# Storm Water Pollution Prevention Plan

**DOT&PF Project No. 69844 & 72236**
**Juneau-Glacier Highway**
**Indian Point to Point Louisa**
**Southeast Region**

**Prepared By:**

**Contractor A**
**P.O. Box 100**
**Juneau, AK 99801**

# Contents

## Introduction

We prepared this Storm Water Pollution Prevention Plan (SWPPP) to identify potential sources of pollution due to storm water runoff that may occur during construction, and to designate controls (Best Management Practices or BMPs) we will use to minimize the impact of pollutants. The primary pollutant we expect from construction is sediment from surface erosion of the work area. The terms "we," "our," or "ours" refer to the project's prime contractor.

## 1. Plan Requirements

### *a. Site Description*

**Construction Activity**

The project consists of reconstruction of 2,765 linear feet of existing paved road as well as the construction of 10,059 linear feet of new roadway through virgin forest lands. Major items of work include:

- Clearing and grubbing, 35 acres
- Unclassified excavation, 339,486 cubic yards
- Embankment construction, 157,993 cubic yards
- Subbase grading, 26,000 tons
- Asphalt treated base, 8,700 tons
- Asphalt concrete paving, 8,300 tons
- Culvert pipe installation, 3,722 linear feet
- Installation and maintenance of various types of erosion and sediment control measures
- Guardrail installation
- Highway lighting
- Traffic count system installation

**Sequence of Activities**

We will perform the construction activities in sequence to minimize the area of exposed soils and to construct permanent erosion control measures into the project as soon as possible. Our planned order of activities is:

1. Installation of temporary structural erosion control measures as necessary
2. Clearing and grubbing
3. Roadway construction and grading
4. Construction of permanent drainage structures as necessary
5. Temporary stabilization and seeding in stages as necessary
6. Completion of final paving
7. Final stabilization and final seeding
8. Removal of temporary erosion control measures

**Estimate of Project Areas**

The total estimated area of the construction site is 71 acres. The total estimated area of the construction site (including material and waste disposal sites) to be disturbed by excavation, grading, or other activities is 50 acres. The following is a summary of locations that will contribute to the total areas:

| | Project Area (Acres) | Disturbed Area (Acres) |
|---|---|---|
| Project | 53.5 | 40.0 |
| Material Site "A" (State Supplied) | 5.0 | 2.5 |
| Material Site "B" (Contractor Supplied) | 7.5 | 2.5 |
| Waste Disposal Site "C" (State Supplied) | 5.0 | 5.0 |
| Waste Disposal Site "D" (Contractor Supplied) | N/A | N/A |

**Maps**
Attachment 1 shows a general area location map and a site map indicating:

- Drainage patterns and approximate slopes anticipated after major grading activities
- Locations of all structural and nonstructural controls identified in the plan
- Locations where stabilization activities are expected to occur
- Locations of off-site material, waste, borrow or equipment storage areas, and surface waters, including wetlands, and locations where storm water discharges to a surface water

**Other Discharges**
We anticipate no other discharge associated with industrial activity other than construction.

**Receiving Waters and Wetlands**
The primary receiving waters are Auke-Nu Cove, Indian Cove, and Stephens Passage. Sensitive and non-sensitive wetlands border the entire length of the project area. Fill material will affect approximately 12.5 acres of wetlands. In addition, an existing Wetlands Reclamation Plan will create approximately 1 acre of new wetlands in two locations.

**Impaired Waters**
There are no impaired waters within the project area.

**Waters With Approved And Final Total Maximum Daily Loads (TMDLs)**
There are no waters with approved and final TMDLs within the project area.

**Threatened & Endangered Species**
There are no threatened or endangered species or critical habitat within the project area.

**Historic Places**
There are no historic places within the project area.

**Permit Requirements**
Attachment 3 shows the Storm Water General Permit Requirements.

### *b. Erosion and Sediment Controls (BMPs)*

We will use a number of controls to minimize the amount of sediment present in storm water discharges. Attachment 2 describes selected stabilization, structural, and storm water management controls in detail. The following is a general description of these types of controls:

**Stabilization Controls**
We will:

- Use temporary seeding and permanent seeding to establish vegetative cover and stabilize slopes disturbed by construction activities
- Use hydroseeding as the primary method
- Place erosion control matting in selected locations during seeding to minimize erosion of soils until the permanent vegetative cover is established
- Lay plastic sheeting to temporarily cover and stabilize areas where the ground is disturbed before the placement of matting
- Use riprap to provide stabilization in areas where the soil is extremely saturated and matting may not be effective
- Preserve existing vegetation in selected areas to minimize the extent of disturbed ground and promote infiltration
- Use buffer strips in selected locations to reduce the flow and velocity of surface runoff and provide a natural filter for sediment present in storm water runoff

