Environmental Stewardship Initiative: Progress Report: November 2019

Prepared for: Strategic and Indigenous Affairs Division Ministry of Energy, Mines and Petroleum Resources

Tom Lee November 10, 2019

1 CONTENTS

2		Exec	utive	e Summary	4
3		Intro	duct	ion	6
4		Meth	nodo	logy	7
5		Curre	ent s	tatus	8
	5.1	L	Stev	vardship projects	8
		5.1.1		North Coast	8
		5.1.2		Skeena	8
		5.1.3		Omineca	9
		5.1.4	Ļ	Northeast	9
	5.2	2	Proj	ect Progress	9
6		ESI b	enef		.12
	6.1	L	ESI k	penefits stewardship management in the North	.12
		6.1.1 scier	ice	Access to data that reflects Indigenous cultural and traditional knowledge and western 12	
		6.1.2		Accepted approaches to assessment and modelling	12
		6.1.3		ESI can contribute to regulatory certainty	12
		6.1.4	-	ESI supports regional coordination	13
		6.1.5	i	ESI creates improved working relationships	13
	6.2	2	ESI i	s providing direct benefits to First Nation communities	14
		6.2.1		Increased understanding of regulatory processes	14
		6.2.2		Supports capacity building and exercise of self-determination	14
		6.2.3		Improved community health	15
7		ESI ir	nple	mentation challenges	15
	7.1	L	Proj	ect Teams need a clear pathway to address ESI recommendations	.15
	7.2	2	Outs	standing data management issues	16
	7.3	3	Unc	oordinated/minimal stakeholder engagement	.16
	7.4	1	Pote	ential lack of alignment with strategic initiatives	.17
	7.5	5	ESI f	unding is running out	.17
8		Othe	r ob	servations	.18
	8.1	L	Role	of ESI tables in decision making	.18
	8.2	2	Wha	at happens to ESI once current projects are complete	.18
9		ls ES	l me	eting desired outcomes?	.19

10 D	Praft recommendations	20					
10.1	Expand areas of collaboration between ESI regions	20					
10.2	Identify a clear pathway for ESI strategic and operational recommendations	21					
10.3	Address data management and information sharing	21					
10.4	Develop a targeted stakeholder engagement strategy	21					
10.5	Endorse a common vision for the future of ESI	21					
10.6	Develop a coordinated approach to monitoring and evaluating progress	22					
11 C	onclusion	22					
Appendix	x 1: North Coast	23					
Appendix	x 2: Skeena	30					
Appendix	x 3: Omineca	36					
Appendix	Appendix 4: Northeast						
Appendix	x 5: Draft performance indicators	44					

2 EXECUTIVE SUMMARY

The Environmental Stewardship Initiative is a \$30 million collaboration between 32 First Nation organizations in Northern British Columbia and the Province. Announced in 2014, ESI is nearing the end of its initial mandate, and current projects are expected to be complete by the end of fiscal year 2020-21. While it is too early to assess the full operational impacts of ESI on stewardship management in the north, ESI has opened the door for a more collaborative relationship between First Nations and the Province.

ESI projects were identified and implemented to address the unique needs of each of the four ESI regions. As a result, each of the regional project teams presented differing perspectives and opinions on the benefits and challenges of the initiative. While the findings in this report may not be reflective of specific feedback of an individual region or First Nation, the review did identify a number of common themes to consider in the future development of the ESI.

Key benefits of ESI include:

- Common understanding of existing and co-generated technical data and analysis that are trusted by both First Nations and the Province;
- Collaboratively developed approaches to monitoring, assessment and management that are based on Indigenous values;
- Informed decision making by the Province and First Nations which supports regulatory certainty;
- Coordinated approaches to regional stewardship management; and,
- Strong connections between First Nation and provincial staff which supports better decision-making.

ESI is also contributing to the governance capacity of participating First Nations. ESI is helping to build management and technical capacity that enables First Nation governments to identify land management objectives and create a technical foundation to support decision making.

As ESI projects move to the development of management recommendations, First Nation and provincial government representatives identified a number of challenges that should be addressed as projects move to completion. These include:

- A lack of clarity on the process by which recommendations developed through ESI's collaborative process will be addressed and implemented;
- Inconsistent access to, and use of, available ESI information to support planning and decisionmaking;
- Limited public and stakeholder engagement on the purpose and implications of ESI projects; and,
- Potential lack of alignment with other strategic initiatives (e.g. modernized land use planning, Caribou recovery etc.).

ESI has resulted in significant changes in how First Nations and the provincial government approach technical analysis and priority setting. While the initial ESI mandate is nearly complete, a mechanism to support continued collaboration on First Nation and provincial government stewardship accountabilities will continue to be needed.

There is a high level of support for ESI expressed by First Nation and provincial government staff, which would indicate strong support for ESI to continue beyond FY 2020-21. This report has identified a number of benefits of ESI, and challenges that could impact the ability of ESI projects to achieve their desired outcomes. Addressing these challenges will help leadership to fully assess the impacts of ESI and develop recommended next steps as the initiative enters its final year.

3 INTRODUCTION

The Environmental Stewardship Initiative (ESI) is a \$30 million collaboration between 32 First Nation organizations in Northern British Columbia (BC) and the Province (Figure 1). Announced in 2014, ESI was originally created as part of the Province's First Nations' Liquified Natural Gas Benefits Framework.

ESI was established to address First Nations' long-standing concerns with stewardship of the land and cumulative impacts in their traditional territories. The goals of ESI are to collaboratively establish

positive environmental legacies across the north by investing in four key areas:

- Ecosystem monitoring and assessment;
- Ecosystem restoration and enhancement;
- Ecosystem research and knowledge exchange; and,
- Stewardship education and training.

In June 2018 Four Directions Management Services (FDMS) prepared a report (the FDMS report) that outlines key learnings

ESI AT A GLANCE

- ESI Forums established in four regions
- 32 participating First Nation organizations
- 11 Stewardship Projects
- 53 Indigenous positions funded
- Stewardship training provided to 313 community members.
- Collaborative stewardship over approximately 32% of the Province
- ESI budget expended to March 31, 2019: \$17.6M
- 2019-20 budget forecast: \$5.8M

from ESI and makes recommendations on a path forward. This paper builds on the findings of the FDMS report to examine the operational impacts of ESI projects on stewardship management in the ESI regions.

ESI has nearly fully expended the \$30 million announced in 2014. As such, it is expected that First Nations and the Province¹ will approach their respective leadership (i.e. Chief and Councils, BC Cabinet) in 2020 to make recommendations on next steps for the initiative. The purpose of this report is to identify key ESI results and outcomes to support Indigenous and provincial decision-making on next steps for ESI.

¹ Three provincial agencies are working together to support ESI: Ministry of Energy, Mines and Petroleum Resources (MEMPR), Ministry of Indigenous Relations and Reconciliation (MIRR), and Ministry of Forests, Lands and Natural Resource Operations and Rural Development (FLNRORD).

Figure 1: Participating First Nation organizations



4 METHODOLOGY

This paper was prepared with the support and participation of First Nation and provincial government representatives from each of the four ESI regions. Representatives were provided with a questionnaire and an interview was scheduled with project teams from each region.

A summary of each of the interviews was prepared and distributed to each ESI region for review and approval. Responses were collated into a detailed status report for each region (contained in the Appendices) and common themes and issues were identified as a way to present a general overview of the impacts of ESI on stewardship management in northern BC.

5 CURRENT STATUS

5.1 STEWARDSHIP PROJECTS

ESI projects were collaboratively developed between participating First Nations and the Province in each of the four northern ESI Regions and include projects in each of the four ESI topic areas (Table 1). The primary focus in most of the regions has been on determining the current condition of collaboratively identified environmental values, through the use of jointly developed monitoring and assessment approaches. This work will inform management recommendations that meet the mutual interests of both Indigenous and provincial partners

Table 1: Project topic areas

Stewardship Function	North Coast	Skeena	Omineca	Northeast
Monitoring and assessment	\checkmark	\checkmark	\checkmark	\checkmark
Restoration and enhancement	\checkmark	\checkmark		
Research and knowledge exchange	\checkmark	\checkmark	\checkmark	\checkmark
Stewardship education and training	\checkmark	\checkmark	\checkmark	

5.1.1 North Coast

The North Coast Regional Stewardship Forum (RSF) is overseeing two distinct projects: Cumulative Effects (CE) and Ecosystem Restoration. The North Coast projects have been developed in close collaboration with the Marine Plan Partnership (MaPP)² North Coast subregion, which is a partnership between the Province and member First Nations that is implementing marine use plans for B.C.'s North Pacific Coast.

The North Coast ESI CE Project is formally aligned with MaPP's North Coast CE Initiative which is piloting the implementation of the collaboratively developed MaPP CE Framework, by monitoring, assessing, and managing four initial CE values:

- aquatic habitats estuary;
- food security;
- access to resources; and,
- salmon.

The CE Project Team is working to develop protocols and produce current condition reports for the values, with the goal of producing collaboratively developed CE management recommendations for endorsement of the RSF by March 2021.

The North Coast ESI Ecosystem Restoration Project is also pursuing a number of Indigenous Stewardship Projects that have been prioritized by the participating Nations (Appendix 1).

5.1.2 Skeena

The Skeena Sustainability Assessment Forum (SSAF) is conducting a CE assessment on five collaboratively identified values:

² For more information visit <u>http://mappocean.org/</u>.

- Grizzly Bear;
- Fish and fish habitat;
- Wetlands;
- Moose; and,
- Medicinal and traditional plants.

The SSAF is incorporating Indigenous knowledge into the assessments through Indigenous Stewardship Projects (ISP) and Indigenous participation and leadership in the Science and Technical Committee. The SSAF is working to finalize protocols and produce State of Values Reports for each of the five values. The SSAF will then produce joint recommendations for consideration by Indigenous and provincial decision-makers on enhanced management, restoration, operational procedures and monitoring protocols (Appendix 2).

