



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

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## Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker  
Governor

Karyn E. Polito  
Lieutenant Governor

Bethany A. Card  
Secretary

Martin Suuberg  
Commissioner

# Clean Water State Revolving Fund

## 2023

# Construction Project Evaluation Form

## Instructions and Guidance

This information is available in alternate format. Contact Glynis Bugg at 617-348-4040.

TTY# MassRelay Service 1-800-439-2370

MassDEP Website: [www.mass.gov/dep](http://www.mass.gov/dep)

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## **INTRODUCTION**

The Massachusetts Department of Environmental Protection (MassDEP) seeks to finance projects that mitigate documented impacts to public health or the environment and encourages proponents to complete comprehensive planning and alternatives analysis for potential construction projects. Details supplied through the Project Evaluation Form (PEF) will help MassDEP to determine the extent to which the proposed project meets the goals of the State Revolving Fund (SRF) program.

**Proponents seeking SRF financing for construction of water pollution abatement projects must complete the online PEF to be submitted no later than 12:00 noon on August 12 2022.**

Please use the following link to access the online PEF:

<https://www.mass.gov/lists/state-revolving-fund-applications-forms>

***No changes to the submitted narrative may be made or new documentation submitted to the PEF after the August 12, 2022 deadline. DEP reviewers will then rate the PEFs on the submitted information and documentation based on the criteria contained within this Instructions and Guidance document. DEP reviewers may request documentation that was referenced but not attached and may access information already in DEP files. Points may be awarded if not requested but clearly warranted by the submitted information.***

***If you need assistance in filling out the online PEF, please contact our SRF Data Support Team at [srfmadep@mass.gov](mailto:srfmadep@mass.gov)***

The Project schedule for any proposal must meet the following deadlines:

Local Appropriation of Project Cost  
Loan Assistance Application

June 30, 2023  
October 13, 2023

Construction Commencement:

Six months from the issuance of the Project Approval Certificate (PAC) and no later than June 28, 2024

If the project schedule cannot meet these deadlines and has no reasonable justification for an extension of a deadline, it will not be eligible to receive SRF funding from the 2023 IUP.

## **DEFINITIONS AND INSTRUCTIONS FOR PARTS I, II, III AND IV**

### **Part I - Applicant and Project Identification and Certification**

Provide the following applicant information:

- Name of the **Local Governmental Unit (LGU)** including name; mailing address; telephone number; and Federal Employer Identification Number (This number is used by MassDEP in its SRF project tracking database).
- **Authorized Representative** information including name, mailing and email address and telephone number
- Project LGU Primary Contact information (if different from above)
- Engineering/Consultant Firm information including name; mailing address; telephone number; and Federal Employer Identification Number.
- Engineer or Engineering Consultant Contact information including name, mailing and email address and telephone number.
- Project Identification which provides how the name of the project will appear on the IUP (limited to 50 characters); whether it's a previously submitted project to the current IUP year; and a brief description of the planning project (limited to 750 characters) which adequately describes the project and its benefits. Identification of the project area using a site plan and or locus map should be attached to the submission (Examples of project descriptions follow the definitions below).

### **Definitions**

**Local Government Unit or Local Governmental Unit** - Any town, city, district, commission, agency, authority, board or other instrumentality of the commonwealth or of any of its political subdivisions, including any regional local governmental unit defined in M.G.L. c. 29C, which is responsible for the ownership or operation of a water pollution abatement project and is authorized by a bond act to finance all or any part of the cost thereof through the issue of bonds.

**Authorized Representative** - List the name, title, complete address, e-mail address, and telephone and fax numbers of the authorized representative. At the loan application stage, a resolution or authorization is required, designating by title the official (Mayor, City or Town Manager, Chair of the Board of Sewer Commissioners, Chair of the Select Board, etc.) to act as the representative of the applicant to sign for, accept, and take whatever action is necessary relative to the project. In the city form of government, the City Council will generally name the authorized representative. If the community is governed by Town Meeting, then the Town Meeting action will name the appropriate group, such as the Select Board or Board of Public Works. The appropriate governing body will then name the authorized representative. If the authority to file statement names an office, then a certified statement is required specifically identifying the individual currently holding that office. For wastewater districts, provide the requisite authorization of the governing board.

