



April 19, 2016

Strategy in Brief:

**FREP Mission:** Collect and communicate the best available natural resource monitoring information to inform decision making, improve resource management outcomes and provide evidence of government’s commitment to environmental sustainability.

**FREP Objectives:**

1. Assess the impacts of forest and range development on the 11 FRPA resource values to determine if on-the-ground results are sustainable<sup>[1]</sup>
2. Identify resource value status, trends and causal factors, and
3. Identify opportunities for continued improvement of practices, policies and legislation.

FREP is a foundation in the governance of the *Forests and Range Practices Act*. FREP supports government’s stewardship and resource development objectives in five key ways:

1. Fulfils government’s commitment to monitor
2. Provides evidence for government’s commitment to environmental sustainability and industry competitiveness
3. Supports decision makers and professional reliance
4. Provides science-based evidence to guide continued improvement of practices, policies and legislation
5. Is an opportunity to meaningfully engage First Nations in sustainable resource management through participation in resource stewardship monitoring

Key FREP Focus Areas:

Collecting high quality data	Communicating results	Continuous improvement
Recognizing people	Collaboration	First Nations engagement

FREP monitoring data collection and reporting principles and targets

- There is a five year rolling target of 30 resource stewardship monitoring field samples for each of the following resource values: riparian, water quality, wildlife and stand-level biodiversity
- There is a five year rolling target of 30 resource stewardship monitoring field samples for each of the following resource values; however, these values have greater flexibility in when/where they are collected (e.g., using a region as the sample area may be more suitable in some circumstances): Cultural Heritage, visual quality, stand-development monitoring (SDM2.0) and resource features (karst)
- Monitoring for the remaining FRPA resource values will for the most part be a mix of contractors, specialists, and range branch staff

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<sup>1</sup> as defined by “very low” and “low” resource development impact ratings used in MRVA reports and defined in [https://www.for.gov.bc.ca/ftp/HFP/external/!publish/frep/technical/FREP\\_Technical\\_Note\\_06.pdf](https://www.for.gov.bc.ca/ftp/HFP/external/!publish/frep/technical/FREP_Technical_Note_06.pdf)

## **Forest and Range Evaluation Program (FREP) 3 year Strategic Plan: April 19, 2016**

This strategy will be re-examined annually to ensure it remains current and relevant. Appendices will be updated annually.

### Background Context:

FREP is a foundation in the governance of the *Forests and Range Practices Act*. FREP supports government's stewardship and resource development objectives in five key ways:

1. Fulfils government's commitment to monitor
2. Provides evidence for government's commitment to environmental sustainability and industry competitiveness
3. Supports decision makers and professional reliance
4. Provides science-based evidence to guide continued improvement of practices, policies and legislation
5. Is an opportunity to meaningfully engage First Nations in sustainable resource management through participation in resource stewardship monitoring

### Introduction:

This strategy is aligned with the government of BC Strategic Plan (protect the environment and create jobs, increasing rigour of environmental assessments, First Nations becoming partners in forestry), the FLNRO Service Plan (long term vision of economic prosperity and environmental sustainability, management of resources at sustainable levels for their continued use and development, best information available to make sound and durable resource management decisions) and the FLNRO Competitiveness Strategy (communicating environmental and social benefits of BC's forest management regime).

British Columbia's Forest and Range Evaluation Program (FREP) is led by the Ministry of Forests, Lands and Natural Resource Operations (FLNRO), in partnership with the Ministry of Environment (MOE). The *Forest and Range Practices Act* and Regulations provide for a results-based, forest and range management framework in British Columbia that includes professional reliance as a foundational principle. Under the results-based model, government evaluates compliance with the law (compliance and enforcement) and evaluates the effectiveness of forest and range practices in achieving management objectives, including sustainable resource management (FREP).

FREP Mission: Collect and communicate the best available natural resource monitoring information to inform decision making, improve resource management outcomes and provide evidence of government's commitment to environmental sustainability.

FREP Objectives:

1. Assess the impacts of forest and range development on the 11 FRPA resource values to determine if on-the-ground results are sustainable<sup>[1]</sup>
2. Identify resource value status, trends and causal factors, and
3. Identify opportunities for continued improvement of practices, policies and legislation.

FREP Guiding Principles:

- Collect and analyze **high quality** monitoring data for all FRPA resource values that is fully relevant to resource professionals and natural resource management decision makers
- **Communicate** science-based information to enhance the knowledge of resource managers, resource professionals, First Nations and others to inform balanced decision making and continuous improvement of British Columbia's forest and range practices, policies and legislation
- Ensure **continuous improvement** of a high-quality program that is as effective and efficient as possible and provides maximum value for resources invested (including informing decisions related to policy, practice and legislative change)
- Recognize and develop the **people** who deliver FREP
- **Collaborate and link** with cumulative effects assessments, the NRS monitoring and evaluation collaborative and climate change monitoring needs
- Develop a meaningful and collaborative role for **First Nations** in natural resource monitoring and evaluation

An annual FREP improvement plan /work plan guides FREP implementation and is based on:

- Quality assurance surveys and ongoing lessons learned
- Staffing levels
- Program budget
- An annual continuous improvement workshop, and
- Other input from partners and stakeholders.

