

**Jasper National Park**  
**Mechanical Clearing of Hazardous Trees**  
**Wapiti and Wabasso Campgrounds**

**Statement of Contract Requirements**

Table of Contents

|   |           |
|---|-----------|
| <b>1. GENERAL INFORMATION</b>                     | <b>3</b>  |
| 1.1. Background                                   | 3         |
| 1.2. Project Objectives                           | 3         |
| 1.3. Project Schedule & Timelines                 | 4         |
| 1.4. Constraints                                  | 5         |
| 1.5. General Site Details                         | 6         |
| <b>2. SCOPE OF WORK</b>                           | <b>7</b>  |
| 2.1 Hazardous Tree Clearing                       | 7         |
| 2.2 Landing/Processing                            | 7         |
| 2.3 Fire Wood Processing                          | 8         |
| 2.4 Log Loading and Transportation                | 9         |
| 2.5 Maintaining work sites                        | 9         |
| 2.6 Site Management and Use                       | 9         |
| 2.7 Works site Conditions and Inventory           | 10        |
| <b>3. OTHER REQUIREMENTS SPECIFIC TO THE WORK</b> | <b>11</b> |
| 3.1 Regulatory Requirements                       | 11        |
| 3.2 Permits                                       | 11        |
| 3.3 Volume Reports                                | 11        |
| <b>4. ENVIRONMENTAL PROCEEDURES</b>               | <b>11</b> |
| 4.1 Work Site Conditions/Staging/Laydown          | 11        |
| 4.2 Equipment Maintenance                         | 12        |
| 4.3 Equipment Operations                          | 13        |
| 4.4 Waste   | 13        |
| 4.5 Hazardous Material                            | 14        |
| 4.6 Wildlife                                      | 14        |
| 4.7 Clearing & Vegetation Maintenance             | 15        |
| 4.8 Erosion and Sediment Control                  | 15        |

Solicitation No.:  
5P420-20-0288/A

Amendment No.:  
00

Contracting Authority:  
Andrea McGraw-Alcock

Client Reference No.:  
PW-20-00935058

Title:  
Mechanical Clearing of Hazardous Trees Wapiti and Wabasso Campgrounds – Jasper National Park

---

|           |  |           |
|-----------|--|-----------|
| 4.9       | Pollution Control.....                           | 16        |
| 4.10      | Cultural Resources.....                          | 17        |
| <b>5.</b> | <b>MEASUREMENT.....</b>                          | <b>17</b> |
| 5.1       | General .....                                    | 17        |
| <b>6.</b> | <b>HEALTH AND SAFETY REQUIREMENTS .....</b>      | <b>17</b> |
| 6.1       | References .....                                 | 17        |
| 6.2       | General Requirements.....                        | 17        |
| 6.3       | Compliance Requirements .....                    | 18        |
| 6.4       | Unforeseen Hazards .....                         | 18        |
| 6.5       | Health & Safety Coordinator .....                | 18        |
| 6.6       | Posting of Documents.....                        | 18        |
| 6.7       | Correction of Non Compliance .....               | 18        |
| 6.8       | Work Stoppage .....                              | 19        |
| 6.9       | Visitor Safety.....                              | 19        |
| <b>7.</b> | <b>PROJECT MANAGEMENT AND COORDINATION .....</b> | <b>19</b> |
| 7.1       | Project Meetings.....                            | 19        |
| 7.2       | Submittals .....                                 | 19        |
| 7.3       | Organization and Start-Up.....                   | 19        |
| 7.4       | On Site Documents .....                          | 20        |
| 7.5       | Close Out Procedures .....                       | 20        |

**List of Attachments:**

**Appendix A – Timber Harvest Site Plan**

**Appendix B – Utility Locations**

**Appendix C – Fire Wood Storage Locations**

**Appendix D – Best Management Practices (BMP)-Campground and Day Use Area Maintenance and Modification**

## 1. GENERAL INFORMATION

### 1.1. Background

Jasper National Park extends over 11,000 square kilometres and is the largest National Park in the Canadian Rockies. Visitors world wide travel to Jasper every year to experience the natural environment and mountain landscapes. Visitors value the experience that Jasper offers in it's wooded campgrounds. The forested and lush vegetation in the mountain environment is a key attraction in Jaspers campgrounds and is important to the Agency to maintain for both visitor enjoyment, and sustaining ecological integrity.

Jasper National Park has experienced a marked increase in mountain pine beetle attack trees in the past five plus years. The Mountain Pine Beetle expansion in campgrounds have vastly increased the amount of standing hazardous trees posing high risk to Parks Canada's infrastructure and to visitor safety. In order to reduce this risk, Parks Canada is seeking a contractor to remove the standing dead within two highly visited campgrounds in the park. The vast majority of these hazardous trees are lodgepole pine that have been affected by the mountain pine beetle. The affected trees are at oldest, 5 years into the mountain pine beetle cycle. For this reason, much of this timber is viable for production and holds merchantable value. However, there are additional standing dead of much less significant numbers, of other species that are hazardous and also pose risks. These require removal as well.

The Work will require care and intricate handling for removal in order to minimize disturbance to live surrounding vegetation and campground infrastructure so as to maintain the mountain camping experience expected by park visitors, while sustaining ecological integrity.

It is the understanding of JNP that the mountain pine beetle red and grey attack trees have merchantable value for processing of lumber and/or pulp and/or fire wood. Once removed, all timber cut (less a specified volume to be processed as firewood for the use in the campgrounds) must be removed from the park and will become the property of the contractor for resale or processing.

