

EROSION AND SEDIMENT CONTROL PLAN

1.0 General

The total ground disturbing activities for this project affect more than 1 acre; therefore, authorization to conduct construction activities under the State of Alaska Department of Environmental Conservation (ADEC) Alaska Pollutant Discharge Elimination System (APDES) Construction General Permit (CGP) must be obtained. The ADEC CGP 2016 Permit can be found on ADEC's website, <https://dec.alaska.gov/water/wastewater/stormwater/construction>.

This Erosion and Sediment Control Plan (ESCP) narrative was developed based on general knowledge of construction sequencing, available materials, site-specific hydrology, and other relevant factors. It contains information about the construction site that the Contractor may use in developing the Storm Water Pollution Prevention Plan (SWPPP) as required by Section 310000, Erosion, Sediment, and Pollution Control. Further information is available at the above ADEC website and in the *Alaska Storm Water Pollution Prevention Guide* published by the Alaska Department of Transportation and Public Facilities (ADOT&PF) and available on their website at <http://www.dot.state.ak.us/>. Additionally, the U.S. Environmental Protection Agency (EPA) website <http://cfpub.epa.gov/npdes/stormwater/swppp.cfm> provides information and guidance including SWPPP templates, sample inspection forms, and other resource information.

Building upon the ESCP narrative, the Contractor's fully developed SWPPP shall provide a more comprehensive and more detailed plan for erosion, sediment, and pollutant control. The SWPPP shall provide details for erosion control and sediment management "systems." Providing for "perimeter control" without also providing for erosion control is not acceptable. Without fully developed pollutant control management "systems," the Draft SWPPP will be rejected.

2.0 Project Description

The work generally consists of, but is not limited to, construction of: extension of the water system to the airport of the City and Borough of Yakutat (CBY) that serves the Yakutat Lodge and Restaurant as a primary goal while also planning for future development along the route and fire flow as a secondary goal.

2.1 Site Description

The majority of the project site is within the existing street right-of-ways. Public utility easements will be utilized as well. The service lines will be installed on the respective private property.

2.2 Scope of Construction

Generally, the project consists of the following work:

- Installation of approximately 4 miles of 6-inch and 10-inch distribution main. The pipe material will be HDPE and Ductile Iron.
- Installation of 31 fire hydrants.
- Installation of 16 water services.
- Asphalt replacement.
- Culvert replacement.
- Seeding.

2.3 Anticipated Sequence of Activities

The Contractor shall modify the following sequence as required to accurately reflect the Contractor's means and methods. Erosion, sediment, and pollutant control activities should be listed and woven into the scheduled sequence of activities. They should be tied to and precede all grading/earth disturbing

activities. This shall include all haul road and staging area development, use, and management for the life of the project. The final sequence of work will be developed by the Contractor and presented in his SWPPP. Final sequencing is dependent on multiple factors including the Contractor's means and methods, logistics, weather, and timing.

- Initiate erosion and sediment controls, to include:
 - Mark project limits and environmental permit boundaries
 - Install perimeter controls
 - Use other controls as appropriate based on Contractor's phasing plan
- Excavate and place water main and fire hydrants.
- Backfill and grade ground surface
- Seed as soon as possible after construction
- Remove all temporary erosion and sediment controls unless specifically allowed to remain by approval of the Owner's Representative

2.4 Area of Ground Disturbance

Construction is expected to take place from May 2026 through November 2027 depending upon conditions. The temporary impacts will depend on the Contractor's methods and means.

The total area estimated to be disturbed is 17 acres. No change in the amount of impervious area is required.

2.6 Receiving Waters

Receiving waters include Ophir Creek, various wetlands and other tributaries which flow to Monti Bay and the Gulf of Alaska.

2.7 Environmental Considerations

The information provided below is for the Contractor's reference. The Contractor is responsible for verifying the information is still valid as part of the SWPPP preparation.

Bird Window

In Southeast Alaska, the USFWS-recommended period to avoid vegetation clearing to protect migratory bird nests is April 15th through July 15th. In addition, the period at which bald eagles may be sensitive to disturbance is March 1 – August 31. While much of the water line will be constructed adjacent to existing roads in developed areas with only grass vegetation, there are some sections of the alignment where the project will cross undeveloped forest. Tree and shrub clearing for the project will occur outside of the migratory bird nesting window, where practicable. In addition, the project will refer to the USFWS's Bald Eagle Management Guidelines which advise on the provisions of the Bald and Golden Eagle Protection Act and actions to minimize impacts to bald eagles.

