

ANNEX "A" - STATEMENT OF WORK

1. General Information

1.1. Goal

The primary goal of this project is to address the ecological restoration needs for Federal Contaminated Sites Action Plan Program (FCSAP) Projects within Waterton Lakes National Park (WLNP), at Bar U National Historic Site (NHS).

1.2. Background

Parks Canada is currently undertaking the planning and construction of numerous projects in Waterton Lakes National Park, at Bar U NHS. The scope and size of these projects varies throughout the park, but they share a common need for on-going landscape restoration of the construction footprint associated with each project once the project has been completed. Each project includes the installation of vegetation which requires ongoing maintenance, particularly in the establishment phase for the vegetation.

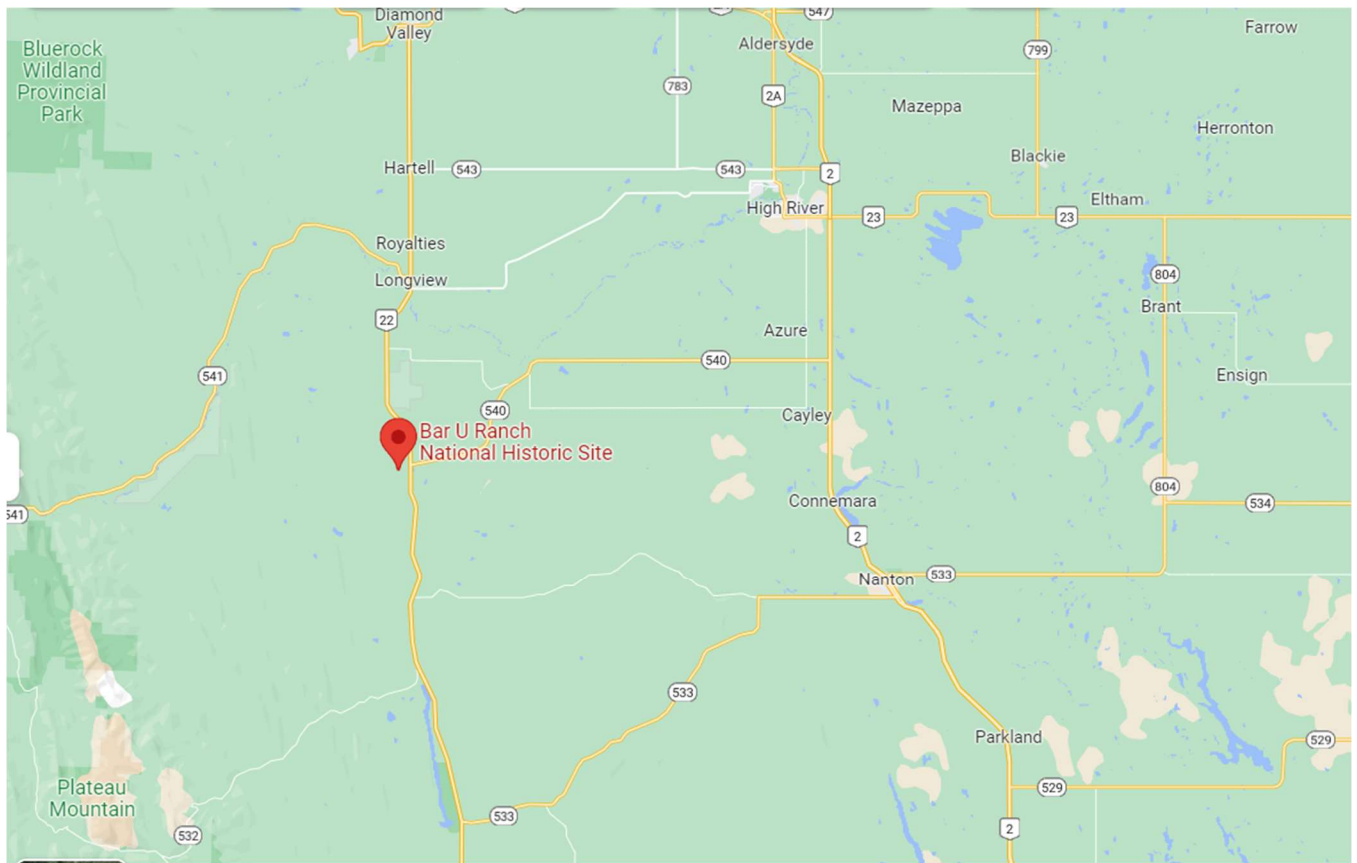


Figure 1 Map of Bar U National Historic Site

1.3. Summary of Work

The Contractor is responsible for the following:

