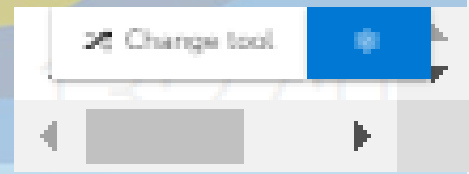
Environmental Management under Land Code



TMPD Virtual Workshop
December 7 & 8, 2022

9:00 AM PDT
3 Hours

Welcome

GUIDELINES & TOOLS

Mute Devices

Recorded Session

Closed Caption

Presentation & Materials

Questions & Comments

AGENDA & OBJECTIVES

	DAY ONE - Dec 7, 2022 - Zoom Opens	DAY TWO - Dec 8, 2022 - Zoom Opens
8:45 AM		
9:00 AM PST*	**Welcoming & Overview -** Review of Objectives, Scope & Session	**Welcome & Review** of Day 1
9:05 AM **40 min**	**1.1 Practical Tools for Environmental Management Planning** RC presentation by Chantal Kitamura • Magnetawan First Nation – Samantha Noganosh • Bingwi Neyaashi Anishinaabek - Jessica Hubbard • Malahat Nation - Melissa Tokarek	**2.1 ESAs: beyond Phase I** RC presentation by Jennifer Predie • Sheshegwaning First Nation – Nancy Cada • Membertou First Nation – Trevor Bernard
9:45 AM **40 min**	**1.2 Environmental Assessment** RC presentation by Jennifer Predie Key elements of a good EA process, 10 basic steps to include in an EA process - to assist FNs that are looking to develop their interim EA processes and laws.	**2.2 Enforcement of Environmental Laws** RC presentation by Wade Davidson • Malahat First Nation – Melissa Tokarek • Whitecap Dakota First Nation – Murray Long & Tracey Lafond • Haisla Nation – Howard Vroon
10:25 AM	Health Break – 10 min	Health Break – 10 min
10:35 AM **40 min**	**1.3 Solid Waste Management** RC presentation by Stefanie Recollet • CIER Waste Warriors – Shianne McKay • North Shore Tribal Council – Bea Rodh • Lower Nicola Indian Band – Stephen Jimmie • BC Zero Waste Program (IZWTAG) – Emily Chu	**2.3 GIS as an Environmental Management Tool** RC presentation by Leeanna Rhodes • Temagami First Nation - Victoria Winsor • Flying Dust First Nation - Chico Bear • Kitselas First Nation - Jason Petho
11:15 AM **40 min**	**1.4 Guest Presentations** • Indigenous Zero Waste Technical Advisory Group (IZWTAG) - Tania Solonas • Magnetawan First Nation – Nadine Perran • Malahat First Nation – Melissa Tokarek	**2.4 Guest Presentations** • Wahnapitae First Nation – Anthony Laforge • Indigenous Protected and Conserved Areas Toolkit - Kerrie Blaise, Blaise Law
11:55 AM	**Networking & Discussion**	**Networking & Discussion**
12:00 PM	**End Day One**	**Close of Workshop**

Environmental Management under Land Code

Practical Tools for Environmental Management Planning

Presented by:

Chantal Kitamura

RC Environment & Enforcement Advisor

Image: Scandasia.com

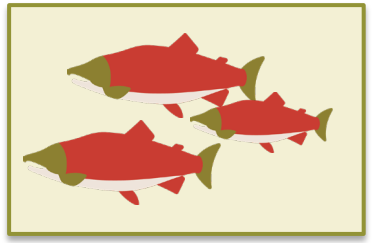
What is Environmental Management Planning

Environmental Management Planning

Making decisions on how to preserve the quantity and quality of your lands

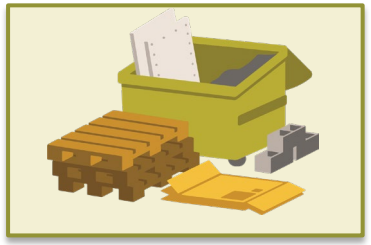
Identifying key environmental goals

What do you want your community to look like in 10 years, 50 years, 100 years, etc.?



Identifying important environmental issues

What issues are impacting your lands? What is the community concerned about?



Specifying tools to address identified issues

What tools are appropriate/feasible to implement? What will the community support?

FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

Practical Tools for Environmental Management Planning

Softer Approaches

Tool	Definition	Benefits	Limitations
Laws and Regulations	An enforceable direction designed to achieve uniform compliance	• Enforceable • Authorized by the Framework Agreement and Land Code • Helpful where necessary	• Costly to draft, implement and enforce
Policies	Specific method or course of action to guide government	• Flexible • Easy to draft • Easily amended	• Not legally enforceable • Should be consistent with other policies
Guidelines and BMPs	A set of instructions offering clear direction to minimize impacts	• Provides clear direction for proper conduct of tasks	• Not legally binding • Can become complex
Monitoring and Reporting	Collection and reporting of information on environmental quality	• Establishes a baseline • Tracks change	• Long-term commitment is needed • May be difficult to interpret results
Engagement and Education	Communication of knowledge to improve awareness of issues and responses	• Can result in positive change in attitudes and actions • Adaptable	• Not enforceable • Requires a thorough outreach program

Practical Tips for Environmental Management Planning & Implementation

Environmental Management Planning

Vision | Goals | Ideas

- Develop plans that are realistic and implementation-focused
- Focus on key environmental issues and tools that can be implemented given available resources
- Consider interactions with other plans, policies, laws, etc. that your First Nation might have
- Engage with Members and involve other departments, any Nation-owned entities & corporations, as well as other local governments

Implementation of Environmental Management Tools

Action | Results | Change

- Make someone responsible for implementation activities
- Report on progress to communicate what is being accomplished by your team
- Recognize and overcome any resistance (internal or external)
- Collaborate with other departments, governments and organizations
- Respond to change in environmental issues, staff, politics, budgets, funding

Panel Discussion

Bingwi Neyaashi Anishinaabek
Jessica Hubbard

Magnetawan First Nation
Samantha Noganosh

Malahat Nation
Melissa Tokarek

Q1 – Describe a tool that your First Nation is using or developing to address an environmental concern?

Q2 – How did you decide what tool was the most appropriate response to an identified environmental issue?

Q3 - How did you involve the community in making decisions about the environment?

Environmental Management under Land Code

Environmental Assessment

Presented by:

Jennifer Predie

RC Manager, Land Code Governance

Image: Scandasia.com

What is an EA?

EA**
Environmental Assessment

- Predicts the potential environmental, social and cultural effects of a project before the project occurs
- Proposes mitigation measures to reduce or eliminate the predicted effects
- Includes public consultation
- A tool used for decision making by the First Nation

EA's look ahead to predict the environmental effects from a project before it occurs

**Not to be confused with:

ESA's look back at past land uses to determine current environmental conditions

- Identifies, test and remediates areas of environmental concern on First Nation reserve lands
- Typically completed in Phases (Phase I, II and beyond)
- Results of the Phase I ESA contribute to the Individual Agreement with Canada

ESA
Environmental Site Assessment

The Framework Agreement and EA's (Section 25)

- Individual Agreement outlines how to conduct an EA until a First Nation has an EA process in place
- First Nation's EA process consistent with the Canadian Environmental Act (CEAA)*
- First Nation's EA process triggered as early as possible when a First Nation is approving, regulating, funding or undertaking a project on reserve
- Use the First Nation's EA process whenever possible when a federal EA is also required
- Harmonize EA processes with the province when they agree to participate

1. EA Process
2. Consistency
3. EA's Early
4. Triggers
5. FN's EA
6. Harmonization

A Note on Consistency with CEAA

2. Consistency

- The Framework Agreement and most Individual Agreements require First Nations' Interim and EA processes be consistent with CEAA.
- HOWEVER – very little details on 'what is CONSISTENCY'.
- ADDITIONALLY – future amendments to the Framework Agreement & new Individual Agreement template (will) remove reference to CEAA.

- ***RC views on CONSISTENCY:***

~~Duplication~~

Duplication

FN EA when Federal EA would likely be required

Detailed Assessment of Environmental Impacts

Decision on significance of adverse environmental effects

A Note on Harmonization

6. Harmonization

Harmonization:

- "one project, one study"
- does not mean replacing one EA process with another
- means ensuring the EA process satisfies the requirements of all jurisdictions involved
- could also include sharing results of environmental studies, consultation, etc.
- Even when EA processes are harmonized, each jurisdiction retains the ability to make their own EA determination

It is a good practice to enter into discussions with harmonizing jurisdictions early on to determine how the EA can be conducted to meet everyone's needs

Other Common EA Concepts

- Exclude low-risk projects from requiring an EA; ensure high-risk projects undergo a more detailed EA
- Allow for public input into project review and decision-making
- Assign costs for EA studies, evaluation and consultation to the project proponent, if necessary
- EA decision: taking into consideration any technically feasible mitigation measures, is project likely to result in adverse environmental effects, and if so, are those effects justified under the circumstances?
- Ability to adopt federal or provincial EAs, but still make an independent EA decision
- Allow for follow-up programs and monitoring to confirm EA decision and effectiveness of mitigation

7. Exclusion/ Inclusion

8. Public Consultation

9. Proponent Pays

10. Mitigation

11. EA Determination

12. Adoption

13. Monitoring & Follow-up

EA Process Development Checklist

Framework Agreement EA Requirements

1. EA Process
2. Consistency
3. EA's Early
4. Triggers
5. FN's EA
6. Harmonization

Other Common EA Concepts

7. Exclusion/Inclusion
8. Public Consultation
9. Proponent Pays
10. Mitigation
11. EA Determination
12. Adoption
13. Monitoring & Follow-up

Sample EA Process

EA Process Development

Preliminary: First Nation develops an EA Process generally consistent with federal EA processes.

Note the EA process applies equally to all projects, regardless of the proponent and should be conducted early in the planning stages and before an irrevocable decision has been made that would allow the project to proceed.

Project Initiation

1. Proponent submits a project description to First Nation Lands Department. To assist proponents in preparing a project description, the First Nation may want to consider developing a template or form that clearly outlines the information that must be submitted for the project description.

Is an EA Required?