The improvement plan /work plan can be found on the FREP website.

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<sup>1</sup> as defined by "very low" and "low" resource development impact ratings used in MRVA reports and defined in [https://www.for.gov.bc.ca/ftp/HFP/external/!publish/frep/technical/FREP\\_Technical\\_Note\\_06.pdf](https://www.for.gov.bc.ca/ftp/HFP/external/!publish/frep/technical/FREP_Technical_Note_06.pdf))

### FREP monitoring data collection overview:

This three year strategy maintains and expands upon the initial core FREP design without eroding the strength of it. It maintains data compatibility over time and considers temporal dynamics. This approach also addresses some of the substantial needs and interests that users have identified as not formerly being met, including:

- Achieving full and ongoing coverage across all values and geographic areas
- Providing recent, up-to-date data for assessing current condition
- Allowing the flexibility to address district-specific priorities

In brief, the key requirements for district-led sampling are:

1. A minimum threshold of 30 samples **per value, per district**, over a rolling 5 year window
2. Firm minimum targets for biodiversity, riparian, water quality and wildlife, while targets for cultural heritage, stand development monitoring, visual quality and karst are more flexible
3. Each value does not need to be sampled each year, but must not have a gap of more than one year
4. Any district targeted sampling should follow the *Guidance on Implementation of District Targeted Sampling* section on page 6 of this document

### FREP monitoring data collection and reporting principles and targets

- Sampling targets for each natural resource district are shown in *Appendix 3, Annual District Sampling Targets by Value by Year*. Appendix 3 details the target FREP samples by value per year. Any additional “district priority” samples should follow the “Guidance on implementation of district targeted sampling” on page 6, so that all samples can be used in analysis and reporting.
- There is a five year rolling target of 30 resource stewardship monitoring field samples for each of the following resource values:
  - Riparian
  - Water quality
  - Wildlife
  - Stand-level biodiversity
- There is a five year rolling target of 30 resource stewardship monitoring field samples for each of the following resource values; however, these values have greater flexibility in when/where they are collected (e.g., using a region as the sample area may be more suitable in some circumstances -- see notes below):
  - Cultural Heritage\*
  - Visual Quality\*
  - Stand-development monitoring (SDM2.0)\*
  - Resource Features (karst)\*
- Each district should develop a district-specific sampling plan that will achieve 30 samples per value by the end of the 2018 field season (stand-level biodiversity, water quality,

riparian), 2019 (visual quality, cultural heritage), 2021 (SDM2.0, wildlife habitat) as described in Appendix 3. Districts may wish to vary from the specific annual sampling targets in Appendix 3 due to local priorities and resources; however, the 30 samples per value targets over a rolling five year window should still be achieved.

- Monitoring for:
  - a. Soils, recreation, water quality (community watersheds), wildlife (landscape-level), biodiversity (landscape-level) will be primarily delivered by government specialists and/or contractors
  - b. Range/forage (stream and upland) will be delivered by Range Branch staff, and
  - c. Karst, where it exists, will be delivered by district staff
- Training – Every field crew must have at least one fully trained assessor. Where a value has been skipped in a district for a year, it is strongly suggested that refresher training and/or mentoring is done prior to/concurrent with sampling
- A minimum of two communication events per district per year (e.g., licensee and/or First Nations meetings etc.)
- As a minimum, publication of the annual Assistant Deputy Minister’s Report, the FREP year in review, full client availability of current FREP data, MRVA2 reports as requested; and district updates to MRVA reports on a two year cycle

Notes for sampling related to cultural heritage, visual quality, stand development monitoring and karst:

For cultural heritage, visual quality, stand development monitoring and karst resource values, there is flexibility related to when and where they are monitored. It is preferred that districts follow the 30 samples over 5 years for each of these values using the FREP random lists for each district; however, there will be local circumstances and/or priorities where a district/region-specific approach is preferred. Examples of district/region-specific approaches include:

- A coordinated regional approach where past visual quality results have been acceptable to decision makers and the future risk is seen as low. An appropriate approach in this situation may be to select sites from a regional random list requiring fewer samples per district. Results would then be reported regionally versus by district.
- Values with consistent results (low levels of variation) may require fewer than 30 samples to be statistically significant.
- A regional approach to cultural heritage monitoring based on traditional territories and First Nations engagement using a customized random list. Results would then be reported by traditional territory versus by district.