5.1.3 Omineca

The Omineca Demonstration Project is conducting a CE assessment on the condition of three valued ecosystem components:

- Forest biodiversity;
- Moose; and,
- Anadromous fish/riparian.

Omineca has largely completed the CE assessment and the project team is beginning to examine the implementation of collaboratively developed management responses (Appendix 3).

5.1.4 Northeast

The Northeast ESI is conducting a Regional Strategic Environmental Assessment (RSEA) that is assessing the cumulative effects of natural resource development activities on five values:

- Old forest/forest biodiversity;
- Water;
- Moose;
- Peaceful enjoyment; and,
- Environmental livelihoods.

The RSEA table is working to complete data collection and analysis on the shared values by 2020, the results of which will be used to develop management recommendations. In addition, the RSEA table is developing a Methods Pilot in the Fort St. John TSA sub area of the RSEA study area. The Pilot will describe different resource development (Petroleum and Natural Gas (PNG) and forestry) scenarios and their respective impacts on RSEA values in support of further management recommendations, including those within the Fort St. John Land Use Planning update.

5.2 PROJECT PROGRESS

ESI project teams are generating an inventory of technical data and information that is being used to support assessment of valued components, monitoring and restoration activities and

development of management recommendations for First Nation and provincial government decision-makers. The progress of each ESI project is summarized in Table 2.

Table 2: ESI project progress

	Omineca	Skeena	North Coast	Northeast
NEXT STEPS	 Data and assessments to inform CE protocols; Recommendations inform Omineca Land Use Planning. 	 ESI State of the Value Reports used to inform decisions and will be a key input into modernized Land Use Planning. Develop Guidance for Decision Making handbook that will help decision-makers use ESI information. Data and assessments to inform CE protocols. 	 Finalizing CE protocols for all values (development and implementation), including future scenario work Identification of appropriate policy/regulatory space for management recommendations. 	 Data and assessments to inform CE protocols. Recommendations and Methods Pilot to inform the Fort St John LRMP update and other Land Use Planning Processes. Identification of appropriate policy/regulatory space for other management recommendations. Considerations for decision-makers with regard to treaty rights.
MANAGEMENT RECOMMENDATION	 Immediate Forest Management Measures (voluntary); Draft Ungulate Winter Range options for Provincial legal designation process. 	 Recommendations may include operational guidance for forest licencees, stand-level retention scenarios, riparian management spatial approaches to biodiversity and fish and wildlife management. 	 Draft management recommendations and guidance documents related to each value (anticipated). Development of draft management benchmarks and triggers (anticipated). 	 Interim Measures (voluntary). Draft Moose Best Management Practices. Development of draft management recommendations to meet mutual development interests of parties.
MODELING AND ASSESSMENT	 Prioritized forest biodiversity areas and moose core winter habitat for voluntary avoidance Risk assessment of all values, with emphasis on forest biodiversity Moose population assessment completed. 	 State of the Value Reports (current condition) for Grizzly Bear, Wetlands, and Fish/Fish Habitat (in progress). Moose population and habitat modelling and assessment underway. Climate change modelling 	 Draft CE Protocol to assess condition of aquatic habitat in the Skeena Estuary. Conceptual model and indicators for food security and access to resources developed. Workplan and current condition assessment initiated for salmon. Riparian and stream assessments completed. Data management solution scoped, and Geoportal established to allow for data synthesis and collaboration for assessment. 	 Methods Pilot to test forestry and gas development scenarios. Strategic watershed assessment in progress. Analysis of Old Forest complete (pilot area). Cultural and Recreational Opportunities Spectrums being drafted (Peaceful Enjoyment). Moose Habitat Effectiveness Model being drafted (pilot area). Base case development models for petroleum and natural gas and forestry. Model of values important for the exercise of Treaty Rights proposed.
COLLECT DATA	 Current condition of forest biodiversity. Identified effective moose habitat and core winter areas. Hydroacoustic trawl study, small streams survey (fish/riparian) and identify heightened value watersheds. 	 Moose population and habitat. Grizzly bear population and habitat. Fish and fish habitat. Water quality/quantity. Wetland health and function. Medicinal plant data collection underway. 	 Literature reviews and external desktop data sourcing for all values. Aquatic Habitat – Estuary indicators including eelgrass extent, sediment chemistry and water quality. Stream temperatures. CABIN assessments. Clam surveys. Food security and access to resources data (in development) 	 Environmental Livelihoods/traditional use of land. Major watershed surface water quality and quantity. Forestry (complete) and petroleum and natural gas (underway) data packages to support Methods Pilot. Desktop data for Moose, Water, Old Forest, Peaceful Enjoyment. Disturbance layer for Northeast.
IDENTIFY VALUES	 Forest Biodiversity. Moose. Anadromous fish/riparian. 	 Moose. Medicinal plants. Wetlands. Fish/fish habitat. Grizzly Bear. 	 Aquatic habitat – estuary. Salmon. Access to resources. Food security. 	 Water. Moose. Environmental livelihoods. Peaceful enjoyment. Old forest (biodiversity).

6 ESI BENEFITS

Each of the ESI project teams presented different perspectives and opinions on the benefits of the initiative. While the summaries below may not reflect the feedback from every region or individual First Nations, they are presented as generally reflecting common themes arising from the review.

6.1 ESI BENEFITS STEWARDSHIP MANAGEMENT IN THE NORTH

While projects are still in progress, the following benefits to stewardship management are emerging through the work of the project teams.

6.1.1 Access to data that reflects Indigenous cultural and traditional knowledge and western science

ESI projects are generating up to date technically sound information on critical values that would not have been collected in the absence of ESI funding. ESI is filling information gaps, and more importantly, is incorporating Indigenous knowledge and cultural values along with western science into value monitoring and assessments.

Projects are building an inventory of technical data and analysis that is trusted by both First Nations and the Province and is being actively used to support First Nation and provincial decision-making processes.

6.1.2 Accepted approaches to assessment and modelling

ESI project teams are collaboratively developing monitoring, assessment and modelling approaches, thresholds and management recommendations that reflect Indigenous values.

ESI data and assessments are expected to enhance and/or replace provincial CE protocols in the Northeast, Omineca, Skeena and North Coast regions. Again, this contributes to the generation of trusted information that can be used by both Indigenous and provincial government decision-makers.

6.1.3 ESI can contribute to regulatory certainty

While project focussed, the collaborative process built through ESI is incorporating Indigenous perspectives into the regular operations of government and industry. ESI is enabling First Nation communities to become active participants in resource management in their territories and ESI data and analysis are being used to better inform the We are working to develop a system that we can use to incorporate the RSEA data. The system will allow us to view referrals from a spatial perspective and we will be able to overlay the RSEA data overtop of base layers, including Traditional Use Study layers. Once everything is in place, we hope to have a very robust system that will allow us to see multiple projects across our territory, understand how the projects fit within Management Zones, and respond to consultation packages fulsomely and efficiently. Roslyn Notseta, Halfway River First Nation Province, community members and First Nation decision-makers on stewardship management priorities and activities.

Through ESI, First Nations are being engaged at the ground level to determine how data is collected, analyzed and translated into the decision-making process. Ideally, this will result in greater trust in the decision and a more transparent decision-making process for First Nations and the Province.

Indigenous representatives felt that ESI can ultimately contribute to regulatory certainty³ by building trust in Indigenous communities on how the provincial government and First Nations regulate industry.

6.1.4 ESI supports regional coordination

Several of the ESI project teams noted that ESI is the only initiative where the provincial government and groups of First Nations in a region are participating at a single table on a collaborative project.⁴ Benefits of this approach include:

- Regional tables provide an opportunity for First Nations to learn, understand and develop working relationships with other First Nations in the region;
- Many environmental values cannot be protected effectively with management responses carried out only within a single territory. A regional approach allows the parties to assess and manage the impacts of -decisions across the broader region and within overlapping territories; and,
- First Nations and the Province are developing a collaborative vision for the region which supports a coordinated approach to stewardship management.

6.1.5 ESI creates improved working relationships

A majority of Indigenous and provincial government representatives noted that ESI has resulted in improved relationships between the Province and First Nations at the technical level. The partnership with provincial experts has allowed the parties to work collaboratively to assess the state of the values and has For the first year of field work for the Gitxsan moose distribution ISP we collected all data in a field notebook. For year 2, we collaboratively developed a digital field card that created efficiencies in regard to data collection, data management, quality assurance and quality control and most importantly negated the need to have someone spend a couple weeks entering the data in excel.

Chaz Ware, Gitxsan Nation

created positive and mutually beneficial working relationships.

³ Recognizing that the scope of ESI projects are limited, and do not address the multiple considerations and inputs that may go into a decision.

⁴ The North Coast also has the MaPP process.

ESI projects are creating strong connections at the staff level between First Nations and the Province and these connections support better decision-making.

6.2 ESI IS PROVIDING DIRECT BENEFITS TO FIRST NATION COMMUNITIES

ESI is strengthening the governance capacity of participating First Nations and is creating a framework for improved knowledge transfer and capacity building within First Nation communities.

6.2.1 Increased understanding of regulatory processes

ESI has facilitated a greater understanding of provincial management regimes amongst the participating First Nations. This supports First Nations to have informed discussions within the community on resource management and stewardship issues, and with licensees and the Province on stewardship and forestry. ESI has also helped First Nation representatives to improve their understanding and navigate FLNRORD decision-making processes so that Indigenous values can be incorporated into stewardship activities. Similarly, Province staff are gaining a better understanding of First Nations laws, customs, and priorities that govern their traditional territories and can work to improve decision-making processes to better incorporate Indigenous values.

ESI information and data are improving community and provincial decision-making and communities are increasing their capacity to make informed management decisions.

6.2.2 Supports capacity building and exercise of self-determination

ESI funding is being used to build community capacity through stewardship education, training and the creation of stewardship positions within First Nation governments (Table 3). ESI is helping to build management and technical capacity that enables First Nation governments to identify land management objectives and provides a technical foundation to support decision making.