### 1.2. Project Objectives

1. The core objective of this project is to deliver an end product in both Wapiti and Wabasso campground that will significantly reduce the risks to visitor safety by removing hazardous trees while continuing to provide a signature mountain camping experience.
2. This Scope of Work includes three key elements:
  - One - Mechanical clearing of all standing dead hazardous trees at each site as outlined in the detailed scope of work.
  - Two - Processing and stock piling of firewood at each site as outlined in the detailed scope of work below.
  - Three - Removal out of the park, of all remaining timber not used as fire wood as outlined in the detailed scope of work.

### 1.3. Project Schedule & Timelines

#### 1. Contract Duration

- Work is anticipated to commence on or before, January 15<sup>th</sup> 2021 and must be completed by March 31<sup>st</sup> 2021 in order to avoid the Migratory Birds Act restrictions and to ensure the campgrounds are safe and operationally ready for spring 2021 season opening.

#### 2. Hours of Operation

- Work can be performed Monday to Sunday
- Daily operational hours: Work outside of day light hours will require more diligence and stricter safety measures to ensure minimal incidental take, damage to infrastructure and reduce risk of injury to workers.

#### 3. Project Schedule

- The contractor shall prepare a meaningful bar chart or network diagram showing the proposed schedule of the components of the work, which shall be submitted to the PC representative one week prior to commencement of any work.
- Ensure the project schedule includes at minimum, the following milestones as applicable:
  - Mobilization
  - Mechanical Clearing
  - Fire wood processing
  - Demobilization

#### 4. Critical Environmental Timing Windows

- The following are the critical environmental timing window:
  - April 19 to August 24 - Migratory Bird Protection Period (Migratory Birds Convention Act)
  - Trees with diameter of 150mm or greater cannot be felled prior to August 25 or after April 15 without approval from Departmental Representative
- It is expected that clearing work (Hazardous Tree Clearing) will be performed outside of the critical environmental timing windows. However, if clearing works are required outside of the critical windows, within the restricted dates, Parks Canada will require the Contractor to explicitly comply with requirements of the Act and with Parks Canada BMPs, including but not limited to nest surveys (sweeps) completed by qualified biologists. Additional efforts required to undertake clearing work within the restricted period will be considered incidental and the Contractor is responsible for all costs.

## 1.4. Constraints

### 1. Equipment:

- Low ground pressure equipment including feller bunchers, skidders, single-grip processors and forwarders will be acceptable for this project.
- Skidding of logs will be permissible on campgrounds roads only.
- In the event that metal tracked or chains on equipment is used, it cannot be operated on concrete or asphalt surfaces without measures to avoid any damage and scuffing.
- If specialized equipment for processing or incinerating debris is utilized, suitable containments and areas must have prior approval of the Parks Canada representative.
- Oversized vehicles over 4150 kg are prohibited from travelling on the Icefields parkway.
- Oversized vehicle permits must be obtained to travel from hwy 16 to the work sites on hwy 93 and 93A (Icefields Parkway).

### 2. Access Restrictions:

- Work within 1.5 tree lengths of power lines is to be done in consultation with local power company - ATCO Electric
- When working near ATCO over head power lines, additional precautions and supervision will be required. Strick attention to protocols and safety requirements will be the responsibility of the contractor.

### 3. Debris Management:

Fine wood debris includes all branch wood as well as non-merchantable tree tops.

- Fine wood debris generated by harvesting activities is to be managed such that it is not compacted into the duff. It is to be gathered, burned, or hauled to an accepted burn location.
- Gathering will be concurrent with harvesting so that debris is not buried in the snow.
- At in progress work sites, small burn piles from processing at stump or clean up from harvesting and hauling activities, will not exceed 5m x 5m, must have no woody debris larger than 10cm diameter, and will be constantly tended to limit smoke production and ensure full consumption of materials. Burning directly on asphalt will not be permitted.
- Burn pile density should not exceed open pile per 200 m<sup>2</sup> (eg. a 20m X10m area).
- Container burning should be used for excess debris disposal and any centralized processing location.
- Alternatively, contractor may haul and burn, larger volumes of debris to PCA's Marmot Pit, located on hwy 93A south, 3.5 km from Wapiti and 10 km from Wabasso. All burning must be done prior to the contract end of March 31 2021, and demobilization. Designated location and path of travel in the pit for burning, will be provided to the contractor in the event this location is used.
- Excessive smoke production, unusual dry periods of winter weather, temperature inversions, and forecast/realized wind events in excess of 12kph may require temporary burn restrictions.
- Smoldering ember piles will be allowed to burn overnight unmonitored, but only during appropriate Fire Danger rating levels. Piles burning overnight must be "pushed in" as the first morning priority the following day.

- Contractor must have the ability to suppress fire if smoke becomes excessive and be able to obtain contact with the designated fire duty officer for Parks Canada.
- Dispersal of mulched or chipped woody material is not permitted to be left on site.

