

**PROPOSED REGULATION OF THE  
DIVISION OF WATER RESOURCES**

**LCB FILE NO. R027-18I**

**The following document is the initial draft regulation proposed  
by the agency submitted on 02/05/2018**

## **Preliminary Draft Regulations for the Mitigation of Surface Water Conflicts in the Humboldt River Basin**

### **GENERAL PROVISIONS**

1. **Definitions.** (NRS 532.120) As used in this chapter, unless the context otherwise requires, the words and terms defined in NAC 533.xxx to 533.xxx, inclusive, have the meanings ascribed to them in those sections.
2. **“Capture” defined.** (NRS 532.120) “Capture” means a depletion of surface water caused by groundwater diversions.
3. **“Conflict” defined.** (NRS 532.120) “Conflict” means the inability of a holder of a water right to fully exercise that right due to diversions of groundwater by junior-priority water rights.
4. **“Consumptive use” defined.** (NRS 532.120) “Consumptive use” means that portion of a water diversion is removed from the source of supply through evapotranspiration or other means.
5. **“Duty” defined.** (NRS 532.120) “Duty” means the maximum amount of water authorized for diversion under a water right for a specified period of use.
6. **“Groundwater” defined.** (NRS 532.120) “Groundwater” means water below the surface of the land that is in a zone of saturation.
7. **“Humboldt River Basin” defined.** (NRS 532.120) “Humboldt River Basin” means the surface water drainage basin of the Humboldt River identified as the Humboldt River Basin – Region 4, in: Water for Nevada, 1971, State of Nevada Water Planning Report 3.
8. **“Humboldt River Decree” defined.** (NRS 532.120) “Humboldt River Decree” means the Humboldt River Adjudication 1923 - 1938, including The Bartlett Decree, the Intervening Orders, the Edwards Decree, the Later Orders, the Alternative Writ of Prohibition in Carpenter V. District Court, and Decision of the Supreme Court. Compiled by Mashburn, G., and Mathews, W.T., State of Nevada publication, 1943.
9. **“Injurious depletion” defined.** (NRS 532.120) “Injurious depletion” means the reduction in surface water flow due to a groundwater diversion that results in a conflict to a senior surface water right.
10. **“Mitigation plan” defined.** (NRS 532.120) “Mitigation plan” identifies actions to be taken that will prevent, replace, or compensate senior surface water right holders for injurious depletions caused by diversions by junior groundwater right holders.
11. **“Surface water” defined.** (NRS 532.120) “Surface water” means rivers, streams, springs and reservoirs.

**Affected parties.** (NRS 532.120) These rules and definitions apply to holders of surface water rights under the Humboldt River Decree and to holders of groundwater rights within the Humboldt River Basin, and include the following:

1. Any holder of a water right under the Humboldt River Decree.
2. Holders of storage rights in Rye Patch Reservoir.
3. Any holder of a groundwater right whose pumping after fifty years would capture one percent or more of the amount pumped from any of the waters identified in the Humboldt River Decree.
4. Responsible parties for mining sites with mine pit lakes that capture through evaporation one percent or more of that evaporative loss from any of the waters identified in the Humboldt River Decree after fifty years, whether the pit lake evaporation is authorized by a water right or exempted by the State Engineer.
5. Owners of domestic wells, as defined by NRS 534.013 and 534.180, are exempt from these regulations.

**Determination of Capture.** (NRS 532.120) Capture amount for a groundwater diversion is calculated as the product of percent capture and the consumptive use amount. The calculation of percent capture is to be initially determined using U.S. Geological Survey and Desert Research Institute Humboldt River Basin groundwater flow models specifically constructed for determination of capture, and thereafter by any suitable study found acceptable by the State Engineer. Capture at a specific location is calculated as follows:

1. The capture amount will be calculated as the product of the percentage of capture that would occur in the number of years since the Proof of Completion was filed at the Division of Water Resources and the consumptive use in acre-feet annually.
2. If the groundwater use is for irrigation, the consumptive use portion is as follows:
  - a. If the irrigation method is by a center pivot, the consumptive use portion is 95% of the amount pumped.
  - b. If the irrigation method is by wheel lines or other hand mover sprinklers, the consumptive use portion is 85% of the amount pumped.
  - c. If the irrigation method is flood irrigation, the consumptive use portion is 65% of the amount pumped.
3. If the manner of use is other than irrigation, the consumptive use is the amount pumped less the amount of measured return to the groundwater source.
4. If a groundwater diversion is not metered, the capture amount will be calculated as the product of the percentage of capture that would occur in the number of years since the Proof of Completion was filed at the Division of Water Resources and the consumptive use portion of the duty of the water right.

5. For mine pit lakes, the groundwater diversion is the annual evaporation from the pit lake. The capture amount will be calculated as the product of percentage of capture that would occur since the pit lake started filling and the annual evaporation in acre-feet.

**Determination of conflict.** (NRS 532.120, 533.030, 533.085) For each surface water right subject to these regulations, the Office of State Engineer shall determine the amount of conflict annually, measured in acre-feet. Conflict is calculated as the difference between the actual water delivery and the scheduled delivery after accounting for capture due to groundwater diversions. A determination of conflict includes consideration of the following:

1. The priority date of the surface water right.
2. Whether a suitable flow-measuring device exists.
3. The amount of water scheduled to be delivered based on priority and approved delivery tables, and
4. The actual amount of water delivered.
5. Conflicts to a water right downstream of the Palisade gage will account for capture by upper basin pumpage by adding upper basin capture to the measured Humboldt River flow at the Palisade gage.
6. The sum of the conflict amounts of each of the individual surface water rights is the total surface water conflict for the Humboldt River Basin.
7. If actual delivery is equal to or greater than scheduled delivery, then no conflict has occurred.

