

Computational Guidance: CWA Section 303(d) 2022-2032 Vision Metric

Measure Name

Fiscal Years 2025 through 2032 (FY25-FY32) Vision Metric (i.e., “Vision Metric”)

Measure Contact

Lead: Justin Drew, Watershed Branch, U.S. EPA Office of Wetlands, Oceans and Watersheds

drew.justin@epa.gov | (202) 564-8128

Support: Teagan Rostock, Watershed Branch, U.S. EPA Office of Wetlands, Oceans and Watersheds

rostock.teagan@epa.gov | (202) 566-2252

Measure Summary

The Vision Metric measures the extent of [CWA Section 303\(d\) Vision](#) Metric priorities identified by each state, territory and authorized Tribe that are covered by, or are in the process of being covered by, EPA-approved TMDLs or accepted other restoration plans for impaired waters or accepted protection approaches to prevent impairments and maintain water quality. States, territories and authorized Tribes should consider the long-term planning documented in their Prioritization Frameworks when selecting Vision Metric priorities. For information on Prioritization Frameworks, see the [2024 Integrated Reporting Memo](#).

Vision Metric and Prioritization Framework Timeline

The Vision Metric consists of four 2-year Vision Metric reporting periods, totaling to an 8-year span. States, territories and authorized Tribes identify specific waterbody (i.e., Assessment Unit) parameter combinations to be addressed over each 2-year reporting period. **Each period will be measured separately from other 2-year reporting periods.** States, territories and authorized Tribes can continue to develop a particular plan over the course of multiple 2-year Vision Metric reporting periods but would need to specify this in ATTAINS at the beginning of each 2-year reporting period. More details on this process are provided below. For a detailed timeline see Figure 1.

Vision Metric Priorities and Commitments

For this Vision Metric, states, territories and authorized Tribes will identify 2-year Vision Metric **priorities** for FY25-FY32 no later than September 30th of each even numbered year.¹ States, territories and authorized Tribes will use Assessment Unit (AU)/Parameter data from their most recent Integrated Reports (IRs) entered into ATTAINS² to select 2-year Vision Metric priorities (i.e., priorities for the purposes of this metric). Regardless of the way a state, territory or authorized Tribe defines its Vision Metric priorities, they should be articulated in a manner that allows them to be linked to specific AU/Parameter combinations.

With each 2-year Vision Metric priority selection, states, territories and authorized Tribes will indicate their estimated progress for the upcoming 2-year Vision Metric reporting period by identifying which 2-year Vision

¹ Identifying Vision Metric priorities is separate from identifying TMDL priorities as part of the CWA Section 303(d) listing process.

² EPA expects all IR submissions (both attribute and geospatial data) will be submitted electronically to EPA via ATTAINS.

