

## **Fiscal Sustainability Plan Guidance and Frequently Asked Questions (FAQ)**

### Guidance

On June 10, 2014, President Obama signed into law the Water Resources Reform and Development Act of 2014 (WRRDA). Among its provisions are amendments to the Federal Water Pollution Control Act (FWPCA), which includes the administration of the Clean Water State Revolving Fund (SRF) program. The WRRDA requirement to complete and implement a fiscal sustainability plan (FSP) will be a new condition of the SRF loan agreement. Section 603(d)(1)(E) states that treatment works proposed for repair, replacement, or expansion must develop and implement an FSP that includes at a minimum the following four items:

1. Inventory of critical assets that are part of the treatment works;
2. Evaluation of the condition and performance of inventoried assets or asset groupings;
3. Certification that the recipient has evaluated and will be implementing water and energy conservation efforts as part of the plan; and
4. A plan for maintaining, repairing, funding, and as necessary, replacing the treatment works.

All applicants who submit a Project Plan after October 1, 2014, will need to self-certify they are complying with the FSP requirement or that they are exempt. This FSP Certification form will need to be completed and submitted with the Part III Application.

Prior to final loan disbursement, a review of the FSP will be performed by DEQ staff. The DEQ visit will include a review and discussion of the asset inventory, evaluation of efforts to implement water and energy conservation efforts, and a brief overview of the plan to repair/replace/maintain and funding for those activities. See attachment for some examples of conservation activities.

### FAQs

**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 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:** What is an FSP and when is it completed?

**A:** An 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). Applicants must include Items 1 and 2 above in their final SRF Project Plan submitted by July 1. Item 4 above should be included in the user charge/rate methodology submittal.

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

**A:** Yes, an applicant can request up to \$2 million in loan funds to complete an FSP/AMP or to use towards the development/further development of its AMP. If an applicant is receiving

SAW funds for AMP development, SRF loan funds cannot be used for the same activities already included in its SAW grant. For example, if condition assessment activities for Districts A and B were included in a SAW grant, those same activities cannot be included in an SRF loan. However, condition assessment activities for District C can be included in the SRF loan. This request of AMP funds should be stated in the applicant's Project Plan.

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

**A:** No, FSPs do not need to be submitted for SRF purposes. DEQ staff may ask to review an applicant's FSP during a site visit or inspection. If loan funds are being used for the development of an FSP/AMP, Revolving Loan Section staff will ask to review the applicant's FSP/AMP during their final site visit.

**Q:** Who must complete an FSP?

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

**Q:** I have a SAW grant for AMP development; what do I need to do?

**A:** You must still complete the certification form and submit it with your SRF Part III Application as well as including the FSP minimum Items 1 and 2 (on the previous page) with your final Project Plan, and Item 4 with your rate methodology submittal.

**Q:** Are energy and water conservation tasks 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 I.

**Q:** Can an applicant apply for just a \$2 million loan for asset management development?

**A:** No, the applicant must still have an eligible SRF construction project (i.e., address a water quality problem) to receive the \$2 million for asset management program development.

# Water and Energy Conservation Examples for a Wastewater Treatment Facility

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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](http://www.epa.gov)).

## APPENDIX I

### Supplemental Information for Implementing Section 603(d)(1)(E)(i)(III)

Under Section 603(d)(1)(E)(i)(III) of the Federal Water Pollution Control Act, as amended, a recipient of a Clean Water State Revolving Fund (CWSRF) loan for “repair, replacement, or expansion” of a treatment works must certify that it has evaluated and will be implementing water and energy conservation efforts as part of its fiscal sustainability plan. As stated in *Interpretive Guidance for Certain Amendments in the Water Resources Reform and Development Act to Titles I, II, V and VI of the Federal Water Pollution Control Act*, the Environmental Protection Agency recommends that the CWSRFs evaluate whether a recipient has selected, to the maximum extent practicable, water and energy efficient approaches in the selected project.

#### Energy Conservation

One example of how CWSRFs can evaluate the energy portion of the certification is to use information developed by the recipient through energy assessments and audits. Energy assessments help utilities identify the amount of energy being used in various aspects of its operations. Energy audits, in turn, allow utilities to identify and prioritize projects that will result in operational and capital improvements to their infrastructure and operations, cost savings, and other climate-related benefits like reductions in greenhouse gas emissions and the use of renewable energy. EPA encourages CWSRFs to promote the use of these proven and objective methods by CWSRF borrowers.

#### Energy Use Assessments

A number of tools are available to help utilities conduct energy assessments, including:

- **EPA’s Energy Use Assessment Tool**—this is a free Excel-based tool that can be downloaded and is specifically designed for small and medium sized wastewater and water utilities. It enables utilities to analyze their current energy bills and analyze energy consumption for major pieces of equipment. It also allows the utility to develop a printable summary report outlining current energy consumption and costs, generate graphs depicting energy use over time, and highlight areas of potential improvement in energy efficiency. It is available at [http://water.epa.gov/infrastructure/sustain/energy\\_use.cfm](http://water.epa.gov/infrastructure/sustain/energy_use.cfm).
- **NYSERDA Energy Benchmarking Tool**—The New York State Energy Research and Development Agency (NYSERDA) has developed a tool to help wastewater utilities assess and benchmark their current energy usage, along with a number of other useful self-audit checklists, available at <http://www.nyserdera.ny.gov/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/Sectors/Municipal-Water-and-Wastewater.aspx>.