2. First Nation determines if an EA is required.

The Framework Agreement requires an EA whenever a First Nation is approving, regulating, funding or undertaking a project. However, First Nations may want to develop an 'Exclusion List' for low-risk projects not likely to result in adverse environmental effects.

a. If the project is on the Exclusion List, no EA is required, and the proponent may proceed.

b. If the project is not on the Exclusion List, continue to the next step in the process.

1. EA Process

2. Consistency

3. EA's Early

4. Triggers

7. Exclusion/Inclusion

Sample EA Process

Proponent Notification

3. First Nation notifies proponent:
   a. If no EA is required, First Nation notifies proponent that they can proceed with their project.
   b. If an EA is required, First Nation notifies proponent that an EA is required and proceeds with the EA Process.

Community Consultation on Project

4. First Nation posts public notice notifying membership that a potential on-reserve project is undergoing an EA and that Council will be required to make an EA decision (include project description in the public notice). Notice should instruct Members to contact the First Nation Lands Department if there are any concerns.

8. Public Consultation

EA Criteria

5. First Nation provides the EA criteria (factors to be considered in the EA Report*) to the proponent.

The First Nation may want to develop a 'Major Project List' of high-risk projects that would require a more detailed or project-specific EA. Non-projects that are not exempt may require a 'Screening Level' EA.

a) For non-Major Projects, the First Nation may want to develop a form or template outlining all the information required for the EA.
b) For Major Projects, the First Nation may want to develop a project-specific Terms of Reference that lists the type of information and studies that will need to be completed for the EA.

7. Exclusion/Inclusion

Sample EA Process

*Factors to consider in an EA (Step 5 – EA Criteria)

a) A change to any of the following other components of the environment:

Surface and Groundwater	Land (clearing, grading, fill deposit or removal)	Plants, Animals, Fish
Air and Noise	Socio-economic, cultural & heritage resources	Other (wastes, fuel tanks, explosives)

b) Any mitigation measures proposed to reduce or eliminate adverse effects to the above

c) Comments from community members and the public

d) Cumulative effects

e) Climate Change: climate change impacts on the project & project impacts on climate change

10. Mitigation

**Federal Legislative Requirements

- Federal approvals may be required for projects that may cause impacts to the following:
  - (a) fish and fish habitat (***Fisheries Act)***
  - (b) listed aquatic and wildlife species and their habitat (***Species at Risk Act)***
  - (c) migratory birds (***Migratory Birds Convention Act, 1994)***
- Consider making the proponent responsible for obtaining federal approvals, and for contacting federal agencies to determine if a federal EA is required. If so, you can work with Canada to harmonize your EA process, substitute the federal EA process with the First Nations, or adopt the federal EA.
- It is a good idea to advise the federal department not to issue any permits, approvals, etc. unless the First Nation has made a positive EA decision.

6. Harmonization

5. FN's EA

12. Adoption

Sample EA Process

Proponent Prepares EA Report

6. Proponent, at their own expense, prepares the EA based on the First Nation's EA criteria (proponent may need to contract an environmental consultant to complete the EA) and submits the EA Report to the First Nation for review.

9. Proponent Pays

Review of EA Report

7. First Nation reviews EA report provided by the proponent. If necessary, the First Nation may want to request assistance from a technical specialist to assist in this review (the First Nation may want to consider specifying in their EA process that the proponent is responsible for costs associated with hiring a technical specialist to complete the review).

Request for Additional Information

7.1 If additional information or studies are required, the First Nation should notify the proponent and provide them a list of the outstanding information. The proponent is responsible for gathering that information and updating the EA report, as appropriate.

Sample EA Process

Community Consultation on EA Report

8. First Nation posts a copy of the EA report for community review with a deadline for comments to be submitted.
   a) If significant concerns are received, the First Nation may advise the Proponent that community meetings will be required to discuss and address those concerns (the First Nation may want to consider specifying in their Interim EA process that the proponent is responsible for costs associated with community consultation).
   b) A summary of the results of community consultation should be included with the EA report for consideration by Council when making their EA decision.

8. Public Consultation

EA Decision

9. Based on the EA report, results of community consultation and any other recommendations from the First Nation's committees and departments, the First Nation makes an EA determination:

   The Proposed Project, taking into account mitigation measures:
   a) is not likely to result in adverse environmental effects;
   b) is likely to result in adverse environmental effects, but those effects are justified under the circumstances; or
   c) is likely to result in adverse environmental effects, and those effects are not justified under the circumstances.

11. EA Determination

Sample EA Process

Notice of EA Decision

10. First Nation advises the proponent and posts public notice to the membership of the EA decision and any conditions for the proponent:

    a. The proposed project, taking into account mitigation measures, is not likely to result in significant adverse environmental effects. **The proponent may proceed with the project as planned, provided they obtain any other necessary permits, approvals, etc. prior to commencing work.**

    b. The proposed project, taking into account mitigation measures, is likely to result in significant adverse environmental effects, but those effects are justified under the circumstances. **The proponent may proceed with the project as planned, provided they obtain any other necessary permits, approvals, etc. prior to commencing work.**

    c. The proposed project, taking into account mitigation measures, is likely to result in significant adverse environmental effects, and those effects are not justified under the circumstances. **The proponent may NOT proceed with the project as planned.**

Conduct any follow-up monitoring and reporting as necessary while project proceeds and following completion.

13. Monitoring & Follow-up

EA Process Development Checklist

Framework Agreement EA Requirements

- 1. EA Process ☑
- 2. Consistency ☑
- 3. EA's Early ☑
- 4. Triggers ☑
- 5. FN's EA ☑
- 6. Harmonization ☑

Other Common EA Concepts

- 7. Exclusion/Inclusion ☑
- 8. Public Consultation ☑
- 9. Proponent Pays ☑
- 10. Mitigation ☑
- 11. EA Determination ☑
- 12. Adoption ☑
- 13. Monitoring & Follow-up ☑

FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

Ensuring EA's are Conducted

EA processes are an important land management tool that allow First Nations to make informed decisions about the potential environmental effects of a project before the project occurs.

How do you ensure an EA is conducted?

1. Make EAs a mandatory requirement before any other necessary First Nation permits, approvals, leases, etc. can be issued
2. Make an EA Law* that incorporates your EA process
    - In addition to your EA process, your EA law should include:
        - Offences (work before EA, providing false information, etc.)
        - Enforcement powers (search, seizure, inspections, sampling, testing, etc.)
        - Enforcement actions (stop work orders, compliance orders, etc.)
        - Penalties for non-compliance (fines, imprisonment, sufficient to deter non-compliance, etc.)

*Consult with your legal advisor and ensure you are following the law development and enactment procedures in your Land Code

Coffee break...

00:00

Environmental Management under Land Code

Solid Waste Management

Presented by:

Stefanie Recollet

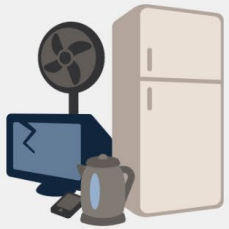
RC Waste Management Specialist

Image: Scandasia.com

Solid Waste Management Planning

- Understanding your current waste generation (planning for future waste generation – population growth)
- Planning for each waste stream (where will it go, how will it get there, how much will it cost?)

Hazardous Waste


Electronic Waste

Derelict Vehicles

Bulky Waste

Construction, Renovation & Demolition Waste (CRD)

Scrap Tires

Organics

Reusable Items & Recyclables

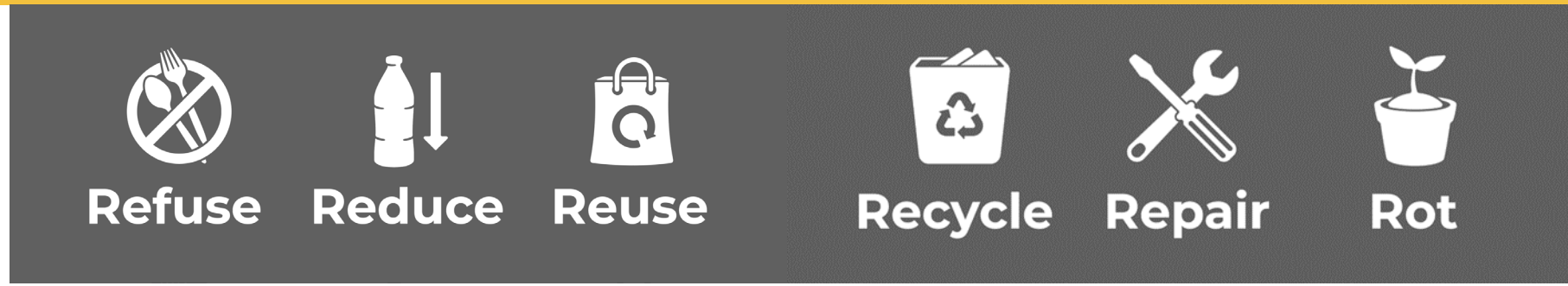
SOLID WASTE STUDIES & PLANS

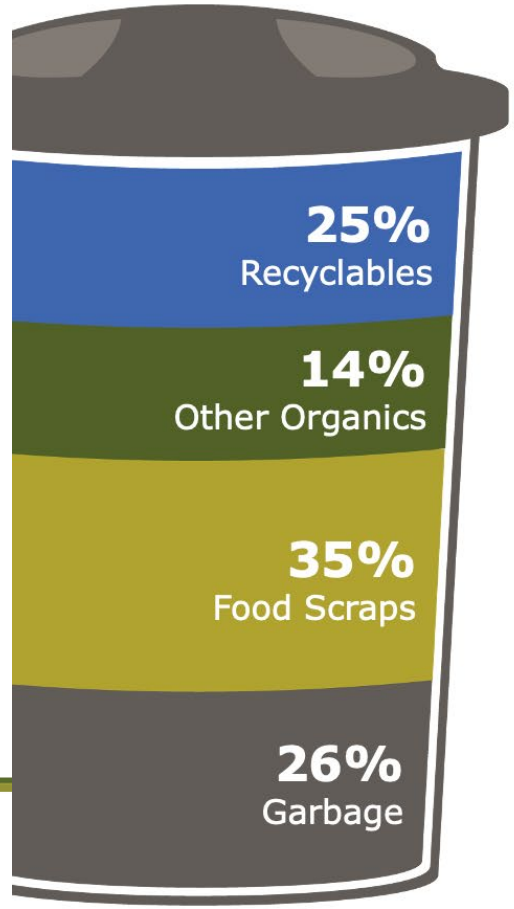
- **Feasibility studies** – Identifies Waste disposal options – Direct Haul, Transfer Station, Landfill – Site selection, Cost projections – O&M Etc.
- **Design Phase & Engineering Studies** – Working with the FN's Land Use Plan and Environmental Protection Laws, Federal & Provincial Environmental Regulations, site lay out, etc.
- **Landfill Assessments** - determines the amount of capacity left, groundwater & surface water testing – contamination issues
- **Monitoring Plans** - Surface & groundwater testing, patrolling,
- **Operation & Maintenance Plans** - site management
- **Decommission Plans** - site closure

