



# FREP

Forest & Range  
Evaluation Program



# THREE-YEAR STRATEGIC PLAN

2020/21 to 2022/23

August 10, 2020



Ministry of Forests, Lands and  
Natural Resource Operations  
Resource Practices Branch  
Resource Stewardship Division

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# Introduction

This strategic plan provides direction for the Forest and Range Evaluation Program (FREP) over a three-year period (2020/21–2022/23). Clear strategic direction for FREP is important to ensure that the program remains relevant and current. The plan allows FREP to focus on its foundational goals and objectives while adapting to new developments in natural resource management and supporting additional opportunities for improving sustainable forest and range practices in British Columbia.

This three-year strategic plan outlines the priorities of FREP moving forward and defines how the program will deliver on key government initiatives and mandates, including:

- Providing opportunities to support Indigenous reconciliation;
- Using FREP data to inform improvements to forest practices and regulation;
- Contributing to integrated monitoring and assessment in support of modernized land-use planning; and
- Improving the accessibility and reliability of data to support defensible decision making.

The plan will be implemented through a detailed workplan outlining specific program commitments and actions over the next three years. Updates to this plan may be considered prior to the end of this three year horizon if there is a need to consider significant changes to program direction.

## Resource Values Assessed by FREP:

- ★ Fish/Riparian
- ★ Water Quality
- ★ Biodiversity – Stand and Landscape Level
- ★ Cultural Heritage Resources
- ★ Visual Quality
- ★ Timber (Stand Development)
- ★ Forage and Associated Plant Communities
- ★ Resource Features (e.g., Karst)
- ★ Wildlife
- ★ Soils
- ★ Recreation

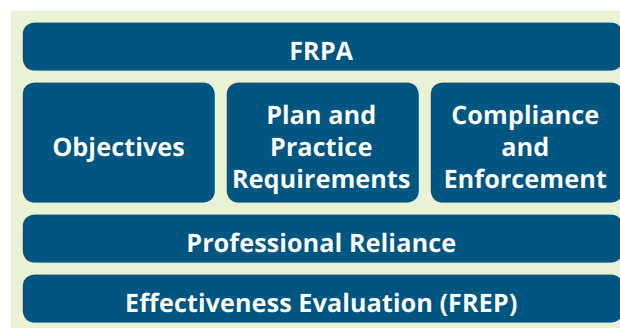
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## About FREP

FREP was established in 2003 as a foundational element of the *Forests and Range Practices Act* (FRPA). FREP's overarching mandate is to promote the sustainable management of British Columbia's forest and range resources under FRPA by monitoring and evaluating the condition of 11 FRPA resource values. The data collected under FREP provides a foundation of science-based evidence to evaluate the effectiveness of current forests and range management practices and policies, inform resource managers and enable the continuous improvement of forest and range stewardship in the province.



**Figure 1. FREP is a foundation for FRPA.**

## FREP VISION

*Collect and communicate trusted and scientifically robust natural resource monitoring information to inform decision making and improve resource management outcomes.*

## FREP MISSION

- 1. Assess the impacts of forest and range activities on the 11 FRPA resource values to determine if on-the-ground results are achieving government's desired outcomes for these values*
- 2. Monitor and report on the condition of resource values, including trends and causal factors, and*
- 3. Identify opportunities for continued improvement of practices, policies and legislation, and support their implementation.*



*Riparian sampling, Diane Millar*

The Forest and Range Evaluation program is collaboratively implemented by several work units within the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) and the Ministry of Environment and Climate Change Strategy (MECCS):

- The *Resource Planning and Assessment Branch* leads overall program management, training, data management and reporting, and expertise for the development of monitoring protocols for most values;
- Stewardship staff across 23 *Natural Resource Districts* conduct most of the field sampling and engage First Nations and forest and range tenure holders in sampling and/or discussion of findings;
- The *Resource Practices Branch* leads the evaluation of provincial timber objectives, and periodic review of FREP results to consider the need for FRPA regulatory improvements;
- The *Fish and Aquatic Habitat Branch* leads monitoring for water quality, fisheries sensitive watersheds and community watersheds;
- The *Range Branch* leads monitoring for forage and associated plant communities, and the effectiveness of range practices; and
- MECCS staff provide expertise for the development of monitoring protocols for fish, wildlife and ecosystems.

