



Okanagan-Columbia

EMS Field Binder

15 April 2021

REMINDER to verify:

- training records up to date?
- have ALL workers had training?
- is it documented?

BCTS – Okanagan-Columbia - EMS Project Binder 2021
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BC Timber Sales - Business Area Environmental Management System (EMS) & Sustainable Forest Management (SFM) external website:
Okanagan-Columbia (TOC)

<https://www2.gov.bc.ca/gov/content/industry/forestry/bc-timber-sales/forest-certification/ems-sfm>

Reporting Invasive Species (ensure you attach a photo):

<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/reporting-invasive-species>

MOBILE APP:

The Report Invasives mobile apps let you report invasive species of plants and animals sightings in B.C. The apps can be used off-line as well; simply complete the report when you are at the invasive species location, click 'Submit' and the report will be sent as soon as you are back in cell coverage.

ONLINE:

<https://forms.gov.bc.ca/industry/report-an-invasive-species/>

Sustainable Forestry Initiative (SFI) Client General Awareness Document

The 2015-2019 SFI Forest Management Standard is based on principles supported by an array of objectives, performance measures and indicators. The purpose of this document is to provide BCTS clients (supervisors/workers) with a general awareness of the principles of the SFI standard, including SFI basic training requirements in a tailgate training format. To learn more about the SFI organization and its standards go to: <http://www.sfiprogram.org/>

Principles of the SFI Forest Management Standard

Sustainable Forestry

- Forest Management is a balance of social, economic and environmental values now and in the future
- Balancing harvesting with the needs of other values like water, plants, animals, and ecological communities and the capacity of the land to grow trees

Forest Productivity and Health

- Protect soils because productive soils support ecological values including growing trees
- Know the applicable soil disturbance limits and use appropriate methods to avoid excessive soil disturbance
- Become familiar with applicable invasive plants in your area and prevent/minimize their introduction and spread
- Prevent forest fires

Protection of Water Resources

- Protect the ecological integrity of rivers, streams, lakes, wetlands and other riparian areas
- Ensure that forest practices do not degrade water quality values through the introduction of soil/silt; petrochemical products like hydraulic fluid, oil, gas, and diesel; and other chemicals used in forest management activities; e.g., herbicides
- Maintain the water's natural drainage patterns to the fullest extent possible and re-establish natural drainage patterns upon completion of forest management activities
- Follow wet weather shutdown procedures where they exist
- Do not disrupt the natural rate and timing of water flow through road construction or other forest management activities
- Follow BCTS Environmental Field Procedures (EFPs) and any local Water Quality Best Management Practices (BMPs) applicable to your forest management activities

Protection of Biological Diversity

- Know that Species at Risk (SAR) include plants, animals, and ecological communities
- Know what SAR exist, or could exist, in areas associated with your forest management activities
- Become familiar with Project Plans for forest operations to understand how to manage for SAR
- Know about and protect biologically significant sites in or around areas of proposed forest management activities; e.g., parks, ecological reserves, old growth management areas, wildlife habitat areas, etc.
- Maintain Wildlife Tree Retention Areas (WTRAs) and other stand-level retention requirements

Aesthetic Values and Recreation

- Implement Project Plans for forest operations to ensure that visual values on the landscape are maintained
- Prevent or mitigate potential negative impacts to recreational opportunities as a result your activities

Protection of Special Sites

- Know about geologically (i.e. Karst) or culturally (i.e. historic, First Nations traditional use) significant sites in or around areas of proposed forest management activities in order to protect their unique qualities
- EFPs require that operators stop work and contact their project supervisor and the BCTS representative if a previously unidentified resource feature, resource value or sensitive area is found.

Efficient Use of Fiber Resources

- Ensure efficient utilization of harvested timber, minimize waste

Recognize and Respect Indigenous Peoples' Rights

- Understand and respect traditional forest-related knowledge, including non-timber forest products of value to indigenous peoples
- Identify and protect spiritually, historically or culturally important sites

Legal and Regulatory Compliance

- Know the laws applicable to your activities (See <http://www.bclaws.ca/legallinks.html>)
- Make sure your activities are consistent with Project Plans that guide your forestry management activities
- Follow applicable Safety/Worksafe BC laws and regulations
 - Be familiar with safety hazards in the workplace, your Emergency Response Plan and Safe Work Procedures
 - Use appropriate Personal Protective Equipment
 - Operate machinery within the bounds of manufacturer's specifications and limitations
 - Be aware of the safety of yourself and your fellow workers at all times
 - Know what safety issues to report (hazards, close calls or accidents)
 - Follow-up with safety corrective actions

Training and Education

- Commit to continuous learning in the areas in which you are involved in forestry activities
- Understand what aspects of your job have the greatest environmental impacts and then learn how to implement new procedures, techniques or technology to minimize potential impacts
- Ensure that supervisors have completed BCTS EMS/SFM Awareness training and show documentation to BCTS
- Train your crews and maintain training records

Continuous Improvement

- Monitor and inspect your work
- Follow-up on corrective and preventative actions
- Participate in internal and external audits
- Report project changes and inconsistent forest practices
- Plan-Do-Check-Respond (Principles of our EMS program)
- Follow EFPs and the environmental Emergency Response Plan (eERP)

If you suspect that forest practices are not meeting the SFI principles you are encouraged to submit a complaint as described on the Western Canadian SFI Implementation Committee (WCSIC) Inconsistent Practices website. To learn more about WCSIC, or how to file a complaint, please refer to the WCSIC 'Procedure for Addressing Allegations of SFI Non-Conformance' at the following web address: <http://www.wcsic.ca/Inconsistent/Practices.php>

BC Timber Sales (BCTS) is committed to managing and administering forest management activities on our operations through effective measures that ensure *sustainable forest management (SFM)*.

It is the policy of BC Timber Sales to:

- ◆ Strive for excellence in forest management by continually improving the performance of resource management activities and practices;
- ◆ Conduct our forest management activities to comply with applicable legislation, regulations, policies and other requirements to which we subscribe;
- ◆ Provide public participation opportunities;
- ◆ Confer with, and provide opportunities for participation by, Indigenous peoples;
- ◆ Respect and recognize Aboriginal title and rights, and treaty rights;
- ◆ Where possible and when provided by Indigenous peoples, incorporate Indigenous Knowledge;
- ◆ Maintain an organizational culture where all staff proactively participate in providing conditions and safeguards for the health and safety of staff, clients and the public;
- ◆ Honour all international agreements and conventions to which Canada is a signatory;
- ◆ Improve knowledge of the forest and SFM, monitor advances in science and technology, and incorporate these advances where applicable;
- ◆ Promote awareness of SFM to our clients and the public.

A handwritten signature in black ink, appearing to read "B. J. Johnston", is positioned above a horizontal line.

Executive Director
BC Timber Sales

October 19, 2020



The British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development, BC Timber Sales Program (BCTS) manages and administers timber harvesting and related forest management activities on BCTS timber sale licences and related tenures on Crown forestland throughout British Columbia.

It is the policy of BC Timber Sales to:

- ◆ Strive for excellence in forest management by continually improving the performance of resource management activities and practices;
- ◆ Comply with all applicable environmental legislation, regulations and the other requirements to which we subscribe;
- ◆ Maintain a framework that sets and reviews environmental objectives and targets, and minimizes adverse impacts associated with BCTS forestry activities;
- ◆ Monitor and evaluate BCTS forestry operations;
- ◆ Communicate BCTS business activities and policies to all staff and make them available to the public.

A handwritten signature in dark ink, appearing to read "B. J. Jackson".

Executive Director
BC Timber Sales

October 19, 2020

BC Timber Sales Table 008-1 LPC Training Matrix

Training Course Name		Target Audience Rationale to support retraining frequency & degree of training recommended	Training Source	Training/Awareness Content
WHMIS		Target Audience: <ul style="list-style-type: none">All worker(s) that handle any hazardous substance	Online or approved course	As per Hazardous Product Act (HPA) and Regulations Workplace Hazardous Materials Information System (WHMIS)
Road Construction Initiated Slides		Target Audience: <ul style="list-style-type: none">All road construction supervisors and equipment operators constructing a road in a forestry operation where a risk of landslide has been identified.	BC Forest Safety Council Operator Awareness video: Link	As per BC Forest Safety Councils Construction Initiated Slide Task Team (worker safety, site conditions, construction techniques, operating plans, indicators)
S100 and S100A		Target Audience: <ul style="list-style-type: none">All workers carrying out an industrial activity, when there is a risk of a fire starting, must have current S-100 certification (See BCTS LPC eERP Part C for Forest Fire Preparedness and Response procedures)For Planting, when there is a risk of fire starting, at a minimum all supervisors must have current S-100 certification, and for every 10 workers an additional S-100 certified person (may be a supervisor) is required. Note: All workers required to carry out fire control must have current S-100 certification.Consulting services work is generally considered to be a low risk activity. Only supervisors or workers who conduct fire control activities must have current S-100 certification.NOTE: To conduct fire control activities you must have current S-100 certification	Online or BC Wildfire Service approved trainers	Fire Safety Training and Suppression
BCTS LPC EMS/SFM Awareness Training		Target Audience: Supervisors or designated alternates Rationale: Supervisors are responsible for ensuring they are knowledgeable in the BCTS EMS and SFM programs and are able to provide appropriate direction to LPC staff	BCTS on-line training at Link or Business Area approved trainer (where available).	Formal training, documentation must be supplied to BCTS to verify certification.
BCTS EMS Tailgate Training		Target Audience: Workers Rationale: General awareness of BCTS EMS	Can be delivered by supervisor or worker with BCTS LPC EMS/SFM Awareness Training certificate. Records must be maintained for BCTS verification	Per BCTS training materials
Transportation of Dangerous Goods		Target Audience: Anyone handling or transporting class 3 dangerous goods in quantities greater than 2000 litres (i.e. single or aggregate quantities)	Online or approved course	As per Transportation of Dangerous Goods Act Link and Regulations Link
SFM AWARENESS	SFI Client General Awareness	Target Audience: Supervisors and workers Rationale: Supervisors to be knowledgeable in BCTS SFM programs and are able to provide appropriate direction to LPC staff. Workers are to understand the basic elements of SFM.	Supplied by local Business Areas to Supervisors. Supervisors to review with Workers	Per BCTS SFM general awareness document or other material
	Species at Risk (SAR)	Target Audience: Supervisors and workers Rationale: Supervisors are to be knowledgeable in the BCTS SAR programs, Invasive species strategy and the Migratory Bird program. Workers are to have awareness relevant to their responsibilities in all programs	Supplied by local Business Areas to Supervisors Supervisors to review with Workers	* Knowledge of basic legal requirement * Knowledge of SAR, IS, and Migratory Birds relevant (or potentially relevant) to the project area. * Knowledge of applicable management objectives and appropriate measures and practices relevant to the project. * Knowledge of procedures to be followed in the event the operational plan is not clear or does not address a new species or feature. * Local BAs may have other programs or objectives that may require awareness.
	Invasive Species (IS)	*NOTE: Multi-phase and development contractors may require a higher degree of training (obtained either internally or externally at the BA’s discretion) if they are required to identify species and develop management prescriptions for plants and/or animals under these programs		
	Migratory Birds			

Truck Drivers and suppliers are required to have general emergency response awareness (review of the onsite Environmental Emergency Response Plan). No documentation is required.

As per TSL and contract document(s) and environmental Emergency Response Plan (eERP), a licensee / contractor must conduct tests and periodic drills for emergency preparedness, including documenting the results, action taken and follow-up of such tests or drills.

Note: Tests are to be documented on the BCTS “Environmental Emergency Response Test/Drill Report Form CHK-010”, records maintained on site and copies of results forwarded to a BCTS representative. Results of drills may be documented on the CHK-010 and maintained on site.

Ensure a copy of the eERP is on hand and reviewed for effectiveness during tests or drill exercises.

Test – a comprehensive testing of the environmental emergency response procedures to ensure that they are adequate to address emergency events. This includes full, hands on scenario testing of equipment, communications, and procedures as outlined in the eERP.

Drill – a due diligence exercise to ensure that onsite personnel have adequate levels of comprehension and awareness of environmental emergency preparedness and response procedures. This involves a demonstration of workers level of knowledge and training, this may include:

- Review of eERP procedures,
- Employee interview,
- Equipment testing,
- Review of onsite ER equipment.

Spill Emergency Response Test Example

Record Steps and Sequence on CHK-010

Example Scenario: For Diesel, Hydraulic Material

Scenario: a piece of heavy equipment parked on the side of the road has leaked oil into a nearby ditch. Arriving on the scene, workers see the oil heading toward a nearby stream.

How to set up for a test: explain the scene to the participants and let them give feedback on what response steps should be taken to avoid further contamination. Use a pail of water and popcorn - create the spill and let the workers respond accordingly.

Suggested steps & sequence

1	Recognize the problem, & evaluate hazards	<ul style="list-style-type: none"> Identify type of material spilled & volume Identify & Evaluate potential problems that may be encountered in control, containment & cleanup Refer to the MSDS for the material spilled Have fire extinguishers available if there is a risk of fire
2	Take Control	<ul style="list-style-type: none"> Stop Operations & shut off equipment If safe, remove any sources of spark or flame Ensure supervisor & fellow workers are notified Stop the source of the spill where possible
3	Contain the spill	<ul style="list-style-type: none"> Blocking flow (use spill pads, buckets, booms, absorbents, snow, or soil to make a berm) Use resources at hand to minimize spread and impact of the spill until additional resources & expertise arrive Use available equipment to create a barrier or berm
4	Commence recovery of the spilled material	<ul style="list-style-type: none"> Soak up all free product with available materials Mix stained soil with loose absorbents or commercial bioremediation agents < 25 liters – low risk: Mop up excess fluids with spill pads/ booms and place in container/plastic bag for disposal > 25 liters – high-risk: Do initial mop up with available materials. Contact Spill specialist for further instructions
5	Report the Spill to appropriate personnel	<ul style="list-style-type: none"> Low risk spill (< 25L & not in water): report to your immediate supervisor High risk spill (> 25L or in water): report to supervisor, PEP, (only if greater than 100 liters), Spill Response Specialist, BCTS rep, Gov’t agency or other
6	Complete an Incident Report	<ul style="list-style-type: none"> For the purposes of the exercise review required incident reporting requirements only and copy to your files and BCTS rep.

Fire Emergency Response Test Example *Record Steps and Sequence on CHK-010*

Example Scenario

Scenario: a worker discovers a small fire (lightning strike) at the edge of cut block that has almost spread into the standing timber.

How to set up for a test: explain the scene to the participants and let them give feedback on what response steps should be taken to combat this fire. Mark the area that is on "fire" with highly visible flagging tape. Instruct the participants as to the nature of the fire and allow them to respond.