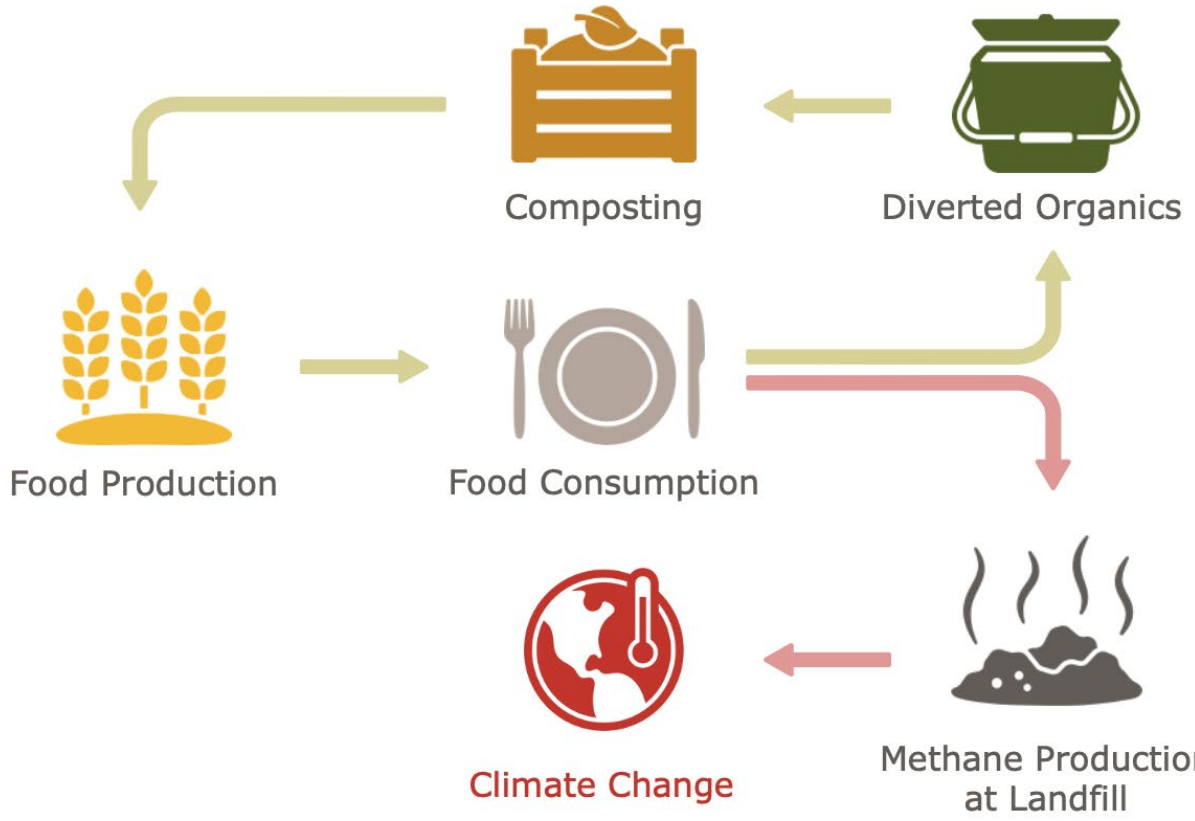
SOLID WASTE PROGRAMS

Programs

- Minimize what goes to the landfill
- Reduce Environmental impacts
- Recover/ reduce costs
- Waste Reduction
- Zero Waste
- Diversion
- EPR & FPR







FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

SOLID WASTE LAWS & REGULATION DEVELOPMENT

Per the Framework Agreement, Land Code First Nations have the power to make environmental laws relating to First Nation land. Furthermore, those laws may be amended or expanded over time as needs and risks change.

Per the Framework Agreement, Land Code First Nations have the power to make environmental laws relating to First Nation land. Land and environmental laws can be developed, as they are deemed necessary by the First Nation.

Some Examples of Solid Waste Related Laws

- Anti-littering & Unauthorized disposal
- Soil deposit and transport
- Subdivision, development and servicing
- Outdoor burning
- Unsightly premises
- Nuisances (i.e., noise, dust, odour)
- Derelict Vehicle Removal

RC Support for Environmental Law Development

- We can provide sample laws, review draft laws, assist with enforcement provisions and administration sections.

NOTE: First Nations still need to seek independent legal advice on their laws.

Panel Discussion

CIER Waste Warriors
Shianne McKay

North Shore Tribal Council
Bea Rodh

Lower Nicola Indian Band
Stephen Jimmie

BC Zero Waste (IZWTAG)
Emily Chu

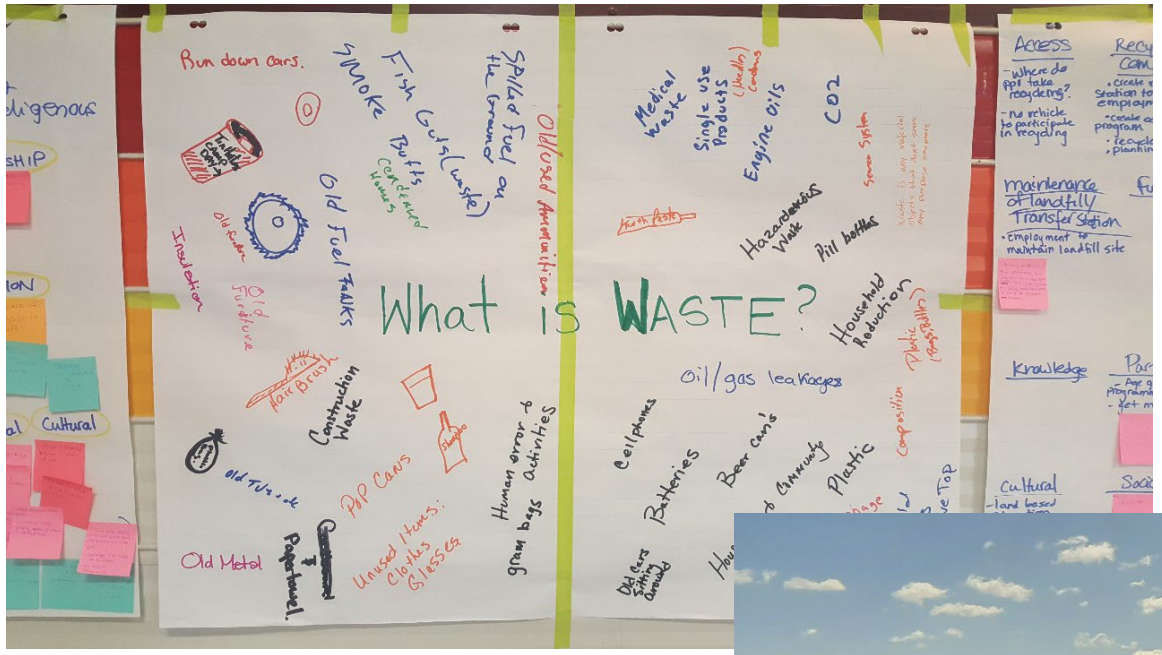
How important is internal capacity development in Solid waste to the First Nations you work with?

What is the role of solid waste coordinator? And how do they work to improve solid waste management on reserves?

How was your experience with Community Solid Waste Planning and how has it benefitted your community?

What is the principle of zero waste and how can First Nations implement it in their communities?

Seventh Generation Waste Warriors



Indigenous Zero Waste Technical Advisory Group – Programs

Environmental Management under Land Code

Guest Presentations

Indigenous Zero Waste Technical Advisory Group (IZWTAG)