1.3.1 GENERAL REQUIREMENTS

- a. The contractor is expected to conduct ecological restoration activities that meets the requirements detailed in this section.
- b. Contractor must review and formally acknowledge willingness and ability to abide by the WLNP Best Management Practices.
- c. Supply and deliver plants as outlined in the specifications and related appendices including Planting Plan and Materials.

- d. Initial inspection of plant materials and existing fencing and submission of an Initial Inspection Report detailing condition (including photos, and descriptions of any potential defects or health concerns) of planted materials upon start of contract.
- e. Leave work area clean at end of each day; Upon completion, remove surplus materials, rubbish, tools and equipment.
- f. Provide all equipment, tools, materials needed in good working order to complete the Services requested.
- g. Provide maintenance of plants and fence for 1-year post installation.

1.3.2 REQUIRED WORK - INSTALLATION OF REPLACEMENT PLANTS

- a. Removal of debris (Refer to Appendix A for locations)
- b. Installation of shrubs and trees as per specifications.

1.3.2.1 ADMINISTRATIVE REQUIREMENTS

- a. Scheduling: obtain approval from PCA Project Authority of schedule 7 days in advance of shipment of plant material. Schedule to include:
 - i. Quantity and type of plant material.
 - ii. Shipping dates.
 - iii. Arrival dates on site.
 - iv. Planting dates.
- b. Arrange for inspection of live plant material by PCA Project Authority prior to planting. Inspection may be carried out at storage facility or onsite. The PCA Project Authority reserves the right to reject any plant material that does not meet the specifications.

1.3.2.2 DELIVERY, STORAGE AND HANDLING

- a. Delivery and Acceptance Requirements: deliver materials to site in original nursery packaging, labelled with grower's name and address.
- b. Protect plant material from frost, excessive heat, wind and sun during delivery.
- c. Immediately store and protect plant material which will not be installed within 1 hour.
- d. Inspect plant material upon delivery to site. Do not plant materials that have sustained damage or injury during shipping.
- e. Keep plant materials covered and protected from the effects of frost, freezing, mold, sun and wind until time of planting. Do not allow roots to dry out.

1.3.2.3 PRODUCTS

PLANT MATERIAL

- a. Type of root preparation, sizing, grading and quality: comply with Canadian Standards for Nursery Stock.
 - i. Source of plant material: grown in Zone 3a to 4a in accordance with Canada's Plant Hardiness Zones.
 - ii. Plant material must be planted in zone specified as appropriate for its species.
 - iii. Plant material in location appropriate for its species.
- b. Plant material: free of disease, insects, defects or injuries and structurally sound with strong fibrous root system.
- c. Trees: with straight trunks, well and characteristically branched for species.
- d. Trees larger than 200 mm in caliper: half root pruned during each of two successive growing seasons, the latter at least one growing season before arrival on site.

- e. Nursery grown, in dormant stage, not balled and burlapped.
- f. Collected stock: maximum 40 mm in caliper, with well-developed crowns and characteristically branched; no more than 40% of overall height may be free of branches.
 - i. During collection, ensure 10% maximum seed crop (or plants) are collected from healthy population of many individuals, and from several plants of same species.
 - ii. Leave remainder for natural dispersal and as food for dependent organisms.
- g. Plant Material and Sizes: Plant material provided by the contractor must meet the following size requirements or similar approved alternatives upon delivery to site, of those plants and materials found in Appendix B – Planting Plans and Materials, specifically pages 10 and 11.

