

What's the Sense in Cleaning Up Our Watershed

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RAP

NORTH SHORE
OF LAKE SUPERIOR
REMEDIATION ACTION PLAN

Ever wonder why it makes sense to invest public money in things like fish habitat and marinas in Nipigon and Red Rock?

Why put money into water quality projects in Nipigon Bay, the Nipigon River and Clearwater Creek?

Aren't there other, more productive things we could be doing with our money?

Because our economic and environmental health may depend on it.

Economic times in Nipigon and Red Rock are changing. While manufacture of paper products is still the largest single slice of the area's employment pie, it is increasingly clear that new and sustainable economic development must come from other sectors.

Nowadays, the hope for prosperity in the Great Lakes-St. Lawrence basin seems to be in industries that deal in knowledge and services, rather than in raw materials and manufacturing.

*If we make it
a nice place to live,
we'll make it a
nice place to do business*

Meanwhile, we can't escape the fact that generations of log driving, regulation of river levels for hydro power production, and dumping of industrial and municipal wastes have seriously damaged our local environment.

Not only can a clean environment be healthier for us, it can encourage new businesses to take up the economic slack left by declining resource and manufacturing industries.

 Environment Canada Environnement Canada

Nipigon Bay

Canada

**Has that
been
proven?**

Environment Canada commissioned five studies to test the idea that cleaning up watersheds can boost local economies. The resulting five reports cover Great Lakes-St. Lawrence sites that are the subjects of Remedial Action Plans (RAPs). This booklet explains the results of the Nipigon Bay study.

Remedial Action Plans (RAPs): Plans to restore and protect water quality in Great Lakes Areas of Concern that have been identified by the International Joint Commission. The governments of Canada and Ontario work with communities to develop plans that reflect an ecosystem approach to rehabilitating the Canadian sites. Public consultation and involvement are important to the RAP process. Community stakeholders participate in defining problems, setting goals and selecting the most effective cleanup options.

**How much
does clean-up cost?**

The consultants added up figures from Nipigon Bay's Remedial Action Plan. The total cost of restoration activities came to just over \$42 million. These projects are ones that have been identified by the RAP team and set in motion. In fact, most have already been completed. The Red Rock and Nipigon water treatment and sewage treatment plant projects remain to be finished.

The table indicates the sources of the money for each project and when it was spent.

Nipigon Bay Watershed Restoration Activities (1995)	
Restoration Activity	Capital Expenditure (Millions)
Examples of habitat restoration and indacement of self-sustaining fish stocks: - rehabilitation of walleye stocks - Lower Nipigon River habitat - Old mill site habitat - water management - Clearwater Creek Federal (28%), Provincial (81%), Municipal (9%), Non-government (4%)	1990-1995 Total \$6.7
Nipigon Waterfront and Marina Provincial (78%), Municipal (22%)	1990-1991 Total \$2.2
Red Rock Waterfront and Marina Federal (5%), Provincial (91%), Municipal (2%), Private (2%)	1991-1994 Total \$5.6
Dewater treatment facility for mill effluent Non-government (100%)	1995 Total \$24.7
Red Rock Sewage Treatment Plant Provincial (85%), Municipal (15%)	1995 Total \$1.0**
Nipigon Water Treatment and Sewage Treatment Plants Provincial (85%), Municipal (15%)	1995-1998 Total \$2.8**
TOTAL	\$42.1

** These projects remain to be completed. The cost estimates were made prior to revisions to the treatment plant plans, which could result in lower total costs than those shown here.

Adapted From: Development potential and other benefits from restoration, enhancement and protection of the Nipigon Bay Area of Concern - Final Report, Sustainable Fisheries, June 1995.

How much \$ does restoration put back into the community?

The consultants estimated the local economic impact of clean-up and restoration activities. The results are shown in the table to the right. They concluded that the initial investment would create about 280 person years of employment – the equivalent of 280 people for one year. This much employment would translate to an estimated \$18 million in additional incomes for people living in the Nipigon Bay area.

The consultants also determined that spending to keep the activities going (purchase of supplies and labour) would generate \$42 million. This is referred to in the table as gross output. Total business and personal income generated by all of this activity – the value added – would reach approximately \$33 million, according to the consultants. Meanwhile, all of the activity surrounding the projects would generate tax revenue to governments. The consultants estimated that the local, provincial and federal governments would collect about \$10 million in additional taxes from the restoration projects. Of that amount, approximately \$1 million would go to local governments in Nipigon and Red Rock.

Most of the projects included in the consultants' study for Nipigon Bay are already finished. Only two, the Red Rock and Nipigon water and sewage treatment plants, remain to be completed. This means that many of the estimated impacts are already being felt in the Nipigon Bay area.

Indicator	Local Impact of Capital Expenditure
Initial Expenditures	\$41,000,000*
Employment (person years)	280
Labour Income	\$18,000,000
Local Taxes (tax revenue to local governments)	\$1,000,000
All Taxes (federal, provincial and local tax revenues)	\$10,000,000
Gross Output	\$42,000,000
Value Added	\$33,000,000

* This figure is lower than the total expenditure on restoration activities shown in the previous table because some of the money for restoration will have been spent outside the area; for example, on expertise that does not exist locally.

Adapted From: Development potential and other benefits from restoration, enhancement and protection of the Nipigon Bay Area of Concern - Final Report, Sustainable Futures, June 1993.

