

Guide to PERs for Drinking Water SRF



SC Department of Environmental Services

This guide provides information for developing a Preliminary Engineering Report (PER) for funding construction projects under the Drinking Water State Revolving Fund (DWSRF).

Once a construction project has been identified for funding by the Drinking Water Intended Use Plan, the first step the project sponsor must take in securing a loan from the DWSRF is to submit a PER to the South Carolina Department of Environmental Services (DES). The PER will be reviewed by an SRF project manager, who will work closely with the engineer preparing the PER, to ensure that the PER contains the following relevant information:

1. **General Information** [required by Section R.61-58.1(C)(1) of the State Primary Drinking Water Regulations (SPDWR)]:
 - a. Name, address and phone number of the project sponsor (i.e., town, utility, owner, or corporation), as well as the name, title, and email address of the responsible officer;
 - b. Name, address and phone number of the engineering firm, as well as the name and email address of the engineer responsible for the design;
 - c. General description of the service area and surroundings (e.g., type of economy, estimated percentage residential, estimated percentage industrial, terrain, location, possible rate of development, etc.); and,
 - d. Number and type of customers to be served (e.g., domestic, industrial, commercial, agricultural, etc.).
2. **Discussion of Need:** Describe in detail the need for the proposed project. Keep in mind that projects funded by the DWSRF must address issues that affect drinking water quality. Describe any current violations of the Safe Drinking Water Act, any potential problems (risk to human health, violations of the Safe Drinking Water Act, etc.) that may occur if corrective action is not taken, and/or any secondary water quality problems.
3. **Discussion of Alternatives Considered for Meeting the Need:** Describe in detail the alternatives available, including the discussion of a “no action” alternative. The number and types of alternatives depend upon the scope and complexity of the project. For alternatives analysis, use a minimum planning period of five (5) years, and a maximum planning period not to exceed the useful life of the project, usually twenty (20) years.
4. **Discussion of the Rationale for the Alternative Selected:** Describe in detail the rationale for the alternative selected. Both non-monetary and monetary factors should be addressed by the rationale. Non-monetary factors may include, but are not limited to, environmental effects, implementability, operability, performance reliability and institutional issues. Monetary factors should include capital costs and operation and maintenance costs.

The level of detail depends upon the scope and complexity of the project; however, the discussion should present a concise, technically reasonable rationale. If the selected alternative includes the construction of new groundwater or surface water source(s), a detailed engineering and economic assessment of the feasibility of a regional alternative for meeting the water supply needs must be included in the discussion of alternatives.

5. **Cost Estimate of the Selected Alternative:** Provide a total capital cost estimate for the selected alternative. The cost estimate must include all project costs and must be categorized as indicated below (a-j). It is not necessary to break out eligible versus ineligible costs in the PER. For planning purposes, review the Attachment to learn more about SRF eligible costs and adjustment of the loan amount.
 - a. **Planning and Design** - This category includes the cost of any planning, design, and engineering services, performed by outside/private consultants, incurred prior to construction (e.g., preparing the PER, permit fees, plans and specifications, advertising, pre-bid conference, bidding procedures, pre-construction conference, loan application, administration, etc.).
 - b. **Land** - This category includes the cost of the land that is integral to the project.
 - c. **Legal and Appraisal** - This category includes legal and appraisal costs associated with obtaining land (easement or purchase), and attorney/bond counsel fees associated with the SRF loan application and loan closing process.
 - d. **Construction** - This category includes the costs associated with the construction of the project by a contractor.
 - e. **Contingency for Construction** - The SRF Program allows for contingency based on the eligible construction cost as follows – 10% of the construction cost that is \$10 million or less plus 5% of the construction cost that exceeds \$10 million.
 - f. **Equipment** – This category includes the cost of any equipment that is directly purchased by the sponsor such as pumps, generators, etc. There is no contingency allowed on equipment; therefore, the engineer should be conservative in estimating the equipment costs.
 - g. **Materials** - This category includes the cost of any materials such as pipe, valves, brick and mortar, etc., that are directly purchased by the sponsor.
 - h. **Contingency for Materials** - This category applies only to materials that are directly purchased by the sponsor. The SRF program allows a contingency of 2.5%.
 - i. **Construction Engineering** - This category includes the costs associated with engineering services during construction such as inspections, change orders, overview of contractors, shop drawings, record drawings, concrete or soil testing, pay estimates, and draw requests.
 - j. **Loan Closing Fee** - There is a non-refundable loan closing fee, which cannot be financed within the SRF loan. For the amount of this fee please contact RIA Loans at 803-737-0390

