

**BACKGROUND INFORMATION ON THE PROPOSED KELTIC
DEVELOPMENT, ACCOMPANYING THE SURVEY**

Project Description

Keltic Petrochemicals Inc. is proposing to construct and operate a Petrochemical Complex and Liquefied Natural Gas (LNG) Importation and Vaporization Facility in Goldboro. The project is supported by the Provincial Energy Strategy, which encourages development of the value added energy sector in Nova Scotia. The facility will be supplied with imported gas that will be divided into two streams: one stream will feed the petrochemical plant and the other will enter a pipeline for export. Natural gas is used as the raw material (fuel) for production of primary petrochemicals that can be used to make products such as plastics, antifreeze, film, and fibers. Hydrocarbons such as ethane, butane, and propane can be separated from natural gas and then 'cracked' to produce primary petrochemicals such as ethylene and propylene. After the hydrocarbons have been removed, the remaining raw natural gas (methane) will be put into the Maritime and Northeast Pipeline to supply other Canadian and US markets.

The proposal includes petrochemical plants, a marginal wharf, a LNG Terminal, LNG storage and regasification facilities, and an electrical co-generation facility. Land-based facilities would be located within the Goldboro Industrial Park and the associated marine facilities would be located on the northeast side of Isaacs Harbour. The marginal wharf would be approximately 670 metres in average length and 330 metres in width. A pipeline approximately one kilometre in length would be built to connect the Vaporization Plant with the Maritime and Northeast Pipeline. The proposal also includes construction of a two lane, all-season highway from Goldboro to the Trans Canada

Background Information

Highway/Beech Hill Road intersection by Antigonish, a distance of approximately 58 kilometres. The highway will address transportation safety and efficiency concerns regarding use of the existing routes 316 and Trunk 7 highway corridors for high volume, heavy commercial traffic.

The LNG would be offloaded by ship at an LNG Terminal located in Isaacs Harbour. The terminal would accommodate special ships designed for the transportation of LNG. Ships are approximately 250 to 300 metres long with drafts up to 14 metres; capable of holding up to 250,000 m³ or approximately 70 000 dead weight tonnes (DWT) of LNG.



The LNG delivery ships would arrive approximately once a week for offloading. Smaller ships used to transport petrochemicals and petrochemical by-products would depart more frequently, perhaps four to five times per week during busier periods. The marginal wharf would also berth other supply vessels and support ships such as tugs and pilot boats.

Environmental Assessment

The development proposal is subject to a provincial and a federal Environmental Assessment (EA) before a final decision on the project will be made. Both levels of government have requested public input regarding the scope of the EA, including identification of Environmental Components of Concern (EECs). Environmental components include aspects of the physical, biological, and social environment.

Transport Canada (TC) and Fisheries and Oceans Canada (DFO) are the responsible authorities for ensuring the EA is conducted according to federal regulations. The assessment will consider the potential effects of the project on health and socio-economic conditions, physical and cultural heritage, and the natural environment (including land, water, climate, and wildlife). A major requirement of the EA, from both levels of government, is to involve the public in order to address their concerns regarding the proposed project. The EA will assess the ability of the project to address concerns, provide recommendations to mitigate potential effects, and suggest alternative ways to carry out the project.

Socio-Economic Issues

The socio-economic effects on communities in the immediate impact area (such as Goldboro) and outlying areas (such as Antigonish County) should be on-balance positive during construction and operation phases. However,

given the relatively small size of the population and labour force (and its current skill set) of the immediate impact area, significant pre-planning will be required to maximize its ability to capture the positive effects and cope with negative effects. Negative effects include the inability to capture economic benefits, associated population stabilization effects, and being "over-run" by the sheer size of the project relative to the size of the current social and physical infrastructure.

Communities closest to the project have small populations and very limited rental housing. The majority of the construction workforce will likely come from outside the communities closest to the project. This presents issues related to housing and traffic. Due to the limited amount of local rental accommodation, many construction workers may commute to the site. The commuting, plus the activity associated with moving materials to the construction site, will present some traffic issues. Some community infrastructure may need to be updated or added but tax revenue from the project should significantly reduce or possibly eliminate negative impacts on municipal finances. There is opportunity to sell sub-contracting services to the prime contractor and goods and services to the project and its workers. Given that construction activity is relatively short-term, pre-planning must be in place to avoid "over-building," thus leaving a bit of "bust" situation once construction is complete.

Operation brings the same major benefits as construction as well as additional municipal tax revenue. However, the number of jobs will be much smaller and the impacts will be long-term. Given the current range of skills in the labour force of the immediate impact area, significant

pre-planning by the project and community stakeholders will likely be necessary if it is to effectively compete for jobs at the project. Otherwise, a greater proportion of jobs will be won by people outside the immediate impact area. Depending on their home locations, many may prefer to commute to work, thus lessening the population and economy stabilizing effects of the project on the immediate impact area. Significant pre-planning will also be needed to maximize the ability of the local business sector to supply goods and services to the project, and its employees and families who may move into the area.

