

# Environmental Assessment Report Overview

The sewage treatment system proposed for Metropolitan Halifax-Dartmouth is currently undergoing a mandatory Joint Federal/Provincial Environmental Assessment. The first part of the process, the Environmental Assessment Report (EAR), was prepared by Jacques Whitford Environment Limited (JWEL). This thorough analysis of the proposed plan was completed in August 1992 with the issuing of a three-volume report and 24 component studies.

## *Design and study – parallel processes*

JWEL's task was to assess the environmental impacts during construction and operation of the whole system, including the sewage treatment plant and the collector tunnel, and to recommend measures that would reduce potentially negative effects. For maximum efficiency and time-saving, this study took place in parallel with the engineering team's pre-design work. As well as allowing government agencies and the public an opportunity to evaluate the project and the acceptability of the predicted effects, the EAR also provides Halifax Harbour Cleanup Inc. (HHCI) with information that will enable it to modify the plans, where necessary, in an early stage.

## *Twenty-four studies commissioned*

JWEL augmented its own expertise with that of local biologists, oceanographers, chemists, landscape architects, archaeologists, planners, economists, engineers and other specialists. By analysing existing air and water quality, wildlife habitats and populations, tourism activities, the local fishery, traffic patterns,

noise and odour, as well as the visual and recreational environment, they identified existing conditions before predicting the effects of construction and operation. Their analysis addresses concerns raised by the public during community meetings and presentations.

## *Measuring the future*

Each area potentially affected during construction and operation was described in terms of its Valued Environmental Components — aspects of the environment the public and professional experts consider important. From these, JWEL established a set of rating criteria against which they could assess the potential environmental impact in clearly defined terms.

## *Effects on wildlife insignificant*

After examining the harbour's marine life and the bird and wildlife habitats around the proposed collection system and plant site, biologists determined that the project endangers no sensitive wildlife or plant habitats. They concluded that with careful scheduling and strict controls at each construction site, disturbance to wildlife can be reduced to an insignificant level.

## *Mixed news for harbour bottom dwellers*

Construction of the artificial island is predicted to result in a significant impact due to the loss of 9.3 hectares (about one and a half times the area of Georges Island) of productive harbour bottom habitat. This loss will be partially compensated by the creation of a new habitat around the infilled island that can be colonized

by invertebrates such as crabs, starfish and lobsters. Overall, the harbour floor community should benefit from sewage treatment due to reduced particles and debris in the water, and an overall improvement in marine water and sediment quality.

## *Sewage treatment plant compatible*

The artificial island and the sewage treatment plant have been carefully designed to blend with the surroundings. The study concludes that the plant will be visible during construction but vegetation proposed for the island perimeter will provide a visual buffer afterwards. This step can be advanced by planting mature shrubs and trees. After analysing the operations of the plant and oil-from-sludge facility, JWEL also concludes that the effect of the plant on air quality will be insignificant. With the protective steps proposed by the design engineers, they foresee little, if any, disturbance to the existing environment on McNabs Island.

## *Minimizing neighbourhood disruption*

Predictably, construction will have an impact along the mainland collector system routes but specific measures in the report describe how neighbourhood disruption can be reduced. In most cases the temporary disturbance will last from one month at small construction areas, to two years at the larger sites. By reducing construction periods and site disturbance, and working with the neighbourhoods involved through an effective public information and community liaison process, local construction disturb-



ance will be minimized. Ongoing consultation with archaeologists will ensure that potential heritage areas are also protected during construction.

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### ***Well water requires careful monitoring***

Some residents close to excavation and blasting activities near Purcell's Cove and Herring Cove may suffer a reduction in the levels or quality of their well water during construction. Engineers expect any disturbances to be temporary but the EAR provides a framework to address both temporary and long-term effects, ensuring that no one will lack adequate, potable water.

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### ***Environmental monitoring***

Ongoing monitoring will ensure that every aspect of the project meets regulatory and self-imposed environmental standards. Monitoring will also compare what actually happens during construction and operation with predictions made during the assessment. In addition, it will examine the effectiveness of the steps proposed to counteract potential problems. This will allow improvements identified at any stage to be incorporated. A multi-disciplinary advisory committee, which includes impartial experts, will guide the process.

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### ***Environmental Protection Plan***

An Environmental Protection Plan, outlined in the EAR, will be the key environmental control document. This reference document will translate all the preventive strategies described in the report into practical field procedures that are clear and detailed, spelling out specific responsibilities, commitments and procedures so that they can be easily applied by workers and staff associated with any part of the project.

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### ***Public information and involvement***

HHCI's proposed public information and involvement program will use a wide range of materials and activities to ensure that the public continues to receive information throughout the project. As an additional step, a Citizens' Advisory Committee will be formed as the official liaison mechanism between HHCI and the public.

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### ***Boost to local economy***

Construction will create about 1,700 person-years of employment with over \$63 million in wages for Nova Scotia workers. The project will also generate many opportunities for local businesses to supply materials, equipment and manufacturing expertise. The report proposes mechanisms to help Nova Scotian businesses supply as much of the estimated \$199.2 million worth of products and services as possible. Commercial fisheries in the harbour will suffer less gear fouling and should gain further through improved quality and increased marketability of their products.

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### ***Benefits across the board***

The report concludes that the planned sewage treatment facility will have a number of important positive effects. Once the facility is commissioned, marine water and sediment quality in the Inner Harbour are expected to improve. It also predicts spin-off benefits for the local and provincial economy, particularly during construction, and long-term benefits to tourism, community life, commercial fisheries, public health, heritage resources and scientific research.

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### ***Importance of source control***

The EAR also points out that, although important, a sewage treatment system is only one step in the process of improving the water quality in

Halifax Harbour. Sewage treatment cannot solve the problems caused by heavy metals, other toxic materials and debris entering the harbour from household or industrial waste, runoff, dumping and ship discharges. The maximum improvement will be achieved only by controlling these contaminants at their sources.

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### ***First step to a cleaner harbour***

Overall, the report concludes that this project is an essential part of a management plan for Halifax Harbour. Jacques Whitford Environment Limited states that, assuming mitigations are successfully implemented, HHCI's plan is consistent with the principle of sustainable development, in keeping with international guidelines, and the first step in ensuring the enjoyment of the harbour by future generations.

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### ***The next step***

The EAR was submitted to the public and the Federal-Provincial Environmental Assessment Review Panel in August 1992. Once the Panel determines the report is adequate for discussion, it will announce the dates for public hearings. The hearings are tentatively scheduled for late November 1992, after which the panel will make recommendations to federal and provincial environment ministers. When their approval is given, design and construction can begin.

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### ***Need more information?***

If you have any questions about the environmental assessment review, or would like a copy of the EAR, call Patricia Murray, Office Manager for the Environmental Assessment Review Panel at 424-5300.

*If you have questions about the harbour cleanup project, call HHCI at*

**422-0002**