## 1.5. General Site Details

### 1. Locations

- Wapiti campground - located 5.5 km south of the town site of Jasper on highway 93. Approximate total area of campground work site is, 47 ha. The estimated volume of hazardous trees to be removed in Wapiti is 3234 m<sup>3</sup>:
  - Estimated 33% are red phase lodgepole pine
  - Estimated 67% are grey phase lodgepole pine
  - Marginal number of other standing dead of various alternate species
- Wabasso Campground - located 16.5 km south of Jasper town site on highway 93A. Approximate total area of campground work site is, 41 ha. The estimated volume of hazardous trees to be removed in Wabasso is 1722 m<sup>3</sup>:
  - Estimated 52% are red phase lodgepole pine
  - Estimated 48% are grey phase lodgepole pine
  - Marginal number of other standing dead of various alternate species

### 2. Site Access

- Both Wapiti and Wabasso Campgrounds will be closed for the season for the duration of this contract. The contractor will have sole access to these sites to complete the work.
- Snow clearing for access into and around both campgrounds will be the responsibility of the contractor.
- Highway and secondary road snow clearing will be the responsibility of Parks Canada Highway Operations Unit.
- The contractor will be responsible for site security for the duration of the project.
- The contractor will be responsible for posting and maintain barriers, fencing, signs and/or notices on site for prohibiting access to the public during the work.
- The contractor will be responsible for traffic control during large/heavy equipment access/egress into the campgrounds or processing sites. and along routes of travel to and from sites. In particular, the T-junction from Marmot Basin Ski Hill to hwy 93A upon travelling from the Wabasso site, is a heavy traffic zone for recreational users with up to extreme winter conditions.

### 3. Contractor use of Premises

- The contractor shall not operate any existing facilities without prior permission from, or without the presence of the Parks Canada representative.
- Accommodations are available in Jasper.
- Alternatively, to reduce costs, Parks Canada offers the contractor the use of the winter camping area in Wapiti, Loop AA for the duration of the project. The contractor would be fully responsible for maintaining good care of the site and facilities. These facilities include:
  - 40 x 30 AMP electrical hook ups
  - Paved surface

- Access to heated washroom and shower building. Stocking and cleaning of the washroom/shower facilities will be the responsibility of the contractor.
- Assume full responsibility of protection and safekeeping of site and products under this contract.
- At the completion of the project, the contractor will be responsible to restore all premises such as laydown area, landing areas, roads, infrastructure etc.; equal to that which existed before the work began or to a state acceptable to the project manager.

## 2. SCOPE OF WORK

### 2.1 Hazardous Tree Clearing

It is estimated that approximately 4956 m<sup>3</sup> of hazardous trees are to be removed between the two campgrounds. Due to the amount of infrastructure in the campgrounds it is recommended that feller bunchers be used for directional falling control. Other smaller equipment or hand tools may be required in cases where environmental mitigations dictate. All main and loop roads in the campgrounds are paved. For this reason, rubber tired skidders with less than aggressive chains should be used to mitigate damages to the paved surfaces. The contractor will perform the work using methods that will minimize ground disturbance. Timber will be bundled on existing roads for skidding. Contractor shall follow:

1. All hazardous trees removed can be done by mechanical clearing except where environmental mitigations dictate otherwise
2. As a guideline, all hazardous trees within 30 metres of campsite parameters, infrastructure, roads (main paved and gravel access), designated pathways to facilities, etc. are to be removed.
3. Stumps should be left no more 15cm in height
4. Retain all live trees except those impacted by unavoidable incidental take.
5. Live pine to remain will be marked/flagged for retention. Live other species (Spruce, Douglas fir, Balsam fir, Aspen, Birch, Poplar) should be easily recognizable by contractor operator staff. It is the contractor's responsibility to ensure these trees are not removed or damaged as well as any other live pine that may have been missed during flagging.
6. The contractor must minimize the incidental removal or damage of all live trees in the campground while doing work.
7. In the event that any Mountain pine beetle "green" attack trees should be cut as incidental take, they shall not be stored within 100 m of healthy live trees and must be debarked and prior to hauling or processing into fire wood. The bark must be burned on site and as close to area of cutting as possible minimizing travel within the site to prevent spread.

### 2.2 Landing/Processing

1. Landing sites will be located in timbered areas along main road in the campgrounds. This will reduce impact to campsites and make loading for transportation easier. Pre determined Landing sites are identified in appendix A.
2. If the contractor requires additional or alternate sites they must:
  - be in consultation with and approved by the parks Canada representative and ESO

**Solicitation No.:**  
5P420-20-0288/A

**Amendment No.:**  
00

**Contracting Authority:**  
Andrea McGraw-Alcock

**Client Reference No.:**  
PW-20-00935058

**Title:**  
Mechanical Clearing of Hazardous Trees Wapiti and Wabasso Campgrounds – Jasper National Park

---

- avoid all ecologically and culturally sensitive areas
  - located in existing disturbed areas, existing forest opening or openings created as part of the thinning work being conducted under this contract
  - as small as possible and minimized in number
  - managed carefully and efficiently to minimize disturbance footprint and long term impact on the site and to ensure re-establishment of native vegetation and control of non-native vegetation.
3. Prep and processing of timber will be completed at designated landing sites throughout the campgrounds. This will decrease the amount of slash and debris throughout the campground making for more efficient clean up and re-opening upon completion of work. The contractor must:
- Ensure all skidding is done on existing roads to landing sites only.
  - Rubber tires with less than aggressive chains must be used in order to protect paved roads from damage.
  - Processing will be done at landing sites only, unless otherwise authorized by the parks Canada representative.