**The following are examples of Construction Project descriptions:**

- **Secondary Wastewater Treatment:** The construction project includes modifications and additions to the existing WWTP. These improvements include the replacement of aged systems that have exceeded their useful life as well as the addition of new treatment systems related to the Town's new NPDES permit. Specifically, to achieve compliance with nutrient discharge limits, improvements include modification of the secondary treatment system to create a Bardenpho system for advanced nitrogen removal and the construction of a new tertiary treatment system and superstructure with cloth disk filters for phosphorus removal.
- **Advanced Wastewater Treatment:** The project is to upgrade the Wastewater Treatment Facility to address the more stringent NPDES permit limits, reduce nutrient discharges and protect the impaired receiving waters downstream, specifically cited as impacts to the Taunton River estuary, as well as Mt. Hope Bay and Narragansett Bay waters in Rhode Island. The current treatment process cannot meet the Total Nitrogen and unlikely to be able to meet the Total Phosphorus limits a consistent basis with the existing unit processes. The current plant was constructed in 1977 and has not undergone a major upgrade since that time. The plant is designed for an average flow of 2.16 MGD and maximum flow of 7.1 MGD.
- **Infiltration/Inflow Correction:** This project will implement the recommendations from the Sewer System Evaluation Survey (SSES) to remove cost effective I/I. The project includes chemically root treating 3,174 feet of sewer; cleaning, inspecting, testing and sealing 20,135 feet of sewer; installing 356 linear feet of structural liner; installing 5,769 feet of structural cured-in-place pipe; performing two spot repairs; television inspecting and testing 230 service connections; grouting 230 service connections; rehabilitating 1,453 manholes; sealing 154 manhole inverts; root treating 48 manholes; and other related tasks.
- **Sewer System Rehabilitation:** This project entails the construction of less than half a mile of sewer to relieve an existing undersized sewer. The existing sewer does not have sufficient capacity to carry the full flow amount that it receives without surcharging and occasional sanitary sewer overflows. The SSO's discharge onto the streets and into Labor- in-Vain brook. The project is consistent with the Town's 2002 planning report for its wastewater pumping stations and the Massachusetts Estuaries Project. This project also entails the upgrade of the Dublin Street Pump Station to increase pumping capacity to handle the increased flows to be conveyed to it from the proposed relief sewer.
- **New Collectors and Appurtenances:** The Town is experiencing water quality problems associated with failing private on-site wastewater disposal systems. The Phase I Sewer Extension project is located in the Flint Pond Watershed Basin, which is well documented as an impaired basin. All proposed sewerage is within the current wastewater discharge permit limits for flow rate. Removing failing and/or improperly operating septic systems will serve to protect and enhance the Merrimack Watershed and preserve its designated uses.
- **New Interceptor and Appurtenances:** This project involves the construction of new sewers to address the nitrogen issue from on-site disposal systems. The project consists of

the Collection System Extension and Improvements by upgrading the Stage Harbor Pump Station and further extending the wastewater collection system as defined in the approved CWMP.

- **CSO Correction:** The primary objective of the CSO control plan is to bring CSO discharges in Boston Harbor and its tributaries into compliance with state and federal requirements. This component of the plan will involve nine sewer separation projects. All the projects will be accomplished by constructing new storm drains and allowing the existing combine sewers to function as separate sanitary sewers, or by constructing new sanitary sewers and allowing the existing combined sewer to serve as storm drains. The project will result in the elimination of CSO discharges at several outfalls.
- **Storm Sewers:** The work within this integrated planning project will lay the foundation for future stormwater and wastewater improvements within the City needed to meet the requirements of the Clean Water Act, while maximizing the effectiveness of limited capital resources.
- **Stormwater Conveyance Infrastructure:** The proposed project involves modifications to the former pond including enlargement of the basin outlet pipes and spillways, stabilization of the stream banks, creation of new constructed wetlands and detention basin for stormwater quantity and quality control. The improvements will include realignment of an existing municipal sewer inverted siphon which runs within the embankment. The constructed wetlands and detention basin will be designed to accommodate additional stormwater flows anticipated from future sewer separation of the combined sewer system.
- **Stormwater Treatment Systems:** The objective of this Wastewater Collection System and Drainage System Improvements project is to improve water quality in coastal receiving waters and to improve the operations of the Town's wastewater collection system and treatment plant by reducing the volume of infiltration and inflow (I/I) entering the collection system, and improving the water quality of storm water discharges through the removal of illicit connections to the sewer system and through the construction of Best Management Practices (BMPs). The project will provide the foundation for the reduction of pathogen discharges to Sippican Harbor and Buzzards Bay as well as significantly reduce the volume of public and private I/I entering the collection system.
- **Green Infrastructure:** This project includes the construction of a wind turbine with a minimum rated capacity of 600 KW. The Town consumes approximately 12,000,000kWh of electricity per year and the estimated net energy production for the turbine is 993,400kWh annually.
- **Green Infrastructure:** The green energy upgrades to the plant will include: Replacing existing process operations building with a more energy-efficient structure. Energy efficient improvements include: reconstruction of the main operations building using energy efficient (LEED) design principles (including replacement of existing belt filter press with rotary press, aeration system upgrade of existing mechanical surface aerators, and pump replacement with higher efficiency equipment); lighting, heating and ventilation systems upgrade; and upgrading building exterior (windows and insulation) - \$2,600,000; Installing up to a 65 kW solar photovoltaic system onsite - \$455,000.

## **Part II – Project Schedule and Cost**

Provide the following applicant information:

- Project scheduling information to include the start and end dates for the design of the plans and specifications; when the loan or financial assistance application will be submitted to MassDEP; if the project is subject to Massachusetts Environmental Policy ACT (MEPA) review; if the project has been submitted to the Massachusetts Historical Commission (MHC) for review and the anticipated start and end dates for construction.
- The total project cost should reflect the total cost (both eligible and ineligible items) associated with constructing the project including construction, contingency, construction supervision, police traffic detail, etc.
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- Local Funding Authorization which asks if the funding has been voted and approved by the LGU and, if not, when is it estimated to be voted on (no later than 6/30/2023).
- Other Assistance which asks if the LGU is seeking additional funding sources or not; and if so, provides who the LGU is seeking the funding from, under what title does the funding come under, the amount requested and how much will actually be provided.

## **Part III: Project Evaluation**

### **Project Narrative**

The purpose of the project narrative is to allow applicants to concisely describe the nature of the problem and how the proposed project will address the issue. The narrative helps the reviewer by providing a sense of what the proposal will address and provides the key areas on which the reviewer should focus.

MassDEP anticipates the narrative (without attachments) to be about 5 pages in length, but not more than 10 pages. The narrative must include a discussion of each of the following topics in the order presented below.

Applicants should check all items that apply and are documented as described below. For each item checked, the applicant must provide details in the narrative including but not limited to: Area(s) examined, information or conditions found, conclusions, etc. If you are working from a planning document that addresses any of the items, please provide a copy and provide specific page references where the information is found.