**Structural Controls**
We will:

- Erect silt fence to retain sediment from disturbed areas and reduce the velocity of sheet flow during construction, and remove it when sediment protection is no longer needed
- Place brush barriers and straw bale barriers for supplemental sediment control in areas where we anticipate heavy sediment loads, and remove them when sediment protection is no longer needed
- Construct temporary check dams (ditch blocks) to reduce the velocity of storm water flows and minimize erosion during construction, and remove them before completion of construction
- Construct permanent check dams (ditch blocks) to control and direct storm water flows into culverts, and leave them in place once construction is complete
- Dig sediment traps to detain storm water runoff from small drainage areas so that sediment can settle out, and fill them in and grade them once construction is complete
- Construct a vehicle tracking entrance/exit to prevent tracking of sediment onto the existing highway, and remove it before completion of construction
- Apply inlet and outlet protection on culvert installations where sediment loads and scour are anticipated
- Remove all inlet protection before the completion of construction, and leave outlet protection in place in selected locations

**Storm Water Management Controls**
We will:

- Construct channels to carry storm water flows from slopes and the roadway surface to a receiving system
- Use three types of channels: ditch lining type "A," ditch lining type "B," and a special ditch, depending on anticipated flows and grades
- Line all channels with riprap to prevent erosion, and leave them in place following construction
- Construct diversion ditches along the crest of slopes in specified areas to channel water and prevent erosion, and remove them when protection is no longer needed
- Use rock flumes where streams will run down a newly cut backslope and line them with riprap. Water will flow down the flume, through a culvert, and down a riprap-lined outlet structure

**Other Controls**
We will:

- Discharge no solid materials into Waters of the United States, except as authorized by a Section 404 permit.
- Dispose of construction wastes in the authorized area on-site
- Provide on-site portable sanitary facilities
- Store equipment fuels, lubricants, and asphalt paving components off-site. The project requires no hazardous materials other than these.
- Respond to any inadvertent spills from fueling or maintenance in accordance with applicable regulations
- Not service or wash equipment within floodplains or within 100 feet of any surface waters

### *c. Maintenance*

We will:

- Maintain all erosion and sediment controls to ensure that they are installed and functioning correctly
- Make all repairs or replacements as soon as practicable, including:
  - ✓ Monitoring sediment control structures (check dams, sediment traps) to ensure continuous structural integrity
  - ✓ Remove excess sediment and place in disposal areas
  - ✓ Repair or replace silt fences, straw bale barriers, and brush barriers if damaged, clogged, or disintegrated
  - ✓ Repair, replace, or re-anchor damaged erosion control matting, as necessary
  - ✓ Clean and regrade any storm water ditches that are filled with sediment

### *d. Inspections*

Our inspector will:

- Perform inspections of all erosion and sediment controls as per specification at least once every seven calendar days and within 24 hours of a storm that produces 0.5 inches or more rainfall over a 24 hour period
- Check disturbed areas exposed to precipitation, all controls, and discharge points for visible signs of erosion and impact to receiving waters
- Record any damages or deficiencies in the control measures on the DOT&PF SWPPP Construction Inspection Report Form 25D-100

We will:

- Correct any damage or deficiencies as soon as practicable after the inspection, but in no case later than seven days after the inspection
- Modify the SWPPP to reflect any changes in condition or location of the controls

### *e. Non-Storm Water Discharges*

Non-storm water discharges will include watering for dust control and aggregate surface compaction effort.

### *f. Contractors and Subcontractors (Responsible Parties)*

- The contractor, who will perform all structural control, other control, storm water management control, and certain stabilization control (erosion control matting, riprap) work, is
  Contractor A
  P.O. Box 100
  Juneau, AK 99801
- The subcontractor who will perform all excavation, embankment, and other earthwork activity is
  Contractor B
  P.O. Box 200
  Juneau, AK 99801
- The subcontractor who will perform all clearing and grubbing work is
  Contractor C
  P.O. Box 300
  Juneau, AK 99801
- The subcontractor who will perform all culvert work is
  Contractor D
  P.O. Box 400
  Juneau, AK 99801
- The subcontractor who will perform all hydroseeding (stabilization control) work is
  Contractor E
  P.O. Box 500
  Juneau, AK 99801

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted, it is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

_____

For Contractor A

(The Department's written approval is required to be included with contractor certification)

## 2. Administrative Requirements

We will comply with all administrative requirements as given in Chapter 3 of the *Alaska Storm Water Pollution Prevention Plan (SWPPP) Guide* (Effective date June 1, 2004) and mandated by the Storm Water General Permit for Large and Small Construction Activities.