

2020

FNLMRC

Training, Mentorship and Professional Development

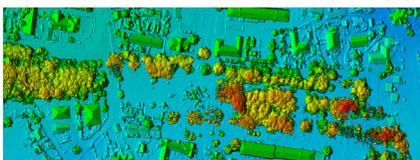
GIS/Mapping Workshop

Feb 19 & 20, 2020

River Rock Casino Resort

Richmond, BC

Workshop
Program



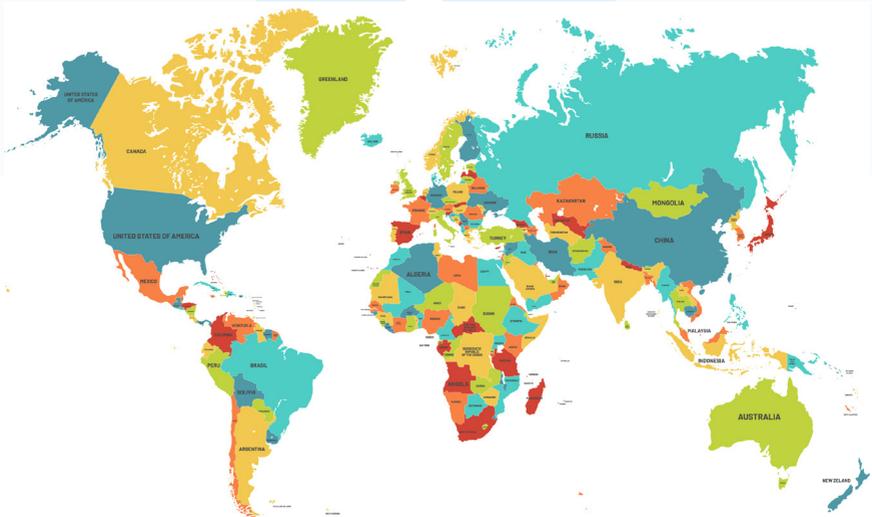
FIRST NATIONS
LAND MANAGEMENT
RESOURCE CENTRE

GIS/Mapping Workshop

Workshop Overview

This learning workshop is presented in your region as part of our Training, Mentorship & Professional Development (TMPD) Strategy. The workshop aims to develop a foundational knowledge of Mapping and Geographic Information Systems, within the context of the Framework Agreement on First Nation Lands Management. In this workshop, participants will learn about the power and ethics of maps and map-making, the technology and training needed to operate GIS in your community.

- ◇ Introduce spatial thinking and its relevance to effective Lands Governance within the context of the Framework Agreement
- ◇ Present the fundamentals of Mapping and Geographic Information Systems (GIS) and discuss different Mapping and GIS software options
- ◇ Explore the ethics of Mapping and GIS as a contemporary expression of Indigenous resurgence
- ◇ Share success stories from other FA signatory communities utilizing Mapping and GIS techniques



WORKSHOP AGENDA

DAY ONE - WEDNESDAY, FEBRUARY 19, 2020



1

- 8:30 AM** Breakfast - provided
- 9:00 AM Opening Prayer - TBD
Welcome & Overview (Angie Derrickson, RC)
- 9:15 AM Presentation: Intro to Mapping (Stephen McGlenn, RC)
- 10:45 AM** Health Break
- 11:00 AM Presentation: Mapping in the context of FA Lands Governance (Stephen McGlenn, RC)
- 12:00 PM** Lunch Break - Provided
- 1:00 PM Focused Exercise: Community Mapping Techniques
- 2:30 PM** Health Break
- 2:45 PM Focused Exercise (continued)
- 4:00 PM** Close of Day 1

DAY TWO - THURSDAY, FEBRUARY 20, 2020



2

- 8:30 AM** Breakfast - Provided
- 9:00 AM Presentation: Intro to GIS (Stephen McGlenn, RC)
- 10:30 AM** Health Break
- 10:45 AM Presentation: Integrating GIS with Land Code, Land-use and Environmental Management Planning (Leeanna Rhodes, RC)
- 12:00 PM** Lunch Break - Provided
- 1:00 PM Guest Presentations: Community GIS & Mapping Showcase
- 2:30 PM** Health Break
- 2:45 PM Presentation: GIS/Mapping RC Support & Resources (Stephen McGlenn & Leeanna Rhodes, RC)
- 4:00pm** Wrap-up & Close of Day 2

