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Comments: I write regarding the proposed increase in size and capacity of Holland Lake Lodge, Condon, MT. Of course, I have concerns about loss of aesthetic value through development of a larger resort on the existing footprint, but I am also concerned about changes to Holland Lake itself and the surrounding ecosystems: increased use will trigger (i) potential environmental impacts to the lake and the surrounding community of seasonal residents and (ii) potential loss of habitat for Water Howellia (H. aquatilis), a wetland plant recently delisted (2021) as a threatened species under the Endangered Species Act. As a recently retired professor specializing in biogeochemistry and geochemistry of aquatic systems (surface water, groundwater, etc.), I am qualified to speak about the potential environmental impacts from the changes in water use and disposal required by the expansion of Holland Lake Lodge. A full Environmental Assessment (NEPA) is needed to address these concerns. A brief description of each concern follows, along with the applicability of a 20-year old environmental assessment to current conditions, given improved technology and methods for environmental surveys. These must be addressed before the expansion is permitted. For that reason, I oppose a Categorical Exclusion for the proposed Holland Lake Lodge expansion.

1. A 2001 study made the following recommendations: "Additional hydrologic studies on other Howellia occupied wetlands need to be conducted to further study the larger population of Howellia occupied wetlands. …a study designed to observe any differences in wetland hydrology and water chemistry between Water Howellia unoccupied and occupied wetlands may help define habitat limitations for Water Howellia." "…examine how the wetlands, their associated groundwater flow system, and the regional flow system interact in regions with isolated and closely space wetland clusters" "….investigate the presence of fractures or zones of higher hydraulic conductivity would greatly enhance the understanding of these wetland systems as these features most likely increase permeability in these wetland systems" (D.M. Reeves, MS thesis, emphasis mine). Regardless of the delisting of Water Howellia (2021), it is clear that the hydrology of the fenn and seasonal ponds that host Water Howellia is not well-understood. Is there a possibility that increased well-water extraction will change or possibly eliminate the fenn and ponds through a change in groundwater head? We don't know.

2. According to the Scoping Package, HLL would
*Ensure accurate flow data for both HLL and the USFS campground, which may include upgrading the wastewater flow meters and / or installation of a
Supervisory Control and Data Acquisition system.
*Based on flow data and need:
1. holding tank storage capacity may be increased prior to discharge into
lagoon.
2. wastewater pumps may be upgraded, and force main size may be
increased to accommodate additional flow capacity.
3. a new wet well or additional holding tanks may be installed in the lodge
area.
4. a third lagoon or enlarge the existing lagoons may be installed.
*Lagoon liner may be repaired, and any exposed liner covered above the water level.
*Lagoon sludge depth would be inspected, and sludge removed if necessary
*Pump holding tanks would be monitored and inspected on a regular basis.
The calculations for increased capacity are adequately explained in the Scoping Package. Basically, treatment capacity would need to approximately double due to the larger water volume needed to support the expansion. This would require additional pond and irrigation areas. What monitoring is planned to ensure that the systems are not leaking or adversely impacting the environment? A recent review raises questions about wastewater irrigation that should be addressed prior to permitting (e.g., "There is a possibility of negative effects of prolonged

irrigation with
TW on the deterioration of soils' physicochemical properties and increased soil microbial activity. Therefore, proper guidelines for wastewater reuse and management should be followed to limit any negative effects." Hashem, M.S. and Qi, X., 2021. Treated wastewater irrigation-A review. Water, 13(11), p.1527). Many of the above proposed actions come with the caveat that they "may" be done. It is imperative that these actions are taken and the deficiencies addressed. To do that, deficiencies must be identified. This goal cannot be achieved without a full environmental assessment.

3. According to the documentation provided in the scoping package, the last environmental assessment was completed 20 years ago (2002). At that time, the consultants contained the following recommendations with respect to a leaking undergraound storage tank: "Given the subject property is an inactive LUST list, it is generally recommended that a Phase I Environmental Assessment be completed to fully assess the property's past use(s), the environmental conditions at the site and adjoining sites, and the potential presence of hazardous substances." And "Additionally, since the subject property is an inactive LUST site, the property's Petrofund eligibility should be determined." And "If the property's drinking water is supplied by private wells, it is generally recommended that the wells be tested for petroleum hydrocarbon constituents." I found no information on whether these recommendations were followed, although I note that activity to address these issues appears to have taken place in 2004, but no record of actions is included in the scoping package. What is the extent of the contamination? A more recent assessment is needed to determine current environmental conditions.

I raise these issues after review of the documents provided in the permit application. The environmental impact of the proposed expansion is not adequately addressed. A full NEPA review is required to determine potential environmental impacts and possible design solutions. Simply making the infrastructure bigger is not sufficient.