



# Jasper National Park

## Post Fire Demolition Supplemental Mitigations

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#### Contents

Purpose:.....	1
Definitions: .....	1
General Mitigations: .....	2
Prior to Demolition: .....	2
During Demolition .....	4
Post Demolition.....	7

#### Purpose:

This document outlines supplemental mitigations required for the demolition and removal of burnt and damaged structure demolition waste associated with the Jasper Wildfire Complex. It must be used in conjunction with the attached Pre-Approved Routine Impact Assessment (PRIA) and related permit. **These supplemental mitigations have been prepared by Parks Canada with input and review by the Municipality of Jasper.**

#### Definitions:

**Deleterious substance:** any substance that, if added to any water would degrade or alter the water quality such that it could directly or indirectly harm fish or fish habitat. Examples include and are not limited to; fuels, chemicals, soils, concrete dust, charred or burnt materials, and ash.

**Dust control:** a system implemented to reduce or eliminate dust emissions from activities or sites that generate excess airborne particulates (dust).

## General Mitigations:

1. All demolition waste material must be removed from the park and disposed of at a licenced facility approved to accept hazardous materials. No waste material resulting from demolition will be accepted at the Jasper Transfer Station or elsewhere in the Park.
2. Controls must be in place for the duration of work to prevent general access to active worksites and ensure public, worker and wildlife safety at all times.

## Prior to Demolition:

3. All waste materials are to be fully contained and secured prior to and during demolition and transportation to prevent release into the air, soils, or water.
4. A dust control system must be implemented immediately, prior to testing and demolition, and throughout the project to reduce the spread of airborne particulates. Abatement measures must not create erosion or sedimentation that travels off-site or adds additional toxic or contaminant material to the site or surroundings.
5. A dust control system can utilize water, and/or tackifier with verifiable low ecotoxicity and/or approved alternative method. Tackifiers can not be persistent or toxic to the environment and must not be allowed to travel off the site. Tackifiers proposed for this purpose must be approved by Parks Canada prior to utilization.
6. Water for wetting down waste may not be withdrawn directly from nearby waterbodies without application, and further assessment provided by proponent for review and approval by Parks Canada. For water sourced from the Municipality of Jasper (MoJ) under their approval, written confirmation of MoJ approval must be provided.
7. Excess water must be controlled, contained, and discharged or disposed of out of the Park or treated to meet required standards for release to the environment.
8. Employers, contractors, sub-contractors, workers and site owners and lessees, are to be aware of their responsibilities and accountabilities under federal, provincial and municipal regulations and guidelines, such as but not limited to the Canada Occupational Health and Safety Regulations (COHSR), the Alberta Occupational Health & Safety (OHS) Act and the Alberta Occupational Health and Safety Code (AR 191/2021) (Alberta OHS Code), including the assignment and responsibilities of the Prime Contractor, where applicable.

9. Testing of waste materials by a qualified professional experienced in waste material sample collection must be completed prior to work commencing on the site, disturbance, demolition, and removal. Waste material characterization through composite sampling must be representative of the waste types being transported offsite to an approved receiving facility sufficient to meet the disposal requirements and inform health and safety mitigations.
10. Authorization No. 504156-00-00 issued under the Alberta Environmental Protection and Enhancement Act for the Hinton Landfill requires at a minimum:
  - a. Metals sample for every 20 truck loads of ash type waste.
11. Hinton Landfill Standard Requirements for Waste and Soil Disposal generally requires analysis per site of origin and are at a minimum:
  - a. Asbestos (Ash, Waste)
  - b. Metals (Soils)
  - c. Petroleum Hydrocarbons (PHCs), and Chloride (Soils)
  - d. Napthalene, Phenol, Cyanide, (Soils)
12. An example sampling approach follows:
  - a. At least one composite sample for non-volatile chemicals is required for every 10m<sup>3</sup> of potentially hazardous waste on site. A discrete sample inferred to have the highest contamination levels for volatile chemicals must also be collected for testing.
  - b. Sampling for the following contaminants of concern:
    1. Asbestos;
    2. Metals (e.g., arsenic, lead, mercury, zinc, copper, antimony);
    3. Silica;
    4. Volatile Organic Compounds (VOCs), Polyaromatic Hydrocarbons (PAHs), Petroleum Hydrocarbons (PHCs), Dioxins and Furans; and
    5. Per- and polyfluoroalkyl substances (PFAS) and other Flame Retardants.
13. Submit a summary report of the waste characterization completed by a qualified professional, detailing the sample collection methodology, photographs of the site and sample locations, and a copy of the Laboratory Certificates of Analysis. Contaminants of Potential Concern and/or Areas of Potential Environmental Concern must be identified. Recommendations outlining the abatement risk classifications, abatement and disposal methods and remediation requirements to meet the requirements of the applicable regulations must be included. The completed report shall be submitted to Parks Canada.
14. Submit, a Health and Safety Plan (HSP), prepared by a qualified professional, to Parks Canada a minimum of 1 week prior to demolition commencing. The HSP