Presentation Summary

“Introduction to Mapping”

Presented by: Stephen McGlenn, RC

Day 1, 9:15 AM



Maps and map-making are examples of spatial thinking, and help us to understand our place and position within a broader context. Maps and map-makers played a vital role in the colonization of North America and the dispossession of indigenous lands. Now, maps are being used by indigenous communities in land claims and to re-establish territoriality and title. This presentation will provide a history of both colonial and indigenous maps and map-making, a discussion of the ethics behind mapping, and will turn towards a discussion of maps within the context of the FA.

“Spatial thinking is fundamental in human beings...spatial cognition has been critical in human evolution.”

-Jack Dangermond (2017), Forbes.com

Spatial thinking is the human capacity to develop and use representational models of our world. We do this to help us navigate, define our position in relation to other things or objects, to organize information and to help solve problems. Examples of spatial thinking are in every culture and we all rely on it on a daily basis.



Spatial thinking helps us ask and answer **important questions**

and understand, visualize, and share:

- who we are**
- where we are**
- our surroundings**
- where we are going**
- where we've been**
- what matters to us**
- our relationship with others**
- connection with place**

Maps can come in many forms, not just on paper or on a screen, and they serve many functions. They are used to construct and de-construct human geographies. Maps were vital in the colonization of North America, and today are useful tools in land claims and to express indigenous territoriality and resurgence.



Presentation Summary

“Mapping as a Lands Governance Tool”

Presented by: Stephen McGlenn, RC

Day 1, 11:00 AM



Maps are extremely useful tools to organize Lands-related information and create data visualizations that are applicable in Lands Governance, from collecting cultural information, to doing community engagement, to aiding decision-makers. Maps help us tell stories about what matters to us. This presentation explores how maps and map-making became central to indigenous Land Claims, assertions of Aboriginal Title, and how they can be applied within the context of Lands Governance and the FA.

Maps and Land Claims

1763	Royal Proclamation of 1763 and map conveying “Indian Territory”	
17 & 1800's	Mappers, explorers and surveyors map out most of the continent	
1800 - 1921	Crown enters into Treaties with indigenous inhabitants of Turtle Island	
1800 - 1900	Crown surveys Indian Reserves, dispossessing indigenous people from their Territories	
1973	Calder Case. Supreme Court of Canada split on whether Aboriginal Title of the Nisga'a was lawfully extinguished	
1973	In response to Calder, Canada released its first Comprehensive Land Claims Policy. Mapping becomes essential for identifying Indigenous Territories	
1975	The James Bay and Northern Quebec Land Claim Agreement is settled, covering more than one million square km, setting the stage.	
1996	Framework Agreement on First Nations Land Management is signed. Authority for on-reserve land management is returned to signatory Nations.	
1997	The Supreme Court of Canada, in the Delgamuukw Case, establishes a 3-part test for Aboriginal Title that relies heavily on use and occupancy mapping.	
2014	The Supreme Court of Canada, in the Tsilhqot'in Case, issues the first ever declaration of Aboriginal Title, relying heavily on use and occupancy mapping.	

Maps are valuable tools in Lands Governance Planning

Land Use & Zoning

Maps help us to visualize and engage our memberships about transformations in our communities, and identify what kinds of uses our community wants and where.



Asset Mapping

Maps can help us track and inventory community assets, including infrastructure, housing, community facilities etc., and assist in Asset Management.



Lands Inventory

With Canada Lands Overlay and information from FNLRS, you can build a visual inventory of Lands-related data (e.g. property ownership & allotments, land interests, etc.).



Environment

Mapping helps us combine environment, land-use and other planning information to help us develop and implement policy.