#### **Guidance for Project Narratives**

- Briefly describe the objectives of the project. What water quality or public health issues are being addressed, and how severe are the problems?
- Describe the scope of the project and key facilities or tasks being proposed. Describe the environmental benefit that you anticipate will result from implementation of the strategy you plan to execute.
- Proponents are required to submit with the PEF a map of the project area with an overlay of the service system and any relevant resource areas.
- Describe planning efforts that have been undertaken to develop this proposal, including any alternative analysis. Note in the narrative the Comprehensive Wastewater Management Plan (CWMP) or Project Evaluation Report (PER) from which the project was developed, and how the project is consistent with the Plan or Report. Please provide a copy of the report.
- For construction projects, provide the basis of cost estimate and engineer's cost estimate.

## **Part IV: Project Ranking**

### **TIER CLASSIFICATION**

To develop the five Tier System, the Division reviewed past CWSRF construction Project Priority Lists (PPL) spanning over the past five years to ensure the proposed tier classification is consistent with previous PPL rankings. The environmental and human health criteria remain unchanged from the previous ranking system with the exception that the assignment of points has been revised to accommodate the five Tiers Classification System parameters.

The projects base points are 500 points for Tier V, 400 points for Tier IV, 300 points for Tier III, 200 points for Tier II and 100 points for Tier I. Additional points can be assigned based on documented public health impacts, environmental criteria and the Department's priorities as indicated in the accompanying CWSRF point assignment matrix (appendix A). The total additional points add up to 97 so that projects cannot be elevated to a higher tier. The project ranking is then defined within and across tiers to develop the Project Priority List and the Intended Use Plan. The possible priority ranking range is a maximum of 597 points for a Tier V project to a minimum of 100 points for a Tier I project. Tier V is the highest priority tier. The tier system approach greatly enhances MassDEP's review of proposed projects and improves consistency. The proposed scoring system is an attempt to further ensure that Clean Water projects addressing the greatest environmental and/or public health needs are given priority for SRF financial assistance.

### **TIER V PROJECTS: 500 Points**

Description: Clean Water projects proposed by applicants to eliminate or mitigate documented **high threats to public health** and/or **high impacts to the environment** to address **noncompliance** under high level enforcement (HLE) orders, or projects being implemented consistent with an area-wide wastewater management plan under section 208 of the federal Clean Water Act, 33 U.S.C. 1288 or a suitable equivalent plan determined by the Department of Environmental Protection, or projects to comply with other water pollution control requirements. These proposals would include projects designed to address or correct an exceedance of an NPDES permit limit; groundwater discharge permit limit; projects intended to achieve a final Total Maximum Daily Load (TMDL); projects being implemented consistent with a Comprehensive Water Resources Management Plan (CWMP), Long-term CSO Strategy, Stormwater Management Plan, or an area-wide Water Quality Management Plan; or projects to abate contamination of a drinking water source.

Examples:

- New WWTP or upgrades to address NPDES or Groundwater Discharge Permit violations or comply with a consent order issued because of permit violation or an enforceable schedule within the NPDES/GW permit.
- New WWTP or upgrades required to meet new NPDES/GW permit limits and comply with a consent order issued because of pending permit limits or an enforceable schedule within the NPDES/GW permit.
- Sewer Pump Station improvements that will significantly reduce combined sewer overflows (CSOs) (only for communities with NPDES permits for CSO discharges).
- Sewer separation and rehabilitation that will significantly reduce CSOs (only for communities with NPDES permits for CSO discharges).
- Sanitary Sewer Overflow (SSO) abatement projects specific to reducing documented SSO capacity (only for communities under HLE).
- New WWTP or upgrades, and new collection system or extension of an existing sewer system that are specifically recommended in a MassDEP approved CWMP, a MassDEP-approved targeted watershed management plan or Final TMDL for the purpose of achieving target pollutant limits in whole or as part of a phased implementation plan.



- Sewer Extensions and/or new wastewater treatment facilities to address the documented impacts to sensitive environmental receptors and immediate threats to water quality due to widespread nutrient enrichment from agricultural use, sewage treatment plant discharge, stormwater runoff, failing septic systems, area-wide impacts due to septic discharges, etc. only where the sewer extensions and/or new wastewater treatment facilities are documented in a MassDEP-approved CWMP, a MassDEP approved-targeted watershed management plan, Project Engineering Report (PER), or other MassDEP approved plan, or where the extensions or new wastewater treatment facility are required under an enforcement order.

#### **TIER IV PROJECTS: 400 Points**

Description: Clean Water projects proposed to protect public health and the environment by addressing **imminent threats** to the major elements of wastewater conveyance, treatment and discharge systems. The following summarizes the information for Tier IV:

- Projects proposed to address/correct a significant public health and environmental threat that would result from a POTW treatment facility *exceeding its planned useful life cycle* with *documented signs of failure or deficiencies* that indicate imminent component failure, which have been identified in a **MassDEP-approved** Comprehensive Wastewater Management Plan (CWMP) or Facility Plan. If the threat remains unaddressed customers and the environment may be subject to unsafe conditions. An aging treatment plant would have at least one component that is creating significant deficiencies that impact the entire system.
- Projects proposed to address a major conveyance system component failure. Although not the sole component of a wastewater system, loss of a particular pump station, force main, or interceptor, which would affect 25% or more of the flows being conveyed to the treatment works.