Suggested steps & sequence

1	STOP operations	<ul style="list-style-type: none"> Notify supervisor & all personnel in the immediate area
2	Report the fire to appropriate authorities	<ul style="list-style-type: none"> BC Wildfire Reporting 1-800-663-5555 as per ERP Immediate Supervisor BCTS Rep
3	Assess the hazard and the safety risk,	<ul style="list-style-type: none"> Consider; fire size, behavior, crew experience, training, available equipment, site and weather conditions
4	Develop a plan for initial attack	<ul style="list-style-type: none"> The supervisor should determine the method of initial response, equipment, and personnel required
5	Provide direction/instruction to the fire fighting crew	<ul style="list-style-type: none"> Dispatch personnel to mobilize the equipment Alert the crew to the potential hazards, and provide any immediate instruction necessary to ensure their safety
6	Commence initial response on the fire	<ul style="list-style-type: none"> Response level based on: fire size, behavior, crew experience, training and available equipment The supervisor holder will monitor the fire fighting efforts until relieved by a higher authority or another trained suppression worker
7	Complete mop up with appropriate personnel	<ul style="list-style-type: none"> Mop up will be performed under the direction of a qualified supervisor or fire official.
8	Complete an Incident Report	<ul style="list-style-type: none"> For the purposes of the exercise review required incident reporting requirements only and copy to your files and BCTS rep.

Landslide/Erosion Emergency Response Test Example *Record Steps and Sequence on CHK-010*

Example Scenario

Scenario: a landslide has closed the mainline leading to the worksite. It is late afternoon when the road closure is discovered and the crew is stranded.

How to set up for a test: explain the scene to the participants and let them give feedback on what response steps should be taken to evacuate the crew and ensure safety.

Suggested steps & sequence

1	Assess the hazard and the safety risk	<ul style="list-style-type: none"> Evaluate the size and impact of the erosion event Warn others in the immediate area of any safety hazards and secure the zone from further entry if possible
2	Develop a plan of evacuation	<ul style="list-style-type: none"> If required the Supervisor will devise a plan to evacuate the crew in a safe manner If require; workers to be mustered into a safe zone while awaiting evacuation
3	Report the event to appropriate authorities	<ul style="list-style-type: none"> Notify your immediate supervisor Notify your BCTS representative for further instruction
4	Take remedial action	<ul style="list-style-type: none"> Take steps to control further environmental impacts Use heavy equipment to remove the slide or to make an emergency access
5	Complete an Incident Report	<ul style="list-style-type: none"> .For the purposes of the exercise review required incident reporting requirements only and copy to your files and BCTS rep.



BC Timber Sales Environmental Management System
ENVIRONMENTAL OPERATING PROCEDURE
EMS Incident Reporting and Investigation

Revised: December 8, 2020

Okanagan-Columbia TOC

EOP - 04

PURPOSE

To outline BCTS staff procedures and responsibilities for EMS incident reporting and investigation.

SCOPE

This environmental operating procedure (EOP) applies to all significant environmental events associated with activities/operations within the BCTS EMS scope including; harvesting, silviculture, access and planning.

EMS INCIDENT REPORTING REQUIREMENTS:		Reportable Levels (to be reported as soon as possible and within 24 hours)																																				
Emergency Response Incidents <ul style="list-style-type: none">Fire: Any uncontrolled fire related to BCTS activitiesSpills: any spill exceeding BCTS reportable levels or any amount spilled into or immediately adjacent to a stream, lake or running water.Erosion/Landslide events: any emergency situations or potential emergency exists, abnormal movement has or is occurring, abnormal sedimentation, a volume of material greater than 250 m3 has moved or is at imminent risk of movement, or a land area greater than 0.25 ha is disturbed through erosion processes Potential Non-Compliance: <ul style="list-style-type: none">In the opinion of the person reporting, <u>legislation and regulation has been violated</u> and there may be an agency investigation to determine fact and possible enforcement action.Examples include:<ul style="list-style-type: none">Failure to maintain natural drainage patternsUnauthorized harvestFailing to meet silviculture obligationsCompliance Actions, Enforcement Actions and/or;Government Statutory Obligations issued by C&E. Significant Non-conformance: <ul style="list-style-type: none">An occurrence or event that <u>has or will likely result</u> in a negative environmental impact <u>and cannot</u> be immediately rectified.Where the EMS program has been severely compromised and/or;A "Notice to Comply" has been issued at the discretion of local managementThis includes repeated non-conformances that may become significant. Other Incident: <ul style="list-style-type: none">Used to capture Public / Client complaints	<table><tr><th>Substances</th><th>BCTS</th><th>EMBC</th></tr><tr><td>Antifreeze</td><td>25 litres</td><td>25 litres</td></tr><tr><td>Diesel fuel</td><td>25 litres</td><td>100 litres</td></tr><tr><td>Gasoline (auto & saw)</td><td>25 litres</td><td>100 litres</td></tr><tr><td>Greases</td><td>25 litres</td><td>100 litres</td></tr><tr><td>Hydraulic Oil</td><td>25 litres</td><td>100 litres</td></tr><tr><td>Lubricating Oils</td><td>25 litres</td><td>100 litres</td></tr><tr><td>Methyl Hydrate</td><td>5 litres</td><td>5 litres</td></tr><tr><td>Paints & Paint Thinners</td><td>25 litres</td><td>100 litres</td></tr><tr><td>Solvents</td><td>25 litres</td><td>100 litres</td></tr><tr><td>Pesticides</td><td>1 kg or 1 litre</td><td>1 kg or 1 litre</td></tr><tr><td>Explosives</td><td>Any</td><td>Any</td></tr></table>		Substances	BCTS	EMBC	Antifreeze	25 litres	25 litres	Diesel fuel	25 litres	100 litres	Gasoline (auto & saw)	25 litres	100 litres	Greases	25 litres	100 litres	Hydraulic Oil	25 litres	100 litres	Lubricating Oils	25 litres	100 litres	Methyl Hydrate	5 litres	5 litres	Paints & Paint Thinners	25 litres	100 litres	Solvents	25 litres	100 litres	Pesticides	1 kg or 1 litre	1 kg or 1 litre	Explosives	Any	Any
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PROCEDURE:		RESPONSIBILITY																																				
REPORTING	Identification of reportable EMS incident. <ul style="list-style-type: none">Incidents not meeting above definitions are tracked at the inspection report level only (ie CHK-005, 006, 007, 008, 011).	<ul style="list-style-type: none">Field staffLPC																																				
	Field staff receives or completes incident report including Part A CHK-009. <ul style="list-style-type: none">Reports incident to both their supervisor and Certification Standards Officer no later than 48hrs after incident occurrenceCreates incident folder on common drive (G:\BCTS\EMS SFM - USE THIS ONE\INCIDENTS) with current incident documentation (ie CHK-009, photos, emails, etc)	<ul style="list-style-type: none">Field staff																																				
	If Emergency Response Incident: <ul style="list-style-type: none">Ensure appropriate agencies have been notified and ensure the reporting Licensee / Permittee / Contractor or BCTS staff member has followed the requirements of the eERP such as: initial response action, agency reporting and follow-up.Ensure any immediate actions required to address the site-specific issues have been initiated	<ul style="list-style-type: none">Field staffStaff SupervisorsWoodlands Manager																																				
INVESTIGATION	Conduct Incident Investigation to determine root cause and assess: <ul style="list-style-type: none">Immediate actions undertaken and proposed to be undertaken to address impacts.Details of the incident including a timeline, contributing factors and root cause(s).Adequacy of response measures, including training, equipment capabilities, procedures, etc.Licensee, Permittee, Contractor, and company conformance to procedures or instructions.Control of impact, including timeliness of response	<ul style="list-style-type: none">Field staffStaff SupervisorsCertification Standards OfficerWoodlands Manager																																				
	Develop recommendations for corrective and preventative actions and appropriate action plans identifying: <ul style="list-style-type: none">Immediate actions to be undertaken to address impacts.Additional actions required to address root cause(s).Responsibilities, timelines, and verification of completion of actions.	<ul style="list-style-type: none">Field staffStaff SupervisorsCertification Standards Officer																																				

ITS/Action Plan DATA & CLOSURE	Complete Part B of the Incident Report Form CHK-009. <ul style="list-style-type: none"> • Ensure details of investigation are accurately described • File new information incident folder on common drive (G:\BCTS\EMS SFM - USE THIS ONE\INCIDENTS) with current incident documentation (ie CHK-009, photos, emails, etc) 	<ul style="list-style-type: none"> • Field staff • Staff Supervisors
	Enter incident into the EMS Incident Tracking System (ITS). Refer to the Certification Module Supplementary User Guide for additional information. <ul style="list-style-type: none"> • Ensure documentation is complete in incident folder 	<ul style="list-style-type: none"> • Certification Standards Officer
	Review root cause, corrective and preventative actions to ensure they address: impacts, root cause(s), responsibility, timelines, verification of completion of the various actions <ul style="list-style-type: none"> • Follow up on any outstanding actions or documents • Recommend incident closure in ITS to OMT 	<ul style="list-style-type: none"> • Local EMS Committee • Certification Standards Officer
	Obtain Timber Sales Manager or designate approval. <ul style="list-style-type: none"> • Review incident, root cause, action plans with Operations Management Team • Document approval signature on CHK-009b (TOC EMSC Incident Review Form) 	<ul style="list-style-type: none"> • Certification Standards Officer • OMT
	Implement corrective and preventative action plans. <ul style="list-style-type: none"> • Follow-up on any open action plans • Update incident folder with any new documentation • Close action plans in ITS 	<ul style="list-style-type: none"> • Field staff • Certification Standards Officer

Refer to the Certification Module Supplementary User Guide for additional information.

Purpose and Scope

This EFP applies to all BCTS Licensees, Permittees and Contractors, including their employees, agents, and subcontractors, involved in field activities within the scope of the BCTS EMS. It describes procedures to reduce the risk of negative impacts on the environment. This EFP does not replace the requirements of legislation, licences, permits and contracts.

General Procedures

- Complete a **pre-work** with your supervisor.
 - Obtain and review all Project Plan documents (e.g. harvest plan, harvest plan map, site plan supporting information, road layout and design and silvicultural treatment plans). Have them readily available.
 - Ensure you understand **your role** in the Project Plan prior to commencing work, and
 - Know the **flagging or field marking** standards.
- **Look ahead** and make sure that the Project Plan is appropriate.
 - **View the area** to familiarize yourself with the Project Plan, including map content.
- Ensure that all **resource features, resource values or sensitive areas** identified on the Project Plan map can be located by you on the ground. Know the associated management strategies.
- **Monitor and inspect your work** and ensure that the work conforms to the project requirements.
 - Conduct operations to minimize potential impacts on hazardous or sensitive areas, resource features, resource values, water quality, and site productivity, and
 - Operate during favourable weather conditions.
- Have the Project Plan map available to you and **know your location** at all times. **Keep the site clean and be prepared for emergencies.**
 - Inspect equipment regularly and repair/maintain equipment as required.
 - Maintain fire suppression equipment and spill kits, replace used supplies promptly.
 - Ensure the safe transportation, storage and handling of industrial waste, (petroleum and chemical products, grease tubes, filters, batteries, coolant, wire rope, used spill pads etc.). Dispose of industrial waste only at appropriate disposal facilities, and
 - Understand the environmental Emergency Response Plan (eERP) and your responsibilities in it.
- **Know the project shutdown criteria.**



STOP WORK and contact your project supervisor and the BCTS representative if:

- You are uncertain of the Project Plan, your responsibilities, or the location of hazardous/sensitive areas.
- A previously unidentified resource feature, resource value (e.g. cultural) 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 believe the Project Plan will not work.

Purpose and Scope

This EFP applies to all BCTS Licensees, Permittees and Contractors, including their employees, agents, and subcontractors, who are responsible for supervising field activities within the scope of the BCTS EMS. It describes the supervisors' responsibilities to prepare and supervise workers in such a manner as to reduce the risk of negative environmental impacts. This EFP does not replace the requirements of legislation, licences, permits and contracts.

Pre-work

1. **Complete a pre-work** with **your supervisor** and/or the BCTS representative. Understand the information that is provided on the relevant pre-work checklist. Ensure you obtain all information required to supervise the project and to prepare you for any emergencies.
2. **Prepare for, complete and document a pre-work with all employees, agents and sub-contractors** involved in the project before the work commences:
 - **Review relevant project information** including contract, licence, permit, map, Project Plan, field marking, prescriptions, special conditions, requirements and specifications. Review environmental field procedures, environmental emergency response plans and any resource features, resource values, sensitive areas, and special conditions.
 - **Provide** copies of Project Plans and maps to workers.
 - **View** the site with employees to familiarize them with resource features, resource values, sensitive areas, and special conditions, as relevant to their function and activity.
 - **Document** your pre-work discussion with your workers and record the names of attendees. A copy of the BCTS Prewrite Report that was completed with you by BCTS can be used for this purpose.
 - **Ensure all stakeholders are notified as required** (e.g. affected water licensees or purveyors, trappers, guides, lodges, residents etc.).
 - **Additional pre-works** may be required if work has been shut down for an extended period of time (90 calendar days or more e.g. seasonal, fire, operational restrictions, economics etc.)

While supervising, ensure you:

1. **Have a Project Plan.**
2. **Look ahead** to make sure Project Plans will work.
 - Ensure that all **resource features, resource values or sensitive areas** identified on the Project Plan map can be located by you on the ground. Know the associated management strategies and communicate those to workers.
 - Document any previously unidentified resource features, resource values or sensitive areas found by you or the workers. Identify them on the Project Plan map and report them to your supervisor and the BCTS representative.
3. **Assess** need for changes to Project Plan(s). Licensees and Permittees must amend Project Plan(s) before conducting primary forest activities in a way that is different from what is described in the plan.
4. **Know and follow** all EFP requirements.

While supervising, ensure all employees:

1. **Understand** their roles and responsibilities and:
 - Have received all necessary information and instructions,
 - Have relevant EFPs available to them, and follow the requirements of the EFPs, and
 - Have relevant Project Plans available to them and understand their associated requirements.
2. **Notify** you of:
 - Any planned works that do not conform to the Project Plan(s), prior to those works being conducted, and
 - Any situations that have caused or have the potential to cause environmental damage.

Monitor and Inspect the Works:

1. Monitor and inspect current and completed works.

- Review relevant items, including:
 - Conformance to the Project Plan;
 - Conformance to EMS / SFM requirements (e.g. EMS training completed and documented, pre-work(s) completed and documented, eERP completed, implemented and on-site, EFPs followed and onsite, etc.) and SFMPs;
 - Licence, permit and/or contract conditions;
 - Compliance with legislation (e.g. Forest and Range Practices Act (FRPA), Wildfire Act, Forest Act, Transportation of Dangerous Goods Act (TDG), etc.); and
 - Safety requirements.
- Any potential non-compliances are to be reported to the appropriate agency and BCTS,
- Identified non-conformances and potential non-compliances are to be assigned corrections and corrective action(s), and
- Follow-up on any corrections and corrective action(s) identified in previous inspection(s) completed by BCTS or the LPC Supervisor to ensure they have been carried out.

2. At a frequency provided at the BCTS pre-work, conduct self-inspections of the work. Document and file the results of the inspection and provide copies, as requested, to BCTS. The BCTS Client Self Inspection Report can be used for this purpose.

3. Complete an inspection(s) and notify BCTS prior to demobilization and prior to any extended periods of shutdown (more than 90 calendar days) such as for seasonal, fire, operational restrictions, economics etc. to ensure that the project area (licence, permit or contract area) is left in a state that the risk of a negative environmental impact is low. If any deficiencies are found such as inadequate water control (e.g. blocked ditches, culverts not installed), ensure corrections and corrective actions are carried out prior to the shutdown of operations.

