ATTACHMENT 5

CWSRF BENEFITS ASSESSMENT – CORE MEASURES FOR PROJECTS

- This page lays out the measures. An electronic version of this worksheet will be used for reporting. It will include links to the DEFINITIONS and DATA SOURCES listings found on the following pages. These describe the data requested and EPA's plans to aggregate the information for all projects.
- Complete measures 0, 1, 2, 3, and 4 for ***each individual project*** at the time of loan execution; a single loan may finance multiple projects. *1, 2, and 3b are optional for nonpoint source projects. Please include clarifying and other comments where applicable.

CWSRF Core Benefits Measures

0. Basic project information (complete for all projects)

a. Project name_____

Project tracking #_____ Additional tracking #_____

(phased project? ☐ **phase #** | original project # _____)

b. Permit: Type_____ Number_____

Waterbody ID#/12-digit HUC _____

Other location information:_____

c. CWSRF loan amount to the project $

d. Total CWSRF loan amount $ _____ Execution date_____

Interest rate (final) _____% Repayment period _____yrs

e. NIMS categories for the project.

Circle all NIMS categories that apply to the project. For a nonpoint source project, enter the sub-category.

I II IIIA IIIB IVA IVB V VI X NPS=VII - __

1.* User population served by the:

project _____ | treatment facility(ies) _____

2.* Volume of wastewater treated/processed

project _____mgd | treatment facility(ies) _____mgd

3. Improvement or maintenance of water quality.

a. Does this project contribute to (check one)

water quality improvement? ☐ neither ☐

water quality maintenance? ☐

***b.** Does this project allow the system to (check one)

achieve compliance? ☐ neither ☐

maintain compliance? ☐

c. Is the affected *surface water* ☐ or *groundwater* ☐ :

meeting standards ☐, impaired ☐, threatened ☐

or not assessed ☐?

d. Does this project's specific loadings reductions allow the system to address:

an existing TMDL allocation? ☐

a projected TMDL allocation? ☐

a watershed management plan? ☐ N/A ☐

4. Contribution to protection or restoration of designated uses and outcomes in the affected waterbody.

Mark all applicable boxes with a ✓. For the designated uses, specify ***one*** primary use that drives the water quality goals of the project, if applicable. **P**=primary **O**=other.

If the project does not provide any water quality or public health benefits, but ***only*** improves infrastructure simply check this box. ☐

Designated uses	Protection		Restoration	
Drinking water supply	P☐	O☐	P☐	O☐
Shellfish harvesting	P☐	O☐	P☐	O☐
Cold water fishery	P☐	O☐	P☐	O☐
Warm water fishery	P☐	O☐	P☐	O☐
Primary contact recreation	P☐	O☐	P☐	O☐
Secondary contact recreation	P☐	O☐	P☐	O☐
Agriculture	P☐	O☐	P☐	O☐
Other – please specify	P☐	O☐	P☐	O☐
Other – please specify	P☐	O☐	P☐	O☐

Other uses and outcomes	Protection	Restoration
Other public health	☐	☐
Water reuse/recycling	☐	☐
Groundwater protection	☐	☐
Other – please specify	☐	☐
Other – please specify	☐	☐

Reporting information: person filling out this form

Name_____ Phone #_____ Agency_____ Date completed_____

DEFINITIONS and DATA SOURCES for the Core Benefits Measures

0.

a. Project name and tracking #s

Enter the project name and the number used to track the project in your state CWSRF program. If additional tracking information is required, enter "a," "b," "c," etc. For example, if the project number refers to the loan and this only one of three projects under that loan, differentiate the projects as "a," "b," and "c." If the project received a previous CWSRF loan, note the tracking number of the original loan/project.

b. Permit type & number, waterbody ID/12-digit HUC, other location information

Permit type will usually be "NPDES," but may be groundwater or land discharge. Please also enter a waterbody ID #, a HUC (hydrologic unit code) number, or some other geographic information for the affected waterbody(ies). This is especially important if the facility that the project affects does not have a permit or it the project affects a waterbody or waterbodies other than the receiving waterbody for this facility. A permit number itself should allow states and EPA to access this information. This information will allow EPA to access additional information about the waterbody from other data sources. Waterbody ID #'s are part of the National Hydrography Dataset (NHD) and are available through map interfaces on the EPA and USGS websites, as are HUCs. State environmental or mapping agencies can also often provide this information.

c. CWSRF loan amount to the project

Enter the amount loaned to finance the specific project. This may differ from the total loan amount if the loan finances multiple projects.

d. Total CWSRF loan amount and execution date

Enter the total loan amount and the date of loan execution.

