
ENVIRONMENTAL Fact Sheet



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WD-WEB-22

2013

Asset Management for New Hampshire Wastewater Treatment Facilities

What is asset management?

Asset Management is a planning process that ensures the most value from each asset and ensures there are financial resources available to rehabilitate and replace those assets when necessary. Successful asset management depends on having information about the wastewater treatment facility's (WWTF's) assets and regularly communicating with management and customers about the WWTF's needs. An effective asset management program will help ensure proper WWTF operation and long-term financial savings for the municipality.

Components of an asset management program

An asset management program is more than just a plan. Asset management programs include elements such as: mapping, equipment inventory, condition assessment, preventive maintenance plans, critical infrastructure identification, desired level of service, capital budget based on replacement costs and life expectancy schedule, and rate design that covers life-cycle costs.

You may already be doing many of these things but may not have all your work packaged in a way to help make and communicate critical planning and funding decisions.

Asset management is an active process with several key components.

1. **Inventory of Assets.** Taking an inventory of the WWTF's assets is a critical first step. The asset management program must include an inventory of all WWTF and collection system assets. At a minimum, this inventory will include: type of asset, age, condition, service history and projected useful life.
2. **Prioritization of Assets.** Once the inventory is prepared and documented, the asset management program must include a system to prioritize assets that considers at a minimum: remaining useful life, importance of the asset to the protection of public health and/or water quality, importance of the asset to the operation of the system, and redundancy or lack thereof of the asset.
3. **Development of an Asset Management Program.** The asset management program must include a plan and schedule for the rehabilitation and replacement of assets. This includes developing a budget and calculating required reserves. The asset management plan and schedule should be coordinated with the facility's overall master planning documents and any other applicable studies, audits and evaluations to gain a full understanding of the WWTF's needs.
4. **Implementation of the Asset Management Program.** The asset management program is only as valuable as the paper the program is written on or the software the program is developed on if the program is not implemented and maintained. Implementation is critical and the asset management program must permeate its way through the organization from management to labor and back.

Why is asset management difficult to implement?

There are many possible reasons, such as:

1. Not required – there is no federal or state regulations requiring the implementation of an asset management program.
2. Competing priorities for resources (e.g., time, money) – staff is already busy with other activities, programs and initiatives.
3. Utilities are slow to change practices – changing practices requires training, management support and staff buy-in to adopt new ways of doing things.
4. The benefits of asset management are not always clearly defined.
5. There is a lack of management and customer support.
6. There is a lack of knowledge by management and staff – both on importance of asset management and how to implement or start a program.

Keys to successful asset management implementation

1. **“WIFM”** – What’s in it for me? Benefits message – Utilities need to get a clear message out to staff, management and customers about the positive outcomes possible with asset management, such as saving money and providing service that is more dependable.
2. **Worker Motivation** – Establish effective incentives to change and embrace asset management. Often, education and understanding the program and partnering with staff can help with this. Adding staff accountability and opportunity for participation may also help.
3. **Communication** – Both internal and external communication is critical when launching any new program or change. The importance of good and frequent communication is typically grossly underestimated relative to implementing an asset management program.
4. **Momentum** – To implement an asset management program and to make the program part of the daily work life at a WWTF, management and staff must maintain the momentum felt when the program is initially adopted.
5. **Time** – The initial time commitment may be overwhelming. However, the long-term commitment to asset management will result in time savings. Instead of time and money spent dealing with emergencies and overtime pay, time and money will be spent maintaining a fully functioning system.

What types of asset management software are available and how much does it cost?

There are several free versions of asset management software available for download and several versions of asset management software available for purchase. The following is a brief description of a few of the available asset management software packages. This list is not a complete list of available products.

1. **CUPSS** – Check Up Program for Small Systems – available free from EPA at <http://water.epa.gov/infrastructure/drinkingwater/pws/cupss/index.cfm> Online training and assistance is also available at this site.
2. **SIMPLE** – Sustainable Infrastructure Management Program Learning Environment – available free for Water Environment Research Foundation (WERF) members at <http://simple.werf.org/>
3. **TEAMS** – Asset Management software developed by Maryland Center for Environmental Training for water and wastewater facilities. Available free at <http://www.mcet.org/am/Tab%205%20Software%20Setup/TEAMS%20agreement.pdf>

4. **EPA, Region 3 Asset Management Excel Spreadsheet** – No longer supported by EPA but available free by request to Sharon.rivard@des.nh.gov

5. **PubWorks** - GIS-integrated Asset Management software for Public Works. Work Orders, Service Requests, Fleet Maintenance and Job Costing. Available for purchase at <http://www.pubworks.com/>

6. **VueWorks** - Web-enabled integrated GIS Asset and Work Management software for local government and other organizations to track the condition, minimize failure risk, optimize expenditures and service delivery of their physical assets. Available for purchase at <http://www.vueworks.com/>

NHDES Clean Water State Revolving Fund is initiating a principle forgiveness program for its loans to encourage WWTFs to develop, implement and maintain asset management programs.

For additional information on this program, refer to

<http://des.nh.gov/organization/divisions/water/wweb/documents/wastewater-criteria.pdf>

You may also contact Sharon Rivard, P.E. NHDES WWEB at (603) 271-2508 or sharon.rivard@des.nh.gov with questions regarding asset management for WWTFs.