

Introduction to Tools for Environmental Management and Assessment

Denise Verreault

Environmental Management Coordinator

TSAG



Tools for Environmental Management; A Guide for First Nations – production objectives 2005

- TSAG retained the Human Environment Group in 2005 to work with First Nation environmental managers and land administrators to develop a reference guide that could be used as a tool by First Nations when making environmental management decisions; both on Reserve, and within traditional territories.
- Objective: Provide background and methods of application for a series of tools that can be used by communities dealing with issues related to natural resource management

Tools for Environmental Management; A Guide for First Nations – 2005 – Objectives cont.

☀ Deliverable

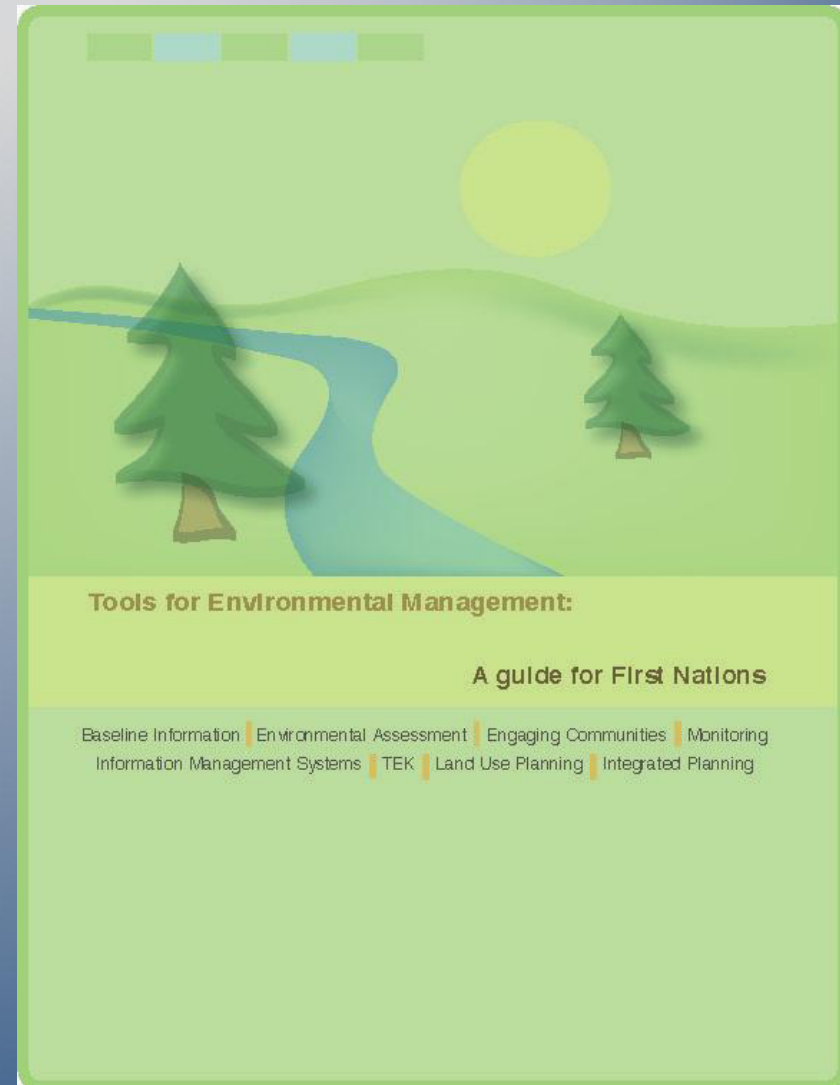
- ✧ A Guide for Communities/Government to use in designing Natural Resource Management projects or activities