# Goals and Strategies

## GOAL 1 | FREP delivers relevant, high quality, science-based evidence of the effectiveness of forest and range practices under FRPA

FREP is committed to ensuring that resource value monitoring remains relevant and responsive to current and emerging issues through both random and targeted sampling. Continuous improvement of forest and range practices, policies and legislation remains a key priority.

### Strategies

- ✓ Review evaluation questions every three years to identify new, emerging or priority issues and determine the need for significant changes to monitoring protocols.
- ✓ Consider opportunities for improvements to monitoring protocols on an annual basis.
- ✓ Develop monitoring protocols for selected wildlife species and associated habitat and designated areas, aligned with cumulative effects assessments for these species.
- ✓ Continue routine random sampling across all districts for five values: fish/riparian, water quality, stand-level biodiversity, cultural heritage resources,<sup>1</sup> and visual quality to evaluate the average condition of each value by district and report on the level of success in meeting government objectives. Random sampling may be further stratified by areas of interest such as First Nations territories, licensee operating areas, or visually sensitive areas to permit analysis and reporting by these units. Some targeted sampling may also be conducted for these values to address specific issues, questions or operational needs at a district or provincial level.

**Random Sampling** – Sampling sites are randomly selected to evaluate the average condition of a resource value within a defined area and confidence limits. For some values, FREP targets 30 samples in each District over a 5-year period, in randomly selected cutblocks. This creates a rich dataset that can be used to evaluate broad questions such as ‘what is the average condition of all stream riparian areas’ or more specifically, ‘what is the condition of small, non-fish bearing streams’.

**Targeted Sampling** – Sampling sites are deliberately selected to focus on a specific area of interest or monitoring question. For example, cultural heritage resource sampling may be targeted to sites of greatest interest to Indigenous communities, to support immediate operational needs, or to further investigate sites of concern identified through random sampling. Targeted sampling cannot be assumed to be representative of the broader population of the resource value but may provide valuable insight into a specific issue or area.

<sup>1</sup> Sampling for cultural heritage resources may reflect a mix of random and targeted samples, as defined by the interests of Indigenous communities and the availability of sites for monitoring.

- ✓ Undertake sampling for other values such as karst, wetlands, soils, recreation and range, based on a defined business need or interest.
- ✓ Evaluate timber through the following means:
  1. assess the achievement of provincial timber objectives within each Timber Supply Area;<sup>2</sup>
  2. report on *Young Stand Monitoring* (YSM) data collected through permanent sample plots;<sup>3</sup> and
  3. undertake *Stand Development Monitoring* where required to address additional information needs.
- ✓ Explore opportunities for resourcing research and validation monitoring with research program staff and academia on an ongoing basis.
- ✓ Identify opportunities to evolve FREP monitoring to address emerging changes to the FRPA regulatory framework, including Forest Landscape Planning.

Appendix 1 provides a summary of key priorities for FREP sampling over the next three years.



**Verney Passage, Aaron Benterud**

<sup>2</sup> Completed by the Resource Practices Branch.

<sup>3</sup> Completed by the Forest Analysis and Inventory Branch.



## GOAL 2 | FREP supports continuous improvement to forest and range practices

Fostering continuous improvement to forest and range practices is a central goal for the FREP program. Effective engagement with forest and range tenure holders and their professionals is critical to realizing this goal. Increased collaboration, training, communication, and follow-up with licensees will increase the success of on-the-ground practices, and the potential for voluntary practice improvements. Periodic, structured review of FREP results at a provincial scale is also important to consider the need for improvements to policy and legislation.