Tania Solonas

Magnetawan First Nation

Nadine Perran

Malahat First Nation

Melissa Tokarek

IZWTAG
INDIGENOUS ZERO WASTE
TECHNICAL ADVISORY GROUP

IZWTAG
INDIGENOUS ZERO WASTE TECHNICAL ADVISORY GROUP

December 2022

FIRST NATIONS
LAND MANAGEMENT
RESOURCE CENTRE

Magnetawan First Nation Community Science Initiatives

@magfn.aakii

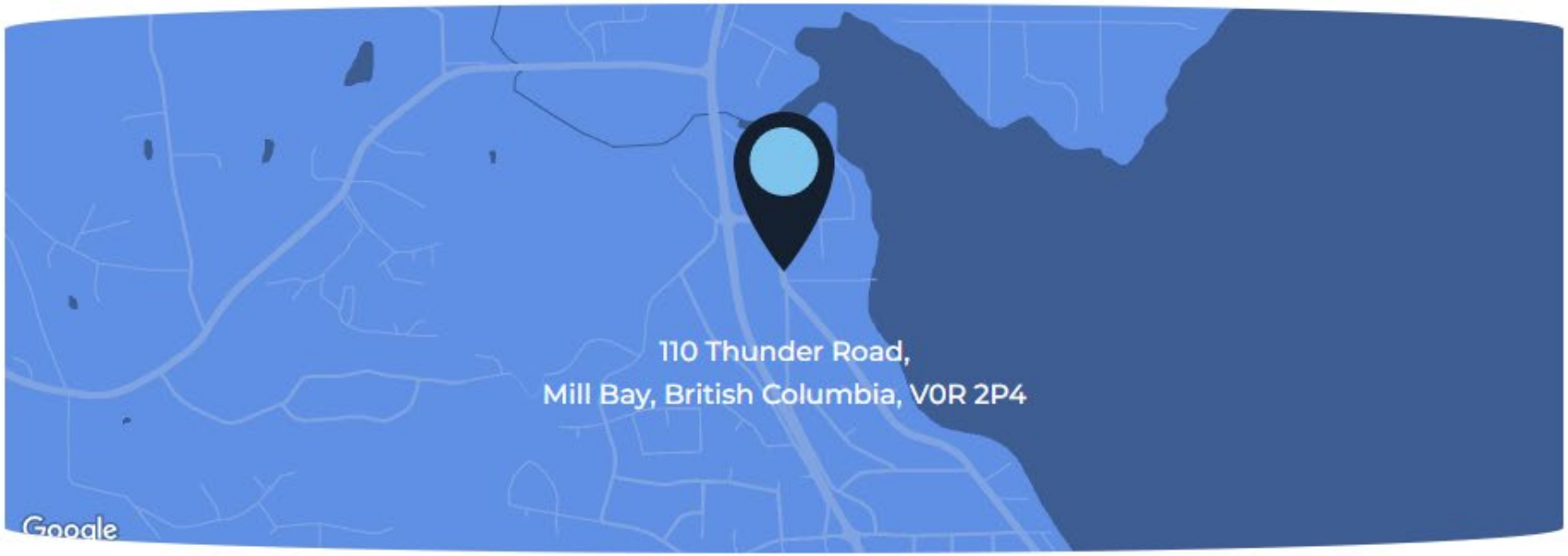
www.magfn.com

FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

MALAHAT

Malahat Nation

Operational



Natural Resource Management under Land Code

Networking & Discussion

SUMMARY OF DAY ONE

DAY ONE

Environmental Management Under Land Code

DAY TWO – 9:00 AM PDT
12:00 PM EST

- Environmental Management Plan
- Environmental Assessment
- Solid Waste Management
- Environmental Site Assessment
- Enforcement of Environmental Laws
- Environmental Management Tools
- Knowledge Sharing

Environmental Management under Land Code

ESAs: Beyond Phase I

Presented by:

Jennifer Predie

RC Manager, Land Code Governance

Image: Scandasia.com

What is an ESA?

Environmental Site Assessments

A process that looks at current and past land uses to identify and address areas of environmental concern (contamination)

Completed in Phases (I, II and beyond)

Phase I Environmental Site Assessments and the *Framework Agreement on First Nation Land Management*

Conducted to fulfil ISC's requirements under the Framework Agreement to provide the First Nation with all information in Canada's possession regarding the environmental condition of the reserve lands

Provides the First Nation and Canada with a snapshot of the existing environmental conditions of the First Nation's reserve lands at a particular point in time, prior to the change in land management jurisdiction.

Phase I ESAs also include recommendations for further study (Phase II ESA), and the results of the Phase I ESA form part of the First Nation's Individual Agreement with Canada

Under the Framework Agreement, Canada remains responsible for any acts or omissions in relation to First Nation land that occurred before the First Nation's land code comes into force

ESA Phases

Phase I

Identifies Areas of Potential Environmental Concern (APECs)

Records Review

Site Visit

Community Meetings and Interviews

Phase II

Confirms Areas of Environmental Concern (AECs)

Environmental Sampling & Analysis

Comparison to federal & provincial environmental standards and guidelines based on land and water use

Next Steps?

Managing or Remediating Contamination

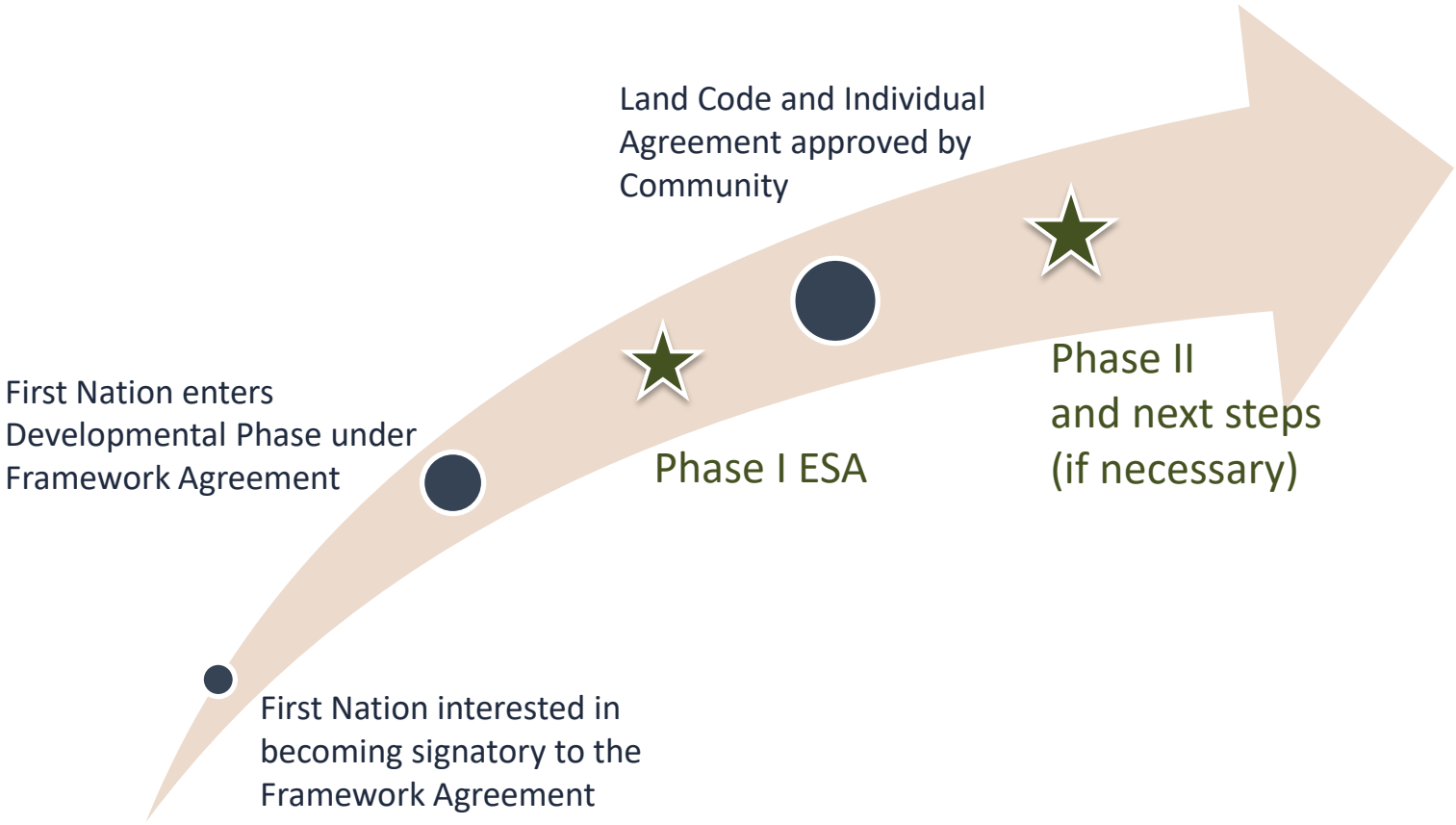
Contamination delineation

Exposure pathways, conceptual models & risk assessment

Containment or remediation works, as necessary

FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

Typical Timing of ESA Phases

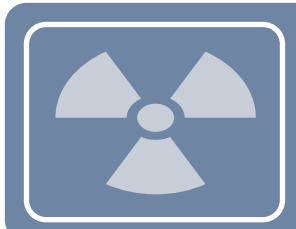


ESA Timing

- Phase I ESA occurs during the Developmental Phase
- Phase II ESA (if necessary), occurs during the Operational Phase, typically within one year of ratification, and depending on availability of funding (ISC)
- Next steps (if necessary), occur later, timing depending upon severity of contamination, potential impacts to human health and the environment, and availability of funding (FCSAP, other sources)

Contaminated Sites Management

Laws, Policies & Land Instruments



Risk Management

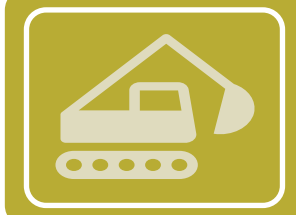
Education

Land Use

Prevention Programs

Monitoring

Records



Remediation

FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

When Remediation is Necessary…

Next steps and funding sources are determined on a case-by-case basis

Federal Polluter Pays Principle

- Person or organization responsible for causing the contamination is typically held responsible for costs to conduct additional studies and remediation
- If unable to pay or if the third party cannot be identified, federal funding may be available (FSCAP, NRCan, IOGC, DND, etc.)

Federal Contaminated Sites Action Plan (FSCAP)

- Contaminated sites on Federal lands (not just reserve lands) are scored and sites are prioritized for action
- Funding is limited and can be difficult to access
- sites with highest risk for exposure and that the most significant contamination are typically dealt with first
- Funding generally comes from ISC through their Contaminated Sites on Reserve Program, which is funded under FCSAP

Other Funding Sources

- RC Funding Initiatives: Legacy, Solid Waste Management, Environmental Management Plan Development and Implementation
- ISC Funding: Solid Waste, others?
- Links to economic development funding (e.g., clean-up prior to allow for development projects)

Panel Discussion

Sheshewaning First Nation

Nancy Cada

Membertou First Nation

Trevor Bernard

Q1. How did your Phase I ESA inform contaminated sites management on your reserve?

Q2. Could you please share your experiences with contaminated sites remediation?

Q3. What programs or funding sources were you able to access to manage your contaminated sites?

Q4. What do you feel were the biggest challenges and successes of this project? Were there any lessons learned that might be helpful for others?

