

2013

Waste Management
Name Here

[EMERGENCY RESPONSE PLAN]

Emergency Response Plan

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Emergency Response Plan

Introduction

The **(place name here)** response plan sets out appropriate procedures to address foreseeable emergencies. The key elements of this plan are:

1. What is the nature and severity of the emergency?
2. What is to be done? and
3. Who does it?

Emergency and contingency responses include the following:

- Fires;
- Accidents and Medical Emergencies;
- Environmental and Operation Contingencies.

Emergency Plan Updates

The Commission will review the emergency plan annually and following an emergency incident to ensure that:

- Emergency response procedures for the **(place name here)** are effective and updated as necessary;
- Appropriate individuals are appointed to manage emergency situations;
- Regular fire prevention meetings are conducted with all landfill employees and the Fire Department; and
- Hold regular safety and emergency meetings with landfill employees.

Emergency Organization

The key to success of the emergency plan is to assign a responsible person to take charge of an emergency situation. The **(Designated Officer)** is designated to have the primary responsibility to manage emergency situations at the landfill. The landfill Certified Operator is designated as the alternate person responsible.

The **(place designated officer here)** will have complete commission for the duration of the emergency. This together with proper training of operating personnel, practice drills to test emergency response activities, and continual review and updating of the plan will be undertaken to ensure an efficient and effective response to any emergency that may occur.

(place designated officer here) Responsibility

The **(place designated officer here)** has the responsibility to:

- Declare an emergency;
- Review and update the emergency response procedures;
- Ensure that all emergency response procedures are appropriate;
- Respond to all emergencies and to contact appropriate emergency response agencies;
- Establish control of the emergency prior to the arrival of appropriate emergency response agencies;
- Direct personnel and site visitors to a safe muster point;
- Liaise with the emergency response representatives upon their arrival;

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- Correct any potential emergency or unsafe situations; and
- Complete necessary documentation with respect to emergencies.

The **(place designated officer here)** will report any emergency or contingency situations to the Commission Manager. The Commission Manager will contact appropriate agencies to report incidents related to environmental or health and safety issues related to the emergency or contingency activities.

Evacuation Procedures

In the event that an area or structure at the landfill must be evacuated due to a fire, gaseous, or other situations, landfill employees, customers, and site visitors will be evacuated. Employees and site visitors will exit buildings via the closest exit and will proceed to a designated muster point.

In the event of a fire or gaseous release from active areas of the landfill, the Equipment Operator, and/or Certified Operator will direct all staff and site visitors to immediately leave the area and proceed to the designated muster point. Visitors will be requested to remain at the muster point until otherwise notified.

The designated muster point is to be designated for each emergency situation according to the nature and the location of the emergency and a safe exit route. A muster point **must not** be used when it is unsafe or that is downwind of a fire or gaseous release.

Muster points

Alternate muster points are:

1. Primary: **(first designated muster point)** or
2. Secondary: **(second designated muster point)**; or
3. An alternate area designated by the Certified Operator.

The following rules apply to all employees during an evacuation emergency:

- DO NOT EXIT BUILDINGS THROUGH A SMOKE-FILLED AREA. EXIT VIA AN ALTERNATE EXIT, AND NOTIFY THE EMERGENCY RESPONSES DEPARTMENT AT 911.
- DO NOT RETURN TO WORK AREA WHEN AN ALARM SOUNDS.
- DO NOT ATTEMPT TO RE-ENTER A SMOKE FILLED AREA OR BUILDING, OR AN AREA THAT IS BEING EVACUATED DUE TO A CHEMICAL RELEASE.
- DO NOT ATTEMPT TO REMOVE ANY VEHICLE FROM A PARKING AREA OR AREA THAT IS ENDANGERED BY A FIRE OR CHEMICAL RELEASE.

When the evacuation is complete, the Certified Operator will then proceed to the muster point.

The prime consideration for the Certified Operator is to ensure that all employees and site visitors are safely evacuated. The Certified Operator will:

- Only if safe to do so, check areas and buildings, including washrooms, to ensure that all individuals have left;
- Closing doors as they move throughout the facility;
- Will meet at the muster point to ensure all site employees have been evacuated;
- Await for appropriate emergency response personnel; and

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- As required, establish perimeter security, conduct searches, or other actions that may be warranted by specific circumstances.

The Scale Attendant at the time of an alarm will remove the Visitor Log Book and take it to the muster point. The Certified Operator will verify any names appearing in the book as being present or employees who are signed out or away from the facility at the time of the alarm.

