

MPCA guidance on wastewater and water treatment component eligibility

Clean water legacy point source implementation grants program

This document provides guidance on Point Source Implementation Grant (PSIG) component eligibility for water infrastructure projects. The guidance is not intended to address all potential situations and issues, but to identify overarching eligibility principles and to establish a process that helps communities develop project estimates that are accurate and defensible. This document does not address issues related to municipal stormwater projects.

PSIG Statute

PSIG Eligibility per Minnesota (MN) Statute [446A.073](#) includes the cost of water infrastructure projects made necessary by one of the following:

1. A waste load reduction prescribed under a total maximum daily load plan (TMDL) required by section 303(d) of the federal Clean Water Act, United States Code, title 33, section 1313(d);
2. A phosphorus concentration or mass limit which requires discharging one milligram per liter or less at permitted design flow which is incorporated into a permit issued by the Pollution Control Agency;
3. Any other water quality-based effluent limit (WQBEL) established under section [115.03](#), subdivision 1, paragraph (e), clause (8), and incorporated into a permit issued by the Pollution Control Agency that exceeds secondary treatment limits; or
4. A total nitrogen concentration or mass limit that requires discharging ten milligrams per liter or less at permitted design flow.

The full PSIG Statute language is available here: <https://www.revisor.mn.gov/statutes/cite/446A.073>.

PSIG History and General Concepts

The PSIG program and its predecessor programs the TMDL Grant [MN Statute 446A.073] and the Phosphorus Reduction Grant [MN Statute 446A.074] were established as part of the 2005 Clean Water Legacy initiative and have been administered to help municipal facilities that are receiving a new more stringent permit limit that exceeds the secondary treatment standard [MN Rule [7053.0215](#)].

The treatment alternative selected must demonstrate that the PSIG project will meet the new more stringent permit limit exceeding the secondary treatment standard; otherwise the project is ineligible.

Water infrastructure treatment projects or portions of projects necessary for rehabilitation or replacement of aging existing preliminary, primary, secondary, and disinfection treatment components are not PSIG eligible. Rehabilitation or replacement of existing tertiary treatment components is not PSIG eligible, unless there is an applicable new more stringent permit limit.

Scheduling PSIG Eligibility Determination Meetings

Due to the interconnected relationships of new versus existing infrastructure, and to enable efficient project review and approval, the Minnesota Pollution Control Agency (MPCA) strongly recommends scheduling both:

1. A pre-application meeting with the MPCA project engineer if a wastewater project (and the Minnesota Department of Health (MDH) if a drinking water project), and the PSIG applicant and their consulting engineer, to discuss the project schedule and PSIG component eligibility prior to submittal of the PSIG grant application to the Public Facilities Authority (PFA). The applicant's engineer shall provide an itemized breakdown of the costs that are believed to be eligible for PSIG. If only a portion of a particular process component is necessary specifically to meet the new more stringent limit, then the percentage of eligible and non-eligible costs should be determined. Facility plans should also include the breakdown of PSIG eligible cost specifics as well as funding sources for costs not covered by PSIG.
2. A pre-design meeting with the MPCA project engineer, MDH (as applicable), and the PSIG applicant and their consulting engineer to evaluate PSIG component cost eligibility before final bidding of the project.

Meeting at these points in the project lifecycle is important to discuss PSIG eligibility as early as possible in the planning and design process to avoid surprises or late communication on project ineligible components or items.

PSIG Program Eligibility Details

1. The PSIG Grant program is structured to assist governmental units required to meet new, more restrictive permit limits including (but not limited to) phosphorus, dissolved oxygen, mercury, nitrogen, chloride, and/or fecal coliform.
2. Water infrastructure projects include treatment facilities for wastewater and drinking water. A city can request PSIG funding for drinking water projects if the city determines this would be a cost effective solution to meet a wastewater permit limit (example: chloride). The MPCA may rank a drinking water infrastructure project on the agency's project priority list if the project is necessary to meet an applicable requirement as defined by MN Statute 446A.073. In order for a drinking water project to be eligible for PSIG funding, it must be ranked on the Clean Water Revolving Loan Fund (CWRF) Project Priority List (PPL) and should also be ranked on the Drinking Water Revolving Fund (DWRF) PPL. If a drinking water project requires additional funding in addition to PSIG, DWRF funds can be used for the project if the project is in the fundable range.
3. Eligible costs are limited to only the specific infrastructure components required to meet a new more stringent limit incorporated into a permit as defined by MN Statute 446A.073, to upgrade the existing wastewater treatment facility (WWTF) or drinking water treatment facility, or the transmission piping alternative described in section 5 below.
4. Unincorporated and/or unsewered area projects may be PSIG eligible. At this time, MPCA TMDL's have only named incorporated areas in a TMDL, implementation plan or Watershed Restoration and Protection Strategy (WRAPS) report. Townships have the option of petitioning the MPCA for designating that the project is a result of the TMDL. Project sponsors for unsewered areas will be expected to fully evaluate all feasible treatment alternatives, including decentralized alternatives. The cost-effectiveness of the alternative selected to achieve the water quality objectives in the TMDL implementation plan or WRAPS report should be demonstrated. In order to meet the TMDL waste load allocation (WLA), the community may need to construct both a collection and treatment system; therefore, both portions may be PSIG eligible.
5. The TMDL or WQBEL required portion of shared transmission piping is eligible. For example, a project with a new more stringent permit limit that results in the construction of a collection system and transmission of wastewater to another community for treatment to meet a TMDL requirement may be eligible. A community can receive PSIG funding for the portion of that forcemain that is transporting their specific volume of wastewater to the other treatment facility. In this situation, both transmitting and receiving facilities may be PSIG eligible if they both would need to meet a new more stringent permit limit.