Please consult FREP staff in Resource Practices Branch if you will be taking a district/regional specific approach to these values. Following the “targeted sampling” steps outlined on page 5-6

will help ensure that data collected through district/region-specific approaches can be used in the larger FREP data set.

In general:

- \* Cultural Heritage – Sample this value where there are known cultural heritage resource features within sample population
- \* Visual Quality – Sample this value where there are VQOs within the sampling population
- \* Stand-development monitoring (SDM2.0) – Sample where there are expected forest health concerns and/or insufficient YSM data for specific stand types within the sampling population
- \* Karst – only for districts where karst exists and is a potential management concern

#### District Targeted Sampling:

The primary focus of the FREP program is to implement the core design across all districts. However, some districts have expressed a strong desire to direct a portion of their sampling effort toward local priorities such as issues identified through cumulative effects assessments. It would not be appropriate to modify the overall sampling design to address these district-specific priorities because they vary substantially among districts, they may change over time, and any specialization of the sampling design (e.g., pre-stratification, subsampling, preferential selection, etc.) would be at the expense of the flexibility of the overall provincial design. However, in order to accommodate this interest, the following approach allows districts to have some **flexibility in addressing local priorities provided the minimum sampling requirements for the core design are achieved. District flexibility is not about reducing sampling targets, it is about addressing high priority issues of immediate/urgent concern.**

#### Guidance on Implementation of District Targeted Sampling:

When determining if and how to allocate priority samples to address district-specific questions, districts should consider the following five steps. These steps provide a conceptual generic process to follow, rather than a detailed guidebook or prescriptive template. **Following these steps will help ensure “targeted data” can be used in the larger FREP data set.** Specific monitoring questions will vary by district in important ways that can fundamentally influence the optimal sampling design (e.g., scale of the question, temporal dynamics, required precision, sample and population sizes, how the data will be applied to management decisions, etc.). However, the following provides a summary of core concepts for good sampling design. When addressing district-specific priorities, districts should both consider these issues and consult with an expert in sampling design. Please consult Resource Practices Branch FREP staff when initiating targeted sampling.

#### 1) **QUESTION: What is the question of interest?**

- It is critical that the question is clearly defined
  - What are the outcome(s) or performance measure(s) of interest?
  - Under what conditions and/or in what types of sites?

- What level of precision/power is acceptable? (i.e., level of confidence necessary for the information to be useful)
  - What time period is acceptable?
  - Consider the trade-offs among precision/power, time, and sample size
- 2) **EXISTING DATA: How much data relevant to addressing this question is currently available?**
- Also consider future data likely to be collected (i.e., anticipated sampling)
  - Is there (or will there soon be) sufficient “core FREP data” to address the question without additional sampling (e.g., post-stratification)?
  - Are there sufficient data to inform the development of a sampling plan and/or to help refine the question?
- 3) **SAMPLING DESIGN: Determine appropriate sampling design**
- Define the strata of interest (e.g., rare or special strata; BEC subzone or variant), population and sampling unit (cutblock, as per FREP sampling design)
  - Define the sample frame
    - In general for sampling design – sampling frame must be rigorously defined, documented, repeatable,
    - In this case – it needs to be a subset of the existing sample frame
      - Temporal definition – same as existing sample frame (i.e., ≤3 years since harvest)
      - Spatial definition – may be limited to strata of interest
  - Define selection method
    - Simple random selection should be used (in the majority of cases)
    - Every sampling unit in the sample frame must have a chance of being selected
  - Sample size
    - Will be dependent on how much sampling effort is available beyond obligations to the core FREP sampling
  - Define how the resultant data will be analyzed to answer the initial question
- 4) **EVALUATE BENEFIT: Will it be possible to adequately answer the question?**
- Will the sampling design for utilizing the prospectively available “priority samples” provide an acceptable level of precision or power?
  - If sampling will be insufficient to answer the question with an acceptable level of precision, consider other approaches for addressing the question (e.g., do not waste sampling effort on collecting inadequate information)
- 5) **EVALUATE COMMITMENT: Is the district committed to addressing this question and to collecting the necessary data over the required number of years?**
- Will the districts priorities change over a shorter period than that required to collect sufficient data to address this question?
  - Must have commitment to direct surplus samples to this question for however long is necessary to get the desired information
  - Must not be a short-lived priority (i.e., ad hoc priorities that change every year or two)

- 6) **DATA COLLECTION:** Plan and implement data collection
  - Only if “yes” to both decisions in #4 and #5



Appendix 1: Program-level and individual resource value projects and initiatives 2015/16 – 2018/19:

**Program-level Projects and Deliverables**

Program	Value Specific Deliverables	2015/16	2016/17	2017/18	2018/19
	Strategic plan and work plan	completion	implementation		
	Sampling design refresh	completion	implementation		
	Timber Value monitoring strategy	start	Complete and begin implementation	implementation	
	Licensee outreach strategy	start	Complete and begin implementation based on Forest Practices Board report recommendations	implementation	
	Digital imagery	Google Earth soils project	Develop test approach (e.g., air photo plots, Google earth) for one or more values	Pilot one or more values	
	Extension	Ongoing status quo	Expand extension activities into more active approaches, e.g., specific topic such as small stream road shows		
	Policy and legislation change proposals	none	Develop an Executive approved process for facilitating needed Chief Forester Guidance, policy and/or legislation changes based on monitoring outcomes Complete assessment for all values of needed policy and/or legislation changes		
	Program management (QP, program CI, CI session, equipment, etc.)	Ongoing Incorporating FP Board assessment	Possible informal LEAN project		
	NRS monitoring and evaluation collaborative	Baseline inventory, framework, strategy			

### Individual Resource Value Projects and Deliverables

Resource Value	Value Specific Deliverables	2015/16	2016/17	2017/18	2018/19
Biodiversity	Stand-level -- Resource Stewardship Monitoring	Continued implementation and reporting			
	Landscape level	Completion of protocol and initial reporting via MRVA	Ongoing implementation to cover province and reporting via MRVA – includes linkage with CEA		
	OGMAs	Continue working on protocol (link with CEA)	Complete protocol	Implementation	
Wildlife	WHA Office-Based Assessments	Piloting office-based methods in 3 TSAs	Finalizing methods. Additional assessments (TSAs) will be completed (funding dependant)	Ongoing assessments (TSAs)	
	Stand-level wildlife habitat monitoring -- Resource Stewardship Monitoring	Develop wildlife habitat protocols for ungulates (deer, moose, elk), cavity nesters (includes marten and fisher), amphibians	Partial/initial implementation and CI	Implementation and reporting  Protocol development of additional species - range species, mountain goat, caribou and grizzly	
Cultural Heritage	Resource Stewardship Monitoring	Expanded implementation and reporting			
			FN data collection field crew assistants proposal		
	Traditional Ecological Knowledge (TEK). Review of how TEK could be incorporated into FREP assessments and/or reporting	Initiate project – literature review, meeting with Lake Babine Nation in Skeena Region, explore what mandate would look like in this area	Continue project provided mandate is given  Pilot partial implementation	Implementation	
Riparian	Resource Stewardship Monitoring	Continued implementation and reporting			
	Special project	Small streams outreach			

Resource Value	Value Specific Deliverables	2015/16	2016/17	2017/18	2018/19
	Watershed status evaluations (FSW)	Complete 3 watershed reports (intensive evaluations)	Ongoing priority watershed assessments (intensive evaluations)		
Water Quality	Resource Stewardship Monitoring	Continued implementation and reporting			
	Community Watershed Assessment procedure	Develop protocol and initial application (e.g., watershed sensitivity tier 1) – possible reporting	Operational piloting CI and reporting of sampling	Continued implementation and reporting	
Visual Quality	RSM	Continued implementation and reporting			
Soils	Google Earth 4000 ha tile project	24 districts to be assessed and initial reporting of results	Ground truth and final report	24 districts to be assessed and initial report	Ground truth and final report
	Intensive evaluation		Intensive evaluation and report on steep slope logging		
Timber	Stand Development Monitoring2.0 (SDM2.0)	Review and CI of SDM protocol, data analysis	Operational piloting of SDM2.0 Reporting out of SDM1.0 results	Continued implementation and reporting – SDM 2.0	
	Other TBD (e.g., cedar, waste, partial cutting)	No action	Planning intensive evaluation	Intensive evaluation	
Karst (resource features)	Resource Stewardship Monitoring	Completion of field protocol	Partial/initial implementation and CI and reporting	Implementation and reporting	
Recreation	trails	No action	No action	Intensive evaluation of trails	No action
Range	Upland and riparian monitoring	On-going implementation and reporting (primarily via MRVA) Ongoing implementation via Range Branch			

Appendix 2: Resource Practices Branch FREP budget breakdown (NB – 2016 RWG submission for shared region/division uplift funding). Final breakdown will be in FREP Annual work Plan

