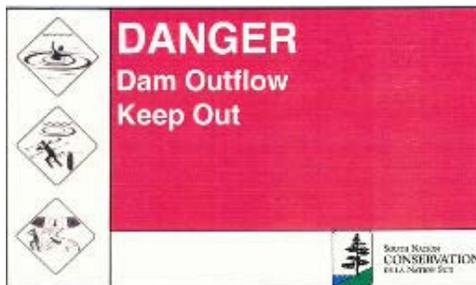


# Water Erosion Control Infrastructure (WECI)

Occasionally, the Ministry of Natural Resources will grant South Nation Conservation (SNC) 50% of the budget for different projects under the Water Erosion Control Infrastructure Program (WECI). Some examples are:

## 1. Water Control Structure Safety:

- **Public Safety:** To promote public safety, SNC has installed safety booms and safety signs on its water control structures. The following public safety signs have been installed:
  - *"Danger Dam Ahead. Keep Out"* upstream the dam;
  - *"No Trespassing"* at the gate steel fence;
  - *"Danger Dam Outflow, Keep Out"* on the dam; and
  - *Warning. Dam Upstream. Water Levels and Flow May Change Without Warning* downstream the dam.



- **Public Awareness Campaign:** In addition, SNC promotes public safety through outreach techniques such as:
  - Distribute posters through schools and media; and
  - Advertise in the newspaper ("Chesterville Record") when the highest flows are expected (rain, spring, etc).

For more information: Download the Stay Clear, Stay Safe from the Ontario Power Generation website:  
[http://www.opg.com/safety/water/water\\_safety.asp](http://www.opg.com/safety/water/water_safety.asp).

- ## 2. Casselman Erosion Repairs:
- This picture was taken at the High Falls Park in Casselman, ON in the last week of May 2006. The shoreline erosion was located immediately upstream of the weir, west of the bridge. The erosion damage was a product of the spring run off and high water levels. The repairs were complete in 2007.



### 3. Chesterville Dam:

**Gate Control Unit:** In 2004, SNC upgraded the gate control devices at the Chesterville Dam to an automatic system. Therefore, the position of the gate depends in the actual water levels. For example, if the water level rises, the dam will be automatically adjusted.



**Loglifter Repairs:** The loglifter is used to haul the logs up and down in the 4 bays at the Chesterville Dam. In 2005, the arm of the loglifter was repaired.



**Concrete Energy Dissipators Repair:** This project was undertaken in 2006 to restore the deteriorated concrete energy dissipators. The reparation procedure included:

- i. Redirection of the flow from the working area;
- ii. Removing the deteriorated concrete;
- iii. Forming the sections to be repaired;
- iv. Applying epoxy-resin patching; and
- v. Water-resistant concrete applied and towed to the elevation of the surrounding material.



**Placement of Blasted Rock:** Undertaken by SNC in 2005, this project consisted of the placement of riprap in a large hole (16m x 10m x 1.5 m (depth)) immediately downstream of the Chesterville Dam's concrete apron area. The material used was riprap free of fines with average nominal sizes of 18" to 24", with no more than 25% greater than 24". The riprap was placed using a crane, until the grade of the riprap was the same elevation as the grade of the concrete slab.



#### 4. Bourget Municipal Drain Stabilization Project:



The Bourget Municipal Drain, located on County Road 8, has steep banks which have eroded over time creating hazardous conditions for the house located approximately 20 meters from the top of the bank. Kollaard Associates was hired to prepare a geotechnical report detailing the methodology of the bank restoration. Since SNC partnered with the UCPR for this project, the UCPR Public Works department executed the proposed methodology.

**5. St. Lawrence River Shoreline Assessment and Repair:** In 2005, the Township of South Dundas (SD) and SNC partnered to evaluate the erosion along the St. Lawrence River shoreline in Morrisburg, specifically between the Village dock at the foot of Ottawa Street and the Village beach. The shoreline is subject to wave action from the wind and boat swells and consequently certain sections needed to be repaired. An inspection of the area by SNC and SD identified six or seven sections of concern located between the Morrisburg Park and the Water Treatment Plant.

In addition to repairing the shoreline, erosion prevention using rock protection was part of the project. The rock protection consisted of boulders and smaller interlocking cobbles to fill the gaps. The rocks were placed at the water's edge continuing just above the river bank.

Additionally, the St. Lawrence Testing & Inspection Co.Ltd was retained to produce a geotechnical report of the area. Two reports were produced: "*Village of Morrisburg Shoreline Erosion Assessment Report*" and the "*Village of Morrisburg Shoreline Erosion Cost Estimates*". In 2006, SD and SNC partnered again to repair the St. Lawrence shoreline as outlined in the above mentioned reports. The contract was awarded to Frank Ault Excavating to complete the project. The work began in December 2006 when the earth was frozen in order to prevent landscaping damages



Before



After