

Northern Michigan, also known as Northern Lower Michigan (known colloquially to Michigan is to be distinguished from the more northerly [Upper Peninsula of Michigan](#)). It is home to several small- to medium-sized cities, extensive state and national forests, lakes and rivers, and a large portion of [Great Lakes](#) shoreline. The region has a significant seasonal population much like other regions that depend on tourism as their main industry.

With nearly 9,000 acres in which to roam, Hartwick Pines is a great destination for mountain biking, cross-country skiing, snow shoeing, camping, hiking, picnicking, birding, hunting, fishing and exploring Michigan's great outdoors. Visit during the summer for guided tours of the Old Growth Trail, natural resource-related activities and special guest presentations. Walking along the Old Growth Trail, folks will find the Hartwick Pines Logging Museum. The log cabin buildings tell the story of the White Pine Logging Era in Michigan (1840-1910) and give the visitors a glimpse of what living in a logging camp was like when White Pine was King. Designated Hartwick Pines State Park preserves the largest stand of old growth white pine (49 acres) in Michigan's Lower watchable wildlife sanctuaries.

Uranium has been found in large deposits in the areas of Northern Michigan. The mines initial estimate is that they will be able to do both in-suitu and open pit mining, and have a deposit that may last as long as 100 years. This mining would have significant impact on the local economy, but would also have a great impact on the areas tourism and natural resources. It is your job to look at the mining laws, the resources that would be impacted and try to come up with a plan that would be the best for all of our local residents. (See map of mining area)

The environmental impact assessment (EIA) is a process that can be used to identify and estimate the potential environmental consequences of a proposed development. Environmental impact assessments commonly examine ecological, physical/chemical, sociological, economic, and other environmental effects

A large variety of environmental and ecological changes can be caused by any project. It is never practical in an environmental impact assessment to consider all of the potential effects of a proposal. Indicators, called "valued ecosystem components" (VECs), are selected for study, on the basis of their importance to society or the area involved. This is often determined with representatives of regulatory agencies, scientists, non-governmental organizations, and the public.

Examples of VECs that you should consider when developing your EIS plan include: (1) resources that are economically important, such as agricultural, and populations of hunted fish or game ;(2) rare or endangered species and natural ecosystems; (3) particular keystone species or environments, that damaged could harm an entire ecosystem.

The first part of your assignment in creating an environmental impact statement requires that you research to determine potential conflicts between the proposed mining activity and the effects on ecosystem components in your designated area. This is a preliminary, research exercise, which may require you to make judgments based on the research of the benefits of the project and costs to the environment. Make sure to look at the contributors of the information you use to determine if the source is credible, unbiased, and a valid resource of information. (See the list provided and the criteria for a good internet web site).

There are three types of choices that can be made:

(1) The damages can be avoided, by not doing the development, or limiting the original plan. The public and politician tend to resent this option, because socioeconomic opportunities can be lost especially in the difficult economic times.

(2) Mitigations are common ways of resolving conflicts between projects and the environment based on the considered VECs. However, there are always risks with the use of compromises, because ecological and environmental knowledge are incomplete or do not take in to account long term effects, or if the mitigations will actually work properly to protect the area.

(3) Another option that can be chosen especially in the current energy starved environment and economic down turn is to allow the damages to the environment to occur, and to accept the damage as an unfortunate cost of creating economic benefits to an area by proceeding with the project. This choice is common, because not all environmental damages can be avoided, and many damaging activities can yield large, but often short-term profits.

It is not possible to carry out large industrial or energy developments without causing some environmental damage. However, by constructing a comprehensive impact assessment you can help decision makers to understand the importance of those damages, and to decide whether they are acceptable, or whether they must be reduced or avoided due to the consequences of accepting short term benefits over long range and possibly permanent damage to the ecosystem.

It is the student's jobs to research the options and weigh the benefits and environmental damage, then come up with an EIS statement for the proposal.