### 2.3 Fire Wood Processing

A total volume of 2484 m<sup>3</sup> (690 cords) of fire wood processing will be cut using timber viable for fire wood use. All processing of firewood should be done at landing sites to minimize debris throughout the campground, or at each piling location with the expectation that all debris (chips and sawdust) would be cleaned up by the contractor after each location volume was completed. Processed fire wood will be placed in specified locations throughout the campgrounds and will be piled in the following measurements:

- Wapiti Campground (1568 m<sup>3</sup>/436 cords)
  - 2 sites – 10m x 10m x 2m
  - 2 sites – 6m x 6m x 2 m
  - 8 sites – 8m x 8m x 2m
- Wabasso Campground (916 m<sup>3</sup>/254cords)
  - 1 sites – 10m x 10m x 2m
  - 2 sites – 10m x 8m x 2m
  - 3 sites – 8m x 8 m x 2m
  - 1 sites - 4m x 6m x 2 m
  - 1 sites - 5m x 6m x 2m

All fire wood must be cut to the following measurements:

- Minimum length of 30 cm, maximum length of 38 cm
- Split to a maximum of 15 cm in diameter
- Any logs less than and up to 15cm in diameter do not require splitting but must meet the required length
- Wood storage piles must be kept neat and as uniformly as possible so as measurement for volume calculations can be made for verification of payment and completion.



Firewood piles must not contain more than 5% fine woody debris or other non-firewood material.

## 2.4 Log Loading and Transportation

All remaining cut timber not used to process into firewood, shall become the property of the contractor and must be removed from Jasper National Park. All timber loading for transportation out of the park shall be done at designated Landing sites.

## 2.5 Maintaining work sites

It is critical that debris is managed at each active work area as the work proceeds throughout the campground to ensure campground opening in spring upon completion of work is not delayed. Delays will come with a loss of revenue to the park.

- Debris and slash must be cleaned up at regular intervals as work progresses. Larger burn piles of slash must be burned at or close to landing sites and in metal burn bins; or hauled to and burned in, PCA's Marmot Pit. Debris left in each loop or area of at in process work sites should be cleaned up or piled on site and burned or removed. Burning on asphalt is not permitted.
- All ash must be gathered and disposed of in Marmot Pit in a designated location.
- The contractor must obtain a special activities permit for burning and follow the standard practices and mitigations noted therein.
- Specific mitigations for burning are noted in section 1.5 Constraints and included in the special activities permit.

## 2.6 Site Management and Use

### 1. General

The work sites specified in these requirements shall only be used for the purposes of the work. The work sites will be made available by Parks Canada to the contractor for its use for the duration of the work, unless otherwise provided in the Contract documents. The contractor will be responsible for the following in the work sites:

- Keep the works site clean and free from accumulation of waste materials and rubbish regardless of source
- Snow removal into and around the work site for the performance and inspection of the work.
- Supply and maintenance of portable washroom facilities for work force in accordance with governing regulations and the Environmental procedures for this project.
- Supply of incinerator bins for burning of slash and wooded debris to protect where required
- Repair and cost of any damages to work site and/or infrastructure
- Protection and safekeeping of site and products under this contract.
- The contractor is required to follow all environmental conditions and mitigation measures identified in Section 4 and the attached Best Management Practices (BMP's) in *Appendix D*.

### 2. Laydown

If required, a laydown area sufficient for the work, will be permitted at each campground work site in a specified location. Laydown area will accommodate:

- Mobile Office/work headquarters

- Equipment parking and storage
- Staff vehicles

### 3. Landing

Designated landing areas will be provided in both campgrounds. There are 4 proposed landing sites in Wapiti campground and 3 proposed landing sites in Wabasso campground. Landing areas will be used to accommodate all work and equipment required to process timber for hauling. Alternative or additional Landing sites requested by the Contractor must be in consultation with and approved by the parks Canada representative and the ESO. Proposed Landing sites are identified in *Appendix A – Timber Harvest site plans*

## 2.7 Works site Conditions and Inventory

Both Campground include vast infrastructure that must be protected from the work. Buildings providing services to visitors are conspicuous, some smaller infrastructure and utilities are low to the ground and may be concealed by trees and snow. Some of these items will be flagged for visualization but not all. It will be the contractor's responsibility to ensure all equipment operators are aware of these items and are not damaged during the work. A list of infrastructure and furnishings, but not limited to:

1. Roads:
  - Entry roads, main roads and loop roads are paved
  - Access roads to visitor and PCA facilities are gravel
2. Campsites contain:
  - Affixed Fire pit
  - Picnic table (concrete affixed or movable)
  - Wood post site marker at edge of site. Roughly 2 – 2 ½ feet above grade
  - Electrical pedestals approx. 3 feet above grade. Wapiti – Loops FF and AA; Wabasso – Loop D
3. Other Utilities throughout:
  - Electrical access panels
  - PCA overhead power lines
  - Power pedestals
  - Street lights
  - Plumbing valve boxes
  - Lift stations
4. Third Party Utilities:
  - Atco Electric utility poles and lines
  - Atco Electric transformers

Reference *Appendix B – Utility site map*

### 3. OTHER REQUIREMENTS SPECIFIC TO THE WORK

#### 3.1 Regulatory Requirements

The contractor must be familiar with and perform work in accordance with all relevant codes, regulations and standards listed but not limited to:

- Canada National Parks Act and Regulations
- Migratory Bird Convention Act
- Environment Canada
- Occupational Health and Safety
- Fisheries and Oceans

#### 3.2 Permits

The contractor and any sub contractor is responsible for obtaining and the cost associated with, all required permits including but not limited to:

- Parks Canada Business Licence
  - All work vehicles are required to display work passes from Parks Canada
- Restricted/Special Activity Permit
  - Burning
  - Vegetation removal
  - Oversized vehicle permits for travel on hwy 93 to work site (Icefields Parkway)

#### 3.3 Volume Reports

Verified measurements of timber removed from the park and delivered to processing mills or other sale venues must be documented and submitted to Parks Canada representative to be reported to NRCAN for softwood trade agreement requirements.