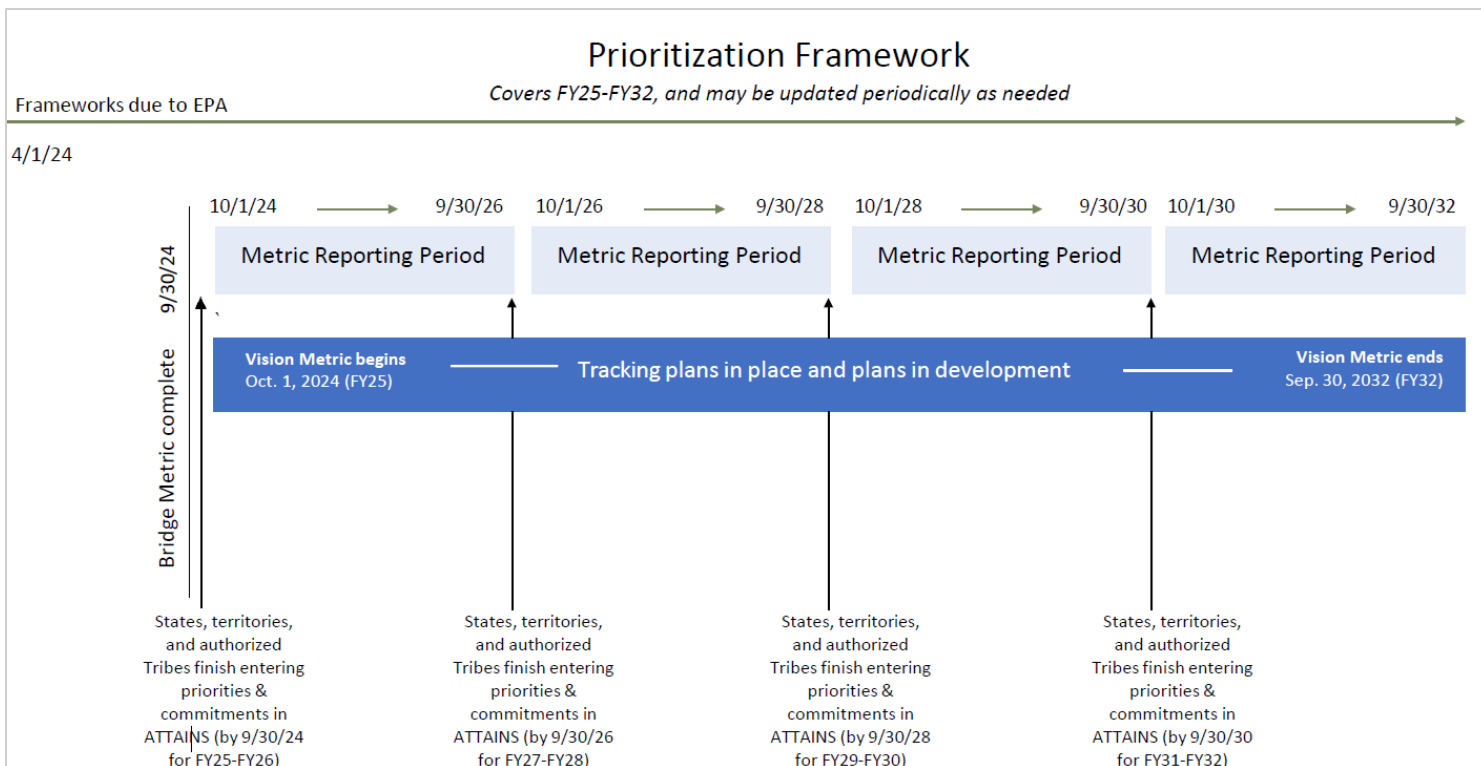


Figure 1. FY25-32 Prioritization Framework and Vision Metric Timeline

Metric priorities will have a plan in place³ and which will have a plan in progress⁴ at the end of each 2-year Vision Metric reporting period. The Vision Metric priorities and associated estimated progress represent the state, territory or authorized Tribe’s Vision Metric **commitments**.

The EPA recommends states, territories and authorized Tribes make reasonable efforts, as feasible, to make priority setting for the Vision Metric transparent to the public.

Terminology

Types of Plans

Total Maximum Daily Load (TMDL):

Per 40 CFR 130.2(i), a TMDL is, “the sum of the individual WLAs [Waste Load Allocations] for point sources and LAs [Load Allocations] for nonpoint sources and natural background.” TMDLs must also account for seasonal variations in water quality and include a margin of safety (MOS) to account for any lack of knowledge concerning the relationship between effluent limitations and water quality.

Other Restoration Approaches:

Other restoration plans can include plans in IR Subcategories 4b, 4c, and 5r. Advance Restoration Plans⁵ (5r) are near-term plans, or descriptions of actions, with schedules and milestones that are more immediately beneficial or practicable to achieving water quality standards. Some types of CWA-related plans, such as protection TMDLs

³ For a plan to count as in place it must be submitted to EPA and approved or accepted by EPA.

⁴ Examples of “in progress” may include review of existing information, data evaluation, data collection, data analysis, model development, draft of plan, proposal of a TMDL for public comment, and public outreach. The state, territory or authorized Tribe should work with its EPA region to determine instances of “in progress.” A plan should not be deemed in progress unless there is an expectation that the plan will be completed in the future.