Environmental Management under Land Code

Enforcement of Environmental Laws

Presented by:

Wade Davidson

RC Enforcement Advisor

Image: Scandasia.com

Authority for Environmental Law

Framework Agreement on First Nations Land Management – under Land Code

- EP laws have at least the same protection standards and punishments as the province or territory in which they are situated (e.g., in Ontario, the Environmental Protection Act allows for fines to corporations for up to $10 million and for individuals, up to $6 million and 5 years less a day imprisonment for some continuing offences)
- Restitution, community service, **alternate means for achieving compliance**
- Land Code communities have great autonomy and flexibility in enacting environmental laws and the accompanying enforcement

Contaminants	**Environmental Protection (EP)**	**Environmental Assessment (EA)**	**Environmental Emergencies & Natural Disasters**	**Conservation and Heritage**
Nuisances	**Solid Waste Management**	**Unsightly Premises**	**Sewage**	**Implementing EMPs**

Enforcement Options

Enforcement Activities

- Monitoring
- Inspections
- Investigations

Enforcement Powers

- Search & Seizure
- Sampling, Testing & Taking Measurements

Enforcement Actions

- Warnings
- Tickets/Violation Tickets
- Orders
- Injunctions
- Prosecution

Enforcement Alternatives

Reducing the Risk of a Violation

- Community Engagement and Education
- Incorporation of culture, values, traditions
- Make compliance easy

Positive Duties in Law

- Make self-reporting mandatory
- Require permits and approvals be readily available for inspection

Elders, Mediation, Dispute Resolution

- Promotes healing and will typically be more effective than courts

Strong Governance Mechanisms

- Maintain records
- Ensure permits, leases and laws coordinate

Partnerships

- Work with other Indigenous communities to share resources such as inspectors and technical experts
- Consider partnerships with other governments

Deterrence

- Potential penalties & the risk of getting caught

Panel Discussion

Malahat Nation
Melissa Tokarek

Whitecap Dakota First Nation
Murray Long & Tracey Lafond

Haisla Nation
Howard Vroon

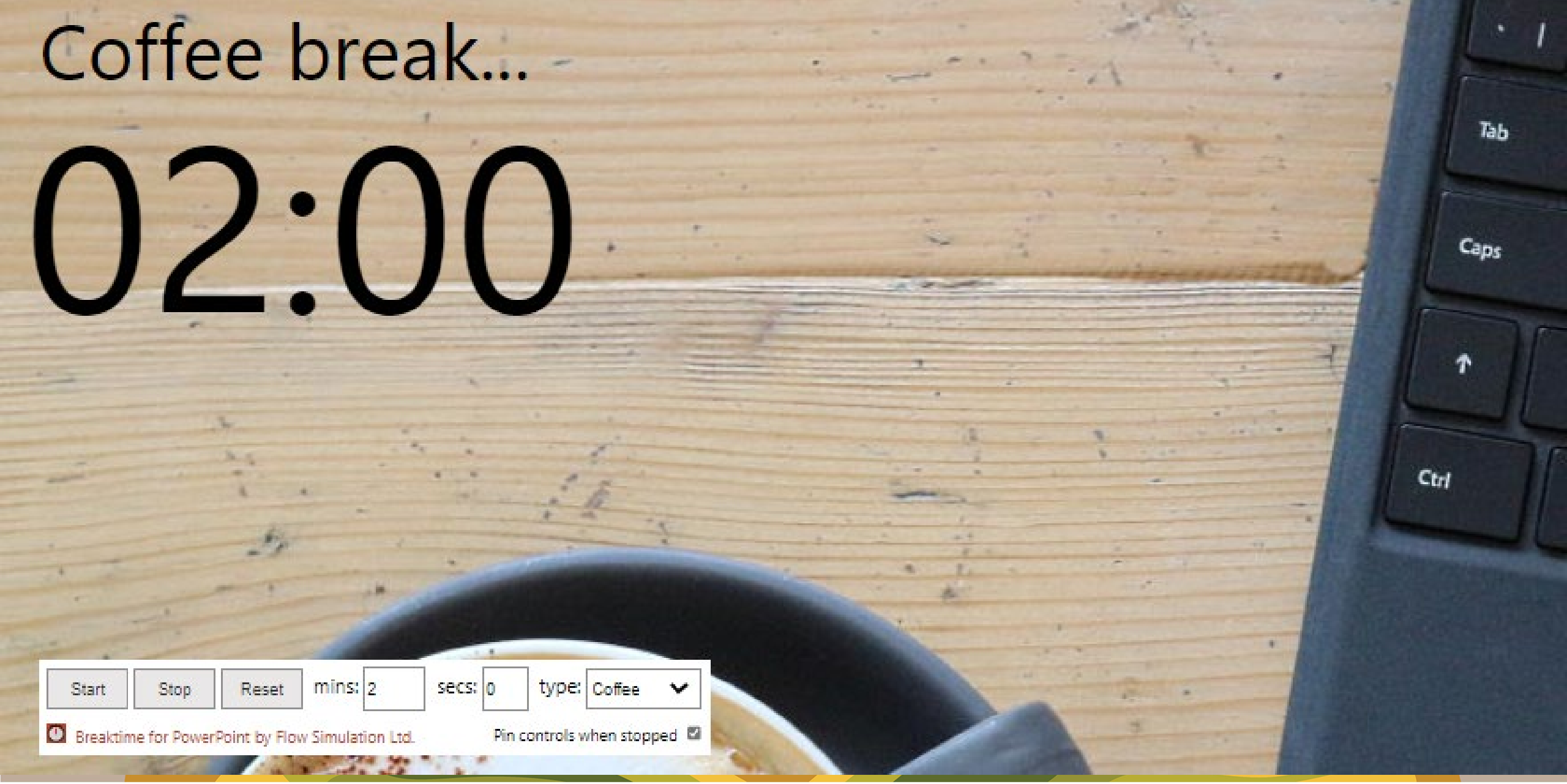
How has your Nation monitored commercial, industrial, or energy developments to ensure environmental compliance?

What successes and challenges has your Nation experienced in ensuring environmental compliance?

What does the future of environmental oversight and enforcement look like for your Nation?

Coffee break...

02:00



Start | Stop | Reset | mins: 2 | secs: 0 | type: Coffee

Breaktime for PowerPoint by Flow Simulation Ltd. | Pin controls when stopped

FIRST NATIONS
LAND MANAGEMENT
RESOURCE CENTRE

Environmental Management under Land Code

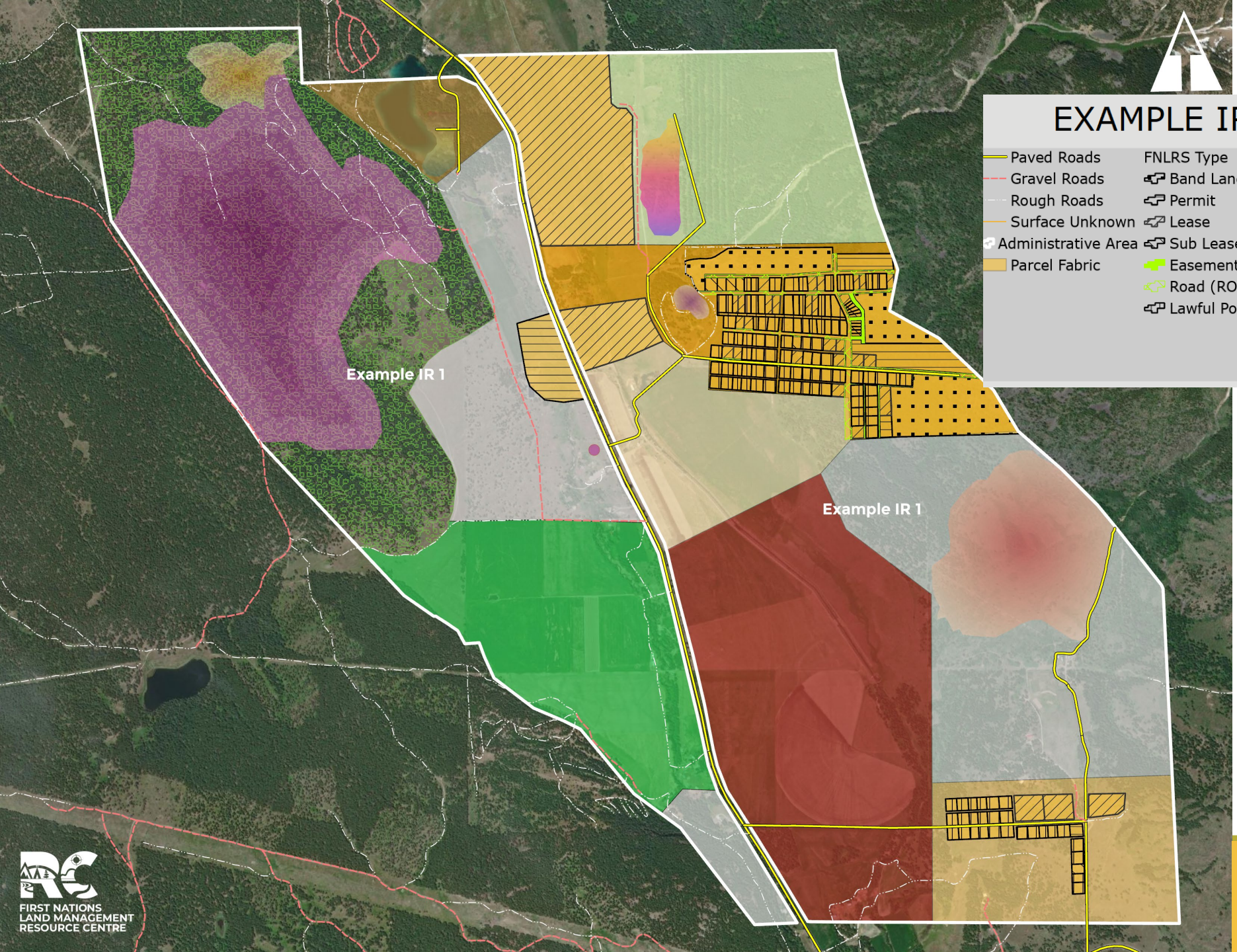
GIS as an Environmental Management Tool

Presented by:

Leeanna Rhodes

GIS Specialist

Image: Scandasia.com



EXAMPLE IR1 INTEGRATED PLAN

	FNLRS Type	Cultural Heritage Type	Land Use Plan
Paved Roads	Band Land	Burial Grounds	Agriculture
Gravel Roads	Permit	Culturally Sensitive	Cemetery Grounds
Rough Roads	Lease	Elk Habitat	Community Lands
Surface Unknown	Sub Lease	Food Gathering	Environmentally Sensitive
Administrative Area	Easement	Material Gathering	Commercial
Parcel Fabric	Road (ROW)	Medicinal Gathering	Heavy Industrial
	Lawful Possession	Powwow Grounds	Light Agricultural
			Light Commercial
			Residential Lands
			Resource Management

Incorporating digital layers that are available into GIS to inform environmentally responsible decision-making

