NEVADA DIVISION OF
ENVIRONMENTAL PROTECTION

A division of the
Nevada Department of Conservation & Natural Resources

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Summary of Workshop to Solicit Comments, and Responses to Comments Received Regarding Proposed Regulation R146-24

Colorado River Salinity

Date: March 10, 2026
Time: 1:30 PM
Location: 901 South Stewart Street, Carson City, NV & Virtually via Teams

Workshop Notice and Comment Period

This workshop was publicly noticed on February 4, 2026. Written comments regarding the proposed regulation were accepted until March 23, 2026. Comments received and NDEP responses are included at the end of this workshop summary.

Workshop presentation materials are available on the NDEP Current and Past Actions website: https://ndep.nv.gov/water/rivers-streams-lakes/water-quality-standards/current-and-past-actions

Attendees

Presenter:

Seth Alm, Supervisor, Bureau of Water Quality Planning, Standards, Assessment, and Monitoring Branch

NDEP Staff:

Jason Kuchnicki, Chief, Bureau of Water Quality Planning
Zack Blumberg, Environmental Scientist IV, Bureau of Water Quality Planning
Jeff O'Connell, Environmental Scientist III, Bureau of Water Quality Planning
Holly Holwager, Environmental Scientist III, Bureau of Water Quality Planning
Dan Riddle, Environmental Scientist III, Bureau of Quality Planning
David Aurand, Management Analyst I, Bureau of Water Quality Planning

Public Participants:

AJ Rodrigues
Daniel Fischer
Dawn Boyer
Haley Brown
Kristina Sasser
Quennie Manimtim
Warren Turkett

Workshop Summary

Presentation:

Seth Alm, Bureau of Water Quality Planning (BWQP), opened the workshop with an overview of proposed regulation R146-24, which proposes revisions to Nevada Administrative Code (NAC) Chapter 445A related to Colorado River Salinity. The presentation provided background on the Colorado River Basin Salinity Control Forum and the cooperative federal-state program established to address salinity levels in the Colorado River system. The Colorado River supplies water to approximately 40 million people and irrigates approximately 5.5 million acres of agricultural land across the western United States. As water travels through the basin, dissolved salts accumulate from natural geologic sources and human activities, increasing salinity concentrations downstream. Managing salinity is important for protecting agricultural productivity, infrastructure, drinking water supplies, and ecological health.

The presentation explained that the Colorado River Basin Salinity Control Forum reviews salinity criteria at least once every three years and NDEP adopts this criteria into its water pollution control regulations. The proposed regulation incorporates the 2023 Forum Review and updates regulatory language to improve clarity and consistency within Nevada's water quality standards.

Regulation R146-24 proposes to relocate salinity criteria currently contained in NAC 445A.1233 to NAC 445A.2144, where water quality standards for the Colorado River region are maintained. The regulation integrates salinity criteria directly into designated water standards tables, improving clarity regarding where the criteria apply and making the standards easier to locate.

The proposed regulation does not revise the existing numeric salinity criteria or beneficial uses. Numeric salinity standards have remained unchanged since their establishment in 1972. The regulation improves clarity by incorporating the criteria directly into standards tables and aligning terminology with the Colorado River Basin Salinity Control Forum.

The regulation also proposes removing an outdated definition of “flow-weighted annual average concentration” in NAC 445A.0865 and replacing it with a definition consistent with the Forum’s terminology. The updated definition would appear as a footnote for designated waters to which salinity criteria apply. Additional changes standardize terminology across designated water tables and remove outdated cross-references.

Proposed revisions unrelated to salinity include renaming four designated waters to align with updates made by the U.S. Board of Geographic Names. Additionally, the regulation proposes removing Schroeder Reservoir from the designated waters tables as the reservoir no longer exists following dam failure in 2005 and decommissioning in 2009. Associated changes are proposed to reflect current conditions.

Minor typographical edits are proposed to improve consistency across water quality standards tables within the Colorado River region.

NDEP will review and consider comments received during the workshop and any written comments submitted by the March 23, 2026, comment deadline. The proposed regulation is anticipated to be presented to the State Environmental Commission (SEC) for consideration at a future hearing scheduled for April 30, 2026, in Carson City, Nevada.