### 4. ENVIRONMENTAL PROCEDURES

All environmental procedures listed in this section are, in part from, Parks Canada National Best Management Practices (BMP) for Campground and Day Use Area Maintenance and Modification *Appendix D*) and are part of the contract requirements to be adhered to by the contractor.

The cost of environmental and aesthetic protection in accordance with this section will not be measured separately for payment and will be considered incidental to the Work.

#### 4.1 Work Site Conditions/Staging/Laydown

1. All people working on the project must review the mitigation measures and any site specific considerations with designated Parks Canada staff before work begins.
2. All staff employed at the site by the contractor or any sub-contractor, will be subject to an approximately one half hour briefing regarding their individual and collective responsibilities to ensure avoidable adverse environmental impacts do not arise from their activities. Employees must attend this briefing before beginning their work at the site. It is recognized that new employees may join the work force after the initial briefing. In this case and as required, subsequent briefings will be presented as numbers warrant, by arrangement with the ESO through

the Parks Canada representative. A one-page summary with highlights and personal conduct expected, will be provided to the contractor/subcontractor after the briefing.

3. Parks Canada will have an ESO assigned to the project. The ESO's duties are to monitor the work site activity to ensure compliance with environmental protection measures and to provide guidance through the Parks Canada representative, in the event of unanticipated environmental problems or concerns.
4. Staging and parking areas for material and equipment must be identified, including duration of use, within an existing disturbed footprint (e.g., roadway, gravel surface, previously disturbed area with high resiliency).
5. Use existing roadways, trails, disturbed areas or other areas as approved by designated Parks Canada staff for site access, travel within the site and work activities.
6. Clearly mark work site and restricted areas with stakes, biodegradable flagging tape or other means; remove when project is completed.
7. Keep disturbance footprint as small as possible and limit vehicle access to essential vehicles only.

#### **4.2 Equipment Maintenance**

1. Equipment must be properly tuned, clean and free of contaminants, in good operating order, free of leaks (e.g., fuel, oil or grease), and fitted with standard air emission control devices and spark arrestors prior to arrival on site.
2. During construction, any required cleaning of tools and equipment must be done greater than 30 meters from waterbodies to prevent the release of wash water that may contain deleterious substances.
3. The contractor must ensure that all soil, seeds and any debris attached to equipment to be used on this project site shall be removed by power washing, outside the National Park prior to transporting or driving to the work site. All equipment will be inspected prior to entry into the park by the ESO and the Parks Canada representative.
4. Equipment fueling sites will be identified by the Contractor and approved by the Parks Canada Representative and the ESO. Any fueling closer than 50 metres from streams, wetlands, water bodies or waterways shall require the authorization of the Departmental Representative. Machinery and equipment, including chainsaws, must be stored, maintained, and fueled on a flat surface, outside of the dripline of trees.
5. Diesel and gasoline delivery vehicles, including bulk tankers shall be parked more than 100 metres from streams, wetlands, water bodies or waterways. Gravity fed fuel systems is not allowed. Manual or electric pump delivery systems shall be used. Fueling personnel shall maintain presence at and immediate attention to the fueling operation.
6. Mobile fuel containers (e.g. slip tanks, small fuel carboys) shall remain in the service vehicle at all times. Protection and containment of approved fuel storage sites is addressed in section 4.9 Pollution Control below.
7. Equipment used on the project shall be fueled with E10 and low Sulphur diesel fuels and shall conform to local emission requirements. The Contractor is to ensure that unnecessary idling of vehicles is avoided.
8. Oil changes, lubricant changes, greasing and machinery repairs shall be performed at locations approved by the ESO or the Parks Canada Representative. Waste lubrication products (e.g. oil filters, used containers, used oil, etc.) shall be secured in spill-proof containers and properly recycled or disposed of at an approved facility. No waste petroleum, lubricant products or related materials are to be discarded, buried or disposed of in borrow pits, turnouts, picnic areas, viewpoints, etc. anywhere within National Parks.

9. The Contractor shall ensure that all equipment is inspected daily for fluid/fuel leaks and maintained in good working order.
10. Fuel containers and lubricant products shall be stored only in secure locations specified by the Parks Canada Representative. Fuel tanks or other potentially deleterious substance containers shall be secured to ensure they are tamperproof and cannot be drained by vandals when left overnight in National Parks. Alternatively, the Contractor may hire a security person employed to prevent vandalism.
11. Consider using bio-degradable chain oil/vegetable oils in chain saws especially when working within 30 meters of a waterbody.

#### **4.3 Equipment Operations**

1. Equipment operators must be fully trained and experienced.
2. Select equipment appropriate to the nature of work being conducted
3. Operate machinery above the High Water Mark and minimise disturbance to the banks and waterbody.
4. Heavy equipment operating on paved surfaces should be equipped with street pads; damage to paved surfaces must be restored to original conditions.
5. Minimize idling of engines, contingent on operating instructions and temperature consideration.
6. If operating chain saws directly over or adjacent to waterbodies is unavoidable, use measures such as tarps to trap and prevent debris from entering the waterbody as much as possible.
7. Gas generators must be secured to prevent movement during operation and set up on an impermeable fuel mat with a berm or within a container that can contain 150% of the volume of fuel in the generator.