#### Examples:

- Serious and repetitive POTW malfunctions that, if left unresolved, could result in permit violations.
- Projects would include replacement of a critical force main or interceptor that is in danger of becoming unusable.
- Relining or replacement of a sewer force main showing more than one break over the past 5 years.
- Replacing or upgrading a critical pump station that has become structurally or operationally compromised due to documented deficiencies and is in danger of failing.
- Replacement or upgrade of a wastewater treatment facility that is approaching or exceeding its planned useful life and has experienced numerous deficiencies and required repairs over the past 3 years.

#### **TIER III PROJECTS: 300 Points**

Description: Clean Water projects proposed to eliminate or mitigate documented **threats to public health** and/or **impacts to the environment** by addressing pollutant discharges and system failures that are not under an enforcement order or HLE to be completed and are proactive in nature to avoid a worsening problem.

Examples:

- Collection systems that have records of failure.
- Combined Sewer Overflow abatement projects that are neither included in a MassDEP-approved Long-Term CSO Control Plan nor in an HLE order.
- Sanitary Sewer Overflow (SSO) abatement projects not included in a MassDEP-approved CWMP or Engineering Report, nor required under a High Level Enforcement (HLE) order. (Applicant must have capacity-related SSOs as opposed to blocked or structurally deficient SSOs.)
- Infiltration/Inflow (I/I) removal projects, which are included in an I/I Abatement Plan, Sewer System Evaluation Survey (SSES), or other I/I assessment. (Applicant must have capacity-related SSOs.)

**TIER II PROJECTS: 200 Points**

Description: Clean water projects proposed to upgrade, rehabilitate, or replace wastewater infrastructure components that are ***approaching the end of their planned useful life cycle, but are neither subject to an enforcement order, nor are being recommended in a MassDEP-approved wastewater management plan or engineering report.*** Although the infrastructure components may be currently operating with only minor problems, rehabilitation or replacement is proposed to proactively address the issue before problems occur.

Examples:

- Replacing a facility's pumps or other component that have approached the end of their planned useful life expectancy before there is a problem.
- Repairing/replacing aged lines that have experienced occasional breaks over the past few years
- Installing a pump station that reached its useful life cycle without issues.
- Inflow and Infiltration (I/I) removal projects, that are recommended in I/I Abatement Plans, SSES Reports, or other I/I Assessments. (Municipality does not have capacity related SSOs.)
- Stormwater remediation, as recommended in a watershed assessment, diagnostic feasibility study or other assessment report that identifies stormwater as a source of water quality impairment.

**TIER I PROJECTS: 100 Points**

Description: Clean Water projects that focus on nonpoint source or wastewater pollution abatement, based on recommendations from local planning studies. Projects would not target an ongoing contamination issue, or projects that do not pose a threat to sensitive receptors.

Examples:

- Landfill capping.
- Brownfield remediation.
- Pollution prevention.
- Climate resiliency.
- Sewer Extensions not included in a MassDEP-approved wastewater management plan.

## **ASSIGNMENT OF ADDITIONAL POINTS**

Additional points will be assigned in accordance with Appendix A, provided that appropriate supporting documentation is submitted with the PEF, for the following:

### **A. Public Health Impacts**

Describe the cause of the problems, discussing how the problem affects the resource(s). Substantiate problems using documentation such as a Watershed Management Plan, CWMP, Project Engineering Report (PER), sampling and lab results, or Board of Health records. Applicants must make direct connection between resources affected and documentation submitted. On a project site map, show location of resources affected (public and private drinking water supplies, private homes, public streets, and parklands, etc.)

- 1) **Public Drinking Water Supply**, as defined in 310 CMR 22.02 (<https://www.mass.gov/doc/310-cmr-2200-the-massachusetts-drinking-water-regulations>), is located within the project area. Document impacts to the supply via laboratory analysis or reports. If the supply is the only source available to the supplier, please note. For groundwater supplies, documentation must consist of sampling at either the withdrawal points or within the Zone II at a MassDEP Drinking Water Program-approved monitoring location. For example, in the case of nitrogen contamination, total N of 5 ppm or greater would demonstrate the existence of an impact, provided that the elevated concentration can be related to the problem, considering factors such as the existence of other potential pollution sources, the location of the wells in relation to the problem area, and the strata from which the groundwater is drawn. Document all potential hydrogeological impacts to a public drinking water supply.
- 2) **Private Drinking Water Supply** refers to private wells within the project area that are shown via sampling analysis to be affected by waterborne pollutants. Affected wells should be pointed out on the site map. Laboratory results should be provided to help delineate the areal extent, the type, and the level of contamination. Have alternatives such as connection to another source or point-of-use/point-of-entry systems been evaluated?
- 3) **Private Homes** refers to any residence affected by sanitary sewer back-up from a municipal sewer system into the home. Some evidence of the back-up and how the project will mitigate or eliminate impacts should be presented. Boards of Health reports or reports from the local sewer authority are acceptable documentation.
- 4) **Public Streets or Parklands** refers to incidences of raw sewage flowing directly into public streets or parkland areas that would increase the potential for exposure to people. Such incident locations should be noted on the site map. Documentation from the Board of Health or the local sewer authority should be supplied.

- 5) **Swimming Areas.** A designated swimming area that is posted, maintained, and monitored by a health or recreation agency and that has a documented closure(s) Documentation should include an explanation how the project will improve or eliminate these impacts.
- 6) **Boating Areas.** An area of the affected water body that has identified public access points and a documented impact on these locations.
- 7) **Sensitive Population Affected.** This refers to a concentration of population which would be expected to be particularly at-risk via exposure. Applicable populations would include Environmental Justice populations as well as schools, nursing homes and hospitals served by a private well, or whose grounds are affected directly by contamination.
- 8) **Population Affected.** The project-specific population immediately impacted or served by the proposed project, as applicable.
- 9) **EJ communities.** Either affected by it or serviced by project.