Seth Alm then opened the workshop for verbal comments and discussion.

Verbal Comments Received During Workshop

Warren Turkett, Colorado River Commission of Nevada: Expressed appreciation for the presentation and stated that he looks forward to continued collaboration with NDEP to complete the upcoming 2026 Colorado River Salinity Control Forum Triennial Review.

No additional comments were received during the workshop.

Adjournment

Workshop adjourned by Seth Alm after providing an overview of the next steps, written comment deadline, and the tentative schedule for adopting the regulation, including the April 30, 2026, State Environmental Commission Hearing to be held in Carson City, NV.

Written Comments Received and NDEP Response

Written comments were accepted through March 23, 2026. Four written comment letters were received. Complete comment letters and the NDEP formal response will be made available on the NDEP website: https://ndep.nv.gov/water/rivers-streams-lakes/water-quality-standards/current-and-past-actions

The nature of comments received and the NDEP response are summarized below.

Comments regarding the applicability of the "Below Hoover Dam" Salinity Criterion to Lake Mead

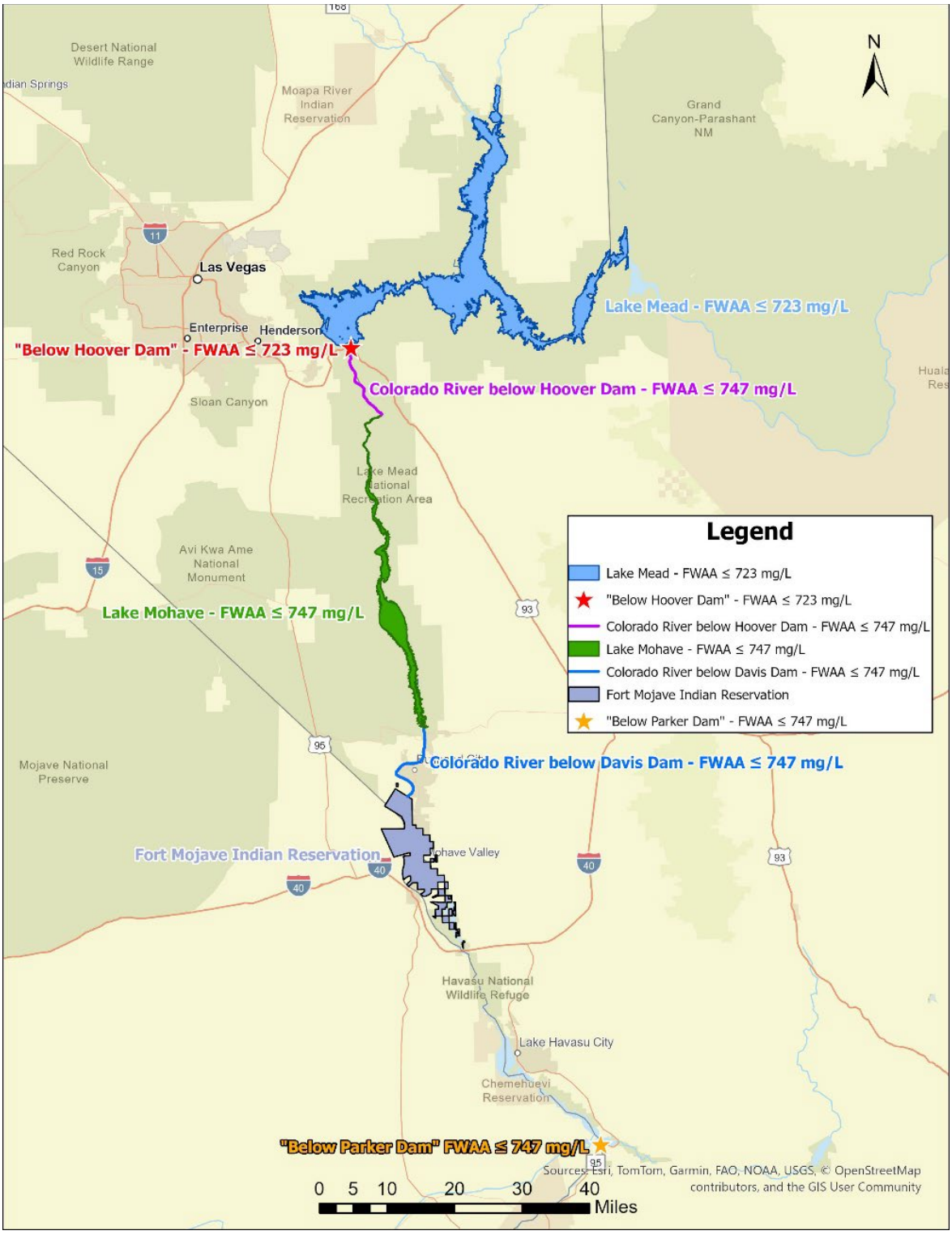
"Below Hoover Dam" is one of the three numeric criteria stations designated by the Forum for determining compliance with Colorado River salinity standards. Because Hoover Dam impounds the Colorado River to form Lake Mead, the lake lies immediately upstream of the "Below Hoover Dam" station. Under NAC 445A.1239, control-point criteria apply to all surface waters in the watershed upstream from the control point unless superseded by an upstream control point.

