


# ENVIRONMENT

## CONSTRUCTION SPILL RESPONSE PLAN

*20220325\_SR1\_VIC\_ENV\_PLA\_03*



DOCUMENT SUBMITTAL HISTORY					
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## Construction Spill Response and Communications Plan

Vinci Infrastructure Canada (“Vinci” or “Contractor”) was retained by Alberta Transportation to complete construction of the Springbank Off-Stream Reservoir (SR1). The Consultant for the Project is Stantec Consulting Ltd. (“Stantec” or “Consultant”). This facility consists of infrastructure to divert and retain a portion of Elbow River flows within an off-stream reservoir during flood conditions and release of water in a controlled manner after the threat of flood has subsided. This Construction Spill Response and Communications Plan outlines the internal and external communication process for spills that may result in an adverse environmental effect in relation to the construction phase of the SR1.

Vinci will ensure all spills are reported to Alberta Transportation and Stantec to initiate the protocols identified in the overarching SR1 Communication Plan. Employees, sub-contractor, or any person attending the Project site must report all spills to the Contractor’s construction site office immediately. The contact information and reporting specifics will be discussed with each person upon entering the Site during the Orientation and daily briefing session.

### Types of spills

The Project could result in the following spill or environmental emergency scenarios: fire, spills, vehicle accident and overtopping. Any accidents or malfunctions with respect to third party works (i.e. pipeline and utility work) would be carried out by the third party, following that company's A&M plan or policy.

#### Hazardous Materials Spills

Potential hazardous materials that could occur on the Project site includes fuels, lubricants (e.g., engine oil, transmission or drive train oil, hydraulic oil), coolants (e.g., ethylene glycol and propylene glycol), paints, and solvents. The improper handling, use, or storage of these materials on site would be the most likely cause of a hazardous waste spill. The highest probability of a spill would be expected to occur during construction as the materials would be stored on site.

#### Fires

There are four potential causes of a fire that could occur during project construction: natural events (e.g., lightning strikes and wildfires); electrical power project component malfunction; equipment malfunction; or anthropogenic activities. The likelihood of fires is highest from natural events and anthropogenic activities, as component or equipment malfunctions are unlikely to cause fires.

### Hazardous Materials Spills, Handling and Containment

Hazardous material storage, containment, handling, and disposal procedures are listed in **Table 1** and the following practices will be implemented to prevent or minimize hazardous material contamination:

- Hazardous materials will be transported, handled and stored in compliance with the Workplace Hazardous Materials Information System (WHMIS). A list of hazardous materials used and stored on site together with safety data sheets (SDS) will be maintained and prominently displayed on

site. Workers will be educated and trained so they understand the hazards, and know how to work safely with hazardous products;

- Not release, dump, spill or dispose of any substance into the environment that causes or could cause Environmental Damage or Degradation or harm human health or safety;
- Any spill, release, or emergency that may cause, is causing or has caused an adverse effect to the environment must be immediately reported to Alberta Environment within 24 hours of the occurrence;
- Mitigate to ensure compliance with all regulatory legislation, any wastes arising from the Work and any other substances that causes or could cause impairment of or damage to the environment or human health or safety;
- Mitigate any potential for Hazardous Substances to enter the environment through appropriate sediment and erosion control measures, and the limitation of using herbicides and fertilizers in the dry reservoir and near waterbodies, and using non-toxic biodegradable hydraulic fluids in equipment for any required instream Work;
- Remove spilled Hazardous Substances and liquid wastes in accordance with regulatory requirements;
- Use regularly maintained and mechanically sound equipment with no oil leaks, fuel or fluid leaks;
- Inspect equipment daily and immediately repair any leaks in accordance with regulatory requirements;
- Manage and safely store fuels, lubricants and hydrocarbons if located on the Site;
- Employ persons who are qualified to handle construction equipment fuels, lubricants and hydrocarbons;
- Transport construction equipment fuels, lubricants and hydrocarbons in accordance with regulatory requirements;
- Prevent handling and fueling operations from contaminating the ground, surface water, and ground water and shall at all times prevent environmental damage or degradation;
- Use containment berms and an impermeable base course, concrete pads or other system to contain spilled fuel;
- Clearly mark and barricade fuel storage areas and non-portable transfer lines that are visible under all weather conditions;
- Ensure that all fuel nozzles are equipped with functional automatic shutoffs. Service vehicles and fuel trucks shall carry a minimum 10 kg of commercial grade absorbent, shovels, and an empty fuel barrel in case of a spill;
- Store waste materials in a tank or closed container and dispose of off-Site in accordance with regulatory requirements;
- All on-Site fuel storage tanks larger than 1000 litres shall be located in a bermed area lined with polyethylene sheeting. The bermed areas shall have holding capacities equal to or greater than 110 % of the largest tank within the berm;
- The Contractor shall maintain 100 m setback between stored fuels, lubricants and hydrocarbons and rivers, streams and surface water bodies;
- All equipment servicing activities with the potential for accidental spills (i.e. oil changes and hydraulic repair) shall be conducted in a designated area over an impervious tarpaulin. These activities shall not be undertaken within 100 m of rivers, streams and surface water bodies;
- Potential contaminant-related effects will be mitigated through road water runoff management, using appropriate sediment and erosion control measures, limiting the use of herbicides and fertilizers in the dry reservoir and near water bodies, and using non-toxic biodegradable hydraulic fluids in equipment for any required instream works.