Resource Value	Value Specific Deliverables	2016/17	2017/18	2018/19
Biodiversity	Stand-level (RSM)			
	Landscape level	15000	5000	5000
	OGMAs	10000		2500
Wildlife	WHA Office-Based Assessments	40000	20000	20000
	Stand-level wildlife habitat monitoring – Resource Stewardship	10000	20000	20000
Cultural Heritage	RSM			
	TEK	20000	30000	30000
Riparian	RSM			
	Special project small streams	25000		
	Watershed status evaluations (FSW)			
Water Quality	RSM			
	Community Watershed Assessment procedure	2500	20000	
Visual Quality	RSM			
Soils	Google Earth 4000 ha tile project	5000		25000
	Steep slope intensive evaluation and extension (possible joint project with FP Innovations)	45000	5000	
Timber	SDM			
	Other TBD (e.g., cedar, waste, partial cutting)		25000	
Karst (resource features)	RSM	5000	5000	
Recreation	Recreation trail impacts (erosion and sediment)			30000
Range	Upland and riparian monitoring			
Program	Strategic plan and work plan			
	Sampling design refresh	5000		5000
	Timber Value monitoring strategy			
	Licensee outreach strategy	5000	5000	5000

	QP etc.	30000	30000	30000
	Digital imagery	20000	35000	30000
	training	110000	120000	110000
	FileMaker Pro	40000	7500	
	Travel	25000	25000	30000
	Program evaluation and CI			20000
	Program, CI session etc.	10000	20000	
	FN honorariums	10000	10000	10000
	<b>TOTALS</b>	<b>437500</b>	<b>382500</b>	<b>372500</b>
	<b>Budget</b>	<b>362500</b>	<b>362500</b>	<b>362500</b>
	<b>Surplus/Shortfall</b>	<b>-75000</b>	<b>-20000</b>	<b>-10000</b>

Appendix 3: Annual District Sampling Targets by Value by Year to 2021 (will be updated on an annual basis)

The sampling targets in the table below would ensure that there are approximately 30 samples per value, per district for the seven values shown.

Note: \* means that sample size determined annually based on harvesting occurring where value exists.

REGION	District	Value	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year first 5 year cycle completes
Cariboo	Cariboo Chilcotin	Cultural Heritage		0	8	7	8	7	5	6	2019
Cariboo	Cariboo Chilcotin	SDM	9	9	0	6	6	6	6	6	2021
Cariboo	Cariboo Chilcotin	SLBD	0	10	7	7	7	6	6	6	2018
Cariboo	Cariboo Chilcotin	Visual Quality		0	8	8	8	8	6	6	2019
Cariboo	Cariboo Chilcotin	Wildlife			0	8	8	8	8	6	2021
Cariboo	Cariboo Chilcotin	Water Quality	0	4	9	9	9	6	6	6	2018
Cariboo	Cariboo Chilcotin	Riparian	0	7	8	7	8	5	6	6	2018
Cariboo	100 Mile	Riparian	0	0	10	10	10	6	6	6	2018
Cariboo	100 Mile	Cultural Heritage		0	8	7	8	7	5	6	2019
Cariboo	100 Mile	SDM	5	1	0	6	6	6	6	6	2021
Cariboo	100 Mile	SLBD	0		10	10	10	6	6	6	2018
Cariboo	100 Mile	Visual Quality		18	4	3	5	6	7	6	2019
Cariboo	100 Mile	Wildlife			0	8	8	8	8	6	2021
Cariboo	100 Mile	Water Quality	0	0	10	10	10	6	6	6	2018
Cariboo	Quesnel	Riparian	1	5	8	8	8	6	6	6	2018
Cariboo	Quesnel	Cultural Heritage	1	0	8	7	8	7	5	6	2019
Cariboo	Quesnel	SDM	1	4	0	6	6	6	6	6	2021
Cariboo	Quesnel	SLBD	3	7	7	6	6	6	6	6	2018
Cariboo	Quesnel	Visual Quality	2	5	7	6	6	6	6	6	2019

