TAHOE REGIONAL PLANNING AGENCY

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STAFF REPORT

Date: January 19, 2026

To: Threshold Update Initiative Stakeholders Working Group

From: TRPA Staff

Subject: Water Quality Environmental Threshold Carrying Capacities (Threshold Standards)

Summary and Staff Recommendation:
On November 10, 2025, the Threshold Update Initiative Stakeholders Working Group requested that staff review the background for Water Quality Standard 33 and provide a recommendation about the standard's future. Staff's summary of that review is included below, and the staff recommendation is to retain the standard as it is currently written. Staff also propose a small edit to Water Quality Standard 7 to clarify intent.

Required Motions:
To recommend the proposal to the Governing Board, the Threshold Update Initiative Stakeholders Working Group must make the following motion based on the staff report:

1) A motion to recommend retention of Water Quality Standard 33 in its current form, to edit Water Quality Standard 7, as described in this staff report, and update the water quality environmental threshold carrying capacities as presented in Attachment A.

For the motion to pass, an affirmative vote of a majority of the quorum is required.

Background:
At the November 10, 2025, meeting, the Working Group reviewed the documentation it had previously requested and recommended moving forward with the updates. The Group also discussed water quality standard 33, "Attain existing water quality standards," listed under the "Other Lakes" category. Staff and the Working Group discussed three options related to the future of the standard. The first was removing the "other lakes" header to clarify that the intent is to meet all other water quality standards, not just those for other lakes. The second was the removal of the standard because it duplicates the Bi-State Compact requirement to attain all local, state, and federal water quality standards. The third option was to retain the standard as currently written. The Working Group directed staff to review the standard's background and to provide a recommendation on retaining, modifying, or removing it.

The Compact mandates that "The regional plan shall provide for attaining and maintaining Federal, State, or local air and water quality standards, whichever are strictest, in the respective portions of the region for which the standards are applicable." When the standard was adopted

in 1981, the study report noted that there were 170 other ponds or small lakes within the region and that limited information was available at that time about the water quality in those lakes. The study report also noted that all were hydrologically connected to Lake Tahoe and that the degradation of any lakes in the region would eventually affect Lake Tahoe.

The Compact language related to attaining all other water quality standards was in place at the time the standard was adopted. The intent of the standard was to highlight the hydrologic relationship between Lake Tahoe and other lakes in the region and to emphasize the importance of maintaining water quality in all Tahoe Basin water bodies. Consistent with this intent, staff recommend retaining the standard in its current form.

Staff further recommends removing the wording "Support actions to" from WQ7. The Science Council recommended the edit to clarify that the intent of the standards was to reduce nearshore algae, not just to support actions that might reduce algae (see page 17 of the Council report entitled "Implementation of a System Structuring Approach for Water Quality Threshold Standards")[1].

Contact Information:
For questions regarding this agenda item, please contact Dan Segan, Chief Science and Policy Officer, at dsegan@trpa.gov, (775) 589-5233.

To submit a written public comment, email publiccomment@trpa.gov with the appropriate agenda item in the subject line. Written comments received by 4 p.m. the day before a scheduled public meeting will be distributed and posted to the TRPA website before the meeting begins. TRPA does not guarantee written comments received after 4 p.m. the day before a meeting will be distributed and posted in time for the meeting.

Attachments:

A. Proposed edits to the water quality environmental threshold carrying capacities (Redline)

[1] https://www.tahoesciencecouncil.org/_files/ugd/c115bf_8ff4f420549846c092f4dee1d16ad73a.pdf

THRESHOLD STANDARDS

Threshold standards establish the Environmental Improvement Program partners' shared goals for restoration and maintenance of the qualities of the Tahoe Region.

The adopted current threshold standards are stated below. The agency will maintain and update online inventories of the administrative status and disposition of each threshold standard.

WATER QUALITY

DEEP WATER (PELAGIC) LAKE TAHOE

~~NUMERICAL STANDARDS~~

WQ1) The annual average deep water transparency as measured by Secchi disk shall not be decreased below 29.7 meters (97.4 feet), the average levels recorded between 1967 and 1971 by the University of California, Davis.

WQ2) Maintain annual mean phytoplankton primary productivity at or below 52gmC/m2/yr.

LITTORAL LAKE TAHOE

~~NUMERICAL STANDARDS~~

WQ3) Attain turbidity values not to exceed three NTU.

WQ4) Turbidity shall not exceed one NTU in shallow waters of the Lake not directly influenced by stream discharges.

WQ5) Attain 1967-71 mean values for phytoplankton primary productivity in the littoral zone.

WQ6) Attain 1967-71 mean values for periphyton biomass in the littoral zone.

