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Re: Comments on EIS/EIR NOI/NOP Scoping for the Mammoth Main Base Redevelopment Project (the Project)

While the Project is outside of the current Mammoth Community Water District (MCWD) Boundary, it is within the MCWD Sphere of Influence as defined by the Municipal Service Review and Sphere of Influence Recommendation prepared in 2010 by the Mono County Local Agency Formation Commission (LAFCO). MCWD has a strong interest in the long-term sustainability of the Town of Mammoth Lakes community and economy and has a long history of cooperation and coordination with Mammoth Mountain on groundwater resources, drinking water and wastewater. Two reasonable alternatives have been identified that should be considered in the EIS/EIR analysis. Please consider the following comments:

Energy

Geothermal

Any geothermal energy project should be analyzed for its potential impacts on groundwater hydrology and water quality. The project proposal documents state that the applicant is "currently researching the viability of developing a geothermal heat source within the boundaries of parcels A and B for purposes of both building heating and snowmelt systems, as well as a heat source for domestic water users." The Project is planned to be completely reliant on groundwater resources from the Dry Creek aquifer under parcels A and B. A geothermal system would involve multiple wells that would punch through the water supply aquifer for the Project and pump and reinject geothermal fluid from a deeper aquifer in fractured rock. Geothermal fluid in the Mammoth area contains heavy metals like arsenic at concentrations too high for treatment for use as drinking water. For the long-term sustainability of the Project, it is imperative that this system be engineered, analyzed, permitted, developed, and operated in a way that minimizes the risk of interference with the water supply aquifer; and, if significant impacts are detected, operations modified and/or stopped to protect the drinking water. Necessary mitigation measures are likely to include construction standards, drilling of monitoring wells, and a long-term groundwater mitigation response plan (GMRP). If the environmental analysis for a geothermal system is not completed now, it should be fully analyzed later and prior to system approval.

Hydrology and Water Quality

Groundwater

A new water resource analysis should be prepared to analyze the Project's anticipated increased water demands and wastewater discharge/recharge. MCWD has partnered with Mammoth Mountain Ski Area (MMSA) to explore groundwater resources in the Dry Creek groundwater basin over many years. MCWD drilled several exploratory wells on Forest Service land north-east of the Project in the late 1980's. In 2001 a group of graduate students from UCSB prepared a study evaluating groundwater resources in the Dry Creek basin titled "Mammoth Groundwater Extraction: A Hydrological Analysis of Potential Recharge to an Eastern Sierra Nevada Watershed". More recently, early in the land exchange process in 2007, MCWD and MMSA partnered to hire TEAM Engineering to prepare a water resource analysis of the Dry Creek basin entitled "Hydrologic Assessment, Dry Creek Area, Mono County, California". The updated analysis should evaluate the potential for impacts to the Owens River Headwaters Wild and Scenic River.

Public Services and Utilities

Water Demand and Groundwater Supply Analysis

A Water Supply Assessment should be completed to determine the Project's water demand and whether available supplies are sufficient to meet project demands. The assessment should be based on historical hydrology and several water supply conditions should be analyzed. Specifically, severe one-year drought and five-year-consecutive drought scenarios should be analyzed. Preliminary engineering shared with MCWD staff indicates the Project could require 3 to 4 times more potable water and sewer than the existing Main Lodge facilities, not to mention the increased demands for snowmaking. The analysis should also consider water loss due to leaks in the existing and proposed distribution system. For water supply planning, MCWD uses the 2015 water year for the severe one-year drought and the period of 2013-2015 (extended by 2 years) for the five-year consecutive dry-year period. In 2015 MMSA was experiencing intermittent treated water shortages during periods of peak attendance and approached MCWD requesting emergency treated water service. MCWD provided the requested temporary service via an existing intertie subject to conditions. MCWD does not plan to supply backup water to MMSA facilities outside of the District Boundary.