⁵ <https://www.epa.gov/tmdl/advance-restoration-plans>

and watershed plans (e.g., [9-element plans](#) or [EPA-accepted alternative watershed plans](#)) developed under CWA Section 319, may provide valuable information in the development of restoration plans under this Vision Metric if they include elements germane to the 303(d) Vision’s restoration goal. For additional information on factors to consider, but which are not required, when pursuing this approach and elements to consider including in the description, see the [2024 Integrated Reporting Memo](#). The EPA will consider the adequacy of the state, territory or authorized Tribe’s description of the restoration approach in determining whether to accept such an approach and plan for recognition under the Vision Metric.

Protection Approach or Protection Plan:

A protection approach constitutes a strategic set of steps followed by a water quality program and its partners, intended to provide a basis for protecting healthy waters⁶ and their associated ecosystem structure, functions and underlying uses, and the implementation of protection activities. Activities that a state, territory or authorized Tribe may consider for protection include, among other things, forest preservation, riparian buffer ordinances, runoff control structures, or land acquisition. Protection approaches may be comprehensive or focused on individually targeted areas and are encouraged to be part of a state, territory or authorized Tribe’s overall healthy watersheds strategy.⁷

A protection plan for the purposes of the Vision Metric includes documentation of steps to be taken and activities to be implemented that are reasonably expected to result in a specified level of protection of one or more Vision Metric priority waterbodies over a specified amount of time. Some types of CWA-related plans, such as protection TMDLs and watershed plans (e.g., [9-element plans](#) or [EPA-accepted alternative watershed plans](#)) developed under CWA Section 319, may be considered protection plans under this 303(d) Vision Metric if they include elements germane to the 303(d) Vision’s protection goal. The EPA will consider the adequacy of the description of the protection approach and/or plan in determining whether to accept such an approach and plan for recognition under the Vision Metric.⁸

The EPA intends to develop and update programmatic resources to support states, territories and authorized Tribes in their work on watershed protection approaches, including suggestions regarding protection planning elements, in FY2025.

Vision Metric Terminology

Vision Metric Period

October 1st, 2024 – September 30th, 2032 (Fiscal Years 2025 – 2032)

Vision Metric Reporting Periods

Reporting Period 1: 10/1/24 – 9/30/26

Reporting Period 2: 10/1/26 – 9/30/28

Reporting Period 3: 10/1/28 – 9/30/30

Reporting Period 4: 10/1/30 – 9/30/32

Vision Metric Priorities

⁶ The term “healthy waters” aims to more fully represent the types of waters states, territories and authorized Tribes may prioritize for protection, as described in EPA’s CWA Section 303(d) Vision document. These are waterbodies that have been assessed as unimpaired or otherwise demonstrated to be largely functional and intact, such as those with minimal water quality impairments (to uses other than those for which protection is being sought). Healthy waters could also include at-risk waters not yet impaired but where data trends may show signs of water quality degradation.

⁷ Learn more about identifying areas that may be appropriate for protection activities by checking out the results of EPA’s Healthy Watersheds Assessment at <https://www.epa.gov/hwp/download-preliminary-healthy-watersheds-assessments>.

⁸ EPA anticipates that the protection approaches and plans submitted to ATTAINS will complement protection projects completed under other EPA programs, such as those funded under CWA Section 319. For more information visit the [Protection Approaches](#) page.

Vision Metric priority waters in the form of AU/Parameter combinations.⁹ The term Vision Metric priority is unique to this metric and is not synonymous with priorities identified as part of the CWA Section 303(d) priority ranking requirement.

Vision Metric Commitments:

Vision Metric priority waters in the form of AU/Parameter combinations (i.e., Vision Metric priorities) AND the state, territory or authorized Tribe's estimated associated plan progress during each 2-year Vision Metric reporting period for each AU/Parameter combination (i.e., a plan in place or a plan in progress).

