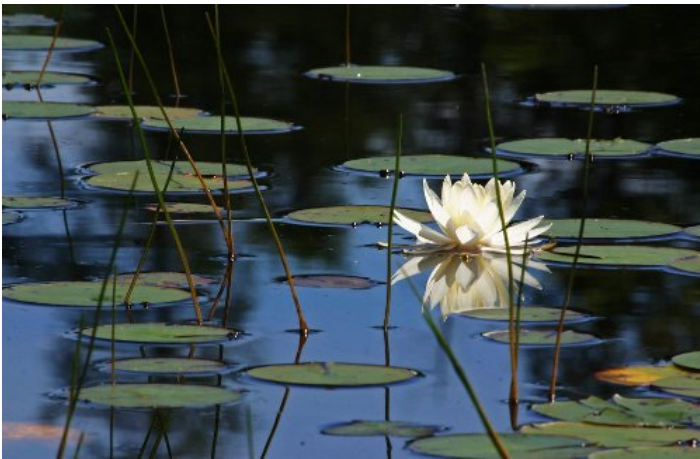


# WASTEWATER INFRASTRUCTURE ASSET MANAGEMENT PLAN VILLAGE of OLD FORGE

PREPARED BY  
OLD FORGE WASTEWATER TREATMENT PLANT  
and  
NYSDEC  
FACILITY OPERATIONS ASSISTANCE SECTION  
ALBANY, NEW YORK

APPROVED by TOWN BOARD 7/8/2008 (DRAFT)



## ACKNOWLEDGEMENTS

Many thanks go to the treatment plant staff Ted Riehle, Chief Operator and John Mitchell, Assistant Operator for all their hard work on this important effort. They were the key players with the inventorying of all the assets and setting up and maintaining the extensive database. The following staff from the NYSDEC's Facility Operations Assistance Section were big contributors also: Mike Coley, Gregg Gendron, and Phil Smith.

Importantly, without the vision and support of the Town Supervisor, Robert Moore this asset management project would not have been possible. The Board's support was obviously critical towards the implementation of the *Plan*.

The support of Dave Marcisofsky with the NYSDEC's Region 6 Office during the entire project is greatly appreciated. With his help, we looked into possible assistance with developing a Geographical Information System (GIS) mapping and inventory project with the Herkimer Onieda Counties Comprehensive Planning Program (HOCCPP). Rich Coriale with the NYSDEC's Region 6 Office and also a committee member of the Herkimer County Water Quality Coordinating Committee, and Ted Teletnick of the Herkimer County Soil and Water Conservation District assisted with funding for the project through the Finger Lakes-Lake Ontario Watershed Protection Alliance (FL-LOWPA). Jeff Quackenbush and the staff with the HOCCPP completed field data collection and produced mapping and pipe and manhole inventories of the collection system.

The Maryland Center for Environmental Training did a nice job with the whole TEAMS software package and the Train-the-Trainer modules.



**The treatment plant is celebrating its 26th birthday.**

## **EXECUTIVE SUMMARY**

The development of this *Wastewater Infrastructure Asset Management Plan (Plan)* started in June 2006 at the request of the Chief Operator and the Town Supervisor. It is the result of an intensive cooperative assistance effort with the Village of Old Forge, NYSDEC's Facility Operations Assistance Section in Albany, and NYSDEC's Region 6 Office in Utica. The goal of the assistance project was to develop and put in place a plan to ensure the continued protection of public health and the environment. Additionally, this *Plan* may help other small communities develop an asset management program.

Benefits of asset management include: Better long-range planning resulting in lower annual costs - More efficient O&M ...Predictive, not reactive – Prolonged service of equipment – Solid justification of capital improvements – Better use of limited resources & capital – A more informed public. Local leadership and sustainability are at the heart of the *Plan*. Education is essential to realize the 'value' of the wastewater infrastructure.

The wastewater collection system and treatment plant represent a huge capital investment. Built in 1982, the cost of construction of the treatment plant alone was \$ 2.6 million. Today, the estimated current replacement value of the plant is \$6 to 7 million. Additional benefits of implementing this *Plan* include continued compliance with the State Pollutant Discharge Elimination System and a high level of customer service. The wastewater infrastructure is obviously a key component of a 'Triple Bottom Line' –

### *Environmental, Social, and Economic Needs*

The approach to developing the *Plan* involved the following asset management components:

1. Inventory Assets – Sewers, Pump Stations, and Treatment Plant Equipment/Structures
2. Assess Condition – What Needs Repair, Rehabilitation, and Replacement? Cost Estimates?
3. Rank & Prioritize Needs – Criticality of Asset and Consequences of Failure? Consider Legal Issues, Liabilities, Violations, and Public Health Concerns
4. Capital Improvement Plan – Equipment Repair, Replacement, and Upgrade Schedule for six (6) years or longer
5. Full Cost Pricing – Review and Adjust Sewer Rates/Revenues and Establish Reserves Revenues to cover debt service + operations/maintenance + reserves
6. Educate Board Members – Legal, Technical, and Financial Issues
7. Establish a Wastewater Infrastructure Asset Advisory Team - Ensures the continued investment in the infrastructure for sustainability

New USEPA software entitled 'Total Electronic Asset Management System (TEAMS)' was used to manage the database. A Geographic Information System (GIS) was used to inventory the sewer/collection system. The current infrastructure includes an aged sanitary collection system of approximately seven (7) miles of gravity and force mains, 151 manholes, four (4) pump stations, and a conventional activated sludge secondary treatment plant. Sub-assets for the plant alone totaled 123.

Assets were rated for ‘Criticality’ and ‘Condition’. Criticality indicates how crucial the equipment is to system performance and compliance. Condition indicates if “it’s like new” or “un-repairable” and everything in between. Assets that are very critical to performance and in poor condition need immediate attention. Asset conditions should be re-assessed annually. Most of the sewers are 80 to 90 years old. The pump stations average 40 years old.

Capital improvement priorities include East Side Pump Station and generator upgrade, treatment plant generator upgrade, higher capacity bio-solids handling unit, and energy efficient aeration/blower system as part of a NYS Energy Research and Development Authority project. Additional needed capital projects include rehabilitation of the influent screw pump and channels. These projects need to be addressed – they are not ‘nice to do’ improvements.

Capital improvement reserve funds are necessary for the implementation of the Capital Improvement Plan. The cost estimates for the needed capital improvements were determined for the next six (6) years. For 2009, the needed reserves are \$8,000 for Collection System and \$21,600 for Plant. The Unreserved Fund Balance (currently \$64,000) will provide ‘seed money’ for these dedicated reserves. Revenues should cover plant debt service, O&M costs, and capital improvement reserves.

Recommendations include the formal adoption of the *Plan*, establishing a Wastewater Infrastructure Asset Advisory Team, establishing three (3) dedicated capital improvement reserve funds (plant, collections, and pump stations), developing a public education plan, purchasing used closed circuit TV/camera equipment to check sewer conditions, and conduct an engineering evaluation (including upgrade costs) of the East Side Pump Station. A Sewer Rate Study and a Water Conservation Program are other possible future projects.

This *Plan* reflects excellent business practices to protect, maintain, and invest in the wastewater infrastructure. It is intended to support the primary performance objective of long term compliance with regulations. The public expects a high level of customer service. It includes a ‘risk-based’ decision making process that helps avoid crisis management. The *Plan* puts the Board in control of their resource demands and provides a roadmap for the necessary improvements. This is a ‘live’ *Plan*.