## **B. Environmental Criteria**

### **Nature of the environmental problem encountered**

Briefly and in narrative form, describe the nature and extent of any problems identified in the checklist, discussing the manner in which the problem affects the resource(s) noted.

- 1) **Aquatic Toxicity** - Project addresses receiving water toxicity problem. The 303(d) list includes aquatic toxicity as impairment for some waterbodies. The PEF makes a connection between the project and a decrease in toxicity (such as the need for the addition or upgrading of dechlorination). CSO and SSO projects that attempt to reduce I/I are not presumed to address aquatic toxicity without documentation. *Note* that pathogens are not considered aquatic toxicity.
- 2) **Nutrients** - Defined as (upcoming or existing) impairment as documented in the 303(d) list (such as the need to upgrade treatment to address phosphorus from a wastewater treatment facility or to sewer an area upstream of a 303(d) list nutrient impaired pond), treatment plants, collection systems and/or alternative technologies listed in an area-wide wastewater management plan under section 208 of the federal Clean Water Act, 33 U.S.C. 1288; or a suitable equivalent plan determined by the Department of Environmental Protection whose primary purpose reducing nutrient load to estuaries experiencing water quality declines due to nitrogen enrichment as documented in a MEP Technical Report, a TMDL or a 303(d) listing.
- 3) **Bacteria** - The presence of coliform bacteria or E. Coli in a drinking water source or receiving water or enterococcus in a water body, as determined with analytical data. The 303(d) listing of “pathogens” is acceptable evidence of

bacterial contamination. The information presented in the PEF should provide the data and the relevant limit exceeded or threatened (permit limit, drinking water Maximum Contaminant Level (MCL), swimming (beach)). Problems that are assumed to contribute to exposure to bacteria include CSOs, SSOs, on-site system breakouts, and on-site systems within groundwater.

- 4) **Turbidity** Suspended particles in a waterbody as a result of human activity. The 303(d) list includes turbidity as a problem for some waterbodies. Examples of projects addressing turbidity include nonpoint stormwater projects and treatment of phosphorus to reduce algae growth. CSOs and SSOs are presumed to cause increased turbidity.
- 5) **Dissolved Oxygen** - PEF shows a dissolved oxygen impairment in receiving water as documented in the 303(d) or other DEP-accepted report and must demonstrate that the proposed project will mitigate or eliminate the problem.
- 6) **Temperature** - PEF shows a temperature impairment in receiving water as documented in the 303(d) or other DEP-accepted report and must demonstrate that the proposed project will mitigate or eliminate the problem.
- 7) **Noxious Aquatic Plants** - For the purposes of this PEF, “noxious aquatic plants” refers to the excessive growth of plant species in or near a waterbody, affecting the water quality and habitat. Documentation includes listing on the 303(d) list, diagnostic/feasibility studies, or Total Maximum Daily Load (TMDL) reports. Proposed project must mitigate the noxious weed problem.
- 8) **Aesthetics** - Floating solids, strong odors and discoloration of a waterbody indicate aesthetic concerns. These may be documented in the 303(d) list. CSOs and SSOs are both assumed to include floating solids and therefore, would be considered to present an aesthetics concern. Demonstration of visual aesthetic concerns should include photos, with accompanying report and date, location, duration or intensity and person observing the problem. Official town reports are the appropriated documentation.

### **Environmental resources affected**

Describe whether the targeted pollution is shown to have a direct and adverse impact on the resources listed below, is within the project area, and whether the project scope will address the documented issue.

- 9) **Public Water Supply – Surface Water Zone A or Zone B:** – It is defined at 310 CMR 22.02. Generally, Zone B is the secondary area of protection surrounding the Zone A of a Public Water supply. Points are available only for Zone A or Zone B, not both. Points will be given if the project area is within the Public Water Supply- Zone B only if points were not awarded for Zone A.

- 10) **Public Water Supply – Ground Water Zone I or Zone II:** – It is defined at 310 CMR 22.02. Generally, Zone II is the secondary area of protection surrounding the Zone I of a Public Water supply. Points are available only for Zone I or Zone II, not both. Points will be given if the project area is within the Public Water Supply- Zone II only if points were not awarded for Zone I.
- 11) **Outstanding Resource Water (ORW)** – Defined at 314 CMR 4.0 (<https://www.mass.gov/files/documents/2016/11/nv/314cmr04.pdf>). These waters include public water supplies and their tributaries. Vernal pools and waters protected by Special Legislation are also ORWs.
- 12) **Areas of Critical Environmental Concerns (ACEC):** The Executive Office of Energy and Environmental Affairs (EEA) designates ACECs within the Commonwealth. These areas include marshlands, embayments, unique habitats, and swamps. Discharge does not need to be directly into an ACEC.
- 13) **Commercial Fishery/Shellfish Area** - There are 303 shellfish growing areas designated by the Division of Marine Fisheries (DMF), with six classifications ranging from “Approved” to “Prohibited”. There are also data layers in MassGIS for “Designated Shellfish Growing Areas” and “MA DMF Lobster Harvest Zones”. Applicant must demonstrate that water quality improvement due to project implementation may expand an area available for harvesting or extend periods when beds/areas are open.
- 14) **Endangered Species Habitat** - Areas identified in the Massachusetts Natural Heritage Atlas . There are also data layers in MassGIS, but they are only available by special request to the Natural Heritage and Endangered Species Program (NHESP). Points will be given if the project area is within the Endangered Species Habitat area.
- 15) **Sole Source Aquifer (SSA)** - The seven SSAs designated by US EPA, shown as the “EPA Designated Sole Source Aquifers” data layer of MassGIS. Applicant must demonstrate that the aquifer is impacted by the water quality problem and the project will mitigate the problem.
- 16) **Ocean Sanctuary** - The five areas described in M.G.L. c.132A, s.13. Project must be demonstrated to improve water quality entering a designated Ocean Sanctuary. This item refers to areas where water currently discharges to the designated Ocean Sanctuary, and water quality would be improved by the project.
- 17) **Recreational Fisheries/Shellfish Area** - Project area would include a water body with uses that have historically included recreational fishing or shell fishing. Implementation of the project should be expected to improve water quality sufficiently to allow for a return or expansion of the fish population.