Catchment-based Indexing:

An automated process that corresponds state, territory or authorized Tribe geospatial information (e.g., streams, lakes, HUCs, basins) with NHDPlus high resolution catchments. Catchments¹⁰ represent the local drainage area for the individual stream segments of a specific stream network. Coastal and Great Lakes waters are indexed to ocean catchments, which are a hexagonal grid. The process to correspond state, territory, or authorized Tribe geospatial information to catchments varies depending on the type of input file: linear files (representing rivers and streams), area files (representing lakes, ponds or reservoirs) or boundary files (representing Watershed Boundary Dataset Hydrologic Units). The EPA will be responsible for the Catchment Indexing Process (CIP) Tool. For more information about NHDPlus high resolution catchments, see <https://www.usgs.gov/national-hydrography/nhdplus-high-resolution>.

ATTAINS

The 2-year Vision Metric commitments should be entered into ATTAINS no later than September 30th of each even numbered year.

- The state, territory or authorized Tribe identifies a list of AU/Parameter combinations for which plans would either be in progress or in place for each 2-year Vision Metric reporting period. This list should be based off the state, territory or authorized Tribe's most recent IR that has been submitted to and is final in ATTAINS.
- Using the ATTAINS Priorities Module, the state, territory or authorized Tribe will identify its 2-year Vision Metric commitments.
- The state, territory or authorized Tribe or region ensures that corresponding geospatial information for all Vision Metric priority waters has been inputted into the ATTAINS system for the Catchment Indexing Process (CIP).
- Geospatial data should have already been processed as part of the state, territory or authorized Tribe's IR submission. However, if any geospatial data for these Vision Metric priorities are identified as missing, and the state, territory or authorized Tribe provides that missing geospatial data, the EPA will process it through the CIP Tool.

This process would be completed for each 2-year Vision Metric reporting period regardless of whether or not the state, territory or authorized Tribe chooses the same Vision Metric priorities and commitments.

For ATTAINS instructions and information for entering Vision Metric priorities visit: [ATTAINS User Interface Tools](#).

Methodology for Computation of Results

The process to calculate progress for **each individual 2-year Vision Metric reporting period** includes the following steps:

⁹ For TMDLs, states, territories and authorized Tribes would specify AU/Pollutant combinations.

¹⁰ The catchment area is not meant to define the geographic extent of the TMDL. This is only for metrics purposes.

- **Step 1:** States, territories and authorized Tribes submit to EPA their Vision Metric commitments (i.e., Vision Metric priorities and associated estimated progress) in ATTAINS before the start of each 2-year Vision Metric reporting period.
 - **Step 1.5:** EPA processes the Vision Metric commitments in ATTAINS.
- **Step 2:** EPA calculates the catchment square miles associated with the Vision Metric 2-year priority universe and commitments based on the estimated plan progress that is entered.
- **Step 3:** EPA calculates progress quarterly throughout each 2-year Vision Metric reporting period based on the plans and associated progress that are entered into ATTAINS.

Step 1: State, territory or authorized Tribe submits “Vision Metric commitment data” to EPA through ATTAINS

- The state, territory or authorized Tribe identifies the list of AU/Parameter combinations for which plans would either be in progress or in place for the 2-year Vision Metric reporting period. This list should be based off the most recent IR that has been submitted to ATTAINS.
- Using the ATTAINS Priorities Module, the state, territory or authorized Tribe will identify its 2-year Vision Metric commitments.
- The state, territory or authorized Tribe or region ensures that corresponding geospatial information for all Vision Metric priority waters has been inputted into the ATTAINS system for the Catchment Indexing Process (CIP).
- Geospatial data should have already been processed as part of the state, territory or authorized Tribe’s IR submission, however, if any GIS for these Vision Metric priorities is identified as missing, and the state, territory or authorized Tribe provides that missing GIS, EPA will process that GIS through the CIP Tool.

Step 2: EPA calculates the catchment square miles associated with the 2-year Vision Metric priority universe and commitments

EPA will sum the area of the catchments that correspond to the state, territory or authorized Tribe’s 2-year Vision Metric priorities. EPA plans to have these calculations visible within the Priorities Module in ATTAINS such that states, territories and authorized Tribes can see their universe as they are entering their 2-year Vision Metric commitments.

