

Fiscal Sustainability Plans

On June 10, 2014, the president signed into law the Water Resources Reform and Development Act of 2014 (WRRDA). Among its provisions are amendments to Titles I, II, V, and VI of the Federal Water Pollution Control Act (FWPCA). As part of these amendments to FWPCA, under Section 603(d)(1)(E), all publicly owned treatment works projects funded with a Clean Water State Revolving Fund (CWSRF) loan require the borrower to have a Fiscal Sustainability Plan (FSP) in place by project completion.

What is a Fiscal Sustainability Plan?

A FSP is a living document that is regularly reviewed, revised, expanded, and implemented as an integral part of the operation and management of the system. This plan, at a minimum, includes the following:

- a) An inventory of critical assets that are a part of the treatment works;
- b) An evaluation of the condition and performance of inventoried assets or asset groupings;
- c) A certification that the recipient has evaluated and will be implementing water and energy conservation efforts as part of the plan; and
- d) A plan for maintaining, repairing, and, as necessary, replacing the treatment works and a plan for funding such activities.

Who must develop and implement a Fiscal Sustainability Plan?

Any entity applying for an ACWF construction loan for a treatment works project for repair, replacement, or expansion must certify (see link below) that they have developed and are implementing a fiscal sustainability plan. Some loan applicants, such as large utilities, will already be using a written plan for sustaining operational and financial viability. Applicants that have not developed a plan prior to loan award can still get a loan. Those borrowers will be required to develop the plan that covers the funded project and closely associated components place by project completion or before the last loan disbursement is made.

Fiscal Sustainability Plan [[Certification form](#)]

Under what circumstances is a Fiscal Sustainability Plan required?

The requirement for having a FSP is effective for all applicants applying for loans on projects listed in the SFY 2016 ACWF Intended Use Plan (IUP), and there forward for all future ACWF IUP's. Fiscal sustainability plans are required on any loan for construction upgrades, replacement, or expansion of publicly owned treatment works. This includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works. For example:

- a) Intercepting sewers, outfall sewers, sewage collection systems, pumping, power, other related equipment, and their appurtenances;
- b) Extensions, improvements, restoration, additions, and alterations of treatment and collection infrastructure;

- c) Elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities; and
- d) Stormwater collection systems and the infrastructure that treats the pollutants that are, or may be, discharged from them.

Fiscal Sustainability Plan – What is Asset Management?

Asset management is the practice of managing infrastructure capital assets, such as treatment and collection systems, to minimize the total cost of ownership and operation while delivering optimum service levels. A high-performing asset management program incorporates detailed asset inventories, operation and maintenance tasks, and long-range financial planning to build system capacity, and increases a systems sustainability.

When asset management includes existing equipment, it can be used to reduce the cost of developing a preliminary engineering report for future replacement since the information needed to develop a report is more readily accessible to a consultant.

Asset Management Resources	Asset Management Tools
<p>EPA's website¹ is a resource for asset management whether just getting started or looking to enhance your existing plan. Implementing asset management is the foundation of Effective Utility Management².</p> <p>Contact other public utility divisions in your municipality. An asset management application may already be in use and this system may also manage wastewater assets.</p> <p>Use professional network for recommendations on asset management applications. Large utilities can use commercial asset management applications.</p>	<p>Check-up Program for Small Systems, referred to as CUPSS, is a free, easy-to-use, asset management tool for small drinking water and wastewater utilities.</p> <p>Download the CUPSS application³</p> <p>CUPSS has a downloadable MS Excel spreadsheet that can be given to a consultant who can populate it with information for newly financed equipment in a format that can later be uploaded to CUPSS application. This is a quick way to populate the asset inventory module in CUPSS.</p> <p>See the U.S. Environmental Protection Agency's Simple Tools for Effective Performance Guide series at 2003 Asset Management Handbook⁴</p>

¹http://water.epa.gov/infrastructure/sustain/asset_management.cfm

²<http://water.epa.gov/infrastructure/sustain/watereum.cfm>

³<http://water.epa.gov/infrastructure/drinkingwater/pws/cupss/index.cfm>

⁴<http://water.epa.gov/infrastructure/sustain/watereum.cfm>

Fiscal Sustainability Plan – Energy Conservation?