6. **Design Parameters and Calculations for the Selected Alternative:** Specify design parameters and provide design calculations in sufficient detail to demonstrate that:
 - a. All necessary components of the project have been included and properly designed;
 - b. Cost estimates are reasonable; and,
 - c. The selected alternative can be expected to meet the project need.
7. **Location Map:** A map must be included in the PER that shows the location of the facilities to be constructed (treatment plant, water lines, tanks, etc.). The size of all water lines and tanks must be included on the map.
8. **Planning Area Map:** For projects involving a new treatment plant, a treatment plant expansion, a new source, storage, or a water line extension, a map must be included showing the boundaries of the area planned to be served.
9. **Any other applicable information required by Section R.61-58.1.C of the SPDWR.**
10. **Environmental Evaluation:** Except in cases where DES determines that the proposed project qualifies for a categorical exclusion (based on review of a detailed project description and location map) the PER must include an evaluation of the environmental effects of the alternatives. The evaluation must include sufficient information to enable DES to complete an environmental review to determine if the project will *significantly* impact the environment.

In general, the project sponsor should avoid alternatives which significantly affect, directly or indirectly, sensitive areas such as:

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| ▶ Endangered species | ▶ National natural landmarks |
| ▶ Flood plains (See item 11) | ▶ Special coastal resources |
| ▶ Historical/archaeological sites | ▶ Wetlands |
| ▶ Important farmlands | ▶ Wild and scenic rivers |

To obtain information to evaluate the environmental effects, applicable State and Federal agencies, listed below, must be solicited. The relevant agency comments usually will serve to substantiate a claim of “No Significant Impact”. The engineer preparing the PER may submit a detailed description and location map of the alternatives to the applicable agencies, requesting input. Alternatively, the engineer may provide this same information to DES’s SRF program, which will coordinate obtaining environmental input from the agencies. *The sponsor and engineer are encouraged to take advantage of this service provided by DES.*

Copies of the correspondence sent to the environmental agencies, and their corresponding responses, *must* be included within the PER. If an environmental agency indicates possible impacts to the environment, the PER should address how such impacts will be minimized.

To expedite DES’s review of the PER, the engineer may submit a draft copy of the PER for review prior to receiving comments from all of the relevant environmental agencies.

However, the PER is not considered complete until all relevant agency responses are included and addressed.

The following is a list of State and Federal agencies and Native American tribes whose input may be required for the environmental evaluation:

- ▶ S.C. Department of Archives and History (*Historic and Archeological Preservation*)
- ▶ S.C. Department of Health and Environmental Control (*Air Quality, Coastal Zone Resources, Protection of Coastal Barriers, Wetland Protection*)
- ▶ S.C. Department of Natural Resources (*Wetland Protection, Endangered or Threatened Species and their Habitats, Protection of Fish and Wildlife and Wildlife Resources*)
- ▶ Federal Emergency Management Agency (*Wetland Preservation, Floodplain Management*)
- ▶ U.S. Army Corps of Engineers (*Wetland Preservation*)
- ▶ U.S. Department of Agriculture, Natural Resources Conservation Service (*Farmland Protection*)
- ▶ U.S. Department of Commerce, National Marine Fisheries Service (*Essential Fish Habitat*)
- ▶ U.S. Department of the Interior, Fish and Wildlife Service (*Coastal Barrier Resources, Endangered or Threatened Species and their Habitats, Protection of Fish and Wildlife and Wildlife Resources, Protection of Coastal Barriers, Wetland Protection,*)
- ▶ U.S. Department of the Interior, National Park Service (*Historic and Archeological Preservation, Wild and Scenic Rivers*)
- ▶ U.S. Department of Agriculture, Forest Service (*Wild and Scenic Rivers*)
- ▶ Catawba Indian Nation (*Historic and Archeological Preservation*)

11. **Federal Flood Risk Management Standard:** Any project that utilizes SRF funds for new construction, substantial improvement, or to address substantial damage to structures and facilities must evaluate the potential impact on floodplains. Note: If choosing to evaluate the potential impact on floodplains using the “percent-annual-chance Flood Approach,” the 0.2-percent-annual-chance flood elevation (also known as the 500-year flood elevation) must be utilized.

If, after evaluation of all practicable alternatives, the proposed project will be located in or will affect a floodplain, a floodplain assessment must be prepared and submitted to SRF with the PER. This assessment must document the mitigating measures or design modifications that will be taken to reduce the threats from locating the project in the floodplain. Detailed guidance is available in Part II of the document available at:

www.fema.gov/sites/default/files/documents/fema_implementing-guidelines-EO11988-13690_10082015.pdf.