	North	Skeena	Omineca	North	Total
	Coast			East	
Funded stewardship positions ⁵	15	38	n/a	n/a	53
Stewardship training (# of Indigenous	161	101	48	3	313
participants) ⁶					

Table 3: ESI Stewardship training and funded positions

First Nation representatives noted that ESI funding has helped with stable, reliable employment for community members and contributes to staff retention. Without stable funding, First

⁵ ESI has not developed a common definition of a funded stewardship position. The numbers in this table may reflect a mix of full-time and seasonal positions. As a result, information is provided for illustrative purposes only. ⁶ Training opportunities are detailed for each Region in the Appendices. ESI does not have a common definition of capacity building across the regions. This table may not reflect all training opportunities that have been provided and the number may not reflect discreet individuals as the same individual may have participated in multiple training opportunities.

Nations risk losing trained staff to private industry. ESI funding has allowed First Nations to extend employment terms which is helping communities to retain institutional knowledge and support community members in building their careers.

6.2.3 Improved community health

In some ESI regions, training has resulted in many aspects of ESI project work being led by Indigenous technicians using internal community capacity. This has resulted in a reduced reliance on external consultants. There is increased confidence in the community when a community member is leading environmental work in the field.

First Nation representatives noted that Indigenous people have a strong connection to the land. Incorporating and prioritising protection of Indigenous stewardship values in management decisions is seen as key to supporting improved community well-being.

7 ESI IMPLEMENTATION CHALLENGES

Each of the ESI project teams presented different perspectives and opinions on the challenges of implementing ESI. The summaries below may not reflect individual feedback from each region or individual First Nations, however, they are presented as generally reflecting common themes from the review.

7.1 PROJECT TEAMS NEED A CLEAR PATHWAY TO ADDRESS ESI RECOMMENDATIONS

Each region is operating within a different decision-making context. While each regional project team is generally responsible for management and implementation of individual projects, there is a lack of clarity on the process by which recommendations developed through ESI's collaborative process will be addressed and implemented. While some recommendations may be addressed by decision-makers in an operational context, other recommendations may have strategic, legislative or policy implications that cannot be dealt with at the operational level and may require a new mandate from provincial and Indigenous leadership before they can be addressed.

Omineca appears to have an established framework to discuss and implement ESI recommendations. First Nation and provincial government representatives noted that the Pathway Forward Agreement provides a mechanism to address recommendations at a government-to-government table of leaders. These leaders can collaboratively endorse Omineca ESI recommendations and make decisions on next steps.

Skeena is developing a Guidance for Decision Making Handbook to help decision makers use ESI information. State of the Value reports will be a key input into modernized LUP, and ESI modelling, data and assessments are expected to input into Skeena Region CE protocols, Timber Supply Review and FREP and MRVA protocols.

On the North Coast, First Nation and provincial government representatives noted that some recommended actions would need to be addressed in other forums including treaty (where First Nations are participants), MaPP or through other government to government agreements. First Nation and provincial representatives will need to identify the appropriate forum for the

resolution of any management recommendations and where required, obtain a new mandate to move forward.

The Northeast is developing recommendations arising out of the Methods Pilot and is exploring linkages to the Fort St. John LUP update, the regional cumulative effects framework and the BC Oil and Gas Commission's Area Based Analysis framework.

7.2 OUTSTANDING DATA MANAGEMENT ISSUES

ESI has not yet developed common protocols or mechanisms for information sharing and data storage. This is resulting in the inconsistent use of ESI information that supports informed planning and decisions by industry and government. Identified issues include:

- Incomplete non-disclosure agreements. In the Northeast, the lack of non-disclosure agreements is affecting the ability to complete the data gathering phase of the RSEA and may impact the ability of the RSEA Project Team to use the information in the development of management recommendations.
- The need for better coordination of information sharing and planning between sectors. In one example, ESI information was shared by a First Nation with a forest company which resulted in mitigative actions being taken to protect key values. An oil and gas company subsequently entered the same area and didn't consider the forest company's mitigative actions when planning for oil and gas activities.
- The objective of trusted/shared data is not always being met. Not all information is being shared between First Nations and the Province, or between First Nations and industry. The approach to information sharing is inconsistent between ESI tables, and in some cases within an ESI project team (i.e. only some First Nations in a region are actively using and sharing information generated through ESI). As a result, collaboratively developed information is not always being used to support decision making and resource management planning.

7.3 UNCOORDINATED/MINIMAL STAKEHOLDER ENGAGEMENT

While stakeholders have been active participants in Northeast RSEA, most regions have had limited public and stakeholder engagement. Participants noted that even when industry is engaged, they may not fully understand Indigenous interests, and may not be incorporating these interests into their planning processes.

While the focus of ESI to date has largely been on developing the government to government relationship, stakeholders have a vested interest in the work of ESI tables. Participation in ESI makes decision-making processes more transparent for First Nations, but there is a corresponding lack of transparency and direction for industry and other stakeholders on how to access, use and consider ESI data. The lack of transparency could undermine public/stakeholder support for management recommendations and actions that flow out of the ESI process. Project teams should consider how to make the process more transparent for affected parties, and how gather and consider input from affected stakeholders.

7.4 POTENTIAL LACK OF ALIGNMENT WITH STRATEGIC INITIATIVES

The technical work being undertaken through ESI is closely linked to a number of provincial initiatives including the Cumulative Effects Framework, the Caribou Recovery Program and initiatives around moose management and recovery.

In addition, there is an expectation that collaborative recommendations will be addressed through modernized land use planning (LUP).⁷ Participants noted that in some cases provincial staff responsible for some of these initiatives do not recognize the collaborative process that has been developed and agreed upon through ESI. This can undermine the trust and relationships being built at the ESI tables.

Some participants noted that ESI project teams will need to transition to provide technical support for LUP processes and government to government LUP tables. This support role could include public engagement on recommendations (RSEA example) and input in the LUP process.

Participants also noted that there is a need to align the work of Indigenous monitors and Guardians with provincial compliance and enforcement activities.

7.5 ESI FUNDING IS RUNNING OUT

Funding for ESI projects will be fully expended within the next 2 years (FY 2020-21). The FDMS report recommended that a stable long term (or permanent) source of funding be identified to support ESI.

It is important to understand the impacts of ESI funding on decision-making and First Nation communities. While individual ESI projects are time limited and have specific deliverables, ESI has resulted in significant advances in how First Nations and the provincial government approach technical analysis and priority setting. While the initial ESI mandate is nearly complete, a mechanism to support continued collaboration on First Nation and provincial government stewardship accountabilities will continue to be needed. Participants noted that:

- A long-term funding commitment is needed to invest in continued work beyond the initial set of values;
- ESI funding is developing Indigenous government management and technical capacity. Stable funding provides reliable employment and improves staff retention for Indigenous governments. Community-based engagement and data-collection helps to address long-standing concerns around resource development.

⁷ While modernized land use planning may be a priority issue in the Skeena, Omineca and Northeast regions this comment does not apply to the North Coast Region. Significant work has occurred on the North Coast through MaPP and the Great Bear Rainforest land use decision, which means that modernized LUP is not a priority issue for participants on the North Coast.

8 OTHER OBSERVATIONS

8.1 ROLE OF ESI TABLES IN DECISION MAKING

ESI project teams have largely separated technical work and decision making by First Nation and provincial government leadership. Participants noted that there are advantages and disadvantages to this approach:

- First Nation representatives noted that a benefit of keeping the technical process separate from decision makers is that work can be completed and coordinated at a regional technical level and then recommendations can be provided to the community for decisions. This is an advantage as First Nations make decisions independently and are not always going to come to the same decision. Keeping the technical work separate from governance ensures that one is not dependent on the success of the other.
- Other First Nation representatives noted that linking decision making and the technical work has been integral. While some autonomy is anticipated, it is hoped that by working together governments will be more inclined and able to implement ESI recommendations.

It was also noted that in some cases outside factors can have a negative impact on the collaborative process. Staff representatives may be faced with trying to work in a collaborative environment through ESI but may also be the representative on high conflict files (e.g. litigation). This can break down the level of trust and affect the working relationship being built at the ESI table.

8.2 WHAT HAPPENS TO ESI ONCE CURRENT PROJECTS ARE COMPLETE

The ESI has resulted in a collaborative process that aligns provincial government and Indigenous technical analysis and priority setting. When current projects are complete participants indicated that ESI should continue to exist to undertake additional local and regional stewardship projects including:

- Identifying and assessing additional valued components that would form the basis for the next phase of priority projects;
- Expanding CE assessments beyond the current values and study areas to all territories in a region (where appropriate);
- Identifying options for joint/shared decision making and management (in the absence of another venue);
- Assessing the data collection program and making sure the right data is being collected to manage and mitigate impacts on valued components;
- Identifying strategic restoration areas and policies / management recommendations;
- Providing technical support to the modernized LUP process and monitoring its effectiveness as it is implemented; and,
- Supporting public and stakeholder engagement.

The ability of ESI to continue or evolve will be dependent on funding availability and the assessment of the parties involved as to the effectiveness and success of the initiative.

9 IS ESI MEETING DESIRED OUTCOMES?

As part of the interview process, participants were asked to consider the future of ESI and describe what success would look. Key outcomes identified by the participants included⁸:

- Information and data gathered through ESI are influencing resource management decisions. Participants indicated that it is important that the assessment of Indigenous values and management recommendations are clearly reflected in CE assessments and responses.
- ESI results in changes to policy and legislation. Participants acknowledged that it may not be possible to fully implement management recommendations under current legislation and policy. ESI would be successful if all recommendations could be implemented under the legislative and regulatory framework.
- ESI implements consent based/shared decision making. Participants indicated ESI could be a forum where First Nation governments and the Province make decisions together, support the implementation of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and implement the principle of free, prior and informed consent.
- ESI supports an integrated approach to wildlife and stewardship management. Participants noted that because of the regional approach, stewardship decisions consider the holistic impacts of a decision (i.e. without a regional approach a decision beneficial to one First Nation's territory may have a negative impact on the territory of another First Nation). Under ESI, First Nations are treated equally when stewardship decisions are made.
- **Funding is stable and controlled by regional tables.** Participants indicated having control of stable funding and how it is distributed is a key success factor for ESI.
- There is a trusted, common information base. Participants trust and are treated equally at ESI tables. ESI has developed a common information base that everyone agrees to.