REGION	District	Value	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year first 5 year cycle completes
Cariboo	Quesnel	Wildlife			0	8	8	8	8	6	2021
Cariboo	Quesnel	Water Quality	5	8	6	6	6	6	6	6	2018
Kootenay Boundary	Rocky Mountain	Riparian	0	6	8	8	8	6	6	6	2018
Kootenay Boundary	Rocky Mountain	Cultural Heritage		0	8	7	8	7	5	6	2019
Kootenay Boundary	Rocky Mountain	SDM	2	9	0	6	6	6	6	6	2021
Kootenay Boundary	Rocky Mountain	SLBD	0	9	7	7	7	6	6	6	2018
Kootenay Boundary	Rocky Mountain	Visual Quality	4	0	8	7	8	7	6	6	2019
Kootenay Boundary	Rocky Mountain	Wildlife			0	8	8	8	8	6	2021
Kootenay Boundary	Rocky Mountain	Water Quality	0	6	8	8	8	6	6	6	2018
Kootenay Boundary	Selkirk	Riparian	0	3	9	9	9	6	6	6	2018
Kootenay Boundary	Selkirk	Cultural Heritage		0	8	7	8	7	5	6	2019
Kootenay Boundary	Selkirk	SDM	14	15	0	6	6	6	6	6	2021
Kootenay Boundary	Selkirk	SLBD	0	4	9	8	8	6	6	6	2018
Kootenay Boundary	Selkirk	Visual Quality		18	4	5	6	7	7	6	2019
Kootenay Boundary	Selkirk	Wildlife			0	8	8	8	8	6	2021
Kootenay Boundary	Selkirk	Water Quality	3	3	8	8	8	6	6	6	2018
Northeast	Fort Nelson	Riparian		0	*	*	*	*	*	6	2018
Northeast	Fort Nelson	Cultural Heritage		0	*	*	*	*	*	6	2019
Northeast	Fort Nelson	SDM	2	0	0	6	6	6	6	6	2021
Northeast	Fort Nelson	SLBD		0	*	*	*	*	*	*	2018
Northeast	Fort Nelson	Visual Quality		0	*	*	*	*	*	*	2019

REGION	District	Value	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year first 5 year cycle completes
Northeast	Fort Nelson	Wildlife		0	*	*	*	*	*	*	2021
Northeast	Fort Nelson	Water Quality		0	*	*	*	*	*	*	2018
Northeast	Peace	Cultural Heritage		0	8	7	8	7	5	6	2019
Northeast	Peace	SDM		0	0	6	6	6	6	6	2021
Northeast	Peace	SLBD	3	11	6	6	6	6	6	6	2018
Northeast	Peace	Visual Quality	22	0	8	7	7	8	6	6	2019
Northeast	Peace	Wildlife			0	8	8	8	8	6	2021
Northeast	Peace	Water Quality	11	8	4	4	6	7	6	6	2018
Northeast	Peace	Riparian	6	6	6	6	6	6	6	6	2018
Omineca	Fort St James <sup>1</sup>	Cultural Heritage	6	7	6	5	6	6	6	6	2019
Omineca	Fort St James <sup>1</sup>	SDM	8	8	0	6	6	6	6	6	2021
Omineca	Fort St James <sup>1</sup>	SLBD	4	5	7	7	7	6	6	6	2018
Omineca	Fort St James <sup>1</sup>	Visual Quality	1	0	8	8	8	8	6	6	2019
Omineca	Fort St James <sup>1</sup>	Wildlife			0	8	8	8	8	6	2021
Omineca	Fort St James <sup>1</sup>	Water Quality	5	7	6	6	6	6	6	6	2018
Omineca	Fort St James <sup>1</sup>	Riparian	6	5	7	6	6	6	6	6	2018
Omineca	Vanderhoof <sup>1</sup>	Riparian	5	6	7	6	6	6	6	6	2018
Omineca	Vanderhoof <sup>1</sup>	Cultural Heritage	6	10	5	5	6	7	6	6	2019
Omineca	Vanderhoof <sup>1</sup>	SDM	4	4	0	6	6	6	6	6	2021
Omineca	Vanderhoof <sup>1</sup>	SLBD	7	3	7	6	6	6	6	6	2018
Omineca	Vanderhoof <sup>1</sup>	Visual Quality	1	2	7	7	7	7	6	6	2019
Omineca	Vanderhoof <sup>1</sup>	Wildlife			0	8	8	8	8	6	2021
Omineca	Vanderhoof <sup>1</sup>	Water Quality	7	5	6	6	6	6	6	6	2018
Omineca	Mackenzie	Cultural Heritage		19	6	4	5	5	6	6	2019
Omineca	Mackenzie	SDM		6	0	6	6	6	6	6	2021
Omineca	Mackenzie	SLBD	7	8	5	5	5	6	6	6	2018
Omineca	Mackenzie	Visual Quality		0	*	*	*	*	*	*	2019