WATER

- a. Free of impurities that would inhibit plant growth.
- b. Supplied by PCA Project Authority at designated source.
- c. Water for required irrigation will be supplied via hydrants located within the Waterton townsite as approved by the PCA Project Authority. The Contractor is responsible for transporting water to locations where irrigation is required.

TEMPORARY FENCING

- a. Deer and beaver Fencing: 2.3 m high wire mesh fence with mesh openings no larger than 17.5 cm (7') between horizontal lines, preferably high tensile 12 gauge. Use metal t-stakes.
- b. Rabbit and rodent fencing: 0.9 m high 50 x 50 mm square welded wire mesh. Use metal t-stakes to secure.

1.3.2.4 EXECUTION

EXAMINATION

- a. Verification of Conditions: verify conditions of substrate previously installed under other Sections or Contracts are acceptable for planting installation.
- b. Visually inspect substrate in presence of PCA Project Authority.
- c. Inform PCA Project Authority of unacceptable conditions immediately upon discovery.
- d. Proceed with installation only after unacceptable conditions have been remedied.

PRE-PLANTING PREPARATION

- a. Proceed only after receipt of written acceptability of plant material from PCA Project Authority.
- b. Remove damaged roots and branches from plant material.
- c. Locate and protect utility lines
- d. Notify and acquire written acknowledgement form utility authorities before beginning excavation of planting pits for trees and shrubs.
- e. Plant material installed only after seeding and hydro-mulching is complete.

PLANTING

- a. Install plant materials when species are in active growth only.
- b. Plugs
 - i. Remove plugs from trays by pushing up through bottom of liner. Do not pull plant from tray by vegetative material.
 - ii. Fill planting bags just prior to planting. Do not pack bags tightly.
 - iii. Place plug vertically straight in planting hole, with roots pointing downward and not bent at bottom.
 - iv. Do not twist plug into planting hole or compress plug to fit into a hole that is not large enough.
 - v. Plant plug level with top of native soil around plug.
 - vi. Plant materials shall be randomly spaced throughout the planting area to provide a non-uniform appearance.
 - vii. Backfill soil evenly to finish grade and tamp soil around plug to ensure good root to soil contact.
- c. For trees and shrubs:
 - Backfill soil in 150 mm lifts.
 - Tamp each lift to eliminate air pockets.

- When two thirds of depth of planting pit has been backfilled, fill remaining space with water.
 - After water has penetrated into soil, backfill to finish grade.
 - Form watering saucer as indicated.
- a. Water immediately and thoroughly to reduce air pockets and further improve root to soil contact.

TRUNK PROTECTION

- a. Install trunk protection on deciduous trees as indicated.
- b. Install trunk protection before installation of tree supports.

TREE SUPPORTS

- a. Use single stake tree support for deciduous trees less than 3 m in height and evergreens less than 2 m in height.
 - i. Place stake on prevailing wind side and 150 mm minimum from trunk.
 - ii. Drive stake 150 mm minimum into undisturbed soil beneath roots.
- b. Ensure stake is secure, vertical and unsplit.
 - i. Install 150 mm long guying collar 1500 mm above grade.
 - ii. Thread Type 1 guying wire through guying collar tube.
- c. Twist wire to form collar and secure firmly to stake. Cut off excess wire.
- d. Use 3 guy wires for deciduous trees greater than 3 m in height and evergreens greater than 2 m in height.
 - i. Use Type 2 guying wire with clamps for trees less than 75 mm in diameter and Type 3 guying wire with clamps for trees greater than 75 mm in diameter.
 - ii. Install guying collars above branch to prevent slipping at approximately 2/3 height for evergreens and 1/2 height for deciduous trees. Collar mounting height not to exceed 2.5 m above grade.
 - iii. Guying collars to be of sufficient length to encircle tree plus 50 mm space for trunk clearance. Thread guy wire through collar encircling tree trunk and secure to lead wire by clamp or multi-wraps; cut wire ends close to wrap. Spread lead wires equally proportioned about trunk at 120 degrees.
 - iv. After tree supports have been installed, remove broken branches with clean, sharp tools.