**SPRINGBANK DAM PROJECT****CONSTRUCTION SPILL RESPONSE PLAN**

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**Table 1:** Hazardous materials storage, containment, handling, and disposal methods

Hazardous Material	Handling Procedure	Storage Location and Containment	Reuse, Recycle or Disposal Method
Fuel (diesel and gasoline)	All machinery will be refueled at least 100 m from any watercourse or waterbody to avoid spills.	All fuel containers will be stored at the refueling area located at least 100 m from any waterbody and located within secondary containment having 110% of the capacity of the largest vessel inside the containment. Containers will be appropriately labeled, and "No Smoking" sign erected at location.	Gasoline tanks will be reused on subsequent projects.
Cooling Fluids	All machinery will be serviced at least 100 m from any watercourse or waterbody to avoid spills. Drip pans and absorbent matting will be used during equipment servicing, refueling, or wherever fluids may be released. A spill kit will be located within the same area and readily accessible.	All cooling fluid containers will be stored 100 m from any waterbody in a fireproof containment locker and located within secondary containment having 110% of the capacity of the largest vessel inside the containment.	Used cooling fluid and containers will be transferred off-site to appropriate recycling/disposal facilities.
Lubricants, oil, hydraulic fluid	All machinery will be serviced at least 100 m from any watercourse or waterbody to avoid spills. Drip pans and absorbent matting will be used during equipment servicing, refueling, or wherever fluids may be released. A spill kit will be located within the same area and readily accessible. Where possible, environmentally friendly, vegetable-based fluids will be used.	All lubricant, oil, and hydraulic fluid containers will be stored 100 m from any waterbody in a fireproof containment locker and located within secondary containment.	Used filters, oils, lubricants, and other waste materials will be transferred off-site to appropriate recycling/disposal facilities.
Antifreeze	All machinery will be serviced at least 100 m from any watercourse or waterbody to avoid spills. Drip pans and absorbent matting will be used during equipment servicing, refueling, or wherever fluids may be released. A spill kit will be located within the	Antifreeze will be stored 100 m from any waterbody in a fireproof containment locker and located within secondary containment.	Used antifreeze and containers will be transferred off-site to appropriate recycling/disposal facilities.

Hazardous Material	Handling Procedure	Storage Location and Containment	Reuse, Recycle or Disposal Method
	same area and readily accessible.		
Concrete	Any concrete work will be conducted to prevent any material from entering the watercourse	N/A	Extra material will be loaded on to trucks and transported to the proper recycling facility.