Manage Documentation:

1. Keep required documentation onsite:

- BCTS pre-work report, and records of your pre-works with workers,
- Project Plans and other materials provided at the pre-work,
- Environmental Emergency Response Plan (eERP) available to all workers,
- EFPs available to workers as relevant to their activities,
- BCTS inspection reports and your self-inspection reports,
- Completed Incident Report forms for any incidents that have occurred during the work, and
- Training records and completed emergency response test reports.

2. Provide records for review upon request by BCTS.

In the case of an emergency or environmental damage:

1. Follow the eERP, including reporting to BCTS and external agencies.
2. Complete an Incident Report Form (CHK-009 or equivalent) and provide a copy to BCTS for required types of incidents. Ensure that corrections and corrective actions that are to be taken to address the incident are completed and followed up on.



STOP WORK

and contact your project supervisor and the BCTS representative if:

- You are uncertain of the Project Plan, your responsibilities or the location of hazardous/sensitive areas.
- A previously unidentified resource feature, resource value (e.g. cultural) 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 believe the Project Plan will not work.

Purpose and Scope

This EFP applies to all BCTS Licensees, Permittees and Contractors, including their employees, agents, and subcontractors, involved in development and planning activities within the scope of the BCTS EMS. It describes procedures to reduce the risk of negative impacts of these activities on the environment. This EFP does not replace the requirements of legislation, licences, permits and contracts.

Preparation

- Ensure that you have copies of and are familiar with all **standards, guidebooks, operational plans and other information** relevant to the scope of work.
- Ensure that all **required assessments have been identified**, and that personnel with appropriate qualifications will complete these assessments.
- At the **pre-work meeting**, discuss details of project approach, designs, layouts, or other Project Plan requirements including the ability to make changes.

Field Work

- **When conducting field work**, ensure that you:
 - Have copies of any relevant plans that relate to the project area;
 - Consider all comments from First Nations, stakeholders and other agencies;
 - Follow field marking standards; and
 - Note any discrepancies between the plans and the conditions in the field.
- **Consider potential longer-term implications** of the planned work, such as providing future access. If you are not sure about possible longer-term requirements, ask your supervisor for direction.
- **Look at all options** for roads, bridges, and culverts to ensure that they are placed in the best location. Know when you can vary from specifications provided by BCTS, and when you must request approvals.

Completion

- Ensure the following information and requirements, as applicable, are correctly identified and **incorporated into all layout and design work**:
 - FSP information, Site Plan content, and any amendments;
 - Applicable engineering, mapping, boundary, and field marking requirements;
 - Any key points noted during reconnaissance;
 - The location of streams, terrain, and other important features including wildlife tree retention areas and reserves;
 - Any measures to ensure the stability of areas having a moderate or high likelihood of landslides;
 - Road or cutblock boundary(s);
 - Location of end-haul sections, spoil sites and quarry/pits; properly classified soils/rock;
 - Right-of-way design and markings, including landing size and location;
 - Any necessary trails;
 - The harvesting system planned to be used; and
 - Appropriate referencing (photo ties, reference points etc.).

- Ensure **major crossing** site plans are identified and/or completed.
- **Ensure all work is in conformance with applicable requirements.**
- **If you have any concerns** about potential environmental impacts relating to this information and the associated prescriptions, contact your supervisor.



STOP WORK

and contact your project supervisor and the BCTS representative if:

- You are uncertain of the Project Plan, your responsibilities, or the location of hazardous/sensitive areas.
- A previously unidentified resource feature, resource value (e.g. cultural) 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 believe the Project Plan will not work.

Purpose and Scope

This EFP applies to all BCTS Licensees, Permittees and Contractors, including their employees, agents, and subcontractors, involved in road, bridge and major culvert construction, maintenance, inspection and deactivation within the scope of the BCTS EMS. It describes procedures to reduce the risk of negative impacts of these field activities on the environment. This EFP does not replace the requirements of legislation, licences, permits and contracts.

Road, Bridge and Major Culvert 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. **Have a Project Plan.**
2. **Construct and maintain** the road to ensure the structural integrity of the road prism and clearing width are protected, the drainage systems are functional and the road can be used safely by industrial users.
3. **Maintain** natural surface drainage patterns.
4. **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 sediment ponds as appropriate,
 - **Clean** introduced debris from ditches, streams and culverts on an on-going basis before any impact can occur, and
 - **Minimize erosion** potential of exposed soil surfaces by seeding of disturbed areas.
5. When working on crossings, **know the stream classification** and prescription, including timing windows and other specifications.
6. **Install** appropriate water control measures on roads at locations where there is a risk of erosion.
7. Ensure that **road surface drainage** is directed to drainage structures and is not impeded.
8. **Avoid** directing water onto unstable slopes or erodible soils; direct water to stable slopes and / or armour outfalls with rock.
9. When re-establishing natural drainage patterns during **road deactivation**, the road fill should be removed down to the natural ground level. Cut and fill slopes must be left in a stable condition.
10. **Control** blasting to minimize fly-rock damage and slope instability.
11. **Know** the locations of end-haul and spoil sites.
12. Ensure **signage and notification requirements** are followed.

Bridge or Major Culvert Installation, Maintenance and Removal

1. **Have a Project Plan.**
2. **Construct and maintain** bridges and major culverts associated with the road so that they are structurally sound and safe for use by industrial users.
3. Ensure the work complies with **timing windows** and other specifications.
4. **Know** the stream classification and prescriptions for the watercourses affected by the works.
5. **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 sediment ponds as appropriate,
 - **Clean** introduced debris from ditches, streams and culverts on an on-going basis, and before any blockages can occur, and
 - **Minimize erosion** potential of exposed soil surfaces by seeding of disturbed areas.
6. Avoid placing **erodible materials** on bridge decks, in stream channels or on flood plains.
7. Avoid **directing water** onto unstable slopes or erodible soils; direct water to stable slopes and / or armour outfalls with rock.
8. **Armour** culvert inflows, outflows and fill slopes to minimize erosion, as required. It is a good practice to pre-mark inlet and outlet culvert locations to ensure appropriate road prism fit. Culvert installation should consider skew, slope and % of embedment as designed.
9. **Dispose** of wood culvert/bridge debris in designated sites, outside riparian management areas, or according to pre-work instructions.
10. Prepare professional conformance/assurance statements as required.

Fire Hazard Assessment and Abatement

1. Complete **Hazard Assessments** at prescribed intervals and complete abatement, if required, in accordance with the Wildfire Act and Regulation.
2. If burning is part of the plan for abatement, ensure required **notification** is made, **approvals** received and **conditions** followed. Ensure burn area is safe from escape and clear of hazardous or sensitive areas. Monitor burned sites for extinguishment.



STOP WORK

and contact your project supervisor and the BCTS representative if:

- You are uncertain of the Project Plan, your responsibilities, or the location of hazardous/sensitive areas.
- A previously unidentified resource feature, resource value (e.g. cultural) 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 believe the Project Plan will not work.

Purpose and Scope

This EFP applies to all BCTS Licensees, Permittees and Contractors, including their employees, agents, and subcontractors, involved in all phases of harvesting within the scope of the BCTS EMS. It describes procedures to reduce the risk of negative impacts of these field activities on the environment. This EFP does not replace the requirements of legislation, licences, permits and contracts.

Falling

1. **Have a Project Plan.**
2. **Fall next to boundaries** only when boundaries are clearly visible (know where they are).
3. **Use extra caution** when falling adjacent to boundaries and reserves, to minimize damage to standing trees and protect resource features, resource values (e.g. cultural) and sensitive areas.
4. **Follow** stream prescriptions when falling, limbing and bucking adjacent to watercourses.
5. **Know** which streams and gullies require cleaning.
6. **Know** leave-tree, stubbing and retention requirements, and **monitor** your progress to ensure you meet the requirements.

Yarding, Skidding and Forwarding

1. **Have a Project Plan.**
2. If yarding or skidding in steep or gullied terrain, ensure that you **implement** yarding/skidding strategies to minimize impacts to soil productivity and water quality.
3. **Use appropriate methods** to minimize damage to reserve trees (e.g. dispersed retention trees, retention tree patches, etc.).
4. **Know the applicable soil disturbance limits and use appropriate methods** to avoid excessive soil disturbance (e.g. temporary access structures, gouges, ruts, scalps and compacted areas).
5. **Operate** during favourable weather and site conditions.
6. **Know** the stream classifications and implement riparian management area requirements (e.g. machine free zones, riparian reserve zones, stream cleaning, etc.) for the watercourses identified in the Project Plan.
7. **Rehabilitate** excavated and bladed trails, temporary roads, landings, etc., as required. Ensure that rehabilitation activities maintain natural drainage patterns.

Loading, Processing and Hauling

1. **Have a Project Plan.**
2. **Minimize** decking impacts to standing timber and riparian management areas.
3. **Report** to the project supervisor any road conditions which may adversely affect the environment (e.g. siltation of streams, lakes or other water bodies, or deterioration of the road).

Fire Hazard Assessment and Abatement

1. **Complete** Hazard Assessments at prescribed intervals and complete abatement, if required, in accordance with the Wildfire Act and Regulation.
2. If burning is part of the plan for abatement, ensure required **notification** is made, approvals received and conditions followed. Ensure burn area is safe from escape and avoids hazardous or sensitive areas. Monitor burned sites for extinguishment.



STOP WORK

and contact your project supervisor and the BCTS representative if:

- You are uncertain of the Project Plan, your responsibilities, or the location of hazardous/sensitive areas.
- A previously unidentified resource feature, resource value (e.g. cultural) 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 believe the Project Plan will not work.



BC Timber Sales
Environmental Management System
ENVIRONMENTAL FIELD PROCEDURE
EFP 06 FUEL HANDLING

Purpose and Scope

This Environmental Field Procedure (EFP) applies to all BCTS clients (Licensee, Permittee and Contractor workers) and BCTS staff who are responsible for fuel handling within the scope of BCTS EMS program. The purpose of this document is to bring together legislative requirements, industrial standards, and best management practices as it relates to fuel handling, storage, and transportation. The primary fuel used within the forest industry is diesel fuel (UN1202) found under Class 3, Flammable Liquids. This EFP is intended to help promote good fuel management and is not intended to supersede legislative requirements or criteria. Applicable Acts and Regulations include: Transportation of Dangerous Goods Act and Regulations, BC Motor Vehicle Act and Regulations, Environmental Management Act and Regulations, Hazardous Products Act and Regulation, Contaminated Sites Act and Regulations, Workers' Compensation Act and OHS Regulations.

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3	Large Mobile Tanks >450 L to ≤3000L Ancillary tank typically located in the box of a pickup truck used to transport, store, and dispense fuel	4
4	Highway Tanks & TC Portable Tanks, generally >3000L Used to transport fuel. Sometimes used to store and dispense fuel.	5
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6	Definition of Terms In an effort to keep this document short and to the point, some terms and clauses were used that may require further explanation or interpretation. The Definition of Terms is also used to provide examples. Transport Canada contact information	7 to 9 9
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2021 Changes in Red Text

BC Timber Sales Environmental Management System ENVIRONMENTAL FIELD PROCEDURE EFP 06 FUEL HANDLING

TABLE #1 SMALL FUEL CONTAINERS (Volumes <230L) Drums, Jerry Cans, Pails, Canisters			Legend		
			☐ Legal Requirement ☒ BCTS Requirement		
TYPE	CONDITION, DESIGN & MAINTENANCE	STORING & SECURING	DISPENSING	TRANSPORT (see column 2 for securing details)	PREVENTION & RESPONSE
SMALL FUEL CONTAINERS (Volumes < 230L)	<ul style="list-style-type: none"> ■ Must be designed, constructed, filled, closed, secured and maintained so under normal conditions of handling and transport there will be no accidental release of dangerous goods that would endanger public or worker safety. ✓ Containers must be in good condition – not damaged, rusting or leaking. ■ Jerry cans (<150L) have a lifespan of 60 months from date of manufacture but may be used for 120 months if: <ul style="list-style-type: none"> --Jerry cans are part of a fleet registered with TC; --Used only for Class 3, PGII or PGIII products; --Not damaged, cracked, deformed or leaking ■ Drums (≥ 150 L) are designed for one-time use & require reconditioning prior to use. Designed, constructed and maintained in good condition to securely contain product. <p>Construction Standard</p> <ul style="list-style-type: none"> ■ TP 14850 (2018) are Small Containers for TDG ≤450L. ■ CSA B376 (2014) are Portable Containers for Gasoline and Other Petroleum ≤ 25 L. ■ ULC/ORD – C30 are Safety Containers >5L and ≤ 25L. <ul style="list-style-type: none"> ■ Containers less than 30 liters are exempt from TDG requirements but are still governed under WHMIS. <p>Inspections</p> <ul style="list-style-type: none"> ✓ Licensees/ Contractors must self inspect containers on a regular basis. (plastic containers usually every 5 years). Immediately replace containers that are leaking. 	<ul style="list-style-type: none"> ✓ Do not store small containers in Riparian Management areas or Marine Environments wherever practicable ✓ Do not smoke where fuel is stored or dispensed <p>Labeling</p> <ul style="list-style-type: none"> ■ Any container over 30 liters must have appropriate safety marks: <ul style="list-style-type: none"> • Label or Placard as required, • UN number and • Shipping Name ■ TDG safety marks on the outside of an enclosed unit must be visible if containers are stored within an enclosed unit. ■ WHMIS labeling or appropriate <u>Product Identification</u> is required when storing hazardous products <p>Securing</p> <ul style="list-style-type: none"> ■ As per manufacture's recommendations, containers must be secured and kept level to prevent shifting, swaying, damage, escape from the vehicle and accidental release of product. ■ Tie down straps must have safe <u>combined</u> working load ratings greater than the secured load. 	<ul style="list-style-type: none"> ■ Maintain current MSDS in a location available to worker ✓ Do not dispense fuel in Riparian Management areas or Marine Environments wherever practicable. ✓ Dispense all flammable and combustible substances only from drums in an upright position ✓ Do not fill containers beyond their safe filling level (<i>approximate safe level – 90%</i>) ✓ Store the hose above the pump (and drum) to avoid siphoning. ✓ Only transfer fuel with a pump designed for the products being handled. ✓ Check routinely for leaks drips and spills. 	<ul style="list-style-type: none"> ■ Drums must be properly arranged by: <ul style="list-style-type: none"> • Stacking in an upright, vertical position • Separating and Protecting through use of boards, stakes or sides on the vehicle to protect the load from moving ■ If multiple containers of diesel and/ or gasoline are transported and the <u>combined capacity</u> exceeds 2000L, the following conditions apply: <ul style="list-style-type: none"> • A shipping document must be completed for the goods hauled • The operator must have TDG training and possess a certificate • The load must have placards on all visible sides ■ Empty drum transport are exempt from TDG Regs provided: <ul style="list-style-type: none"> • Drum residue <10% • If more than 10 drums then DANGER Placards are required on all four sides and include a shipping document outlining: the primary class, 'residue drums' and number of drums. 	<ul style="list-style-type: none"> ■ Take reasonable measures to prevent leaks & spills ■ Respond to all fuel spills ✓ Where dispensing and storing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6). <p>Fire Control and Response</p> <ul style="list-style-type: none"> ✓ Maintain and self-inspect one suitable B:C-rated fire extinguisher ensuring it's: <ul style="list-style-type: none"> • not actuated or tampered with • shows no obvious physical damage, (i.e. corrosion, leakage, or clogged nozzle) to prevent its operation • pressure gauge reading or indicator is in operable range • safety seal or pin in place; • product id/WHMIS label in place • located in appropriate location, and • document self-inspections ✓ Maintain a spill kit of suitable size (See Table #7)

