

Implementing Narrative Nutrient Criteria and Adaptive Management Plans in Montana Pollutant Discharge Elimination System (MPDES) Permits

MPDES Permits Must Include a Final Effluent Limit

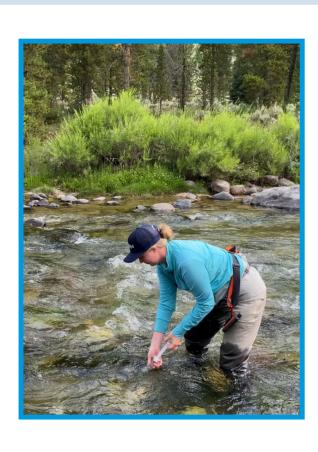
- The final effluent limit* achieves the water quality standard outside the mixing zone (or at the end of pipe if no mixing zone is granted). However, permit compliance is determined by meeting interim limits (see below).
- The narrative water quality criteria are based on achieving full support of all beneficial uses. That is determined by measuring the response variables in the near field area (unless there are compelling reasons to establish additional monitoring sites further downstream).
- If there isn't enough response variable data to assess the narrative criteria via DEQ's narrative nutrient standards translator, the ecoregional range will apply as the criterion (and basis for final effluent limit) until there is enough data to use the narrative nutrient standards translator.

There are Multiple Paths to Achieving a Final Effluent Limit at a Later Date:

- Adaptive Management Program
- Compliance schedule, which include requirements to show incremental progress towards achieving final limits
- Variance

MPDES Permits May Include an Interim Effluent Limit that Applies to that Permit Cycle or Until the Final Limit is Achieved or Modified by the Adaptive Management Process

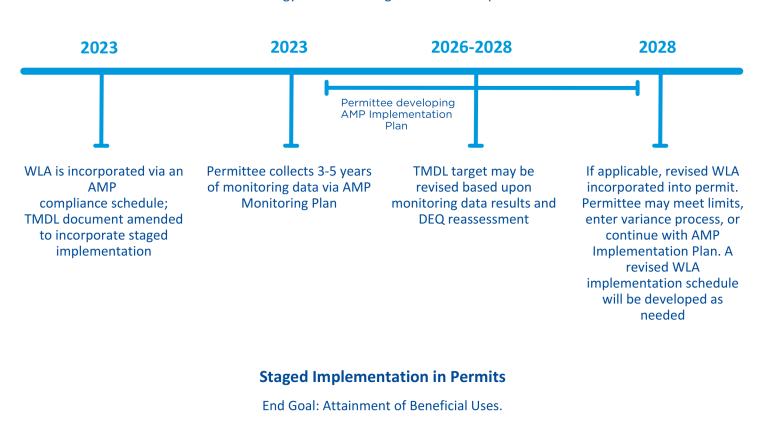
- The interim limit may be a continuation of the previous limit.
- If there is no existing limit, the interim limit may be based on current performance ("cap at current").
- The effluent limit must be at least as stringent as any previous one, unless an exception to anti-backsliding applies.
- Special conditions in the permit will require the permittee to demonstrate progress towards the final effluent limit.
- Adaptive management plan steps would be identified as special conditions that demonstrate progress towards the final effluent limit.
- Montana's approach provides flexibility for site-specific considerations and permit limit modifications as more is learned about the receiving waterbody.



Staged Waste Load Allocation (WLA) Implementation

End Goal: Attainment of Beneficial Uses.

When the Total Maximum Daily Load (TMDL) target represents concentrations below the current limits of treatment technology for Total Nitrogen or Total Phosphorus:





Capped at current performance;
Optimization required;
Develop AMP monitoring plan

Incorporate concentration identified through optimization; re-evaluate final permit limit based on monitoring results

Evaluate implementation effectiveness and need for additional projects; Plan for incremental facility process improvement, if applicable

DEQ evaluates continued eligibility for AMP program; If no longer eligible, other compliance options will be recommended

^{*}Final effluent limit is a state and federal requirement.