### Strategies for Engagement with Forest Licence holders

Strategies for strengthening forest licensee engagement will occur at both the district and branch level.

Branch-led engagement:

- ✓ Seek licensee input into the FREP Three-year Strategic Plan through provincial forestry associations and committees.
- ✓ Seek licensee input into monitoring protocol development/improvements through workshops, webinars, the ministry website, etc.
- ✓ Conduct 1-2 FREP field tours every year in a select district or region with district staff, licensees, and First Nations.
- ✓ Provide subject-matter expertise support, as requested, for district-led meetings and workshops with licensees.
- ✓ Explore the potential for licensees to undertake water quality monitoring within their licence areas, with ministry staff assuming a quality assurance role.
- ✓ Communicate FREP monitoring results and findings to improve forest and range practices through the following:
  - Reports and extension notes on the FREP website (see Goal 7),
  - Articles in the ABCFP *Forest Professional* magazine, and
  - Presentations at silviculture conferences, district workshops, the ABCFP Annual General Meeting, and other opportunities.



**FREP Field Tour, Mackenzie District**

District-led engagement:

- ✓ Invite licensees to engage in FREP training sessions and participate in field sampling.
- ✓ Provide annual summaries of monitoring results by licensee and invite discussion on causal factors, opportunities for improvement and effective practices.
- ✓ Establish a role for existing (or new) government/licensee committees, such as a TSA Steering Committee or Forest Management Leadership Team to:
  - Discuss FREP results and look for opportunities to improve forest practices;
  - Engage in field reviews of selected issues;
  - Identify new issues/priorities for monitoring; and
  - Showcase effective practices that conserve or protect FRPA values.

### **Strategies for engagement with range agreement holders**

- ✓ District range program staff will continue to discuss monitoring results with range agreement holders, and where needed, initiate changes to address issues identified through monitoring.
- ✓ Whenever possible, invite range agreement holders to participate in monitoring.

### **Strategies for regulatory improvements**

- ✓ Prepare annual summaries of FREP monitoring results for review with FRPA policy leads, to consider the need for policy or regulatory improvements.



*Riparian evaluation with forest licensees*



## GOAL 3 | FREP is an integral component of integrated monitoring and assessment for resource values

FREP is part of a broader cumulative effects and integrated monitoring program. Cumulative effects assessments are broad-scale 'Tier 1' assessments conducted using geographic information system (GIS) modelling to identify the potential condition and risks to resource values at the landscape level. FREP monitoring is a field-based 'Tier 2' assessment that collects site-level information to verify the condition of resource values and evaluate the effectiveness of forest and range practices. The data collected through FREP monitoring can be used to support office-based cumulative effects assessments, calibrate computer models, and evaluate high-risk areas on the ground.

By integrating the design of FREP monitoring and cumulative effects assessments and reporting the results of both levels of assessment together, more robust information on the condition of resource values can be provided to land managers to help inform resource planning and decision making.

### Strategies

- ✓ Undertake measures to adapt FREP monitoring protocols for purposes incremental to evaluating forest and range practices, such as:
  - Evaluating the condition and trend of resource values across broad geographic areas such as watersheds;
  - Evaluating the effectiveness of management practices used by other resource sectors; and
  - Validating cumulative effects/Tier 1 assessments of potential conditions at a landscape level.
- ✓ Integrate reporting of FREP data with other monitoring and assessment information (see Goal 7).



*Wetland evaluation*

## GOAL 4

### Indigenous communities are active partners in FREP and other stewardship monitoring

Collaborative partnerships with interested Indigenous communities and active engagement with community members in monitoring and reporting projects can help strengthen the relationship between the Province and Indigenous communities, provide First Nations with training and experience in sustainable forest management practices, and increase the participation of Indigenous people in land management decisions.