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TABLE #2 SMALL MOBILE (TRUCK BOX) TANKS (Volumes: ≤450L)

Legend

- Legal Requirement
- ☑ BCTS Requirement

TYPE	CONDITION, DESIGN, & MAINTENANCE	STORING & SECURING	DISPENSING	TRANSPORT (see column 2 for securing details)	PREVENTION & RESPONSE
SMALL MOBILE (TRUCK BOX) TANKS (Volumes: <450L)	<ul style="list-style-type: none"> ■ Must be designed, constructed, filled, closed, secured and maintained so under normal conditions of handling and transport there will be no accidental release of dangerous goods that would endanger public or worker safety. ☑ Containers must be in good condition – not damaged, rusting, or leaking. <p>Construction Standard</p> <ul style="list-style-type: none"> ■ Diesel: a spec or non-spec tank may be used. Tanks used for diesel are exempt from being built to an engineering standard but must not pose a danger to public safety. ■ Gasoline: An IBC Portable Tank CAN/CGSB 43.146 spec tank is required and must bear a visible and legible Spec Plate. ■ All Gasoline spec tanks must be tested and inspected by a Transport Canada (TC) Registered facility every 5 years. Proof that tests and inspections were conducted by a TC Registered facility within the last 5 years must be available upon request. <p>Inspections</p> <ul style="list-style-type: none"> ☑ Licensees/ Contractors must self inspect tanks on a regular basis. Immediately replace containers that are leaking. 	<ul style="list-style-type: none"> ■ Use a pressure relief cap that meets manufacturers design specifications ■ Do not store small mobile tanks in riparian management areas or marine environments wherever practicable ■ Do not smoke where fuel is stored or dispensed ☑ If a mobile tank (>230L) is removed from the vehicle and placed on the ground, then secondary containment is required. <p>Securing</p> <ul style="list-style-type: none"> ■ As per manufacture's recommendations, ensure mobile fuel tanks are secured on a solid foundation and remains level to prevent shifting, swaying, damage, escape from the vehicle and accidental release of product. ■ Protect the fuel tank from wear or damage (i.e. rubber belting or mat). ■ Tie down straps must have safe <u>combined</u> working load ratings <i>greater</i> than the secured load 	<ul style="list-style-type: none"> ■ Use dispensing pumps designed for the products being handled ☑ Use an appropriate hose and nozzle (in accordance with ULC standards) for dispensing fuel ☑ Make sure there is suitable bonding between tank and vehicle to prevent static charges when dispensing gasoline. ■ Maintain current MSDS in a location available to workers ■ Hoses and nozzles must be maintained and not leak. ■ Do not dispense fuel in riparian management areas or marine environments wherever practicable. ■ Nozzles must be store in drip containment after use or in an upright position so that it's above the tank. ☑ Operators must stay with the nozzle <u>at all times</u> while dispensing fuel ☑ Close valves when finished dispensing ☑ Store hose in a safe manner to prevent damage and leaks (i.e. coiled on top of tank) ☑ Do not fill tanks beyond their safe filling level (<i>approximate safe level – 90%</i>) ☑ Keep fuel and equipment on level ground 	<ul style="list-style-type: none"> ■ Mobile containers do not require secondary containment. ■ If multiple tanks of diesel and/or gasoline are complete and carried on the vehicle and the <u>combined capacity</u> exceeds 2000 liters, the following conditions apply: <ul style="list-style-type: none"> • A shipping document must be completed for the goods hauled • The operator must have a TDG training and possess a valid certificate • The load must be placarded on all visible sides. <p>Safety Labeling & Spec Plates</p> <ul style="list-style-type: none"> ■ WHMIS labeling or appropriate <u>Product Identification</u> is required when storing hazardous products ■ Maintain visible safety marks: <ul style="list-style-type: none"> • Label or placard • UN number and • Shipping name ■ TDG safety marks must be visible on the tank or any enclosed storage unit ■ Spec plates, decals or associated documentation--(ensuring paperwork is linked to the specific tank) must identify the following: <ul style="list-style-type: none"> • Container Type & Standard • Manufacturer and Date • Re-certification Date and TC Registered Facility 	<ul style="list-style-type: none"> ■ Take reasonable measures to prevent leaks & spills ■ Respond to all fuel spills ☑ Where dispensing and storing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6). ☑ Where tanks are stored on the ground, collision protection is required. (see Table #6) <p>Fire Control and Response</p> <ul style="list-style-type: none"> ☑ Maintain and self-inspect one suitable B:C-rated fire extinguisher ensuring it's: <ul style="list-style-type: none"> • not actuated or tampered with • shows no obvious physical damage, (i.e. corrosion, leakage, or clogged nozzle) to prevent its operation • pressure gauge reading or indicator is in operable range • safety seal or pin in place; • product id/WHMIS label in place • located in appropriate location, and • document self-inspections ☑ Maintain a spill kit of suitable size (See Table #7)

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TABLE #3 LARGE MOBILE TANKS (Volumes: >450L – ≤3000L)				Legend	
				■ Legal Requirement	☑ BCTS Requirement
TYPE	CONDITION, DESIGN, & MAINTENANCE	STORING AND SECURING	DISPENSING	TRANSPORT (see column 2 for securing details)	PREVENTION & RESPONSE
LARGE MOBILE TANKS (Volumes: >450L – 3000L)	<ul style="list-style-type: none"> ■ Must be designed, constructed, filled, closed, secured and maintained so under normal conditions of handling and transport there will be no accidental release of dangerous goods that would endanger public or worker safety. ☑ Containers must be in good condition – not damaged, rusting, or leaking <p>Construction Standard</p> <ul style="list-style-type: none"> ■ All Tanks: used to transport fuel (regardless of volume) must be designed, and constructed to a mobile tank standard and display a spec plate. ■ Spec Tanks: used for diesel and gasoline may have one of the following spec plates: <ul style="list-style-type: none"> • UN 31A/B IBC Portable Tank and • TC57 Portable Tanks as per CAN/CGSB 43.146 (2016) • UN Portable Tanks as per CSA B625-14 (2018) >450L • ULC/ORD 142.13 ■ Non-Spec Tanks may no longer be used. Any tank without a spec plate is non-spec. <p>Inspections</p> <ul style="list-style-type: none"> ■ All Spec tanks (listed above) must be tested and inspected by a Transport Canada (TC) Registered facility every 5 years. Proof that tests and inspections were conducted by a TC Registered facility within the last 5 years must be available upon request. ☑ Licensees/ Contractors must self inspect tanks on a regular basis. Immediately replace containers that are leaking. 	<ul style="list-style-type: none"> ■ Use a pressure relief cap that meets manufacturers design specifications ■ Do not leave vehicles carrying auxiliary fuel in riparian management areas or marine environments wherever practicable. ☑ Do not smoke where fuel is stored or dispensed ☑ If a mobile tank (>230L) is removed from the vehicle and placed on the ground, then secondary containment is required. <p>Securing</p> <ul style="list-style-type: none"> ■ As per manufacture's recommendations, ensure mobile fuel tanks are secured on a solid foundation and remains level to prevent shifting, swaying, damage, escape from the vehicle and accidental release of product. ■ Protect the fuel tank from wear or damage (i.e. rubber belting or mat). ■ Tie down straps must have safe combined working load ratings greater than the secured load to ensure the tank is integrally mounted 	<ul style="list-style-type: none"> ☑ Use an appropriate hose and nozzle (in accordance with ULC Standards) for dispensing fuel ■ Use dispensing pumps designed for the products being handled. ■ Make sure there is suitable bonding between tank and vehicle to prevent static charges when dispensing gasoline. ■ Maintain current MSDS in a location available to workers ■ Hoses and nozzles must be maintained and not leak. ■ Do not dispense fuel in riparian management areas or marine environments wherever practicable. ■ Nozzles must be secured in drip containment after use or in an upright position so that it's above the tank. ☑ Operators must stay with the nozzle at all times while dispensing fuel ☑ Keep fuel and equipment on level ground ☑ Close valves when finished dispensing ☑ Store hose in a safe manner to prevent damage and leaks (i.e. coiled on top of tank) ☑ Do not fill tanks beyond their safe filling level (approximate safe level – 90%) 	<ul style="list-style-type: none"> ■ Mobile containers do not require secondary containment ■ If multiple tanks of diesel and/or gasoline are carried on the vehicle and the combined capacity exceeds >2000 liters, the following conditions apply: <ul style="list-style-type: none"> • A shipping document must be completed and carried for the goods hauled • The operator must have a TDG training and possess a certificate • The load must be placarded on all visible sides. ■ If large mobile tanks are transported on a trailer, the trailer must meet Motor Vehicle Requirements, (GVW, brakes, lights and axels etc.). ■ An Equivalent Level of Safety Permit must be obtained from Transport Canada prior to moving non-spec IBC's and Portable Tanks greater than ≥450L that contain dangerous goods in any quantity-including "residual" tanks. The <i>Equivalency Permit</i> will outline applicable use of tank, training and inspection requirements. <p>Safety Labeling & Spec Plates</p> <ul style="list-style-type: none"> ■ Maintain visible safety marks: <ul style="list-style-type: none"> • Label or placard, (placard if exceeding 500 kg) • UN number and Shipping name ■ TDG Placards must be visible ■ Spec plates, decals or associated documentation--(ensuring paperwork is linked to the specific tank) must identify the following: <ul style="list-style-type: none"> • Container Type & Standard • Manufacturer and Date • Re-certification Date and TC Registered Facility <p>Labeling</p> <ul style="list-style-type: none"> ■ WHMIS labeling or appropriate Product Identification is required when storing hazardous products. 	<ul style="list-style-type: none"> ■ Take reasonable measures to prevent leaks & spills ■ Respond to all fuel spills ☑ Where dispensing and storing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6). ☑ Where tanks are stored on the ground, collision protection is required. (see Table #6) <p>Fire Control and Response</p> <ul style="list-style-type: none"> ☑ Maintain and self-inspect one suitable B:C- rated fire extinguisher ensuring it's: <ul style="list-style-type: none"> • not actuated or tampered with • shows no obvious physical damage, (i.e. corrosion, leakage, or clogged nozzle) to prevent its operation • pressure gauge reading or indicator is in operable range • safety seal or pin in place; • product id/WHMIS label in place • located in appropriate location, and • document self-inspections ☑ Maintain a spill kit of suitable size (See Table #7)

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Environmental Management System

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EFP 06 FUEL HANDLING

TABLE #4 HIGHWAY & TC PORTABLE TANKS (Fuel Trucks & Pup-Trailers with Volumes > 3000L)				Legend	
				■ Legal Requirement	☑ BCTS Requirement
TYPE	CONDITION, DESIGN & MAINTENANCE	STORING AND SECURING	DISPENSING	TRANSPORT (see column 2 for securing details)	PREVENTION & RESPONSE
HIGHWAY & TC PORTABLE TANKS (Volume > 3000L)	<ul style="list-style-type: none"> Must be designed, constructed, filled, closed, secured and maintained so under normal conditions of handling and transport there will be no accidental release of dangerous goods that would endanger public or worker safety. <p>Construction Standard</p> <ul style="list-style-type: none"> All Tanks: used to transport fuel and sometimes to store and dispense fuel. Tanks must be designed, constructed and/or tested to a design standard specification and display a visible and legible spec plate to that standard. Spec Tanks: used for diesel and gasoline may have one of the following spec plates: <ul style="list-style-type: none"> UN 31A/B IBC Portable Tank and TC57 Portable Tanks as per CAN/CSG 43.146 (2016) UN Portable Tanks as per CSA B625-14 (2018) TC44 Portable Tanks as per CSA B626-09 (R2015) >3000L only ULC/ORD 142.13 Non-Spec Tanks may no longer be used. Any tank without a spec plate is non-spec. <p>Inspections</p> <ul style="list-style-type: none"> All Highway and Transport Canada (TC), Portable Tanks must be tested and inspected by a TC Registered facility every five years. Proof that tank tests and inspections were conducted by a TC Registered Facility must be available upon request. Licensees/ Contractors must self inspect tanks on a regular basis. Immediately replace containers that are leaking. 	<ul style="list-style-type: none"> Use a pressure relief hatch that meets manufacturers design specifications Do not leave fuel truck or pup trailer in riparian management areas or marine environments wherever practicable. Do not smoke where fuel is stored or dispensed <p>Securing</p> <ul style="list-style-type: none"> Fuel truck tanks must be integrally mounted to the unit. Ensure tank is secure, stable and remains level to prevent accidental release of product. <p>Labeling</p> <ul style="list-style-type: none"> Product identification is an acceptable substitute for supplier or workplace labels and may be affixed to the sides of the tank compartments and piping. All Portable Tanks must have appropriate TDG safety marks including: <ul style="list-style-type: none"> Label or placard; UN Number; Shipping Name Spec Plates must identify the following: <ul style="list-style-type: none"> Container Type & Standard; Manufacturer & Date; Recertification Date & TC Registered Facility 	<ul style="list-style-type: none"> Use an appropriate hose and nozzle (in accordance with ULC standards) for dispensing fuel Use dispensing pumps designed for the products being handled Check routinely for leaks drips and spills. Make sure there is suitable bonding between tank and vehicle to prevent static charges when dispensing gasoline. Maintain current MSDS in a location available to workers Do not dispense fuel in riparian management areas or marine environments wherever practicable. Hoses and nozzles must be maintained and not leak. Store hose in a safe manner to prevent damage and leaks (i.e. coiled on top of tank). Dispensing gasoline fuel directly from a fuel truck into the equipment is NOT permitted Close valves when finished dispensing Operators must stay with the nozzle at all times while dispensing fuel Do not fill containers beyond their safe filling level (approximate safe level – 90%) Keep fuel and equipment on level ground 	<ul style="list-style-type: none"> Fuel trucks and pup-trailers used to transport products on public roads must meet Motor Vehicle requirements (i.e. GVW, brakes, lights, axles, etc.) and TDG requirements (Placards & Documentation) When the total capacity of a fuel tank exceeds 2000 liters, the shipper/driver is required to: <ul style="list-style-type: none"> Complete a shipping document for the goods hauled or residue last contained Maintain a valid TDG training certificate Visible spec plate Placard the load on all four sides Non-Spec tanks may no longer be used. An Equivalent Level of Safety Permit must be obtained from Transport Canada prior to moving non-spec IBC's and Portable Tanks greater than ≥450L that contain dangerous goods in any quantity-including "residual" tanks. The Equivalency Permit will outline applicable use of tank, training and inspection requirements. 	<ul style="list-style-type: none"> Take reasonable measures to prevent leaks & spills Respond to all fuel spills Where dispensing and storing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6). <p>Fire Control and Response</p> <ul style="list-style-type: none"> Maintain and self-inspect one suitable B:C-rated fire extinguisher ensuring it's: <ul style="list-style-type: none"> not actuated or tampered with shows no obvious physical damage, (i.e. corrosion, leakage, or clogged nozzle) to prevent its operation pressure gauge reading or indicator is in operable range safety seal or pin in place product id/WHMIS label in place located in appropriate location, and document self-inspections Maintain a spill kit of suitable size (See Table #7)

