

# Natural Resources and Environmental Protection



## GOALS:

- A. Protect water quality from pollutants carried by eroded soil.**
- B. Protect the natural flow of streams.**
- C. Protect sensitive natural features such as woodlands, wetlands, stream corridors, and ponds.**
- D. Reduce the potential for groundwater contamination associated with failing septic systems.**



### Existing Plans, Programs and Regulations

#### State and Federal Wetlands Regulations

Wetlands regulated by the State and Federal governments and located within the Town of Sodus are depicted on Map 11: Regulated State and Federal Wetlands. The exact boundaries of regulated wetlands must be verified in the field by a qualified individual.

New York State's Freshwater Wetlands Act and regulations protect all delineated wetlands of 12.4 acres or more in size. State regulations also restrict development within the adjacent one hundred foot buffer area that extends beyond the delineated limits of the wetland.

In addition to the State's Freshwater Wetlands, development that affects wetlands smaller than 12.4 acres are regulated by the federal government through the U.S. Army Corps of Engineers.

#### Flood Hazard Zones

Flood Hazard zones and floodways are usually located along watercourses (see Map 9: FEMA Flood Zones). Those areas within the one hundred year flood boundary could be expected to be flooded once in every hundred years, on average. The Town has adopted a local flood control ordinance that specifies, consistent with federal standards, the conditions under which development can occur in such areas. As a result, federal flood insurance is available to landowners within flood hazard zones.

#### Coastal Erosion Hazard Areas

The Town of Sodus has adopted regulations to prevent erosion along designated parts of the Lake Ontario

## Existing Conditions

### Watercourses and Drainage Basins

Surface water runoff within the Town of Sodus generally flows from south to north. All of the stormwater in the Town of Sodus discharges to one of the main creeks or one of its tributaries, eventually discharging to Lake Ontario.

The four drainage basins or watersheds associated with the major streams in the Town are depicted in Map 10: Watercourses and Watersheds. Salmon Creek originates in the northeastern portion of the Town of Marion. It flows across the southern and eastern portion of the Town of Sodus, through Metz Pond, and into Lake Ontario at the former Camp Beechwood.



Second Creek flows from the southeastern part of the Town into Sodus Bay, just east of the Village of Sodus Point.

The other streams in the Town are tributaries of Salmon Creek or Second Creek or are small streams that flow directly into Lake Ontario or Sodus Bay.

Additional information about drainage patterns in the Town is included in the Transportation and Infrastructure section.

## Wetlands

Wetlands provide unique habitat for wildlife and plants. They also assist with flood control by storing a large quantity of stormwater.

The locations of wetlands mapped by State and Federal agencies are depicted in Map \_\_: Regulated Wetlands. In the Village of Sodus, a regulated wetland located between Rotterdam and Beldon Street limits the future development potential of this area. Two wetlands northeast and northwest of the Village limit development potential in these areas that adjoin Route 104. Other wetlands are located throughout the Town, primarily along stream corridors.

## Groundwater

A secondary unconfined aquifer is located within the Town of Sodus. The aquifer is located roughly parallel to Ridge Road in a band generally one-half to three-quarters mile in width. The location of the aquifer is illustrated in Map 9: Secondary Unconfined Aquifer. The presence of the aquifer renders the area particularly sensitive to pollution from failed septic systems, stormwater infiltration and other sources.

## Topography

The topography of the Town of Sodus is depicted in Map 12: USGS Contour Elevations. This map shows that elevations are highest in the southwestern part of the Town, with areas of gently sloping land closer to Lake Ontario and Sodus Bay.

## Woodlands

Woodlands are found scattered throughout the Town and contribute to the rural character. Nearly all of such lands consist of regrowth following logging decades ago. However, there may be some isolated pockets of "old growth."

## Lake Ontario and Sodus Bay Shoreline

The Town of Sodus, outside of the Village of Sodus Point, has \_\_ miles of shoreline along Lake Ontario and \_\_ miles along Sodus Bay. Most of the shoreline is currently undeveloped.

## Mineral Resources

A dolomite quarry operated by Hansen Aggregates is located south of Sodus Center on Quarry Road. This mine is operating under a NYS DEC permit that will expire in 2009. The permit allows mining of 112 acres, with 231 acres proposed to be mined over the life of the mine.

## Existing Plans, Programs and Regulations (Continued)

shoreline. The regulations require a permit for construction or land disturbances within designated areas. The regulations are designed to protect natural dunes, beaches and bluffs and regulate the construction of erosion control structures.

## Town Septic Law

The Town of Sodus has adopted regulations that supplement the NYS Public Health Code. The law states that all new, replacement and modified septic systems must comply with State regulations. The law also requires existing septic systems to be inspected upon the change of use, expansion or transfer of ownership. The Town's Building Inspector is responsible for enforcing these provisions and requiring that any violations are corrected.