Presentation Summary

“Intro to GIS”

Presented by: Stephen McGlenn, RC

Day 2, 9:00 AM



GIS stands for Geographic Information Systems. **Geographic** refers to anything related to the world in which we live and our place in it, such as natural features, environmental values, population, land interests and surveys, land-use, development, etc. **Information** refers to the data about the world that we collect, based on our values and what matters to us, and that is geographically referenced to a location on the Earth (i.e. Spatial Data). **Systems** refers to the hardware, software, procedures and people that are necessary to manage, manipulate, analyze, model, display and interpret geographic information.

In the context of developing or implementing your Land Code, Land Use or other type of plan, GIS can be an exceptionally powerful tool, both for tracking and updating Lands related information, engaging with your members, and aiding leaders with decision-making. This presentation will summarize the elements of GIS, how a community can start planning for GIS, and examples of its application and utility within the context of the Framework Agreement and Lands Governance Planning.



The Essential Ingredients of GIS:

Hardware

The **physical equipment** needed to operate GIS, e.g. computer, mobile devices, hand-held GPS devices, plotter (printer).

Software

The **computer programs** needed to store, retrieve, manage, manipulate, analyze and display geographic/spatial data.

Geo Referenced Data

Also known as **Spatial Data**, this is any type of data or information that is linked to a location on the surface of the Earth, and that tells us something about the world and/or our place in it (e.g. distance, area, value). GIS programs store spatial data as either raster or vector data, information, and utilize mathematical projections of the Earth to build a representational model of the surface of the Earth on which the data and its location and context can be shown.

Data Governance

Also known as **Data Stewardship**, these are the policies, procedures and behaviors of GIS users to ensure the consistency, accuracy and usability of data, as well as ensuring data is used and shared appropriately.

Skilled People

These are the trained **GIS Technicians** who have gone to school or received training in how to manage GIS data and operate GIS programs.

Planning Context

The utility of GIS is expressed within a specific **planning context**, e.g. Land Use Planning, Environmental Planning, Resource Management. What would you use GIS for?



Presentation Summary

“Integrating GIS, LUP, EMP & CCP”

Presented by: Leanna Rhodes, RC

Day 2, 11:00 AM



A Geographic Information System (GIS) is a great way to combine your community, land-use and environmental data into one platform. This can help a community ensure that various planning processes are linked and that decisions are being made more holistically. GIS helps track planning goals and outcomes and to visualize change within a community.

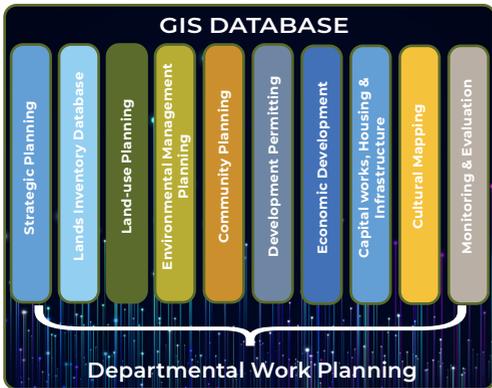
With the FA, communities can bring back their own planning practices, and with GIS, create powerful maps and data visualizations. GIS can assist in inventorying and tracking changes in your community, and overlaying and integrating layers of data.

GIS is a powerful Governance tool and can help improve your capacity,

INTEGRATING PLANNING & GIS MAPPING

Under the FA, control over lands & resources means communities can practice holistic and integrated planning processes.

If you plan accordingly, GIS can help integrate important information and processes to help you effectively exercise Lands Governance



GIS can help you, but it takes time, money and training to develop and use.

Investing in GIS is a big decision!