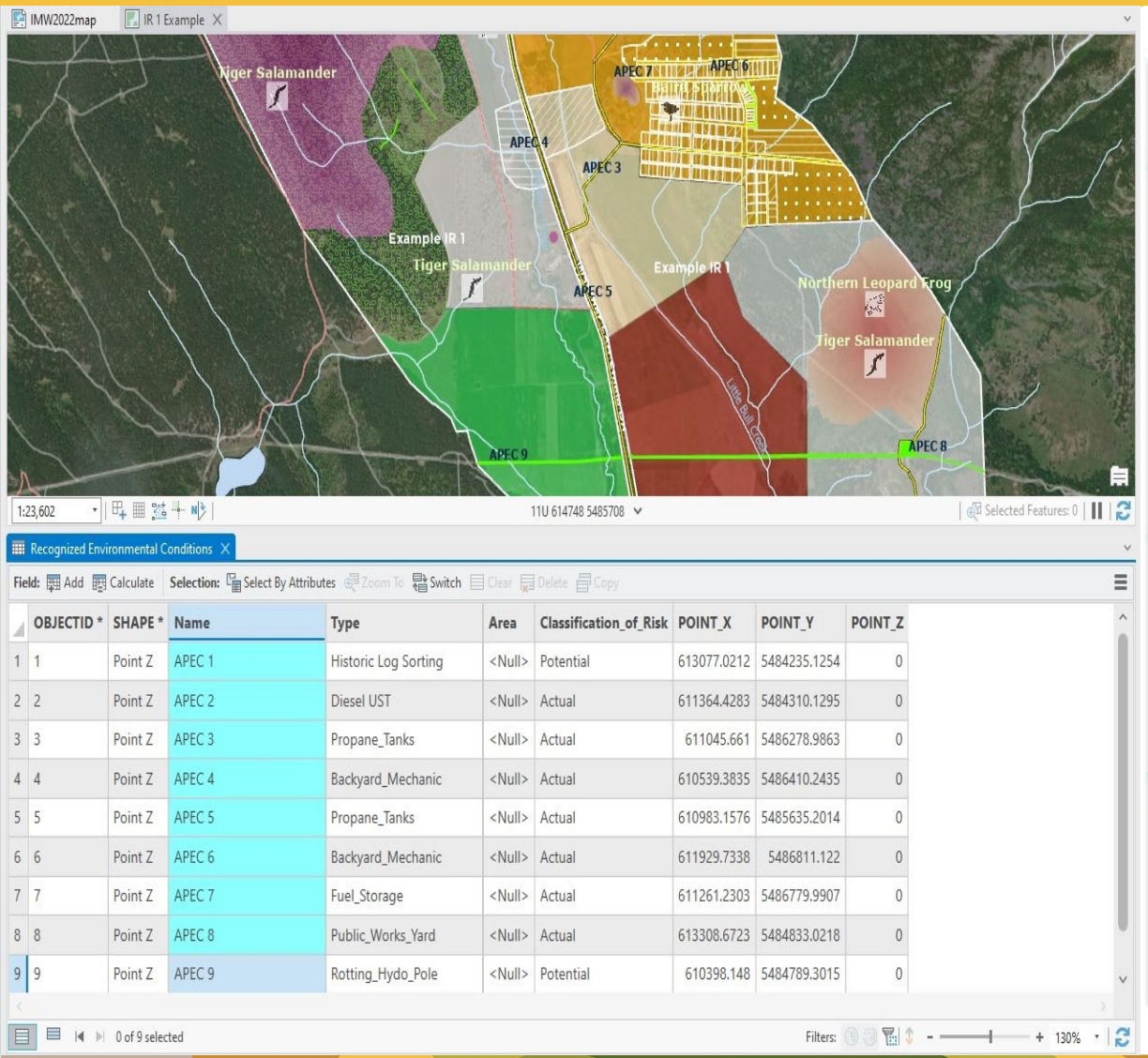
FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

Introduction

Mapping the ESA's

- Acquiring APEC Summary
- Managing data in a spreadsheet
- Analyzing with other environmental layers
- Owning and Customizing by adding community info
- Displaying your maps at public functions and other media, keeping community informed of progress

Displaying Recognized Environmental Conditions

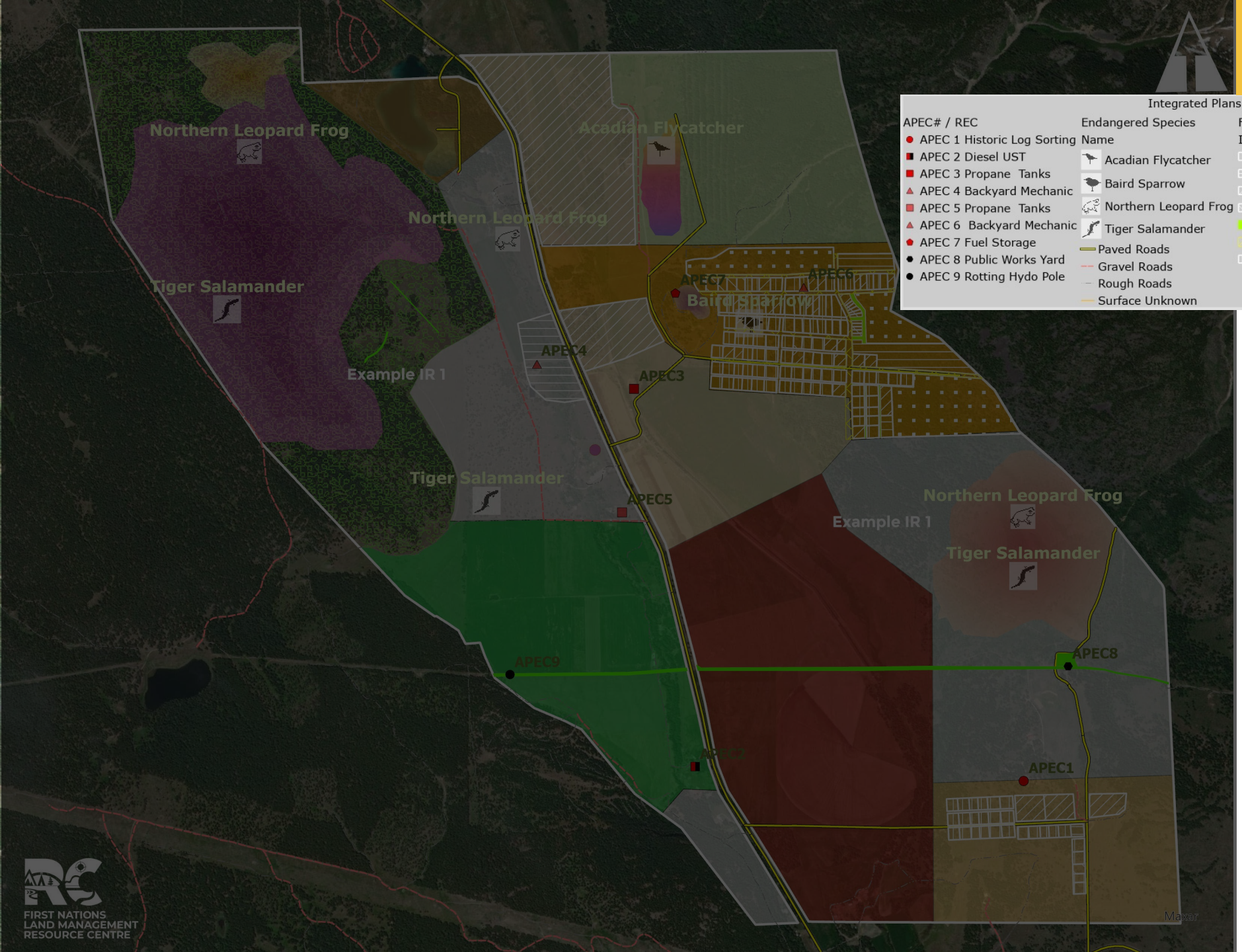


OBJECTID *	SHAPE *	Name	Type	Area	Classification_of_Risk	POINT_X	POINT_Y	POINT_Z
1	Point Z	APEC 1	Historic Log Sorting	<Null>	Potential	613077.0212	5484235.1254	0
2	Point Z	APEC 2	Diesel UST	<Null>	Actual	611364.4283	5484310.1295	0
3	Point Z	APEC 3	Propane_Tanks	<Null>	Actual	611045.661	5486278.9863	0
4	Point Z	APEC 4	Backyard_Mechanic	<Null>	Actual	610539.3835	5486410.2435	0
5	Point Z	APEC 5	Propane_Tanks	<Null>	Actual	610983.1576	5485635.2014	0
6	Point Z	APEC 6	Backyard_Mechanic	<Null>	Actual	611929.7338	5486811.122	0
7	Point Z	APEC 7	Fuel_Storage	<Null>	Actual	611261.2303	5486779.9907	0
8	Point Z	APEC 8	Public_Works_Yard	<Null>	Actual	613308.6723	5484833.0218	0
9	Point Z	APEC 9	Rotting_Hydo_Pole	<Null>	Potential	610398.148	5484789.3015	0

Phase I ESA: Summary of APECs and Recommendations

Site/Area	Classification of Risk – Contamination: Potential	Classification of Risk – Contamination: Actual	Contaminants of Potential Concern	Description of Contamination or Risk	Recommended Action	JMC Decision
APEC 1 – Historic Log Sorting and Re-loading Area		X	Hydrocarbons, metals, possible fire suppression related contaminants	Located on IR #1. Gravel fill at surface, placed over thick layers of wood waste. Metal waste (old train parts) present in several areas on-Site. Former storage of fire suppression equipment.	Delineate extent of wood waste (slag) and assess impacts to soil and groundwater through test pitting and drilling program. Sample existing observation wells. Install additional monitoring wells as needed to evaluate groundwater quality. Collect and analyze surface water and sediment samples east of waste vehicle piles. Complete additional review to identify types of fire suppression equipment and chemical formerly stored in re-load area.	
APEC 2 – Historic Diesel USTs on Valard Construction Ltd. Site	X		Hydrocarbons, metals	Located on IR #1. Southern portion of Valard site historically contained two diesel USTs. No longer present.	Determine if contaminant present in soil through test pitting. If contamination is encountered, borehole drilling should be completed to assess its extent and groundwater quality should be evaluated through installation and sampling from monitoring wells where colored discharge noted.	
APEC 3 – Maintenance Shed		X	Hydrocarbons, metals	Located on IR #1. Hydrocarbon-like odour observed at entrance to shed. Historically two ASTs were used for fuel storage adjacent to the shed. Fuel saturated soil was excavated post-removal of ASTs.	Test pit assessment near entrance of shed, and area of reported residual soil impacts. If contamination is encountered, complete borehole drilling to assess extent and evaluate groundwater quality through monitoring well installation and sampling. Coordinate assessment timing with Band plans for shed removal.	