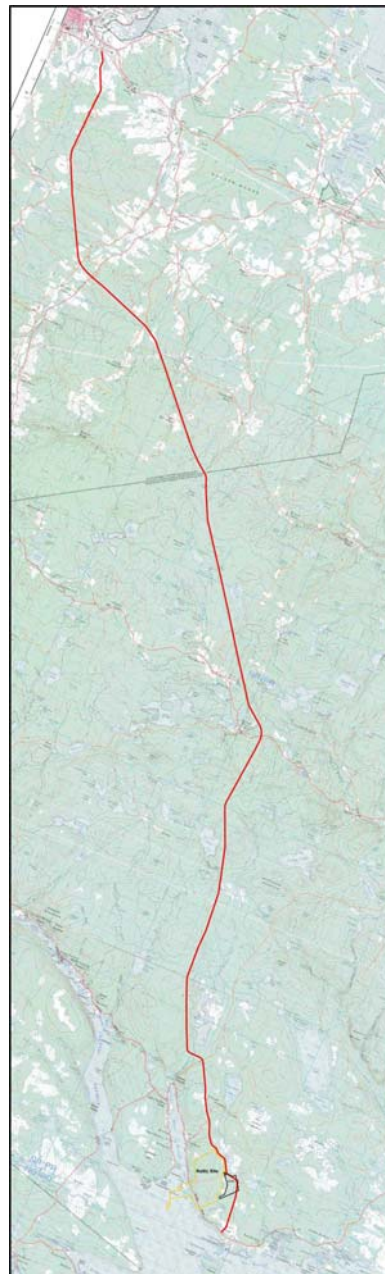
The Proposed Highway

Construction of a new highway would have potential impacts on both public and private land. Highway construction could affect existing industrial forestry and agricultural operations, commercial tree farms, and residential property along the planned highway corridor, either by bisecting parcels of land and limiting access or by directly displacing current land use. Terrestrial and wetland habitat would also be lost, and fish habitat possibly impacted where culverts are required. The proposed highway would also allow increased human access to existing wilderness areas and could, in turn, result in more hunting and fishing pressure in newly accessible areas.

The proposed highway, which extends from Antigonish to Goldboro, has some 41 watercrossings. The highway corridor traverses parts of several major watersheds, including those of South River, West Pomquet River, Salmon River, Costly River, Isaacs Harbour River, and Gold Brook. The watercourses associated with all highway crossings are considered fish habitat, with each providing one or more habitat functions including spawning, migration, feeding, nursery, etc. Many of the watercourses also support brook trout and

salmon fisheries and are therefore considered more sensitive and significant.

The magnitude of potential effects on the aquatic environment will depend on the type of highway crossing at each watercourse. At those crossings, for example, where bridges are used, the potential effects are likely to be negligible.



At those sites where smaller tributaries may be crossed with the use of culverts, it is likely that at least some potentially harmful effects can be avoided by the implementation of appropriate mitigation measures. An example of such a measure could include installing the culvert so as not to impede fish migration. There may be some crossings where mitigating measures cannot avoid all effects; and for these sites, a habitat-compensation plan will be developed to offset the loss, disruption, or alteration of fish habitat. These plans will be approved by agencies such as the Department of Fisheries and Oceans.

The proposed highway corridor also passes through a range of terrestrial habitat, most of which consists of spruce-fir forest, some of which has been clearcut. Osprey and bald eagle nests exist at some locations along the route, and other raptors such as redtail hawk have also been observed. At least one rare plant species has been found in the study area, and others may be identified once the field data have been evaluated. Some of the more sensitive terrestrial habitat along the highway corridor is located in the vicinity of the Costly Lake and Campbell River crossings. Several bogs and other wetlands are also located in the vicinity of the corridor. With further adjustments to the proposed alignment, it is anticipated that many of the more-sensitive areas and features can be avoided. One of the expected effects of the proposed road is that it will allow access to new areas for fishing, hunting, and trapping.

Plant Site

The proposed plant site has two headwater watercourses. Based on our existing information, it is expected that both can be avoided during the construction and operation of the Keltic development. As such, it is expected

that there will be no significant effects on these two aquatic features.

The plant site is dominated by classic spruce-fir forest, most of which is second or third growth. Some of this site has also been clearcut, with some such areas now dominated by alder. The site has a relatively high plant diversity. It also provides good winter deer habitat. At least two noteworthy species have been observed on or adjacent to the site - a bird and a plant species. The potential effects of the project are presently being evaluated; but it appears likely that potential effects can be avoided or mitigated by adjusting the layout of development facilities, transplanting, etc.

The proposed marginal wharf would extend off Red Head into Stormont Bay and connect to an LNG terminal in deep water. Construction would eliminate fish habitat in the immediate area of the wharf and LNG terminal. Under DFO's No Net Loss Principle, habitat destruction must be compensated. Habitat compensation involves replacing the loss of fish habitat with newly created habitat or improving the productive capacity of some other natural habitat. It is Keltic Petrochemical's intention that compensation for this project will be allocated to the local area in the form of similar habitat, most likely for lobster, which is an important commercial species on the Eastern Shore and one of primary concern in Stormont Bay. Additional fisher concerns include vessel interference and the possibility of accidental events, spills, and pollution of marine habitat.