OUR WORLD

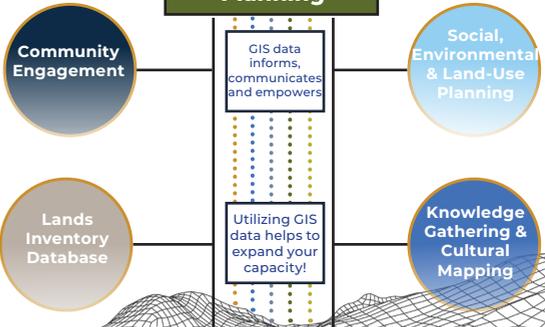
Data about the world is collected and input into your GIS

GEOGRAPHIC INFORMATION SYSTEM



Spatial Data is manipulated, analyzed, and represented within a Planning Context

Lands Governance Planning



Leadership & Decision-Making

Presentation Summary

“RC Assistance in GIS & Mapping”

Presented by: Stephen McGlenn, RC

Day 2, 2:45 PM



In addition to TMPD workshops, webinars, short online courses, Lands Governance Manual, and online resource library, the RC's recently launched **First Nation HUB for Lands Governance Planning** can provide additional direct community support to your community when it comes to planning for and implementing GIS and other major topics, issues and processes in Lands Governance.

FIRST NATION HUB FOR LANDS GOVERNANCE PLANNING



SUPPORT
& CAPACITY
BUILDING



Direct Community Support for GIS

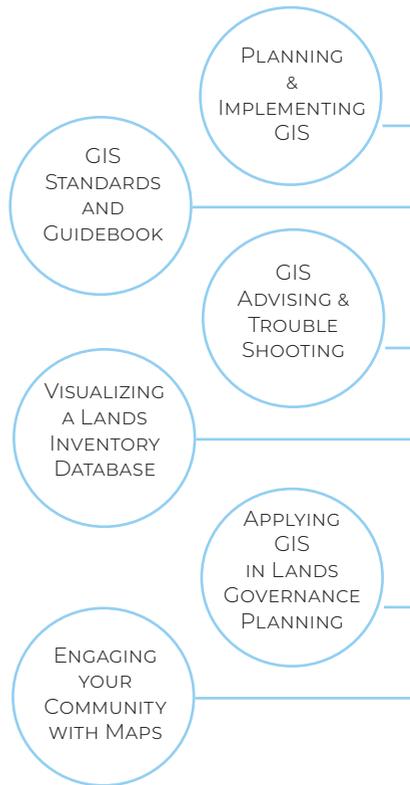
DID YOU KNOW?

You can request support from the Hub. RC specialists can connect with you or visit your community to help you! We can:

- Deliver Workshops
- Meet with Lands staff
- Present to your Committee, Council and community
- Understand the Framework Agreement, Land Code and how to successfully apply GIS to Lands Governance Planning
- Provide problem solving support on GIS and related challenges
- Advice and support issuing RFP's and working with consultants
- Connect and integrate Lands data, community, land-use and environmental planning-related information and objectives

Contact the hub!

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Hands-on Exercises

A significant part of this workshop will be dedicated to learning hands-on mapping techniques through Google Earth, a free, powerful and easy to use mapping tool that can be a useful alternative or precursor to GIS until a community is ready to invest. A special workbook has been created with Google Earth mapping exercises and scenarios based on typical land management issues. Participants are asked to bring Google Earth installed on their laptops; RC staff will facilitate the exercises.

Day 1, afternoon

Exercise 1: Basics of Google Earth



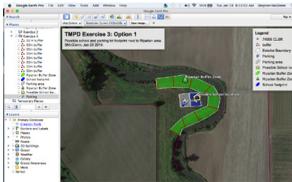
Learn the basics of Google Earth, including basic controls, how to use the main viewpanes, how to search and navigate, how to draw simple paths, polygons and placemarkers, input data, and make simple measurements. For this exercise we will also access and download the Canada Lands Overlay from NRCan.

Exercise 2: Subdivision Scenario



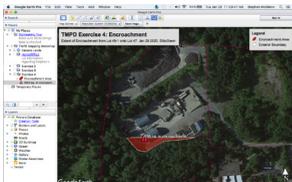
This exercise will review the basics of subdividing Land under a Land Code and a *Subdivision, Development & Servicing Law*. Learn how to use Google Earth to assist you in envisioning different ways to subdivide parcels of land in your community and send instructions to Land Surveyors.

Exercise 3: Creek Setbacks



In this exercise we will review the importance of riparian areas and the ecological services they provide, and discuss how to use Google Earth to map out setbacks, or buffer zones, to protect them from development encroachments.

