

FRIAA CHRP RFP
Caribou Mountains,
Richardson, Yates
Vegetation Inventory



July 2021 – Applicant Questions

Applicant questions received by 4 pm on June 23rd will be answered and shared on the FRIAA website by 4pm on July 28th. Questions will not be addressed if received after 4pm on July 28th.

From the Question & Answer Information Session and subsequent. Posted July 21, 2021

Applicant Questions:

Question #1: Will shapefiles be available for FRIAA’s CHRP JULY 2021 INVENTORY RFP?

Answer #1: FRIAA doesn’t have any shapefiles for this project specifically. You can use the provincially available caribou range boundaries, less the national park boundary. FRIAA is provincially funded, so we are not planning/treating federal lands (national park), even if seismic lines do extend into the park. The potential seismic lines come from the ABMI anthropogenic footprint, this link is in the RFP. This will give you something to budget on, but likely you will have to fly the ranges to get current imagery to inventory.

Question #2: The RFP asks for the vegetation inventory to identify the current state of revegetation in terms of the three actions as per the Framework: “Treatment Areas”, “Advanced Regeneration”, and “Project Exclusions”. The definitions in the Framework are relatively vague (Section 3.3 – Table 3; Definitions Section). Are there more precise definitions for these that we should be using? Ties into next question.

Answer #2: The definitions in the Framework provide an appropriate level of description for the Inventory project. The outcome of this project (a vegetation inventory) will be used to inform the next stage of work, which is operational planning. The Framework was developed to cover planning and restoration, so it should be used as a guide to understand the next stages of work following the vegetation inventory and required inventory outcomes. Several sections in the Framework will help guide you.

From the Framework:

Page viii: Advanced regen: Areas that are successfully regenerating naturally and therefore do not require treatment.

Page xi: Project Exclusions: Areas that are not treed or are considered outside the framework including riparian areas, outwash plains, grassy montane areas, open fens, etc.

Page 10: Section 3.3 Projects which have advanced regeneration areas totalling more than 15% must document the existing species composition for proposed advanced regeneration areas, and the percentage (based on length) of these areas that contain merchantable tree species, in their operational plan. This is to ensure that programs with high levels of advanced regeneration exhibit the potential to achieve the overarching goal of this framework, which is to establish acceptable tree species that can reach the forest canopy over time. Programs with high levels of species that will not reach the canopy (e.g., alder) may compromise this objective.

Page 15: Table 4 Establishment target, advanced regeneration site

- >70% coverage of species that are capable of reaching a height of 5.0 metres with no less than 50% coverage on either side of the line.
- <10% of sites have human access.

Table 5. *Coniferous and deciduous minimum height targets for achieving successful stocking.*

Site Type	Coniferous Height Target for Stocking	Deciduous Height Target for Stocking
Upland dry	60 cm	120 cm
Upland and transitional	80 cm	120 cm
Lowland treed	65 cm	120 cm
Lowland low density treed	60 cm	120 cm

Page 16: Section 5.5 An acceptable tree is an individual seedling, sucker, or advanced regeneration that meets the following criteria:

- The tree is alive
- It is an acceptable tree species (Table 6)
- It has been on the site for a minimum of two growing years (i.e., it is not a germinant)

The following additional criteria must also be met at the Survival Assessment stage:

- Deciduous trees shall be a minimum of 30 cm tall.
- Coniferous trees shall have a well-defined stem and be a minimum of 15 cm tall.

Question #3: To classify Advanced Regeneration, do we use the criteria outlined in the Establishment Monitoring Section of the Framework based on site type (Table 4 in Section 5.3)?

Answer #3: Yes, and Section 3.3, and Table 5, and Section 5.5 may also be helpful, see above.

Question #4: The RFP details some additional data requirements in section 4.4(q)(i):

- (i) Inventory data results in a shapefile or geodatabase format will include the following attributes:
 1. Ecosite (by soil moisture regime and site type);
 2. Height of advanced regeneration;
 3. Density of advanced regeneration;
 4. Species (tree and shrub) of advanced regeneration;
 5. Line width; and,
 6. Line orientation.
- a) How precise does the height measurement need to be? I.e. To the nearest 10th of a metre? Nearest half metre? This will contribute to the quality of aerial imagery we will need to collect.
- b) Is the height measurement the average for the whole advanced regeneration area (all species combined), or do we need to give a height per species?
- c) What is expected for the description of “access” – access specifics for operations of treatment areas only? Or access to all areas? This is referenced in Section 3.3 of the RFP.
- d) Are we expected to give any more detail regarding areas classified as “Treatment Areas” or “Project Exclusions”? I.e. site prescription for Treatment Areas, or description of project exclusion (fen, disposition, inoperable terrain, etc.).