Employees and visitors must treat fire alarms as an actual fire and undertake a total and immediate evacuation of the facility. If for some reason, the alarm stops, employees and visitors will always complete the evacuation. In the event of a fire or chemical release, the Certified Operator is **NOT** to conduct searches in the involved areas for their own personal safety. If personnel are unaccounted for, emergency response search and rescue personnel will be informed.

It is imperative that all employees and visitors remain at the muster point until the Certified Operator gives permission to return to the respective areas or to leave the site. Upon termination of the emergency, an “All Clear” will be indicated to allow employees and visitors to return to their work areas. Under NO circumstances will an employee or visitor return to the work area prior to receiving permission from the Certified Operator.

Medical Emergencies

All injuries should be considered important and should be reported as a safety incident to the Landfill Manager.

First Aid should be applied that is appropriate to the nature of the injury, and in the event the injury requires medical assistance, the individual should be either taken to a medical emergency centre, or an ambulance service contacted.

A medical doctor should be consulted for all injuries that may result in infections as a result of working with waste materials. This includes injuries such as cuts and scrapes, skin punctures with sharp items, and fire or chemical burns.

If the person injured is a site customer or visitor, Regional Landfill employees are to provide any assistance necessary and will apply appropriate First Aid.

Minor Medical Injuries

Prevention

- Safety Plan and Procedures.
- Employee Safety Training and Awareness.
- First Aid Training.

Emergency Response Plan

Response Plan

Action	Time Frame	Who?	Resources
Apply appropriate First Aid	Immediately	<ul style="list-style-type: none"> • First Aider 	
Recommend injured person consult a physician	Immediately	<ul style="list-style-type: none"> • First Aider 	
Take injured person to a medical emergency centre or contact an ambulance service if deemed appropriate	Immediately	<ul style="list-style-type: none"> • First Aider 	
Review cause of the injury and prepare appropriate mitigative measures	Within 1 month	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 	<ul style="list-style-type: none"> • Site Staff • Occupational Health and Safety

Serious Medical Injury

Prevention

- Safety Plan and Procedures.
- Employee Safety Training and Awareness.
- First Aid Training.

Response Plan

Action	Time Frame	Who?	Resources
Assess site conditions for personal safety and safety of others, and take appropriate actions to secure unsafe areas	Immediately	<ul style="list-style-type: none"> • Landfill Manager • First Aiders 	<ul style="list-style-type: none"> • Site employees
Attend to the injured person and apply First Aid	Immediately when safe to do so	<ul style="list-style-type: none"> • First Aider 	
Contact 911	Immediately	<ul style="list-style-type: none"> • First Aider • Site employees 	
Stay with the injured person until medical assistance arrives	Duration of medical emergency	<ul style="list-style-type: none"> • First Aider 	
Conduct an investigation to determine the cause of the injury and prepare appropriate mitigative measures	Investigate immediately following the incident. Complete mitigative measures within 1 month of the incident.	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 	<ul style="list-style-type: none"> • Site Personnel • Occupational Health and Safety

Emergency Response Plan

Vehicle or Equipment Accidents

All vehicle accidents should be reported and an investigation as to the cause should be carried out. Following the investigation, appropriate mitigative measure should be determined and implemented to avoid future accidents.

Prevention

- Safety Plan and Procedures.
- Employee Safety Training and Awareness.
- Traffic Control Signs.
- Scale traffic controls.

Response Plan

Action	Time Frame	Who?	Resources
Report the accident to the <i>(place designated officer here)</i>	Immediately	<ul style="list-style-type: none"> • All employees 	
If damage is minor, have the vehicle driver report the accident to the RCMP. Take pictures prior to vehicle leaving.	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Landfill Staff 	
If the damage is significant, call the RCMP, take pictures.	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Landfill Staff 	
If an injury is involved, call 911, and implement medical response actions	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Landfill Staff 	
Secure the area for a follow-up investigation	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Landfill Staff 	
Conduct an investigation to the cause of the accident and prepare appropriate mitigative measures	Within 1 month of the accident	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager • RCMP • Occupational Health and Safety 	

Emergency Response Plan

Fires

Fire Prevention

The **(place name here)** will be operated in a manner that will minimize the potential for landfill fires. Fire prevention techniques will include:

- Thoroughly compacting all waste;
- Applying daily cover to completely cover each cell's daily waste;
- Maintaining a comprehensive load checking program to prevent the dumping of hot/burning materials;
- Maintaining a program of separating the dumping of ash barrels from general waste tipping face;
- Maintenance around burn pits to keep weeds and grass down to maintain a fire break area; and
- Ongoing employee training on early fire hazard recognition.