BC Timber Sales Environmental Management System ENVIRONMENTAL FIELD PROCEDURE EFP 06 FUEL HANDLING

TABLE #5 LARGE STATIONARY SKID TANKS (Generally Volumes > than >3000L)

Legend	
■	Legal Requirement
☑	BCTS Requirement

TYPE	CONDITION, DESIGN & MAINTENANCE	STORING AND SECURING	DISPENSING	TRANSPORT (see column 2 for securing details)	PREVENTION & RESPONSE
LARGE STATIONARY SKID TANKS (Volume >3000L)	<ul style="list-style-type: none"> ■ Stationary Tanks are not designed to transport fuel and must be emptied prior to moving. TC has designated the CAN/ULC-601 as a Utility tank and may be relocated (empty) with an <i>Equivalent Level of Safety Permit</i>. ☑ All Tanks: must be designed, constructed, and tested to a design standard specification and must bear a visible and legible Spec Plate to that standard ■ Spec Steel Tanks: used to store flammable and combustible liquids (diesel or gas) and will generally have one of the following markings: <ul style="list-style-type: none"> • ULC-S601 Shop Fabricated AST for • ULC-S602 AST Steel Tanks • ULC-S630 AST Vertical Tanks • ULC-S643 AST Vertical Tank; • ULC-S653/S655 AST Steel Tanks Assembly • All tanks must be constructed and maintained to conform to a ULC specification for stationary above ground tanks. ■ Non-Spec Tanks: All non-spec tanks must be taken out of operation. Any tank without a spec plate is non-spec. <p>Inspections</p> <ul style="list-style-type: none"> ■ Licensees/ Contractors must self inspect tanks on a regular basis. Immediately replace containers that are leaking. 	<ul style="list-style-type: none"> ☑ All stationary tanks must have secondary containment. Options include: <ul style="list-style-type: none"> • Tank-in-tank (vacuum monitored, visible access port or visible access hatch). • Tank-in-box (visible access hatch) • Tank in berm with geotextile liner (orequivalent) ☑ Skid Tank shall be equipped with overfill protection. ☑ Use a pressure relief cap that meets manufacturers design specifications ☑ Store nozzle & hose in a safe manner to prevent damage and leaks (i.e. on a retractor, hose reel or coiled) ■ Do not place stationary skid tanks in riparian management areas or marine environments, unless no other area is practicable. ☑ Ensure All stationary tanks are properly grounded; ☑ Do not smoke where fuel is stored or dispensed ☑ Ensure physical protection against collision damage. <p>Storage</p> <ul style="list-style-type: none"> ☑ Large stationary skid tanks must be: <ul style="list-style-type: none"> • Above ground, doubled wall with a positive containment monitoring leak protection feature, (vacuum gauge, visual port or dipstick); <p>Securing</p> <ul style="list-style-type: none"> ■ As per manufacture's recommendations, tanks must be appropriately secured to the skid and kept level to prevent shifting, swaying, damage escape and accidental release of product. ■ Tanks must be mounted to a fire-resistant cradle and skid. 	<ul style="list-style-type: none"> ■ Use dispensing pumps designed for the products being handled ☑ Use an appropriate hose and nozzle (in accordance with ULC standards) for dispensing fuel. ■ Make sure there is suitable bonding to prevent static charges when dispensing gasoline ■ Maintain current MSDS in a location available to workers ■ Hoses and nozzles must be maintained and not leak ■ Do not dispense fuel in riparian management areas or marine environments wherever practicable. ■ Maintain a record of inventory ☑ Operators must stay with the nozzle at all times while dispensing fuel. ☑ Written and posted SOPs ☑ Store nozzle & hose in a safe manner to prevent damage and leaks (i.e. on a retractor, hose reel, coiled or above the tank to prevent siphoning) ☑ Close valves when finished dispensing ☑ Do not fill tanks beyond their safe filling level (<i>approximate safe level – 90%</i>) ☑ Keep fuel and equipment on level ground 	<ul style="list-style-type: none"> ■ Stationary Tanks (>450L) must never be used to transfer fuel. TDG Transport ■ Prior to moving a stationary fuel (diesel or gas) tank with a capacity >450L and ≤2000 ensure: <ul style="list-style-type: none"> • Tank is pumped empty (5% or less); • Obtain an <i>Equivalent Level of Safety Permit</i> from TC; • The AST is placarded on all four sides with TDG Classification and Shipping Name; ■ When relocating an empty stationary AST with a total capacity >2000L, the following TDG Regulations must be implemented: <ul style="list-style-type: none"> • Tank must be emptied to <5% and/or contain <500L; • Obtain an <i>Equivalent Level of Safety Permit</i> from TC; • A shipping document must be completed for the <i>Residual Last Contained</i>; • The hauler/operator must possess a valid TDG training certificate; • The skid tank must be placarded on all four sides displaying TDG Classification, Shipping Name and UN number. ■ WHMIS labeling or appropriate <u>Product Identification</u> is required when storing hazardous products 	<ul style="list-style-type: none"> ■ Take reasonable measures to prevent leaks & spills ■ Respond to all fuel spills ☑ Where dispensing and storing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6). ☑ Where tanks are stored on the ground, collision protection is required. (see Table #6) <p>Fire Control and Response</p> <ul style="list-style-type: none"> ☑ Maintain and self-inspect one suitable B:C-rated fire extinguisher ensuring it's: <ul style="list-style-type: none"> • not actuated or tampered with • shows no obvious physical damage, (i.e. corrosion, leakage, or clogged nozzle) to prevent its operation • pressure gauge reading or indicator is in operable range • safety seal or pin in place; • product id/WHMIS label in place • located in appropriate location, and • document self-inspections ☑ Maintain a spill kit of suitable size (See Table #7)

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TABLE #6 Definition of Terms

Additional Spill Control Prevention	<ul style="list-style-type: none"> • Re-assess the environmental risk and implement additional control measures • Review the BCTS Fuel Handling Environmental Field Procedure 06 to ensure procedures address the risk factors • Review Spill Response awareness and preparedness, conduct a spill drill and increase monitoring of dispensing area locations • Enhance minimum Spill Kit requirements as outlined in Table #7 • Move the fuel storage to a lower risk location • Add secondary containment or double-walled containers • Breakaway valves on hoses • Collision Protection e.g. guard logs • Tanks located more than 6 meters from a building • Tarps for containment • Materials to block culverts when needed • Sandbags and PVC pipe for underflow containment • Sandbags for diversions and upstream eddy containment
B:C Fire Extinguisher	<p>The number represents the size of fire the extinguisher will put out under normal use (non-expert)</p> <ul style="list-style-type: none"> • An 80 rated fire extinguisher will cover 15.25 square meters • A 40 rated fire extinguisher will cover 9.15 square meters. Therefore two 40 rated fire extinguishers will cover the same area as one 80 rated fire extinguisher • The B:C represents the type of fires: "B" fire is for flammable liquids, while a "C" fire is for electrical
Bioremediation Product	Any form of nutrients, bacteria or enzymes that when added and mixed with the soil, will enhance the biological breakdown of petroleum hydrocarbon contaminated soil. This product is intended for small leaks, drips and spills that are below the reportable quantities and not impacting surface water or groundwater.
Breakaway valve	An in-line device containing a flutter valve that, upon accidental separation of the hose, will automatically close and prevent fuel from being discharged
Collision Protection	A barrier sufficient to alert the operator and prevent accidental damage to the container and release of the product.
Enclosed space	Any structure enclosed by three sides
Equivalent Level of Safety (Permit) issued by Transport Canada	<p>Permits for Equivalent Level of Safety allows the handling, offering for transport or transporting of dangerous goods in a manner that does not necessarily comply with the Transportation of Dangerous Goods (TDG) Regulations. Permits are only issued if the risk to health, safety and the environment are mitigated reasonably. It is not necessary to obtain a permit to handle, offer for transport or transport dangerous goods if the TDG Act and Regulations are fully complied with.</p> <p>Note: Some organizations such as the Forest Products Association of Canada, have an Equivalent Level of Safety Permit authorized for their members. https://wwwapps.tc.gc.ca/Saf-Sec-Sur/3/approvals-approbations/SearchCertificates.aspx</p> <p>To Apply for an Equivalency Certificate (Permit of Equivalent Level of Safety). Please go to TC link below: https://tc.canada.ca/en/dangerous-goods/how-apply-equivalency-certificate-permit-equivalent-level-safety</p>
Fuel Storage Facility	Any location where fuel in excess of 500 litres is stored on a BCTS tenure
Equivalent Spill Response Equipment	<p>In an attempt to provide some flexibility in the minimum requirements of a spill kit, the following equivalent standards are listed. The intention of this equivalent list is to provide alternatives where conditions might be warranted:</p> <ul style="list-style-type: none"> • 2L of Sphag Sorb (peat moss) = 5 Absorbent pads • One large heavy duty plastic bag = One five (5) gallon pail • Plug-N-Dike = Bentonite clay or "drillers clay" • Containment boom = log boom with tarp "skirt"



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TABLE #6 Definition of Terms

Large Means of Containment	A means of containment with a capacity greater than 450 litres. For example, a highway cargo tank, large slip tank etc.
Material Safety Data Sheets (MSDS)	MSDS--are summary documents that provide information about the hazards of a product and advice about safety precautions under the Workplace Hazardous Materials Information System (WHMIS).
Plug-N-Dike	Commercial product name for bentonite clay also known as "drillers clay". It is not the intention for BCTS to endorse a single product name over other products of a similar and equal nature.
Small Means of Containment	A means of containment with a capacity less than or equal to <230 litres. For example, a drum, jerry cans, or intermediate bulk container.
Spec Tank	A "Spec Tank" or "Specification Tank" is a means of containment that complies with one of the specifications set out in one of the Safety Standards referred to in Part 5 of the TDG regulations. An example of a "spec tank" would be a TC406 highway tank meeting all of the TC406 specification requirements described in CSA Standard B620-03 <i>Highway Tanks and Portable Tanks for the Transportation of Dangerous Goods</i> .
TC	Transport Canada: Federal Agency that oversees the transportation of dangerous goods on land, sea and air
TDG	Transportation of Dangerous Goods Regulation
ULC	Underwriters Laboratory of Canada (Engineering Standards) Mobile tanks built to ULC Standards (142.13) have been replaced by the Canadian General Standards Board (CGSB) Standard (43.146)
UN Number	United Nations Number: Used to identify a specific dangerous good. Diesel: UN 1202; Gasoline UN 1203
Workplace Hazardous Materials Information System (WHMIS) Labelling & product identification	Hazardous products in the workplace must be identified through one of the following means: <ul style="list-style-type: none">• Supplier label• Workplace Label (attached when no supplier label was provided or the supplier label is lost or removed)<ul style="list-style-type: none">○ Name of the product○ Safety precautions○ Reference to SDS• Product Identifier (name of the product, color coding, etc.)

TRANSPORT CANADA CONTACT INFORMATION

Transport Canada welcomes your questions, comments and suggestions. For You can contact them by e-mail, mail or telephone and they will address your concerns as quickly as possible. See website link below for details!

<http://www.tc.gc.ca/eng/contact-us.htm>

Leak Test and Inspection Facilities for Highway and TC Portable Tanks, (Registered per Standard CSA B620) can be found at the Transport Canada website link below!

<http://wwwapps.tc.gc.ca/saf-sec-sur/3/fdr-rici/highway/tanks.aspx>

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TABLE #7

SPILL KIT
(Minimum Requirements)

<p>In Equipment / Machinery (excavators, skidders) Spill kits must be present on equipment, (appropriate for type and potential size of spill).</p> <ul style="list-style-type: none"> Spill kits must include: <ul style="list-style-type: none"> One large heavy duty plastic bag or other suitable container Absorbent pads (or equivalent absorbent material), appropriate for the type of spill, Personal protective safety gear as required for the type of spill 	<p>Vehicles carrying auxiliary fuel (e.g. pick-up truck box tanks or multiple small containers) Spill kits must be present in vehicles transporting and dispensing fuels</p> <ul style="list-style-type: none"> Spill kits must include a minimum of: <ul style="list-style-type: none"> 3 - Heavy duty plastic bags or suitable container(s), 10 - absorbent pads (or equivalent absorbent material) appropriate for the type of spill, 3 – 3"x 48" absorbent booms/ socks, bioremediation product, One shovel A container of emergency tank sealant (i.e. Plug-N-Dike, Seal-it or equivalent) Personal protective safety gear as required for the type of spill 	<p>Stationary or Mobile Fuel Storage & dispensing (tanks or multiple-drum caches) Spill kits must be present at points where fuel is dispensed.</p> <ul style="list-style-type: none"> Spill kits must include a minimum of: <ul style="list-style-type: none"> Five large heavy duty plastic bags, or one open topped containment drum (or equivalent), 20 absorbent pads (or equivalent absorbent material) appropriate for the type of spill, 6 – 3"x 48" absorbent booms/ socks, Two 10' linkable marine booms (if near marine operations), bioremediation product, One container of emergency tank sealant (i.e. Plug-N-Dike or equivalent), One shovel Personal protective safety gear as required for the type of spill
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STOP WORK

and contact your project supervisor and the BCTS representative if:

- You are uncertain of the project plan, your responsibilities, or the location of hazardous/sensitive areas.
 - A previously unidentified resource feature, resource value (e.g. cultural) or sensitive area is found.
 - You experience unfavorable weather or site conditions that could cause environmental damage.
 - You observe conditions that have the potential for immediate environmental damage.
- You believe the project plan will not work.

BC Timber Sales Fuel Handling

**A pictorial of key requirements of
the BCTS FUEL HANDLING
ENVIRONMENTAL FIELD
PROCEDURE 06**



Fuel Handling

Purpose

- The purpose of this pictorial is to support the BCTS EMS Fuel Handling Environmental Field Procedure #06, (EFP 06) by displaying requirements of commonly utilized tanks by BCTS Licensees, Permittees and Contractors (LPC's) to help prevent and minimize impacts of fuel on the environment.
- EFP 06 brings together legislative requirements, forest industry standards and best management practices as it relates to fuel handling, storage and transportation.
- EFP 06 applies to all BCTS LPC's and their workers involved in fuel handling within the scope of the EMS Program.

Key Sections of EFP-06

- Truck Box (Slip Tanks) and other large portable tanks--230 to 3000 liters (EFP-06 Table #2 and #3)
 - non-specification tanks can only be used for diesel in the 230L to 450L volume range and;
 - tanks for diesel and gasoline in the >450L to 3000L volume range must be specification containers and tested by a Transport Canada Registered Facility every 5 years;
- Large (double walled) Stationary Skid Tanks
 - EFP-06 Table #5
- Spill Kits
 - EFP-06 Table #7

Truck Box Slip Tanks



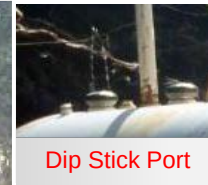
❗ All tanks >450L must be tested by a Transport Canada Registered Facility every 5 years.