~~MANAGEMENT STANDARD~~

WQ7) ~~Support actions to r~~Reduce the extent and distribution of excessive periphyton (attached) algae in the nearshore (littoral zone) of Lake Tahoe.

AQUATIC INVASIVE SPECIES

~~MANAGEMENT STANDARDS~~

WQ8) Prevent the introduction of new aquatic invasive species into the region's waters.

WQ9) No active aquatic invasive plant infestations in Lake Tahoe, adjacent wetlands, and tributaries, not including the Tahoe Keys.

WQ10) Reduce average aquatic invasive plant abundance in the Tahoe Keys by a minimum of 75% from the 2020 baseline year.

~~TRIBUTARIES~~

~~NUMERICAL STANDARDS~~

~~WQ15) Attain applicable state standards for concentrations of dissolved inorganic nitrogen.~~

WQ16) Attain applicable state standards for concentrations of dissolved phosphorus.
WQ17) Attain applicable state standards for concentrations of dissolved iron.
WQ18) Attain a 90 percentile value for suspended sediment concentration of 60 mg/l1.

SURFACE RUNOFF

NUMERICAL STANDARDS

WQ19) Achieve a 90 percentile concentration value for dissolved inorganic nitrogen of 0.5 mg/l1 in surface runoff directly discharged to a surface water body in the Basin.
WQ20) Achieve a 90 percentile concentration value for dissolved phosphorus of 0.1 mg/l1 in surface runoff directly discharged to a surface water body in the Basin.
WQ21) Achieve a 90 percentile concentration value for dissolved iron of 0.5 mg/l1 in surface runoff directly discharged to a surface water body in the Basin.
WQ22) Achieve a 90 percentile concentration value for suspended sediment of 250 mg/l1 in surface runoff directly discharged to a surface water body in the Basin.

GROUNDWATER

MANAGEMENT STANDARDS

WQ23 - WQ32) Surface runoff infiltration into the groundwater shall comply with the uniform Regional Runoff Quality Guidelines as set forth in Table 4-12 of the Draft Environmental Threshold Carrying Capacity Study Report, May, 1982. Where there is a direct and immediate hydraulic connection between ground and surface waters, discharges to groundwater shall meet the guidelines for surface discharges, and the Uniform Regional Runoff Quality Guide lines shall be amended accordingly.[1]

OTHER LAKES

NUMERICAL STANDARD

WQ33) WQ11) Attain existing water quality standards.

LOAD REDUCTIONS

MANAGEMENT STANDARDS

WQ34) Reduce fine sediment particle (inorganic particle size < 16 micrometers in diameter) load to achieve long-term pelagic water quality standards (WQ1 and WQ2).
WQ35) Reduce total annual phosphorus load to achieve long-term pelagic water quality standards (WQ1 and WQ2) and littoral quality standards (WQ5 and WQ6).
WQ36) Reduce total annual nitrogen load to achieve long-term pelagic water quality standards (WQ1 and WQ2) and littoral quality standards (WQ5 and WQ6).
WQ37) Decrease total annual suspended sediment load to achieve littoral turbidity standards (WQ3 and WQ4).
WQ38) Reduce the loading of dissolved phosphorus to achieve pelagic water standards (WQ1 and WQ2) and littoral quality standards (WQ5 and WQ6).
WQ39) Reduce the loading of iron to achieve pelagic water standards (WQ1 and WQ2) and littoral quality standards (WQ5 and WQ6).
WQ40) Reduce the loading of other algal nutrients to achieve pelagic water standards (WQ1 and WQ2) and littoral quality standards (WQ5 and WQ6).

[1] See attachment A

WQ41) The most stringent of the three dissolved inorganic nitrogen load reduction targets shall apply:

i. Reduce dissolved inorganic nitrogen loads to pelagic and littoral Lake Tahoe from[2]:
   a) surface runoff by approximately 50 percent of the 1973-81 annual average,
   b) groundwater approximately 30 percent of the 1973-81 annual average, and
   c) atmospheric sources approximately 20 percent of the 1973-81 annual average.

ii. Reduce dissolved inorganic nitrogen loading to Lake Tahoe from all sources by 25 percent of the 1973-81 annual average.

iii. To achieve littoral water quality standards (WQ5 and WQ6).

[2] This threshold relies on predicted reductions in pollutant loadings from out-of-basin sources as part of the total pollutant loading reduction necessary to attain environmental standards, even though the Agency has no direct control over out-of-basin sources. The cooperation of the states of California and Nevada will be required to control sources of air pollution which contribute nitrogen loadings to the Lake Tahoe Region