12. **Public Participation:** A public meeting and/or hearing must be held for all projects except for those having little or no environmental effect. In general, all projects except for those that qualify for a CE will be required to have a public meeting. In lieu of a special meeting, this may be accomplished through discussion of the project during regularly scheduled board or council meetings, which are open to the public. However, for any meeting to qualify as a public meeting for the SRF, public notice must be made at least 30 days prior to the date of

the meeting. The notice must specify that the proposed project will be discussed. This discussion must include the need for the project, alternatives evaluated, rationale for the selected alternative and the environmental and financial impacts of the selected alternative.

In certain special cases involving environmental concerns or other public issues one or more additional public meeting(s) and/or hearing(s) may be required for the project. Should this be necessary, the Department project manager reviewing the project will instruct you as to details of this public participation process. The PER must include documentation (e.g., copy of public notice, newspaper articles, etc.) and a discussion of the public participation process, including any comments received and responses provided.

13. **Signature and Seal:** The PER submitted must bear the signature and seal of a professional engineer, registered in the State of South Carolina.

DES SRF Review Process:

DES will review the PER for compliance with the Safe Drinking Water Act, State Primary Drinking Water Regulations, and special SRF requirements then conduct an environmental review to determine if the project will significantly affect the environment. The possible outcomes of the review are as follows:

1. When the project is of a type that qualifies to be excluded from the necessary environmental evaluation, DES will prepare and issue a public notice of Categorical Exclusion (CE) with concurrent approval of the PER. DES determines if a project qualifies for a CE following receipt of a detailed project description and location map.
2. If DES concludes that there will be no significant environmental impact, a "Finding of No Significant Impact" document will be prepared and made available for public comment for a period of thirty (30) days. If the public notice period lapses with no public comments, DES will issue a letter approving the PER. If comments are received, approval of the PER may hinge on resolution of applicable comments.
3. If DES concludes that the project will have a significant environmental impact, the sponsor must:
 - ▶ modify the project to reduce the environmental impact;
 - ▶ select another alternative and evaluate its environmental impact; or,
 - ▶ prepare an environmental impact statement.

For More Information:

For more information, contact the SRF project manager (if the project has been assigned) or the SRF Division (SRF-Info@des.sc.gov; 803-898-4300).



SC DEPARTMENT of
**ENVIRONMENTAL
SERVICES**

Attachment

SRF-Eligible Costs ♦ ♦ Adjustment of Loan Amount

SRF-Eligible Costs

*Not all costs associated with a project will be eligible for funding through an SRF loan, however all costs (eligible and non-eligible) must be included in the loan application. Read below for information that will assist in presenting the project costs **for the loan application**. Note: A loan application is "complete" when all SRF construction permit(s) has/have been issued and the financial/loan application submitted to the RIA-OLG has been approved.*

Planning and Design - For planning and design costs to be eligible for funding under the DWSRF program, documentation must clearly identify expenses incurred as only for the proposed project and must be dated no earlier than 36 months from the date the Rural Infrastructure Authority Office of Local Government (RIA-OLG) determines the loan application complete.

Land - To be eligible for funding under the DWSRF, land must be purchased less than one year prior to the date the loan application is complete and be obtained from a willing seller. **Also**, to be covered by the loan, purchase price of land may not exceed fair market value, as documented by a certified appraiser. The *Land Acquisition Form for DWSRF Funding* (DES 2554) will need to be completed and included with the first draw request. (SRF forms may be found at des.sc.gov/SRFforms.)

Legal and Appraisal - The legal and appraisal costs associated with obtaining land (including ROW and easements) from a willing seller are eligible for funding under the DWSRF program if incurred less than one year prior to the date of a complete loan application.

Materials - The cost of supplies such as fuel, oil, and tools used by the sponsor to install the materials is not eligible for funding under the SRF.

Force account labor – The use of the sponsor’s own employees or equipment, to carry out planning and design engineering or construction engineering or used to install SRF-financed equipment or materials, **is not eligible** for funding under the SRF.

Adjustment of Loan Amount

All construction portions of a project are required to be bid prior to loan closing. Based on bid results, the construction portion of the loan commitment may be adjusted downward to bid(s) plus contingency or increased by a maximum of 10% exclusive of contingency, depending on the availability of funds. Any bid amount exceeding 10% of the construction portion of the loan commitment is the sole responsibility of the project sponsor.

Loan Term

Some categories of cost (land, construction, materials) may include items that qualify for up to a 30-year term, based on the useful life of the project components. Please note that planning and design engineering costs, legal and appraisal costs, and construction engineering costs will be limited to a 20-year financing term.