Overall Compilation



Integrated Plans for Environmental Management

APEC# / REC	Endangered Species Name	FNLRS Data Instrument	Cultural Heritage Type	Land Use Plan
APEC 1 Historic Log Sorting	Acadian Flycatcher	Band Land	Burial Grounds	Agriculture
APEC 2 Diesel UST	Baird Sparrow	Permit	Culturally Sensitive	Cemetery Grounds
APEC 3 Propane Tanks	Northern Leopard Frog	Lease	Elk Habitat	Community Lands
APEC 4 Backyard Mechanic	Tiger Salamander	Sub Lease	Food Gathering	Environmentally Sensitive
APEC 5 Propane Tanks	Paved Roads	Easement	Material Gathering	Commercial
APEC 6 Backyard Mechanic	Gravel Roads	Road (ROW)	Medicinal Gathering	Heavy Industrial
APEC 7 Fuel Storage	Rough Roads	Lawful Possession	Powwow Grounds	Light Agricultural
APEC 8 Public Works Yard	Surface Unknown		Administrative Area	Light Commercial
APEC 9 Rotting Hydo Pole				Residential Lands
				Resource Management

FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

Overall Compilation

Integrated Plans for Environmental Management

APEC# / REC

- APEC 1 Historic Log Sorting
- APEC 2 Diesel UST
- APEC 3 Propane Tanks
- APEC 4 Backyard Mechanic
- APEC 5 Propane Tanks
- APEC 6 Backyard Mechanic
- APEC 7 Fuel Storage
- APEC 8 Public Works Yard
- APEC 9 Rotting Hydo Pole

Endangered Species

Name

- Acadian Flycatcher
- Baird Sparrow
- Northern Leopard Frog
- Tiger Salamander
- Paved Roads
- Gravel Roads
- Rough Roads
- Surface Unknown

FNLRS Data

Instrument

- Band Land
- Permit
- Lease
- Sub Lease
- Easement
- Road (ROW)
- Lawful Possession

Cultural Heritage Type

- Burial Grounds
- Culturally Sensitive
- Elk Habitat
- Food Gathering
- Material Gathering
- Medicinal Gathering
- Powwow Grounds
- Administrative Area

Land Use Plan

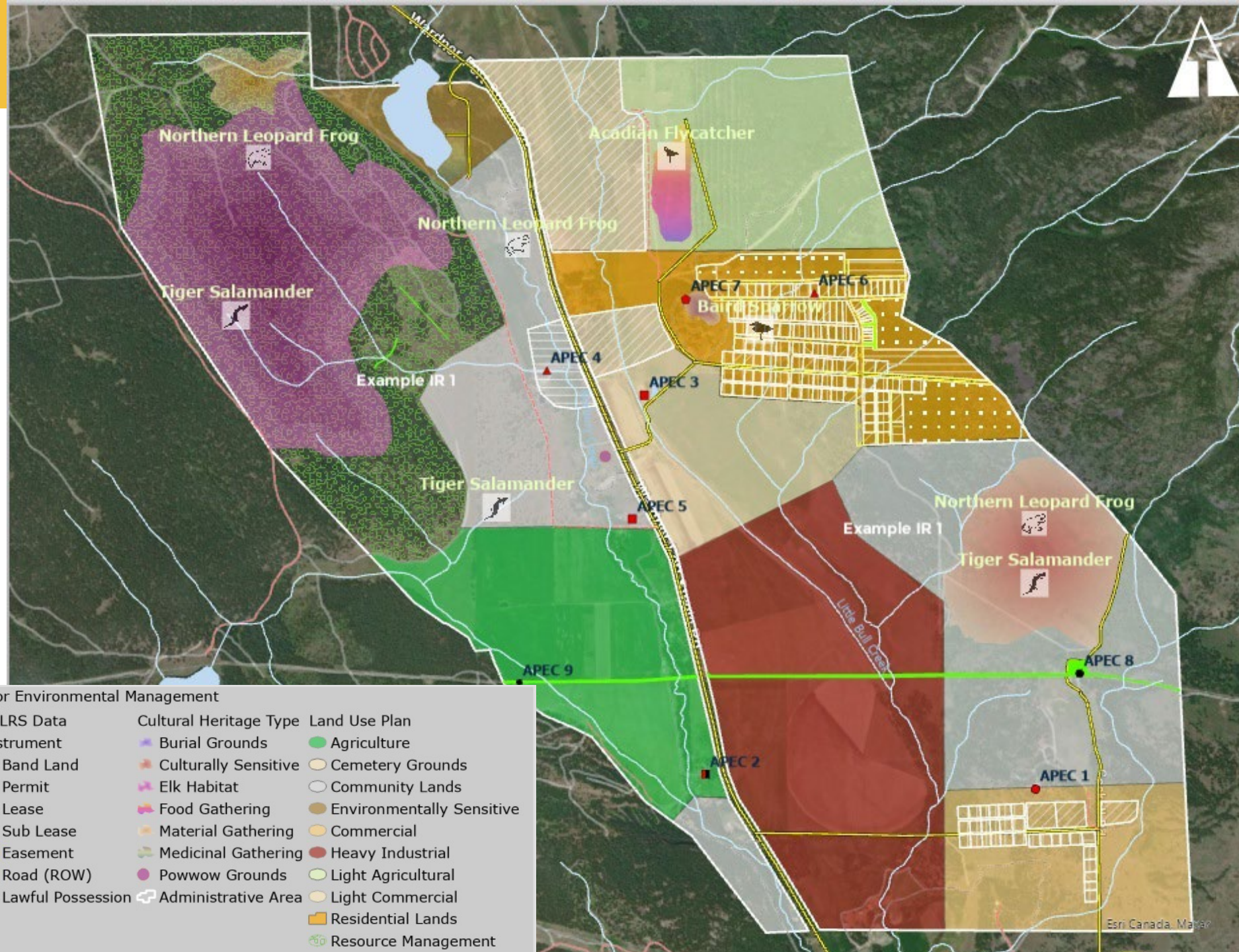
- Agriculture
- Cemetery Grounds
- Community Lands
- Environmentally Sensitive
- Commercial
- Heavy Industrial
- Light Agricultural
- Light Commercial
- Residential Lands
- Resource Management

FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

Overall Compilation

GIS as a tool for environmental management

- Determines layers needed
- Work schedule assistant
- Protection of cultural and environmental sites
- Communication



Integrated Plans for Environmental Management

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APEC 8 Public Works Yard	Rough Roads	Lawful Possession	Administrative Area	Light Commercial
APEC 9 Rotting Hydo Pole	Surface Unknown			Residential Lands
				Resource Management

Panel Discussion

Temagami First Nation

Victoria Winsor – GIS Technician

Kitselas First Nation

Jason Petho – GIS Technician

Q1) Why was it important to you and your First Nation to use GIS? Where do you think, it is going to lead in the future?

Q2) Where do you get your environmental information to add to your GIS?

Q3) How has GIS supported your environmental governance issues and decision making?