## Energy Audits

Energy audits can be broadly characterized according to the following three levels:

- Level 1 (Walk Through Audits)
  - Generally last several hours at the facility
  - Usually result in suggestions for low cost improvements in areas like HVAC or lighting
- Level 2 (Energy Survey and Analysis Audits)
  - One or two days in duration, plus additional time to review energy bills, etc.
  - In addition to HVAC/lighting recommendations, usually result in recommendations for equipment upgrades in existing processes (e.g., variable frequency drives, more efficient motors, etc.)
- Level 3 (Process Energy Audit)
  - One or more days at the facility, time to analyze energy bills and pump curves, and time for additional data gathering
  - Audit covers energy use in both existing and alternative processes, potential design modifications, and optimization of processes and equipment
  - Audit suggestions covered detailed operational and process suggestions for both short-term and long-term payback periods as well as capital intensive projects that may require outside funding
  - Most likely to result in significant savings

EPA hosted a webinar in August 2014 describing a number of energy assessment and audit tools available to states and potential recipients of CWSRF funding. The webinar slides are available at <http://water.epa.gov/infrastructure/sustain/upload/NRWA-Energy-Audits-for-Small-Utilities-8-4-14.pdf>.

Tool available to help wastewater utilities obtain or conduct energy audits include:

- **EPA's Energy Use Assessment Tool**—described in more detail above. Available at [http://water.epa.gov/infrastructure/sustain/energy\\_use.cfm](http://water.epa.gov/infrastructure/sustain/energy_use.cfm).

Both energy assessments and audits are eligible for funding under the CWSRF, and a number of organizations can help utilities with these activities, including:

- State Energy Offices (<http://www.naseo.org/members-states>)
- Electric utilities serving wastewater utilities (<http://www.dsireusa.org/>)

- Technical assistance providers like the National Rural Water Association, RCAP, and others
- Department of Energy Industrial Assessment Centers (<http://energy.gov/eere/amo/industrial-assessment-centers-iacs>).

### **Water Conservation**

Water conservation includes efficiency and reuse efforts to not only conserve our raw water supply, but to also reduce flow to wastewater treatment plants. Therefore, one way CWSRF borrowers can fulfill the water conservation requirement is to consider alternative or complementary projects that result in reduced wastewater flows and therefore reduce a treatment works' capacity needs. There are a number of water conservation projects borrowers can consider, including:

- **Water Reuse**—recycling and water reuse projects that replace potable sources with non-potable sources
  - Gray water, condensate, and wastewater effluent reuse systems
  - Extra treatment costs and distribution pipes associated with water reuse
- **Water Efficient Devices**—installing or retrofitting water efficient devices, such as plumbing fixtures and appliances
  - Shower heads, faucets, toilets, urinals, etc.
  - Education and incentive programs to conserve water such as rebates
- **Water Meters**—installing any type of water meter in a previously unmetered area, or replacing existing broken/malfunctioning water meters or upgrading them if rate structure is based on metered use
- **Water Audits and Conservation Plans**—performing audits of entire utilities or individual users (e.g., large corporations) to assess the amount of water being consumed, the need for retrofits, etc.

Utilities can also fulfill this requirement by considering water conservation projects that are not CWSRF eligible.

### **Water Efficiency Tools**

Tools are readily available to help utilities determine how much water is being conserved, including:

- **EPA's WaterSense Program**—Tools and resources to promote water efficiency are available at <http://www.epa.gov/watersense/>. States, local governments, and utilities can partner with WaterSense to get access to additional tools and resources to help them design and implement water efficiency and conservation programs. Partnership is free.

- **EPA’s Water Conservation Plan Guidelines**—Helpful recommendations to utilities for creating and implementing a Water Conservation Plan, depending on the size of the population served by the utility, available at <http://epa.gov/watersense/water-conservation-plan-guidelines>.
- **AWWA Water Audit Software**—Free software specifically designed to help utilities perform water audits, to help quantify and track water losses, and determine areas for improved efficiency. Available at <http://www.awwa.org/resources-tools/water-knowledge/water-loss-control.aspx>.
- **AWE Water Conservation Tracking Tool**—A tool to evaluate water savings, costs, and benefits of conservation programs for a specific water utility, available to AWE members at <http://www.allianceforwaterefficiency.org/tracking-tool.aspx>.
- Many states have guidelines and example plans to help utilities develop water conservation plans. For example:
  - **TWDB Water Conservation Plan**—Texas Water Development Board has developed a set of guidelines, tutorials, and example plans to help utilities create a water conservation plan that can be adopted and utilized by different entities. Available at <http://www.twdb.texas.gov/conservation/municipal/plans/>.