FISCAL SUSTAINABILITY PLAN (FSP) GUIDANCE FOR THE INDIANA STATE REVOLVING FUND

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Fiscal Sustainability Plan (FSP) Guidance

Table of Contents

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I. Introduction

A Fiscal Sustainability Plan (FSP) is a document developed by a utility in an effort to assist with long-term management of assets and making cost effective decisions through the creation, acquisition, operation & maintenance, and disposal of these physical components within the utility. These assets lose value as the system ages and deteriorate over time, resulting in increases in operation and maintenance (O&M) costs and compromises in the level of service expected by the customers and stakeholders.

FSPs are intended to ensure the long-term sustainability of the utility and should be treated as "living documents" that are regularly reviewed, revised, expanded, and implemented as an integral part of the operation and management of the system. They provide a structured framework of the asset information to help the utility and stakeholders determine when it is most appropriate to repair, replace, or rehabilitate particular assets as well as develop a long-term funding strategy to ensure funds will be available to implement the utility's improvements when needed and deliver the desired level of service. The objective is to recognize the lowest long-term cost rather than short-term savings.

Cost effective management of a utility's assets using an FSP is important for several reasons:

1. Utility assets provide an essential customer service.
2. Proper O&M of these assets is essential for public health and safety.
3. These assets represent a major public investment.
4. Utilities are important to economic development.
5. Good management will maximize system efficiency.

To comply with the Water Resources Reform and Development Act (WRRDA) of 2014, Clean Water State Revolving Fund (CWSRF) loan recipients are required to develop and implement an FSP that includes the following minimum requirements:

1. An inventory of critical assets that are part of the treatment works project.
2. An evaluation of the condition and performance of those assets.
3. A certification that the loan recipient has evaluated and will be implementing water and energy conservation efforts as part of the plan.
4. A plan for maintaining, repairing, and replacing the assets and a plan for funding such activities – fiscal planning.

An FSP is required only for SRF funded projects, not for the entire existing system. The following outlines the steps that the utility can take to satisfy these minimum requirements. An example FSP document is available on the SRF website for guidance in developing a simple yet effective document that is concise and easily built upon to include other areas of the utility's system as future projects are implemented. It is also anticipated that at some time in the future there may be the need or requirement for all wastewater utilities to have an FSP for the entire collection and treatment system. Therefore, it will become important that FSPs developed for individual projects can easily be incorporated into a larger plan.

II. Inventory of Critical Assets that are Part of the Treatment Works Project

Identifying and documenting the new and existing assets associated with a specific SRF project is the first core component of developing an FSP. Determining the criticality of each asset is also part of this step. Creating an asset hierarchy and asset classification groups will help to facilitate tracking of asset inventory, condition, and cost.

To be considered an asset, the item should meet at least one of the following criteria:

1. Has a value greater than $5,000.
2. Has a useful life greater than one year.
3. Will be the lowest level where a work order is generated.
4. Is critical to the delivery of process, compliance of regulatory standards, and/or provision of staff safety.

These criteria help to distinguish an asset versus a component. Small components of a system do not need to be inventoried for the FSP.

Guidelines for a utility when performing the asset inventory include:

A. **Accounting for all assets associated with the project.** Tools and resources for developing the inventory list may include record drawings, staff knowledge, visual observations, and interviews with residents and consultants. Performing a complete asset inventory on the first try may not be possible for a number of reasons, and it is important to remember that the asset inventory needs to be an ongoing process.

B. **Locating the assets.** Create a map of the assets associated with the project and connect them to a specific location. GIS mapping is not required but is a very effective means of system mapping. Asset information can be stored in the GIS database and is easily accessible for grouping and reporting. GIS maps are also easily expanded upon.

C. **Probability of Failure.** The first step to assessing criticality of an asset is to determine the Probability of Failure**.** Factors to consider when determining the Probability of Failure include asset age, current condition of asset, failure history, historical knowledge, experiences with that type of asset, maintenance records, and knowledge regarding how that type of asset is likely to fail. Then rank the Probability of Failure for each asset by a rating system such as the following:

    1. 5 – Imminent - Likely to occur in the life of the item in the near future
    2. 4 – Probable – Likely to occur several times in the life of an item
    3. 3 – Occasional - Likely to occur sometime in the life of an item
    4. 2 – Remote – Unlikely, but possible to occur in the life of an item
    5. 1 – Improbable - So unlikely, it can be assumed occurrence may not be experienced