## Great Sodus Bay Harbor Management Plan

The Great Sodus Bay Harbor Management Plan will address issues of conflict, congestion and competition for space in the use of the surface waters, underwater lands and adjacent waterfront of Great Sodus Bay. This effort is being coordinated by the Great Sodus Bay Watershed Intermunicipal Committee (GSBWIC) on behalf of the Village of Sodus Point, the Towns of Sodus and Huron, Wayne County, the NYS Department of State, the Great Sodus Bay Association (GSBA) and Save Our Sodus (SOS). The Management Plan involves six steps:

1. Convene an advisory committee and identify boundaries of study area

2. Compile information about facilities along the bay (boat launches, clubs, marinas, etc.), aquatic resources (fishing areas, significant habitats), vessel use, flood elevations, physical

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conditions and existing regulations. Identify areas of conflict and competition; issues of regional and local importance; short and long term opportunities for economic or recreational development; short and long term opportunities for environmental protection and enhancement; and cultural and social considerations.

3. Prepare a Water Use Plan that designates water surface areas and adjacent uplands for specific uses or combinations of uses.

4. Draft a Harbor Management Plan that will include goals and policies to guide future decision making, recommendations for new or revised regulations, if necessary, and recommendations for capital projects.

5. Obtain public input on the draft plan.

6. Each municipality adopts the Harbor Management Plan and implementing regulations.

### State Environmental Quality Review Act (SEQR)

All municipalities must follow the State Environmental Quality Review (SEQR) process before acting on any funding or development approval. The SEQR process provides a framework for government agencies to evaluate the potential impacts of their actions on the environment. Nearly all site plan, subdivision, variance, and rezoning applications are subject to review, as well as actions that involve the purchase of property or the change in use of buildings or land. By requiring developers to document any potential environmental impacts of a project, the regulations ensure that the potential environmental impacts of a development proposal are considered by the local boards during the review process.

The dolomite, also referred to as “dolostone”, is used to make crushed gravel for use in road construction.

The Town of Williamson owns a 35-acre sand and gravel mine on Centenary Road and south of Rodger Road in the southwestern portion of the Town.

The following table lists the mines in the Town of Sodus that are currently permitted by the NYS DEC. A permit to the Sodus Lime and Stone Company for a limestone quarry is currently (April 2005) pending.

**Mines in the Town of Sodus**

Mine Name	Street	Life of Mine	Acres Affected	Commodity
Lessord Gravel Pit	South St.	8	8	Sand & Gravel
Town of Williamson	Ridge Rd.	35	35	Sand & Gravel
Hanson Aggregates	Quarry Rd.	231	112	Dolostone
Town of Sodus	Robinson Rd.	6	6	Sand & Gravel
Smith Gravel Mine	Sodus Ctr. Rd.	21	21	Sand & Gravel
Beckens Pit	Route 88	19.4	19	Sand & Gravel
<u>Permit Pending</u>				
Sodus Lime and Stone Co.	Salter Colvin	Pending	Pending	Limestone

SOURCE: NYS Department of Environmental Conservation, Region 8, Mineral Resources

## Issues and Opportunities

### Stormwater Drainage

Proper stormwater drainage in the Town of Sodus is challenging due to the low relief and poorly drained soils found in the Town, as well as the disruption to natural drainage patterns that has resulted from the past mining of iron ore. This has resulted in flooding and ponding in some areas. Issues and opportunities related to stormwater management are included in the Transportation and Infrastructure Chapter.

### Septic Systems

On-site septic systems rely on soil and its natural bacteria to filter and process the pathogens in wastewater. When they are working properly, such systems are highly effective. Failing systems, however, can introduce pathogens to groundwater, streams and Lake Ontario.

### Sedimentation and Erosion

Sediments that are carried into streams and the lake affect the clarity of the water and compromise fish habitats. In addition, the sediments may contain contaminants that degrade the quality of water.

Erosion occurs naturally along streambanks and the lakeshore, as the water scours the banks along bends in the streams. Natural vegetation helps to slow erosion, as roots hold soil in place. When natural vegetation is removed, streambanks and the lakeshore are highly vulnerable to erosion and sedimentation.

Erosion and sedimentation also occur during construction, as soil is exposed to rain. Roadside ditches also contribute sediments to the lake as stormwater scours the bottom of the ditch. In areas of steep slopes, erosion can be accelerated.

### Sensitive Natural Areas

Sensitive natural features in the Town include wetlands, woodlots, and stream corridors. These areas provide wildlife habitat and contribute to the ecological diversity of the Town and region. Several areas of the Town, along the lakeshore and streams, are susceptible to flooding. Maps \_\_, \_\_, \_\_ and \_\_ show the locations of sensitive natural areas.

Most of the woodlands in the Town are “second growth” forests that have reverted from farmland. However, some small areas of “old growth” forest are found in the Town. The delineation of those woodlots that have ecological value must be done in the field.