General Fire Response Procedures

Fires may occur at the following locations:

- Fires in the scale/administration building;
- Fires in the equipment maintenance building;
- Fires in storage compounds or in recycling containers;
- Fires at the active landfill working face; or
- Fires in treed or grassed areas.

All fires will be treated as serious.

All fires will be reported as an emergency situation. Should an emergency occur, employees shall report to the primary muster point. Should the primary muster point be inaccessible, employees shall report to the secondary muster point.

Emergency Response Plan

General Instructions

- **DO NOT PANIC**, the greatest danger lies not in fighting the fire, but in the panic that arises from a fire. Spend a few minutes getting a grip of the situation. A landfill fire will not travel fast, so a 10 minute delay is not going to make any difference to the outcome of the fire. Go through the steps of notifying the appropriate authorities and follow the basic steps in the fire control plan.
- Contact other nearby employees.
- Summon the appropriate landfill equipment.
- Notify the Landfill Manager immediately. Follow his instructions.
- Notify the Fire Department. Tell them the location and type of fire and whether it looks like it will spread out of the immediate area.
- Notify surrounding property owners, particularly if it appears that the fire could spread beyond the landfill.
- When the Fire Department arrives, follow their instructions.
- Do not fight a fire alone.
- Do not place yourself or others in danger while fighting the fire.

General Fire-Fighting Guidelines

- For a landfill fire, the fire is better controlled with the use of a dozer and dirt. If it is safe to do so, dig out and isolate the burning waste. Then either let it burn out or cover with dirt. Lots of water will not necessarily extinguish the fire and can cause more problems than it solves.
- Do not over use water. Remember that most landfill fires can be controlled with a relatively small amount of water. In most cases, soil is more effective than water.
- If two or more water trucks are being used, try to use shifts so that at least one water truck is at the fire at all times.
- Do not waste time trying to fight a large fire with a fire extinguisher.
- Do not approach any fire with a tractor unless a water truck is close by for backup.
- Never risk personal injury or death attempting to save a machine or building.
- Remember, SAFETY FIRST.

Small Contained Fires

- Do not attempt to fight a fire alone.
- Secure the area and re-direct customers to a safe area.
- Work with other site staff to extinguish the fire ONLY if safe to do so.
- If the fire becomes uncontained, or if it gives off toxic fumes, do not attempt to extinguish the fire, and wait for the Fire Department to arrive.

Emergency Response Plan

Uncontained Fires

- Do not attempt to fight the fire.
- Follow evacuation procedures.
- Call 911.

Building Fires

Prevention

- Fire alarms in buildings.
- Staff training and awareness.
- Coordination with Fire Department and Alberta Forest Service.

Response

Action	Time Frame	Who?	Resources
Evacuate the Building	Immediately	<ul style="list-style-type: none">• All staff	
Call 911	Immediately	<ul style="list-style-type: none">• Scale Attendant• Landfill Manager• Certified Operator	
Secure the Area	Immediately	<ul style="list-style-type: none">• Landfill Manager• Certified Operator• Designated Alternate	
Contact Commission Manager	Within the Hour	<ul style="list-style-type: none">• Landfill Manager• Certified Operator• Designated Alternate• Scale Attendant	

Fires at the Working Face

Prevention

- Staff training and awareness.
- Waste acceptance procedures and policies.
- Divert of hot loads from working face.
- Application of cover soils to minimize size of the active working face.

Emergency Response Plan

Response

Action	Time Frame	Who?	Resources
Evacuate and secure the area	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Equipment Operator 	<ul style="list-style-type: none"> • Site employees
If contained, inform Fire Department and Alberta Environment	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 	
If uncontained call 911 and Alberta Environment	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Scale Attendant 	
Isolate burning wastes	Immediately	<ul style="list-style-type: none"> • Equipment Operator • Landfill Manager • Certified Operator 	<ul style="list-style-type: none"> • Landfill Equipment
Determine nature and extent of the fire	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Equipment Operator 	<ul style="list-style-type: none"> • Site staff
Excavate and remove burning waste and soak	As soon as it is determined safe to do so	<ul style="list-style-type: none"> • Equipment Operator • Landfill Manager • Certified Operator 	<ul style="list-style-type: none"> • Site staff • Fire Department • Landfill equipment • Water truck • Water pumps
Confirm the fire is extinguished	Immediate	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 	<ul style="list-style-type: none"> • Fire Department
Review cause of fire and prepare appropriate mitigative measures	within 1 month	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 	<ul style="list-style-type: none"> • Site employees • Fire Department

Stored Material Fires

Prevention

- Site security.
- Separation of stored materials according to the Fire Code.

