



Range of Light Group  
Toiyabe Chapter, Sierra Club  
Counties of Inyo and Mono, California  
P.O. Box 1973, Mammoth Lakes, CA, 93546



July 23, 2021

Lesley Yen, Forest Supervisor  
Inyo National Forest  
351 Pacu Lane, Suite 200  
Bishop, CA 93514

Submitted via email: <https://www.fs.usda.gov/project/?project=57325>

RE: Owens River Headwaters Comprehensive River Management Plan

Dear Supervisor Yen:

On behalf of the Sierra Club's Range of Light Group Executive Committee, I'd like to express our thoughts and concerns on the Owens River Headwaters CRMP. The Range of Light Group (ROLG) is part of the Toiyabe Chapter of the Sierra Club and consists of over 400 Sierra Club members in Inyo and Mono Counties. The Range of Light Group has an ongoing and active interest in the management of the areas and resources affected by the Owens River Headwaters Comprehensive River Management Plan. We treasure our public lands, forests, and wildlife. Many Sierra Club members, for example, hike to Glass Meadow to enjoy its scenery and other natural values.

In addition to these written comments, the Sierra Club Range of Light Group would like to align ourselves with - and incorporate by reference - the comments submitted by Friends of the Inyo, et al dated July 10, 2021. Our members have a strong interest in the full range of areas and resources affected by the Owens River Headwaters Comprehensive River Management Plan. We urge the USFS to comprehensively address the issues, questions, information gaps and concerns raised by Friends of the Inyo, et al, as well.

#### Groundwater Monitoring

The Sierra Club is very concerned about protecting our natural resources. To protect the Upper Owens River spring sources, the groundwater also needs to be protected. The springs along the Upper Owens River are hydrologically connected to the Dry Creek drainage yet Dry Creek isn't mentioned in the CRMP. Dry Creek drainage can be impacted by Mammoth Mountain Ski Area's (MMSA) groundwater pumping for snow making and for their domestic water supply. They have plans to expand their snowmaking operations<sup>1</sup> as you well know and to rebuild and expand facilities at the Main Lodge as part of the Base Land Exchange project. MMSA operates five wells on USFS land that tap the Dry Creek aquifer. Three of those wells are used for snowmaking. MMSA is planning to put in two more wells. With the Base Land Exchange, MMSA will be able to tap into the Dry Creek aquifer independently because they will own the surface land. The USFS won't have control over that well, but does on the other wells.

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<sup>1</sup> <https://www.fs.usda.gov/project/?project=54453>



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As described by the Breibart study,<sup>2</sup> both the surface runoff and the groundwater flow from the north face of Mammoth Mountain, down the Dry Creek drainage and onto the flats around Deer Mountain. The snow on the flats percolates down into the ground and contributes to the aquifer too. The Burak 2015 thesis<sup>3</sup> states that Dry Creek contributes to Big Springs, when in 2001, the connection wasn't clear. Depending upon the amount of water pumped, extractions from the Dry Creek basin could impact Big Springs to some unknown degree.

The Breibart study explains that twenty years ago (2001), MCWD and MMSA both wanted to tap the Dry Creek aquifer: MCWD wanted 2,000 af and MMSA wanted 685 af. The study calculated how much groundwater could be sustainably extracted. Using the 1992 drought year data, the study calculated the recharge rate ranged between 2,800 af and 10,500 af annually and recommended that only 2,000 af be withdrawn during drought years. Based on that study, there is plenty of groundwater for MMSA to be able to increase their pumping. However, if the MCWD needs to tap the Dry Creek aquifer in the future, there wouldn't be enough groundwater to meet both their needs in drought years. By monitoring the groundwater levels now and collecting data on the impacts of MMSA's snowmaking and domestic water usage on the aquifer, the USFS would be better prepared to sustainably manage the aquifer in the future.

With a prolonged drought, there would be a continuous depletion of groundwater in the Dry Creek basin by MMSA when snowmaking is needed the most. Not all of that groundwater would return to the Dry Creek basin as recharge because it will be spread around the mountain in both the Mammoth Creek drainage and the Dry Creek drainage. The 2012-2015 droughts stressed the trees in the Dry Creek basin. For the next two years following the drought, trees died from bark beetle infestations. This increased the risk of wildfire. Unsustainable groundwater pumping will exacerbate the impacts of drought.

The USFS isn't subject to the California's Groundwater Sustainability Act nor is the Dry Creek basin a priority basin or even on the state's radar. However, the USFS has control over the groundwater in the Dry Creek basin and needs to manage it sustainably to preserve the aquifer and, in turn, preserve the underground flow to the Upper Owens River watershed.

A rigorous groundwater monitoring program should be incorporated in the Owens River CRMP. There should be a plan in place that places caps on the amount of water that MMSA can extract in dry years and sets trigger points for when pumping should stop. A report should be published annually on groundwater levels.

We recommend the USFS also perform periodic water quality tests on all the wells on its property and at Big Springs to monitor how much salt used on the runs is seeping into the groundwater. A

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<sup>2</sup> [https://www.bren.ucsb.edu/research/2001Group\\_Projects/Final\\_Docs/mammoth\\_final.pdf](https://www.bren.ucsb.edu/research/2001Group_Projects/Final_Docs/mammoth_final.pdf)

<sup>3</sup> [https://scholarworks.unr.edu/bitstream/handle/11714/2600/Burak\\_unr\\_0139M\\_11874.pdf?sequence=1](https://scholarworks.unr.edu/bitstream/handle/11714/2600/Burak_unr_0139M_11874.pdf?sequence=1)



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USGS study of the tributaries to the San Joaquin River and springs in the Devils Postpile states that MMSA applies an average of 120,000 lbs./yr. of salt to the ski area. That USGS study identified salt in the Upper Dry Creek groundwater along with emerging contaminants e.g., caffeine, sunscreen chemicals, DEET<sup>4</sup>. Using water from the ponds year in and out increases the salinity of the ponds. With increased recycling of groundwater pumping-snowmelt-recharge, these chemicals might become more concentrated.

#### Glass Creek Meadow Restoration

Glass Creek Meadow is a scenic habitat gem surrounded by wonderful views of White Wing, the San Joaquin Ridge, and June Mountain. A few years back there was a meadow assessment project that many Sierra Club members participated in. There was tree encroachment and some small head-cuts along the stream flowing through the meadow. The UC Davis Meadow Assessment shows this as well<sup>5</sup>. This meadow needs restoration work that will help it to be more absorbent and climate change resilient. The trail to Glass Creek Meadow ends at the east end of the meadow so when people arrive, they spread out and wander through the meadow and over to the stream, compacting the soil and stepping on the frogs hiding in holes throughout the meadow or on a bird's ground nest. We recommend the CRMP include trail work to continue the footpath around the meadow on the edge of the forest/meadow leading to the west end.

#### Increased OHV Activity

Mammoth Lakes Recreation's Shady Rest-Inyo Craters project is proposing additional OHV trails passing through the Owens River headwaters area. As OHV activity increases, how will the stream crossings, riparian corridor, and wildlife be impacted?

We urge the Forest Service to address the issues, questions and concerns raised in these comments and those of Friends of the Inyo, et al.

Sincerely,

Lynn Boulton, Chair  
Range of Light Group, Toiyabe Chapter  
Sierra Club

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<sup>4</sup> <https://pubs.usgs.gov/sir/2017/5048/sir20175048.pdf>

<sup>5</sup> <https://meadows.ucdavis.edu/assessments/glass-creek-meadow>