1.3.2.5 MAINTENANCE DURING ESTABLISHMENT PERIOD

- a. Perform following maintenance operations from time of planting to acceptance by PCA Project Authority.
 - i. Water once a week to maintain soil moisture conditions for optimum establishment, growth and health of plant material without causing erosion.
 - ii. For evergreen plant material, water thoroughly in late fall prior to freeze-up to saturate soil around root system.
 - Remove weeds monthly.
 - iii. Replace or respread damaged, missing or disturbed mulch.
 - iv. For non-mulched areas, cultivate as required to keep top layer of soil friable.
 - v. If required to control insects, fungus and disease, use appropriate control methods in accordance with Federal, Provincial and Municipal regulations. Obtain product approval from PCA Project Authority prior to application.
 - vi. Remove dead or broken branches from plant material.
 - vii. Keep trunk protection and guy wires in proper repair and adjustment.
 - viii. Remove and replace dead plants and plants not in healthy growing condition. Make replacements in same manner as specified for original plantings.

1.3.2.6 MAINTENANCE DURING WARRANTY PERIOD

- a. From time of acceptance by PCA Project Authority to end of warranty period, perform following maintenance operations.
 - i. Water once a week to maintain soil moisture conditions for optimum growth and health of plant material without causing erosion.

- Remove weeds monthly.
- ii. Replace or respread damaged, missing or disturbed mulch.
- iii. If required to control insects, fungus and disease, use appropriate control methods in accordance with Federal, Provincial and Municipal regulations. Obtain product approval from PCA Project Authority prior to application.
- iv. Remove dead, broken or hazardous branches from plant material.
- v. Keep trunk protection and tree supports in proper repair and adjustment.
- vi. Remove trunk protection, tree supports and level watering saucers at end of warranty period.
- vii. Remove and replace dead plants and plants not in healthy growing condition. Make replacements in same manner as specified for original plantings.
- viii. Submit monthly written reports to PCA Project Authority identifying:
 1. Maintenance work carried out.
 2. Development and condition of plant material.
 3. Preventative or corrective measures required which are outside Contractor's responsibility.

1.3.3 REQUIRED WORK - MAINTENANCE OF PLANTS

- a. Regular watering of installed landscape components, and other maintenance activities, such as pruning.
- b. Watering and maintenance of the following trees, shrubs and ground areas located throughout the Townsite in Waterton Lakes NP:

Maintenance Site	Estimated Number of trees and shrubs ¹	Species
Bar U NHS Waste Middens	Appendix B – Planting Plans and Materials, specifically pages 10 and 11.	Appendix B – Planting Plans and Materials, specifically pages 10 and 11.

¹ Contractor is responsible for verifying quantities and species provided.

Please see the attached Drawings and photos (Appendix B) for the approximate areas (trees, shrubs) required to be watered at the site.

The number of watering events will be dependent on weather conditions at the site and Parks Canada will communicate site conditions to the Contractor. One visit per week from May 15th 2024 to September 15th 2024 will amount to 16 visits for watering/general maintenance, with the possibility of additional visits if required.

Water must be free of any impurities that would inhibit plant growth.

The Contractor is permitted to collect water from designated hydrants located within the Waterton Townsite as well as water wells and tanks available at Bar U NHS. The Contractor is responsible for transporting water to locations where irrigation is required, unless an alternate approved source is identified closer to the watering locations.

Perform following maintenance operations from time of planting or start of contract to end of contract:

- Water to maintain soil moisture conditions for optimum establishment, growth and health of plant material without causing erosion.
 - For evergreen plant material, water thoroughly in late fall prior to freeze-up to saturate soil around root system.
- If required to control insects, fungus and disease, use appropriate control methods in accordance with Integrated Pest Management Plan and Federal and Provincial regulations.
 - Obtain product approval from PCA Project Authority prior to application.
- Remove dead or broken branches from plant material.
- Remove and replace dead plants and plants not in healthy growing condition.
- Dispose of plant materials at an appropriate facility outside of the park, unless otherwise approved by the PCA Project Authority.
- Minimum 80% survival rate of live plant material at end of maintenance period.

