

Credit Generation for Wastewater Credits

If there are questions about our Water Quality Trading (WQT) Program not addressed in this or the additional FAQ documents provided by the department, please let us know by filling out our feedback form. [Click HERE!](#)

Disclaimer: Please be sure to read the Water Quality Trading (WQT) Program Guidance prior to reading sector specific guidance!

Glossary of Key Terms for the Wastewater FAQ

The following terms are helpful to understand when using this document. If there is a term or definition missing that you would like added, please use the Feedback Form.

- **Enhanced Nutrient Removal:** A technology that is capable of reducing the nitrogen and phosphorus concentrations in wastewater effluent to concentrations of not more than 3 milligrams per liter total nitrogen and not more than 0.3 milligrams per liter total phosphorus
- **Floating Cap:** a permitted effluent limitation applicable to an ENR facility, funded by the Bay Restoration Fund, which is calculated at the end of each calendar year using the end of the calendar year annual cumulative flow for the facility, multiplied by the applicable nitrogen or phosphorus concentration, and then converted to units of pounds per year.
- **Performance-based benchmark:** a wastewater point source annual effluent load which is calculated at the end of each calendar year using the end of the calendar year annual cumulative flow for the facility, multiplied by the applicable assigned nitrogen or phosphorus performance concentration converted to units of pounds per year, where:
 - A sewage treatment facility with a design capacity greater than or equal to 0.5 million gallons per day has an assigned performance concentration;
 - Equal to or less than 3.0 mg/l for nitrogen or 0.3 mg/l for phosphorus; and
 - If applicable, equal to or less than the concentration basis of the permit's required floating cap; and
 - All other wastewater point sources have an assigned performance concentration established on a case by case basis, with the resulting benchmark at least as stringent as the baseline required under chapter 5 of the WQ Trading regulations.
- **Public funding:** any Federal or State grants funding.
- **Technology-based effluent limitation:** is a permit limit for a pollutant that is based on the capability of a treatment method to reduce the pollutant to a certain concentration or loading.
- **Uncertainty Ratio:** a numeric adjustment to a trade to compensate for possible discrepancies in estimated pollutant reductions resulting from inaccuracy in credit estimation methodology or variability in project performance, or to provide a margin of safety in the achievement of water quality goals.

- **Wastewater Point Source:** a sewage treatment or industrial wastewater discharger, or any other point source that has applied for and received an NPDES or State discharge permit issued pursuant to COMAR 26.08.01.01.

General Questions about Wastewater Credits:

Which wastewater treatment plants can participate in the WQT Program?

- Significant sewage treatment plants—*those with design capacities above 500 thousand gallons per day*—can participate if they are using Enhanced Nutrient Reduction (ENR) treatment technology. Industrial wastewater dischargers and smaller sewage treatment plants may participate as well.

How can my facility begin generating credits?

- A permittee should first contact their permit writer to request a minor permit modification to allow credit generation (This can also be done through the permit renewal process). That modification process establishes permit-specific benchmark loads or concentrations for nitrogen, phosphorus and/or sediment.
- If the facility operates below their benchmark during the calendar year in which the permit is modified, the facility can generate tradable credit. Credits are calculated based on the full calendar year, and can be registered beginning in January of the following year.
- Credits are registered by submitting a [Credit Certification and Registration Form](#) to the Trading Administrator.

Steps for getting generating wastewater credit:

1. In the year during which you would like to generate credit (or before), request a minor modification to your wastewater permit to allow credit generation.
2. Credits are generated on an annual basis and calculated by subtracting the annual effluent nutrient load from the performance-based benchmark load.
3. Following the year when credits were generated, submit Credit Certification and Registration Form, and associated documentation, to the Trading Administrator.