#### Strategies

- ✓ Support increased Indigenous community engagement in FREP training, sampling and reporting across FREP values, and in District FREP field tours.
- ✓ Collaborate with Indigenous communities to explore opportunities to improve the Cultural Heritage Resource monitoring protocol.
- ✓ Provide FREP training and technical support for government-to-government stewardship projects such as Environmental Stewardship Initiatives (ESIs), Collaborative Stewardship Framework forums (CSFs), or 'Guardian' projects.
- ✓ Explore opportunities to strengthen monitoring partnerships through engagement with First Nations associations and indigenous communities, and consideration of models such as Guardian programs.



*Archaeological pipe discovery during CHR training, Thompson Rivers District*



*Soil sampling for wetland evaluation*



## GOAL 5

### FREP assessors are well trained and mentored

Training needs for FREP monitoring continue to increase as the program grows and evolves, staffing changes, and people retire. Those participating in FREP monitoring (ministry staff, consultants, First Nations, licensees) need to have access to ongoing training to ensure that their skills remain current and that data collected is accurate, consistent and usable.

#### Strategies

- ✓ Renew training plans and materials for each FREP value with standardized instructions for sampling and quality assurance, and support online training opportunities to augment field training.
- ✓ Offer annual training for new staff and refresher courses for existing staff that conduct FREP monitoring.
- ✓ Engage First Nations co-trainers in the delivery of cultural heritage resource training.
- ✓ Offer annual FREP training opportunities for First Nations and licensee partners, wherever possible.
- ✓ Develop a recruitment program to ensure the availability of qualified consultants and staff to address ongoing retirements and staff turnover.
- ✓ Build capacity and training to support monitoring for new protocols for resource values such as wildlife and karst.
- ✓ Pursue opportunities for new resourcing and partnerships in monitoring, such as co-op students to support field sampling for district commitments and special projects, and staff from aligned program areas, such as fish, wildlife and water management.



*Visual quality effectiveness evaluation training, Prince George*



## GOAL 6

### FREP data is quality controlled, securely managed and accessible to end users

Data collected through FREP must be accurate, secure, accessible and useful to those who rely on the information to make resource management decisions. The long-term vision is to develop an integrated data management system that includes digital applications for data collection and a compatible database for storage, retrieval, analysis and reporting.

#### Strategies

- ✓ Develop a vision and project plan for an integrated FREP data management system and that sets out requirements and resourcing needs, and can be implemented on a priority basis as resources become available.
  - Complete pilot testing for the new cultural heritage resources application and database, and evaluate the effectiveness of this tool, along with other existing and new options, to define a standard approach for all FREP resource values.
  - Support the development of digital data applications for all values.
- ✓ Pursue all possible resourcing opportunities to implement the project plan for a new FREP data management system over a 3-5-year period and confirm resourcing for annual maintenance and minor improvements.
- ✓ Provide public access to FREP data through the new FREP Dashboard, accessible through the FREP webpage and BC Data Catalogue, and through additional tools for program staff such as FREP map and sharepoint.
- ✓ Initiate, and develop a process to integrate, upload and share existing and new range monitoring data with FREP.



*Visual quality effectiveness evaluation training, Chilliwack*

## GOAL 7

## FREP reports are actively used by natural resource practitioners to inform planning and decision-making

It is important that monitoring results are reported in a consistent, practical and understandable manner. FREP reports and other extension products must be designed to ensure that the right kinds of information and data are provided in a format that is most useful to end users.

### Strategies

- ✓ Deliver FREP reporting at a variety of scales and formats to meet the needs of different target audiences, as outlined in Table 1 below.
- ✓ Deliver reporting through dynamic, web-based tools.
- ✓ Evaluate the use of FREP data in planning and decision-making and develop case studies to profile examples.