Interest rate and repayment period

EPA will use this information and market data to compute estimated borrower savings due to the CWSRF interest rate subsidy. Report the final interest rate that includes any fees to best capture the borrower's realized savings.

e. NIMS project categories for the loan

This is the simplest way to describe a project. Its use here allows reporting for the individual projects that often receive financing from a single CWSRF loan, thus accurately cataloguing benefits information. Select all categories that apply to the project (not all categories that apply to the loan). (The electronic version makes this much easier.)

Note: If the project includes multiple NIMS categories (next page), please consider reporting project cost allocated to each NIMS category. This optional step will help EPA use environmental benefits information to the greatest effect.

Category

I Secondary treatment and best practicable wastewater treatment technology.
II Advanced treatment.
IIIA Infiltration/inflow correction.
IIIB Replacement and/or major rehabilitation of existing sewer systems.
IVA New collector sewer systems and appurtenances.
IVB New interceptor sewer systems and appurtenances.
V Correction of combined sewer overflows.
VI Municipal storm water management programs pursuant to NPDES permits.
VII Nonpoint source projects related to

A agriculture activities
B animal agricultural activities
C forestry activities
D development: roads, buildings, etc
E ground water pollution
F boating and marinas
G mining and quarrying activities
H idle, and underused industrial sites
I petroleum or chemical tanks
J sanitary landfills
K stream bank/shoreline modification, dams, wetland/riparian improvements
L rehabilitation/replacement of individual or community sewage disposal systems

X Recycled water distribution

1.

User population served

Enter the number of people that the project serves directly and the number of people currently connected to the permitted facility or system that the CWSRF project improves.] this information has not been updated on the permit recently, the applicant should be able to provide it easily.

Example: A project that simply extends sewer lines to a neighborhood that was formerly on septic would only register the population of that neighborhood as served directly. I&I improvements throughout the system that allow the treatment plant to maintain capacity for the newly connected neighborhood, however, would register the entire population connected to that facility as served directly. In both example cases, we would enter the entire population connected to the facility in the facility blank. Thus for the latter case, we enter the entire population connected to the facility in both blanks.

2.

Volume of wastewater treated/processed

For the project, enter the flow that it directly affects. This figure could be equivalent to the entry for the facility(ies), the design flow obtained from the engineering plans or updated permit for the facility. When flow cannot be accurately calculated for each phase of a phased project, divide the final resulting affected flow and design flow by the number of anticipated loan commitments and report the quotient for each commitment year.

Example 1:
A CWSRF loan funds rehabilitation of two pump stations, each of which processes 8% of total flow to the treatment facility. Enter 16% of the total flow for the project and enter the total design flow for the facility.

Example 2:
A CWSRF loan funds I&I repair designed to only affect 5% of flow but is designed to reduce wet weather flow by 12%. Because this project is **not** predominantly a wet weather project, we would count the 5%. (If is was a wet weather project, we would count the 12%.) Enter the total design flow for the facility.

3.

a. Improvement or maintenance of water quality.
To contribute to water quality improvement, a project must reduce pollutant loading to the receiving waterbody. A project that simply sustains the treatment capacity of a facility counts for water quality maintenance. Find this information in the engineering and/or environmental review documents for a project. It may be wise to confirm pre-project pollutant loadings with information from the most recent Discharge Monitoring Reports (DMRs). (See also **3d**.)

b. Compliance
Use the engineering and environmental review documents, the DMRs, and the permit (most likely a NPDES permit, but also possibly a reuse, recharge, or land discharge permit), along with any administrative, consent, or court orders. Any project that eliminates risk of noncompliance can be counted as having maintained compliance.

c. Is the affected 'surface water' or 'groundwater' meeting standards, impaired, or threatened?

Check the surface water or the groundwater box. Access the name of the receiving waterbody from the permit or another state data system (or a different affected waterbody for a nonpoint source project or other project). Then look it up on the 303(d) impaired waters list, or on a state groundwaters list, to learn if it is meeting standards, impaired or threatened, or not assessed.

d. Does this project allow the system to address a TMDL allocation or watershed management plan?