D. **Consequence of Failure.** The second step to assessing criticality is to determine the Consequence of Failure of the asset. Rank the Consequence of Failure for each asset by a rating system such as the following:

1. 5 – Catastrophic disruption
2. 4 – Major disruption
3. 3 – Moderate disruption
4. 2 – Minor disruption
5. 1 – Insignificant disruption

E. **Assessing Criticality**

1. The assets that have the greatest Probability of Failure and the greatest consequences associated with the failure will be the assets that are the most critical.

    a. Multiply Probability of Failure times Consequence of Failure to determine Criticality factor for each asset.
    b. Suggested Asset Criticality factor ranges (individual utilities may determine their own ranges as they see fit):
        i. 1 to 8 – Not considered a critical rating.
        ii. 9 to 16 – Important, but not critical.
        iii. >16 – Critical rating.

Example Criticality Table:

Asset	Probability of Failure	Consequence of Failure	Criticality
RAS Pump Station	3	4	12
Digester Basement Sump Pump	2	1	2

2. If an asset is determined to have a critical rating, then redundancy or close monitoring is important. These will also rank higher in capital improvement priority than other assets with similar condition and performance rankings as described in the next section.
3. Because the condition of an asset will change over time as will the consequences related to failure, it will be necessary to periodically review the criticality analysis and make adjustments.

III. Evaluation of the Condition and Performance of Those Assets

Evaluating the condition and performance of the assets is very important. Physical inspections of the assets will be needed as well as review of any available equipment manuals. Questions that a utility will need to ask when performing this component include:

A. What is the condition and remaining useful life of the asset?

1. Rank the condition of each asset by a rating system such as the following:

    a. 5 – Unserviceable/End of useful life (>50% of asset requires replacement)
    b. 4 – Significant deterioration (20-40% requires renewal/upgrade)
    c. 3 – Moderate deterioration (10-20% requires significant maintenance/renewal)
    d. 2 – Minor deterioration (requires minor maintenance)
    e. 1 – New or excellent condition (only normal maintenance required)

2. If resources are available, higher levels of assessment could be considered such as sewer televising, tank inspections, etc.

3. Estimate the remaining useful life of each asset.

    a. Estimate remaining life of each asset based on factors such as maintenance practices, type of materials, usage, and surrounding environment.
    b. Because useful life varies over time, it should be reevaluated on a regular basis.

B. What is the value of the asset?

1. The value of an asset is the cost to replace the asset after it has exhausted its useful life. It is important to factor inflation into the asset's value.

C. What is the desired Level of Service?

1. Level of Service (LOS) defines the way in which the utility stakeholders want the new and existing assets associated with the specific SRF funded project to perform over the long term. Defining the LOS can be utilized to determine the utility's goals.

2. This can be thought of as a performance target for a worst case scenario. However, performance targets should be realistic targets based on regulatory requirements and customer needs and will help set the utility's goals.

    Example: for a major lift station in the collection system, it may be determined that it is not acceptable for the lift station not to function. Therefore, total redundancy should be provided as well as a regular maintenance plan developed and implemented for the pumps. The pumps should also be replaced at the end of their useful life, and not when total failure has been reached.

3. There is a direct link between the LOS provided and the cost to the customer.

4. The public or customers of the utility could be actively involved in the development of the desired LOS. However, this may be more suited for a utility-wide FSP rather than single SRF project FSPs. For these projects, the utility's personnel and governing Board/Council may be best-suited to define the desired LOS.

IV. Evaluation and Implementation of Water and Energy Conservation Efforts as Part of the Plan

Along with the FSP document, WRRDA requires a certification signed by the loan participant. This indicates that the recipient has evaluated and will be implementing water and energy conservation efforts as part of the FSP. Include a brief discussion in the FSP from the Preliminary Engineering Report's alternatives evaluation for the major project components in which water and energy conservation was considered. If using SRF's Green Project Reserve Program, the discussion can be included from the associated business case.

V. Plan for Maintaining, Repairing, and Replacing the Assets and Plan for Funding

Finally, using the first three components of the FSP developed, a fiscal plan for the maintenance, repair, and replacement of the assets associated with the project *after the SRF project is complete* should be discussed in the FSP along with a proposed funding structure to ensure funds are available when needed. The FSP may be used as the financial framework for the utility's operating and capital budgets, impact fees, and utility rates.