Environmental Management under Land Code

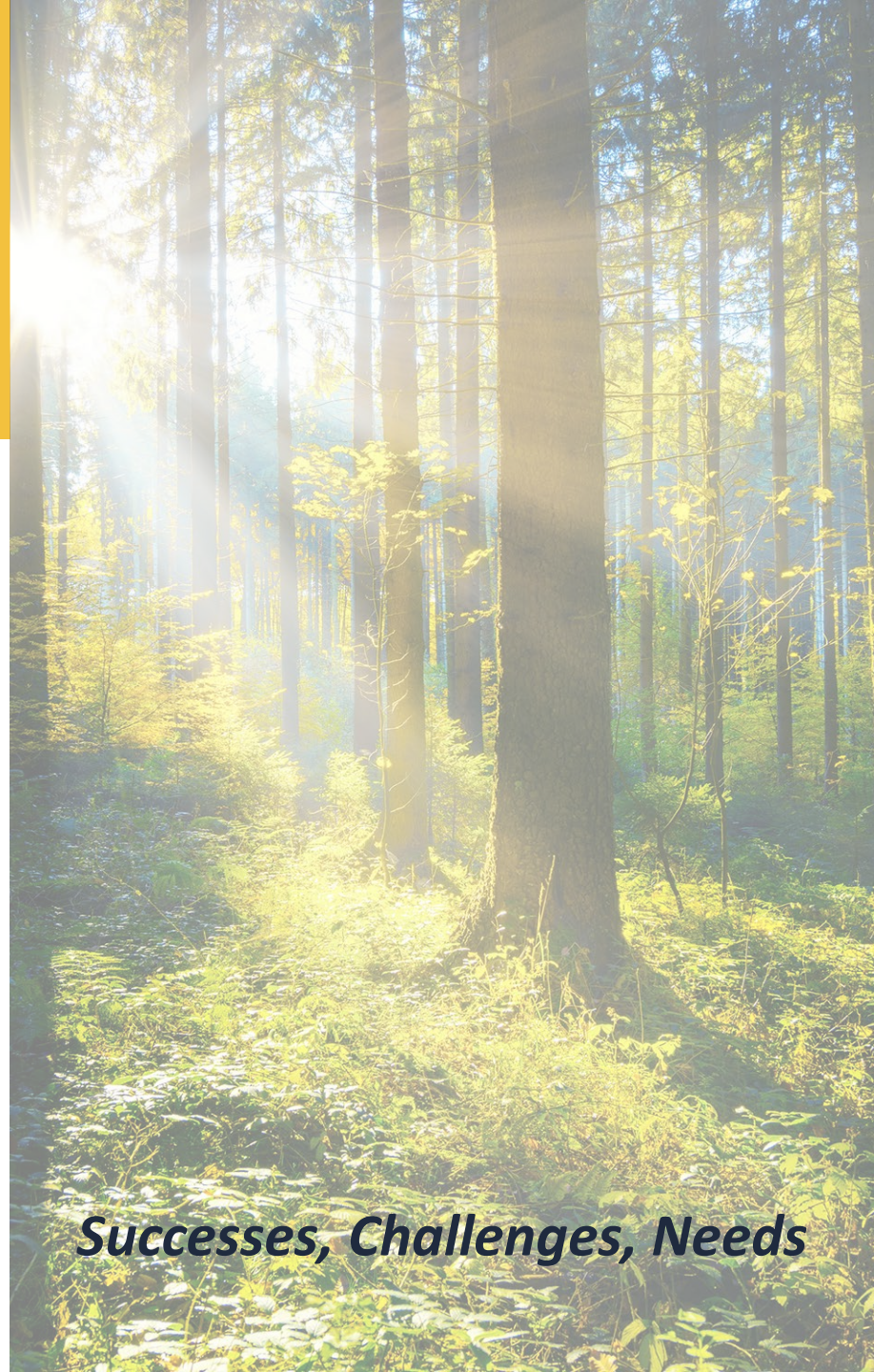
Guest Presentations

Wahnapitae First Nation

Sara Lehman

Indigenous Protected and Conserved Areas Toolkit

Kerrie Blaise – Blaise Law



Wahnapitae First Nation Guest Presentation

TMPD Workshop

Anthony Laforge, Lands Director

Mentorships and Relationship Building

Community Engagement

*AFSAR Science North Trip and Magnetawan SAR Presentation

Waste Diversion
Transfer Station Project 22-23

FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

NEEGAN BURNSIDE

Indigenous Services Canada | Services aux Autochtones Canada

Key Focus:

Increased waste diversion

Job opportunities for Members

Risk management

Long-term functionality

Environmental Monitoring

Community Based Water Monitoring Program

Regular residential water sampling

Emergency sampling for sources of concern

Education of well management and small systems

Service Agreements and Monitoring

Weekly Job Site Assessments – City of Sudbury and Mining Companies

Monthly water sampling for mining sites

Technical Support

Laurentian University / Université Laurentienne

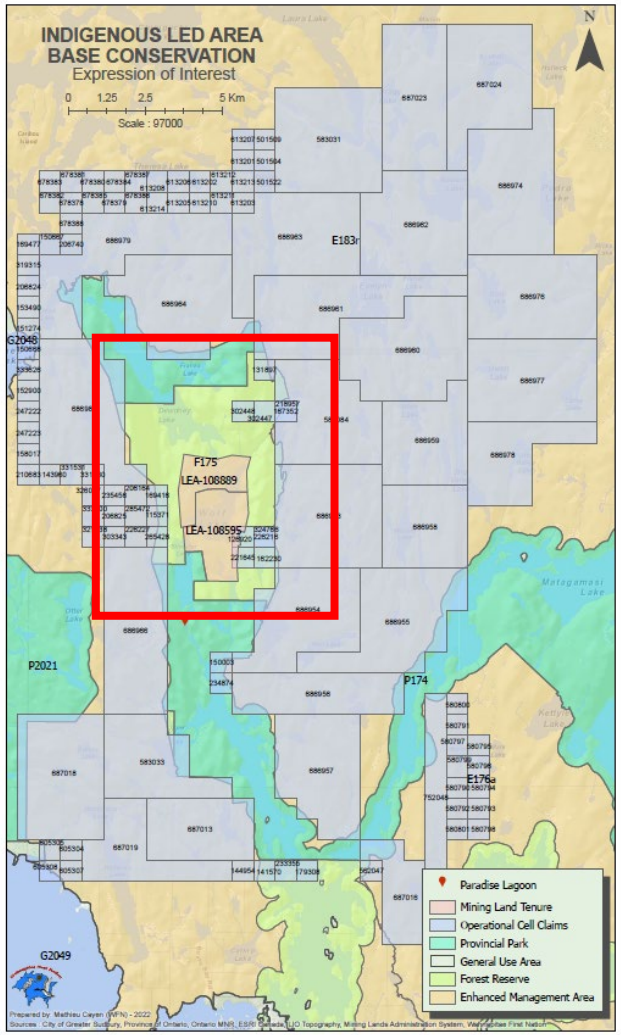
WCS CANADA

UNIVERSITY OF WATERLOO

First Nations Environmental Contaminants Grant

Community health research related to consumption of traditional food sources (fish)

Wolf Lake as a Protected Area



Laurentian University
Université Laurentienne

Grant Applications for 2023-2024 fiscal

CORDA: Trail System Refurbishment

EJ4Climate: Community Greenhouse and Foodbank

RC Waste Diversion Funding: Upgrades to waste diversion

Species at Risk Stewardship Program: Species at Risk Biologist Funding

Technical Staff Updates

Current positions (5):

Water Resource Technician x1

Environmental Technicians x2

Lead GIS and Mapping Technician

Lead Environmental Technician

Technical Goals:

Species at Risk Focuses

Forestry management technician

Staff personal development

- Conferences and training

2022 Upgrades:

Overall focus on data acquisition using new electronics: Tablets, Drones

Key Focuses:

Data management and staff safety

Advancing Indigenous Rights through Indigenous Protected and Conserved Areas

A Toolkit for Communities and Allies

Kerrie Blaise, Blaise Law

December 8, 2022

With thanks to the invitation from the First Nations Land Management

FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

IPCA Toolkit Link

Natural Resource Management under Land Code

Networking & Discussion

SUMMARY

TWO DAY WORKSHOP

Environmental Management under Land Code

- Environmental Management Plan
- Environmental Assessment
- Solid Waste Management
- Environmental Site Assessment
- Enforcement of Environmental Laws
- Environmental Management Tools
- Community Perspectives

2023 EVENT SCHEDULE

Online Registration:
labrc.com/events

Jan 12
Using GIS to Support LUP & SWM
Virtual Webinar

Feb 09
Save the Date
Virtual Webinar

Mar 8-9
RC Support Services Workshop
Virtual Workshop

Apr-May
FNLRS Training Sessions
Regional Workshops

Mar 30
FNNLR Update
Virtual Workshop

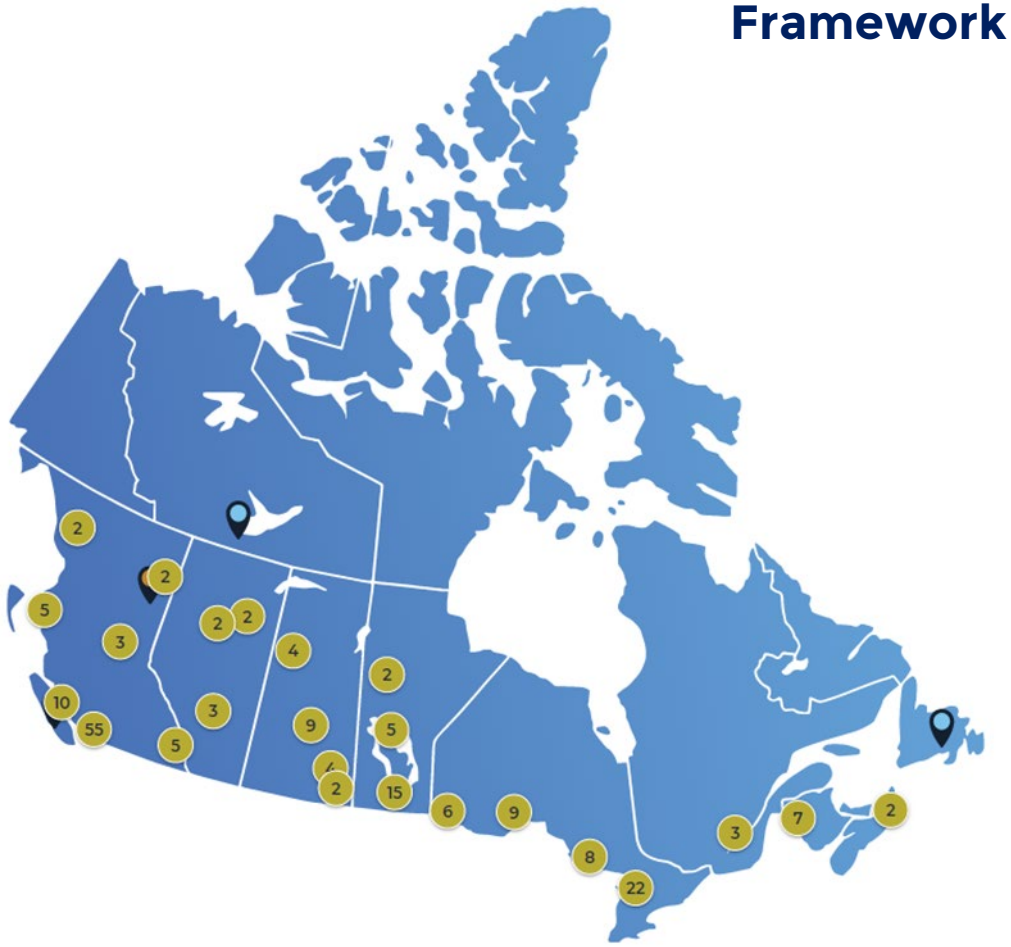
Jun 6-8
LAB-RC Enforcement Conference
Gatineau-Ottawa, QC

LEARNING TOOLS & SUPPORT

Training, Mentorship & Professional Development

- Workshops & Webinars
- Online Courses
- Knowledge Paths Tool
- Land Governance Manual
- Knowledge Repository
- Direct Community Support (1:1)

Framework Agreement Signatory First Nations across Canada



As of December 1, 2022

Total Signatories	194
Operational	101
Developmental - Active	44
Developmental – Inactive	46
Self Governing	3

Employment Opportunities

Job Opportunities (Internal and External)

Keywords

Location

Remote positions only

SEARCH JOBS

Full Time | Part Time | Temporary

Request for Proposals – Website Designer First Nations Land Management Resource Centre	Remote - Within Canada (Remote)	Part Time
Assistant Professor, Probationary (Tenure-Track) – City Planning: Indigenous Scholar Position University of Manitoba Faculty of Architecture, Department of City Planning	Winnipeg, MB, Canada	Full Time

FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

Training, Mentorship & Professional Development

labrc.com | facebook/FNLMRC | resourcecentre_tmpd | vimeo.com/labrc

THANK YOU

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