Water Resources

All wells needed to supply water for the Project should be analyzed. The Project documents state that potable and fire suppression water for the project will be supplied by existing wells serving the Main Lodge and Mammoth Mountain Inn. MCWD staff understands that MMSA replaced two wells that had old and compromised casings in the summer of 2022. One is on Parcel A near the existing Mammoth Mountain Inn (for potable and fire suppression) and the other is on USFS land near the Chair 10 parking lot (for snowmaking). The NEPA project description states that expanded snowmaking "…could be accommodated by MMSA's existing wells and those that were previously approved in the 2019 Environmental Assessment, which are anticipated to be constructed by the 2023/24 season." Given the significant increase in water demand, and the need for redundancy and resiliency during drought, it is likely that additional new wells will be required. They should be included in the Project and be analyzed.

Water System Regulatory and Organizational Structure Changes

The expanded water system size, year-round residential and public use, and service to private properties could require changes to the regulatory and organizational structure. The expanded system may

become regulated by the California State Water Resources Control Board – Division of Drinking Water or by the Mono County Department of Environmental Health, but under a new regulatory structure.

More stringent public water system requirements could require the construction of groundwater treatment facilities to treat groundwater for arsenic, iron and manganese. If so, the Project should include the addition of a groundwater treatment plant. MCWD wells in very similar aquifer geology require treatment for these constituents.

Reasonable/Feasible Alternative – Combine MCWD and MMSA Water Systems

MCWD provides water services to MMSA properties within the MCWD District Boundary at Juniper Springs Lodge, Chair 15, Canyon Lodge, and Chair 7. MCWD also serves Tamarack Lodge under an out-of-District agreement. In or before 1996 MCWD and MMSA installed an intertie between the two systems at Chair 7 with a closed and locked valve. From an engineering perspective, combining MCWD and MMSA systems is feasible.

The Project is outside the MCWD District Boundary, but within the MCWD Sphere of Influence, according to LAFCO. Combining systems would require either an annexation of MMSA lands into the MCWD District Boundary, or an out-of-District service agreement.

Wastewater Treatment

The Project's wastewater demand and proposed package treatment plant should be analyzed fully. Early estimates suggest the Project could produce wastewater flows of 0.24 MGD and maximum-day flows of 0.48 MGD. The proposed package wastewater treatment plant (WWTP) would likely utilize Membrane Bioreactor (MBR) treatment and Ultraviolet (UV) disinfection technologies. The primary advantages of a package treatment plant are that it requires significantly less space, can be enclosed to reduce weather-related disruptions and odor impacts, and can produce tertiary recycled water.

Permitting

The proposed discharge to Dry Creek will require permits from the Lahontan Regional Water Quality Control Board (Lahontan) and regular laboratory analysis and reporting.

Staffing

The proposed new package WWTP will require a California Grade 3 wastewater operator. The package plant will also require specialized ongoing maintenance.

Energy Usage

Membrane Bioreactor (MBR) treatment and Ultraviolet (UV) disinfection technologies use significantly more energy than more traditional technologies, especially the existing ponds.

Pumping recycled water up to the lined reservoir at McCoy station will require significant energy.

Laboratory Requirements

A California ELAP Accredited Laboratory certified to run daily required samples for Title 22 tertiary grade water. MCWD does not accept outside samples on holidays, Friday, Saturday, or Sunday.

Solids Dewatering and Disposal

MCWD currently dewaters sludge at its wastewater treatment plant using a screw press and trucks it to the Russell Pass Landfill near Fallon, Nevada for disposal. MCWD does not accept sludge from other agencies.

Recycled Water

A Title 22 Engineering Report will need to be prepared for the proposed recycled water system. The report will require review and approval by the California State Water Resources Control Board – Division of Drinking Water and Lahontan.

Because the proposal is to store recycled water in the lined snowmaking reservoir at mid-mountain, the entire snowmaking water distribution system is likely to have to comply with "purple pipe" requirements, including signage.