#### **4.4 Waste**

1. All wildlife attractants must be secured (e.g., petroleum products, human food, recyclable drink containers and garbage) within wildlife-proof containers, a secure building or vehicle. Keep food waste separate from construction waste and remove daily; if daily removal is not possible, secure until it can be removed.
2. Notify designated Parks Canada staff immediately should wildlife gain access to the above mentioned attractants.
3. Contain and stabilize waste material above the High Water Mark to prevent them from entering any waterbody.
4. All materials must be removed from the site on project completion (e.g., refuse material, waste petroleum, etc).
5. Contain wastes and transport to an approved waste landfill site outside the Parks Canada protected heritage place, unless otherwise directed; cover waste loads during transportation.
6. Portable sanitary facilities must be serviced on a regular basis and accumulated waste disposed at a sanitary waste disposal facility. The facilities must have sufficient capacity and be managed to ensure waste is not discharged to the receiving environment.
7. The Contractor and workers shall dispose of hazardous wastes in conformance with the Environmental Contaminants Act and applicable provincial regulations while observing the Code of Good Practice for Management of Hazardous and Toxic Wastes at Federal Establishments.
8. Hazardous waste and domestic waste materials shall not be burned, buried or discarded at the work site or elsewhere in National Parks. These wastes shall be contained and removed in a timely and approved manner by the Contractor and workers, and disposed of at an appropriate

waste landfill site located outside the park. Waste containers will have lids, and waste loads shall be covered while being transported.

#### **4.5 Hazardous Material**

1. Prevent the release of hazardous substances into the environment, including but not limited to, petroleum products and their derivatives, antifreeze or solvents.
2. All on-site personnel must be briefed on reporting requirements for hazardous materials spills; spills must be reported immediately to designated Parks Canada staff.
3. All construction sites must be equipped with containers suitable for the secure, temporary storage of hazardous wastes, separated by type.
4. A spill contingency response kit including sorbent material and berms to contain 110% of the largest possible spill (i.e., fuel or other toxic liquids) related to the work must be available on site at all times. On-site personnel must be aware of its location and trained in its use. Any contaminants must be recovered at source and disposed according to applicable laws, policies and regulations.
5. Identify and handle all toxic/hazardous materials as required under the Canadian Environmental Protection Act, Transportation of Dangerous Goods Act and Workplace Hazardous Materials Information Service.
6. Petrochemical products, paints and chemicals must be stored a minimum of 30 meters away from waterbodies and secured overnight in a Parks Canada approved enclosed area under lock and key; increase the 30-meter buffer depending on level of risk and site specific conditions.

#### **4.6 Wildlife**

1. On-site personnel must be made aware of and report any incidental sightings of species at risk immediately to designated Parks Canada staff.
2. Schedule operations to avoid critical wildlife life stages (breeding, nesting, denning, roosting, rearing, migration). Consult with designated Parks Canada staff to discuss site-specific wildlife concerns.
3. Follow Reducing Risk to Migratory Birds guidance from Environment and Climate Change Canada, including avoiding vegetation clearing during site-specific migratory bird timing windows. Consult with designated Parks Canada staff for specific approaches to avoiding impacts on migratory birds (e.g., nest surveys, exclusion zones for located nests, area avoidance).
4. Should active nests, dens, roosts or calving areas be discovered, stop work and contact designated Parks Canada staff immediately for direction.
5. Construct and erect any fences in a manner that minimises impacts on wildlife movement. Consult with designated Parks Canada staff to determine appropriate fence design and location.
6. Never approach or harass wildlife (e.g., feeding, baiting, luring).
7. During the Environmental Briefing all personnel shall be instructed by the ESO on procedures to follow in the event of wildlife appearance near or within the work site and any other wildlife concerns.
8. If wildlife is observed at or near the work site, allow the animal(s) the opportunity to leave the work area and away from areas of potential conflict.
9. Designated Parks Canada staff must be alerted immediately to any potential wildlife conflict (e.g., aggressive behaviour, persistent intrusion), distress or mortality. In the case of aggressive behaviour or persistent intrusion, stop work and evacuate the area. Extra care to control materials that might attract wildlife (e.g. lunches and food scraps) must be exercised at all times.