To reinforce alignment with the Forum's framework, to avoid misinterpretation, and to maintain consistency across all Colorado River segments, the salinity criterion footnote in NAC 445A.2152 will be amended to state:

"*As used for this parameter, flow weighted annual average concentration means the total annual salt load divided by the total annual streamflow* ***as measured at the Below Hoover Dam station***. [emphasis added]"

Comments noted that the 2023 Review specifies that the 723 mg/L criterion applies "Below Hoover Dam." To avoid confusion, it is important to distinguish that:

- The 723 mg/L criterion applies to a discrete location, the Below Hoover Dam station selected by the Forum.
- It does not apply as the salinity criterion for the segment of the Colorado River downstream of the dam.


Desert National Wildlife Range
Moapa River Indian Reservation
Grand Canyon-Parashant NM
Red Rock Canyon
Las Vegas
Enterprise
Henderson
Sloan Canyon
Lake Mead National Recreation Area
Avi Kwa Ame National Monument
Mojave National Preserve
Havasu National Wildlife Refuge
Lake Havasu City
Chemehuevi Reservation
N
Lake Mead - FWAA ≤ 723 mg/L
"Below Hoover Dam" - FWAA ≤ 723 mg/L
Colorado River below Hoover Dam - FWAA ≤ 747 mg/L
Lake Mohave - FWAA ≤ 747 mg/L
Colorado River below Davis Dam - FWAA ≤ 747 mg/L
Fort Mojave Indian Reservation
"Below Parker Dam" FWAA ≤ 747 mg/L
Legend
Lake Mead - FWAA ≤ 723 mg/L
"Below Hoover Dam" - FWAA ≤ 723 mg/L
Colorado River below Hoover Dam - FWAA ≤ 747 mg/L
Lake Mohave - FWAA ≤ 747 mg/L
Colorado River below Davis Dam - FWAA ≤ 747 mg/L
Fort Mojave Indian Reservation
"Below Parker Dam" - FWAA ≤ 747 mg/L
0 5 10 20 30 40
Miles
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Comments Regarding the Relationship Between NAC 445A.1239 and The Salinity Control Forum Stations

Comments noted a perceived conflict between:

- The upstream-applicability framework in NAC 445A.1239, and
- The Forum's station-specific compliance approach, under which salinity criteria are evaluated only at the three designated lower Colorado River stations.

NDEP appreciates commenters highlighting this distinction. Nevada's control point provisions have been in place for decades and are part of the state's broader water quality standards system, which differs structurally from the Forum's compliance-station approach. Adoption of the Forum's criteria by reference (section 1 of the regulation) allows Nevada to remain fully consistent with the basin-wide program while maintaining its own regulatory architecture.