- 18) Federally/State Designated River or Estuary or Freshwater Pond: -** Certain federal designations impart a higher level of significance to those rivers so designated. Federal designations include National Wild and Scenic Rivers. The proposed project would have to improve the water quality of a federally designated river. MassDEP has expanded this category to include rivers included in the most recent Biomap product as Core Habitat. Generally, communities bordering the mainstem of the designated river are considered to have the potential for direct impact; or an estuary or freshwater pond within a jurisdiction covered by an area-wide wastewater management plan under section 208 of the federal Clean Water Act, 33 U.S.C. 1288; or (ii) a suitable equivalent plan determined by the Department of Environmental Protection

### **C. Program and Implementation Criteria**

#### **Consistency with EEA/MassDEP Watershed Management Plans or Priorities.**

This section is intended to measure the extent to which this project implements planning recommendations or implements State or Federal requirements. Information supplied by the applicant will indicate the extent to which the applicant has explored and considered various options available. Points are awarded only for one planning category.

##### **1) Implements a recommendation**

Identify and describe how, and to what extent, the project implements or is consistent with one or more current priorities identified through Water Resource and Wastewater Planning, such as an EEA Watershed Management Plan; a CWMP, a Project Engineering Report (PER), a MassDEP-approved targeted watershed management plan, an area-wide wastewater management plan under section 208 of the federal Clean Water Act, 33 U.S.C. 1288; or (ii) a suitable equivalent plan determined by the Department of Environmental Protection, a Comprehensive Performance Evaluation (CPE), a Sewer System Evaluation Survey (SSES) (PER Level), a Stormwater Management Plan, a Water Quality Assessment Report, or a Diagnostic/Feasibility Study. Applicants should refer to the planning requirements in the CWSRF regulations at 310 CMR 44.09 (found at <https://www.mass.gov/doc/310-cmr-4400-the-clean-water-state-revolving-fund/download>), to determine whether the planning satisfies the criteria for comprehensive wastewater management planning. Facility's plans or comprehensive wastewater management plans that are more than 15 years old will be considered the equivalent of local planning studies in MassDEP's evaluation. Attach the cover page of the planning document and indicate the date of MassDEP approval. Reference and append the pertinent pages that support the proposed project. Points may be issued for planning documents that are approved or considered "approvable" by MassDEP.

##### **2) Compliance and enforcement**

Indicate if the project is related to any regulation, permit or enforcement action. List any regulations, permits, or enforcement actions that apply, including federal administrative orders, Massachusetts administrative

orders, Notices of Noncompliance (NONs), federal permits, Massachusetts permits, federal regulations, and state regulations. List the type of action, subject matter, reference number, appropriate section/page related to this project and deadlines for compliance.

Type of Action	Subject	Reference Number	Section & page	Compliance Deadline(s)
EXAMPLE: Fed. Adm. Order	Order for action pursuant to Sec 308 of Clean Water Act re: CSOs	#97-02	Sec 4 & 6, p.5-8	May 2002 June 2002
EXAMPLE: NPDES Permit	NPDES permit for WWTP discharge permit limit for toxicity	9701234	Sec II and III, p.6-9	As of 6/1/97
EXAMPLE: NON	Surcharging of sewer @ E. Main	WE-98-NON-1001	p.2	As of 6/1/98
EXAMPLE: MA Reg. 314 CMR 5.00	Groundwater discharge re: stormwater needing permit	Not applicable	Sec 5.04, pp185,186	N/A

Explain how compliance with the above action(s) will address the environmental problem identified in the previous sections. Describe the specific tasks identified in the enforcement action that will eliminate or mitigate the problem. Voluntary compliance also applies to this item.

### 3) Multi-community or regional solution

Indicate whether the project constitutes or is a component of a multi-community or regional approach to addressing the identified environmental problem and describe the additional benefits resulting from such an approach. Examples include: a) host community assisting another to resolve a water quality problem; b) community entering into an Inter-Municipal Agreement; c) project implementing a specific recommendation in a Regional study relative to the proposed project; (d) a project included under a watershed management permit.

### 4) Innovative technology

MassDEP encourages applicants to consider using innovative technology to achieve their clean water goals. The narrative also should include certification from a Professional Engineer that the innovative technology meets current engineering standards/practices, and a statement from a Professional Engineer addressing the likelihood the innovative technology would be successful for the project being presented. MassDEP publishes a list of “new technologies” that have been approved for use in Massachusetts in the last five years. MassDEP weblink to the list: [https://www.mass.gov/doc/summary-table-of-innovativealternative-technologies-approved-for-use-in-massachusetts/download?\\_ga=2.110176193.596645188.1648470020-1862160945.1621619338](https://www.mass.gov/doc/summary-table-of-innovativealternative-technologies-approved-for-use-in-massachusetts/download?_ga=2.110176193.596645188.1648470020-1862160945.1621619338)

Guidance is found at: <https://www.mass.gov/guides/innovative-technology-and-title-5-systems>



## 5) Energy Efficiency

**Relative benefit of the project** - Indicate whether the project was recommended by a third-party energy audit, assessment or feasibility study. Projects resulting from an audit/assessment/study will receive double the number of points for projects without energy audits. Include the applicable portion of the audit and an explanation of the energy savings expected from the project.