Answer #4a): Please propose this in your methodology. To the nearest 0.5m is likely appropriate.

While not specifically referencing vegetation inventory creation, this could be a starting point: Framework page 29: Section 7.3.2, Approach – Digital, Method, Requirements – “minimum spatial resolution of 15 cm or better”. “Based on the data provided to the interpreter and the conditions encountered in the field or viewed in the aerial dataset, the interpreter shall complete the following steps:

- ...delineate each line into segments based on the strata (moisture regime and treatment), including advanced regeneration.
- For each line segment, determine the stocking density (upland dry, upland and transitional, lowland treed, and lowland low density treed sites) or percent coverage of species capable of reaching a height of 5.0 m (advanced regeneration sites), and the presence or absence of human access trails (Table 4).
- Determine if there is at least 50% stocking on both sides of the line (upland and transitional, lowland treed, and advanced regeneration sites) or at least 40% stocking on either side of the line (upland dry and lowland low density treed sites).
- Document whether shadows limit the assessment of part of the line.
- An individual segment will be at least 50 m in length.
- If small patches of a treatment (<50 m) are mixed in with large stretches of another treatment, stocking of the segment will be judged as a whole and presence of the secondary treatment will be noted in the treatment codes.”

Answer #4b): Please propose this in your methodology. While not specifically required, consider **Framework page 31, Section 7.3.4**

“Contractors must meet the following requirements in order to conduct reconnaissance Establishment Surveys using photo and video interpretation:

- Is a certified Level 1 Photo Interpreter or under the direct supervision of a certified Level 1 Photo Interpreter.
- Has been specifically trained in the distinct differences between forestry and restoration establishment targets (see establishment targets in Table 4 and acceptable tree species in Table 6)”

Answer #4c): In the context of Section 3.4 of the RFP, “access” means “human access” as used but not defined in the Framework.

Answer #4d): Do not provide site prescriptions for treatment areas.

For Project Exclusion areas as defined in the Framework, provide vegetation inventory where appropriate such as riparian areas. If the line “disappears” in the context of the adjacent vegetation, there will be no line segment to create, and no vegetation to classify, as may occur on outwash plains, grassy montane areas, open fens, etc.

Question #5: Section 4.4(q)(i) of the RFP asks for species of “shrub” in advanced regeneration areas – do we need to give only species of shrub that are capable of reaching a height of 5.0 metres (as in the target table from Establishment Monitoring Section of the Framework). Is there a list of “acceptable shrubs” as there is a list of “acceptable trees” (Table 6 page 16 of the Framework)? Why are species/heights/densities being requested for shrubs when it does not appear that any shrub species meet the definition of an acceptable species for advanced regeneration? E.g., would areas with dense willow and alder meet the advanced regen classification? Generally, willow and alder are <5 metres tall, but could potentially reach this height.

Answer #5: Review the Framework Section 3.3.

In broader context, shrub species capable of reaching 5.0 m (such as alder and willow) may be acceptable as advanced regeneration in limited quantities. These species would not be prescribed in an operational plan for planting. During the operational planning stage, the percentage of shrub species in a given section of line and access to other treatment segments will determine whether the shrubs remain as advanced regen or are otherwise treated. Palatable shrub species may also lead to increased ungulate browsing pressures, drawing prey species onto the lines.

Question #6: Do the remote sensing data interpreters for this RFP need to meet the requirements outlined in Section 7.5 of the Framework for interpreter requirements? I.e. Alberta AVI Level 1 interpreter. This section is specifically targeted at “survival assessments” and “establishment surveys” not necessarily vegetation inventory.

Answer #6: While this qualification for remote sensing data interpreters is not a requirement of this RFP, it would likely be beneficial in designing your methodology and for project execution and quality control.

Question #7: Would we need to collect “new” aerial imagery or LiDAR for all seismic lines in the project area to analyze, or some select representative lines to extrapolate? Based on level of detail being asked for – we will need high quality imagery or LiDAR which is likely not already available for these areas. Has there been success with extrapolation of data and is it acceptable to FRIAA?