**Table 2:** Steps to take during a spill response of a substance release

Steps	General	Specific
1	Be Safe – Assess the Risk	<ul style="list-style-type: none"> <li>• Never rush in</li> <li>• Warn others in the area</li> <li>• If safe to do so, identify product and select appropriate Personal Protective Equipment (PPE) using SDS</li> <li>• Eliminate all sources of ignition</li> <li>• Stay upwind of vapors</li> </ul>
2	Call for Assistance	<ul style="list-style-type: none"> <li>• Call co-worker/Supervisor/Health, Safety and Environment (HSE) Department</li> </ul>
3	Stop the Flow	<ul style="list-style-type: none"> <li>• If safe to do so, set containers upright</li> <li>• Close valves, shut off pumps, plug leaks</li> <li>• Place contents of a leaking container into a secure container</li> </ul>
4	Contain the Spill	<ul style="list-style-type: none"> <li>• Block drains, culverts, scuppers, and other escape points</li> <li>• Contain spill with sorbents, earth, sand, or other non-combustible materials</li> <li>• Do not use detergents to disperse oil products</li> </ul>
5	Report	<ul style="list-style-type: none"> <li>• Report details of the spill verbally to a Supervisor or HSE Department and Alberta Transportation</li> <li>• Complete an Incident Report, as required</li> <li>• Any spill, release, or emergency that may cause, is causing or has caused an adverse effect to the environment must be immediately reported to Alberta Environment within 24 hours of the occurrence</li> </ul>
6	Clean up	<ul style="list-style-type: none"> <li>• Collect all used sorbent material using clean non-sparking tools</li> <li>• Place all waste materials in labeled, sealed containers or plastic bags</li> <li>• Use appropriate waste contractor for disposal</li> <li>• Storage of liquid material in secondary containment able to contain 110% of the volume of the liquids being stored before disposal</li> <li>• Remediation and additional monitoring of area will be conducted as required</li> </ul>

## Reporting

Environmental emergency reporting procedures and contact information are presented in **Table 3**. In case of an environmental emergency, Vinci will shut down all operations until the appropriate regulator is notified. Releases will be reported to AEP at the first available opportunity as soon as the person responsible knows or should know about the release. *EPEA* Reporting Spills and Release guideline is attached and will be followed.

**Table 3:** Environmental emergency reporting procedures and contact information

Environmental Emergency	Regulations	Procedures	Contact Information
Hazardous Waste Spill  Deleterious Substance Release (Sediment)	<i>EPEA</i>	Any spill, release or emergency that may cause, is causing, or has caused and adverse effect to the environment must be immediately reported to Alberta Environment including Environmental Coordinator, Project Manager and the Consultant within 24 hours of occurrence.: <ul style="list-style-type: none"> <li>• location and time of release</li> <li>• description of circumstances leading to release type and quantity of substance released</li> <li>• Type and quantity of substance released</li> <li>• details of any action proposed or taken at the release site</li> <li>• description of immediate surroundings</li> </ul> Written reports will be submitted to the Environmental Response Centre within 7 days of the oral report. The Release Reporting Regulation sets out the content and manner required for a written report. The written report must include the following information: <ul style="list-style-type: none"> <li>• The date and time of the release;</li> <li>• The location of the point of the release;</li> <li>• The duration of the release and the release rate;</li> <li>• The composition of the release including concentration, total weight, quantity or amount released;</li> <li>• A detailed description of the circumstances leading up to the release;</li> <li>• The steps or procedures which were taken to minimize or stop the release;</li> <li>• The steps or procedures which will be taken to prevent future releases; and Any other information required.</li> </ul>	1-800-222-6514

Environmental Emergency	Regulations	Procedures	Contact Information
Fire	<i>Forest and Prairie Protection Act</i>	If a wildfire is documented or created within the project and surrounding area, provide the following information to AEP: <ul style="list-style-type: none"> <li>location and time of wildfire</li> </ul>	310-FIRE (3473)
Observation of a Species at Risk	<i>Alberta Wildlife Act</i>	Document visual as best as possible, including: <ul style="list-style-type: none"> <li>location and time</li> <li>species name and/or description (color, approximate size)</li> </ul> pictures if possible	AEP Wildlife Officers 310-ESRD (3773)
Fisheries and Oceans Canada	<i>Fisheries Act</i>	If contractor is in contravention of this act, they will document information as it pertains to the <i>Fisheries Act</i> and if further information is required the toll-free number will be contacted.  The contractor will also notify the Environmental Coordinator, Project Manager and the Consultant.	1-855-852-8320
Discovery of Historical Resources	<i>Historical Resource Act</i>	If contractor becomes aware of historic resources during construction activities they will stop work, shut down equipment and notify Environmental Coordinator, Project Manager, and the Consultant. This is required, under Section 31 of the <i>Act</i> – Reporting the Discovery of Historic Resources.	310-0000

## Communications Plan

Communications are captured in the Project Communication Plan, prepared on January 19, 2022, in Section 9.4.

