

Enhancing Community &
Preserving History Through
Sustainable Infrastructure.

SACKETTS HARBOR NEW YORK



A Green Infrastructure Walking Tour



Black River Bay, Lake Ontario

We Love Our Lake!



1 Storm Water Retention Pond
The creation of this retention pond was necessary when new development in the Village increased the amount of impervious surfaces. Storm water can pick up debris, chemicals, dirt and other pollutants which are carried into Lake Ontario and often times right into the Village's harbor. This pond provides essential wildlife habitat, water quality improvement and a natural basin for the collection of rain water. Acting like a sponge the pond holds precipitation and runoff and then slowly releases it to the lake.

2 Village Street Tree Program
The Village has created a street tree planting and maintenance program to increase its tree canopy. Trees create cleaner, healthier, and more breathable air. They also provide shade for energy efficiency and retain rain on their leaf and branch surfaces which reduces the impact of storm runoff. Trees also provide neighborhoods with a sense of place that enhances the quality of life for Village residents. Tree planting is coordinated by a volunteer committee. Tree maintenance is performed by the Village DPW. Once in place watering and general care is the responsibility of the adjacent property owner.

3 Rain Gardens
This feature is specifically designed to soak up rain water and allow it to slowly filter into the ground rather than running directly to storm drains. Heavy rainfall is filtered and released to the Village storm sewer protecting against the saturation of the soils and the leaching back of water into adjacent basements. Rain Gardens also add beauty and diversity to the neighborhood and provide wildlife habitat

4 Automatic Meter Reading
Water meter reading and leak detection is monitored at the Village office. The Automatic Meter Reading system is constantly monitoring the water meters throughout the Village and Town's water system. If any meter records flow outside of normal limits, the

Village Clerk and Operator receive an alarm on their computer screens which can be investigated before thousands of gallons of water are lost in a basement or into the ground, depending on the location of the leak. The system's antenna which is located on the County Route 75 water tank eliminates the need for someone to drive around to read meters.

5 Water and Sewer Main Replacements
Replacing aging water and sewer mains in the Village prevents the loss of treated drinking water and raw sewage to the groundwater and Lake Ontario. The original 1910's Vintage mains were installed adjacent to one another in a rock trench. Sewage leaks can saturate the water mains potentially contaminating the water system. This replacement work redirected sewage down Washington Street, avoiding the heart of the Village's historical downtown.

6 Lift Station
A new lift station was created as part of the overall 2010 Waste Water Treatment Plant upgrades. The collection system redesign diverted two thirds of the Village sewage away from the downtown historic waterfront to a new pump station on Washington Street. This station has premium efficiency pump motors, a natural gas fueled backup generator and super-insulated walls and attic. The location of the station is 16 feet higher than the previous station, reducing electrical consumption by more than 15,000 kilowatts/year.

7 Porous Pavement
Porous concrete pavement was installed at the new Waste Water Treatment Plant and lift station. More traditional concrete and asphalt paving systems rely on storm drains to collect storm water and don't allow water to soak into the ground. Porous pavements allow rain and snowmelt to soak through, decreasing storm water runoff and removing litter and floating debris from being released to the storm sewer.

8 Photovoltaic Cells
Photovoltaic cells installed at the Waste Water Treatment Plant are providing electricity to offset energy needs at the operating office. The system's display panel shows the total amount of electricity produced along with the tons of carbon emission avoided! This system has the potential to reduce electricity costs by more than \$1,200/year.

9 Effluent Reuse
The effluent from the new Waste Water Treatment Plant is being used to support the new belt filter press process. By using the effluent for this purpose the Village avoids supplying over a half of a million gallons of drinking water to the plant for the processing of biosolids prior to disposal.

10 Athletic Fields
The old Waste Water Treatment Tankage Location has been repurposed into athletic fields and green space to the benefit of the community recreation program and the community at large.

11 Recycling
Sackets Harbor and the Town of Hounsfield have a very active recycling program. This location is a popular spot for Saturday morning visits among community members.

12 Hybrid Vehicles
The operators of the Waste Water Treatment Plant use hybrid vehicles to service the treatment and collection system. The Village's new bright red 2010 hybrid service truck can be seen at the plant and the six lift stations around the Village. New York State Parks and Recreation – Historic Battlefield site and the Sackets Harbor Central School District utilize plug-in electric vehicles for their needs. Several individuals and businesses in the Village also operate plug-in electric vehicles.

13 Plant Processes
The new Waste Water Treatment Plant uses state of the art energy efficient processes to minimize the amount of electricity needed to mix and aerate the incoming sewage. The biological treatment process relies on microbiology consuming the organic matter before the waste water is released to the lake. This biological process needs considerable oxygen to live, oxygen which is constantly provided with blowers powered with electrical motors. The new process utilizes the latest blower technology, fine bubble diffusers, premium effluent motors, and digital starting equipment to limit electrical power needs as much as practical.

14 Brownfield Opportunities
The Village has successfully cleaned up the Brownfield site adjacent to the new Waste Water Treatment Plant and has begun to market this site for private development. This property was formerly home to the "Augsbury Oil Tank Farm" and was a community eyesore for years. Remaining visible evidence of this former industrial complex includes the elevated pier and pilings extending from the shore of the Black River Bay to the west of the Waste Water Treatment Plant.

15 Fiber Optic Communications Conduit
During the pipeline construction, the municipality took advantage of the disturbance to install a fiber optic communications conduit throughout the heart of the Village. This conduit will connect the Village's infrastructure, New York State Parks offices, and the Fire and Police Departments with the data fiber optic system at Sackets Harbor Central School.