This rationale is also supported by 40 CFR 131.10(b) which requires that water quality be maintained upstream of each station selected by the Forum to ensure attainment of that station's criterion. The criterion must also apply to the waterbody itself, not solely at the downstream station, to support development of appropriate effluent limits for permitted discharges. NDEP will add the clarifying language discussed above that links the NAC tables to the Forum's designated compliance locations—consistent with the CRCN's recommendation. This will help prevent misinterpretation and harmonize both frameworks.

Comments regarding retention of the Existing TDS ≤ 1000 mg/L Criterion in NAC 445A.2152

Concern was expressed regarding the proposed change for NAC 445A.2152 from the existing TDS ≤ 1000 mg/L single-value criterion to a Flow Weighted A-Avg. Salinity criterion ≤ 723 mg/L. In the final regulation, NDEP will retain the TDS ≤ 1000 mg/L S.V. criterion in NAC 445A.2152. As proposed, the Forum's ≤ 723 mg/L Flow Weighted A-Avg. salinity criterion will also be included in NAC 445A.2152.

This approach maintains the existing Nevada water quality framework while clearly incorporating the Forum's salinity criterion for its Below Hoover Dam station.

Concern on the use of Flow-Weighted Annual Average Salinity for Lake Mead

NDEP concurs with CCWRD's comment that a flow-weighted annual average concentration cannot be directly calculated within a lentic waterbody such as Lake Mead. Lake Mead's water

quality must be maintained such that the salinity criterion is achieved at the Forum-designated location "Below Hoover Dam". While the criterion applies to Lake Mead (per NAC 445A.1239), compliance is evaluated by the Forum at the "Below Hoover Dam" station, where total annual salt load and streamflow can be directly measured.

This approach is consistent with both NAC 445A.1239 and the Forum's longstanding salinity compliance methodology. Section 1 of R146-24 adopts the Forum's 2023 Review by reference. Compliance will continue to be determined by the Forum at the "Below Hoover Dam" station using its established monitoring and calculation methods.

Concerns Regarding Single-Point Exceedances within Lake Mead

Comment discussed the possibility that isolated TDS values in Lake Mead (e.g., within Las Vegas Bay) may exceed 723 mg/L and could lead to potential 303(d) impairment listings. To clarify:

- The 723 mg/L criterion is a flow-weighted annual average, not an instantaneous or spatially uniform ambient concentration requirement.
- Compliance is determined by the Forum at the "Below Hoover Dam" station, not at locations within Lake Mead.
- R146-24 does not alter Nevada's assessment protocols or impairment methodology.
- Depending on the location, the Las Vegas Bay site referenced may be within Inner Las Vegas Bay (NAC 445A.2154 - NV13-CL-04_00) which is a distinct assessment unit from Lake Mead (NAC 445A.2152 - NV13-CL-03_00). Inner Las Vegas Bay has a Single Value Total Dissolved criterion of ≤ 3000 mg/L and is not directly subject to the Forum's salinity criteria.

As discussed in responses to other comments, clarifying language in response to comments received is proposed to be added to the footnote of affected waters.

Comments Clarifying Salinity Compliance for Downstream River Segments

Comments noted that the water quality tables for "Colorado River below Davis Dam" and "Lake Mohave" should clarify that the applicable flow-weighted annual average criterion is measured below Parker Dam.

To reinforce alignment with the Forum's framework, to avoid misinterpretation, and to maintain consistency across all Colorado River segments, the salinity criteria footnotes in NAC 445A.2146, NAC 445A.2147, and NAC 445A.2148 will be amended to state:

"*As used for this parameter, flow weighted annual average concentration means the total annual salt load divided by the total annual streamflow* ***as measured at the Below Parker Dam station****.* [emphasis added]*"*

Comments Regarding Terminology Change from TDS to Salinity

Commenters raised a valid distinction that salinity and TDS are not strictly synonymous. However, the Forum explicitly uses the term "numeric salinity criteria".

Given that R146-24 adopts the 2023 Review by reference, the terminology used in the NAC must reflect the terminology used by the Forum. The Forum continues to be responsible for defining salinity, conducting triennial reviews of the water quality standards for salinity in the Colorado River system, and determining whether their salinity standards are being met.