



## BC Timber Sales Environmental Management System

### ENVIRONMENTAL FIELD PROCEDURE

## EFP 04 ROADS, BRIDGES AND MAJOR CULVERTS

### Purpose and Scope

This EFP applies to all Licensee, Permittee and Contractor workers involved in road construction, maintenance, inspection and deactivation within the scope of the BCTS EMS. It describes procedures and requirements to minimize impacts of these field activities on the environment. This EFP does not replace the requirements of legislation, licences, permits and contracts.

### Road and Bridge Inspections

1. Understand all applicable inspection and engineering requirements. Know which sites and structures require assessments, and who is qualified to do them. Only conduct assessments that you are qualified to do.
2. Review all relevant assessments before conducting the inspection. Understand those assessments and their management implications.
3. Review or walk the project area, as well as the surrounding area of influence, to ensure complete collection and reporting/mapping of all relevant field information.
4. Understand and use the appropriate inspection form. Record all inspection results, identifying any deficiencies or additional inspection requirements, and submit to the project supervisor.

### Road Construction, Maintenance and Deactivation

1. **Minimize** the impact on water quality and site productivity:
  - Operate during **favourable weather conditions**.
  - Utilize **sediment control** measures as required, including silt fences, hay bales, rock armouring, swales, water bars, or siltation detention ponds as appropriate.
  - **Clean** introduced debris from ditches, streams and culverts on an on-going basis before any impact can occur.
  - **Minimize erosion** potential of exposed soil surfaces by seeding of disturbed areas.
2. When working on crossings, **know the stream classification** and prescription, including timing windows and measures.
3. Install appropriate water control measures on roads at locations where there is a risk of erosion.
4. Ensure that road surface drainage is directed to drainage structures and is not impeded.
5. Avoid placing road material on bridge decks, or in stream channels or flood plains.
6. Avoid directing water onto unstable slopes or erodible soils; direct water to stable slopes and / or armour outfalls with rock.
7. When re-establishing natural drainage patterns during road deactivation, the road fill should be removed down to the natural stream channel. Fill slopes must be left in a stable condition after removal of culverts or other drainage structures.
8. Control blasting to minimize fly-rock damage and slope instability.
9. Know the locations of end-haul and spoil sites – **follow the plan**.
10. Ensure signage or notification requirements are followed.

## **Bridge or Major Culvert Installation, Maintenance and Removal**

1. **Follow the project plan.** If uncertain, contact the project supervisor.
2. Ensure the work complies with timing windows and other specifications.
3. Plan to install culverts in one day if feasible.
4. Pre-mark the inlet and outlet location of all pipes to ensure they fit to the edges of the road prism. Accommodate skew, slope and amount of embedment, as designed.
5. Know the stream classification and prescriptions for the watercourses affected by the works.
6. **Minimize** the impact on water quality and site productivity:
  - Operate during **favourable weather conditions**. Know the project shut-down criteria.
  - Utilize **sediment control** measures as required, including silt fences, hay bales, or siltation ponds as appropriate.
  - **Clean** introduced debris from ditches, streams and culverts on an on-going basis, and before any plugging can occur.
  - **Minimize erosion** potential of exposed soil surfaces by seeding of disturbed areas.
7. Do not place road material on bridge decks, or in stream channels or flood plains. Remove any material inadvertently placed in these areas.
8. Avoid directing water onto unstable slopes or erodable soils; direct water to stable slopes and / or armour outfalls with rock.
9. In non-fish culvert installations, armour the inflows, outflows and fill slopes to minimize erosion, as required.
10. Dispose of wood culvert/bridge debris in designated sites, outside riparian management areas, or according to pre-work instructions.

### **Fire Hazard Assessment**

1. Complete Hazard Assessments at prescribed intervals in accordance with the Wildfire Regulation. If a hazard exists, it must be abated or removed.
2. If burning is part of the project plan, insure required notification is made, approvals received and conditions followed. Ensure burn area is safe from escape and clear of hazardous/sensitive areas.

### **STOP WORK**

#### **And contact your project supervisor or the BCTS representative if:**

- You are uncertain of the project plan, your responsibilities, or hazardous/sensitive areas.
- A previously unidentified cultural or resource feature, value or sensitive area is found.
- You experience unfavourable weather or site conditions that could cause environmental damage.
- You observe conditions that have the potential for immediate environmental damage.
- You feel the proposed project plan will not work to achieve the desired outcomes.