REGION	District	Value	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year first 5 year cycle completes
Omineca	Mackenzie	Wildlife			0	8	8	8	8	6	2021
Omineca	Mackenzie	Water Quality	13	8	4	5	6	6	6	6	2018
Omineca	Mackenzie	Riparian	9	8	5	5	5	6	6	6	2018
Omineca	Prince George	Cultural Heritage		0	8	7	8	7	5	6	2019
Omineca	Prince George	SDM	10	0	0	6	6	6	6	6	2021
Omineca	Prince George	SLBD	6	5	6	6	6	6	6	6	2018
Omineca	Prince George	Visual Quality	6	5	7	6	6	6	6	6	2019
Omineca	Prince George	Wildlife			0	8	8	8	8	6	2021
Omineca	Prince George	Water Quality	5	8	6	6	6	6	6	6	2018
Omineca	Prince George	Riparian	5	8	6	6	5	6	6	6	2018
Skeena	Coast Mountain	Cultural Heritage	7	6	6	6	6	6	6	6	2019
Skeena	Coast Mountain	SDM		10	0	6	6	6	6	6	2021
Skeena	Coast Mountain	SLBD	5	5	7	7	7	6	6	6	2018
Skeena	Coast Mountain	Visual Quality	15	9	5	5	5	5	6	6	2019
Skeena	Coast Mountain	Wildlife			0	8	8	8	8	6	2021
Skeena	Coast Mountain	Water Quality	9	5	5	5	5	6	6	6	2018
Skeena	Coast Mountain	Riparian	5	5	7	7	6	6	6	6	2018
Skeena	Nadina	Cultural Heritage	6	10	5	5	6	7	6	6	2019
Skeena	Nadina	SDM	13	10	0	6	6	6	6	6	2021
Skeena	Nadina	SLBD	10	7	4	5	5	7	6	6	2018
Skeena	Nadina	Visual Quality		0	8	7	7	8	6	6	2019
Skeena	Nadina	Wildlife			0	8	8	8	8	6	2021
Skeena	Nadina	Water Quality	5	6	6	7	6	6	6	6	2018
Skeena	Nadina	Riparian	6	7	6	6	5	6	6	6	2018
Skeena	Skeena Stikine	Riparian	6	5	7	6	6	6	6	6	2018
Skeena	Skeena Stikine	Cultural Heritage	12	10	5	5	6	7	6	6	2019
Skeena	Skeena Stikine	SDM	11	10	0	6	6	6	6	6	2021

REGION	District	Value	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year first 5 year cycle completes
Skeena	Skeena Stikine	SLBD	6	5	6	6	6	6	6	6	2018
Skeena	Skeena Stikine	Visual Quality	4	5	7	6	6	6	6	6	2019
Skeena	Skeena Stikine	Wildlife			0	8	8	8	8	6	2021
Skeena	Skeena Stikine	Water Quality	5	5	7	6	6	6	6	6	2018
South Coast	Chilliwack	Cultural Heritage		0	8	7	8	7	5	6	2019
South Coast	Chilliwack	Karst				6	6	6	6	6	2021
South Coast	Chilliwack	SDM	9	10	0	6	6	6	6	6	2021
South Coast	Chilliwack	SLBD	8	7	5	5	5	6	6	6	2018
South Coast	Chilliwack	Soils			8	8	8	8	6	6	2019
South Coast	Chilliwack	Visual Quality		16	4	4	4	4	6	6	2019
South Coast	Chilliwack	Wildlife			0	8	8	8	8	6	2021
South Coast	Chilliwack	Water Quality	8	5	6	6	6	6	6	6	2018
South Coast	Chilliwack	Riparian	5	2	8	7	8	5	6	6	2018
South Coast	Sunshine Coast	Cultural Heritage		0	8	7	8	7	5	6	2019
South Coast	Sunshine Coast	Karst				6	6	6	6	6	2021
South Coast	Sunshine Coast	SDM	1	8	0	6	6	6	6	6	2021
South Coast	Sunshine Coast	SLBD	11	9	4	5	5	6	6	6	2018
South Coast	Sunshine Coast	Visual Quality		11	4	5	6	6	7	6	2019
South Coast	Sunshine Coast	Wildlife			0	8	8	8	8	6	2021
South Coast	Sunshine Coast	Water Quality	10	10	4	5	5	6	7	6	2018
South Coast	Sunshine Coast	Riparian	9	6	5	5	5	6	6	6	2018
South Coast	Sea-to-Sky	Riparian	6	7	6	6	5	6	6	6	2018
South Coast	Sea-to-Sky	Cultural Heritage		1	8	7	7	7	6	6	2019
South Coast	Sea-to-Sky	SDM	4	6	0	6	6	6	6	6	2021
South Coast	Sea-to-Sky	SLBD	8	10	4	4	5	7	7	6	2018
South Coast	Sea-to-Sky	Visual Quality	10	9	5	6	5	6	6	6	2019
South Coast	Sea-to-Sky	Wildlife			0	8	8	8	8	6	2021