**Will the project implement an energy efficiency measure?** If the project includes implementation of an energy efficient measure or installation of a more efficient resource, calculate the percent energy savings expected due to the proposed project. Energy savings will be the kW hours expected to be saved by the energy efficient resource, in relation to total kW hours of the entire facility (i.e. the pump station or treatment plant) per year and expressed as a percentage. New installations, such as premium motors or variable frequency drives, are only eligible if they are upgrades to an existing facility. New facilities are not eligible for energy efficiency points unless they employ LEED design. Projects which reduce energy consumption over 25% will get points for “Substantial Energy Efficiency (EE)”. Projects which reduce energy consumption between 10-25% will get points for “Moderate EE”. Projects which reduce energy consumption up to 10% will get points for “Nominal EE”.

## 6) Renewable Energy

**Relative benefit of the project** - Indicate if the project was recommended by a third-party energy audit, assessment or feasibility study. Projects resulting from an audit/assessment/study will receive double the number of points for projects without the acceptable study. Include the applicable portion of the audit and an explanation of the energy savings expected from the project.

**Will the project result in on-site renewable energy power generation?** If the project includes a renewable energy resource component such as wind power, solar (either photovoltaic or solar thermal), hydropower, biogas generation, or combined heat and power, calculate the expected renewable energy production benefit. Projects which produce over 50% of demand will get points for “Substantial Renewable Energy (RE)”. Projects which produce between 20-50% of demand will get points for “Moderate RE”. Projects which produce up to 20% of demand will get points for “Nominal RE”.

#### **D. Best Management Practices (BMPs):**

Applicants should identify if they are implementing Best Management Practices listed by the Clean Water Trust on its website and include proper supporting documentation in their application (found at <https://www.mass.gov/info-details/borrower-documents-reports-and-publications#best-management-practices->).

- 1) **Asset Management-** Asset Management Planning is a process that utilities can use to prioritize and schedule maintenance and replacement of capital assets (pipes, valves, equipment, structures, etc.) in a proactive and cost-effective manner that allows for more predictable budget projections. Proper documentation includes the cover sheet, index and recommendations of the written Asset Management Plan. If the Asset Management Plan was funded through the SRF Program, a copy of the Planning Project Completion Certificate signed by the LGU is sufficient documentation.
- 2) **Full Cost Pricing-** Full cost pricing encompasses all direct and indirect costs related to the service in order to maintain long-term financial sustainability. Full Cost Pricing LGU certification document to be provided.
- 3) **Enterprise Funds-** An enterprise fund is a separate accounting and financial reporting mechanism for which revenues and expenditures are segregated into a fund with financial statements separate from all other government activities. Certification signed by the LGU that an enterprise fund has been established under M.G.L. c.44, §53F1/2 or in the case of a District, Commission or Authority, that an equivalent of such fund has been established
- 4) **Inter-Municipal Agreement-** Inter-Municipal cooperation on water infrastructure projects. Proper documentation includes the cover sheet, index, and signature page of each IMA agreement.

## **E. Qualifying Green Projects**

EPA requires that a portion of the capitalization grants to fund the SRF programs be targeted to green projects or components of projects. It is necessary that all green components be identified in the PEF to assure that the minimum target requirements are met. Guidance and examples of what is considered “green” can be found in the following documents:

[https://www.epa.gov/sites/production/files/2015-04/documents/green\\_project\\_reserve-crosswalk-table.pdf](https://www.epa.gov/sites/production/files/2015-04/documents/green_project_reserve-crosswalk-table.pdf)

<https://www.epa.gov/cwsrf/green-project-reserve-guidance-clean-water-state-revolving-fund-cwsrf>

[https://www.epa.gov/sites/default/files/2015-04/documents/green\\_project\\_reserve\\_eligibility\\_guidance.pdf](https://www.epa.gov/sites/default/files/2015-04/documents/green_project_reserve_eligibility_guidance.pdf)

The applicant is required to do the following, if points are requested in sections C.4 C.5 and/or C.6:

- Identify each component of its project that may be considered green.
- Determine each component of the project that meets each of the green components from the following list. The code for each green component should be entered in line F1
- An approximate estimate of the value of the green work as a dollar value should be reported on line F2 and as a percentage of the entire project cost on line F3. The actual costs for the green components will be defined at the time of contract bid and award.

RE1 Renewable energy installation not classified elsewhere (explain in narrative/text)

RE2 Wind Turbine installation

RE3 Solar photovoltaic array installation

RE4 Solar hot water installation

RE5 Geothermal installation

RE6 Hydroelectric turbine

RE7 Combined Heat and Power system – digester gas fueled micro turbine

RE8 Combined Heat and Power system – digester gas fueled reciprocating engine

RE9 Fuel cell installation

EE1 Energy efficiency measure not classified elsewhere (explain in narrative/text)

EE2 Costs to perform an Energy Audit

EE3 Purchase and installation of highest or higher efficiency HVAC system (i.e. boiler, AC, heater)

EE4 Purchase and installation of premium motor for blower or pump (retrofit or upgrade) EE5

Purchase and install variable speed drive or variable frequency drive (retrofit or upgrade)

EE6 Purchase of leak detection equipment for treatment works

EE7 Retrofit/upgrade of wastewater treatment processes

EE8 Modification/retrofit or replacement of wastewater pumping systems resulting in greater than 20% increase in energy efficiency (requires future submittal of a Business Case)

EE9 Lighting upgrades at treatment plant or pump station, including bulb changes, occupancy sensors, or lighting control systems

EE10 LEED certification

EE11 Building envelope retrofit/upgrades (insulation, windows, etc.)

