

Understanding Environmental Impact Assessment

**An overview for
INAC Regional Workshops**

Workshop Objectives

- To understand;
 - Sustainable Land Use
 - Purpose of an environmental impact assessment (EIA)
 - Community driven environmental stewardship
 - Tools for environmental decision making
 - Practical use of Environmental Impact Assessment
 - Terminology and Communication



In the Year 2022
Somewhere in Canada

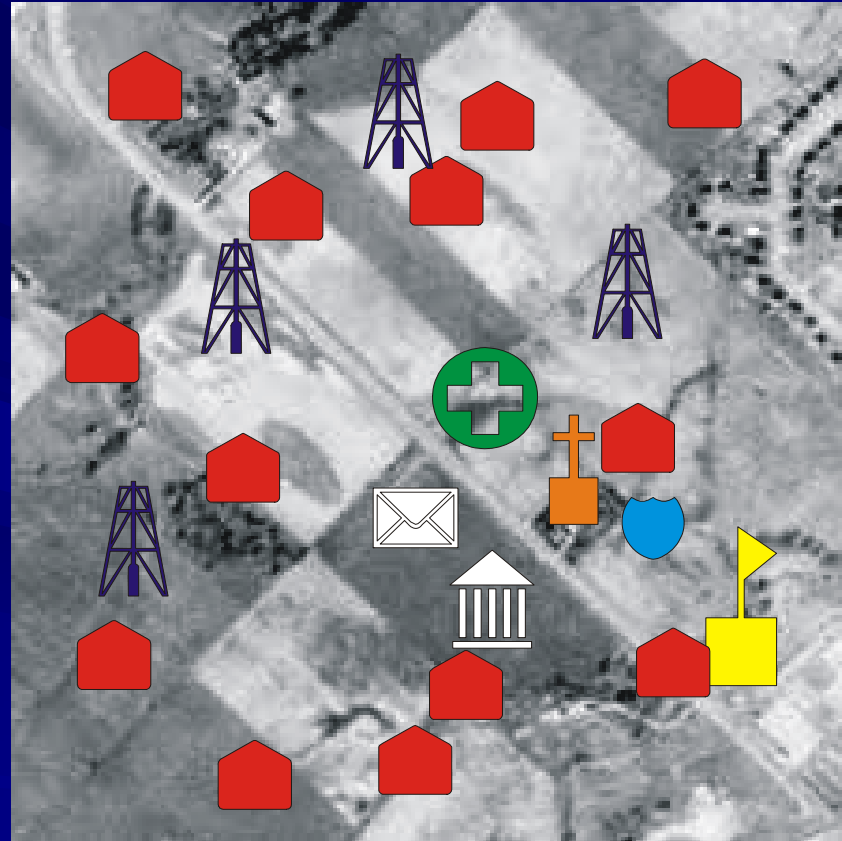
Demographics

- Population growth of 2.9%
- Twice as many houses
- Twice as many gas stations
- Twice as many schools
- Twice as many roads