REGION	District	Value	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year first 5 year cycle completes
South Coast	Sea-to-Sky	Water Quality	8	9	5	5	5	6	7	6	2018
Thompson Okanagan	Cascades	Cultural Heritage	6	6	6	6	6	6	6	6	2019
Thompson Okanagan	Cascades	SDM	1	0	0	6	6	6	6	6	2021
Thompson Okanagan	Cascades	SLBD	2	5	8	8	8	6	6	6	2018
Thompson Okanagan	Cascades	Visual Quality	1	0	8	8	8	8	6	6	2019
Thompson Okanagan	Cascades	Wildlife			0	8	8	8	8	6	2021
Thompson Okanagan	Cascades	Water Quality	7	10	4	4	4	6	6	6	2018
Thompson Okanagan	Cascades	Riparian	3	5	8	7	7	6	6	6	2018
Thompson Okanagan	Thompson Rivers	Cultural Heritage		0	8	7	8	7	5	6	2019
Thompson Okanagan	Thompson Rivers	SDM	4	0	0	6	6	6	6	6	2021
Thompson Okanagan	Thompson Rivers	SLBD	7	10	4	4	4	6	6	6	2018
Thompson Okanagan	Thompson Rivers	Visual Quality		0	8	8	8	8	6	6	2019
Thompson Okanagan	Thompson Rivers	Wildlife			0	8	8	8	8	6	2021
Thompson Okanagan	Thompson Rivers	Water Quality	7	10	4	4	4	6	6	6	2018
Thompson Okanagan	Thompson Rivers	Riparian	8	5	6	6	6	6	6	6	2018
Thompson Okanagan	Okanagan Shuswap	Cultural Heritage		0	8	7	8	7	5	6	2019
Thompson Okanagan	Okanagan Shuswap	SDM	10	10	0	6	6	6	6	6	2021
Thompson Okanagan	Okanagan Shuswap	SLBD	5	7	6	6	6	6	6	6	2018
Thompson Okanagan	Okanagan Shuswap	Visual Quality	3	6	6	6	6	6	6	6	2019

REGION	District	Value	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year first 5 year cycle completes
Thompson Okanagan	Okanagan Shuswap	Wildlife			0	8	8	8	8	6	2021
Thompson Okanagan	Okanagan Shuswap	Water Quality	5	4	7	7	7	6	6	6	2018
Thompson Okanagan	Okanagan Shuswap	Riparian	5	7	6	6	6	6	6	6	2018
West Coast	Campbell River	Cultural Heritage		10	5	5	6	7	6	6	2019
West Coast	Campbell River	SDM		0	0	6	6	6	6	6	2021
West Coast	Campbell River	SLBD	10	10	3	3	3	6	6	6	2018
West Coast	Campbell River	Visual Quality	2	0	8	8	8	8	6	6	2019
West Coast	Campbell River	Wildlife			0	8	8	8	8	6	2021
West Coast	Campbell River	Water Quality	11	10	3	3	3	6	6	6	2018
West Coast	Campbell River	Riparian	8	10	4	5	5	6	7	6	2018
West Coast	North Island	Cultural Heritage		16	5	5	6	6	6	6	2019
West Coast	North Island	Karst		0	0	8	8	8	8	8	2021
West Coast	North Island	SDM		0	0	6	6	6	6	6	2021
West Coast	North Island	SLBD	10	12	3	3	3	6	6	6	2018
West Coast	North Island	Visual Quality	5	6	6	6	6	6	6	6	2019
West Coast	North Island	Wildlife			0	8	8	8	8	6	2021
West Coast	North Island	Water Quality	10	10	4	5	5	6	7	6	2018
West Coast	North Island	Riparian	9	13	4	4	5	6	7	6	2018
West Coast	Haida Gwaii	Riparian	0	9	7	7	7	6	6	6	2018
West Coast	Haida Gwaii	Cultural Heritage	2	5	7	6	6	6	6	6	2019
West Coast	Haida Gwaii	Karst				6	6	6	6	6	2021
West Coast	Haida Gwaii	SDM	2	0	0	6	6	6	6	6	2021
West Coast	Haida Gwaii	SLBD	1	12	6	6	6	6	6	6	2018
West Coast	Haida Gwaii	Visual Quality	3	3	7	7	7	6	6	6	2019
West Coast	Haida Gwaii	Wildlife			0	8	8	8	8	6	2021
West Coast	Haida Gwaii	Water Quality	1	5	8	8	8	6	6	6	2018

REGION	District	Value	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	<b>Year first 5 year cycle completes</b>
West Coast	South Island	Riparian	7	7	6	6	5	6	6	6	2018
West Coast	South Island	Cultural Heritage		0	8	7	8	7	5	6	2019
West Coast	South Island	Karst				6	6	6	6	6	2021
West Coast	South Island	SDM		0	0	6	6	6	6	6	2021
West Coast	South Island	SLBD	7	7	5	6	6	6	6	6	2018
West Coast	South Island	Visual Quality		2	7	7	7	7	6	6	2019
West Coast	South Island	Wildlife			0	8	8	8	8	6	2021
West Coast	South Island	Water Quality	5	6	6	6	6	6	6	6	2018

<sup>1</sup> Vanderhoof and Fort St. James have recently been merged into a single district. This merging will be reflected in future tables.