Vinci is committed to complying with regulatory conditions set out by the regulators. Should an incident occurs as a fire, spill, vehicle accident and overtopping, Vinci will report to Alberta Transportation and Stantec within 24 hours of the incident for the Communications Plan to be implemented.

# Reporting Spills and Releases

The *Environmental Protection and Enhancement Act* (EPEA) requires any release of substances that could cause an adverse effect to the environment be reported to Alberta Environment and Parks.

The *Release Reporting Regulation* sets out what must be reported, when, how and to whom reports must be made. Individual approvals and codes of practice may also have requirements for reporting contraventions of the terms and conditions of the approval or code of practice, monitoring results and sampling programs.

## When to Report

Releases of a substance into the environment that **may** cause, **is** causing or **has** caused an adverse effect must be reported to Alberta Environment and Parks. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property.

## Who Must Report

The person who releases, causes or permits the release, or has control of the substance released, is responsible for reporting.

Prompt reporting helps to ensure adverse impacts are addressed properly and minimized if possible, and directly affected parties are notified.

## How to Report

Releases must be reported to Alberta Environment and Parks at the **first available opportunity** as soon as the person responsible knows or should know about the release.

- Reports must be made by calling 1-800-222-6514

Electronic reporting *may* also be available. For further information please contact your regional Alberta Environment and Parks office.

When reporting, please provide:

- The location and time of the release;
- A description of the circumstances leading to the release;
- The type and quantity of substance released;
- The details of any action proposed or taken at the release site; and
- A description of the immediate surrounding area.

A reference number will be issued to confirm that the report was made.

## Written Report

A written report must be submitted to the appropriate Alberta Environment and Parks Director within seven days after the immediate report.

Written reports must include:

- The date and time of the release;
- The location of the release;
- The duration of the release and the release rate;
- The concentration, total weight, quantity or amount released;
- A detailed description of the circumstances leading to the release;
- The steps or procedures which were taken to minimize, control or stop the release;
- The steps or procedures which will be taken to prevent similar releases in the future; and
- Any other information required by the Director.



Written reports can be sent by:

Fax: (780) 427-3178

Email: [ERC.Environment@gov.ab.ca](mailto:ERC.Environment@gov.ab.ca)

or mailed to:

### **Alberta Environment and Parks**

Environmental Response Centre

#111, Twin Atria Building

4999 — 98 Avenue

Edmonton, AB T6B 2X3

## What Doesn't Have to be Reported

Generally, releases of the following substances do not have to be reported to the department:

- Substances released according to an approval or code of practice;
- Substances regulated by the *Oil and Gas Conservation Act* or the *Dangerous Goods Transportation and Handling Act* (these types of releases may need to be reported to other regulators).

The release of these substances are reportable if:

- It has caused, is causing or may cause an adverse effect;
- The amount exceeds the quantities or emission levels set out in the legislation, guideline, approval or code of practice; and/or
- The release is into a groundwater or surface water body.

If unsure whether the quantities or levels are exceeded, the release should be reported.

## What Happens After You Report

Alberta Environment and Parks responds to all reports. The first priority is always to ensure that any spill or release is contained and appropriately cleaned up.

The department also ensures all appropriate authorities are notified to ensure proper response efforts are underway.

After the situation is being appropriately managed and is under control, the department will work to gather more information about the release incident to determine the cause of the release and how to prevent future releases.

Once this is complete, a decision is made on whether enforcement action is necessary, and what that enforcement action should be.

## Penalties for Not Reporting

Failure to report a release of a substance causing an adverse effect on the environment can result in a fine of up to \$100,000 and a year in jail for an individual, and a \$500,000 fine for an organization or company.

## For More Information

For more information about release reporting requirements, contact the Alberta Environment and Parks regional office nearest you.

- [aep.alberta](http://aep.alberta)