



AREAS OF CONCERN **SPANISH HARBOUR**

Efforts in Spanish Harbour are undertaken in a partnership between the Government of Canada, other levels of government and non-government groups, including members of the public.

Undertaking environmental restoration requires a large amount of scientific and technical expertise, local knowledge and hard work. One agency or group cannot engage in such a large task on their own without the help of others.



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Spanish Harbour was recognized as an Area of Concern (AOC) in Recovery in 1999. All actions to restore water quality and ecosystem health had been completed, but it was determined that more time was needed for the environment to recover and for environmental quality objectives to be achieved.

Why was it listed as an Area of Concern?

Spanish Harbour was designated an AOC because a review of available data indicated that water quality and environmental health were severely degraded. Further monitoring showed there were several sources of the impacts on water quality. These included contaminants from local and regional industries, municipal wastewater works, historical log-driving operations, and development activities in the Spanish River basin.

What have we accomplished?

Through the combined efforts of Environment Canada, the Province of Ontario, local industry, concerned citizens and other partners, major strides have been made to improve water quality in Spanish Harbour:

- Fish populations that were previously degraded are now healthy. For example, after being absent from the Spanish River for decades, a 10-year reintroduction program that started in the mid-1990s has brought the muskellunge (or “muskie”) back to the river system.
- Major improvements in water quality have been achieved as a result of the implementation of federal pulp and paper regulations and the Province of Ontario’s Municipal Industrial Strategy for Abatement (MISA) regulations in the mid-1990s. In anticipation of these regulatory requirements and in an effort to reduce environmental impairments, local industry – specifically the Domtar paper mill in the Town of Espanola – and the town’s wastewater plant underwent significant upgrades.
- The Domtar paper mill made important process changes that resulted in the virtual elimination of dioxins and furans entering the environment and has cut the level of total suspended solids entering the river by almost 40%.

- The Town of Espanola's wastewater treatment plant was upgraded from primary to secondary treatment, which resulted in significantly fewer nutrients, bacteria and organics in the effluent released to the river. For example, biological oxygen demand loading was reduced by 70%, total phosphorous was cut by 94% and suspended solids were reduced by 80% (compared to 1990 data).

What's left to do?

High concentrations of metals, such as nickel and copper, in bottom sediments remain a concern today. Subsequent studies have also found high levels of dioxins/furans at some locations. Consequently, efforts are underway to:

- address the elevated levels of metals and dioxins and furans in the bottom sediments of Whalesback Channel (into which the Spanish River flows);
- address the mercury and dioxins and furans levels in some fish species, and the associated restrictions on the amount of fish that people can eat;
- monitor restoration progress towards the achievement of the environmental quality objectives that were established for the Spanish Harbour AOC; and
- investigate, within the Spanish River, Harbour and Whalesback Channel areas, to improve our

understanding of the degree and rate at which these contaminants are absorbed; the estimates of the recovery time frame; and the methods employed to mitigate the effects of elevated levels of contaminants.

Where can you find more information?

Environment Canada E-mail :
greatlakes-grandslacs@ec.gc.ca

Environment Canada Web site:
www.ec.gc.ca/raps

PARTNERS

Listed below are participants that have contributed to efforts in the Spanish River and Harbour:

Anishinabek/Ontario Fisheries Resource Centre

Fisheries and Oceans Canada

Friends of the Spanish River – a community group that from 1994 to 2011 spearheaded public and industry awareness and involvement

Ontario Ministry of the Environment

Ontario Ministry of Natural Resources

Sagamok Anishnawbek Fisheries Department