Large Double Walled Stationary Skid Tanks

ULC-S601 Spec Plate



Positive Containment Check



TDG, WHMIS and Safety Labels



Drip Containment Options



**Spill Kit
Fire Extinguisher(s)**

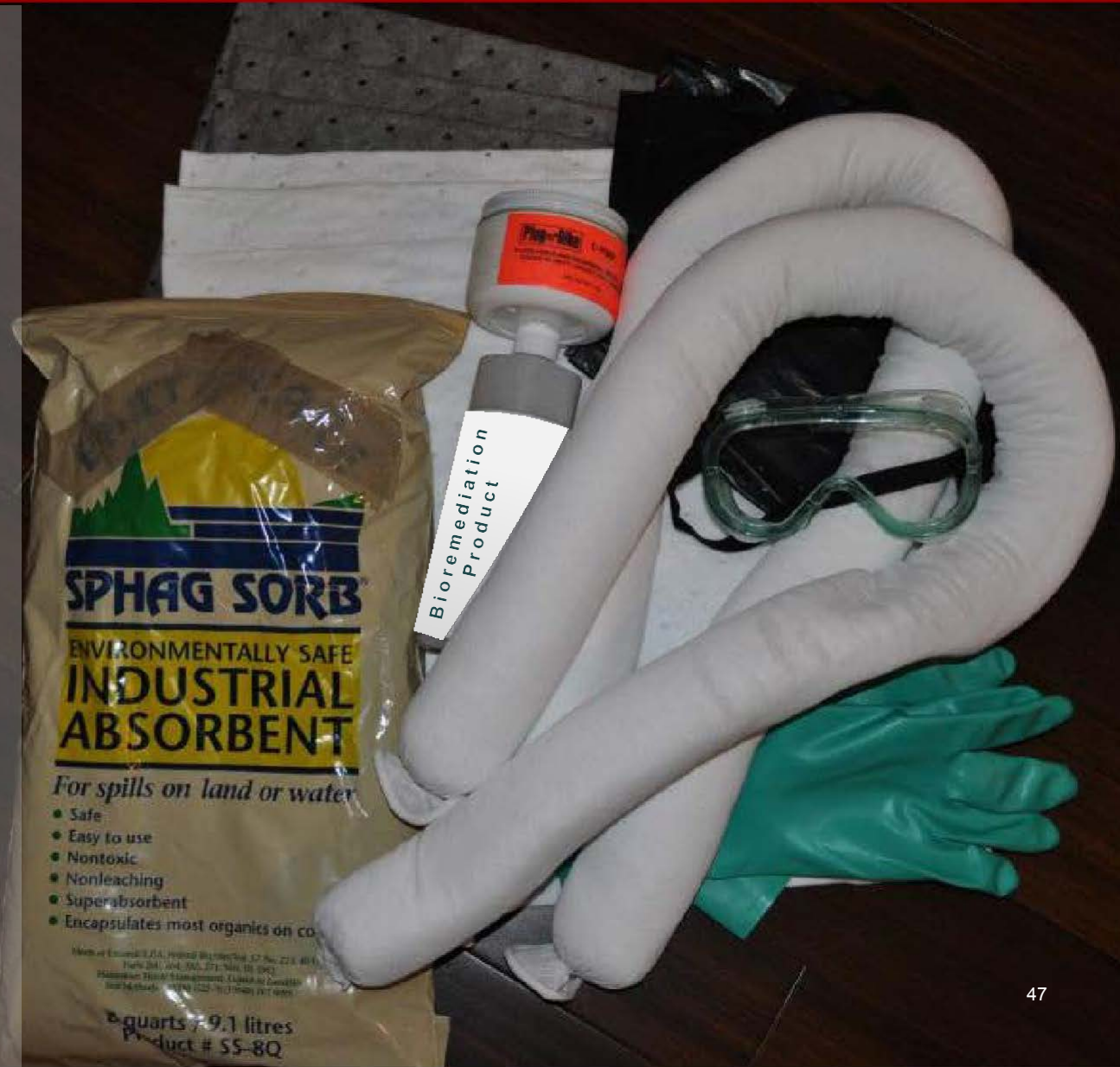
Guard Log

Spill Kits

Spill kits must be present in all equipment, vehicles transporting and dispensing fuel, near stationary tanks and mobile fuel storage and dispensing areas.

- Spill kits must include a minimum of:
 - o heavy duty plastic bags or suitable container(s),
 - o absorbent pads (or equivalent absorbent material) appropriate for the type of spill,
 - o absorbent booms/ socks,
 - o bioremediation product,
 - o a shovel
 - o a container of emergency tank sealant (i.e. Plug-N-Dike, Seal-it or equivalent)
- personal protective safety gear as required for the type of spill

See Fuel Handling Environmental Field Procedure 06, (Table #7) for details regarding spill kit requirements.



Fuel Handling

Conclusion

- Conformance to this EFP pictorial will assist LPC's to achieve a balance between their operational needs and requirements of the BCTS EMS-EFP 06 to help reduce significant risk to the environment.
- For a copy of this fuel management pictorial please contact your local BCTS Certification Standards Officer.

Forestry Operations

What Can You Do?

Invasive plants are negatively impacting forestry operations across British Columbia. Forestry professionals, including planners, researchers, operational crews and others have the ability to mitigate these negative impacts by implementing a combination of prevention and management practices.

This document provides a summary of forestry best management practices for invasive plants, which licensees are encouraged to use when developing Standard Operating Procedures under their Forest Stewardship Plans. Implementation of these recommendations will benefit from a cooperative approach that involves the support of Regional Invasive Plant and Species Organizations and additional expertise to provide education, training, technical advice, and provincial and regional coordination.

The term invasive plant, as used hereafter, includes provincially listed invasive plants and noxious weeds, as well as other alien plant species with the potential to pose undesirable impacts on humans, animals or ecosystems.

Ecological Impacts of Invasive Plants on Forestry

Invasive plants displace desirable vegetation through competition and aggressive reproduction. Lacking natural pathogens or predators, invasive plants can spread rapidly through vegetative growth and/or production of vast numbers of long-lived seeds. Invasive plants can negatively affect soil productivity, water quality and aquatic habitats, forest structure, biodiversity, seedling regeneration, range resources, wildlife habitat, species at risk, wildfire dynamics, culturally important plants, human health, public infrastructure, recreation, and landscape aesthetics.



Management Strategies

Management strategies will vary by invasive plant species and by region of the province. Refer to the accompanying species-specific factsheets for detailed information on management of specific invasive plant species.

Three elements common to all management strategies include:

- » **Prevention** measures that encompass development planning, silviculture, and all operations.
- » Establishment of coordinated early **detection** and **reporting** systems.
- » Application of Integrated Pest Management (**IPM**) principles

Objectives of this Document:

- » Manage and mitigate the impacts of invasive plants by providing roadside maintenance contractors, land managers, and others with information and resources to prevent, detect, and report invasive plants.
- » Develop a coordinated approach to invasive plant management for all maintenance contractors, land managers, and others.
- » Manage and mitigate the impacts of invasive plants by providing forestry and resource management professionals with information and resources to prevent, detect, and report invasive plants.
- » Develop a coordinated approach to invasive plant management for all forest and resource managers.
- » Assist in compliance with the Forest and Range Practices Act and the Weed Control Act.



Prevention

The most cost-effective management option for invasive plants is prevention. Depending on the current distribution of the species, this includes preventing the initial introduction to an area, and subsequent introductions (spread). Prevention requires that, at a minimum:

- » A coordinated detection and reporting system is used; and
- » Specific practices, such as those outlined in this document, are in place across all forestry operations to prevent introduction or spread of invasive plants.

Early Detection and Rapid Response (EDRR) is a strategy that incorporates education, coordinated detection, and focused response efforts. A common approach to prevent invasive plant introduction or spread through EDRR includes the following steps.

1. Determine the priority invasive plant species within your operating area and maintain an awareness of species new to your area using, at minimum, the following sources of information.
 - » Province-wide web-based databases such as the Invasive Alien Plant Program (IAPP) Application and E-Flora BC.
 - » Regional Invasive Plant or Species Organization coordinator(s) serve to coordinate invasive plant management within each regional district or group of districts across most of BC. For current contact information: <https://bcinvasives.ca/about/partners/bc-stakeholders>
2. Ensure staff and contractors learn to identify species of concern that are present at and near their operating areas and, at a minimum, to follow the prevention measures specified in this document. This may include but is not limited to:
 - » Collaborating with the regional invasive plant committee coordinator(s) or Ministry of Forests, Lands and Natural Resource Operations and Rural Development (MFLNRORD) regional invasive plant specialists to ensure training is available on species identification.
 - » Making resources available to staff and contractors to facilitate identification of species and implementation of factsheets.
 - » Facilitating networking among staff and contractors who are likely to encounter invasive plants with MFLNRORD regional invasive plant specialists and Regional Invasive Plant or Species Organization coordinators.
3. Establish a protocol for action when an invasive plant is encountered that includes the following:
 - » Identifying the species. Determine the plant's legal status and regional priority.
 - » Using a species-specific factsheets to determine appropriate control measures.
 - » Reporting the species name, date of observation, location (UTM coordinates), and estimated area (ha or m²) of infestation to the regional invasive plant committee coordinator or MFLNRORD invasive plant specialist.



Preferably, complete a Site and Inventory Invasive Plant Record form for data entry into IAPP. Alternatively, acquire data entry access to the IAPP Application and actively participate in invasive plant data management.

Integrated Pest Management (IPM)

- » IPM is a decision-making process that includes identification and inventory of invasive plant populations, assessment of the risks that they pose, development of well-informed control options that may include a number of methods, site treatment, and monitoring.
- » Control methods vary with species, severity of the plant invasion, and site considerations. Site-specific mechanical, chemical, or biological control methods may be applied.
- » Additional information on control methods is available in the accompanying species-specific factsheets, from a regional invasive plant committee coordinator or regional invasive plant specialist, or online at the IAPP Application Reference Guide.



Best Management Practices for: Forestry Operations »

TARGETED INVASIVE PLANT SOLUTIONS

General

These practices are always applicable, regardless of the operation, and are not limited to specific operations listed here.

1. Determine priority invasive plant species within your operating area.
2. Stay informed through collaborations with regional experts, and assist staff and contractors to identify and minimize spread of invasive plant species within your operating area.
3. Carry out regular detection surveys and record the locations of invasive plants in your operating area.
4. Keep equipment out of areas infested by invasive plants and keep equipment yards and storage areas free of invasive plants.
5. Regularly inspect the undercarriages of vehicles and remove any plant material found.
6. Dispose of plant material at the site of the infestation (if no flowers are present), or bag the plant material and dispose of it (locally) in the garbage (if flowers are present).
7. Wash plant seeds and propagules from personal gear, equipment, vehicles and machinery at designated cleaning stations before leaving infested sites. Ensure soil that is being moved does not contain invasive plant seeds or propagules.
8. Minimize unnecessary soil disturbance during road, landing, skid trail and site preparation. Ensure soil that is being moved does not contain invasive plant seeds or propagules.
9. Re-vegetate disturbed areas as soon after disturbance as possible using an appropriate combination of scarification, seeding, fertilizing and/or mulching. Ensure that seed used to re-vegetate will meet site objectives. Use quality forage mixture without any weed seed contamination. Suggested to request "Certificate of Analysis" to ensure mix is weed seed free.
10. Treat infestations of invasive plants prior to disturbance (pre-treatment).
11. Monitor treatment sites for several years to ensure efficacy. Re-treat as necessary to ensure spread does not continue.



Silviculture and Reconnaissance Surveys

1. Consult the Invasive Alien Plant Program (IAPP) Application database to determine locations of high-risk infestations.
2. Incorporate IAPP spatial data into planning maps.
3. Incorporate detection surveys into existing survey procedures.
4. When an invasive plant is encountered: record the species, date of observation, location (UTM coordinates), and estimated area of infestation (ha or m²). IAPP field cards are available for use. Provide this information to the Regional Invasive Plant or Species Organization coordinator or MFLNRORD invasive plant specialist, or enter the data independently.

Road Building and Maintenance

1. Inspect gravel pits and material sources for invasive plants, and remove invasive plant seeds and materials prior to use.
2. Where possible, begin work in un-infested areas and move toward infested areas.
3. Promptly re-vegetate disturbed areas along roadsides, landings, and cleaned culverts.
4. All machinery and equipment capable of carrying invasive plant propagules should be cleaned prior to moving on and off site.
5. Grade roads in directions that do not encourage spread of seeds away from known, priority invasive plant sites.

Harvesting and Site Preparation

1. Re-vegetate all harvested openings by re-establishing an appropriate stand of trees following the stocking standards prescribed in the Forest Stewardship Plan.
2. Minimize disturbance and the duration of time the site is left un-vegetated. Consider seeding if there is a delay in re-vegetation.
3. All machinery and equipment capable of carrying invasive plant propagules should be cleaned prior to moving on and off site.

Legal Status

Invasive plant management on Crown land is regulated by the BC Forest and Range Practices Act (FRPA), the BC Weed Control Act (WCA), and the Integrated Pest Management Act (IPMA).

The FRPA requires forest managers to specify and implement measures that prevent the introduction or spread of the 42 invasive plants listed under the Invasive Plants Regulation within their Forest Stewardship Plans. Please visit the FLNRORD website for more information on the Forest Stewardship Plans.

The WCA requires all land occupiers to control the spread of 64 provincial and/or regional noxious weeds on their land and premises, and specifies provisions for transportation, movement and cleaning of machinery. http://www.bclaws.ca/Recon/document/ID/freeside/10_66_85

The IPMA regulates herbicide applications that may be used to control invasive plant infestations. http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_03058_01

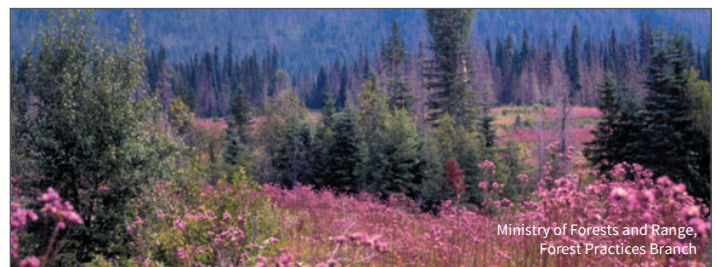
References/Links

Provincial and Regional Coordination:

- » Invasive Species Strategy for British Columbia. 2018-2022: https://bcinvasives.ca/documents/Invasive_Species_Strategy_for_BC-2018-180117-WEB.pdf

Species Identification and Management

- » Field Guide to Noxious Plants and Other Selected Invasive Plants of British Columbia https://bcinvasives.ca/documents/Field_Guide_to_Noxious_Weeds_Final_WEB_09-25-2014.pdf
- » BC Ministry of Forests, Lands and Natural Resource Operation and Rural Development Invasive Plant Program <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/plants>
- » E-Flora BC, Electronic Atlas of the Plants of BC: www.eflora.bc.ca
- » Global Invasive Species Database: <http://www.iucngisd.org/gisd/>
- » Invasive Species Council of BC <https://bcinvasives.ca/resources/tips/>



Provincial Inventory and Mapping Database

- » Invasive Alien Plant Program (IAPP) Application, Reference Guide and Field Forms: <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/reporting-invasive-species>

Integrated Pest Management

- » BC Ministry of Environment Integrated Pest Management Program: <https://www2.gov.bc.ca/gov/content/environment/pesticides-pest-management>

Contact Us:

www.bcinvasives.ca



Go to "Contact Us" link or,
call, write us at:

Phone: 250-305-1003
or 1-888-933-3722

info@bcinvasives.ca

#104 - 197 North 2nd Avenue
Williams Lake, BC V2G 1Z5



Thank you to the BC Ministry of Environment and Climate Change, the BC Ministry of Transportation and Infrastructure for providing project funding, and to those who advised the development of these management recommendations

BEST PRACTICES

FOR PREVENTING THE
SPREAD OF INVASIVE
PLANTS DURING FOREST
MANAGEMENT ACTIVITIES

A POCKET GUIDE FOR BRITISH
COLUMBIA'S FOREST WORKERS

7013 EDITION



[https://www2.gov.bc.ca/assets/gov/
environment/plants-animals-and-ecosystems/
invasive-species/publications/forestry-
bp-09-11-2013-web.pdf](https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/publications/forestry-bp-09-11-2013-web.pdf)

Field Guide to

NOXIOUS

WEEDS AND OTHER SELECTED **INVASIVE PLANTS**

of British Columbia



ORANGE HAWKWEED



LEAFY SPURGE



CANADA THISTLE



TANSY RAGWORT

ELEVENTH EDITION 2021

https://bcinvasives.ca/wp-content/uploads/2021/02/Field_guide_to_Noxious_Weeds_11th_2021.pdf

Reporting Invasive Plants

Unusual plants that appear to be taking over or growing out of control should be reported in one of these ways:

1. ONLINE through Report-A-Weed

<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/reporting-invasive-species>

which connects to the provincial Invasive Alien Plant Program (IAPP) application

2. Report-A-Weed Mobile APP – find download link at

www.reportaweedbc.ca

3. Directly to your regional invasive plant/species committee

Note: BCTS Staff to follow direction in EOP-04 when CHK-009 is initiated

EMS INCIDENT DEFINITIONS AND REPORTING REQUIREMENTS

1. Emergency Response Incidents

- Fire: Any uncontrolled fire related to BCTS activities
- Spills: any spill exceeding BCTS reportable levels or any amount spilled into or immediately adjacent to a stream, lake or running water.
- Erosion/Landslide events: any emergency situations or potential emergency exists, abnormal movement has or is occurring, abnormal sedimentation, a volume of material greater than 250 m3 has moved or is at imminent risk of movement, or a land area greater than 0.25 ha is disturbed through erosion processes

2. Potential Non-Compliance:

- In the opinion of the person reporting, legislation and regulation has been violated and there may be an agency investigation to determine fact and possible enforcement action.

