

**DISCLAIMER: This is a DRAFT Order and is not being implemented at this time.**

## DRAFT ORDER

### Curtailing the Use of Groundwater Rights that Conflict with Priority Decreed Stream Rights within the Humboldt River Region

This outline of the draft order is prepared for discussion purposes with the Humboldt Stakeholder Working Group meeting on September 23, 2025. The outline is not final and is intended to demonstrate what may be included in the draft order that is planned to be distributed for public review at the end of 2025. The reason for issuing a draft order for public review is to communicate broadly what a future curtailment order would contain, and to take public comment before any final order is issued.

The action needed in the Humboldt River basin is both urgent and long-term. We face hydrologic realities that require us to be responsive within the context of Nevada water law, but there is also a collective interest in respecting the traditions, rights, and livelihoods that rely on the waters of the Humboldt region. Decisions must be transparent, equitable to the extent possible, based upon the best available data and science, and rooted in long-term stewardship of water resources for future generations.

Conflict is occurring now. Senior water rights that are in priority do not receive all scheduled deliveries when the flow in the Humboldt River and its tributaries are depleted by groundwater pumping. Depletion is clearly demonstrated in the stream gaging data; what is less clear is a precise delineation of the source and magnitude of the conflict. The solution provided in Nevada law is to curtail junior rights to protect senior rights, but a curtailment that extends beyond what is necessary to remedy the conflict is unwarranted and unjustifiable.

As the existing conflict becomes more clearly demonstrated over time by the science and the data, so does the development of options and potential solutions to resolve the conflict without strict curtailment. The communities and industries affected by this hydrologic reality need to have the opportunity to reach solutions that minimize negative impacts. This could be achieved through offset programs, market-based approaches, conservation efforts, and through local organizations that are more adaptable than state authority. Curtailment is a severe action and it should be the last resort, but it would be a legal, and defensible, responsibility in the absence of other solutions.

The draft curtailment order is a framework that shows how curtailment could work: when it would be triggered, how and where it would be applied, and what the parameters and options are for water users to avoid curtailment. Distributing a draft for public review provides a basis for clarity, dialogue and collaboration. This is about ensuring that the process moves along with open eyes and an open mind, shaped with stakeholder input. It is not about imposing immediate cuts.

## 1. Introduction

- a. Basic Principles of stream depletion/capture caused by groundwater pumping.
  - b. The Humboldt Decree established the relative rights to the waters of the Humboldt River and its tributaries in 1938, and it established that the stream system is fully appropriated in most years.
  - c. Permits were issued in 1933 and 1938 for year-round storage of additional waters of the Humboldt River in the amount of 115,152 acre-feet.
  - d. Because of the fully decreed stream system and year-round storage rights in Rye Patch Reservoir, the Humboldt River is almost always in regulation.
  - e. Almost all groundwater in the Humboldt River Region is junior to 1938.
  - f. Any amount of capture from a fully appropriated system when in regulation will reduce surface flow that would otherwise be delivered to senior right holders.
  - g. Recognizing what was settled by Order 1329
    - i. Existing conflict is happening now
    - ii. Immediate measures can be taken to prevent the problem from getting worse.
    - iii. When more accurate data are available then longer-term strategies are warranted to address existing conflict.
    - iv. Further steps to implement those strategies will require extensive public outreach.
    - v. Order 1329 was upheld in district court, no appeal to Supreme Court.
- ## 2. Water rights conflicts due to depletion from groundwater pumping has gradually increased over decades.
- a. Describe and cite the multiple analyses demonstrating depletion
    - i. Imlay gage data
      1. Massive increase in zero flow days in recent years
    - ii. Prudic trends analysis
      1. Describe what it did: solid analysis of historic stream gage data.
      2. Conclusions: Comus to Imlay vs. Upstream reaches.
      3. This report didn't set out to identify location and magnitude of capture over time.
    - iii. Regional Groundwater Flow models
      1. Description of the publications.