EE12 Passive lighting, new building

EE13 Passive lighting retrofit (e.g. skylights)

EE14 Passive heating and cooling

EE15 Install low-polluting engine/generator for backup power (EPA TIER 4 certification or CARB certification required)

- EE16 Control system, new installation at existing facility
- EE17 Control system, retrofit or upgrade (i.e. SCADA, replace pneumatic controls, thermostats, etc.)
- EE18 Aeration system retrofit or upgrade
- EE19 Install turbo blower
- EE20 Install dissolved oxygen monitoring and automated control
- EE21 Perform Infiltration and Inflow Study, or Sewer System Evaluation Survey (must include cost effectiveness and I/I flow reduction)
- EE22 Infiltration and Inflow project, e.g. pipe lining, (requires future submittal of business case)
  
- WE1 Water efficiency measure not classified elsewhere (explain in narrative, needs business case)
- WE2 Purchase and installation of water efficient fixtures, fittings, equipment, or appliances (e.g. toilets, faucets, showers, etc.) on Town/City property
- WE3 Retrofit or replacement of existing water using fixtures, fittings, equipment or appliances with more efficient equipment on Town/City property
- WE4 Purchase of water efficient fixtures, fittings, equipment or appliances as part of Town/City-wide rebate program
- WE5 Purchase of leak detection devices and equipment
- WE6 Purchase and installation of water meters, meter reading equipment and systems and pipe, for a previously unmetered area
- WE7 Purchase/install replacement water meters and meter reading equipment
- WE8 Construction and installation activities that implement capital water efficiency projects.
- WE9 Install/retrofit of efficient landscape or irrigation equipment for publicly owned facilities.
- WE10 Install system to recycle gray water
- WE11 Installation of dual pipe distribution systems as a means of lowering costs of treating water to potable standards
- WE12 Replacement or rehabilitation of distribution lines (requires future submittal of business case)
- WE13 Development of Integrated Water Resource Management Plan WE14 Development of a water conservation plan
- WE15 Costs associated with development of a water conservation plan if required as a condition of SRF assistance
- WE16 Public Education: development or implementation of programs on conservation
- WE17 Incentive Programs (e.g., rebates, tax breaks, vouchers, and conservation rate structures)  
DEVELOPMENT
- WE18 Incentive Programs (e.g., rebates, tax breaks, vouchers, and conservation rate structures)  
IMPLEMENTATION
- WE19 Incentive Programs (e.g., rebates, tax breaks, vouchers, and conservation rate structures)
  
- ADMINISTRATION
- WE20 Technical assistance to systems on how to conserve water (e.g., water audits, leak detection, and rate structure consultation)
- WE21 Development and implementation of ordinances or regulations to conserve water WE22 Drought monitoring

- SW1 Stormwater efficiency measure not classified elsewhere (explain in narrative, needs Business Case)
- SW2 Implement Green Streets (combinations of green infrastructure practices in transportation rights-of ways) for new development, redevelopment or retrofits
- SW3 Implement water reuse or water harvesting programs SW4 Installation of green roof(s)
- SW5 Downspout disconnection program (to remove stormwater from combined sewers and storm sewers)
- SW6 Implement wet weather management system for parking areas, such as incremental cost of porous pavement, bioretention, green roofs, trees, and other practices that mimic natural hydrology and reduce effective imperviousness
- SW7 Hydromodification to restore riparian buffers, floodplains or wetlands
- SW8 Implement comprehensive street tree or urban forestry programs (expand tree boxes, etc.)
- SW9 Implement wet weather management system designed to keep wet weather discharges out of sewer systems using green infrastructure technologies and approaches such as permeable pavement, bioretention, green roofs, trees, and other practices that mimic natural hydrology and reduce effective imperviousness
- SW10 Wetland restoration and constructed wetlands (not used for wastewater treatment) SW11 Development of a Stormwater Management Plan including illegal detection program
- EI1 General project that demonstrates new and/or innovative approach to managing water resources in a more sustainable way, including projects that achieve pollution prevention or pollutant removal with reduced costs (requires future submittal of a Business Case)
- EI2 Decentralized wastewater treatment solutions to existing deficient or failing on site systems
- EI3 Water reuse projects that reduce energy consumption, recharge aquifers or reduce water withdrawals and treatment costs
- EI4 The water quality portion of projects that employ development & redevelopment practices that preserve or restore site hydrologic processes through sustainable landscaping and site design.
- EI5 Projects that use water balance approaches (water budgets) at the project, local or state level that preserve site, local or regional hydrology. Such an effort could showcase efforts to plan and manage in a concerted manner, surface and groundwater withdrawals, stream flow (aquatic species protection), wetland and floodplain storage, groundwater recharge and regional or local reuse and harvesting strategies using a quantified methodology.
- EI6 Projects that facilitate adaptation of clean water programs and practices to climate change.
- EI7 The water quality portion of projects that demonstrate the energy savings and greenhouse reduction benefits of sustainable site design practices and the use of green stormwater infrastructure.
- EI8 Projects that identify & quantify the benefits of using integrated water resources management approaches.
- EI9 Projects that incorporate differential uses of water based on the level of treatment to reduce the costs of treating all water to potable-water standards.
- EI10 Development of Comprehensive Wastewater Management Plan (sustainability plan)
- EI11 Development of Water Resources Management Plan and likely to result in a capital project (e.g., System Master Plan, etc.)