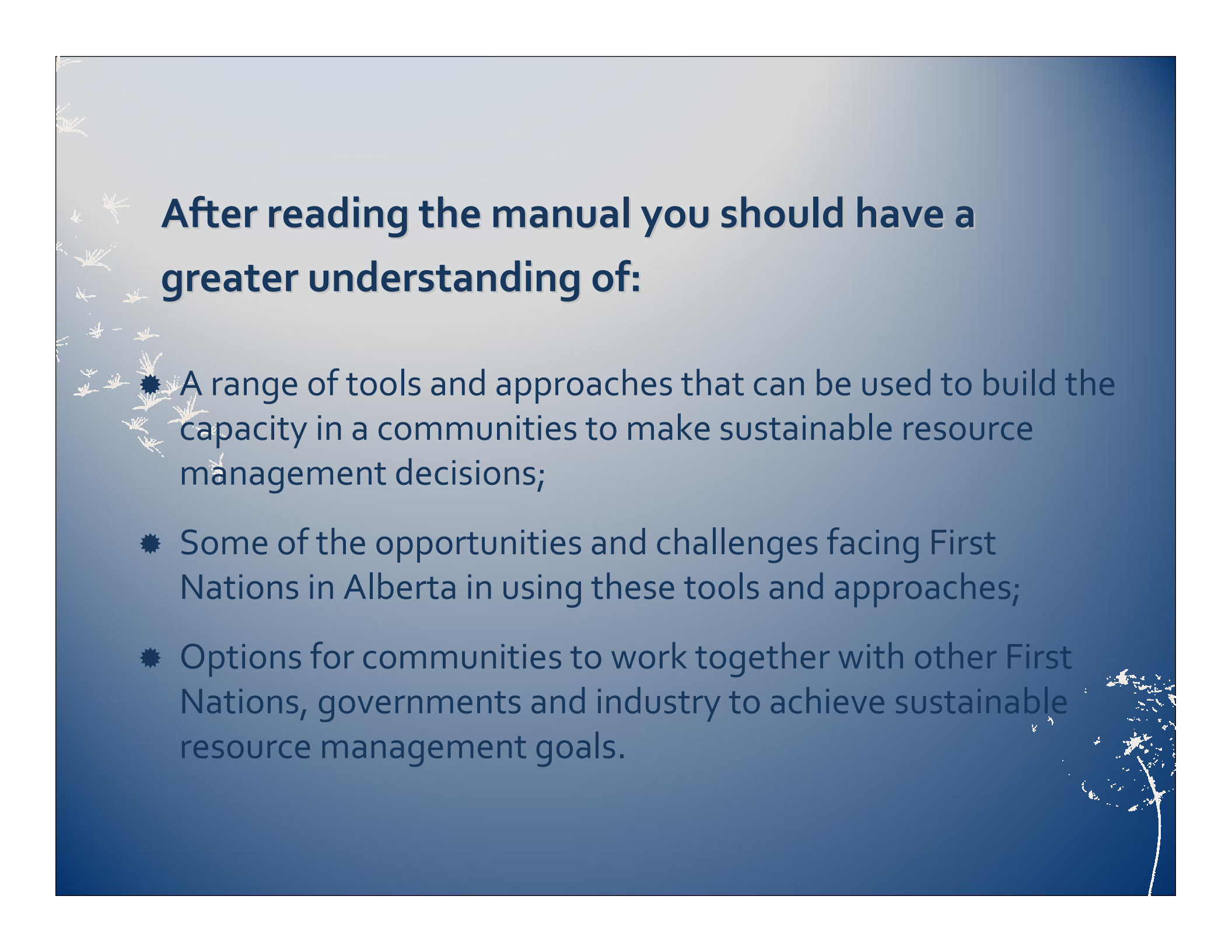
☀ Method

- ✧ Interview 15+ communities as to their status, issues, challenges, and goals

☀ Updates

- ✧ Provide communities with the most recent information possible





After reading the manual you should have a greater understanding of:

- A range of tools and approaches that can be used to build the capacity in a communities to make sustainable resource management decisions;
- Some of the opportunities and challenges facing First Nations in Alberta in using these tools and approaches;
- Options for communities to work together with other First Nations, governments and industry to achieve sustainable resource management goals.