Examples of PSIG Eligible Infrastructure

1. Projects with a new, more stringent permit required by a phosphorus limit of 1 mg/L or less (and/or mass limit equivalent concentration):
 - a. Mechanical treatment facility examples would include:
 - 1) Biological phosphorus treatment units such as anaerobic tanks, fermentation tanks, anoxic tanks, and construction of new walls or baffles within existing treatment tanks to create zones for biological phosphorus treatment. Aeration tank upgrades necessary to achieve adequate aerobic zone phosphorus uptake may be eligible, but only for the portion of the upgrade that is directly related to the biological phosphorus removal.
 - 2) Chemical phosphorus treatment units may include chemical and/or polymer storage tanks, mixing equipment, and piping systems and pumps to deliver the chemicals and/or polymers to the feed point(s).
 - 3) Clarifier capacity may need to be increased to meet a phosphorus limit. The eligible cost percentages for clarifier construction should be calculated to determine what would be required to meet the existing limit, and the increase necessary to meet the new more stringent limit.
 - 4) Effluent filtration units may be eligible for facilities with phosphorus effluent limits lower than 1 mg/L.
 - 5) Additional solids treatment, storage, and disposal equipment that can be directly related to the increased production of solids due to phosphorus treatment may also be eligible.
 - b. Stabilization pond system treatment examples may include chemical storage tanks and piping, boat ramps into secondary ponds, and a boat or other means of chemical addition. Stabilization pond systems may be eligible to construct an additional 30 days of storage capacity to avoid discharge during the June 1 to September 30 time period (example: to comply with the Minnesota River Low Dissolved Oxygen TMDL).
2. Projects with a new, more stringent permit required chloride limit:
 - a. Direct wastewater treatment with reverse osmosis.
 - b. Construction of a new lime softening or reverse osmosis water treatment plant process in a city that does not currently have one, or the addition/upgrade of a water treatment plant process to an existing facility. Drinking water treatment projects are eligible if determined to be a cost effective means of meeting a wastewater permit limit. Another potential eligible option is regionalization, in which multiple cities are provided water from a treated drinking water source, allowing the chloride limit to be met.

These treatment processes may allow industrial, commercial and residential customers to reduce and/or eliminate the use of salt-based ion exchange water softeners, thereby reducing the amount of chloride discharged to the sanitary sewer system from the softener backwash water. Removal of residential softeners is not eligible for PSIG.
3. Fecal coliform or E. coli limits: Where a TMDL identifies fecal coliform or E. coli as the water quality impairment for a straight pipe community or a community that has Subsurface Sewage Treatment Systems (SSTS) identified as imminent threats to public health, eligible capital costs may include wastewater treatment as well as collection system facilities. The cost-effectiveness of the proposed project should be demonstrated.
4. Mercury limit: Mechanical facilities adding effluent filtration units and associated components to remove mercury may be eligible.
5. Low dissolved oxygen (TMDL) eligible examples for WWTFs:
 - a. This is typically related to phosphorus removal (example: the Lower Minnesota River TMDL), see the above example 1.b.
 - b. If a straight pipe community is identified in a low dissolved oxygen TMDL as directly contributing to the receiving water issue, eligible capital costs may include the collection system and the entire wastewater treatment facility.

6. Total Nitrogen limit: Examples of eligible components include for existing mechanical facilities: the addition of anaerobic tanks, anoxic tanks, nitrogen pre-stripper or denitrifying filters and associated piping and pumps.

Please note the above examples are not intended to include all potential treatment types, configurations and components, as there is always a possibility for emerging treatment technologies to be developed and unique situations to be encountered.

Additional Information

For questions and additional information, contact the MPCA engineer assigned to the water infrastructure project, the CWRF Coordinator, Bill Dunn, and for drinking water projects, the MDH DWRF Coordinator, Chad Kolstad.

Further resources are available on the MPCA and PFA websites at the following links:

<https://www.pca.state.mn.us/water/wastewater-financial-assistance>

<https://mn.gov/deed/pfa/funds-programs/point-source-grants.jsp>