**Determination of injurious depletion.** (NRS 532.120, 534.020) For each groundwater use subject to these regulations, the Office of the State Engineer will determine the amount of injurious depletion annually, measured in acre-feet.

1. Injurious depletion amount is to be calculated as follows :
  - a. Each groundwater diversion's injurious depletion amount is equal to the amount of its capture multiplied by the ratio of total amount of basin conflict to total amount of basin capture.
  - b. The sum of the injurious depletion amounts is equal to the sum of the conflict amounts in the basin.
2. An injurious depletion mitigated through a water replacement mitigation plan will reduce the total remaining conflict in the basin by an equal amount.

**Humboldt Basin Mitigation Program (NRS 532.120, 533.024(1)(e), 533.030, 533.085, 534.020)**

1. The Humboldt Basin Mitigation Program will mitigate, through financial compensation or mitigation plan, conflicts to surface water rights caused by diversions under junior-priority groundwater rights and shall be administered by the Office of the State Engineer.
2. Participation in the Humboldt Basin Mitigation Program shall be mandatory for all groundwater users determined to be subject to these regulations.

3. For groundwater right holders determined to be subject to these regulations, failure to participate in the Humboldt Basin Mitigation Program is determined to be a violation of NRS 533.030(1), 533.085, or 534.020(1). The water right holder is prohibited from diverting any groundwater until the injurious depletion is mitigated and may be subject to additional penalties or injunctive relief pursuant to NRS 533.481, 533.482, 534.193, and 534.195.
4. All holders of surface-water rights under the Humboldt River Decree are eligible to receive mitigation pursuant to these regulations.
5. The holder of the water right issued by the State of Nevada for Rye Patch Reservoir is eligible to receive mitigation pursuant to these regulations.
6. Administrative expenses of the program shall be funded through existing groundwater assessments (NRS 534.040) and surface-water assessments (NRS 533.285 and 533.290) from hydrographic basins located within the Humboldt River Basin.
7. Groundwater diversions subject to these regulations that are in full compliance with this Mitigation Program are deemed to have fully mitigated any conflict to senior surface water rights.
8. Surface water right holders eligible to participate in this Mitigation Program and to receive water or financial compensation for conflicts to their water rights, but who choose not to participate in the Mitigation Program, are deemed to have waived any claim of conflict.

**Mitigation Plan. (NRS 532.120, 533.024(1)(e), 534.020)** A groundwater user subject to these regulations may file a mitigation plan with the Office of the State Engineer to mitigate their injurious depletions.

1. All mitigation plans must be written and, if required, accompanied by temporary or permanent applications to change the point of diversion, place of use, and/or manner of use of the replacement water right.
2. Mitigation plans must be submitted to the State Engineer by January 15<sup>th</sup> of the year for which the plan is to be in effect. The State Engineer will approve or deny the plan by March 15<sup>th</sup>.
3. Any surface-water source may be used in a mitigation plan.
4. Groundwater sources whose diversion would capture less than one percent after fifty years from any of the waters identified in the Humboldt River Decree may be used as replacement water in a mitigation plan.
5. For replacement water made available in locations other than the location of the injurious depletion, normal flow losses must be considered in the change application.
6. Mitigation plans will utilize the groundwater user's ten-year average of injurious depletion to establish replacement water amounts.

**Financial Mitigation. (NRS 532.120, 533.024(1)(e), 534.020)**

1. Groundwater users determined to be subject to these regulations who have not filed and had approved a mitigation plan with the State Engineer shall be required to financially mitigate their injurious depletions.
2. When groundwater users are required to financially mitigate their injurious depletions, the Office of the State Engineer shall levy an annual mitigation assessment to groundwater rights holders, responsible parties for mining pit lakes, and domestic well owners who are subject to these regulations.
3. The mitigation assessment levied against groundwater users shall be based upon their ten-year average injurious depletions. The total of the mitigation assessments levied annually shall be sufficient to compensate all holders of surface-water rights for the conflicts caused by the groundwater diversions.
4. A mitigation assessment account shall be established within the Office of the State Engineer. All mitigation assessments paid by groundwater users shall be deposited into the account, which shall be used solely for mitigation of conflicts to holders of surface-water rights.
5. The program will utilize ten-year averages of conflict for assessment purposes. The ten-year average conflict will be recalculated every five years. Ten-year average conflicts will be determined by January 31 of the year in which they are recalculated.
6. Assessments to groundwater users will be based on their ten-year average pumping and consumptive use. Groundwater users who fail to provide pumpage information pursuant to State Engineer Orders No. 1251, 1253, 1254A, 1255, 1256, 1257, 1258, 1259, 1260, and 1261 shall have their assessment calculated using their water right duty.
7. A groundwater user who wishes to reduce their annual assessment for the present year by reducing their groundwater diversion may do so by requesting the State Engineer in writing to evaluate how a reduction in diversion would affect their capture, injurious depletion and financial assessment. Such requests must be submitted to the State Engineer by January 15<sup>th</sup>. Replies to these requests will be provided by March 15<sup>th</sup>.
8. Assessments will be computed and levied by the State Engineer by February 28<sup>th</sup>.

**Mitigation Compensation (NRS 532.120, 533.024(1)(e), 534.020) Compensation will be made to eligible surface water users.**

1. Mitigation funds will be disbursed by July 1 of each year to all eligible holders of surface-water rights based on their ten-year average conflict, and will be recalculated every five years.
2. The amount of compensation for each acre-foot of conflict will be determined by an agricultural economist or other expert retained by the Office of the State Engineer.
3. Water valuation will be based on ten-year averages, recalculated every 5 years.