3. Significant Non-conformance:

- An occurrence or event that has or will likely result in a negative environmental impact and cannot be immediately rectified.
- Where the EMS program has been severely compromised and or a “Notice to Comply” has been issued at the discretion of local management. This includes repeated non-conformances that may become significant.

Reportable Levels for Spills		
Substances	BCTS	EMBC
Antifreeze	25 litres	25 litres
Diesel fuel	25 litres	100 litres
Gasoline (auto & saw)	25 litres	100 litres
Greases	25 litres	100 litres
Hydraulic Oil	25 litres	100 litres
Lubricating Oils	25 litres	100 litres
Methyl Hydrate	5 litres	5 litres
Paints & Paint Thinners	25 litres	100 litres
Solvents	25 litres	100 litres
Pesticides	1 kg or 1 litre	1 kg or 1 litre
Explosives	Any	Any

Part A EMS Incident Report Details must be completed by BCTS clients or staff Greyed in fields for completion by BCTS only

Part A EMS Incident Report Details - must be completed by BCTS clients or staff

Business Area: Okanagan-Columbia

Field Team:

TSL # / Contract # / Road Tenure# / Other Permit #:

Licensee / Contractor / Other:

On Site Supervisor or Agent (if applicable):

Activity Description (Harvesting, Roads, Major Structure):

General Location of Incident (operating area, blk, road):

Occurrence Date / Time:

Date / Time Reported to BCTS:

Reported by:

Has incident been reported to regulatory agencies (i.e. C&E)? Yes No Agencies:

Date / Time:

Weather: Clear Cloudy Heavy Rain Light rain Snowing Temp: Cool Warm Hot Snow depth: cm

Incident Type: Fire Spill Erosion Potential Non-Compliance Significant Non-Conformance Other

Detailed description of the incident and associated events:

What actions have been taken to date:

GENERAL COMMENTS (add extra sheets, or use back side of sheet for more actions or comments):

Licensee or Contractor Supervisor Name: Signature:

Date submitted to BCTS:

Received by (BCTS staff name):

Attachment: Additional Pages Photos Maps Correspondence Other

Is further investigation necessary? Yes No (if no, supervisor/staff to provide rationale and signature below part A only)

Level of Investigation Required: Level 1 Level 2 Refer to EOP-04 for definitions

Rationale:

BCTS Supervisor Name and Signature:

Date Signed:

April 1, 2020

1

Note: BCTS Staff to follow direction in EOP-04 when CHK-009 is initiated

Part B Incident Investigation details. This section can be used by BCTS Staff or clients to document investigation details or to help guide an investigation. At a minimum, BCTS Staff must enter investigation details into the BCTS EMS Issue Tracking (ITS) and Action Plan (APN) system.

Part B Incident Investigation Details	Investigation Team Members:	
	Contributing Causal Factors:	
	Root Cause (attach additional pages if necessary):	
	Recommended corrective actions including responsibility and timelines:	
	Recommended preventative actions including responsibility and timelines:	
	Potential Environmental Impacts:	
	Additional Comments:	
	Lead Investigator Name and Signature:	Date Investigation completed:
Timber Sales Manager or Designate Name and Signature:	Date Signed:	

Administrative Detail	Business Area:	Name of Company conducting Test/Drill:	Name of Project (licence, permit, contract):									
	Project Activity											
	☐ Road construction ☐ Deactivation/Rehabilitation ☐ Road/Bridge Maintenance ☐ Harvesting ☐ Silviculture											
	Location of Test/Drill (operating area, block #, road #)	Participants and Observers (attach separate list if more)										
		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">1.</td> <td style="width: 50%;">6.</td> </tr> <tr> <td>2.</td> <td>7.</td> </tr> <tr> <td>3.</td> <td>8.</td> </tr> <tr> <td>4.</td> <td>9.</td> </tr> <tr> <td>5.</td> <td>10.</td> </tr> </table>		1.	6.	2.	7.	3.	8.	4.	9.	5.
1.	6.											
2.	7.											
3.	8.											
4.	9.											
5.	10.											
	<u>Circle Test / Drill Methodology Conducted</u> 1) provided emergency scenario, 2) workers <u>physically</u> responded to a perceived threat by following emergency response procedures in an acceptable sequence, 3) checked emergency response equipment, 4) checked emergency contact numbers <u>Complete Checkboxes Indicating Type of Test or Drill Conducted</u> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">☐ Test ☐ Drill</td> <td style="width: 25%;">☐ Fire</td> <td style="width: 25%;">☐ Spill</td> <td style="width: 25%;">☐ Erosion/Landslide event</td> </tr> </table>			☐ Test ☐ Drill	☐ Fire	☐ Spill	☐ Erosion/Landslide event					
☐ Test ☐ Drill	☐ Fire	☐ Spill	☐ Erosion/Landslide event									
	Additional Comments											

Details	Fire tools complete: ☐ Yes ☐ No			Spill kit complete: ☐ Yes ☐ No			Emergency response plan on site: ☐ Yes ☐ No					
	Steps & Sequence (as described verbally or physically enacted)											
	1											
	2											
	3											
	4											
	5											
	6											
	7											
	8											
9												

Recommendations/Follow up	Results of the Test/Drill Exercise (Copy to BCTS)	
	☐ All essential steps for the test or drill exercise were completed ☐ The sequence of steps was appropriate to assess response levels ☐ Sufficient emergency equipment was available for response	☐ Communication equipment was sufficient to allow reporting in a timely manner ☐ The Incident Report was completed properly ☐ Participants in the test or drill exercise demonstrated adequate training and response.
	Person conducting the Test/Drill:	Date conducted (mm/dd/yy):
	BCTS representative:	
	Comments/recommendations:	

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Section A	Business Area:	Project Number (TSL or Contract)	Date of Inspection:
	Blocks and Roads Inspected:	General Location (operating area)	

		Consideration	Status		
			YES	NO	N/A
Section B	1	Has all training been completed? (BCTS Training matrix)	☐	☐	☐
	2	Have prework meetings been conducted and documented with all on-site workers?	☐	☐	☐
	3	Do all workers understand the project plan? (Specific to their roles and responsibilities) ➤ Site plan, licence document, licence schedules and appendices, road permit, road use permit, project map etc.	☐	☐	☐
	4	Are you following the plan and requirements? ➤ EMS/SFM requirements (EFP's, inspections, fuel handling, local operational controls etc.) ➤ Compliance with legislation (FRPA, Wildfire Act, TDG etc) ➤ Project terms and conditions (contract, license, site plan, permits, etc.)	☐	☐	☐
	5	Are all applicable documents and records on-site, complete, updated as required and available to workers? ➤ Project plan documents and maps, ERP, prework, inspections, training records, EFP's, incidents etc.	☐	☐	☐
	6	Do all workers understand their roles and responsibilities for environmental Emergency Preparedness and Response? (Fires, Spills and Landslides) ➤ Conducting tests/drills, reporting criteria, following ERP etc. ➤ Maintaining emergency response equipment (spill kits, fire tools, fire suppression system, etc.)	☐	☐	☐
	7	Have steps been taken to protect resource features and prevent damage to the environment? ➤ Water, soil productivity, wildlife habitat, fuel handling, chemical handling, clean up and disposal of waste etc.	☐	☐	☐
	8	Have all applicable environmental and safety issues been reported? ➤ Fires, spills, landslides/erosion events, potential legal non-compliances, significant non-conformances (EMS Incidents) ➤ Previously unidentified resource features, changes to the project plan, etc. ➤ Safety incidents and hazards	☐	☐	☐
	9	Have you followed up with all action items from previous inspections and pre-works?	☐	☐	☐
	10	Are there any considerations for improvements to the Project Plan? ➤ Test and drill results, other improvements to the project plan, etc.	☐	☐	☐

	Action #	Correction / Corrective Action	By Who	Due Date	Completed Date
Section C					

Inspected by (print): _____ Signature: _____
--

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Part A Core Information
Worksite Details

Project (TSL or Contract) # _____

Physical location of activity: _____

Latitude: _____

Longitude: _____

Latitude: _____

Longitude: _____

Latitude: _____

Longitude: _____

Duration of Activities: _____

Start: _____

End: _____

Company Contact Information

24 hr Contact Name and Phone (s) #: _____

Company Name/Email: _____

Other Key Emergency Contact(s) #: _____

Environmental Emergency Contact Information

 Forest Fire Reporting : **1-800-663-5555** or * **5555** on cellular

Spill Reporting and other Environmental Emergencies to Land & Water:

1-800-663-3456 Emergency Management BC (EMBC).

 Natural Gas Leaks: Contact EMBC and utility company (if known): FortisBC **1-800-663-9911** (Northeast, Fraser Valley, South), Pacific Northern Gas (Northwest and Northeast) **1-800-663-1173**, Enbridge (Northeast and Fraser Valley) **1-800-663-9931**

 CANUTEC (Canadian Transport Emergency Centre): **1-613-996-6666** or ***666** on cell phone

BC Timber Sales Contact: _____

Daytime Phone #: _____

Emergency Phone #: _____

Part B Supplemental Information. *It is the licensee, permittee and contractor's responsibility to ensure that all the phone numbers are correct.*
General Contact Information

Police: 911

WorkSafeBC: 1-888-621-7233 (24 hrs/day, 7 days/week)

Ambulance: 911

Joint Rescue Coordination Centre: 1-800-567-5111 or cell #727

Fire Department: 911

Hospital: _____

Poison Control Centre: 1-800-567-8911

Water Taxi / Ferry: _____

Helicopter / Aircraft: _____

 Wildfire Status Website: [Wildfire Status](#)

BC Wildfire Service Phone and Fax # (Circle Fire Centre in which activities are occurring):

Coastal: 250 951-4222 Fax: 250-954-0819 / Southeast: 250 365-4040 Fax: 250-365-9919 / Kamloops: 250 554-7701 Fax 250-376-6549

Cariboo: 250 989-2600 Fax 250-989-2672 / Prince George: 250 960-2300 Fax: 250 562-6210 / Northwest: 250-847-6633 Fax 250-847-2737

Part C *Core Information*

FOREST FIRE PREPAREDNESS AND RESPONSE

Initial Fire Response

1. Stop operations and notify the rest of the crew.
2. **Report Forest Fires immediately to the BC Wildfire Service (BCWS) and BCTS.**
3. The person reporting the fire shall remain in contact to communicate details of the fire suppression activities taken and what additional activities may be required.
4. The remaining crew shall begin immediate action to control and extinguish the fire, if practicable and safe to do so, to the extent of their training and competence.
5. The person in charge of a crew taking action to control a fire is responsible for continuing fire control activities until relieved by the licensee/contractor representative or BCWS personnel.

If Alone

- Take immediate action on the fire if you believe you can safely control it yourself. Report the fire to BCWS and the licensee/contractor representative as soon as you feel that the fire can be left alone without spreading out of control.
- If the fire is beyond your ability, notify the BCWS immediately and follow their instructions. DO NOT take action on an intense fire yourself.

☒ **Complete an Incident Report Form (CHK-009 or equivalent) and submit to BCTS.**

Fire Roles and Responsibilities

Prior to Start-Up and During Operations

☒ **For All Industrial Activities**

- Determine fire response equipment for the type of operation and associated fire risk to comply with the Wildfire Regulation: http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_38_2005
- When conducting an industrial operation, sufficient *firefighting hand tools* must be available on site whenever the area is snow free and there is a risk of a fire starting or spreading.
- Hand tools must be a combination and type to properly equip each person who works at the site with a minimum of one firefighting hand tool per person. Tools may include shovels, mattocks, pulaskis, fire extinguishers and hand tank pumps. The BCTS general rule for assessing the adequacy of firefighting hand tools is:

of workers assigned to the site during normal work hours = # of hand tools on site

☒ **For High Risk Industrial Activities**

- Determine if your operations are High Risk as defined in Part 1 of the Wildfire Regulation.
- Determine the danger class, follow danger class restrictions and durations, keep sufficient *firefighting hand tools* plus an adequate *fire suppression system* at the activity site, and maintain fire watcher and communication requirements.
- A fire suppression system means a system for suppressing fire by delivering water, a suppressant, a surfactant, or any combination of these substances.

☒ **Determine Restrictions on High Risk Industrial Activities**

Acquire local weather data to comply with the Wildfire Regulation. Weather station information is available from the BCWS website at <https://www2.gov.bc.ca/gov/content/safety/wildfire-status/wildfire-situation/fire-danger/fire-weather>

- Danger class ratings for your site may be higher than those calculated by the BCWS. Consider local conditions when determining applicable weather station and when to restrict activities.