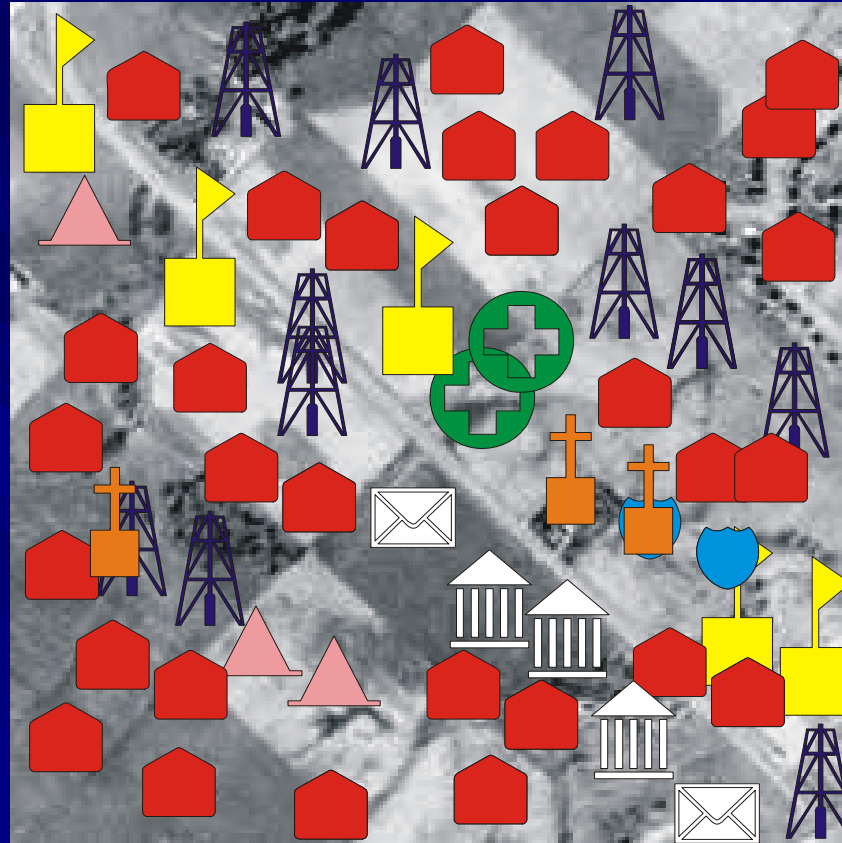
Somewhere in Canada



Present



2022



Discussion

- What works?
- What doesn't?
- Types of impacts
 - Conflicting Land Uses
 - Location of Facilities
 - Access and Density

2022

- What could have helped?
 - Community Planning
 - Proper use of resources
 - Environmental Management Tools

What is the link between land use and environmental management?

Land Use Plans

- Set goals for a sustainable and ecological diverse environment
- Identify economic, social and environmental goals
- Prioritize use of community resources by allocation and designation
- Protect the environment and human health

Land Use Plans

- Administration must resolve a wide range of environmental issues and disputes
- Development plans include bylaws and policies to assist with decisions making
- By-laws and policies identify best practices and standards

Outline

- Background/definitions and concepts
 - Sustainable Communities
 - Environmental Impact Assessment (EIA)
 - Planning

Part 1: Introduction to EIA's

What is an Environmental Impact Assessment?

- A process that identifies environmental effects of projects
- Identify and minimize environmental effects before projects begin
- Promote sustainable development
- Defined in the Canadian Environmental Assessment Act (1995)



Environmental Stewardship Tools

**PAST
ACTIVITIES**



ESA

**CURRENT
ACTIVITIES**



AUDIT

**FUTURE
ACTIVITIES**



EIA

Sustainable Development

Definition

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Bruntland Commission

Biophysical Inventory

- Identification and location of all the biological and physical resources
 - Water
 - Soil
 - Vegetation
 - Wildlife / birds
 - Wetlands and sensitive sites

Environmental Impact Assessment Objectives

- Environmental effects of projects are carefully considered
- Provides for public participation and input
- Projects are planned to have the least impact

What is considered a Project?

- A project (according to CEAA) can be either;
 - Anything involving physical work or
 - Physical activities

What are some typical projects you deal with?

- Capital
- Lands
- Economic Development
- Training and education programs
- Others?

Types of Environmental Impact Assessments

- Screening
- Comprehensive Study
 - Mediation
 - Panel Review

DIAND decides which level of screening the project needs.

What is an EIA screening report?

Most common type of EIA required on reserve

- Detailed review of the scope of a project
- Listing of potential impacts
- Listing of mitigation and monitoring requirements

INAC's role in the EIA process

- INAC is the responsible authority (RA), or the Federal organization that manages most EIA's on reserve lands
- Project proposals are submitted to INAC
- They determine the range of the assessment required (simple to detailed)
- INAC is responsible to ensure that the environmental assessment is conducted/completed

What is the EIA screening process

- Allocation of Funds
- Retain professional services to assist in completing EIA
- PWGSC, DOE, CEAA, DFO
- Specific expertise
- Submit completed EIA to INAC for review and an EIA screening report decision



Environmental Impact Assessment continued...

- **When the RA (INAC) screens a project they consider the environmental effects and determine if the project needs;**
 - **To be modified**
 - **More mitigation (control or elimination)**
 - **More assessment**
 - **Approved**
 - **Not approved**
- **Screening decision determines whether a project will proceed**

The EIA Screening Process

What to expect in an EIA Screening Report

■ What?

- A brief description of the project, including a general description of construction, operations, and activities

■ Where?

- Include maps of project area and surrounding areas that potentially may be impacted

■ When?

- Include a proposed timeline for the project and related activities

■ Who?

- Include a list of contact names and interested parties

■ Why?

- The need for the project and benefits associated with it

What components are in an EIA screening report?

- Project description
- Maps/Plans
- Environmental Setting
- Environmental Effects
 - Resources
 - Construction
 - Operation and Maintenance
 - Decommissioning
 - Related Effects
- Mitigation
 - Monitoring and Follow up
- Public Participation
- Conclusions

Scoping a project

- Need to determine all parts of a project that will be considered in an EIA screening
- All physical work should be included;
 - Construction
 - Operation
 - Modification
 - Abandonment
 - Regulatory agencies for approvals

Principle/Project Accessory Test

- What is the principle project?
- What physical work needs to be done to complete the project?
- What activities are accessories to the project?
- Example;
 - Principle Project; Sanitary landfill
 - Accessory; Access road
- Both need to be included in the EIA!!