Threatened or Endangered Species

No threatened or endangered species occur in the project area.

Historical, Archeological, and Cultural Properties

The State Historical Preservation Office (SHPO) provided a determination of No Historic Properties Affected for the initial water line alignment in February 2024. The project design has since changed and includes additional length of water line and a water storage tank and pumphouse. SHPO review has been initiated for the final project design.

3.0 Controls and Protection

This section of the plan addresses the various controls that may be implemented for major construction activities. Major construction activities are expected from June to October. As required under

Section 310000 of the specifications, the Contractor's SWPPP must address the following erosion and sedimentation issues. The Contractor shall include revisions and or additions to this ESCP in the SWPPP.

3.1 Permanent Controls

Permanent erosion and sediment control methods are listed below. Permanent controls are to remain after project completion.

Erosion Control

- Seeding of disturbed areas as soon as possible after reconstruction of the embankments to help reestablish the vegetation, reduce the volume and velocity of runoff, and control the erosive action of storm runoff*
- Seeding with native seeds and surface roughening*
- Preservation of vegetation

Sediment Control

- Use of vegetative buffer strips

*Note: Slope re-vegetation measures (seeding, surface roughening, and mulch) are not permanent until the vegetation reaches a uniform cover with a density of 70 percent.

3.2 Temporary Controls

Temporary controls shall be the responsibility of the Contractor.

The Contractor's first priorities for erosion and sediment control are staging the project to integrate the controls and construction schedule, retaining as much of the natural vegetation for as long as possible, and routing storm water around the work areas so that construction sediment is not incorporated into surface water flow. Areas of particular concern include the fill slopes, the drainage ditches, and the construction areas adjacent to surface water bodies.

Temporary erosion and sediment controls shall conform to Best Management Practices (BMP) and may include one or more of the following:

Erosion Control

- Check dam
- Construction phasing
- Controlled vehicle speeds on haul routes and at the material and construction sites
- Dust control
- Fiber-filled tubes
- Vegetative buffer strips
- Matting or bonded fiber matrix
- Preservation of existing vegetation for as long as possible
- Vehicle tracking exits
- Temporary diversion of water entering construction area
- Track walking
- Geotextiles
- Mulching
- Rolled erosion control products (RECP)
- Seeding with native seeds
- Shoulder berms
- Slope drains

Sediment Control

- Brush bundles
- Check dam
- Interception/diversion berm
- Sediment trap/pond
- Silt fencing or fiber-filled tubes
- Vegetative buffer strips
- Cover for stockpiles or waste piles
- Velocity dissipation at culvert and ditch outfalls
- Inlet protection at culverts

Velocity Control

- Velocity dissipation at culvert and ditch outfalls
- Rock check dams
- Interception/diversion berm

Other

- Watering for dust control
- Correct any problems occurring due to inadequate protection measures
- Other measures as shown or described in the *Alaska Storm Water Pollution Prevention Plan Guide* published by the ADOT&PF or functional equivalent authorized by the Owner's Representative

The temporary and permanent methods are described in more detail in the *Alaska Storm Water Pollution Prevention Plan Guide* (January 2005). Controls must be installed and maintained per the manufacturers' specifications or an equivalent approved by the Engineer of Record. The installation of these devices may be subject to Section 404 of the Clean Water Act.

Water may be diverted around the work area with diversion berms of fiber-filled tube, brush, overburden, or functional equivalent as approved by the Engineer of Record.

Perimeter controls shall also be implemented where necessary to contain construction materials and sediment. Perimeter controls may include silt fencing, fiber-filled tubes, brush berms, vegetative buffer strips or a functional equivalent.

Stabilization measures shall be initiated as soon as practicable, but no later than 14 days (per the CGP), on all portions of the site where construction activities have temporarily or permanently ceased. Temporary controls may be left in place as permanent controls with the authorization of the Engineer of Record. Stockpiles of soil must be stabilized and protected from water and wind erosion. The Contractor is required to cover the stockpiles with plastic, use perimeter controls at the base, initiate seeding, and use other functional equivalents as approved by the Engineer of Record.

