Background

The Water Resources Reform and Development Act (WRRDA) passed in June 2014 required recipients of US Environmental Protection Agency (EPA) Clean Water State Revolving Loan Fund (CWSRF) financial assistance for wastewater treatment infrastructure improvements to develop and implement a Fiscal Sustainability Plan (FSP). The CWSRF is administered by the Pennsylvania Infrastructure Investment Authority (PENNVEST). This requirement applies to all complete applications submitted to PENNVEST starting with the January 2015 PENNVEST Board application cutoff date of November 12, 2014 that are approved by the Board for federal funding.

FSPs must contain:
1. An inventory of critical assets that are part of the treatment works,
2. An evaluation of the condition and performance of inventoried assets,
3. A 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, and, as necessary, replacing the treatment works and a plan for funding such activities.

The purpose of the requirement is to ensure that recipients of CWSRF financial assistance are managing their physical assets in ways that promote long service life, avoid expensive catastrophic failures and maximize the long-term financial self-sufficiency of the wastewater system.

Communities in Pennsylvania usually have management activities in place which address items one, two and four of the FSP requirement. Some communities have various forms of “business plans” in place, such as written “Operation and Maintenance (O&M) Plans,” “Rate Studies,” “Capital Improvement Plans,” “Asset Management Plans,” or other business planning processes. The requirement to demonstrate that the applicant has evaluated water and energy conservation as part of the project is satisfied through the cost-effectiveness analysis performed in support of each individual PENNVEST project. DEP also provides an additional incentive for water and energy conservation by assigning points in the project rating system for “green technologies.”
**Applicability**

The FSP requirement applies to assets for which PENNVEST funding is sought. Funding recipients are encouraged to work with their DEP Project Manager at the earliest possible date to ensure that the FSP requirement is satisfied.

**Relationship between the FSP requirement and project priority points**

The FSP requirement is of limited scope and is therefore readily satisfied by PENNVEST applicants when it is applied to the to-be-funded assets.

Applicants are encouraged but not required to demonstrate use of asset management techniques in the business management of their entire existing wastewater system. If that is done the Final Ranking Framework for PENNVEST projects assigns priority points to projects. In order to qualify for those points the applicant must, before application cutoff date, show how the criteria in the Ranking Framework are satisfied.

Applicants which qualify for the Ranking Framework points [meaning all three: (1) “Basic Asset Management” and (2) “Complete Asset Management” and (3) “Full Cost Pricing”] by definition also satisfy the FSP requirements number one, two and four because the criteria in the Ranking Framework is more restrictive than FSP.

**Guidance on Satisfying FSP Requirements**

1. **Critical Asset Inventory:** Critical assets are those that directly affect the operation of the facility. The system owner makes a determination regarding which assets are critical and the appropriate level of detail to place in the inventory.

   For example, a chlorine contact tank would probably be considered a critical asset but the sidewalk to it would not be. That is because the operation of the facility would be impacted by the loss of the tank but the operators could manage without the sidewalk.

   With respect to level of detail to use in the inventory, a good rule of thumb is to list separately those assets that could be expected to be replaced separately. A sludge compost turning machine would likely be replaced as a unit, but a secondary aeration tank might have its controls replaced before the concrete tank would be replaced. If that was the case, the owner would likely list the aeration tank as being made up of separate assets.

2. **Critical Asset Condition and Performance:** The owner assesses the condition and performance of each above-listed critical asset. For the purpose of the FSP, since only the assets to be funded are required to be listed, this could simply be a statement that they will be in “new” condition and that performance will be “as designed.”

3. **Water and Energy Conservation:** The DEP “Applicant Guidance for Wastewater Facility Cost Effectiveness Analysis” says:
“Green technologies which save energy or water or satisfy other relevant criteria are considered by design engineers at all decision-making levels including system, unit process and component levels. Such technologies should receive careful consideration and should be proposed if they are cost-effective. Applicants should be prepared to discuss their thought process on green technologies with their DEP Project Manager.”

Given the above, all projects satisfy this requirement due to the cost effectiveness analysis requirements that are applied during the alternative selection process.

4. Maintaining, Repairing, Replacing and Paying For Treatment Works

Funding recipients must explain how they intend to maintain, repair and ultimately pay to have the PENNVEST-funded treatment works replaced. The discussion about maintenance and repair can reflect the applicant’s normal O&M process. The discussion about paying for future replacements can for example include use of user revenue to repay loans.

**Documentation of compliance with the FSP requirement**

The funding recipient will complete the Fiscal Sustainability Plan Summary form (3800-FM-BPNPSM0516) which is reviewed and approved by the DEP Project Manager on or before the PENNVEST application cutoff date if at all possible. If not possible, this must be reviewed and approved as part of the final inspection at project close-out.

**Technical assistance**

PENNVEST applicants are only required to satisfy FSP requirements, not necessarily apply all of the concepts that are commonly associated with asset management. Despite that, asset management and the FSP have much in common, and a full appreciation of asset management should be useful to wastewater systems.

DEP has a spreadsheet which can be used as a starting point in the development of an asset management system. DEP also has a model Asset Management Plan which describes asset management principles. Both are available on the DEP website from links above. PENNVEST applicants are not required to use the DEP spreadsheet or to prepare a plan like the model.

DEP can provide limited on-site assistance to potential PENNVEST applicants who wish to learn more about asset management and energy/water savings. Requests should be directed to Brian Schlauderaff at 717-772-5620.