EPA will calculate a weighted size for each AU/Parameter combination based on the corresponding catchment size and the number of AU/Parameter combinations to be addressed by a plan in each corresponding catchment. EPA will develop two calculations for each state, territory and authorized Tribe, one calculation representing the total universe size for the 2-year Vision Metric priorities, and the second calculation representing the calculated 2-year Vision Metric commitment size based on the proposed progress for the 2-year Vision Metric reporting period.

An example of how the weighted size is calculated is demonstrated in Tables 1 and 2. Figure 2 illustrates the relationship between assessment units and catchments.

Table 1. Example showing how catchment sizes are weighted by the number of AU/parameter combinations

Catchment	Size (sq miles)	Number of AU/Parameters	Weighted Catchment Size (sq miles)
A	4	2	$4/2 = 2$
B	6	3	$6/3 = 2$
C	3	1	$3/1 = 3$

Table 2. Example demonstrating how the weighted catchment sizes are used to calculate an AU/Parameter weighted size

Vision Metric Priority AU	Parameter	Associated Catchments	Weighted AU/Parameter Size (sq miles) (Sum of Weighted Catchment Size for each Associated Catchment)
AU 1	Dissolved Oxygen	A, B	Catchment A Weighted Catchment Size + Catchment B Weighted Catchment Size = $2+2 = 4$
AU 1	Pathogens	A, B	Catchment A Weighted Catchment Size + Catchment B Weighted Catchment Size = $2+2 = 4$
AU 2	Pathogens	B, C	Catchment B Weighted Catchment Size + Catchment C Weighted Catchment Size = $2+3 = 5$

The AU/Parameter weighted sizes are then summed to give a total universe size for the state, territory or authorized Tribe’s 2-year Vision Metric priorities. In the example above, the total weighted size would be 13 sq. miles (4+4+5).