Soda Springs Mountain Resort has been using recycled water produced by Donner Summit Public Utility District since 2015 and their program should be reviewed for lessons learned and potential impacts for this relatively novel application for recycled water.

MCWD produces tertiary recycled water and is permitted to use it for golf course irrigation and trucked construction water. It is possible that MCWD could provide recycled water to MMSA for snowmaking and other uses in the future. The most accessible opportunity for use of MCWD recycled water at MMSA is at Chair 15 because of its proximity to Sierra Star Golf course and the recycled water pipeline that serves it. Expanding recycled water uses would require modifying MCWD's existing recycled water permit with California State Water Resources Control Board – Division of Drinking Water and Lahontan.

Reasonable/Feasible Alternative – Convey Wastewater to MCWD's collection system and WWTP

MCWD provides wastewater services to MMSA properties within the MCWD District Boundary at Juniper Springs Lodge, Chair 15, Canyon Lodge, Chair 7, the MMSA Maintenance Garage, and Woolly's Tube Park. MCWD also serves Tamarack Lodge and Chair 4 under an out-of-District agreement.

MCWD has enough treatment capacity at its WWTP to serve the Project. The design capacity of the existing treatment plant is 4.1 MGD maximum 30-day average. The corresponding maximum-day flow is 5.5 MGD. In December (when the highest flows occur) the average wastewater flow is about 1.4 MGD and the maximum-day flow is about 2.0 MGD. The 2020 Urban Water Management Plan projects an 84% increase in sewer-generating water uses at Town build-out. Therefore, we can reasonably plan for 2.6 MGD average daily flows and 3.7 MGD maximum-day flows at Town build-out within the existing MCWD service area. Early estimates suggest the Project could produce wastewater flows of 0.24 MGD and maximum-day flows of 0.48 MGD. Adding the Project to MCWD's WWTP would bring the total build-out average to 2.84 MGD, well below the design capacity.

This alternative would require an equalization basin, lift station, force main, trunk line, and potentially off-site improvements to increase the capacity of the downstream collection system. The distance from the Project to the nearest connection to MCWD sewer at Chair 4 is approximately 1.5 miles. The Project includes plans to install electrical, propane, and communications infrastructure across this distance in a common trench. Sewer infrastructure could be installed concurrently.

This alternative was first identified in the early 2000's. At that time Lahontan required MMSA to identify alternatives to upgrade the existing Main Lodge sewer pond system to bring it into compliance with Waste Discharge Requirements. MMSA hired TEAM Engineering and CGvL Engineers to evaluate alternatives. Conveying wastewater to MCWD was the recommended alternative.

This alternative could be implemented without combining water service; in which case, MCWD could provide wholesale sewer service under an out-of-District service agreement.

Efficient and Economical Delivery of Services

The proposed wastewater treatment plant, and the water utilities to a lesser extent, are relatively small scale and do not benefit from the larger economy of scale that would be provided if they were incorporated into existing MCWD systems serving the Town of Mammoth Lakes.

The EIR/EIS should provide a thorough analysis of the alternatives to quantify and document whether benefits (e.g. availability of recycled water at Main) outweigh the additional costs, energy use, and inefficiency.

LAFCO has the objective of encouraging the efficient and economical delivery of services. A thorough EIR/EIS will help inform decisions about new or modified local government agencies needed to serve the development.

Agencies Potentially Having Permitting and/or Approval Authority:

The following agencies should be added to the lists in the NOP:

- California State Water Resources Control Board, Division of Drinking Water – Reviews and approves Title 22 engineering reports for recycled water permits. May regulate the up-sized, year-round public water system.
- Mono County Department of Environmental Health – May regulate the public water system. Will regulate the pools and restaurants.
- California Geologic Energy Management Division (CalGEM) – Regulates geothermal projects on private land in California.
- US Environmental Protection Agency – In addition to Clean Water Act 404 permits, USEPA also regulates geothermal injection wells which would be required for a direct use geothermal heating system.

Sincerely,

Garrett Higerd, PE
District Engineer