Exercise 4: Encroachments and Historical Imagery



Encroachments are a common land issue. In this exercise we will look at encroachments in our community, utilize Google Earth's Historical Imagery tool and area measurement tools to gather information about encroachments and

....and more!

The Google Earth instruction booklet will be available to download from our website: www.labrc.com

Community Presentations

Community representatives from your region will present at the workshop to showcase their communities efforts, ambitions, challenges and successes with GIS and mapping. Hear first hand about the benefits and applications of GIS in a Lands management context.

For the Richmond session, our guest presenters include:

- Kwantlen First Nation
- Others TBD

Day 2, Afternoon



Training, Mentorship & Professional Development Overview of Knowledge Sharing Services

The Resource Centre (RC) is committed to assist operational communities in identifying their priorities, needs, and work planning for successful implementation of their Land Code. Under the Training, Mentorship and Professional Development (TMPD) strategy, the RC continues to develop and deliver fundmanetal and technical Lands Governance training under the Framework Agreement.

- ④ **Workshops** - RC continues to work towards providing future training and Lands Governance capacity development under the Framework Agreement. Audiences will be advised as workshops and courses become available.
 - Information Workshops - these sessions are intended to deliver general information and updates on specific topics that are of interest to our managers, directors and communities.
 - Learning Workshops - where knowledge is directly delivered by selected experts in the subject matter field.
 - Focus groups - small targeted groups derived from experienced FN participants that provide expertise towards a specific subject matter.
- ④ **Online Courses** - Online Courses are short courses that have been created on topics that are informed by key functions of a Lands Governance Director or a Lands Manager operating under the FA. These courses also have a supporting Workbook, presentation and supplemental resources that can be used in webinars and workshops. Courses are reviewed and updated periodically as laws and other content changes come into effect. There are presently over 45 online courses available, with several additional ones in development.
- ④ **Land Governance Manual (LGM)** - The LGM is a resource tool for operational First Nations. It provides extensive documentation, process support and guidance. It is available electronically through an APP format for Lands staff to reference as required. It plays a central role in the workshops and webinars and is regularly updated and refined based on First Nation successes, challenges and needs.
- ④ **Knowledge Repository** - A searchable repository of examples, cases, templates, recorded webinars and other tools is available to support operational First Nations. The ability to host online courses and sub section of the LGM in a searchable, electronic manner is central to the design philosophy of the strategy. Our website is being implemented along with other tools being considered, to allow for enhanced access to the repository.
- ④ **Direct Community Support (1:1)** - The RC staff are available to assist communities directly in identifying their priorities, needs, and work planning. If you are interested in this service we encourage you to contact us and we can set a time to discuss your needs and work to design specific workshops to provide capacity training for your community.

For more information, please contact:

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Training, Mentorship and Professional Development Strategy

Workshop Components

Records Management
July, Oct, & Nov 2018

Surveys
Regional Capacity Building
Aug & Oct, 2018

Webinar:
FA Amendments
May 2019

Webinar:
Registry 101
Sept 2019

Law Enforcement Workshop
Dec 2018 & Jan 2019

NATIONAL WORKSHOP:
Law Enforcement
March 2020

WEBINAR:
Financial Governance
TBD

FNLRS 201
Registry & Privacy Act
Oct 2019

Land Use Planning Approaches
May 2019

REGIONAL WORKSHOPS
GIS/Mapping
Feb 2020

Solid Waste Management
July 2019

WEBINAR:
Cannabis
TBA

First Nations Land Governance Options
Feb 2019

WEBINAR:
Traditional Knowledge
TBA

Climate Change Workshop
Nov-Dec 2019

NATIONAL WORKSHOP:
Financial Governance
Jan 2020

Unregistered Interests
Sept, Oct, & Nov 2018

Webinar:
Property Transfer Tax
Oct 2019

Spousal Property Workshop
2018

WEBINAR:
TLE/ATR
July 2019

Webinar:
Other Topics
TBD

First Nation Support Services BC

Meet the Team!



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Contacts

Use this section to keep track of people you meet at the conference!

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For more information, please visit:

www.labrc.com