Emergency Response Plan

Response

Action	Time Frame	Who?	Resources
Evacuate and secure the area	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Designated Alternate 	<ul style="list-style-type: none"> • Site employees
If contained, inform Fire Department and Alberta Environment	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Commission Manager 	
If uncontained call 911	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Scale Attendant 	
Determine nature of the burning material and potential for emission of toxic fumes	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 	<ul style="list-style-type: none"> • Fire Department • Alberta Environment
Isolate burning material	Immediately when safe to do so	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 	<ul style="list-style-type: none"> • Landfill Equipment • Fire Department
Determine nature and extent of the fire	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 	<ul style="list-style-type: none"> • Site staff
Extinguish the fire as appropriate to the nature of the material	As soon as it is determined safe to do so	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 	<ul style="list-style-type: none"> • Site staff • Fire Department • Landfill equipment • Water truck • Water pumps
Confirm the fire is extinguished	Immediate	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 	<ul style="list-style-type: none"> • Fire Department
Review cause of fire and prepare appropriate mitigative measures	Within 1 month	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 	<ul style="list-style-type: none"> • Site employees • Fire Department

Emergency Response Plan

Environmental Contingencies

Environmental and operational contingencies may vary in degree of their nature and seriousness, and therefore actual situations will dictate the appropriate actions and responses that should be undertaken. Generally, the response plan includes the following steps:

- Secure and contain the problem;
- Verify and validate the problem;
- Investigate the cause and potential risk;
- Assess appropriate corrective actions;
- Implement the corrective action; and
- Review operation procedures and preventative measures.

Notification

In the event of an off-site release, the Certified Operator is to immediately contact the Commission Manager and provide information on:

- The nature and status of the release; and
- Activities and corrective actions being undertaken.

Documentation

All incidents and corrective measures undertaken will be documented and maintained in the operating record.

Emergency Response Plan

The following pages provide a general response plan for various situations that may arise.

Prohibited Wastes Delivered To The Landfill

Prevention

- Waste Acceptance Policies and Procedures
- Employee Training and Awareness
- Load Screening

Response Plan

Action	Time Frame	Who?	Resources
Deny entry of the load	Immediate	<ul style="list-style-type: none"> • Certified Operator • Scale Attendant 	<ul style="list-style-type: none"> • Operations Plan and Waste Acceptance Procedures • Alberta Environment • Alberta Waste User's Guide
Determine if load is safe for transport on local roads	1 hour	<ul style="list-style-type: none"> • Certified Operator • Scale Attendant 	<ul style="list-style-type: none"> • Transport Canada • Transport of Dangerous Goods Regulation
Inform the waste generator of the infraction	1 hour	<ul style="list-style-type: none"> • Certified Operator • Scale Attendant 	
Document nature of incident and actions taken	1 hour	<ul style="list-style-type: none"> • Certified Operator • Scale Attendant 	<ul style="list-style-type: none"> • Daily Activity Log Book
Review waste acceptance procedures and implement necessary mitigative measures	1 month	<ul style="list-style-type: none"> • <i>(place designated officer here)</i> • Commission Manager • Scale Attendant 	

Prohibited Waste Discovered At The Landfill

Prevention

- Waste Acceptance Policies and Procedures.
- Employee Training and Awareness.

Emergency Response Plan

Response Plan

Action	Time Frame	Who?	Resources
Isolate waste and cease operations in the area of the waste	Immediate	<ul style="list-style-type: none"> • Certified Operator • Equipment Operator 	
Construct containment around perimeter of the waste if necessary	Immediate	<ul style="list-style-type: none"> • Certified Operator • Equipment Operator 	<ul style="list-style-type: none"> • Landfill equipment
Determine source of waste, and if possible the waste hauler and generator	1 week	<ul style="list-style-type: none"> • Certified Operator • Scale Operator 	<ul style="list-style-type: none"> • Scale records • Staff observations
If identified, contact the hauler and waste generator to review options	1 to 2 weeks	<ul style="list-style-type: none"> • Landfill Manager 	
Review waste acceptance procedures and practices, and implement mitigative measures	1 month	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 	

Hot Loads Delivered to the Landfill

Prevention

- Waste Acceptance Policies and Procedures.
- Employee Training and Awareness.

