

No Net Negative Environmental Impact Philosophy

Development of human facilities and services can have lasting, negative impacts on the health of national park ecosystems. Canada's National Parks Act; however, promises future generations that this generation will keep these national treasures unimpaired. The challenge is to provide for human enjoyment of national parks without, incrementally, eroding their ecological health. Parks Canada will meet that challenge by ensuring there is no net negative environmental impact from development activities and associated human use in park communities and downhill ski areas.

No net negative environmental impact (3NEI) for communities and ski areas means everyone working together to ensure that wildlife, plants, water, air, soil and the processes that connect them will be better off or no worse tomorrow than they are today. The cumulative impact of development decisions on the ecological well being of parks, from this day forward will be positive, not negative.

3NEI is a commitment by the Minister of Canadian Heritage, which is to be achieved primarily through the application of the following tools and standards:

- leadership in environmental stewardship;
- projects are assessed in accordance with the Canadian Environmental Assessment Act;
- standards for appropriate development (including growth limits); and,
- standards for appropriate business activity.

The overall goal for Parks Canada is ecological integrity. This means we are obligated to keep all of the pieces of the ecosystem and to make sure that those pieces can function in natural ways that will ensure the survival of the whole. 3NEI is part of the effort to achieve ecological integrity. 3NEI compels us to look at how we use park communities and ski areas, and to take action to ensure that their development and use does not threaten the ecosystems we all value.

The elements of 3NEI

Shared responsibility

Because natural systems are complex and don't fit into convenient administrative boundaries, 3NEI will only work as a shared responsibility. Achieving this goal will require the commitment and co-operation of Parks Canada, the communities, the private sector, individual visitors and the residents to a form of development and use which places our protection of ecosystems as a first priority.

The precautionary principle

Development decisions are often virtually irreversible and can result in compounding effects:

new development creates new levels of human use that drives future demands for development. At the same time, natural ecosystems are complex and dynamic, so we may not always be able to predict the impacts of development. 3NEI requires that we apply the precautionary principle: when we are unsure of how well we can predict the impacts of decisions, we must err on the side of caution and proceed slowly or not at all.

Baseline knowledge

Evaluating or anticipating the effects of development and human use on the ecosystem means that we need to measure the current condition and evaluate how existing levels of use and development affect that condition. Understanding the full picture also means we examine other influences and effects which may have contributed to the baseline ecosystem conditions. Knowing the baseline and the influences which created that condition are critical for ensuring we focus on what is important and for setting relevant and achievable targets to manage effects on the ecosystem.

Targets, indicators, monitoring and a process of evaluation

As we plan and take action to protect the ecosystem we need to know we are going in the right direction. Four things are necessary: targets, indicators, monitoring and evaluation both of the outcome and, periodically, the usefulness of the targets and indicators in getting us to where wish to be.

- Targets are the desired conditions for things such as water, wildlife, air and plants in relation to the baseline condition. They represent our best effort to define what we mean by “better off” for the ecosystem.
- The indicators are the things we can monitor which will tell us how our actions have affected the ecosystem and its parts. We will use two types of indicators,
 - those that measure the results of development and human use, such as measuring sewage effluent quality or energy consumption, and
 - those that measure the direction, amount and nature of change to the ecosystem and its parts.

Once we have identified our indicators, set targets and begun to measure changes in those indicators, 3NEI requires that we have an ongoing process for evaluating the trends those indicators reveal and for planning the appropriate responses. The evaluation step is a matter of looking at the condition of the indicators and making the judgement about the usefulness of the information and the direction our efforts are leading: toward or away from our targets. Based upon periodic evaluation Parks Canada, communities, public groups and businesses can determine how best to move toward an ecosystem that is better off in meaningful ways.

What do we mean by “net”

Making sure that development and daily operations result in a net effect, which is for the better (or no worse) implies some important rules:

- There are limits to growth. In some cases development and use of certain areas has already created some unwanted and unintended changes to the ecosystem. To borrow a term from the financial world, we may already be running in a deficit position. Resolving this deficit requires that business, park users and Park managers take measures to change how we currently do business and limit development.
- In managing the impacts of existing and new development and use, it is not appropriate to measure success as a trade-off between components of the ecosystem (e.g. more mice doesn't compensate for fewer squirrels). In a healthy ecosystem, each kind of plant, animal, natural process and landscape element is important as part of a greater whole. The principle of 3NEI requires that all elements of the ecosystem benefit and its overall structure and function remain intact. This is why a diverse range of monitoring indicators is needed, and why the goal is for maintenance or improvement in most or all of them.
- Determining net effect applies within the area affected by the community or the ski area (as defined by the baseline, see above). The purpose of the 3NEI principle is to make the developed parts of the park ecosystem no worse or better off, not to make it easier to damage in one place and compensate for it in another. As communities or ski areas pursue development (within specified limits to growth), mitigations will be implemented within the area defined by the baseline with the express purpose of making the development impact neutral or to contribute to ecosystem improvements by focussing on the reduction of accumulated impacts from past development.

Implementing the concept

The first step to implementing 3NEI is determining the current state of the ecosystem. This involves identification of ecological issues which past use and development have created and an understanding of the limiting factors in the ecosystem, which provide the basis for establishing the limits to growth. The appropriate nature of development and existing operations will depend on the potential to impact the ecosystem and from this a set of standards and mitigations will be developed. These will include sewage effluent targets suited to the receiving environment, landscaping specifications to reduce wildlife attraction, building energy efficiency specifications, prescriptions for the restoration of native vegetation with each new development and other specific and tangible measures to ensure 3NEI.

Applying the standards/mitigations and moving toward the 3NEI targets will be achieved through:

- The development approvals process and CEAA - as new development and human use

proposals are assessed Parks Canada approval will be conditional on the proponents demonstrating a clear contribution to achieving 3NEI targets and applying the precautionary principle.

- The application of Environmental Management Systems (EMS) - since 3NEI requires that there be no additional burden on the ecosystem from new development, existing operations will have to “move over” or make room by significantly reducing their current impact on the environment. Neither this concept nor the tools to achieve it are new; for example, the concept of "emissions trading" has gained widespread acceptance in some industries. Environmental management systems have become a standard for public and private organizations to deal with the way their operations impact the ecosystem. An EMS is simply a way for an organization to take control of its environmental effects and to act to minimize them to an accepted standard. Applying this system to communities and ski areas will mean that all stakeholders recognize and embrace the standards and targets to achieve 3NEI and take tangible, measurable steps to achieve them.