Based on the interview process, Table 4 provides a preliminary assessment on ESI's progress on meeting these objectives.

Desired ESI outcome	Are we there yet?	Comments/considerations
Resource management decision reflect ESI information and recommendations	Too early to tell.	ESI information and recommendations are being reflected in some decisions. However, projects are not complete, and inconsistent information sharing practices means that information that is available is not always shared.
Changes in policy and legislation	Too early to tell	Tables have not formally developed collaborative recommendations. Not all tables have an identified process to make formal recommendations.
Consent based/shared decision making	Lack of consensus on approach	Participants expressed different perspectives on the appropriate linkage of ESI table to governance and shared decision-making. Because consent/final

Table 4: Assessment of ESI's desired outcomes

⁸ Note that this section attempts to interpret the feedback from the technical teams. These outcomes have not gone through a formal approval process and are presented to attempt to reflect the input of the participants.

Desired ESI outcome	Are we there yet?	Comments/considerations
		decisions rest with individual First Nations appropriate
		government to government decision-making processes
		are required.
Integrated approach to	On the way	ESI has created a mechanism for the provincial
stewardship/wildlife		government and First Nations to align stewardship
management		management priorities and activities. ESI does not cover
		the full scope of activity but is demonstrating success.
Stable funding	Decisions	A decision on ongoing funding is required by the
	are required	provincial government. Decisions are also required on
		ongoing participation by participating First Nations.
Trusted information	Nearly there	ESI is making progress on developing trusted
		information. Inconsistency/limits on the use and sharing
		of information could undermine success.

10 DRAFT RECOMMENDATIONS

As part of the interview process, participants were not asked to make specific recommendations on next steps for ESI. However, based on a review of the benefits and challenges outlined in this paper the following recommendations are provided to government and participants as "draft" for consideration when developing collaborative recommendations for next steps on ESI.

10.1 EXPAND AREAS OF COLLABORATION BETWEEN ESI REGIONS

ESI should identify areas where coordination between regions could result in operational efficiencies and improved outcomes. Project teams are already coordinating work around data management, and there are examples of technical information sharing between regions (Skeena/Omineca Moose Summit).

Additional opportunities for collaboration could include:

- Developing a common inventory of skill sets required for key positions. For example, many First Nations are providing training to members of their Guardian programs. Developing a matrix of skill sets required for Guardian positions (for compliance and effectiveness monitoring) would provide a foundation for First Nations /ESI regions to develop annual training plans for Indigenous Guardians and other Indigenous staff.
- 2. Joint delivery of training programs. If ESI regions develop a matrix of common skill sets, there may be opportunities to leverage each region's funding to jointly deliver training opportunities across the North. This may create training opportunities that would not normally occur because of economies of scale, or that may not be available in a region.
- 3. Share information on assessment methodologies. ESI regions have identified common valued components as part of their assessment projects (i.e. moose, caribou). There may be benefits to hosting semi-regular workshops on assessment approaches, successes and challenges.

10.2 IDENTIFY A CLEAR PATHWAY FOR ESI STRATEGIC AND OPERATIONAL RECOMMENDATIONS

Project teams will be making recommendations that could have implications for policy and legislation, land use planning and operational decision making. While some regions have identified a process for the consideration of these recommendations there is a lack of consensus on how the collaborative process established in ESI will be respected in subsequent strategic planning processes (e.g. modernized land use planning).

In addition, some recommendations (e.g. those that affect changes to legislation) may not be able to be adequately addressed through a single forum or government to government agreement. Participants may want to identify a common process for bringing these types of recommendations forward.

10.3 Address data management and information sharing

ESI is playing an important role in updating old data and information on key values. This updated information could lead to the development of new management objectives in each region.

ESI project teams should continue to work together to address data management and information sharing and could consider including data management in future enabling agreements. While ESI is making progress on the development of trusted information, information is not necessarily widely available and accessible for decision-makers and industry.⁹

10.4 DEVELOP A TARGETED STAKEHOLDER ENGAGEMENT STRATEGY

There is a lack of transparency for stakeholders around the ESI process and the use of ESI data and protocols in operational and strategic planning. This lack of transparency could affect stakeholder and public support for the initiative.

ESI tables should develop a coordinated approach to engagement and information sharing with stakeholders, including specific guidance around expectations for industry.

10.5 ENDORSE A COMMON VISION FOR THE FUTURE OF ESI

ESI was initially established to respond to First Nation concerns around the Province's LNG strategy and the cumulative effects of development in the North. ESI has "grown" out of its original mandate to develop "trusted information" and has evolved into a model that has the potential to support shared decision making that integrates provincial and First Nation approaches to address stewardship priorities. While the FDMS report and this paper provide a number of recommendations on next steps, it is important that the Province and participating First Nations have a common vision around the ongoing role of ESI in stewardship management going forward.

⁹ The GWGE Data Management Working Group is developing a strategy to address data governance issues.

10.6 DEVELOP A COORDINATED APPROACH TO MONITORING AND EVALUATING PROGRESS

In order to provide a foundation for the development of recommendations, it is important that provincial and Indigenous governments are able to clearly demonstrate the benefits and outcomes of ESI.

ESI does not have a collaboratively developed set of performance measures for the initiative as a whole and as such, it is difficult to objectively demonstrate the benefits of the approach to decision-makers. Appendix 5 contains a set of proposed performance indicators that ESI could use as a basis for developing a performance management framework. These indicators have not been discussed with the participants and if adapted, participants would need to develop common definitions for each of the indicators and a common reporting framework.

11 CONCLUSION

By the end of FY 2020-21 ESI funding will be fully expended and most ESI projects will be complete. Indigenous and provincial leadership will be assessing ESI outcomes in 2020 to determine whether ESI should continue and if it does, whether it should continue in its current form.

The FDMS report provides an overview of the key learnings of ESI in building a model of collaborative stewardship between the Province and First Nations. This report has focussed on the operational impacts of ESI, including the impact of stewardship projects on resource management decision making and community capacity. While it is too early to assess the full impact of ESI, participants believe that ESI has opened the door for a more collaborative relationship between the Province and First Nations and that ESI projects will result in improvements to resource management decision making.

Both the FDMS report and this review show a high level of support for ESI by Indigenous participants and Ministry staff, which would indicate strong support for ESI to continue beyond FY 2020-21. In addition, this report has identified a number of challenges that could impact the ability of ESI projects to achieve their desired outcomes. Continued work to address these will allow leadership to fully assess the impacts of ESI and develop recommended next steps as the initiative enters its final year.

APPENDIX 1: NORTH COAST

Participating Nations

- Kitselas First Nation
- Gitxaala Nation
- Gitga'at First Nation

- Metlakatla First Nation
- Kitsumkalum First Nation
- Haisla Nation

1. Project Description

The NC ESI has initiated two projects:

- Cumulative Effects (CE)Project. North Coast (NC) ESI has aligned with the NC sub-region of the Marine Plan Partnership (MaPP) to develop an integrated NC CE Program for the monitoring, assessment, and management of cumulative effects with a focus on four initial values:
 - aquatic habitats estuary;
 - food security;
 - o access to resources; and,
 - o salmon.

Recent CE Project work includes Year 3 of a collaborative field monitoring program on the Skeena estuary, development of a comprehensive data management system to serve the diverse partner needs, development of a community-based survey to inform the current condition of the combined values of food security/access to resources, current condition analysis on the Skeena estuary, draft protocol for estuary CE assessment and foundational work to scope the salmon value.

- Restoration Project. This work includes data collection assessments and activities to support:
 - Riparian restorations (Stream temperature data collection, aquatic biomonitoring);
 - Fish passage restoration along the CN Rail corridor;
 - o Territorial classification to inform future restoration opportunities
 - Assessment and restoration of salmon habitats (freshwater and estuarine) and nearshore habitats that support non-salmon marine resources (herring, rockfish, intertidal bivalves, crab, and marine plants); and,
 - Restoration of intertidal clam beaches.

2. Project budget (2018/19)

North Coast (millions)	Estimated total spend to April 1, 2019	Additional budget forecast to March 2021
Direct Capacity Funding/Community	1.320	TBD
Engagement		
Stewardship (restoration ISPs)	0.522	TBD
Technical Contractors and Field Technician	1.236	TBD
Training		
Meeting Support and Facilitation	0.105	TBD
TOTAL	3.183	3.817
МАРР	ХХ	0.698

While there are no direct linkages to federal funding, some Nations are leveraging ESI funding to access other sources of funding:

- Gitga'at and Metlakatla leveraged ESI funds to access federal funds for clam bed restoration
- Gitxaala leveraged ESI funding/projects to access cumulative effects funding from DFO and integrated the CE project with MaPP CE projects; and,
- Kitselas leveraged training funded/provided through DFO and FHRI for use in ESI projects.

3. Forum progress to March 31, 2019

Cumulative Effects Project:

- Identified four initial values and project scope for implementation of the collaboratively developed MaPP CE Framework to assess, monitor and manage cumulative effects on core coastal and marine values. Developed a high-level workplan and began implementation.
- Aligned CE project with MaPP CE Initiative through the development of an Integrated 2019/20 ESI/MaPP CE Workplan and Budget endorsed by the NC RSF/Marine Working Group .
- Drafted an "Interim Assessment Protocol" for Estuaries.
- Developed a statistically robust selection tool in collaboration with MaPP to support field monitoring in the Skeena Estuary and NC Area.
- Developed and implemented field and drone monitoring protocols for eelgrass abundance and condition, fish communities in eelgrass, benthic invertebrate abundance (macro and meiofauna), kelp extent, bivalve tissue sampling, water quality, and sediment quality. Monitored at 29 sites in 2017 and 15 sites in 2018 to allow for spatial and temporal tracking of ecosystem health and inform current condition assessments of cumulative effects.
- Implemented coordinated field program in the Skeena Estuary.
- Undertaken a number of initiatives to improve information sharing and data management including:
 - Developed a geoportal to compile and collaborate on existing desktop data;
 - Developed a shared space for viewing and working with data before release; and,
 - Establishing a data management system that enables First Nations to view the analysis being generated and identify/upload data to fill gaps.
- Drafted a Food security/Access to Resources conceptual model, identified a draft suite of indicators, scoped the work to complete a community-based survey to inform the Food Security/Access to Resources value.