1.3.4 AS AND WHEN REQUESTED WORK - MAINTENANCE OF FENCE

Repair and maintain wire fencing around planted vegetation as and when requested.

- Inform PCA Project Authority if fence maintenance activities are recommended.
- Perform following maintenance operations as and when requested from contract start to end of contract:
 - Repair and/or replace fence to ensure the plants are protected from wildlife browse.
 - Work may include, but is not limited to: regular inspection of fencing to ensure that wire mesh is in good condition; straightening fence; replacing wire mesh where irreparably damaged; repair any gaps in fencing; replace t-stakes that are irreparably damaged.
 - Contractor is responsible for matching existing materials as closely as possible for maintenance, repair or replacement activities unless otherwise approved by the PCA Project Authority.

Replacement fencing specifications (as needed):

- Deer/Beaver fencing:
 - 2.3 m high wire mesh fence with mesh openings no larger than 17.5 cm (7") between horizontal lines, preferably high tensile 12 gauge. Use metal t-stakes.
 - Rabbit and rodent fencing: 0.9 m high 50 x 50 mm square welded wire mesh. Use metal t-stakes to secure.

1.3.5 AS AND WHEN REQUESTED WORK – WEED CONTROL WITHIN FENCED AREA

Manual control of weeds within the fenced areas as and when requested.

- Inform PCA Project Authority if vegetation management/weed control activities are recommended.
- Perform following maintenance operations as and when requested from contract start to end of contract:
 - Remove all weeds within the fenced areas by mechanical means.
 - Cut grass to 80 mm whenever it reaches height of 100 mm. Leave clipping unless they are heavy enough to smother desirable vegetation or if risk of weed spread by seed exists. If mowing, schedule mowing to remove tops of weed species before flower heads form. Do not damage desirable species.
 - Work may include, but is not limited to: monthly inspection of vegetative growth within the fenced areas; mowing grass, mechanical removal of weeds, etc.

2. Codes and Regulations

2.1. Codes

2.1.1. The Contractor must meet or exceed the requirements of:

- Contract Documents;
- Specified standards, applicable legislation, codes, and referenced documents;
- Other codes of Local, Provincial, or Federal application (in the case of conflict or discrepancy, the more stringent requirements apply); and
- All applicable environmental mitigations outlined in the Waterton Lakes General Projects Best Management Practice (BMP) which is available upon request.

2.2. National Parks Regulations

- 2.2.1. The Site Superintendent is responsible for the on-site administration of the Bar U NHS and is located in the Ranch Administration building in the visitor centre.
- 2.2.2. The Contractor must ensure that all work is performed in accordance with the ordinances, laws, rules and regulations set out in the Canada National Parks Act and Regulations.
- 2.2.3. For the work in Waterton Lakes National Park, the Contractor and any sub-Contractors must obtain a business license from the Parks Canada Administration Office in Waterton Lakes National Park prior to commencement of the contract. This can be obtained by contacting Rachel Fernandes-Ubell, Townsite Manager at 403-859-5111.
- 2.2.4. All Contractor's vehicles are required to display a vehicle work pass from Parks Canada. These permits may be obtained free of charge with the purchase of a business license.

2.3. Contractor Use of Premises

- 2.3.1. For the purpose of this contract, Contractor is not be permitted to set up camp in Waterton Lakes National Park, Bar U NHS.

3. Project Submittals

3.1. Submittals

- 3.1.1. The Contractor must complete and submit for PCA Project Authority review, all required contract submittals as detailed below and in Project Specifications. Required submittals include but are not limited to the following:
 - Health and Safety Plan
 - Work Plan and Schedule
 - Initial Inspection Report
 - Monthly Maintenance Reports
 - Final Inspection Report
- 3.1.2. Work affected by the submittals must not proceed until the Work Plan and Schedule; Health and Safety Plan; and Initial Inspection report is accepted by the PCA Project Authority.
- 3.1.3. Notify PCA Project Authority in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.