Because TMDL implementation is incomplete and NPDES permits are only renewed every five years, it will be necessary to contact the state environmental agency's TMDL office to learn if the receiving waterbody has an approved TMDL. If it does, refer back to the engineering and environmental documents to see if the CWSRF-funded project reduced the specified pollutants in the TMDL. In some cases, this TMDL information will already be attached to the permit. *Projects on impaired waters do NOT automatically address a TMDL.*

In the Chesapeake Bay watershed and others, states are implementing watershed management plans that will prevent the need for a TMDL. Check with the appropriate state offices to determine whether the project helps implement such a plan.

For projects on waterbodies without TMDLs or management plans or for projects that do not help meet the goals – often pollutant-specific – of such efforts, check the N/A box. A project may address both TMDLs and a watershed management plan – check both boxes.

Example:
On a nutrient impaired stream, a new wastewater treatment plant replaces a smaller early-1980s POTW and the aging septic tanks of a few subdivisions. In the next few years, its up-to-date treatment processes will improve pollutant removal efficiency. Because state or local planning has targeted the area for development, however, the plant is designed and permitted for a higher level of loadings to the stream than the existing POTW. Average effluent loadings over the lifetime of the plant will be significantly greater than those from the old POTW.

a. Check the N/A box. The project will degrade, not maintain or improve, water quality.
b. Check the box for achieves compliance, since the project will comply with stricter permit limits.
c. The receiving waterbody is impaired.
d. Although a TMDL has been submitted to EPA for the stream, the permit does not contain any allocations. The TMDL program office, however, quotes a projected allocation figure for nutrients that the new facility does meet. Check the projected TMDL allocation box.

4.

Contribution to protection or restoration of designated uses[∝] in the receiving waterbody.

If the project maintains or improves water quality or, as in the case of the example for measure 3, increases effluent loadings but meets its permit, it is contributing to protection of the uses you find when matching pollutants. If the project reduces loadings of a pollutant that is impairing a designated use (303(d) list), the project contributes to restoration of that use.

While some project benefits are better described as infrastructure improvement, we should make an effort—to the extent that the documentation allows—to link project benefits to the affected waterbody of the facility/system.

While it may be obvious in some cases, we can systematically link a project to uses of the affected waterbody. First, identify the pollutants that the project removes from the influent sewage (design and environmental review documents) and that show up in the water quality criteria for the receiving waterbody's uses (water quality standards database) and outcomes. The design objectives for the project will make it clear which pollutants are targeted and will often mention uses/outcomes that are driving the project. Only mark uses/outcomes that are *explicitly addressed or strongly inferred* by the planning and design documentation. If these documents do not specify uses/outcomes, mark those that the project significantly affects. For the designated uses, specify one and only one primary use that drives the water quality goals of the project, if applicable.[Π] Specify "other" for additional uses.

[∝] Note that EPA will report this measure using a summary use/outcome list. It may make sense for states to record the measure using their own established state designated uses; EPA would then work with states to equate state uses with EPA reported summary uses. For the pilot effort, the form will provide a summary use/outcome list with space for states to enter additional uses and outcomes.

[Π] If two separate uses more or less equally contribute to the project's goals, make a note. The electronic form will have a separate option for this.

For projects that address, for example, a sewage spill that does not flow into the receiving waterbody, we assume that the "other public health" outcome category is most appropriate.

Example:
A project renovates a POTW and installs post-secondary chemical phosphorus removal equipment to comply with new TMDL allocations. The receiving waterbody is temperature impaired for its designated use as a cold water fishery and is also bacteria-impaired for its use of primary contact recreation. The project reduces effluent loadings of BOD, TSS, ammonia, and phosphorus. Because these pollutants are listed in the criteria for the receiving waterbody's two designated uses, the project protects both uses. Because the TSS reduction will affect the listed bacteria impairment, the project contributes to restoration of the primary contact recreation use. But because the project did not change effluent temperature, it will not be credited with restoring the cold water fishery use. Nonetheless, the cold water fishery is the primary use for this waterbody because its more stringent water quality criteria drive efforts to reduce loadings. Do not mark additional uses that are not explicitly addressed or strongly inferred in the planning/design documentation, even if project improvements incidentally protect these uses (e.g. agriculture).

Additional important comments
It is important to take every reasonable step to accurately link loan dollars spent for a project to the uses/outcomes that the project benefits. We can rarely measure protection or restoration of fishing or recreational uses on the scale of a single CWSRF project and the associated affected waterbody. State assigned designated uses and accompanying water quality criteria allow us to link the loading reductions from a CWSRF project to fishing, swimming, and other uses of and outcomes for affected waterbodies.