P. 5/7

Watershed restoration helps maximize "ecological capital"

Traditionally, economists have considered three forms of capital as the main contributors to a healthy economy:

Human Capital (human knowledge, skills and health)

Organizational and Social Capital (institutions and relationships among economic contributors)

Manufactured Capital (business premises, factories, equipment and machinery)

Missing from this equation has been a form of capital that until recently has been taken for granted, but could be considered the underpinning for all the others:

Ecological Capital (the natural environment's ability to support life and provide amenities)

The consultants who undertook the Nipigon Bay study argue that, just as the traditional forms of capital require prudent investment in order to prosper, so does ecological capital. They suggest that, in the Great Lakes-St. Lawrence River Basin, we have been consuming more than our income from this form of capital. Watershed restoration is one way to replenish our reserve of ecological capital.

A clean environment has no real price tag; but, clean-up and restoration may help assure our future prosperity as well as our future health and well-being.

Not only does cleanup improve an area's ability to sustain life, it increases its capacity for economic development.

If you have questions about the information presented here, or if you would like a copy of the Nipigon Bay report, contact:

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What happens when restoration is finished?

The consultants believe the economic benefits of the cleanup and restoration activities are only the beginning. The real payoff occurs in the years following the cleanup, when entrepreneurs see new business opportunities in the cleaner, more productive natural environment.

For example, the restored fish habitat, cleaner water and revitalized marinas in Nipigon and Red Rock make them ideal for recreational fishing. This, together with the appeal of northern Lake Superior's natural areas, makes Nipigon Bay a good bet as a tourist destination. And, the cleaned-up waterfront becomes more attractive as a recreational haven to locals and tourists alike.

The consultants estimated the spin-off, or "follow-on" investment opportunities that would be possible in a rehabilitated watershed. This table shows what they came up with. The estimates include the development projects that are planned or deemed feasible as well as those that are already underway.

This table has an additional column called "Local Impact of Operating Expenditures". Operating expenditures refer to the annual costs of doing business. For example, a restaurant, a hotel, or a marina has not only the initial capital expense of getting started (shown in the middle column), it has annual expenditures in the form of wages, supplies, taxes and other goods and services that it must pay for in order to continue in business (shown in the right column). These operating expenditures also contribute to the area's economy.

Economic Impacts of Potential Economic Development Activity in Nipigon Bay (\$1993)

Indicator	Local Impact of Capital Expenditures	Local Impact of Operating Expenditures*
Initial Expenditures (new business opportunities resulting from the initial restoration activities)	\$20,000,000	\$0,000,000
Employment (person years)	150	220
Labour Income	\$ 5,000,000	\$ 6,000,000
Local Taxes (not revenues to local governments)	\$60,000	\$20,000
All Taxes (federal, provincial and local tax revenues)	\$ 5,000,000	\$ 5,000,000
Gross Output	\$22,000,000	\$12,000,000
Value Added	\$17,000,000	\$12,000,000

* Follow-on economic development activity is assumed to occur over a 20-year period.

Source: Consultants' estimates and other benefits from restoration, enhancement and protection of the Nipigon Bay Area of Concern - Final Report, September 1992, June 1993

The table shows that new businesses opening after initial clean-up activities could bring an additional 150 jobs to Nipigon Bay. Then, over 20 years these businesses could provide an additional 220 jobs to the area.

Total labour income from new business start-up was estimated at \$9 million. As the businesses carried on, this figure would level off at about \$6 million a year.

In terms of gross output (the total sales of goods and services needed to keep the activity going), the start-up of new businesses could bring \$22 million to the area. As the businesses became established, gross output would equal an additional \$12 million a year. In terms of value added to the Nipigon Bay area economy (the total business and personal income from goods sold to sustain the activity), the area would be richer by \$17 million due to new business start-up, and by \$12 million annually from continuing expenditures.

All of the estimates for potential new economic development assume a 20-year period over which new business would become established and fully operational.

Forecasting the future is always risky, so, remember, the figures shown in the tables are estimates, not hard-and-fast predictions. But, they clearly show there are economic benefits to cleaning up and restoring our watershed.

How realistic are these estimates?

Already in Nipigon Bay, there are plans for such things as a \$5 million Nipigon Environmental Interpretive Centre to help promote stewardship for the bay. In addition, clean-up and restoration efforts have included marina and waterfront developments in both Nipigon and Red Rock. A Nipigon-Red Rock trail system is under construction, and opportunities exist for additional tourist accommodations and services.

The estimated economic benefits shown in the previous tables are based on a "vision" for the Nipigon Bay area that was agreed upon by local stakeholders. This means that the activities leading to the figures in the tables can reasonably be expected to occur. The scenario shown here is within the capabilities of the government agencies and businesses that influence this area's economic activity.

In other parts of the Great Lakes basin, clean-up has encouraged similar economic activity.

For example, in Hamilton where clean-up and habitat restoration projects continue, two new waterfront parks have brought a number of new, summertime events to the city that attract large crowds and create economic spinoffs.

A recently-completed study sets out an ambitious concept plan for redevelopment of 40 additional hectares of Hamilton's waterfront for a wide variety of recreational and environmental preservation uses. The concept plan envisions nearly 22,000 person years of employment during construction, and more than 3,000 full-time jobs at the new waterfront attractions. This could result in 1.3 million visitors annually spending more than \$45 million in the area.

This proposed development depends upon a number of economic and political factors, as well as upon the state of the watershed's natural environment.

Restoration activities may not cause new economic development all by themselves; but, they bring their own direct benefits, and they create a climate that encourages new investment.