3.2. Health and Safety Plan

- 3.2.1. The Contractor must prepare and comply with the site specific Health and Safety Plan and ensure that crews must have available at all times.
- 3.2.2. The contractor health and safety plan must comply with occupational health and safety regulations related to landscape maintenance activities.
- 3.2.3. Contractor is solely responsible for any leaks and/or spills, and clean up and disposal of contaminated materials in accordance with provincial and federal legislation.
- 3.2.4. Immediately report any legislative violations to the PCA Project Authority.
- 3.2.5. The Contractor must:
 - 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.
 - 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.
 - The protection of persons off-site and the environment such that they may be affected by the conduct of the work.
 - Conduct daily safety meetings and task specific meetings (toolbox) as required by special work. At a minimum, meetings must include refresher training for existing equipment and protocols, review ongoing safety issues and protocols, and examine new site conditions as encountered. Keep records of meetings.

3.3. Work Plan and Schedule

- 3.3.1. The Contractor must prepare a plan and schedule for review by a PCA Project Authority prior to conducting the work. The work plan must include but not be limited to: Plan of execution for monthly monitoring and watering timing and methodology.
- 3.3.2. Should deficiencies in the Contractor's Work Plan be noted following acceptance of the submittal by the PCA Project Authority but during the project work, the PCA Project Authority reserves the right to provide additional comments to the Consultant and require resubmission of the Work Plan to ensure the correction of any deficiencies.
- 3.3.3. It is the responsibility of the Contractor to conduct sufficient site visits, visual inspections, etc. in order to accurately estimate the quantities involved in executing the scope of work.
- 3.3.4. Landscape Maintenance activities to be performed in the 2024 growing season.

Deliverable(s)	Method	Delivery due date
Initial inspection report	E-mail to the PCA Project Authority	Within 7 calendar days of contract award
Submission of Health and Safety Plan, schedule, and work plan as outlined in Section 3.	E-mail to the PCA Project Authority	Within 14 calendar days of contract award
Monthly monitoring report	E-mail to the PCA Project Authority	Within 7 calendar days of month's end.
Final inspection report	E-mail to the PCA Project Authority	Within 7 calendar days of final maintenance activities

3.4. Inspection Report (Initial and Final)

3.4.1. The Initial and Final inspection reports must at minimum contain the following information:

- Landscape Maintenance Area / Location
- Photos
- Condition of plants

3.5. Monthly Maintenance Reports (see sample report format)

3.5.1. Submit monthly written reports to PCA Project Authority identifying:

- Maintenance work carried out.
- Weed control inspection report.
- Development and condition of plant material.
- Identification of fence maintenance work recommended.
- Preventative or corrective measures required which are outside Contractor's responsibility.

4. Mobilization and Demobilization

4.1. Definitions

Mobilization and Demobilization consists of preparatory work and operations, including but not limited to:

- 4.1.1. Preparation and acceptance of submittals required prior to starting work (Work Plan, Schedule, Health and Safety Plan).
- 4.1.2. Work and costs incurred necessary for the movement of personnel, equipment, supplies and incidentals to/from the work site.
- 4.1.3. Work and cost incurred in the establishment and operation of offices and other facilities necessary to undertake the work.
- 4.1.4. Work and costs incurred in the completion of clean-up and project completion.
- 4.1.5. All other work and costs incurred in the successful completion of mobilization and demobilization.

5. Project Administration Requirements

5.1. Lines of Communication

- 5.1.1. All formal directions regarding project scope, budget, schedule, etc. must come from the PCA Project Authority in writing.
- 5.1.2. The Contractor must not respond to requests for project related information or questions from the media. All media related inquiries are to be directed to the PCA Project Authority.
- 5.1.3. PCA Project Authority must be notified in writing in the event of the replacement of the project lead. The resume of the proposed replacement must be forwarded for review and approval.

Appendix A – Restoration Plan

Landscape Maintenance Area Maps/Drawings

Landscape Maintenance Area Photo Plates

Appendix B – Planting Plan and Materials

Appendix C – Polygon Vegetation Tables