Response Plan

Action	Time Frame	Who?	Resources
Inform Certified Operator or Equipment Operator, of incoming hot load or Staff	Immediate	<ul style="list-style-type: none"> • Scale Attendant 	<ul style="list-style-type: none"> • Radio • Cell Phone
Direct Load to designated area away from the working face	Immediate	<ul style="list-style-type: none"> • Scale Attendant • Operating Personnel 	
Contain burning material within soil berms	Immediate	<ul style="list-style-type: none"> • Operating Personnel 	
Apply appropriate measures to extinguish the fire: wet, smother with soil, or allow to burn out.	Within 1 hour	<ul style="list-style-type: none"> • Certified Operator • Operating Personnel 	<ul style="list-style-type: none"> • Water truck • Water Trailer • Landfill equipment
Monitor fire	Duration of fire	<ul style="list-style-type: none"> • Certified Operator 	
Remove extinguished material and dispose at working face	2 to 3 days after being extinguished	<ul style="list-style-type: none"> • Certified Operator • Operating Personnel 	<ul style="list-style-type: none"> • Landfill equipment

Emergency Response Plan

Elevated Parameters Detected in Groundwater Monitoring System

Prevention

- Leachate management systems (liner/leachate collection).
- Annual groundwater monitoring program.
- Environmental auditing.

Response Plan

Action	Time Frame	Who?	Resources
Re-sample to verify or validate	1 month	<ul style="list-style-type: none"> • Certified Operator 	<ul style="list-style-type: none"> • Environmental Consultant • Laboratory
Assessment of the nature and risk of the problem	2 months	<ul style="list-style-type: none"> • Certified Operator 	<ul style="list-style-type: none"> • Environmental Consultant
Investigate corrective measures	Determined following assessment of the problem	<ul style="list-style-type: none"> • Certified Operator 	<ul style="list-style-type: none"> • Environmental Consultant
Implement corrective measures	Determined following assessment of the problem	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 	<ul style="list-style-type: none"> • Environmental Consultant

Leachate Seepage through Final Cover System

Prevention

- Minimize leachate generation by application of intermediate and final cover.
- Prohibition of liquid waste disposal.

Response Plan

Action	Time Frame	Who?	Resources
Isolate the area and implement containment to prevent leachate from entering off-site and on-site drainage systems	Immediate	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 	
Investigate the cause of the seep	Within 2 days	<ul style="list-style-type: none"> • Certified Operator 	<ul style="list-style-type: none"> • Environmental Consultant
Investigate corrective measures	Within 1 week	<ul style="list-style-type: none"> • Certified Operator 	<ul style="list-style-type: none"> • Environmental Consultant
Implement corrective measures	Within 2 weeks	<ul style="list-style-type: none"> • Certified Operator 	<ul style="list-style-type: none"> • Environmental Consultant
Review operating procedures and revise if appropriate	2 months	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 	<ul style="list-style-type: none"> • Environmental Consultant

Emergency Response Plan

Contamination of Surface Water

Prevention

- Surface water management plan.
- Baseline surface water quality documented.
- Surface water sampling and analysis.
- Control of surface water releases.
- Operational controls in active working areas.
- Employee training and awareness.

Response Plan

Action	Time Frame	Who?	Resources
Investigate cause of surface water contamination	<ul style="list-style-type: none">• Immediate	<ul style="list-style-type: none">• Certified Operator	<ul style="list-style-type: none">• Environmental Consultant
Sample to verify and validate	<ul style="list-style-type: none">• Within 2 days• Laboratory results in 9 days	<ul style="list-style-type: none">• Certified Operator	<ul style="list-style-type: none">• Environmental Consultant
Identify appropriate corrective actions and implement	<ul style="list-style-type: none">• Within 1 month	<ul style="list-style-type: none">• Certified Operator	<ul style="list-style-type: none">• Environmental Consultant
Review surface water management plan and update and revise if necessary	<ul style="list-style-type: none">• 2 months	<ul style="list-style-type: none">• Landfill Manager• Commission Manager	<ul style="list-style-type: none">• Environmental Consultant

Leachate Flow Greater Than Expected

Prevention

- Minimize leachate generation by application of intermediate and final cover.
- Prohibition of liquid waste disposal.
- Surface water management program.
- Monitor leachate levels and recovery rates.
- Employee training and awareness.