will identify the expected risks based on waste characterization, describe the controls to be implemented to meet Occupational Health and Safety (OHS) requirements for workers on site and to be protective for occupants of adjacent property, including but not limited to, streets, sidewalks, alleys. The OHS requirements are to be provided to any staff or contractors entering the work site. At a minimum, appropriate controls and details must be in place for the following items:

- a. Controls to limit exposure to potentially hazardous materials such as ash, silica, and asbestos.
  - b. Controls to limit exposure to physical hazards such as shifting debris, sharp items, unstable structural elements, pits, or excavations.
  - c. Controls to limit dust leaving the site prior to testing, demolition, and throughout the project to mitigate risk from airborne particulates.
  - d. Details on appropriate personal protective equipment and decontamination processes for personnel and equipment.
  - e. Emergency response procedures and contacts.
15. Submit a locate request to Utility Safety Partners to identify all utilities prior to ground disturbance and follow the requirements provided by utility operators for working near any utility, regardless of the condition of the utility.
16. Provide on request written verification from each utility provider for the property that it is safe to proceed with abatement and remediation activities to Parks Canada.

## During Demolition

17. Dust control system must be maintained throughout demolition.
18. Hazardous materials identified in the waste characterization are to be contained and all movement of waste must follow Transportation of Dangerous Goods requirements as appropriate.
19. Waste separation is recommended. Sorting and handling of concrete, metals, and other materials are to occur on site unless otherwise proposed by proponent and approved by Parks Canada.
20. Removal of four inches of surface soil in ash or debris impacted areas surrounding burnt structures is required and must be transported to an approved facility outside the Park.
21. No deleterious substance may be stored, placed, or allowed to disperse into any sewer, storm drain, catch basin, drainage ditch, or watercourse.

22. Worker exposure to other dust and particulates must be controlled in accordance with Alberta OHS requirements.
23. Air quality monitoring for asbestos and other particulates following industry best practices outlined in the [Alberta Asbestos Abatement Manual \(AAAM\)](#), and Alberta ambient air quality objectives and guidelines summary 2024, is required during disturbance of any debris piles. If any exceedances of OHS and the HSP requirements are detected during debris disturbance, **work must stop immediately**, and will remain paused until adequate dust mitigation is implemented, and particulate monitoring results are within acceptable levels.
24. Erosion and sediment control measures must be established and maintained at the site to prevent deleterious substances from entering the stormwater management systems or to runoff into the surrounding environment.
25. Erosion and sediment control measures must be implemented before, during and after demolition and debris removal and be specific to the type of hazardous material or sediment present on site.
26. Adverse weather conditions (i.e. heavy rain or strong winds) must be taken into consideration when timing the removal of waste. Work should stop, be rescheduled or additional mitigation applied if weather conditions could promote the spread of contaminants or airborne particulates.
27. Any standing water in excavations or on site must be collected and disposed of at an appropriate facility. Standing water that has been in contact with the waste is assumed to be contaminated and must not be discharged into the environment or stormwater system, request for permission to use alternate discharge locations or methods must be directed to Parks Canada.
28. Implement decontamination measures to dry brush or wash tires of vehicles and equipment before leaving the site. Wash water must be contained within the site and managed as described in the previous mitigation. Deleterious materials and contaminants must not be spread to sidewalks, roadways, or storm gutters.
29. If any possible archaeological or cultural artifacts are observed during the work, stop work immediately and contact the Parks Canada Environmental Surveillance Office for further direction.
30. If project activities will impact regular traffic patterns, a Traffic Accommodation Strategy in compliance with the 2018 Alberta Transportation Traffic Accommodation in Work Zone manual (2<sup>nd</sup> ed.) is required.
31. Contact the Municipality of Jasper prior to installing any signage or changes to traffic flow or work hours, within the town of Jasper.

### *Asbestos Abatement*

32. Based on the findings of the waste materials assessment, an abatement control plan may be required. The abatement control plan must include all requirements outlined in the Canada Occupational Health and Safety Regulation (COHSR) and the Alberta Occupational Health and Safety (OHS) Code and the Alberta Asbestos Abatement Manual (August, 2019).
33. All asbestos and hazardous building materials removal work must be completed by workers with proper training as required under section 37 of the Alberta OHS code.
34. Throughout the abatement activities, air monitoring and inspections must be conducted by a third party qualified professional consultant to document that contamination is contained and that asbestos containing material and other hazardous building materials are removed and disposed of appropriately.

