
TITLE	ISR Crown Lands Application for a Class A Land Use Permit
SECTION	3: Overview of Activities in the ISR
SUBJECT	8: Project Effects and Mitigations

SUMMARY OF PROJECT EFFECTS AND MITIGATION

An overview of the potential effects of the proposed ISR development on the biophysical and human environmental settings in the ISR, along with a brief description of the primary strategies for mitigating these effects, is contained in this subject. Detailed descriptions of potential effects and mitigation are provided for the ISR in [Section 8](#). Environmental protection plans are described in [Section 11](#).

The potential biophysical effects of the proposed gathering pipelines, facilities, and infrastructure sites have been assessed within a one-kilometre wide corridor generally centred along the proposed gathering pipeline routes.

In addition, environmental studies have been conducted outside the gathering pipeline corridors, where needed, to include the infrastructure sites required for construction, such as barge landings, borrow sites, camps, access roads and water sources. The study results, along with the regional findings, have been used to identify the potential environmental effects of the development activities in this application.

Biophysical Effects

Typical ISR development activities could result in potential effects on the biophysical environment in the ISR, depending on the type of activity, location, climate and timing. ISR development effects from construction, before mitigation, includes:

- increased gaseous emissions
- changes in ground and slope stability, drainage patterns and water and wind erosion
- alteration of uncommon landforms
- soil loss and changes in soil quality, drainage, and physical and chemical characteristics
- removal, burial, mechanical damage or alteration of vegetation
- removal, burial, mechanical damage or alteration of heritage sites

- localized direct and indirect effects on wildlife habitat, localized disruptions to wildlife movement and limited wildlife mortality
- localized loss or alteration to fish and fish habitat
- changes in water and sediment quality
- increased intermittent and continuous noise levels

Primary Biophysical Mitigation

Examples of typical measures that might be used to reduce the effects of development activities include but are not limited to:

- constructing primarily in the winter and other periods that avoid sensitive wildlife and fish timing windows
- avoiding environmentally sensitive areas
- reducing the footprint of disturbance
- reducing grading and leveling to that required for a safe and efficient working surface
- considering efficiency in equipment selection
- applying best management practices to reduce fuel use
- maintaining equipment exhaust systems
- employment of local environmental and wildlife monitors
- implementing appropriate drainage, sediment, erosion and slope stability controls
- enforcing traffic and access controls
- protecting heritage resources where practical
- applying good site management practices for dust suppression

EFFECTS ON THE HUMAN ENVIRONMENT

An overview of the potential effects of the proposed development activities on the human environment in the ISR, including effects on the people and the economy of the region, on traditional culture, on non-traditional land and resource use, on protected areas and on heritage resources is contained in this topic.

Effects

The focus has been on identifying the potential effects of development sites and activities that are closest to the communities, or that could affect resources and activities with high local values, or that might be important to the functioning of the community, such as roads, airports, and barge landings.

Economic effects were determined from simulations using employment and expenditure estimates. The simulations (of direct, indirect and induced economic effects) were done using Statistics Canada's inter-regional input-output model. However, because this model only produces results at a territorial or provincial level, effects in the Northwest Territories were allocated to the ISR, and the other regions.

Summary of Effects on the People and Economy of the ISR

The proposed development activities are expected to have a long term, positive influence on the people and economy of the ISR. Among other things, this influence will be reflected in increased employment, income and business opportunities, capacity development, and the potential for new infrastructure.

In the shorter term, spending decisions by some individuals will affect the quality of life of these income earners, their families and their communities. These decisions might also increase the demands on resources and facilities that deliver social, health and protection services to the communities. Inflationary pressures might also occur in the early phases of the project.

Both positive and adverse influences on traditional harvesting might result from the development. Time spent on harvesting activities might be reduced for some workers and families. However, the wages from project employment might also be used to acquire new and better equipment for more efficient and productive harvesting. Project-related employment might also add to the existing and ongoing decline in Aboriginal language use and culture preservation within the ISR.

Unlike the biophysical environment effects and mitigation information, human environment effects and mitigation includes the effect of the three anchor field developments as well as the ISR development. The analysis is available only on a combined bases, because in many instances, the effects and mitigation is difficult to separate between anchor fields and gathering pipelines. In fact, most human environment effects are by nature, combined effects, because causality is not often clear enough to determine which component or activity results in what effect.

During construction, the potential project effects from the ISR development and anchor field activities on the people and economy of the ISR include:

- capital expenditures and project-related procurement estimated at over \$328 million
- some expanded business and labour force capacity and opportunities
- increased labour force participation rates, to 78% from 66%
- employment rate growth, to 62% from an average of 47%
- decreased unemployment rates, to 20% from 29%
- there might be some movement of Inuvialuit to Tuktoyaktuk and Aklavik from the ISR coastal communities
- creation of up to 945 temporary project-related construction jobs in the ISR during the four year construction period
- generation of about \$40 million in labour income, including \$26 million in direct project related income during the period 2006 to 2010
- elevated levels of alcohol abuse and related violence and illness, family relationship stress, contagious diseases and STIs

During the operations phase, potential project effects from gathering pipeline and anchor field activities, on the people and economy of the ISR, include:

- some expanded business and labour force capacity and opportunities
- an average of 64 jobs a year for ISR residents, generating about \$5 million a year in labour income

Inuvik is expected to experience most of the procurement, employment and labour income effects from activities in the ISR because of its size, location and function as a regional transportation and administrative center.

Primary Human Environment Mitigation

Mitigation strategies have been developed by Imperial in conjunction with the GNWT, communities, local authorities, service providers, and other third parties. The range and magnitude of potential effects suggest that a co-coordinated and collaborative response involving Imperial and these other parties could be more effective.

Examples of these mitigation strategies include:

- developing a procurement plan to build business capacity in the ISR and manage project-related procurement and expenditures

- giving preference to qualified, competitive businesses for the provision of certain goods and services
- working with the GNWT, educational institutions, and Aboriginal associations and communities to address education and training needs to enhance project-related employment for NWT residents
- developing a database of potential workers to match skill sets and identify training needs
- implementing hiring policies that provide preference for direct project hiring in the North
- initiating money management programs and enabling workers to assign part of their wages to savings accounts
- enforcing policies for alcohol and drug-free workplaces and camps
- implementing measures to help sustain community health
- providing Aboriginal workers with flexible work schedules to accommodate traditional harvesting and other Aboriginal cultural, family and community needs, where practical
- supporting community-based traditional lifestyle initiatives that promote traditional harvesting and positive relationships with communities
- negotiating harvester compensation agreements with the hunters' and trappers' committees or other relevant authorities
- providing cultural awareness training to all workers on the project to promote appreciation and respect for Aboriginal people and their culture
- supporting cultural activities and events that are consistent with the project principles and practices
- periodically providing country foods in the construction camps
- providing construction camps with Aboriginal language reading material, and Aboriginal language radio and television broadcasts, tapes and CDs, where available