#### **4.7 Clearing & Vegetation Maintenance**

1. Where clearing is required within the 30 m buffer zone of water bodies, conduct clearing as instructed by Parks Canada and ESO or by hand to ensure soil stability and prevent run off.
2. Trees should be removed only as necessary for project completion, visitor safety or wildfire risk reduction.
3. When felling trees, precautions must be taken to minimise damage to surrounding vegetation.
4. In the event that any Mountain pine beetle “green” attack trees should be cut as incidental take, they shall not be stored within 100 m of healthy live trees and must be debarked and prior to hauling or processing into fire wood. The bark must be burned on site and as close to area of cutting as possible minimizing travel within the site to prevent spread.
5. Cut stumps as close to the ground as possible. If clearing is conducted during winter in snow cover, return to site after snow melt to flush cut stumps may be required.
6. When possible, conduct work when the ground is frozen or under a condition (such as snowfall) that limits ground compaction. If not possible, consider the use of rig mats or other appropriate measures to minimise impacts.
7. Logs and other salvage materials are to be conveyed to and placed with minimal spread of debris or damage to other live standing trees, landscape resources and infrastructure within the work sites. They shall not be skidded through wetlands, waterways or water bodies.
8. The Contractor shall ensure that the substrate or riparian area of streams, rivers or watercourses, whether open water or frozen over shall not be disturbed by tracked, wheeled or self-propelled equipment, (e.g. a skidder or truck). The ESO or Departmental Representative will provide direction in the case of work occurring near any wetland area or watercourses.
9. The Contractor shall take all measures to ensure that trees do not fall into streams, rivers, wetlands or water bodies or outside the clearing limits. Generally, work within a 30 metre buffer of watercourses, water bodies or wetlands require the close oversight of the ESO and/or the Parks Canada representative.
10. Trees inadvertently felled into streams, rivers, watercourses or outside the clearing limits shall be removed by means (e.g. winch) so as not to damage the substrate or any standing trees left outside the clearing limits. Machinery shall not go outside the clearing limits, or into streams, rivers, watercourses or water bodies to remove felled trees.
11. Use existing trails, roads or cut lines wherever possible to avoid disturbance to the riparian vegetation and prevent soil compaction.
12. When practical, alter riparian vegetation by hand. If machinery must be used, operate on land and minimize disturbance to the banks of the waterbody.
13. Restore banks to original condition should any damage occur.
14. When altering a tree on the bank of a waterbody, ensure the root structure and stability are maintained.
15. Organic material and debris must not be allowed to enter waterbodies.
16. Minimize removal of natural woody debris, rocks, sand or other materials from the banks of waterbodies and avoid any disturbance below the High Water Mark.

#### **4.8 Erosion and Sediment Control**

1. Erosion control measures that prevent sediment from entering any waterways, water body or wetland in the vicinity of the work site are a critical element of the project and shall be implemented by the contractor where necessary and specified to do so.

2. The regular monitoring and maintenance of all erosion control measures will be the responsibility of the contractor. If the design of the control measures is not functioning effectively, they are to be repaired.
3. The site will be secured against erosion during any periods of work inactivity or shutdown.
4. Schedule operations to avoid wet, windy and rainy periods or very dry periods that may increase erosion and sedimentation.
5. Regularly inspect and maintain erosion and sediment control structures during all phases of the project and modify measures as necessary.

#### **4.9 Pollution Control**

1. The contractor/subcontractor will prevent any deleterious and objectionable materials from entering any waterway, water body or wetland that would result in damage to aquatic and riparian habitat. Generally, hazardous or toxic products will be stored no closer than 100 meters from any waterbody and/or watercourse.
2. A spill response plan will be prepared by the contractor and will detail the containment and storage, security, handling, use and disposal of empty containers, surplus product or waste generated in the application of these products, to the satisfaction of the Parks Canada representative and the ESO and in accordance with all applicable federal and provincial legislation. The plan shall include a list of products to be used or brought to the work site that are considered or defined as hazardous or toxic to the environment.
3. The containment, storage, security, handling, use, unique spill response requirements and disposal of empty containers, surplus product or waste generated in the use of any hazardous or toxic products shall be in accordance with all applicable federal and provincial legislation. Generally, hazardous or toxic products shall be stored no closer than 100 metres from streams, wetlands, water bodies or waterways.
4. An impervious berm shall be constructed around fuel tanks and any other potential spill area. The berms shall be capable of holding 110% of tank storage volumes and shall be to the satisfaction of the Parks Canada Representative and the ESO before start-up. Measures such as collection/drip trays and berms lined with occlusive material such as plastic and a layer of sand, and double-lined fuel tanks can prevent spills into the environment.
5. The Contractor shall provide spill kits at re-fueling, lubrication, and repair locations that will be capable of dealing with 110% of the largest potential spill and shall be maintained in good working order on the construction site. The ESO and Parks Canada Representative prior to project start-up must approve these spill kits. The Contractor and site staff shall be informed of the location of the spill response kit(s) and be trained in its use
6. Timely and effective action shall be taken to stop, contain and clean-up all spills as long as the site is safe to enter. The Parks Canada Representative and the ESO shall be notified immediately of any spill. In the event of a major spill, all other work shall be stopped and all personnel devoted to spill containment and clean-up.
7. The costs involved in a spill incident (the control, clean up, disposal of contaminants and site remediation to pre-spill conditions), shall be the responsibility of the Contractor. The site will be inspected to ensure completion to the expected standard and to the satisfaction of the Parks Canada Representative and ESO.



#### 4.10 Cultural Resources

1. If cultural resources are encountered, work must cease in the immediate area and designated Parks Canada staff notified.
2. Notify the site supervisor upon discovery of any archaeological resources. If features (i.e., structural remains and/or artifact concentrations) are encountered, leave in place, mark the location (e.g. with prominent flagging) and contact designated Parks Canada staff to take photographs and, if possible, depth measurements. The designated Parks Canada representative must provide the information immediately to the Terrestrial Archaeology section for an assessment of significance before work can resume.

### 5. MEASUREMENT

#### 5.1 General

1. It is expected that the merchantable value of the timber will be all or in part of, the contractor's profit for this work.
2. **Mobilization/Demobilization** will include, but not be limited to: all costs related to project set-up, mobilization and demobilization of equipment, application of all permits, submission of all requested submittals, layout and maintenance of work area, development of the erosion and sedimentation control plan, erosion control measures as per the erosion and sedimentation control plan, cleaning of site through-out and at the end of the project to the satisfaction of the Parks Canada Representative, restoration of all used sites including laydown area, landing and processing areas to existing condition, labour, tools, materials, snow removal etc.
3. **Hazardous Tree Clearing** will be measured by surveyed cubic meters of all timber cut to the nearest 10 m<sup>3</sup> for work completed in the contract period. The work will include but is not limited to cutting, skidding, limbing/topping, loading, hauling, burning, disposal, labour, materials, equipment, tools and all other incidentals required to perform this work.
4. **Fire wood processing** will be measured by cubic meters to the nearest 10m<sup>3</sup> for all timber processed for this purpose and completed during the contract period. The work will include but is not limited to bucking/splitting, labour, materials/tools/equipment, and all other incidentals to perform this work.