Sections of the Manual

- Engaging the Community (Section 2.0)
- Local and Traditional Knowledge (Section 3.0)
- Environmental Baseline Information (Section 4.0)
- Fuel Storage (Section 5.0)
- Solid Waste Management (Section 6.0)

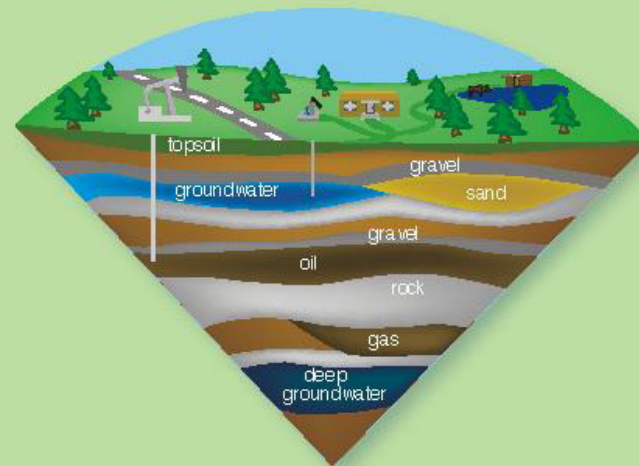
- Information Management Systems (Section 7.0)
- Environmental Management (Section 8.0) Environmental Assessment; including Environmental Impact Assessment (EIA), Environmental Site Assessment (ESA), Auditing and Follow-up Impact Assessment (FEIA)
- Land Use Planning (Section 9.0)
- Environmental Monitoring (Section 10.0)
- Integrated Resource Management (Section 11.0)

ENVIRONMENTAL BASELINE INFORMATION

The process of documenting this information is often referred to as a "Biophysical inventory". Commonly collected information includes:

- ✧ Surficial geology and landforms
- ✧ Bedrock geology
- ✧ Hydrogeology
- ✧ Soils

Baseline Information



ENVIRONMENTAL BASELINE INFORMATION Cont.

- ✧ Surface water
- ✧ Fish and other Aquatic Resources
- ✧ Vegetation
- ✧ Wildlife and wildlife habitat
- ✧ Sensitive areas and/or areas of rare or endangered species/habitats

ENVIRONMENTAL MONITORING

- Applications
- Approaches and Scales
- Integration of Western Science and TK
- Issues and Challenges

Environmental Monitoring



LAND USE PLANS

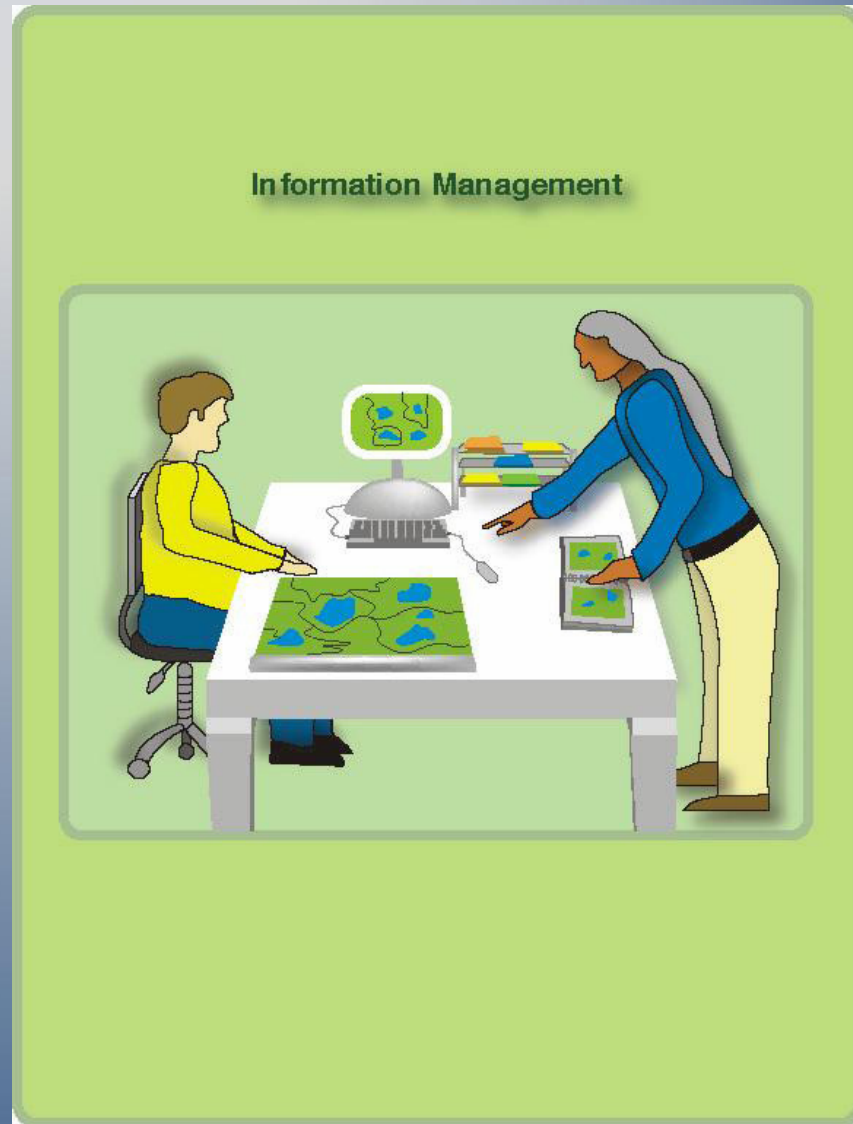
Land use: the ways people interact with the land and the environment. This can include consumptive use (hunting, oil and gas activity, forestry) and non-consumptive use (camping, off-road vehicle use, canoeing) cultural or spiritual use.