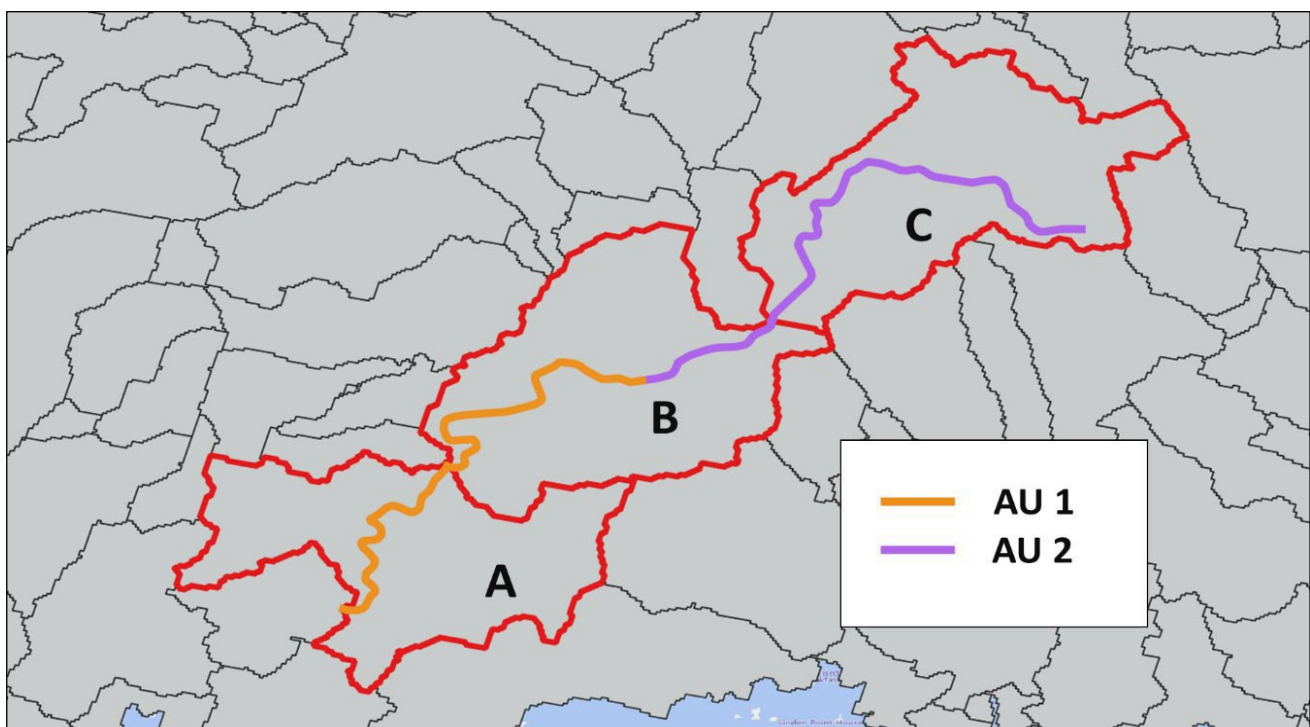


Figure 2. Assessment Unit /Catchment relationships

Step 3: EPA calculates results

Results are calculated based on the data that are entered into ATTAINS. ATTAINS compares data that are entered in the Actions module against the information provided in the Priorities module. ATTAINS uses the Assessment Units, Pollutants, and Addressed Parameters that are entered into each Action to determine if a plan is in place for a Vision Metric priority. These must match exactly between the plan that is entered in the Actions module and the Vision Metric priority that has been identified in the Priorities module, in order for

results to be properly calculated.¹¹ ATTAINS gives full credit for any plan that has been approved or accepted and half credit for any plan in progress that has been entered into ATTAINS but not marked final.¹² Information regarding the plans should be entered as they are completed.

Table 3 demonstrates how the metrics are calculated using the Vision Metric priorities identified above in Tables 1 and 2.

Table 3. Example demonstrating how the final calculations are made for this metric

Vision Metric Priority AU	Parameter	Expected Plan	Expected Progress by 2026	Vision Metric Commitment Size (sq miles)	Current Status	Calculated Size (sq miles) (Measure Results)
AU 1	Dissolved Oxygen	Protection	In Progress	4 (weighted size) x .5 (progress factor) = 2	Not Started	0
AU 1	Pathogens	TMDL	Complete	4 (weighted size) x 1 (progress factor) = 4	Complete	4
AU 2	Pathogens	TMDL	Complete	5 (weighted size) x 1 (progress factor) = 5	Complete	5
TOTALS				11		9

Based on the information provided in Table 2, the state has a universe of 13 sq. miles. In this example, the state set Vision Metric commitments to have one plan in progress (for AU 1 for Dissolved Oxygen) and another plan that would be complete (for both AU 1 and AU 2 for Pathogens) by the end of the 2-year Vision Metric reporting period. This would give the state a Vision Metric commitment of 11 sq. miles (2+4+5).

Let’s say that as of July 2026 the state has so far made progress by completing one TMDL but has not yet begun the protection plan. The state’s interim progress as of July would be 9 sq. miles. The state would need to begin, but not complete, the protection plan prior to September 30, 2026 to meet its Vision Metric reporting period commitment of 11 sq. miles. The AU 1 protection Vision Metric priority could continue to be a Vision Metric priority for the state for subsequent Vision Metric reporting periods.

Target Setting

Full achievement of Vision Metric commitments is not required to achieve the EPA-set national target. For the Vision Metric, EPA will use a factor of .35 x total national Vision Metric commitments to set a target in square miles for the end of FY25 and .85 x total national Vision Metric commitments to set a target in square miles for the end of FY26.

For example:

- A national Vision Metric commitment totaling 10,000 square miles x .85 = a national target of 8,500 square miles in FY26.

¹¹ For example, if the TMDL pollutant is labeled “Phosphorus, Total” the Vision Metric priority pollutant should be “Phosphorus, Total” and not “Phosphorus.”

¹² States, territories and authorized Tribes can meet 2-year Vision Metric commitments with a mix of plans in progress and plans that have been addressed by an approved or accepted plan (i.e., plan in place).