Note: Refer to the BCWS "Interpretative Bulletin on the Application of the Wildfire Regulation for the Forest Industry" for further guidance to the above, including a defined wildfire prevention and response system (Appendix A) at http://www.bcwildfire.ca/Industry_Stakeholders/Industry/

Fire Roles and Responsibilities continued

- ✓ **Provide 24hr Contact information**
 - Timber Sale License holders must provide an official with a 24 hour a day contact telephone number if the person proposes to carry out an industrial activity on or after March 1 and before November 1 of that year.
- ✓ **Provide copies of your training records as required.**
- ✓ **Ensure employees are trained and aware of all fire emergency responsibilities.**
- ✓ **Complete environmental Emergency Response Plan (eERP) with worksite details and company contact information.**
- ✓ **List the minimum fire equipment that will be maintained on site for “Industrial” and “High Risk Industrial” activities during Danger Classes III, IV, and V (i.e., water tank(s), pump(s) hoses, accessories etc.):**

During Operations

- ✓ **Ensure employees are aware of all fire preparedness responsibilities and trained** as to their fire duties in accordance with WorkSafeBC requirements.
- ✓ **Conduct test(s) and periodic drill(s) of fire preparedness and response.** Tests are to be documented on the BCTS Environmental Emergency Response Test/Drill Report Form CHK-010, records maintained on site and copies of results forwarded to a BCTS representative. Results of drills may be documented on the CHK-010 and maintained on site.

Regularly monitor the appropriate fire weather index information using your representative weather station and determine the appropriate Fire Danger Class for the area. For Danger Class Reports go to <https://www2.gov.bc.ca/gov/content/safety/wildfire-status/wildfire-situation/fire-danger>

- ✓ **Restrict activities during Fire Danger Class III, IV, or V situations.** Implement fire watch, patrol, early shift, and cease activity, as required (see Schedule 3 of the Wildfire Regulation). Monitor activities and changing site/weather conditions. Do not operate solely by the Schedule 3 of the Wildfire Regulation.
- ✓ **Ensure a copy of the environmental Emergency Response Plan (eERP) is onsite.**
- ✓ **Conduct regular fire suppression equipment inspections and maintenance.**
- ✓ **Take action on a forest fire that is within 1 km of the site of the industrial activity.**
- ✓ **Complete Hazard Assessments and Abatement** at prescribed intervals in accordance with the Wildfire Regulation;
 - Keep all debris piles clean, obtain a Burn Registration Number (BRN) by calling 1-888-797-1717, complete hazard abatement and follow requirements including monitoring of burning activities
 - For smoke management / venting indices call the Provincial Venting Index Hotline 1-888-281-2992 or visit the BC Environment Venting Index website;
<http://www.env.gov.bc.ca/epd/epdpa/venting/venting.html>
 - Extinguish and inspect debris piles by the date specified according to the BRN. Apply to extend the BRN if additional time is required to extinguish burned debris piles.

Part D *Core Information*

SPILL PREPAREDNESS AND RESPONSE

Initial Spill Response Activity

1. Discovery and Assessment

- ☒ Follow safety procedures and put on appropriate personal protective equipment prior to initiating response plan.
- ☒ If Safe, **STOP THE PRODUCT FLOW!** Halt activities that are causing the spill (e.g. Close valves; elevate leaking hoses, shut off pumps, etc.). **Minimize Impact of Spill.**
- ☒ Prior to taking action complete an incident assessment (spill identification /volume, assess potential safety, and environmental issues).
- ☒ **If you feel that the spill is beyond your level of training and experience to handle, seek assistance from a spill response specialist.**

2. Notification and Documentation

- ☒ Report spills in accordance with spill reporting criteria listed in Table 1 below.

3. Containment and Recovery.

- ☒ Take action within your ability using resources (hand tools, heavy equipment and spill response equipment) at hand to minimize the spread and impact of the spill until additional resources and expertise arrive.
- ☒ **Due to the hazardous nature of gasoline, volatile gases should be allowed to dissipate before attempts are made to contain or mop up a gasoline spill.**

Spills to Land

- ☒ Determine extent of spill. Contain or redirect spills away from watercourses.
- ☒ Mark the perimeter of the spill, dig recovery ditches around the perimeter and recovery pits (sumps) within the spill area.
- ☒ Monitor ditches and recovery pits to ensure the collection system is effective.
- ☒ Recover the product from the containment area, treat or dispose of appropriately.

Spill to Water

- ☒ In a ditch or stream, contain the spill using whatever surface water containment system possible.
- ☒ Divert and corral the spilled product to a spill containment system using absorbent booms or other methods.
- ☒ Continue to sweep and corral the spilled product for recovery.

For Spills less than 25 litres

- ☒ Soak up all free products with absorbent pads, booms, and other materials.
- ☒ Place used absorbent materials in a suitable container (i.e. heavy-duty plastic bag) for disposal or recycling. Mix stained soil with loose absorbents or commercial bioremediation agents.

4. Follow-up, Disposal and Site Restoration

- ☒ Ensure spills have been documented and reported to agencies and BCTS as required.
- ☒ Complete clean-up and required mitigation actions. If required, contact a spill response specialist for assistance.
- ☒ **Complete an Incident Report Form (CHK-009 or equivalent) and submit to BCTS.**

Spill Roles and Responsibilities

- ✓ **Assess risk for potential spills** identify additional preventative and control measures
- ✓ **Ensure all workers understand the environmental emergency response plan** and it is available on site at all times.
- ✓ **Ensure all workers are familiar with potential spill sites, spill kit locations and spill kit requirements.**
- ✓ **Ensure workers are trained/aware** in WHMIS, TDG and Spill response
- ✓ Have available on site appropriate MSDS.
- ✓ **Conduct test(s) and periodic drill(s) of spill preparedness and response.** Tests are to be documented on the BCTS Environmental Emergency Response Test/Drill Report Form CHK-010, records maintained on site and copies of results forwarded to a BCTS representative. Results of drills may be documented on the CHK-010 and maintained on site.
- ✓ **Complete spill kits inspections and maintain spill kits** as necessary
 - For Equipment spill kit content requirements see Fuel Handling Environmental Field Procedure EFP-06.
- ✓ **Respond to all spills** in accordance with the emergency response plan.
 - If you are responsible for a spill of hazardous material, you are then responsible to take appropriate actions to minimize environmental impact.
- ✓ **Report all reportable spills** to the appropriate agencies and to BCTS.

Spill Reporting Criteria (If in Doubt Report the Spill)

- ✓ All spills that are equal to or greater than the EMBC reportable level must be reported to EMBC as soon as possible and within 24hrs.
- ✓ Any spills of deleterious substance to a watercourse must be reported to EMBC as soon as possible and within 24hrs.
- ✓ All spills that are equal to or greater than the BCTS reportable level must be reported to BCTS contact as soon as possible and within 24 hrs.

Table 1: Reportable Levels of Hazardous Materials Spills

Hazardous Material	EMBC Reportable Level ⁽¹⁾	BCTS Reportable Level ⁽²⁾
Antifreeze	25 litres	25 litres
Diesel fuel	100 litres	25 litres
Gasoline (auto & saw)	100 litres	25 litres
Greases	100 litres	25 litres
Hydraulic Oil	100 litres	25 litres
Lubricating Oils	100 litres	25 litres
Methyl Hydrate	5 litres	5 litres
Paints & Paint Thinners	100 litres	25 litres
Solvents	100 litres	25 litres
Pesticides	1 kilogram or 1 litre	1 kilogram or 1 litre
Explosives	Any	Any

(1) as required by the BC Spill Reporting Regulation

(2) or a spill of ANY quantity that enters a surface water body (e.g.: running ditch, stream, lake)

Part E *Core Information*

LANDSLIDE & EROSION EVENT RESPONSE

Initial Response Activity

1. **Evaluate.** Follow applicable safety procedures and notify supervisor and other workers. If safe to do so, assess situation to determine if activities must be shutdown.
2. **Immediate Remedial Action.** Take steps to control further environmental impacts.
3. **Notification.** Report the erosion event to the BCTS contact within 24 hours or as soon as practical. (Refer to Reporting Criteria). It is also the LPC's responsibility to notify applicable regulatory agencies of an erosion event that may impact resource values such as fish sensitive areas, domestic watersheds, private property etc. (e.g. DFO, EMBC). Notify WorkSafeBC if the slide event relates to a safety incident.
4. **Before Leaving the Site.** Supervisors must account for all workers before leaving the site. If a shutdown is required, park all equipment in an environmentally safe location (i.e. avoid riparian management areas, steep side slopes, steep road sections, areas with excessive soil moisture, areas within reach of standing timber, etc.).
5. **If Environmental Damage Has Occurred.** The BCTS contact must review the situation with the appropriate personnel.
6. **Complete an Incident Report Form (CHK-009 or equivalent) and submit to BCTS.**

Landslide & Erosion Roles and Responsibilities

- ☒ **Verify** that operations are conducted in a manner that minimizes the risk of a landslide and major erosion event occurring.
- ☒ **Ensure all workers understand and are trained** in response procedures and the environmental emergency response plan is available on site at all times.
- ☒ **Supervisor** to ensure all employees are familiar with risk areas.
- ☒ **Conduct test(s) and periodic drill(s) of Landslide/Erosion Emergency Response.** Tests are to be documented on the BCTS Environmental Emergency Response Test/Drill Report Form CHK-010, records maintained on site and copies of results forwarded to a BCTS representative. Results of drills may be documented on the CHK-010 and maintained on site.
- ☒ **Assess** landslides and erosion events, determine reporting requirements, and report to BCTS contact immediately where applicable.
- ☒ **Respond to erosion events** in accordance with this emergency response plan.

Landslide/ Erosion Event Reporting Criteria

Landslides and major erosion events must be reported to BCTS in ANY of the following circumstances:

- Loss or imminent loss of life or property,
- Significant environmental damage,
- Situations which potentially create loss of provincial revenue or funds,
- Abnormal movement has occurred or is actively occurring at a site,
- Abnormal sedimentation,
- A volume of greater than 250 m³ has moved or is imminent danger of movement,
- A land area greater than 0.25 hectares is disturbed,
- A road or structure is damaged and requires structural repairs.

Date: _____
Contract/License #: _____

WHMIS = Workplace Hazardous Materials Information System

LPC Training Summary

Workers and Supervisors (Names)	WHMIS All workers that deal with hazardous materials (Date)	S-100 or S-100A Training (Date)	BCTS LPC EMS/SFM Awareness Training Certification (Date)	BCTS EMS Tailgate Training Trainer: _____ (Date)	Transportation of Dangerous Goods Required when Transporting Class 3 dangerous goods in quantities >2000 litres (i.e. single or aggregate quantities) (Date)	SFM Training As required provincially and by the Business Area e.g. SFI Client General Awareness, Species at Risk, Invasive Plants (Date)

LANDSLIDE SITE ASSESSMENT FORM

LOCATION DESCRIPTION / WATERSHED:		DATE OF ASSESSMENT:	
		TEAM MEMBERS PRESENT:	
		ATTACHED: x PHOTOS ☐ MAP ☐ SKETCH	
INITIATION ZONE COORDINATES (UTM): ZONE: NORTHING EASTING		DATE OF EVENT: ☐ KNOWN x ESTIMATED	
EVENT TYPE: ☐ DEBRIS FLOW ☐ DEBRIS AVALANCHE DEBRIS SLIDE ☐ ROCK SLIDE ☐ SLUMP x WASHOUT ☐ SNOW AVALANCHE ☐ OTHER			
DESCRIBE EVENT: MEASUREMENTS (initiation zone): LENGTH (m): WIDTH (m): DEPTH (m): EST. AREA (m ²): EST. VOLUME TRANSPORTED (m ³):			
INITIATION ZONE: ☐ IN BLOCK ☐ BELOW BLOCK ☐ ROAD CUT ☐ ROAD FILL ☐ < 200 m BELOW ROAD OTHER			
TRANSPORT ZONE: LENGTH (m): WIDTH (m): EST. AREA (m ²):			
DEPOSITION AREA: LENGTH (m): WIDTH (m): DEPTH (m): EST. AREA (m ²): EST. VOLUME DEPOSITED (m ³):			
SLOPE AT HEADSCARP: SLOPE ABOVE: SLOPE BELOW: SLOPE CONFIGURATION:			
SEEPAGE: ☐ MAJOR x MINOR ☐ ABSENT COMMENTS: TENSION CRACKS x OR OTHER INDICATORS OF INSTABILITY: OTHER LANDSLIDE ACTIVITY NEARBY?			
DEPOSITION AREA: ☐ ROAD ☐ GULLY ☐ CREEK x LAKE ☐ RIPARIAN ☐ OPEN SLOPE ☐ FAN ☐ OTHER			
SUSPECTED CAUSE: ☐ ROAD DRAINAGE ☐ BLOCK ☐ CUT SLOPE FAILURE ☐ FILL SLOPE FAILURE ☐ NATURAL ☐ OTHER			
COMMENTS:			
IMPACTS/DAMAGE: (Include area affected (ha), stream impact, property damage, infrastructure damage etc.)			
RESIDUAL HAZARD:			
IMMEDIATE ACTIONS TAKEN:			
RECOMMENDED FURTHER ACTIONS: <div style="display: flex; justify-content: space-between;"> <div> ☐ FURTHER GEOTECHNICAL ASSESSMENT ☐ SEED MIX APPLICATION ☐ ROAD REPAIR PRESCRIPTION ☐ OTHER: </div> <div> ☐ DRAINAGE PLAN / STUDY ☐ LANDSLIDE REHABILITATION PLAN ☐ SLOPE STABILIZATION </div> </div> RECOMMENDED NOTIFICATIONS:			
IS THERE POTENTIAL FOR FUTURE IMPACTS TO PUBLIC SAFETY, INFRASTRUCTURE OR OTHER DOWNSLOPE VALUES?			
NAME:		SIGNATURE:	
		DATE:	

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To Report a Wildfire:

1-800-663-5555 or *5555 (from a cell phone)

Also notify BCTS contact as soon as possible. *Expect the emergency call taker to ask for details about the fire, such as;*

Location (i.e. Where is the fire? How far up the hillside? Closest intersection?)

Size (i.e. Metres? Hectares? Size of a house? Size of a football field?)

Rate of spread (i.e. How quickly is the fire spreading?)

Fuel (i.e. What is burning? Grass, bushes, trees?)

Smoke/flames (i.e. What colour is the smoke? Are flames visible?)

Threat (i.e. Are there any people or buildings at risk?)

Action (i.e. Is anyone fighting the fire?)

Campfires (If reporting a campfire, can you tell if it is wood burning or is it a propane campfire?)

Table 1: Reportable Levels of Hazardous Materials Spills

Hazardous Material	EMBC Reportable Level ⁽¹⁾	BCTS Reportable Level ⁽²⁾
Antifreeze	25 litres	25 litres
Diesel fuel	100 litres	25 litres
Gasoline (auto & saw)	100 litres	25 litres
Greases	100 litres	25 litres
Hydraulic Oil	100 litres	25 litres
Lubricating Oils	100 litres	25 litres
Methyl Hydrate	5 litres	5 litres
Paints & Paint Thinners	100 litres	25 litres
Solvents	100 litres	25 litres
Pesticides	1 kilogram or 1 litre	1 kilogram or 1 litre
Explosives	Any	Any

(1) as required by the BC Spill Reporting Regulation

(2) or a spill of ANY quantity that enters a surface water body (e.g.: running ditch, stream, lake)

Landslide / Erosion Events Reporting:

Report the erosion event to BCTS contact within 24 hours or as soon as practical.

*It is also the LPC's responsibility to notify applicable regulatory agencies of an erosion event that may impact resource values such as fish sensitive areas, domestic watersheds, private property etc. (e.g. DFO, EMBC). Notify WorkSafeBC if the slide event relates to a safety incident.

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