Restoration Demonstration Projects:

- Haisla completed forestry prescriptions and CABIN for 4 streams.
- Completed restoration strategy for Gitga'at territory
- Completed 1st year of stream temperature monitoring program in 10 streams in Gitxaala territory (important for food fish and fish population)
- Kitselas completed study of railway corridor restoration needs.
- Kitsumkalum completed stream classification and restoration needs along railway corridor.
- Metlakatla completed reconnaissance and planning for clam bed restoration.

Community engagement

North coast First Nations have been keeping leadership and community members informed throughout the development of ESI. Examples include:

- Gitga'at leadership and senior resource staff were consulted to develop the indicators currently being explored in the CE project (2017). Updates are provided through newsletters and community meetings have been held on the restoration strategy and monthly updates are provided to the Band Manager, Gitga'at Leadership Council, community meetings and Elder lunch gatherings
- NC ESI Project goals, workplan and selected values have been discussed with the Gitxaała Hereditary Table and elected Chief and Council (2017)
- The Kitselas Lands and Resources Department Director provides updates to Council. High level information on the ESI Project was included in community newsletters in 2017.
- Quarterly briefings are provided to the Kitsumkalum chief regarding ESI activities. ESI was addressed at the Kitsumkalum Annual General Meeting in 2017 and information on the restoration project has been provided through press releases.
- Progress on cumulative effects assessment and management through ESI, MaPP and Metlakatla's own cumulative effects management program has been presented to community members at several community meetings (Dec. 2017; Nov. 2018, March 2019). Quarterly updates are provided to the Metlakatla Stewardship Society Board of Directors and updates are provided to Chief and Council as required.

4. Key activities to be completed in FY 2019-20

- Gitxaala will collect additional stream temperature monitoring data this summer.
- Kitsumkalum will conduct a mock spill response in September with CN, local communities and spill response teams using data collected under their ISPs.
- Gitga'at will:
 - Complete restoration plans for Lax Kwil Dziiz and Lax Galts'ap,
 - Refine methodology for monitoring clam beach health and coastal development impacts on subtidal habitats that can be applied in other areas of Gitga'at territory and potentially in other First Nation territories,
 - Synthesize information about log handling in Gitga'at territory that will lead to ongoing stewardship of significant fish habitats,
 - Enhance Gitga'at capacity in modern monitoring and assessment techniques, data interpretation, and restoration techniques.
- Complete Skeena Estuary Current Condition Assessment.
- Initiate Estuary CE Protocol including identification of draft management triggers.
- Complete third year of Skeena Estuary Field Monitoring.
- Develop long-term monitoring strategy for the NC Nations.
- Complete initial round of Food Security/Access to resources community-based surveys to collect data to support the CE assessment.
- Initiate the interim Food Security/Access to Resource Current Condition Protocol.

- Design and implement first phase of the NC data management solution including beta testing of field data entry components.
- Scope and initiate Salmon value assessment including identifying indicators and initiating current condition assessment.
- Advance CE management by developing an understanding of management tools and levers, processes for identifying benchmarks, future scenarios and management triggers.
- Engage stakeholders, local governments through MaPP's North Coast Advisory Committee.
- Develop, disseminate communications materials to engage communities and wider public audience (e.g., newsletters).
- Formalization of CE Project integration through the completion of an addendum to the MaPP Implementation Financial Processes and Procurement Guidelines Manual that clarifies roles and responsibilities for implementation of the North Coast sub-region CE Project.

5. Project deliverables to March 31, 2019

- Completed two years of collaborative data collection program in the Skeena estuary on sediment and bivalve chemistry, benthic meiofauna and macrofauna, eelgrass condition and extent, kelp extent, fish in eelgrass and water quality.
- 1st year stream temperature data for 10 streams in Gitxaala territory.
- Data shared with BC Ministry of Environment to support assessment on CN rail corridor.
- Initiated development of the NC CE Geoportal and dataset inventory.
- Aquatic Habitats-Estuary Indicators Phase 1 Report.
- Aquatic Habitats-Estuary Conceptual Model and associated pathway of effects.
- Draft Aquatic Habitats Estuary Protocol.
- Access to Resources Conceptual Model.
- Food Security Conceptual Model.
- Knowledge summaries for 4 initial values.
- RSF endorsed Onboarding Policy.

6. Anticipated project deliverables FY 2019-20

- Updated stream temperature data.
- Year 3 of the Aquatic Habitats-Estuary field monitoring data.
- Estuary Current Condition Assessment (includes compilation of data and analysis for various desktop and field indicators).
- Food Security/Access to Resources survey results and analysis.
- Initiation of Food Security/Access to Resources Draft Assessment Protocol.
- Salmon Conceptual Model and workplan.
- Phase 1 of the NC CE data management system linked to the geoportal and MaPP metadata catalogue.
- RSF endorsed Dispute Resolution Policy.

7. Stewardship Recommendations

- First Nations are to incorporate local knowledge into cumulative assessment process. Recommendations will eventually be used to assess permit applications and EAs.
- Gitga'at developed management recommendations to support restoration activities and avoid future impacts.
- Cumulative effects data shared with MOE resulted in decision to delay herbicide spraying by CN.
- Metlakatla is using collected data to inform internal decision-making related to project risks and to make informed decisions on project applications.
- Information is being used by Gitxaala to make management decisions, support self determination and sustain Gitxaala fisheries.

8. Community Benefit

- A decision was made to prioritize First Nation capacity during implementation of the workplan and strengthen both managerial and technical capacity. Training has resulted in many aspects of work being led by First Nation technicians and through internal capacity, with reduced reliance on outsourced consultants. It means a lot in the community to have a community member leading environmental work in the field.
- Funding has helped with stable, reliable employment and staff retention. First Nations risk losing trained staff to private industry. Being able to extend the employment of staff helps retain institutional knowledge and support technicians in building their careers.
- The information and data collected are informing community decision-making and supporting selfreliance. Communities do not need to wait for government to fix things and can make their own management decisions.

Table 5 illustrates the number of positions being funded through ESI, MaPP and other related initiatives to assist communities to conduct stewardship activities in their territories. Table 6 identifies the number of people in Indigenous communities that have received training to support the CE and Restoration Projects¹⁰¹¹.

¹⁰ Note that NC ESI project are closely integrated with MaPP and other initiatives. This table depicts identified First Nation staff who have been assigned to work on ESI projects. These staff may be funded through multiple sources. ¹¹ Note that the identified capacity building activities reflect a point in time and may not capture all activities that have occurred during the term of the project.

Table 5: Positions funded through ESI

	Kitselas	Gitxaala	Gitga'at	Kitsumkalum	Metlakatla	Haisla	Multiple Nations	Total
Positions		5	7			3		15
Table 6: Number of people receiving training (2016-19)				_				
Training ¹²	Kitselas	Gitxaala	Gitga'at	Kitsumkalum	Metlakatla	Haisla	Multiple Nations	Total
Safety and sampling protocol training for water quality, sediment chemistry, invertebrate (meio and macrofauna) and eelgrass and fish survey and sampling							40	40
Training in eelgrass UAV imagery processing							6	6
Basics of aerial photography	1							1
Field data collection/use of Arc GIS	1							1
Spatial analysis of aerial imagery	1							1
Field training: water quality/sampling procedures	4							4
Environmental monitoring			10					10
Archaeology assessment			4					4
Vessel operator course 1			20					20
Vessel operator course 2			20					20
Dive course			2					2
Small engine repair			10					10
Data management training			1					1
Wildlife monitoring				1				1
iPad (apps, application and use)				8				8
Swift water rescue				5				5
Possession and Acquisition Licence (PAL)				3				3
				5	0			5
design/sampling of clam beaches					8			8
Conflict resolution training	_				2			2
Indigenous mapping workshop					1			1
Kelp inventory training					3			3
Drivers training						5		5
Total	7		67	22	14	5	46	161

¹² This table may not reflect all training opportunities that have been provided and the number may not reflect discreet individuals as the same individual may have participated in multiple training opportunities.

9. Stakeholder Engagement

- Stakeholders and local governments are not directly involved in the ESI projects.
- Updates have been provided to MaPP's North Coast Marine Plan Advisory Committee comprising a range of stakeholders and local government representatives with marine and coastal interests (October 17, 2017; March 8, 2017).
- ESI updates have also been provided to the Prince Rupert Port Authority Environmental Stewardship Committee comprised of both government and non-governmental participants including industry that rely on the Port of Prince Rupert

10. Linkages to other strategic initiatives

- Data and recommendations will be used to support and develop recommendations for environmental assessments, cumulative effects assessment and management activities led by other agencies/organizations/governments (e.g., OPP), and spatial planning initiatives (e.g., marine spatial planning led by Canada, and the Canada-BC-First Nations marine protected area network planning initiative).
- A key outcome from 2019/2020 will be to develop a long-term integrated monitoring strategy to support CE and leverage related monitoring initiatives.
- Increased capacity at the field level has encouraged and enhanced community monitoring programs e.g. communities are advancing the same types of monitoring across broader areas.
- Information and data will also support some First Nations to develop a territorial land use plan.