### 6. HEALTH AND SAFETY REQUIREMENTS

#### 6.1 References

1. Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations.
2. Province of Alberta
3. Occupational Health and Safety Act, R.S.A. 2000.

#### 6.2 General Requirements

1. Develop written site specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.
2. The Parks Canada Representative may respond in writing, where deficiencies or concerns are noted and may request re submission with correction of deficiencies or concerns.

3. Health and Safety Plan must be completed and submitted to Parks Canada representative prior to mobilization and start of work.
4. The contractor will conduct on-site safety briefings for all Parks Canada personnel identified by the Parks Canada representative who will be working in proximity to the Operator's equipment.

### 6.3 Compliance Requirements

1. Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
2. Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site specific Health and Safety Plan.

### 6.4 Unforeseen Hazards

When unforeseen or peculiar safety related factor, hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of the Province Alberta and advise the Parks Canada Representative verbally and in writing.

### 6.5 Health & Safety Coordinator

1. Employ and assign to Work, competent and authorized representative to fulfill the role as Health and Safety Coordinator. The supervisor or foreman may satisfy the role of Health and Safety Coordinator. Health and Safety Coordinator must:
  - Have site related working experience.
  - Have working knowledge of occupational safety and health regulations.
  - Be responsible for completing Contractor's Health and Safety Training Sessions and ensuring that personnel not successfully completing required training are not permitted to enter site to perform Work.
  - Be responsible for implementing, enforcing daily and monitoring site specific Contractor's Health and Safety Plan
  - Be on site during execution of Work and report directly to and be under direction of site supervisor.

### 6.6 Posting of Documents

1. Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of Province Alberta having jurisdiction, and in consultation with Parks Canada Representative.

### 6.7 Correction of Non Compliance

1. Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Parks Canada Representative.
2. Provide Parks Canada Representative with written report of action taken to correct non-compliance of health and safety issues identified.

3. Parks Canada Representative may stop Work if non-compliance of health and safety regulations is not corrected.

## 6.8 Work Stoppage

1. Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

## 6.9 Visitor Safety

1. Notifications of closures will be put in place as required for trails, roads, and areas to inform and protect the public during all work conducted for the duration of this contract. These closures will be coordinated between the contractor and the Operator and the Parks Canada representative.
2. All signage to inform the public of area closures must be bilingual or symbolic in nature.

## 7. PROJECT MANAGEMENT AND COORDINATION

### 7.1 Project Meetings

1. Attend bi-weekly project meetings chaired by Parks Canada representative, throughout progress of work and provide information as determined by the Parks Canada representative.
2. Allow 5 business days' notice for any cancellation or rescheduling of project meetings.

### 7.2 Submittals

The following must be submitted to the Parks Canada representative prior to mobilization and commencement of work for review and approval:

- Project schedule in bar chart form. Includes; detailed work plan, that clearly identifies how, when and where the work will be completed.
- Contact list including any sub-contractors
- Site Specific Health and Safety Plan and emergency response plan
- Copy of current business license and any other permits needed to complete the work.
- Environmental Management Plan

### 7.3 Organization and Start-Up

1. Within seven (7) days after award of Contract, request a meeting of Contract Representatives to discuss and resolve administrative procedures and responsibilities. Meeting to be chaired by the Parks Canada Representative who will also record the minutes of the meeting. Senior representatives of the Owner, Parks Canada Representative, Contractor, major Subcontractors, field inspectors and supervisors are to be in attendance.
2. Agenda to include following:
  - Appointment of official representative of participants in Work.
  - Schedule of Work, progress scheduling
  - Required Submittals
  - Requirements for temporary facilities, offices, storage sheds, utilities
  - Site safety and security

**Solicitation No.:**  
5P420-20-0288/A

**Amendment No.:**  
00

**Contracting Authority:**  
Andrea McGraw-Alcock

**Client Reference No.:**  
PW-20-00935058

**Title:**  
Mechanical Clearing of Hazardous Trees Wapiti and Wabasso Campgrounds – Jasper National Park

---

- Monthly progress claims, administrative procedures, and holdbacks.
  - Close out procedures
  - Other business.
3. Comply with Parks Canada Representative's allocation of mobilization areas of site; for field offices and sheds, for access, traffic, and parking facilities.
  4. Comply with instructions of the Parks Canada Representative for use of temporary utilities and facilities if applicable.

#### **7.4 On Site Documents**

Maintain at job site, one copy of each:

- Contract Drawings if part of tender.
- Contract Requirements.
- Addenda.
- Change Orders.
- Site Specific Health and Safety Plan.
- WHMIS.
- Environmental Protection Plan.
- Field reports.
- Copy of approved Work schedule and most recent updated schedule.

#### **7.5 Close Out Procedures**

1. Accompany Parks Canada representative on preliminary inspection to determine any items listed for completion or correction.
2. Comply with Parks Canada representative's instructions for correction of items of work listed in executed certificate of substantial completion.
3. Notify Parks Canada representative of instructions for completion of items of work determined in Parks Canada representative's final inspection.

**END OF DOCUMENT**