Emergency Response Plan

Response Plan

Action	Time Frame	Who?	Resources
Review precipitation data	1 week	<ul style="list-style-type: none"> Certified Operator 	<ul style="list-style-type: none"> Environment Canada Airport
Check performance with historical leachate levels and recovery	1 week	<ul style="list-style-type: none"> Certified Operator 	
Inspect intermediate cover and final cover systems	Immediate	<ul style="list-style-type: none"> Certified Operator 	
Review groundwater table data	1 week	<ul style="list-style-type: none"> Certified Operator 	<ul style="list-style-type: none"> Environmental Consultant
Determine probable causes and assess mitigative measures	3 month	<ul style="list-style-type: none"> Certified Operator 	<ul style="list-style-type: none"> Environmental Consultant
Implement mitigative measures	As determined necessary	<ul style="list-style-type: none"> Landfill Manager Commission Manager 	<ul style="list-style-type: none"> Environmental Consultant

Excess Storm water Flow into the Active Operating Area

Prevention

- Continued inspection and maintenance of surface water management system.
- Surface water diversion ditches and berms around working face.
- Application of cover soils.
- Maintain minimal working face.
- Employee training and awareness.

Response Plan

Action	Time Frame	Who?	Resources
Cease operations in active area, and develop alternate working face	Immediate	<ul style="list-style-type: none"> Certified Operator 	<ul style="list-style-type: none"> Environmental Consultant
Construct perimeter berms to prevent run-on	Immediate	<ul style="list-style-type: none"> Certified Operator 	<ul style="list-style-type: none"> Environmental Consultant
Removal of excess surface water for treatment, disposal, or recirculation as leachate	Within 1 week	<ul style="list-style-type: none"> Certified Operator 	<ul style="list-style-type: none"> Environmental Consultant
Review cause and identify corrective measures	Within 2 weeks	<ul style="list-style-type: none"> Certified Operator 	<ul style="list-style-type: none"> Environmental Consultant
Implement corrective measures	Within 2 weeks	<ul style="list-style-type: none"> Landfill Manager Commission Manager 	<ul style="list-style-type: none"> Environmental Consultant

Emergency Response Plan

Breach of the Final Cover System

Prevention

- Inspection of final cover (monthly), for vegetative growth, animal burrows, erosion, settlement, or cracking.

Response Plan

Action	Time Frame	Who?	Resources
Identify nature and significance of the problem	1 week	<ul style="list-style-type: none"> • Certified Operator • Equipment Operator 	
Develop a corrective plan for the breach	2 weeks to 1 month	<ul style="list-style-type: none"> • Certified Operator 	<ul style="list-style-type: none"> • Environmental Consultant
Reconstruct the breached area	1 to 2 months	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 	<ul style="list-style-type: none"> • Environmental Consultant

Wind-Blown Litter

Prevention

- Encourage covers on inbound loads.
- Maintain small working face as practical.
- Maintain portable litter catchment fences around active areas.
- Maintain perimeter fencing.
- Regular inspection of roads.
- Litter retrieval program.
- Employee training and awareness.

Response Plan

Action	Time Frame	Who?	Resources
Review working face and litter catchment fence placement	Immediate	<ul style="list-style-type: none"> • Certified Operator • Equipment Operator 	
Implement off-site litter pick-up	1 day	<ul style="list-style-type: none"> • Certified Operator 	<ul style="list-style-type: none"> • staff
Implement on-site litter pick-up	1 week	<ul style="list-style-type: none"> • Certified Operator 	<ul style="list-style-type: none"> • staff
Review litter control program and revise if necessary	1 month	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 	<ul style="list-style-type: none"> • Environmental Consultant

Emergency Response Plan

Extreme Dust Emissions

Prevention

- Control speed limits on on-site gravel roads.
- Road maintenance. Limit the amount of road maintenance done during dry conditions.
- Seed soil stockpiles.
- Cover inbound loads.
- Special handling procedures for waste loads prone to emission of dust.
- Employee training and awareness.

