

# Integrated Land Management Lesson Kit

## Student Worksheet / Teacher Answer Sheet

### Background

As the population of Alberta increases, the boreal forest is under increasing pressure to meet all the needs of the local residents and industry. Every day forestry professionals are working to develop forest management plans that balance the needs of society, the environment, and the local economy for those areas. To help meet these challenges, the Alberta Government has developed a process to encourage integrated land management called the Alberta land use framework. This lesson will discuss the role of Integrated Land Management, the role we play in land use and how we can affect it.

As you complete the ILM lesson presentation through the App or web link, answer the following questions.

### Questions

1. What is meant by the term "footprint" in relation to ILM?

Our landuse footprint is how we individually and collectively impact the land and environment around us. Managing our footprint means managing the impact of our use of land and resources for broader landscape values.

2. Provide 5 other users on the land that were not listed in this exercise.

- Recreational (fishing, hiking, biking etc.)
- Aesthetics (intrinsic values, scenery, bird watchers)
- Commercial (horseback riding, tourism)
- Industrial (forestry, oil & gas, mining)
- Government (parks, roads)
- Research and education
- Trappers, hunters or gatherers
- Aboriginal Traditional Uses (animals, plants etc.)
- Cultural Use
- Farming or ranching

3. Landscape values are the different resources or activities that are valued in an area that is being managed. Those values can be divided into three broad categories. List and define the 3 categories you explored in this lesson.

**Economic** - Economic values relate to the wealth of an individual, community or nation. An example is deriving value from industrial or commercial activity on or from the land.

**Social** – Social values relate to values of a society, including living in organized communities and related factors such as culture, health and well-being and safety. Examples include cultural, recreational, natural aesthetics, and Aboriginal traditional use values.

**Environmental** – Environmental values relate to the components of the earth including the water, land, air, all wildlife, plants and living organisms, and all of their interacting natural systems. (Alberta Land-use Framework 2008)

4. In the brainstorming exercise, we discussed uses or values of the land to individuals and society. Provide examples of 5 individual uses or values and 5 examples of society or collective uses of the land.

Individual Uses/Values

1. Outdoor pursuits – hiking, ATV
2. Water - drinking and play
3. heat - firewood
4. food – hunting, fishing, berries
5. Medicinal uses

Societies or Collective Uses/Values

1. Water
2. oil and gas resources
3. farming
4. Access or roads
5. Forestry – wood and paper

5. On the video *It’s Our Forest – Part 2*. What is the difference between private and public land (crown land)?

Public land is land that is owned by the Alberta Government and is accessible to all Albertans. Private land is owned by an individual. Ownership gives an individual certain privilege regarding the management or development of their land.

6. Define Integrated Land Management (ILM).

Integrated Land Management (ILM) is managing our use of natural resources on public land while recognizing the needs of many stakeholders. ILM is the planned approach to managing and reducing the human-caused impact on the land. ILM is the process to promote the efficient use of the land to reduce our footprint of human activities on our landscape (land, air and water). ILM is a management strategy to increase the information and knowledge about our cumulative effects and collectively reduce our impact.

7. What are some conflicts between users? Conflicts often occur when there are overlapping interests or users on one piece of land. Should an individual user have a greater voice than the collective society on determining the uses on the land? Provide an example with your answer.

Conflicts often occur when there are overlapping interests or users on one piece of land. Some examples of conflicts are:

- Limited access to land via a trail or road because of gates and use of road use agreements.
- Destruction of a road or trail from unauthorized users
- Multiple users of an area or resource (OHVs and bird watchers, fisherman and boaters, oil and gas and forestry)
- Farmers allowing cattle in streams for watering purposes, this can degrade water quality for downstream users.
- Oil and gas development opens up access to predators in a caribou calving area.
- Logging on aboriginal traditional lands will change the landscape for some time for local berry picking.

Should an individual user have a greater voice than the collective society?

8. How may globalization be impacting the boreal forest? Globalization is the growth of commerce, trade and the interaction of companies and people to a worldwide scale.

Companies that are operating and trading at a global level will be providing their services and goods not only to the local market but also to international markets. This increases the number of consumers and demand and may increase the activity to access the natural resources supplied from the boreal forest, in turn increasing our footprint.

9. Define cumulative effects. How long can society handle the cumulative effects of this demand?

Cumulative effects are a change in the environment caused by interactions among human activities and natural processes that accumulate across space and time. As the population increases society's needs are increasing and so are the cumulative effects of those impacts.

10. From the quiz activity "What would you do?", describe the consequences of your decisions individually, socially and environmentally.

Every decision and action that you make has a consequence individually and possibly collectively to society.

This will be an individual answer based on how they each student answered the questions.

11. What can you personally do to lesson your impact on the land?

By working together, we can reduce our impact on the land by:

- Sharing the land
- Planning the use of our land together
- Building understanding though shared knowledge
- Respecting the environment and recognizing that everyone has to right to enjoy it
- Practicing good forest stewardship whereby citizens, industry, communities and governments work together to responsibly care for and manage natural resources and environment.

Examples:

Recycling, reducing waste and reusing items.

Turning off the tap when brushing your teeth.

Watering your grass at dawn or dusk to limit evaporation.

Using a reusable water bottle instead of a one- use plastic water bottle.

Use fabric shopping bags instead of plastic shopping bags.

Use defined trails when hiking or using an All terrain vehicle.

Following fishing and hunting regulations to ensure healthy population numbers.

Purchase goods and services from certified sustainable suppliers.

Use earth friendly cleaners and pesticides.

Walk or bike instead of driving.

Turn off appliances and electronics that drawn power when not in use.

Class Discussion Questions:

1. Explore the positives and negatives of industry, environment and regulations. How do they impact society?
2. How do your actions impact the land?
3. What is more important for the management of public land, individual use or community values.
4. Identify a conflict that can occur between different user groups on the landscape in your community.