Land Use Plans



INFORMATION MANAGEMENT SYSTEMS

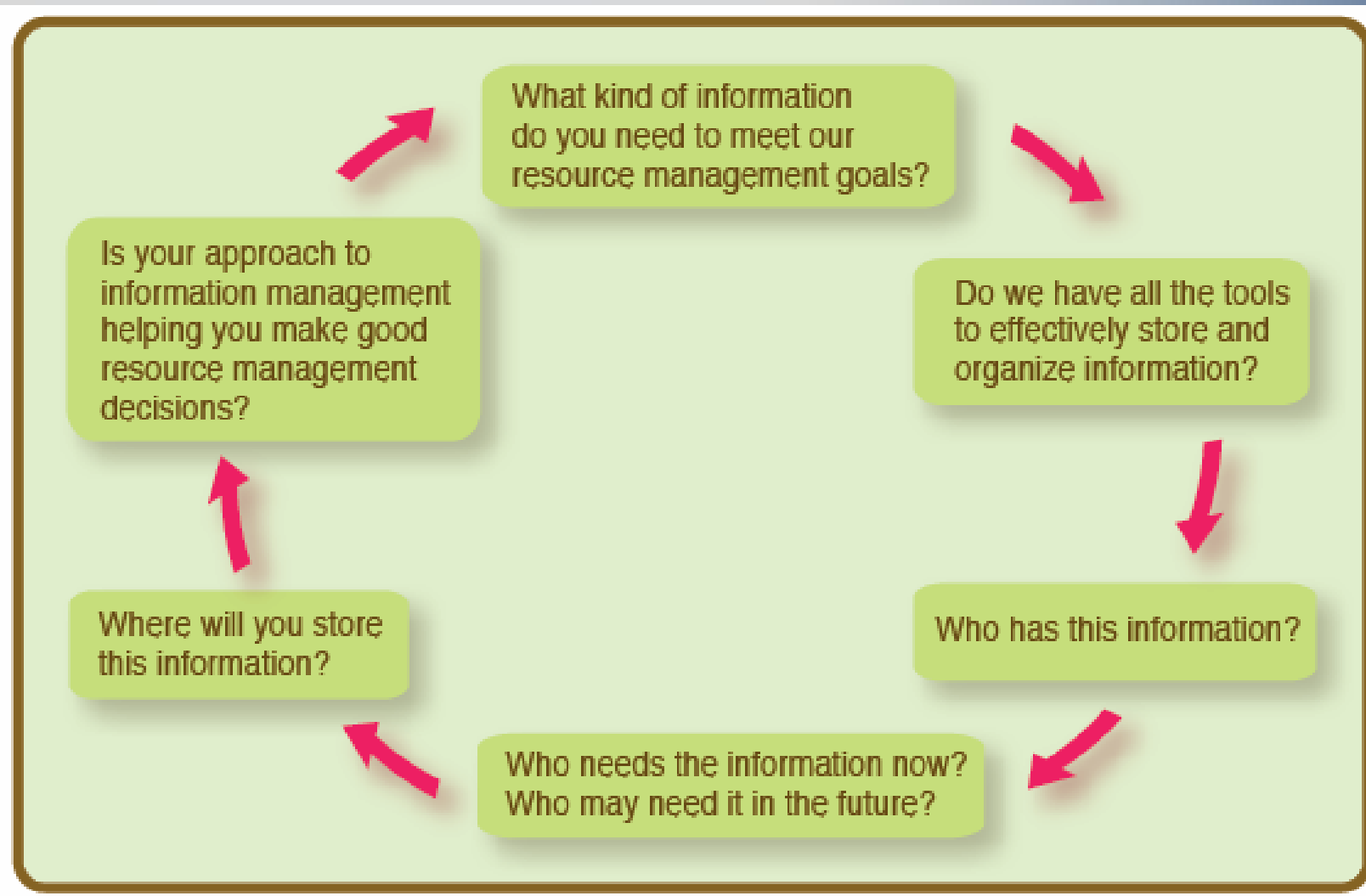
- What kind of information do we need to meet our resource management goals?
- What kind of tools does our community need to effectively store and organize and access/share information?
- Who has this information now? How can we get it? Is it in the proper format? Are there copyright or property laws associated with the use of this information?