Response Plan

Action	Time Frame	Who?	Resources
Apply water to road surfaces as necessary	1 Day	<ul style="list-style-type: none">• Certified Operator	
Deposit dusty loads in sheltered area	Upon unloading	<ul style="list-style-type: none">• Vehicle Operator	
Pre-wet waste load	Prior to delivery when pre-arranged with waste generator	<ul style="list-style-type: none">• Waste Generator	
Cover dusty wastes with other waste or soil	Immediately upon unloading	<ul style="list-style-type: none">• Certified Operator	
Review waste handling procedures with waste generator for a specific problem material		<ul style="list-style-type: none">• Landfill Manager• Commission Manager	

Landfill Gas Detected

A response plan for landfill gas detection is being developed and will be included in this plan once completed.

Detection of Strong Odors

Prevention

- Waste acceptance and handling procedures.
- Waste cover operations.
- Employee training and awareness.

Emergency Response Plan

Response Plan

Action	Time Frame	Who?	Resources
Cover of waste with a strong odour	Immediate	<ul style="list-style-type: none"> • Certified Operator • Equipment Operator 	
Investigate source of leachate odour	Immediate	<ul style="list-style-type: none"> • Certified Operator 	
Review operating procedures and identify appropriate mitigative measures	1 week	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 	<ul style="list-style-type: none"> • Environmental Consultant

Extreme Weather

Prevention

- Monitor weather forecasts.
- Employee safety and response training and awareness.
- Continuous back-up of computer/scale data.
- Maintain on and off-site communications systems.

Response Plan

Action	Time Frame	Who?	Resources
Tornado warning - cease all operations and all employees and visitors take immediate precautionary measures	Immediate	<ul style="list-style-type: none"> • All staff • Site visitors 	<ul style="list-style-type: none"> • Radio • Cell Phones
Severe Electrical Storm - stop scale operation and unplug computer equipment, and employees and site visitors should take precautionary measures	Immediate	<ul style="list-style-type: none"> • Scale attendant • All staff • Site visitors 	<ul style="list-style-type: none"> • Radio • Cell Phones
Extreme snow storm with no visibility - stop scale operation and unplug computer equipment, and employees and site visitors should take precautionary measures	Immediate	<ul style="list-style-type: none"> • Scale attendant • All staff • Site visitors 	<ul style="list-style-type: none"> • Radio • Cell Phones

The Landfill Manager and/or the Commission Manager has the right to close the facility due to any severe weather conditions that may affect the health and safety of the staff and customers of the facility, without notice. Should this occur, notice will be posted on the gates as well as through the local radio stations.

Emergency Response Plan

On Site Spills:

Prevention

- Minimize on site storage of liquids
- Utilize appropriate containment on site for liquids
- Prohibition of liquid waste disposal.

Response Plan

Action	Time Frame	Who?	Resources
Isolate the area and implement containment to prevent spill from entering off-site and on-site drainage systems	Immediate	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 	
Investigate the cause of the leak/spill	Immediate	<ul style="list-style-type: none"> • Certified Operator 	<ul style="list-style-type: none"> • Environmental Consultant
Investigate corrective measures	Within 24 hours	<ul style="list-style-type: none"> • Certified Operator 	<ul style="list-style-type: none"> • Environmental Consultant
Implement corrective measures	Within 24 hours	<ul style="list-style-type: none"> • Certified Operator 	<ul style="list-style-type: none"> • Environmental Consultant
Review operating procedures and revise if appropriate	2 weeks	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 	<ul style="list-style-type: none"> • Environmental Consultant

Emergency Response Plan

Emergency Disasters

Prevention

- Safety Plan and Procedures.
- Employee Safety Training and Awareness.
- Work with local Disaster Response Team
- First Aid Training.

Response Plan

Action	Time Frame	Who?	Resources
Assess site conditions for personal safety and safety of others, and take appropriate actions to secure unsafe areas	Immediately	<ul style="list-style-type: none"> • Landfill Manager • First Aiders 	<ul style="list-style-type: none"> • Site employees
Evaluate local resources and requirements	Immediately when safe to do so	<ul style="list-style-type: none"> • Commission Manager • Landfill Manager 	<ul style="list-style-type: none"> • Site employees • Local Municipalities • SWANA
Contact Emergency Response Liaison	Immediately	<ul style="list-style-type: none"> • Commission Manager • Landfill Manager 	<ul style="list-style-type: none"> • Local Fire Chief • Disaster Relief Officer
Identify alternative locations and routes for waste handling	When safe and information is available	<ul style="list-style-type: none"> • Commission Manager • Landfill Manager 	<ul style="list-style-type: none"> • Local Municipalities • Other Waste Facilities
Put a short term and long term plan together for handling and trucking of waste	As soon as possible	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 	<ul style="list-style-type: none"> • Site Personnel • Occupational Health and Safety • SWANA • Emergency Response Team

