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AREAS OF CONCERN **COLLINGWOOD HARBOUR**

An AOC is delisted by the Government of Canada when environmental monitoring information confirms that environmental quality has been restored in accordance with criteria established in consultation with other levels of government and the public.



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Collingwood Harbour was the first Canadian Area of Concern (AOC) to be delisted. In 1994, Environment Canada, in consultation with the Ontario Ministry of the Environment and local communities, determined that impaired beneficial uses in the area had been restored in accordance with the Great Lakes Water Quality Agreement (GLWQA). The Government of Canada then removed Collingwood Harbour from the list of AOCs.

Why was it listed as an Area of Concern?

Collingwood Harbour was designated as an AOC in 1987 because a review of available data indicated that water quality and environmental health were severely degraded. The history of industrialization, urbanization and agricultural land use activities along the shores and within the tributaries of the harbour had resulted in beneficial use indicators of environmental quality being deemed as impaired. Major environmental concerns in the area which led to the designation included nuisance growths of algae in the harbour and contaminated sediments.

What was accomplished?

In order to improve environmental conditions in Collingwood Harbour and meet GLWQA objectives, a Remedial Action Plan (RAP) was developed. The Collingwood Harbour RAP was initiated in 1987. Its creation involved the following steps:

- identifying the environmental challenges,
- planning and implementing remedial actions, and
- monitoring restoration and delisting the AOC.

The RAP was developed through a partnership between the federal and provincial governments, with co-operation from the Public Advisory Committee (PAC). The PAC was comprised of citizens representing industry,

labour, municipal agencies, farmers, environmental organizations and recreational groups. It engaged and co-ordinated the actions of this group in restoring the water quality and ecosystem health of this harbour. Restoration of an AOC is a shared responsibility.

A critical component of the restoration of Collingwood Harbour was to reduce phosphorus loads (the concentration of phosphorus) and control eutrophication (excessive nutrients which can cause algae growth). Technical solutions focused on optimizing phosphorus removal at the Collingwood Sewage Treatment Plant through an innovative demonstration project. The technology achieved an effluent quality comparable to that of tertiary treatment, the highest level of treatment generally used in highly sensitive ecosystems but at less than 10 per cent of the cost. In response to the loading reductions, the harbour is no longer eutrophic.

In November 1992, a demonstration project was initiated to safely remove sediments contaminated with heavy metals (copper, lead, zinc and chromium) using the Pneuma pump innovative dredge technology. The sediments were placed in a confined disposal facility. The successful demonstration led to a full-scale cleanup in the harbour in 1993. This rehabilitated the degraded benthic community, removed deleterious substances that were chronically toxic to living

organisms, and allowed the lifting of restrictions on navigational dredging. This was the first time this technology was used in North America, and the cleanup marked a crucial step towards the restoration of the harbour. The cost of the demonstration and cleanup was \$635,000 and 7,300 cubic metres of contaminated sediments were removed.

Actions were also taken to protect the existing 96-hectare Collingwood Wetland Complex, control the invasion of Purple Loosestrife in the wetlands, and rehabilitate fish and wildlife habitat in the harbour and the watershed. Bass and pike spawning and rearing habitat was created, as were habitat improvements for osprey, water birds, amphibians and reptiles, and a community volunteer network was mobilized to monitor wildlife populations. The Black Ash Creek Rehabilitation Project was designed to prevent erosion while incorporating habitat rehabilitation in a natural, bioengineering approach to bank stabilization. Fish and wildlife populations responded to the initiatives, with increased numbers being documented for the first time in more than 30 years.

A strong emphasis was also placed on pollution prevention. The Greening of Collingwood became a community-based action plan targeted at pollution prevention for residents, businesses, and industries. The first comprehensive “Green Home Tune-ups” in Ontario

were completed in Collingwood in 1994, with incentives offered by the financial sector.

One of the most novel projects designed to raise awareness of the importance of pollution prevention was the creation of the environmental theme park ENVIROPARK. Situated in Sunset Point Park, this unique network of play structures was designed to instill in children an understanding of how everyday life has a direct impact on our environment. Instead of the classroom setting, young people learn while they play.

As a result of actions taken by the Government of Canada and its partners, environmental quality in Collingwood Harbour improved dramatically to the point where all the delisting targets were either met or surpassed.

Following environmental monitoring, it was determined that environmental conditions in the area had been restored, and Collingwood Harbour became the first AOC to be delisted.

Where can you find more information?

Environment Canada e-mail:

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Environment Canada Web site:

www.ec.gc.ca/raps

PARTNERS

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