A. The recommended planning period for fiscal planning is 20 years.

   1. Projects should be updated each year so that it always shows 20 years of needs.
   2. Changing conditions may reveal that some projects on the list can be pushed back for several years or others may need to be addressed sooner than anticipated, and the adjustments will need to be made accordingly.

B. Categories of improvements that should be considered:

   1. Fiscal needs related to future/upcoming regulations.
   2. Fiscal needs related to major asset replacement.
   3. Fiscal needs related to system expansion.
   4. Fiscal needs related to system consolidation or regionalization.
   5. Fiscal needs related to improved technology to replace obsolete technology.
   6. Fiscal needs related to climate resiliency.

C. The following information is helpful when prioritizing and gaining support for an improvement project:

   1. Description of project.
   2. Brief statement regarding need for project.
   3. Year project is needed. Identify if year is absolute or flexible.
   4. Estimated total project cost.
   5. Explanation of how costs were estimated.
   6. Identification of funding source(s) considered available for project.

7. Changes in overall operations that may occur as a result of the project.
8. Impact of project on LOS.

D. Rate methodology is a tool to determine rates and charges that will provide sufficient revenues to cover operation, maintenance, replacement, capital improvement projects, and debt costs. Once the total capital expense is identified, rates and charges can be reviewed to determine what is needed to provide sufficient revenues to cover expenses. Utilities are encouraged to work with their rate consultants to determine any necessary rate changes and charges.

E. The rate methodology could include a replacement fund breakdown. The purpose of a replacement fund is to set aside money on an annual basis for items that will need to be replaced during the normal course of operating the system. A discussion with the community's rate consultant could be beneficial.

F. The rate methodology documentation is to demonstrate that there will be sufficient revenues to cover the operation, maintenance, and replacement (OM&R) expenses. The most current rate study could be incorporated and reviewed annually.

VI. FSP Schedule for SRF Projects

A. Include a schedule for development of the FSP in Chapter 7 of the Preliminary Engineering Report. The actual FSP document should not be submitted to SRF but should be a stand-alone document and kept on site at the loan recipient's office. SRF intends to view the FSP when performing and onsite inspection.

B. The status of the FSP should be discussed in the PER. SRF requires either an FSP **Self**-Certification Form or FSP Certification form. If the loan recipient already has an FSP, the completed FSP Self-Certification Form must be submitted to SRF prior to SRF PER approval. If the loan recipient does not have an FSP, the completed FSP Certification Form must be submitted to SRF prior to the request for the final disbursement related to the primary project.

VII. Pulling It All Together

After all the data is gathered and evaluations are done for the existing assets, the next step is to prioritize the funding for maintaining SRF funded projects in the future. A suggested method is as follows:

A. Create a spreadsheet listing all the individual assets in one column. Subsequent columns could have the following headings:

1. Capacity/Size – Descriptive and can be used for grouping
2. Material – Descriptive and can be used for grouping
3. Manufacturer – Descriptive and can be used for grouping
4. Tag Number – Can be used for grouping
5. Original Cost – Cost to install the year it was installed

6. Replacement Cost – Cost to replace at end of useful life
7. Year Installed
8. Expected Useful Life in Years
9. Remaining Useful Life in Years
10. Condition – 1 through 5
11. Probability of Failure – 1 through 5
12. Consequence of Failure – 1 through 5
13. Criticality – 1 through 25
14. Notes – Expand on Consequence of Failure, Condition, etc.

B. The FSP Workbook Tool is available on the SRF website as an example spreadsheet which could be used.

C. Sort the assets by their Condition/Useful Life ranking, highest ranking first.

D. Sort each of these by Criticality, highest ranking first.

E. Use the data to develop the 20-year fiscal plan.

F. Develop a simple, concise summary of the future projects using Sections V.B and V.C above and the funding mechanisms to be used for the projects over the 20-year period (raising rates, bonds, loans, etc.).

VIII. Conclusion

Fiscal sustainability planning is a systematic process of operating, maintaining, and upgrading assets cost-effectively. It is an active, on-going process that provides information to utility managers in order to make sound decisions about their assets and allows decision makers to better identify and manage needed investments in their utility's infrastructure. It is also important to get stakeholders involved early on in the process such as the governing board/council, Mayor, Town Manager, City Engineer, etc.