Identification of Interested Parties/Stakeholders

- Public and community members
- Regulatory Agencies
 - Department of Fisheries and Ocean (DFO)
 - Environment Canada (DOE)
 - INAC
 - CEAA
 - Alberta Environment
 - Non government organization (NGO)

Who prepares a EIA screening report

- Must be a skilled individual
- Must understand the Science of Assessment
- Must be qualified to assess (often a third party)

Why a Third Party

- Arm's length from a community
- Allows more critical review of potential impacts
- Regulatory agencies want to see an objective review
- Some third parties
 - PWGSC
 - Tribal Councils - Consultants

What is the role of INAC staff

- Make sure an EIA is completed
- Provide adequate notice to First Nations if an EIA is needed
- Offer guidelines and parameters
- Notify other departments if required

What is the role of the First Nation Administration

- Management of the third party
- Ensure community consultation
- Provide reference to short and long term planning
- Provide any background information
- Make sure all departments are notified
- Monitoring of project development and operation

What is the role of a Community

- Feedback during consultation
- Social and Cultural impacts identified
- Accountability?

Role of Chief and Council in the EIA Process

- Provide leadership
- Ensure EIA's are completed
- Consult membership

Maps/Plans

- For most projects three maps are appropriate,
 - Location of project within Province
 - Size and location of project within the reserve community
 - Detailed project design (site map)

Environmental Setting

- Must describe current environment of the proposed project
 - Environmental classification
 - Wildlife
 - soil type/quality
 - climate type
 - forestry region
 - is the project proposed in an ecologically/environmentally sensitive area?

Environmental Setting

- What is the environment like now?
 - Valued Ecosystem Components
 - key components of the existing environment
 - TEK
 - Major Land Uses
 - residential, harvesting, wildlife habitat
 - Social and Economic Conditions
 - employment, crime rate, substance abuse

Environmental Impacts

- Can come from any part of the project
- Impacts are graded on
 - whether they affect the people in the area
 - how are they affected
 - positively/negatively
 - or if they cause any environmental changes
 - how big are the changes
 - positive or negative changes

Determining the Magnitude of Adverse Effects

- How severe are the effects? Are they cumulative?
- What is the geographic extent?
- What is the ecological context? Is the area already damaged?
- How long will the effects last? Future adverse effects?
- Are they reversible/irreversible?
- What is the likelihood of the adverse effect occurring?

How do we determine impacts?

- Separate studies may be required
- Professional investigations
- Short/long term monitoring

Other Environmental Effects

- Physical heritage
- Cultural heritage
- Current use of lands and or resources for traditional purposes by aboriginal persons
- Any structure, site, or thing that is of historical, archaeological or architectural significance

Socio-Economic Impacts

- Negative effect on human health, well being, or quality of life
- ↑ in unemployment
- ↑ in substance abuse
- ↑ in domestic violence and crime
- ↓ quality or quantity of recreational opportunities
- ↓ aesthetic appeal
- foreclosure of future resource use or production

Cumulative Effects

- What are cumulative effects?
 - Changes to the environment that are caused by an activity, in combination with other past, present and future human actions.
- How does your project contribute to the overall effects of development in the region?

What is mitigation?

- Actions that eliminate, reduce or control environmental effects, concerns, and risks from a project.

Mitigation

- Include information on effectiveness of mitigation measures.
- Examples of mitigation measures:
 - Fencing
 - Signs
 - Monitoring
 - New technology

Monitoring

- Many projects will require monitoring
 - Some monitoring will be required by the regulatory agency, some required to assess environmental impacts
- Some of the common monitoring requirements:
- continual air quality
 - wildlife populations and activity
 - groundwater quality
 - soil quality
 - surface water
 - public health and safety
 - drinking water
 - housing encroachment
 - re-vegetation activity
 - auditing

Public Participation/Consultation

- Do community members support the project, have you asked for their opinion and provided them with information about the project?
- What is your plan to consult with the community about the project?
- How will you deal with concerns that they raise?



Reporting Results of the EIA

- Who do you tell?
 - INAC and the Public
- Provide a summary of the project and environmental effects associated with it.
- Identify any effects that may need more study, mitigation or consultation with the public.
- Include a summary of cumulative effects and any effects due to potential accidents and malfunctions.



Standard Projects

- Projects with known effects
- Projects that are repeated often
- Still needs to be assessed however mitigation and effects are standardized

Summary

- Sustainable community development
- Land Use Plans
 - Prioritize land use allocations and development requirements
 - Protect community interests
 - Provide by-laws and policy for decision making