**Table 1 FREP Reporting**

Type of Report	Description	Audience	Delivery Timeframe
Provincial ADM Stewardship Reports	Provincial overview of the 'state of natural resource values' and opportunities for improvement to stewardship from FREP monitoring, and other available assessment and monitoring information.	Natural resource ministry staff, resource practitioners, public	Every 2-3 years
Integrated Monitoring and Assessment Reports	Summaries of best available monitoring and assessment results (FREP, cumulative effects, other programs) for selected areas to support land-use planning, FREP reporting, and resource decision making.	Natural resource ministry staff, First Nations, resource practitioners, and public	Province-wide over 3 years
FREP Multiple Resource Value Assessments (MRVA) Reports	District-level summaries of FREP monitoring results for all resource values, including opportunities for improvements to forest and range practices.	District staff and licensees	2-5 reports/year on a priority basis
FREP Licensee Reports	Brief annual reports on the results of FREP sampling for fish/riparian and water quality by individual licensees, and for other values upon request.	Licensees and district staff	Annual
FREP Datasets	Data sets for each FREP value to support custom reporting by district or other defined areas.	District staff	Annual
FREP Extension Notes and Reports	Special projects, updates, research and other information to support practitioners and licensees and promote continuous improvement.	Government staff, resource practitioners, public	Periodically
Watershed Status Evaluation Reports	4 page reports summarizing the results of Tier 1 watershed assessment and Tier 2 field monitoring in fisheries sensitive watersheds using the Watershed Status Evaluation Protocol.	Government staff, resource practitioners, public	Periodically
Cultural Heritage Reports	Annual summaries of the results of CHR assessments undertaken for archaeological sites.	Archaeology Branch staff	Annual

# Appendix 1. Direction for Sampling by Value

## General Direction

As a core part of its business, FREP will undertake routine random sampling for five FRPA values on an annual basis: fish/riparian, water quality, stand-level biodiversity, visual quality, and cultural heritage resources. This sampling design has demonstrated value as a robust, efficient and effective means for addressing program goals, such as reporting on the average condition for each value by district and supporting analysis of specific questions identified for each value.

The operational target for FREP sampling is a minimum of 30 samples per value per district over a rolling five-year period (or six samples per value per year), identified through a randomly generated list of cutblocks that were harvested between one and three years prior to the year of sampling. Each value does not have to be sampled every year, but the gap should not exceed more than one year.

Sampling may also be stratified to smaller units within a district to align with operational needs or interests. For example, for 2019 visual quality sampling has been stratified by visual sensitivity class to enable proportionately more sampling in high visually sensitive areas, and the effectiveness of this approach will be evaluated for continuance. Districts may similarly elect to stratify sampling by licensee operating areas or timber supply areas to align sampling with decision-making needs, as well as by First Nations territories to support collaborative monitoring with Indigenous communities. Additional targeted sampling may be undertaken for these five values to address specific questions or emerging issues as supported by *FREP Guidance for the Design of Targeted Sampling Projects (2019)*.

Random or targeted sampling for other values – such as wetlands, timber (stand development), range, soils, karst, wildlife, recreation – may be undertaken based on operational needs, defined interests, and available resourcing. Further direction specific to each FRPA value is provided in the table below.

## Value-specific Direction for FREP Protocols and Sampling

The following table identifies key implementation priorities for FREP, by value, for 2019/20 and the three years covered by the strategic plan: 2020/21-2022/23. Detailed actions and tasks will be identified in a FREP workplan that will direct the implementation of the strategic plan. Solid green indicates committed activities; light green shading indicates optional activities based on confirmation of need.

Direction	20/21	21/22	22/23
<b>Fish/Riparian</b>			
• <b>Riparian Protocol:</b> Update the 2009 protocol document to reflect improvements made over the last 10 years in response to district and licensee engagement and feedback.			
• <b>Routine Random Sampling:</b> 30 samples over 5 years (or 6 samples per year) per district to evaluate the average condition of riparian areas.			
• <b>Targeted Sampling:</b> Collaborate with FN, academic, or other interested parties including district staff to establish targeted sites for long-term monitoring. Objectives include comparisons of pre-and post-harvest stream/riparian condition and potential recovery over time.			
• <b>Targeted Sampling:</b> Address the need for further information on the effects of wildfire on streams and riparian areas.			