Answer #7: Your project approach will determine whether you are able source appropriately current, existing aerial imagery or LiDAR, or if new data should be collected. Extrapolation is not acceptable. The current/on-going FRIAA vegetation inventory project flew new aerial imagery.

Question #8: Is there an expectation for percentage of seismic lines to be field verified?

Answer #8: Please propose this in your project approach / methodology. The amount of field verification should be appropriate to your data source and collection method.

Question #9: The RFP package state August 5th, 2021 at 4 pm as the deadline, however the RFP application template document states August 3rd, 2021 at 4 pm. Wanting to confirm it is in fact August 5th.

Answer #9: The RFP is due at 4pm on August 5th.

Question #10: There will be a lot of data based on resolution and areas that need to be covered.

Do you have a preferred data delivery format or are you open to cloud sourced data and hosting?

Answer #10: Please propose this in your project approach. If your project proposes to collect new aerial imagery or LiDAR, it will have to be made available for future use by FRIAA, Government, planning consultants and other stakeholders. The inventory dataset will be delivered to FRIAA as a shapefile or geodatabase format.

Statement #11: Al-Pac (FMA holder) is interested in the Richardson area, and the outcome of this process. There is limited merchantable timber here, as well as a large burn area.

Question #12: Is Indigenous inclusion required to have a proposal considered? What if we’re only interested in one range?

Answer #12: The RFP Section 4.4 (h) requests your plan to include local Indigenous communities into your scope of work in a meaningful capacity. While the creation of vegetation inventory is specialized work, there may be opportunity to gain assistance with ground truthing, provide training or other innovative ideas. Applicants may propose work for one, two or all three ranges.

Question #13: Was attendance at the information call required to submit an application?

Answer #13: No, the call was meant to benefit applicants to prepare strong proposals.

Question #14: Are there any “lessons learned” available from the existing Bistcho Inventory project?

Answer #14: The project is in-progress. The contractor has consistently reported increased linear km as detected it the new flight over the ABMI base layer estimate.

Question #15: I am reviewing the ABMI Data as recommended in the RFP document and the info session – specifically the 2018 Human Footprint Inventory found [here](#) to determine the seismic lines where data will need to be collected for the vegetation inventory project. The RFP indicates the potential inventory to be 8,601 km in the Caribou Mountains Range, 2,201 km in the Richardson Range, and 5,608 km in the Yates Range (“Table 1: Caribou Ranges for Vegetation Inventory” in Appendix A of the RFP Document). It appears that these numbers are pulled from the document *Alberta’s Approach to Achieve Caribou Recovery Document* found [here](#). This document does not reference the source of this data as far as I can tell, and I am not able to match the length of seismic lines in the ABMI data with the numbers provided. The table below shows the lengths that I am able to calculate:

ABMI Data - 2018	Yates	Caribou Mountains	Richardson
Conventional - Seismic	5,443.9	7,261.8	1,794.0
Low-Impact - Seismic	15.6	167.2	2,902.5
Trails	486.3	2,447.9	1,944.6
FRIAA RFP Inventory	5,608.0	8,601.0	2,201.0
% Difference	2.9%	15.6%	18.5%

The “o20_SeismicLines_Centerlines_HFI2018” layer in the ABMI dataset contains three different feature types – Conventional-Seismic, Low-Impact-Seismic, and Trails. It seems like the Conventional-Seismic feature type is the closest match to the numbers provided in the RFP. This information will influence the costs provided for the RFP – can you confirm which dataset or feature type we should be using for this proposal? *Please note: Wood Buffalo National Park has been excluded from these calculations, however overlapping Provincial Parks have been included.

Answer #15: The ABMI data set recommendation is provided to give you a spatial representation of the line density in each range, and an overall sense of the km that will require assessment for vegetation inventory purposes. The RFP Appendix A reference provides approximate lengths of line by range. Applicants are responsible to determine a project approach, data collection method (if needed), an interpretation methodology and budgeting to conduct the work.

The Framework provides this guidance: (Recommend to budget to create inventory on all of the following line types.)

- Legacy seismic lines** Linear features that are seismic in origin and greater than 5 m wide. These lines are also referred to as conventional seismic lines.
- Low-impact seismic** Linear features that are seismic in origin and less than 5 m wide. Low-impact seismic lines may also require treatment and should be incorporated into the restoration plan when appropriate.
- Non-tenured linear features** Linear features that are not tenured or seismic in origin BUT are incorporated into the development of the restoration plan. Examples include trails and cut lines of unknown origin.