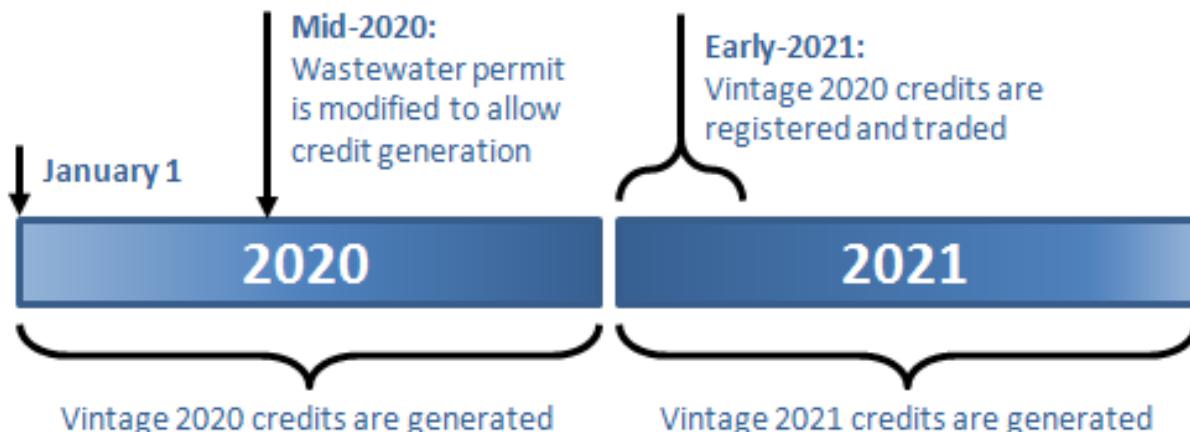
What documentation is needed to register a wastewater credit?

- A permittee must submit to the Trading Administrator:
 - [Credit Certification and Registration Form](#)
 - [Spreadsheet for TN, TP, and TSS Performance Based Credit Loads Calculation](#) (provided to the permittee during the permit modification or renewal process)
 - Cover letter from the Authorized Individual for the facility applying for credits

When can credits be certified and trades registered?

- Credits are certified in the year after they were generated. Credits can be traded once certified, however the certified credits can only be used to meet permit requirements from the same year they were generated.

Example credit generation timeline for wastewater treatment plants:



How are credits calculated?

- Credits are calculated based on plant performance over the previous calendar year. For facilities with a benchmark concentration, credits are calculated based on the annual flow and the difference between the benchmark and actual annual concentrations. For facilities with a benchmark load, credits are equal to the benchmark load minus the actual annual load.

How are wastewater credits verified?

- Credits are verified annually through Discharge Monitoring Reports (DMR) required by the facility's NPDES permit.

What is the trading baseline for my wastewater treatment plant?

- The trading baselines for a sewage treatment plant with a design capacity above 500 thousand gallons per day are:
 - Nitrogen = 3.0 mg/L
 - Phosphorus = 0.3 mg/L
 - Sediment = 30 mg/L
- All other wastewater treatment plant baselines are established on a case-by-case basis.

Does the WQT Program register trades between wastewater treatment plants?

- No, trades between sewage treatment plants or industrial wastewater dischargers are administered through the NPDES permitting process. These are referred to as point to point trades.

How does the BRF O&M Grant factor into Trading Baselines?

- For significant sewage treatment plants—*those with design capacities above 500 thousand gallons per day*—receiving an Operations and Maintenance Grant from the Bay Restoration Fund does not affect the trading baseline.

What if my treatment plant is non-compliant part of the year?

- A permittee in noncompliance with permit terms may be prohibited from generating credits. Please contact the Trading Administrator for further details.

Who can purchase my facility's credits generated for this program?

- Credits can be purchased by anyone outside of the wastewater sector. Credits can typically be used to meet permit requirements in the same [Bay TMDL watershed](#) that the credit was generated. There is currently demand for credits to meet stormwater permit requirements. Facilities interested in purchasing or selling credit can list post their information to the [Water Quality Trading Market Board](#).

Calculating Credits

Credits shall be calculated and reported under the terms of the wastewater discharge permit at the end of each calendar year as the load remaining after subtracting actual annual effluent nutrient load from the performance-based benchmark load. The annual effluent load shall be calculated using the annual cumulative flow, multiplied by the actual effluent nitrogen, phosphorus, or sediment concentration converted to units of pounds per year. In Maryland, a credit is defined as 1 pound of pollutant reduction for the duration of one year.

For ease of use, MDE has provided a [credit calculator tool](#).

Credit Certification

Credits are not valid or tradable until verified and placed on the Registry. A Certification and Registration Form must include identification of the location and segmentshed where the BMP is being implemented and a map identifying the location and boundaries of the BMP, documentation of ownership or permission from the landowner, a description of the BMP, how credits were calculated, and any other supporting documents as necessary.

Find the Wastewater Credit Certification and Registration form [here](#).

Credit Verification and Maintenance

Credits are verified annually through Discharge Monitoring Reports (DMR) required by the facility's NPDES permit. A modification of a discharge permit to allow trading can be done if necessary if the benchmark load is established under which a permittee can generate credits.