### **DEC Stream Classification**

*The streams in the Town of Sodus are classified “C” by the NYS Department of Environmental Conservation (DEC). This classification means that the water quality of these streams is not considered to be suitable to be used for drinking water, swimming or for fish habitat. The classification is based upon the concentration of coliform bacteria, pH, dissolved solids and dissolved oxygen. Because the streams in Sodus are Class “C”, no permit is required from the DEC for activities along the bank or in the bed of these streams.*

### **Mined Land Reclamation Law**

*The NYS Mined Land Reclamation Law requires mine operators to obtain a permit from NYSDEC. The permit establishes operating standards and requires a plan for reclamation of the land once mining is complete. The law requires mine operators to post a bond in an amount sufficient to ensure that the land is reclaimed.*

### Town-owned Land

The Town of Sodus owns two small parcels of land on Briscoe Cove. The parcels are not currently utilized for public purposes. As they are located within a neighborhood of lakeshore cottages on small lots, it is not clear whether there is potential for developing the parcels for public use. The sale of the parcels could raise funds that could be used to develop public access to Sodus Bay in another location, such as a possible public dock in the Village of Sodus Point.



## **Tools and Techniques**

### **Stormwater Management**

Stormwater management utilizes a system of vegetative and structural measures to control the increased rate and volume of stormwater runoff that results from new development. Such measures must be designed as part of new development to ensure that stormwater is properly filtered before flowing into streams or the Lake, and that the flow is managed to prevent flooding. Specific techniques include retention ponds, drainage swales, and artificial wetlands.

Local governments have the authority to require effective storm-water management techniques to be incorporated into the design of new development. Individual property owners can help to manage stormwater by limiting the amount of impermeable surfaces and allowing stormwater to filter into the ground before flowing into streams or the Lake.

### **Erosion and Sedimentation Controls**

The prevention of erosion during construction requires the use of specific techniques designed to retain soil on site. Local governments typically require such techniques as part of the subdivision or site plan review process. Erosion and sedimentation control is included in the requirements of the Town of Ontario's Design Standards.

### **Conservation Overlay Zoning Districts**

Conservation Overlay Districts also known as Environmental Protection Overlay Districts (EPODs) can be incorporated into zoning regulations to provide additional protections to sensitive natural features such as stream corridors, woodlots and scenic views. The requirements of the Conservation Overlay District (or EPOD) supplement the land use and dimensional requirements of the underlying zoning district.

Overlay regulations for woodlots typically require Town approval before trees larger than a specified size are removed. The requirements would only apply to woodlots that are designated on a resource map and meet clearly specified criteria. "Overlay" zoning regulations designed to protect stream corridors typically limit the removal of natural vegetation within a certain distance (e.g., 50 feet) of the stream bank.

## **Cluster Development and Conservation Subdivisions**

Clustered subdivisions allow dwelling units to be constructed on lots smaller than the “minimum lot size” required by zoning, while ensuring that the maximum density allowed in a zoning district is not exceeded. For example, if zoning regulations require a minimum lot size of 2.5 acres, approximately 40 dwelling units would be permitted on a 100-acre parcel. With clustering, the 40 units could be placed on 1-acre lots, with approximately 60 acres set aside as permanent open space.

Conservation subdivisions utilize design to maximize the amount of usable open space in a clustered subdivision. Once the permitted number of dwelling units is determined, the developer and the Planning Board apply the following design process to a parcel to be subdivided:

- Identify lands with conservation value. These include areas that must remain undeveloped, such as wetlands, floodplains and very steep slopes, as well as areas that contribute to the character of the area, such as active farmland, views, wooded areas, or streams. The remaining lands are best suited for development.
- Locate homes on the land identified as best suited for development.
- Once homes are sited, sketch in a network of streets and trails.
- Finally, draw the lot lines.

The Planning Board’s review of a clustered or conservation subdivision is more challenging than that of traditional subdivisions. In addition, the Town needs to be prepared to hold and monitor conservation easements in perpetuity and the Planning Board needs to work closely with developers to create subdivision designs that maximize the protection of open space and natural features.

Clustered subdivisions can result in permanent protection of resources at low cost to the Town, as open areas would be protected by conservation easements. This technique is most effective for the preservation of environmentally sensitive areas, open space and scenic views that are located on the same lot as proposed residential development.

As clustering does not reduce the number of building lots that can be developed on a parcel, it is generally acceptable to landowners and developers. Clustering works best when the zoning requires low densities.

## **Recommended Actions:**

1. Utilize the State Environmental Quality Review (SEQR) process as part of development reviews to protect stream corridors, woodlots, and other sensitive environmental features.
2. Require the preservation of sensitive natural features to be incorporated into the design of new residential and business development.
3. Apply appropriate standards to new development to minimize erosion and sedimentation associated with new construction.
4. Continue to respond to complaints about failing septic systems, particularly in those areas where the risk of contaminating groundwater is high.
5. Utilize the subdivision and site plan review process to set aside views and/or public access to Lake Ontario as part of new development along the lakeshore.