### *Waste Management Further Details*

35. The West Yellowhead Regional Waste Management Authority is presently authorized to accept emergency clean-up waste at the Hinton Class II Landfill from project related to the Jasper Wildfire Complex under Authorization No. 504156-00-00 issued under the Alberta Environmental Protection and Enhancement Act. Additional sites in Drayton and Rocky Mountain House are under consideration by Alberta Environment pending that authorization these additional 2 sites may be options to accommodate peak hauling volumes if needed.
36. Waste must be characterized, handled and stored in accordance with the Alberta User Guide for Waste Managers, the requirements in the Alberta Environmental Protection and Enhancement Act, and the Alberta Waste Control Regulations.
37. Waste being shipped to an off-site waste management facility for recycling, treatment or disposal will require verification of waste characterization testing to confirm that the waste meets the acceptance criteria for the selected facility.
38. Waste must be pre-treated and packaged in accordance with the instructions from the waste management facility that will be receiving the waste for disposal.
39. In some cases, solids waste samples (such as contaminated soil or spill clean-up materials) may require additional laboratory testing to determine if the waste can be safely disposed in a Class II landfill, or if other disposal options need to be identified.
40. Copies of all Laboratory Certificates of Analysis showing the results of the testing shall be retained.

41. Accurate records will be kept of the quantities and types of wastes generated on-site.
42. Waste storage areas will be kept clean and neat. Each storage area and waste container shall be clearly labelled to identify the type of waste.
43. Secondary containment must be provided for liquid waste storage containers.
44. Appropriate containers must be used for storage of small quantities of waste that may be flammable, explosive or chemically active (such as cleaning fluids, used aerosol cans, or other cleaning supplies).
45. Hazardous waste will be stored separately from other waste.
46. Arrangements will be made in advance to transfer debris waste to an appropriate waste management facility for recycling, treatment or disposal.
47. The worksite must be inspected regularly to verify that materials are being handled according to legislative requirements, that appropriate hazard controls are in place, and that no releases of waste to the environment have occurred.

## Post Demolition

48. Confirmatory post demolition soil sampling and testing must be completed to confirm contaminants of concern are not present in levels that exceed the Canadian Council of Ministers of the Environment (CCME) Residential/Parkland soil quality Guidelines for the protection of human health. (Agricultural/wildland guidelines may be applied to specific contaminant levels at the discretion of Parks Canada where site specific considerations, receptors, and exposure pathways may indicate this consideration is needed to ensure the site is fit for the intended land use). The contaminants of concern are, unless otherwise identified during waste characterization, or demolition, as follows:
  - a. Asbestos;
  - b. Metals (e.g., arsenic, lead, mercury, zinc, copper, antimony);
  - c. Silica;
  - d. Volatile Organic Compounds (VOCs), Polyaromatic Hydrocarbons (PAHs), Petroleum Hydrocarbons (PHCs), Dioxins and Furans; and
  - e. Per- and polyfluoroalkyl substances (PFAS) and other Flame Retardants.
49. In general, unless otherwise proposed by a qualified professional and approved by Parks Canada, one discrete grid sample per 5-metre increment on each wall and floor is required; samples should be collected from within 0.2 metre perpendicular distance from excavation surface.

50. A preliminary results report on the soil characterization results must be prepared by a qualified professional and provided to Parks Canada at least 1 week prior to backfilling or rebuild on a site to confirm site is suitable for the intended use.
51. If the soil sampling results show residual contaminants on site exceed generic Residential/Parkland CCME guidelines, additional sampling, delineation and remediation may be required in the form of a Phase II Environmental Site Assessment (ESA) conducted in accordance with the CCME Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment, Volume 1 Guidance Manual, or the Canadian Standards Association Z769 2000 (R2023) Phase II Environmental Site Assessment standard and signed by a Qualified Person.
52. If the Phase II ESA indicates the presence of residual contaminants, a Remedial Action Plan may be required, to be reviewed and authorized by Parks Canada, then implemented on the property.
53. Proof of disposal location of all hazardous and non-hazardous materials must be provided to Parks Canada within one week of material removal.
54. Backfilling must be with material from a verifiable source from a native quarry site, approved by Parks Canada.
55. Site finish shall ensure no erosion off site by water or air can occur.

Approvals

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