Most treatment plants were built when energy cost were not a concern, they are now. This means that investments focusing on energy conservation can reduce labor, maintenance and disposal costs, and reduce chemical use. Cost savings create a

financial reserve for planned improvements and eliminate or minimize rate increases to ratepayers.

Identify and implement energy conservation efforts appropriate for your utility based on this Plan-Do-Check-Act Approach.

- a) Benchmark and track monthly and annual energy use
- b) Identify and prioritize energy efficiency opportunities
- c) Identify efficiency goals, objectives, and targets
- d) Identify performance indicators to measure progress in energy conservation
- e) Develop an action plan to meet goals
- f) Document success and communicate to stakeholders
- g) Periodically review and adjust energy conservation measures

Energy Conservation Resources	Energy Conservation Tools
<p>Guidance to implement the Plan-Do-Check-Act approach is presented in EPA's An Energy Management Guidebook for Wastewater and Water Utilities.¹</p> <p>Chugach Electric, Alaska's largest power utility offers an Energy Efficiency Web Page² for users to access numerous energy savings tips and tools. These resources range from providing basic homeowner energy assessments to classes and workshops for all sizes of users. Additionally, more energy conservation news, tools, classes and events can be accessed through Chugach's partnership with the Alaska Energy Efficiency Partnership.³</p>	<p>EPA's Energy Use Assessment Tool⁴ is a free Excel-based tool specifically designed for small and medium sized wastewater and water utilities. It enables utilities to analyze current energy bills and energy consumption for major pieces of equipment. The utility can develop a printable summary report outlining current energy consumption and costs, generate graphs, and highlight areas of potential improvement in energy efficiency.</p> <p>Studies estimate potential efficiency savings of 15 to 30 percent⁵ are readily achievable in water and wastewater plants, with substantial financial returns in the thousands of dollars and within payback periods of only a few months to a few years.</p>

¹http://www.epa.gov/owm/waterinfrastructure/pdfs/guidebook_si_energymangement.pdf

²<http://chugachelectric.com/energy-efficiency/save-energy>

³<http://www.akenergyefficiency.org/>

⁴http://water.epa.gov/infrastructure/sustain/energy_use.cfm

⁵<http://water.epa.gov/infrastructure/sustain/energyefficiency.cfm>

Fiscal Sustainability Plan – Water Conservation?

Water Conservation is a strategy or combination of strategies for reducing the consumption of water, reducing the loss or waste of water, improving or maintaining the efficiency in the use of water, or increasing recycling and reuse of water.

Wastewater utilities can reduce operating costs through water conservation measures. These measures include, but are not limited, to:

1. Green stormwater infrastructure and low impact development practices that minimize the volume of stormwater that requires treatment at the wastewater plant.
2. Reuse of treated wastewater for landscape irrigation will reduce the potable water drawn for those purposes.
3. When planning facility upgrades wastewater utilities can replace faucets and toilets with water conserving models.
4. Collaborate with the drinking water utility in your community to influence the amount of wastewater sent to your facility for treatment and disposal.

Water Conservation Resources	Water Conservation Tools
<p>EPA's WaterSense Program¹ has tools and resources to promote water efficiency. States, local governments, and utilities can partner with WaterSense to get access to additional tools and resources to help design and implement water efficiency and conservation programs and partnership is free.</p> <p>Water Recycling and Reuse: The Environmental Benefits² - EPA HQ Overview of Water Recycling</p> <p>Water: Sustainable Infrastructure³ – EPA's overview of Key Options for Wastewater Utilities on water reuse.</p> <p>Water & Energy Efficiency in Water & Wastewater Facilities⁴ - EPA Region 9 overview of the benefits of water reuse contains information on using water more efficiently to generate less wastewater, including case studies and Guidelines for Water Reuse⁵</p> <p>EPA's WaterSense Water-Saving Products webpage⁶ has information to help select water conserving products when making facility upgrades.</p>	<p>EPA's Water Conservation Plan Guidelines⁷ offers helpful recommendations to utilities for creating and implementing a Water Conservation Plan, depending on the size of the population served by the utility.</p> <p>EPA has an infiltration and inflow tool box⁸ which has a helpful section on estimating capacity.</p>

¹<http://www.epa.gov/watersense/>

²<http://www.epa.gov/region9/water/recycling/>

³http://water.epa.gov/infrastructure/sustain/availability_wp.cfm

⁴<http://www.epa.gov/region9/waterinfrastructure/water-conserv.html>

⁵<http://www.epa.gov/region9/water/recycling/>

⁶<http://www.epa.gov/watersense/products/index.htmlcfm>

⁷<http://epa.gov/watersense/pubs/guide.html>⁵<http://www.epa.gov/region9/water/recycling/>

⁸<http://www.epa.gov/region1/sso/toolbox.html>

Fiscal Sustainability Plan - APPENDIX I

What are Frequently Asked Questions?