APPENDIX 2: SKEENA

1. Participating Nations

- Gitxsan Nation
- Gitanyow Nation
- Office of the Wet'suwet'en
- Simgiget'm Gitwangak Society

2. Project Description

- Witset First Nation
- Hagwilget Village
- Wet'suwet'en First Nation
- Lake Babine Nation
- Skin Tyee Nation
- Nee Tahi Buhn Band

The Skeena Sustainability Assessment Forum (SSAF) Framework enabling agreement was signed in May 2016. The project includes a series of Indigenous Stewardship Projects (ISPs) with each participating First Nation which provide capacity for First Nations to engage in ESI and contribute Indigenous perspectives to the development of protocols to be used for assessment and monitoring of five collaboratively chosen values (Grizzly Bear, Moose, Wetlands, Medicinal Plants and Fish/Fish Habitat). Where possible, the values were chosen to align with the corresponding provincial CEF values of old forest, hydro riparian, grizzly bear and moose.

The project will result in a jointly produced report that outlines the status of the values, or current condition, based on the protocols, associated data collection and analysis.

3. Project budget (2018/19)

Skeena (millions)	Estimated total spend to April 1, 2019	Additional budget forecast to March 2021
Direct Capacity Funding	0.645	TBD
ISPs (including restoration)	2.143	TBD
Community Engagement	0.155	TBD
Training	0.144	TBD
Technical Contractors for ESI	0.462	TBD
Meeting Support and Facilitation	0.206	TBD
TOTAL	3.755	3.244
Federal Funding (MMPO)	1.000	TBD

In addition to the funding identified above, First Nations have also leveraged ESI funding to initiate/receive support from:

- Department of Fisheries and Oceans Canada;
- The federal Indigenous Guardians Pilot Program;
- The Federal Habitat Restoration Initiative (FHRI);
- Indian & Northern Affairs Special Projects Initiatives (SPI);
- BC Freshwater Legacy Fund;
- University of Victoria;

- Royal Roads University;
- University of Guelph;
- The BC Wildlife Federation;
- Tides Canada and the Betty Moore Foundation; and,
- Coastal Gas Link, via Environmental Assessment Office (EAO) LNG Certificate Conditions

4. Forum progress to March 31, 2019

- Established the SSAF governance structure and terms of reference/Framework Agreement.
- Established the SSAF Science Technical Committee (STC), comprised of First Nation technical representatives, meeting regularly to develop the technical requirements associated with assessing and monitoring each value.
- Established a Data Management Framework, Skeena ESI Data Rider, and Data Governance Framework that is now being leveraged for use across North Area ESI forums.
- Shared cost agreements (SCAs) to support ISPs were signed with: Gitanyow; Lake Babine; Wet'suwet'en First Nation; Office of the Wet'suwet'en; Gitxsan; and, Gitwangak.
- Skeena ESI has hosted four Community Engagement Workshops to reach out to community members, four value-specific Expert Workshops, three All-Nation Gatherings, and numerous events in First Nation communities, focussing on showcasing the work of ESI, and the unique attributes of the collaborative ESI model. Defined value study areas based on participant traditional territories.
- The Expert Workshops identified gaps in decision making, policy, and legislation, and enabled the ESI Nations to identify how the work of the SSAF can help to fill those gaps, from an Indigenous perspective.
- Defined value study areas based on participant traditional territories and established a collective Skeena ESI Study Area spatial boundary.
- Developed project workplan and consistent standards and methodologies for data collection.
- Pilot project initiated with Lake Babine to integrate Indigenous knowledge into the Forest and Range Evaluation Program (FREP), resulting in a new FREP Wetlands Protocol.

5. Key activities to be completed in FY 2019-20

- A Technical Moose Summit was held with the Omineca ESI in April 2019 to share information and best practices.
- The SSAF will:
 - Complete current condition State of the Values reports (Tier 1) for the Skeena ESI area.
 Draft state of the values reports for grizzly bear, fish and fish habitat, and wetlands will be completed in the Fall/Winter of 2019. Field validation (Tier 2) of the data will continue and will be used in subsequent versions of the report;
 - continue to refine the data management framework that addresses the governance, ownership, use, and sharing of information gathered as part of the project;
 - Begin to develop a Guidance for Decision Making handbook that will help statutory decisionmakers use ESI information.
 - \circ $\,$ Deliver $\,$ Integrated Monitoring and Assessment Reports, using the SSAF State of the Value report.

- Gitwangak will identify the study area for its ISP on fish habitat, moose and pine mushrooms. This project will include the development of a Pine mushroom habitat assessment protocol and a fish and fish habitat assessment protocol.
- Wet'suwet'en First Nation will move forward on its moose ISP in partnership with other Skeena ESI Nations conducting collaborative moose habitat assessments. Key activities will be identifying priority moose winter habitat, engaging stakeholders on access management, developing vegetation prescriptions to support habitat restoration and implementing a monitoring and field verification plan.
- Office of the Wet'suwet'en will complete a season of data collection under the Wet'suwet'en Fisheries Mark and Recapture program, evaluate CABIN sites for fall sampling, and conduct an Environmental Flow Needs (EFN) Pilot assessment in partnership with BC, the University of Victoria, and the BC Freshwater Legacy Fund
- Gitanyow will complete moose harvest monitoring, moose habitat assessment and verification, wolf population data assessment and fish and fish habitat assessments.

6. Project deliverables to March 31, 2019

- **Draft winter moose distribution study** completed for the Gitxsan Nation Gwii Yeehl Lax Yip (June 2018).
- Office of the Wet'suwet'en completed an Upper Bulkley fish and aquatic analysis of impacts to anadromous and freshwater fish and fish habitat in the Bulkley watershed.
- Wet'suwet'en First Nation completed an assessment of barriers to fish passage within their Traditional Territory (March 2018) and conducted rehabilitation activities at four aquatic restoration sites.
- Gitanyow completed a number of activities under their ISP including:
 - An impact assessment of road density on moose, grizzly and salmon in the Gitanyow Lax'yip;
 - A salmon habitat assessment for the Skeena and Nass Watersheds (2017);
 - Collection of hydrometric monitoring data for key streams in the Gitanyow Lax'yip; and,
 - Salmon habitat restoration in the Hanna Tintina Watershed (also supported by the federal Department of Fisheries and Oceans and Gitanyow resources).
- Lake Babine's wetland ISP collected wetland field data that incorporated Lake Babine' cultural values and knowledge. Lake Babine also trialed a draft FREP rapid function assessment model for wetland assessments in partnership with BC, and the BC Wildlife Federation.
- Skin Tyee completed an ISP in 2017 on traditional and medicinal plants, which included of a database, protocols and policy and training and community engagement.

7. Anticipated project deliverables FY 2019-20

- Participating First Nations will finalize monitoring and assessment protocols for the five values. First Nations will continue to collect data in support of a determination of current condition for each value, using those jointly developed protocols. Current condition will be presented in a State of the Values Report.
- Gitwangak will complete an inventory and gap analysis of existing data for fish habitat, moose and pine mushrooms in the Gitwangak Laxyip. The Gitwangak ISP will also:

- Complete a GPS mapping of Gitwangak fishing sites;
- Complete a Gitwangak Catch Effort Protocol;
- o Complete a Pine mushroom habitat assessment protocol; and,
- Implement a moose hunting monitoring and permitting pilot.
- Wet'suwet'en First Nation will select sites to enhance moose habitats and reduce threats to moose. This will include site selection rationale and field verification surveys of habitat suitability and moose use.
- Lake Babine will finalize a Wetland Monitoring Report that will include a geodatabase of wetlands, wetland assessment sites and Lake Babine critical cultural zones and a wetland monitoring standard operating procedure.
- Office of the Wet'suwet'en will have further data collected on: Fish stocks, hydrometric, temperature, environmental flow needs assessment, mapping on selected sites and salmon substrate suitability mapping.
- Finalized protocols for Grizzly Bear, Wetlands, Fish and Fish Habitat.

8. Stewardship Recommendations

- Recommendations from the SSAF State of the Values Report may include:
 - o new or enhanced operational guidance for forest licensees;
 - recommendations for a series of stand-level retention scenarios, presented as varying levels of ecological protection and associated operational/economic implications;
 - riparian management recommendations for small streams (S4-S6) and buffer width requirements;
 - spatial approaches to biodiversity that capture at least two of the SSAF values (wetlands, medicinal plants);
 - wildlife management recommendations (e.g. changes to moose harvest allocation, territorial restrictions); and,
 - recommendations for collaborative management of fish and wildlife including new, or revised policies, procedures.
- ISP project deliverables will be used to streamline monitoring and assessment protocols for the SSAF and will feed into the decision-process or result in ESI recommendations to decision-makers. Examples include:
 - Moose monitoring and harvest data being used to inform decisions around the total allowable harvest;
 - The Gitxsan are working with provincial biologists to develop a new way of managing goshawk habitat that will influence forestry decisions;
 - o Restoration work is being used to inform joint management planning with BC Parks; and,
 - Hydrometric data will support informed decision making on *Water Sustainability Act* water allocation decisions.

9. Community Benefit

• ESI has provided funding certainty to help develop and implement the Indigenous Guardian Program.

• Participants have found that the partnership with provincial experts has allowed the parties to work collaboratively to fully assess the state of the values and has created positive and mutually beneficial working relationships.

ESI funding has also supported capacity building¹³ in the participating Indigenous communities. Table 7 illustrates the number of Indigenous positions funded through ESI to assist communities to conduct stewardship activities in their territories. Table 8 identifies the number of people in Indigenous communities that have received training to support the SSAF and ISPs as part of the SSAF training plan.

