Station, Permanent
HDD Pad, Temporary
Fill Footprint, Temporary

Wetland Cowardin Classification
(Within Study Area)
PEM1C
PSS1C
PUBHx

0 150 300
Feet

Plan View

City of Valdez Sewer Force Main Replace

DOWL

Date: March 05, 2021

Figure 2F

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