Direction	20/21	21/22	22/23
<ul style="list-style-type: none"> <li>• <b>Watershed Riparian Protocol:</b> Complete a new watershed riparian protocol document, informed by results of 2019 pilot sampling.</li> </ul>			
<ul style="list-style-type: none"> <li>• <b>Watershed Riparian sampling:</b> Undertake further watershed level riparian assessment where there is a defined interest or information need.</li> </ul>			
<b>Wetlands</b>			
<ul style="list-style-type: none"> <li>• <b>Protocol:</b> Evaluate outcomes of first 2 years of wetlands sampling and implement improvements to the protocol.</li> </ul>			
<ul style="list-style-type: none"> <li>• <b>Protocol:</b> Create iPad version of field form for wetland sampling.</li> </ul>			
<ul style="list-style-type: none"> <li>• <b>Sampling:</b> Undertake random or targeted sampling based on defined interests, operational needs, and available resourcing. Allow for substitution of wetlands for stream sites under the riparian value in districts where statistics allow.</li> </ul>			
<b>Fisheries Sensitive Watersheds</b>			
<ul style="list-style-type: none"> <li>• <b>Protocol:</b> Complete updates to both Tier 1 and 2 protocols (includes Tier 2: riparian and fish passage updates, redesign of WQ sampling methods, and miscellaneous improvements to protocol document). Complete Non Classified Drainage analysis and document result.</li> </ul>			
<ul style="list-style-type: none"> <li>• <b>Protocol:</b> Tier 2 – incorporate wetland monitoring (aimed at understanding condition of wetlands with fish connectivity) into protocol using FREP wetland monitoring protocol methods. Identify opportunities to refine riparian sampling maintaining random design (analysis of min sample sizes, use of dedicated crews, etc.). Conduct analysis of cross-watershed findings for &gt;5 completed watersheds and document results.</li> </ul>			
<ul style="list-style-type: none"> <li>• <b>Assessment (Tier 1):</b> Complete watershed assessments using GIS for priority watersheds that have significant fish values.</li> </ul>			
<ul style="list-style-type: none"> <li>• <b>Sampling (Tier 2):</b> Target 2 or more watersheds for WSEP evaluation that have significant fish values (e.g. FSWs, proposed FSWs, other high fish value watersheds) for WSEP evaluation.</li> </ul>			
<b>Water Quality</b>			
<ul style="list-style-type: none"> <li>• <b>Protocol:</b> Revise to include rapid assessment of habitat connectivity at WQ sample sites.</li> </ul>			
<ul style="list-style-type: none"> <li>• <b>Routine Random Sampling:</b> by district with minimum targets of 30 samples over 5 years (or 6 samples per year) to evaluate the risk of sediment delivery to streams. Complete water quality sampling at crossings immediately upstream of fish/riparian sampling sites as a priority.</li> </ul>			
<ul style="list-style-type: none"> <li>• Explore the potential for licensee-led water quality sampling and seek opportunities to pilot test.</li> </ul>			