2. This system-wide analysis is needed to have a baseline understanding of GW/SW connection and identify the location/magnitude of capture.
  - b. The nature of the problem and actions to resolve it need to be considered at the system-wide scale
    - i. One decree governs the entire system
    - ii. Segments of the Humboldt River and its tributaries vary greatly in their setting, but they are not hydrologically isolated from each other.
3. Authority and Necessity
- a. NRS 533.085 prohibits the impairment of vested water rights, regardless of the source of water.
  - b. All statutorily granted water rights in Nevada are given subject to existing rights.
  - c. All waters within the state are owned by the public.
  - d. NRS 533.085 gives the State Engineer the authority to conjunctively manage surface waters with groundwater.
  - e. Policy declarations in NRS 533.024 require the State Engineer to consider the best available science in rendering decisions concerning the available surface and underground sources of water.
  - f. The definition of “basin” is broad and inclusive, and thus may include an aquifer and multiple previously delineated topographic basins.
  - g. NRS 532.120 authorizes the State Engineer to make such rules, regulations and orders as are deemed essential for the welfare of the area involved where in his or her judgement the groundwater basin is being depleted.
  - h. NRS 534.110 provides that the State Engineer shall conduct investigations in any basin or portion thereof where it appears that the average annual replenishment to the groundwater supply may not be adequate for the needs of all permittees and all vested-right claimants, and if the findings of the State Engineer so indicate, the State Engineer may order that withdrawals be restricted to conform to priority rights until the water level of the basin is stabilized.
4. Area Subject to this Order
- a. Define the Capture Management Zone (CMZ)
    - i. Areas where a well would derive at least 10% of its water from stream depletion after pumping for 50 years.
    - ii. Wells within the Capture Management Zone must mitigate their capture in accordance with Section 6 of this order to avoid curtailment.
    - iii. Groundwater models are used to delineate the CMZ. Generally the portions of basins that are closer to the Humboldt River and its

tributaries have higher capture, but the distance depends on aquifer properties and hydrologic connections with Humboldt River and tributaries.

- iv. Groundwater models are the best available science unless superseded by improved information, data, and/or analysis as described in subsection e.
  - b. Maps showing CMZ.
  - c. Describe areas where we have confidence and where we don't.
    - i. Paradise Valley
    - ii. Pine Valley
    - iii. Upper Humboldt basin
  - d. When there is sufficient confidence in these areas to delineate a CMZ in the judgement of the State Engineer, then a supplemental order will need to be issued regarding the procedures required for those areas to resolve capture liability.
  - e. Explain the process to submit and review supplemental or alternative data to demonstrate more accurate site conditions than the existing published models.
    - i. Requirements for submittal
    - ii. Criteria for review and approval
5. Procedure to Determine Capture Liability by location
- a. Steps to determine capture liability
    - i. Maps and capture curves
    - ii. Site specific capture data obtained from Humboldt Capture Query Tool.
  - b. Capture Liability is based on duty, not actual pumping. Water right holders may relinquish duty or move duty out of their well to reduce capture liability.
  - c. Implementation is only for areas where there is a clear demonstration and confidence in the boundary of the CMZ and an accurate measure of capture fraction.
6. Procedure to mitigate capture liability and avoid curtailment within the CMZ
- a. Obtain offsets sufficient to mitigate capture for individual groundwater permits.
  - b. Participate in a program or common pool offset managed by a local entity and approved by the State Engineer that sufficiently mitigates capture liability.
  - c. Alternative measure or agreement that mitigates capture liability and is approved by the State Engineer.
  - d. 5-year period after issuance of a final order to fully implement mitigation actions.

7. Metrics to demonstrate resolution of conflict over time

- a. Gage data
- b. Future trend analysis
- c. Annual summary of decree diversions vs. instream flow for offsets
- d. Model simulations

8. ORDER

- a. Curtailment in 5 years from the date of issuance of a final order of all groundwater rights within the CMZ junior to 1938 unless mitigation of conflict is fully demonstrated through mechanisms described above.
- b. Definition of curtailment for the purpose of this order: Groundwater within the CMZ cannot be withdrawn from its permitted point of diversion until conflict is mitigated. Groundwater rights that are curtailed subject to this order are still active rights held by the owner, and they may still be considered for change applications or for extensions of time to prevent forfeiture.
- c. Exemptions
  - i. Those groundwater rights located in the administrative basins but not within the CMZ ie <10% capture in 50 yrs.
  - ii. Those groundwater rights with <5 afa capture after 50 years.
- d. Consider check-ins (similar to DV GMP)
- e. Extent that this supersedes Order 1329