Table 7: Positions funded through ESI

Funded positions	Gitxsan	MO	LBN	Hagwilget	Skin Tyee	NTB	Witset	WFN	Gitanyow	Gitwangak	Other	Total
Field Technicians	4	4	2		4			3	4	1		22
Field Coordinator	1	1	1					1	1			5
Guardians	2	2							2			6
Other (SSAF, SCT Members)		1		1		1	1			1		5
Total	7	8	3	1	4	1	1	4	7	2		38

Table 8: Number of people receiving training (FY 2018-19)

Training	Gitxsan	MO	LBN	Hagwilget	Skin Tyee	NTB	Witset	WFN	Gitanyow	Gitwangak	Other	Total
eDNA - fish and amphibians	2	3							2		4	11
Wetland training Part 1, RAPID assessment	1	2	1								4	8
GIS Module 1: Building field forms with Filemaker	2	2					1					5
GIS Module 2: Overview of Arc GIS Online	2	2	2				1	2	2			11
BEC, plant ID	2							1	1		1	5
GIS Module 3: Using an iPad in the field	3		1				2	2	2			10
Grizzly bear hair snare	1	2							3		1	7
CABIN - eDNA and TEK	1	2	1					1	2		2	9
Hydrometrics		2						1	3			6
Moose browse surveys/ habitat assessment	2		2					1	2		3	10
Data management	2	2	2					1	2	1		10
Intro to GIS, QGIS,	1	2	2					1	2	1		9
Total	19	19	11				4	10	21	2	15	101

10. Stakeholder Engagement

• The SSAF has an evolving stakeholder engagement plan. Stakeholder engagement to date includes:

¹³ Note that the identified capacity building activities reflect a point in time and may not capture all activities that have occurred during the term of the project.

- Forest licensees are engaged through existing forums including the Timber Supply Area (TSA) steering committee, the Northern Operational issues Forum and District contacts;
- Updates are provided to the Skeena Region Manager Committee (SRMC, multi-sector), and the FLNRO Regional Management Team (RMT). SRMC and RMT members are accountable for disseminating relevant information to their relevant sectors and clients;
- The Science and Technical Committee (sub-committee of the SSAF) provides a standing invite to industry to attend meetings and is examining options for sharing protocols and data with industry; and,
- First Nations are using information collected through ESI to inform engagement with industry on LNG pipeline work and to minimize and avoid impacts to critical values. Coastal Gas Link and the LNG pipeline sector is engaged with the First Nations, and the parties are working together to identify operational regimes that will minimize disturbance to key environmental values.
- The Skeena and Omineca ESI teams recently presented to the BC Forest Practices Board and discussed opportunities for potential information sharing, training, and ongoing discussion on collaboration on forestry-specific and integrated monitoring opportunities.

11. Linkages to other strategic initiatives

- ESI State of Values Reports (data and assessments) will be a key input into regional modernized LUP and will support LUP implementation.
- ESI modelling and data is expected to replace provincial cumulative effects protocols in the Skeena Region / SSAF area.
- SSAF Landscape Level assessments will be used in the CE determination section of Timber Supply Reviews, to indicate how relevant and current CE information has been taken into account in Timber Supply and Allocation decisions.
- ESI protocols, data and assessments will be a key input into FREP and MRVA protocols (effectiveness evaluations of forest practices).
- ESI inputs, forum and programs will be instrumental in assessing management of values on the land base through, for example, participating First Nation Guardians Programs.

APPENDIX 3: OMINECA

1. Participating Nations

- Carrier Sekani Tribal Council
 - Tl'azt'en Nation

•

- Nadleh Whut'en •
- Ts'il Kaz Koh First Nation • (Burns Lake Band)

 Nak'azdli First Nation • Saik'uz First Nation

Takla Lake First Nation Stellat'en First Nation

2. Project Description

The Omineca Demonstration Project is conducting a cumulative environmental effects assessment on the condition of three valued ecosystem components:

- Forest biodiversity; •
- Moose; and, ٠
- Anadromous fish/riparian.

The Project is beginning to examine the implementation of collaboratively developed management responses to the assessments of the VECs completed to date.

3. Project budget

Omineca (millions)	Estimated total spend to April 1, 2019	Additional budget forecast to March 2021
Direct Capacity Funding (hires)/ Training	0.970	
Stewardship Projects	0.182	
Community Engagement	1.140	
Technical Contractors for ESI (including	1.167	
First Nation contractors)		
Meeting Support and Facilitation	0.676	
TOTAL	4.135	2.864

4. Forum progress to March 31, 2019

- Executed Omineca Demonstration Project Agreement (October 2016) and Renewal Agreement (June 2018).
- Developed project work plan (June 2016) that provides a structure for the collaborative approach and how VECs are assessed.
- Signed contribution agreement (November 2016) to support project activities and CSFN participation.
- Collaborative identification of interests and consideration of 33 criteria and ranking and weighting select criteria to inform biodiversity modeling exercise (July 2017).
- Engaged CSFN communities to gather traditional knowledge from Elders and knowledge holders to identify and/or confirm locations of importance for forest biodiversity and other values.
- Held outreach session with the Okanagan Nation Alliance, CSFN and BC on fisheries management capacities (February 2018)
- Completed habitat effectiveness model (March 2018)

- Engaged First Nations knowledge holders and BC government staff to identify areas of moose winter range. Developed a winter range model to identify areas through a GIS exercise (July 2018).
- Conducted joint char/lake trout surveys (August 2018)
- Completed information sharing and consensus making protocols and peer review procedures
- Initial Suite of collaboratively developed Immediate Forest Management Measures (IMs) approved by Chiefs and Ministers (September 20, 2018)
- Project team agreed to support and inform the development of an Ecosystem Restoration Plan (ERP) in response to the Shovel Lake and Island Lake wildfires.
- Conducted risk assessment for Biodiversity Management Area options analyzing the risk to biodiversity, watershed health and moose posed by different management options.
- Negotiated MOU with regional forest licensees to support the development and implementation of IMs.

5. Key activities to be completed in FY 2019-20

- Engage of licensees to facilitate voluntary adoption of IMs.
- Update Biodiversity Management Areas (BMAs) to reflect updated age layer, VRI and verification/validation. Develop options for prioritization of avoidance and co-location of high value interest for multiple VECs and analyze associated implications.
- Institute GAR Order for ungulate winter range (UWR).
- Draft Terms of Reference for Resource Management Planning / Land Use Planning and submit to Leadership Table for endorsement.

6. Project deliverables to March 31, 2019

- Completed cumulative effects assessment of the moose population.
- Developed **Bayesian Belief Network Model** to examine cause-and-effect of moose population decline.
- Developed **Moose Winter Habitat Effectiveness Model** to assess suitable habitat and impacts to moose populations.
- Developed **UWR options and recommendations** for BC GAR Order.
- Completed **Biodiversity Spatialization Report** that identifies four sensitivity scenarios of risks to forest biodiversity (NRV), moose and fish/watershed health.
- Developed **IM Landscape Dashboard** to display key spatial layers (UWR candidate areas, biodiversity spatial options, ISS, FTA blocks, and watershed value/sensitivity score) to support IM planning.
- Completed Forest Biodiversity Current Condition Conceptual Mapping.
- Completed technical studies to inform habitat/population modeling (shrub, diet).
- Completed Omineca Fish Action Plan.
- Completed Hydroacoustic trawl surveys at Stuart Lake and Trembleur Lake and associated technical report.
- Developed Initial Suite of Immediate Forest Management Measures (IMs).

7. Anticipated project deliverables FY 2019-20

- Updated biodiversity management areas (**Biodiversity Spatialization Report 2.0**) to reflect new data.
- Narrowed down UWR candidate areas (map 2.0).

- Complete Moose, Riparian and Biodiversity IM Practices for implementation by licensees.
- Complete **biodiversity analysis** that:
 - Reconciles industry/Omineca ESI estimates of old forest, interior forest and mature/merchantable timber;
 - o Analyzes intersects between forest biodiversity and other VECs to support co-location; and,
 - \circ $\;$ Analyzes Implications to harvesting interests over various timeframes.

8. Stewardship recommendations

The Omineca ESI project team has made a number of recommendations for provincial and Indigenous decision-makers:

- The Omineca Project team made recommendations on Immediate Forest Management Measures (IMs). These IMs were approved by the Leadership Table (Chiefs & Ministers). Recommendations included:
 - BMA avoidance to support improved biodiversity outcomes and recovery timelines;
 - Moose UWR protection and habitat suitability mitigation (management practices);
 - o Improvements to stream and wetland riparian management regimes; and,
 - o Improvements in forestry planning to facilitate coordination between ESI, CSFNs and licencees
- The team collaboratively developed UWR options and recommendations to be included in a BC GAR Order in the fall of 2019.
- Collaboratively developed information is not always being shared/used to support decision making, which is a challenge that should be addressed by the team.

9. Community benefit

- ESI has facilitated a greater understanding of provincial management regimes amongst the participating First Nations. This enables the First Nations to have informed discussions within the community, and with licensees and the Province on stewardship and forestry. ESI has also helped the First Nations to understand and navigate FLNRO decision making processes so that Indigenous stewardship values can be incorporated into stewardship activities.
- In some CSFN communities, family members are building technical capacity and are being employed to participate in pre and post assessment of practices.
- ESI is supporting the development of technical, governance and employment capacity that supports Indigenous land management objectives and can provide a technical foundation to support decision making.
- Incorporating Indigenous stewardship values into management activities is a key component of supporting CSFN community healing.

ESI funding has also supported capacity building¹⁴ in the participating Indigenous communities. Because of the immediate pressures of cumulative effects impacts on the VECs Omineca has primarily focussed resources on technical analyses to refine and implement management responses. Table 9 identifies the number of people in Indigenous communities that have received training to support the SSAF and ISPs as part of the SSAF training plan.

¹⁴ Note that the identified capacity building activities reflect a point in time and may not capture all activities that have occurred during the term of the project.

Table 9: Number of people receiving training

Training	# trained
Moose pellet collection, shrub surveys (plot surveys), stratified random block aerial surveys, moose UWR	12
validation/verification, and lake trout/char (SPIN surveys)	
Sockeye recovery capacity through a workshop hosted by the Okanagan Nation Alliance	
Wildlife and resident/freshwater fisheries harvest monitoring capacities within each CSFN community	
FRPA foundations and best management practices	
Total	48

10. Stakeholder engagement

- Omineca ESI has engaged select forest licensees through a Memorandum of Understanding (MOU) that commits the parties to collaboratively work together to refine and voluntarily implement IMs.
- The Omineca team has established working groups with select licensees to develop the IMs for forest management, moose, riparian and biodiversity.
- Limited progress has been made towards IM implementation through voluntary or other means, and the project team is pursuing a Regional Management Plan TOR as a priority.
- The Province has begun to engage non-Indigenous communities on the information generated through the ESI projects.