INFORMATION MANAGEMENT SYSTEMS

- Who needs the information now? Who may need it in the future?
- Where will we store this information? Where will we store the backup copy?
- Is our approach to storing and organizing information helping us make good resource management decisions?

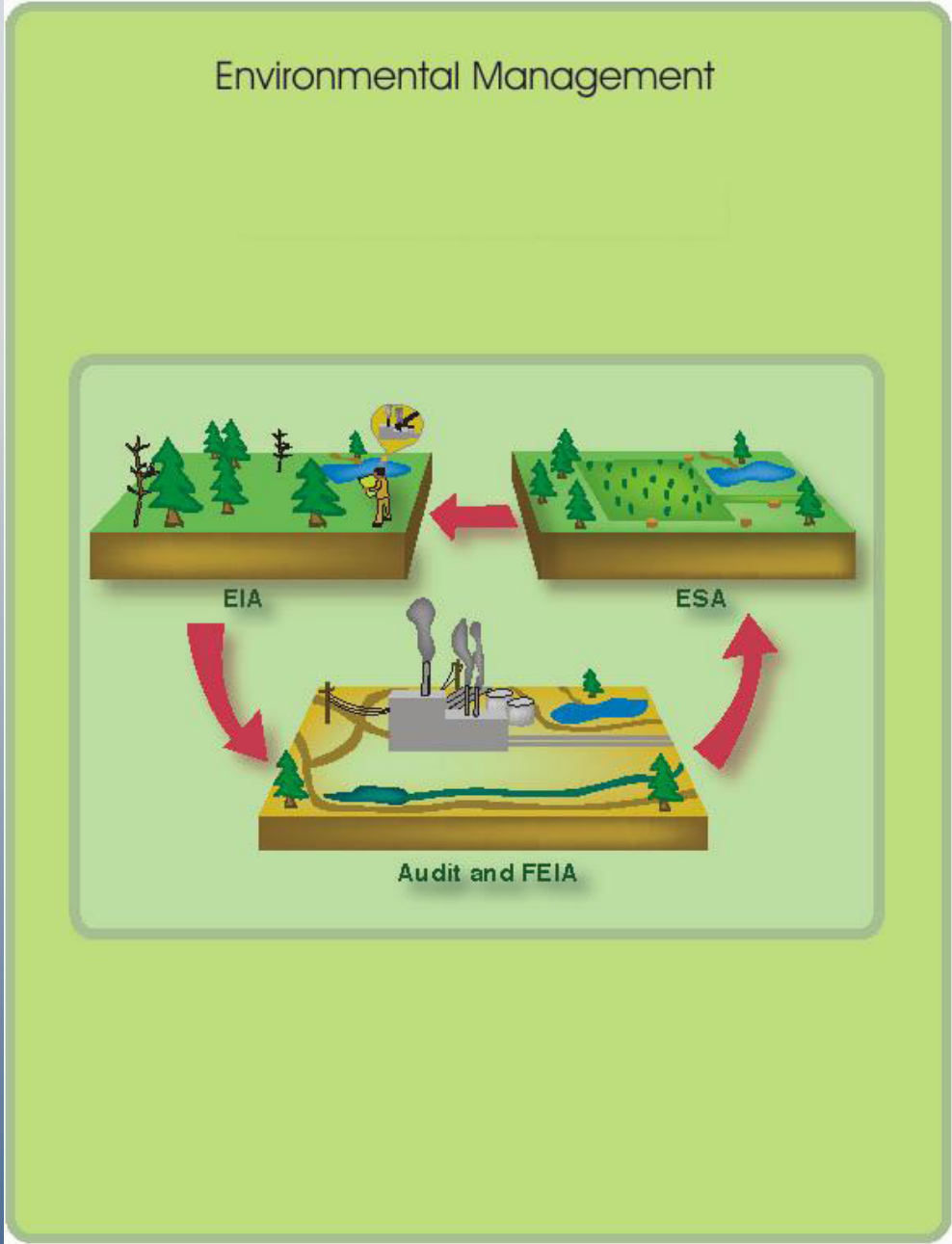
Information Management



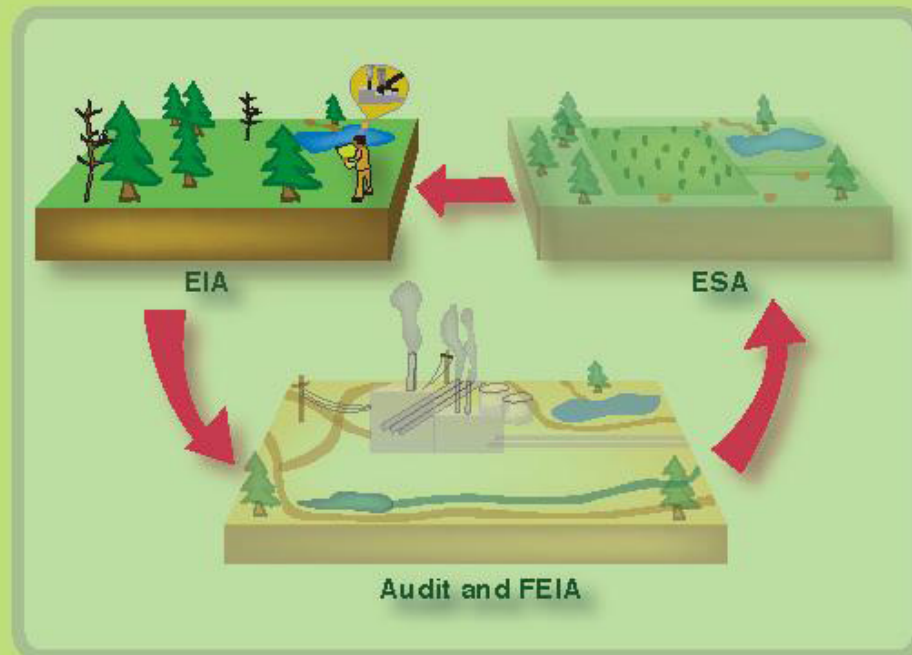
Environmental Assessment Project

- Tools for Environmental Management; A Guide for First Nations update was completed in September 2008
- Currently Section 8 Environmental Assessment Section is being updated with:
 - First Nations Environmental Assessment Technical Working Group (FNEATWG) – Coordinator
 - ✦ BC First Nations Environmental Assessment Toolkit
 - ✦ CEAA and GOA

Environmental Management Tools



Environmental Impact Assessment



What is the process?