The Contractor shall minimize slope steepness and length whenever possible. Berms or fiber-filled tubes (installed as the project progresses) may be placed at the tops of slopes to prevent water from flowing onto the slopes. Additionally, the Contractor may roughen slopes using methods such as track walking to minimize erosion. Other appropriate methods approved by the Engineer of Record may also be used.

Access to the construction site will be limited and controlled. Vehicle tracking exits shall be constructed to remove sediment accumulated on vehicles during construction.

Per the ADEC's Construction General Permit (CGP), Part 4.3.8, temporary sediment control basins, traps, or equivalent control measures must be provided where attainable until final stabilization of the site.

All practices selected for implementation should be determined on the basis of the technical guidance on ADEC's website.

3.3 Other Controls and Potential Sources of Pollution

Solid Waste

All project solid waste shall be properly disposed of and in accordance with Specification Section 311000, "Site Clearing." No solid materials shall be discharged into waters of the U.S. except as authorized by a USACE Section 404 Permit. Solid waste may include, but is not limited to, concrete, wood, steel, old culverts, pipes, etc.

Concrete Washout

The Contractor is required to use controls to minimize the potential for storm water pollutants from washout areas for concrete mixers, paint, stucco, etc. If the Contractor uses any concrete on the project site, there must be an established and signed concrete washout area and a plan for washout waste disposal. Concrete washout facilities must be sited and maintained to prevent runoff. The Contractor will be responsible for the proper disposal of the washout waste. This may include evaporating the water or mixing it with sand and disposing of it as solid waste to a permitted facility. The washout cannot be disposed of on-site or in a material site, and disposal may require backhaul or for the Contractor to obtain a solid waste disposal permit.

Compliance with Regulations

The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer, or septic system regulations.

HMCP

The Contractor shall develop and follow a Hazardous Materials Control Plan (HMCP) appropriate to the project location and include this in the SWPPP.

Staging or Stockpile Area

If not already covered in the ESCP, the SWPPP shall include additional erosion control measures to cover these areas.

Wetlands

Wetland boundaries are marked on the ESCP sheets. Fill within these wetlands is allowed only where permitted. A copy of the permit is included in Supplementary Conditions.

Maintenance

The Contractor shall maintain all temporary erosion and sediment controls and remove them once permanent controls are established. Maintenance of the seeded areas includes inspection, watering, and fertilizer application to promote growth. The reconstructed areas, slopes, and embankments must also be maintained to reduce erosion issues.

Vehicle Tracking Exits

When highly erodible soils are exposed and being worked on the project site, stabilized exits will be required to comply with the permit. If there is no need for these stabilized exits, the reasons must also be addressed in the SWPPP.

3.4 Permits and Other Agreements

The Contractor shall read and comply with all permit requirements prior to starting construction and shall submit to the Engineer of Record all plans and specifications required to be submitted to the permitting agency by the permittee.

3.5 Contractor's Areas of Responsibility

The Contractor shall be responsible for the twelve elements of the SWPPP, which are:

- a. Mark clearing limits
- b. Establish construction access
- c. Control flow rates
- d. Install sediment controls
- e. Stabilize soils
- f. Protect slopes
- g. Protect drain inlets
- h. Stabilize channels and outlets
- i. Control pollutants
- j. Control de-watering
- k. Maintain BMPs
- l. Manage the project

Inspections

The Contractor shall inspect and maintain all BMPs and areas of exposed soils. He shall conduct joint inspections with the Engineer of Record per Specification Section 310000.

Record Keeping

While following procedures used to maintain, in good and effective operating conditions, vegetation, erosion and sediment control measures, and other protective measures identified in this plan, the Contractor shall keep thorough records of monitoring, inspecting, evaluations, maintenance, and changes to the SWPPP, BMPs, and drawings. The records shall include:

- Inspection Reports
- SWPPP Amendments and the SWPPP Amendment Log
- Corrective Action
- Grading and Stabilization
- Daily Weather Records

Non-Storm-Water Discharges

Groundwater within the project area east of Moose Creek is considered contaminated and cannot be used for dust control or compaction. See Specification 312319 for Dewatering requirements.

END OF ESCP