Direction	20/21	21/22	22/23
<b>Community Watersheds</b>			
• Complete a community watershed assessment protocol (Version 1).			
• Undertake community watershed assessments on a priority basis.			
<b>Visual Quality</b>			
• <b>Protocol:</b> Revise the visual quality effectiveness protocol to reflect new FRPA practice requirements for visual quality.			
• <b>Routine Random Sampling:</b> Assess 30 samples over 5 years per district (or 6 samples per year).			
• <b>Sampling:</b> Evaluate effectiveness of stratifying sampling by visual sensitivity class and determine whether to continue with this approach to sample selection.			
<b>Cultural Heritage Resources</b>			
• <b>Protocol:</b> Define revisions to the cultural heritage resources (CHR) protocol to reflect input from district and First Nations engagement and feedback, and potential new FRPA revisions for CHR.			
• <b>Sampling:</b> Complete 30 samples over 5 years per district (or 6 samples per year). Up to 50% may be targeted rather than random to address the interests of First Nations or due to limited numbers of known CHR sites.			
<b>Forest Biodiversity</b>			
• <b>Landscape Level Biodiversity Protocol:</b> Confirm approval of the landscape biodiversity protocol and generate assessment results province-wide.			
• <b>Stand Level Biodiversity Protocol:</b> Define revisions to the stand-level biodiversity protocol to improve the efficiency of sampling, benchmarks for evaluating condition/impacts, ocular estimates for coarse woody debris, and the context for interpreting assessment results, imagery and inventory data. Pilot Version 2 in the 2020 field season. Evaluate and finalize the protocol.			
• <b>Stand Level Biodiversity Protocol:</b> Develop a digital application for data collection.			
• <b>Sampling:</b> Complete pilot sampling for the Version 2 protocol.			
• <b>Routine Random Sampling:</b> Complete 30 samples over 5 years per district (or 6 samples per year).			
<b>Wildlife</b>			
• <b>Protocol:</b> Develop Tier 2 protocol(s) for monitoring the effectiveness of forest practices for species identified as a priority for landscape-level cumulative effects (CE) assessments (moose and grizzly bear).			
• <b>Protocol:</b> Develop a protocol for assessing fisher habitat, as an add-on to the Stand Level Biodiversity protocol for areas with management objectives for fisher.			
• <b>Protocol:</b> Develop a Tier 1 (CE assessment) and Tier 2 (monitoring) protocol for a new CE wildlife value (to be confirmed).			

Direction	20/21	21/22	22/23
<b>Wildlife Designated Areas</b>			
• <b>Protocol (Tier 1):</b> Develop a protocol for assessing the condition and effectiveness of areas designated under FRPA GAR orders (WHAs/UWRs) – with grizzly bear WHAs and moose UWRs as priorities for piloting.			
• <b>Assessment:</b> Complete an assessment (Tier 1) of the condition of grizzly bear wildlife habitat areas.			
• <b>Assessment:</b> Complete an assessment (Tier 1) of the condition of moose ungulate winter range.			
• <b>Protocol (Tier 2):</b> Develop a protocol for on the ground assessment of the condition and effectiveness of designated areas and pilot in selected areas.			
<b>Karst</b>			
• <b>Protocol:</b> Complete and publish Version 1 of the karst protocol.			
• <b>Protocol:</b> Complete the digital application for karst data collection and deliver training for districts with GAR orders for managing karst.			
• <b>Sampling:</b> Complete 3-5 samples per year for districts with karst GAR orders.			
<b>Timber</b>			
• <b>Provincial Timber Objectives:</b> Assess the achievement of provincial timber objectives in each Timber Supply Area.			
• <b>Stand Development Monitoring Protocol:</b> Evaluate the results of SDM 2.0 sampling (2017-2019) and its application to decision making and consider recommendations for further protocol improvements and implementation.			
• <b>Sampling:</b> Undertake sampling for targeted areas (usually TSAs) where there is a confirmed operational need.			
<b>Forage and Associated Plant Communities</b>			
• <b>Protocol:</b> Continue to improve the functionality of data collection forms for iPad.			
• <b>Sampling:</b> Undertake sampling on targeted areas based on identified issues and operational needs such as renewal of range use plans, assessing forage supply, or as a prerequisite for LBI funded projects.			
<b>Soils</b>			
• <b>Protocol:</b> Complete updates and improvements to the soils protocol.			
• <b>Sampling:</b> Undertake sampling as defined by an operational need or change in practice. Sampling design may be random or targeted, depending on the question/issue to be addressed.			
• <b>Sampling:</b> Undertake sampling in the Prince George District.			
<b>Recreation</b>			
• <b>Sampling:</b> Undertake periodic sampling based on confirmed operational needs, defined interests, and available resourcing defined in collaboration with the Recreation Sites and Trails Program.			





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