Environmental Assessment processes

- ✿ The section 8 of the guide provides
 - ✿ Definition of regulatory systems
 - ✿ Information Types
 - ✿ Integration with Decision making
 - ✿ Timing
 - ✿ How and when

Environmental Assessment Processes

The subsequent sections will provide you with information about the following questions:

- What is an Environment Assessment (EA) and why is it important?
- What is an Environment Site Assessment and why it is important?
- What is an Environmental Audit and why is it important?
- What is a Follow-up Environmental Impact Assessment and why is it important?

Environmental Assessment Tools


- **Environmental Assessments are a planning and predictive tool.** They establish pre-development environmental conditions to help plan for resource development and management initiatives. They provide an organized, orderly way of considering, evaluating, reducing; and if possible, avoiding possible negative impacts a proposed development might have on the environment.
- **Environmental Site Assessments are an impact evaluation tool.** A tool to assist in the determination of the condition of the land at a particular site at a single point in time. Environmental Site Assessments are commonly used to identify potential risks and liabilities associated with a site. For example, an environmental site assessment can be used to determine how or if a site is or has been impacted by soil or groundwater contamination.

Environmental Assessment Tools

- **Environmental Audits are a compliance evaluation tool.** They can be conducted at any time during a development project or business operation as they are used to evaluate compliance with regulatory requirements or conformance with internal directives.
- **Follow-up Environmental Impact Assessments (FEIA) are an adaptive management tool.** FEIAs are studies to evaluate the environmental effects of projects after completion and usually involve long-term monitoring programs. These types of studies can be used to evaluate the accuracy of EIA predictions and if necessary revise mitigation plans of project operations to eliminate or reduce future environmental effects. Note that in certain situations federal departments under the *Canadian Environmental Assessment Act* (the Act) may require a follow up program.



FIRST NATIONS ENVIRONMENTAL ASSESSMENT TOOLKIT - First Nations Environmental Assessment Technical Working Group

- ✿ **Section 6 – Canada’s Environmental Assessment Process**
 - ✿ **Prepared by the First Nations Environmental Assessment Technical Working Group**
 - ✿ **CONTACT INFORMATION**
 - ✿ **FNEATWG administration Canadian Columbia River Inter-tribal Fisheries Commission phone (250) 417-3474, fax (250) 417-3475, e-mail crrifc@cyberlink.bc**
 - ✿ **FNEATWG coordinator, phone (250) 651-2188, e-mail scarlick@trtn.com**
- 

FIRST NATION PARTICIPANTS

- Collier Azak, Nisga'a Lisims Government
- Diane Hinkley, Cowichan Tribes
- Michelle Ellison, Squamish Nation c/o Ratcliff & Co.
- Fred Fortier, Secwepemc Fisheries Commission
- Chief Gibby Jacob, Squamish First Nation
- Bill Green, Canadian Columbia River Intertribal Fisheries Commission
- Charlene Higgins, Mount Currie Indian Band/There's More To Forests
- Kathleen Johnnie, Snuneymuxw First Nation
- Rick Krehbiel, Lheidli T'enneh Treaty Office
- Randall Lewis, Squamish First Nation
- Lyle Leo, Lil'wat First Nation; Odelia Quock, Iskut First Nation

Other Participants

FEDERAL GOVERNMENT PARTICIPANTS

- **Laura Dear, Canadian Environmental Assessment Agency**
- **Jack Gibson, Department of Indian and Northern Affairs**
- **Lisa Webster, Department of Indian and Northern Affairs**

PROVINCIAL GOVERNMENT PARTICIPANTS

- **Martyn Glassman, BC Environmental Assessment Office**
- **Susan Kelly, BC Treaty Negotiation Office**

Goal of revised TSAG Guide

- Obtain assistance from CEAA and GOA on regulatory processes for EA
- Utilize Section 6 of the First Nations Environmental Assessment Toolkit created by FNEATWG
- Creation of a Pocket guide – easy answers when out in the field or project initiation
- Assist First Nations with EA processes at grassroots to administration levels

Open discussion topics

- Feed back on EA needs and issues
- Specific questions to CEAA and GOA
- Further training opportunities
- What are the solutions used at the community level to deal with resource or other issues

Thank you

Questions and Comments