Q: What is a Fiscal Sustainability Plan (FSP) and when is it completed?

A: A FSP is very similar to an Asset Management Plan (AMP) and should be viewed as a 'living document' that is regularly reviewed, revised, and expanded. For this reason, there is no final deadline for FSP completion. However, in order to ensure compliance with this new statutory requirement, applicants must certify that they have created and implemented a FSP (containing the minimum components listed above).

Q: Does the FSP need to be system wide?

A: No, the FSP can pertain to only those assets that are a part of the State Revolving Funds (SRF)-financed project. For example, if the SRF project is on the collection system only, the FSP would only cover the collection system. The FSP does not need to contain treatment plant infrastructure.

Q: Is the development of a FSP an eligible loan cost?

A: Yes, an applicant can request loan funds to complete an FSP/AMP or to use towards the development/further development of its AMP.

Q: Do FSP's need to be submitted for review/approval?

A: No, FSPs do not need to be submitted for SRF purposes. Municipal Grants & Loans (MGL) staff may ask to review an applicant's FSP during a site visit or inspection. However, if loan funds are being used for the development of an FSP/AMP, MGL may ask to review the applicant's FSP/AMP by project completion or before the last loan disbursement is made.

Q: Who must complete an FSP?

A: A FSP is required for any applicant that is seeking SRF funding for treatment works proposed for upgrade, replacement, or expansion. FSP's are not required for new treatment works (there is no existing system) or for nonpoint source projects.

Q: Are energy and water conservation studies and assessments considered eligible loan activities?

A: Yes, loan eligible activities include energy and water assessments and audits.

Q: What type of energy and water conservation activities can be reviewed and implemented by an applicant?

A: Applicants can find several conservation resources noted in Appendix II.

Fiscal Sustainability Plan - APPENDIX II

Water and Energy Conservation Examples for a Wastewater Treatment Facility

Applicant's that accept SRF assistance must certify that they evaluated and will be implementing water and energy conservation efforts as part of their fiscal sustainability plan. Below are some examples of water and energy conservation efforts that can be evaluated and used to fulfill this requirement:

Energy Conservation:

1. Improve efficiency of aeration equipment: Aeration systems in wastewater plants account for about half of a wastewater treatment plant's energy use. Improved system controls, energy-efficient blowers, and energy-efficient diffuser technologies can reduce costs.
2. Biogas utilization: Biogas recovered from sludge digesters can be burned to produce electricity and heat buildings at the facility. Biogas can also be used to fuel microturbines – an innovative way to generate power using rotational energy.
3. Improve pumping efficiency: Ensure that pumps are sized appropriately and install variable frequency drives that allow speed variations to match flow conditions.
4. Improve efficiency of HVAC and lighting: Replace light fixtures and light bulbs with high efficiency models. Retrofitting HVAC with a more efficient system will have a high initial cost but can reduce energy use by 10-40 percent, generally making it cost-effective over the life of the investment.
5. Improve efficiency of operations: Installing Supervisory Control and Data Acquisition (SCADA) software can increase the efficiency of process monitoring and operational control.

Water Conservation:

1. Plant effluent water system: A plant effluent water system can be utilized to recycle effluent water to wastewater treatment plant systems that normally use treated potable water.
2. Reclaimed water for irrigation: During the summer months, reclaimed water can be used to irrigate lawns and landscaping rather than potable water.
3. Reclaimed water for industrial use: Traditionally, pulp and paper facilities, textile facilities, and other facilities using reclaimed water for cooling tower purposes.

Additional information can be found by searching for water and energy conservation methods on the Environmental Protection Agency's website (www.epa.gov/).