11. Linkages to other strategic initiatives

- ESI modelling and data is expected to replace provincial cumulative effects protocols in the Omineca region.
- Some of the priority activities in the provincial Omineca Moose Action Plan has been delivered through ESI.
- Omineca ESI is discussing the creation of a collaborative modernized LUP mandate. ESI data will be a key input into LUP and will support LUP implementation.
- Omineca ESI is being engaged on updates to FRPA.
- Omineca ESI will work with the provincial caribou team to assess caribou recovery objectives and support engagement (where needed).

APPENDIX 4: NORTHEAST

1. Participating Nations

- Doig River First Nation
- Halfway River First Nation
- Saluteau First Nations
- West Moberly First Nations
- Mcleod Lake Indian Band
- Blueberry River First
 Nations

• Prophet River First Nation

2. Project Description

The Northeast ESI is conducting a Regional Strategic Environmental Assessment (RSEA) that is assessing the cumulative effects assessment of impacts to 5 valued components (old forest, water, moose, peaceful enjoyment and environmental livelihoods) identified by the First Nations as important to the practice of Treaty 8 rights. The project has two main components:

- Developing landscape models to support assessment of the selected values as they related to the exercise of treaty rights and the development of forestry and petroleum/natural gas; and,
- Building an optimization modeling framework to conduct scenario analyses and integrated assessment that would serve as analytical tool to assess management recommendations.

3.	Project	budget	(2018/19)	
----	---------	--------	-----------	--

RSEA (millions)	Estimated total spend to April 1, 2019	Additional budget forecast to March 2021
Direct Capacity Funding (hires)	2.339	TBD
Stewardship Projects	0.914	TBD
Community Engagement	0.343	TBD
Technical Contractors for ESI (including	0.952	TBD
First Nation contractors)		
Meeting Support and Facilitation	1.055	TBD
TOTAL	5.60	1.40

4. Forum progress to March 31, 2019

The RSEA project team (PT) achieved the following milestones in the 2018/2019 fiscal year:

- Completed the identification and description of 5 valued components ("VCs") and associated indicators appropriate for assessing effects of natural resource development activities on the meaningful exercise of Treaty 8 Rights within the Study Area.
- Identified a Study Area that is within the vicinity and overlaying the Montney Shale Gas Play.
- Defined how to assess the risk to VCs from disturbance due to various natural resource development scenarios. This work included developing the Scope of Work and budget for the Methods Pilot, completing the RSEA disturbance layer, and receiving draft protocols and preliminary results for the VCs of peaceful enjoyment, old forest, water, and moose.
- Defined the development interests of the Parties and associated indicators.

- Completed the development of a comprehensive list of Moose Best Management Practices (BMPs) that could be incorporated into the work of the Methods Pilot.
- Water quality and quantity (surface water) completed for the major watersheds with a Disturbance-Sensitivity Analysis.
- Completed the coarse filter for Peaceful Enjoyment based on an updated ROS 2019 following Provincial standards.
- Completed data management plan that outlines data management roles and responsibilities, coordination, protocols, and standards for all working groups, projects, and the RSEA project team.
- Completed the Disturbance Methodology and the Disturbance Layer development and roll-out. Provincial quality assurance was conducted between August to November 2018 and information webinars were conducted for RSEA participants and provincial staff.
- Methods Pilot initiated to develop and assess the impact of a range of Forestry and PNG development scenarios on RSEA values within the Fort St John Timber Supply Area (TSA). The Methods Pilot assessments will be used to inform management recommendations including those within the Fort St. John Land and Resource Management Planning (LRMP) update. The forestry and Montney PNG data package is complete.
- Research design and data collection for the Environmental Livelihoods project that organizes information related to values associated with traditional use.

5. Key activities to be completed in FY 2019-20

- The forum is examining the utility of incorporating ecosystem mapping into the moose habitat effectiveness model. A workshop occurred in July 2019 to enable a deeper examination of the results to determine if this work should be extended to the entire study area.
- Methods pilot will:
 - o Work to complete a comprehensive set of ecological and First Nation values and indicators;
 - Test and provide a methodology for optimization of development (focus on forestry and PNG) and treaty rights that could be used for the full RSEA study area
 - Identify potential management responses that avoid, minimize, mitigate, offset or respond to the effects identified on the ecological function and the exercise of Treaty 8 Rights; and,
 - Identify data gaps and lessons learned.
- Environmental Livelihoods project data analysis to be completed.
- A Moose Habitat Effectiveness Model current state of Moose Habitat will be completed
- Complete a strategic assessment of water quality following the methods outlined in the Disturbance Sensitivity Model. Hydrological base line information will be collected by the end of September 2019 to improve the RSEA Disturbance Sensitivity Model for water quantity.

6. Project deliverables to March 31, 2019

- Moose Habitat Effectiveness Model.
- Moose Best Management Practices (BMPs).
- Strategic assessment of water quality.
- Functional Analysis of old forest was completed for the entire study area; the data is currently available, and a report and updated protocol has been prepared.
- Updated ROS for the RSEA study area.

- Disturbance methodology and mapping across all of Treaty 8.
- Methods Pilot completed:
 - A comprehensive set of values and indicators; and,
 - The forestry data package.
- Research design and data collection for the Environmental Livelihoods for values associated with traditional use.
- Intensity TUs for Doig River First Nation.
- Water quality and quantity (surface water) completed for the major watersheds with a Disturbance-Sensitivity Model.
- Environmental Livelihoods analysis and reporting for Saulteau First Nation, McLeod Lake Indian Band, and West Moberly First Nation that includes:
 - Maps of food harvesting and distribution
 - Food security information
 - o Information on how disturbance and access is affecting traditional use
- Results from 3 trail mapping trips for the Doig First Nation traditional use and knowledge mapping study (This work is not available to the RSEA, pending the finalization of Non-Disclosure Agreements).

7. Anticipated project deliverables FY 2019-20

- The RSEA is in the process of completing most of the baseline work for identifying and mapping the valued components and determining the appropriate indicators. Some of this work will support the Methods Pilot while other work will be used in a broader analysis for the entire RSEA study area.
- In FY 2019-20 the Methods pilot will complete:
 - The petroleum and natural gas data package (complete as of July 2019);
 - Spatially explicitly assessments of the impact of status quo and forestry, and natural gas development scenarios for old forest values and other forest biodiversity indicators in the Fort St. John TSA;
 - Assessments of the impacts of the development and management response scenarios (land use scenarios) on the development interests of the Parties including but not limited to ACAC, access to oil and gas resources and carbon; and,
 - Management responses that avoid, minimize, mitigate , offset or respond to the effects identified on the ecological function and the exercise of Treaty 8 Rights; and,
 - \circ An analysis of the effect of potential interim measures scenarios on key indicators.
- Hydrologic modelling to understand the streamflow variability in watersheds, including an assessment of the variability of annual low and mean flows of the watersheds within the RSEA study area.
- The RSEA will be submitting recommendations by April 2020.

8. Stewardship Recommendations

- The Project Team made recommendations about multiple cut blocks within BRFN critical areas (for Canfor and BCTS) under the Forestry IM Agreement
- A number of recommendations were made under the PNG IM Agreement for tenure requests and activity applications.

• Management recommendation are expected to be delivered in fiscal year 2020/21 when the RSEA completes its initial mandate. These will include recommendations regarding the impact of development activities on environmental livelihoods.

9. Community Benefit

- Most RSEA funding has been targeted to support analysis work.
- Some training will occur this summer to support the livelihoods project.
- The Doig River First Nation has been transferring knowledge from elders to youth as part of the trail mapping project. Two members have received chainsaw safety training/ticket as part of the project.

10. Stakeholder Engagement

- Oil and gas industry representatives are observers in the RSEA, with some members participating directly in the Project Team.
- Forest industry representatives are involved directly in the interim measures.
- Both the oil and gas sector and the forest sector have been involved in demonstrations of the analytical tools to be used in the methods pilot.
- In the interim to final recommendations, the Halfway River First Nation is using RSEA data to inform forestry companies (Canfor/BCTS) on First Nation interests and how to mitigate impacts to those interests.

11. Linkages to other strategic initiatives

- Strategic initiatives underway in the Northeast include:
 - Caribou recovery (both Central Mountain and Boreal);
 - o Cumulative Effects Framework Interim Policy and Regional validation;
 - The BC Oil and Gas Commission's Area-Based Analysis (ABA) framework;
 - Revising the Fort St. John LRMP; and,
 - Land use commitments linked to Government to Government Agreements, fee simple land transfers linked to treaty settlement, Site C IBAs and Site C negotiations with West Moberly and Prophet River First Nations.
- The RSEA analysis will link to activities associated with all of these initiatives. Discussion on linkages to other land and resource planning initiatives (i.e. Fort Nelson) also needs to occur.

APPENDIX 5: DRAFT PERFORMANCE INDICATORS

	Desired Outcomes	Performance Indicator
٠	Supports consent based/shared decision making	# of completed forum enabling agreements outlining
	(along with associated capacity)	governance and shared decision-making models
		# of Indigenous Nations participating in the CSF
		# of Indigenous training and employment opportunities
		# of Indigenous employment opportunities within
		Indigenous governments
٠	Trusted, common information base	# of stewardship projects collaboratively designed and
٠	Integrated approach to wildlife and stewardship	implemented by Province and Indigenous Nations.
	management	% of resource management decisions using agreed upon
٠	ESI influences resource management decisions	information developed by the CSF
		Indigenous Nation and community perceptions on
		trusted information and decisions
		Policies and agreements focused on data sharing and
		appropriate use of Indigenous knowledge
٠	Transparency and minimize conflicts over	Average time required for a decision
	economic development and natural resource use	Public and industry perceptions on stewardship
		management and development certainty.