Emergency Response Plan

Appendix:

Check Lists:

General

Action	Time Frame	Who?	Done? Checkmark when completed	Initial of person who performed this task
Identify the Emergency	Immediately	<ul style="list-style-type: none"> • Landfill Staff 		
Is there a need to Evacuate and secure the area	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Designated Alternate 		
Evacuate and secure the area. Bring list of customers on site to muster point. Page 5 of plan	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Commission Manager 		
If necessary call 911	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Scale Attendant 		
Is it a medical emergency? go to Medical Emergency check list	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Is it a fire? go to Fire check list	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Is it weather related? Go to weather check list	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Is it an accident? Go to accident check list	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Is it environmental? Go to accident check list	Immediate	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Review cause of fire and prepare appropriate mitigative measures	Within 1 month	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 		

Emergency Response Plan

Medical Emergency: Page 6 of Plan

Action	Time Frame	Who?	Done? Checkmark when completed	Initial of person who performed this task
Assess site conditions for personal safety and safety of others, and take appropriate actions to secure unsafe areas	Immediately	<ul style="list-style-type: none"> • Landfill Manager • First Aiders 		
Attend to the injured person and apply First Aid	Immediately when safe to do so	<ul style="list-style-type: none"> • First Aider 		
Contact 911 if Warranted	Immediately	<ul style="list-style-type: none"> • First Aider • Site employees 		
Stay with the injured person until medical assistance arrives	Duration of medical emergency	<ul style="list-style-type: none"> • First Aider 		
Conduct an investigation to determine the cause of the injury and prepare appropriate mitigative measures	Investigate immediately following the incident. Complete mitigative measures within 1 month of the incident.	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 		

Accidents: Page 8 of Emergency Plan

Action	Time Frame	Who?	Done? Checkmark when completed	Initial of person who performed this task
Report the accident to the (place designated officer here)	Immediately	<ul style="list-style-type: none"> • All employees 		
If damage is minor, have the vehicle driver report the accident to the RCMP. Take pictures prior to vehicle leaving.	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Landfill Staff 		
If the damage is significant, call the RCMP, take pictures.	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Landfill Staff 		
If an injury is involved, call 911, and implement medical response actions	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Landfill Staff 		
Secure the area for a follow-up investigation	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Landfill Staff 		
Conduct an investigation to the cause of the accident and prepare appropriate mitigative measures	Within 1 month of the accident	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager • RCMP • Occupational Health and Safety 		

Emergency Response Plan

Fires: Page 9 of Emergency Plan

Action	Time Frame	Who?	Done? Checkmark when completed	Initial of person who performed this task
Evacuate and secure the area	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Designated Alternate 		
If contained, inform Fire Department and Alberta Environment	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Commission Manager 		
If uncontained call 911	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Scale Attendant 		
Determine nature of the burning material and potential for emission of toxic fumes	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Isolate burning material	Immediately when safe to do so	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Determine nature and extent of the fire	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Extinguish the fire as appropriate to the nature of the material	As soon as it is determined safe to do so	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Confirm the fire is extinguished	Immediate	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Review cause of fire and prepare appropriate mitigative measures	Within 1 month	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 		

Emergency Response Plan

Environment Emergency: Page 15 of Emergency Plan

Action	Time Frame	Who?	Done? Checkmark when completed	Initial of person who performed this task
Evacuate and secure the area, if warranted	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Designated Alternate 		
Verify and Validate the Problem	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Commission Manager 		
Investigate the cause	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator • Scale Attendant 		
Assess Appropriate corrective actions	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Implement the Corrective action	Immediately when safe to do so	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Notify Appropriate individuals. Alberta Environment. 1-800-222-6514	Immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Is there a prohibited waste involved? Identify the waste, Page 15 of plan	immediately	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Is it a Hot Load to the Landfill? Page 16 of plan		<ul style="list-style-type: none"> • 		
Is leachate/Surface water contamination? Page 17-19 of plan	Immediate	<ul style="list-style-type: none"> • Landfill Manager • Certified Operator 		
Other weather conditions or landfill conditions? Wind, litter, etc? Page 20-22 of plan	Immediate	<ul style="list-style-type: none"> • Landfill Manager • Commission Manager 		