

Nicole Mardell

From: Matt Cyrus <matt@aspenlakes.com>
Sent: Friday, February 9, 2024 1:27 PM
To: Nicole Mardell
Subject: Comp Plan

[EXTERNAL EMAIL]

Hi Nicole,

A few additional comments for the comp plan.

"GROUNDWATER

The groundwater aquifer is roughly 1000 feet thick and is replenished yearly by the Cascades' precipitation. Recent years of "exceptional drought" have lowered the aquifer level by roughly 30 feet, resulting in a small percentage of wells running dry, and raising concerns about available groundwater for new developments. Although it is likely that some wells will need to be deepened to cope with increasing temperatures and drought frequency, there is likely to remain ample sustainable groundwater supply. Because the groundwater in the Deschutes Basin is directly connected to the flow of the Deschutes River, all additional groundwater use must be mitigated by decreased use of groundwater elsewhere through the Oregon Water Resources Department's Deschutes Groundwater Mitigation program. This can include retiring of other water rights, or the release of water into the waterway. A mitigation permit must be obtained before a new groundwater right can be accessed."

- You might want to add something about deep vs shallow aquifers and the impacts of Juniper trees and changes to irrigation practices and wholesale piping of ditches and canals on the recharge of shallow aquifers (those less than 800 feet deep). For example the Bureau of Reclamation study identified a direct hydraulic connection between the Tumalo Irrigation Canal and a well that was 600 feet deep and changes in irrigation practices such as replacing flood irrigation with pivot or drip irrigation reduces aquifer recharge.

"RESERVOIRS

The majority of the irrigation in Deschutes County comes from reservoirs which are mostly spring fed from the Cascades. Reservoirs serve the dual purpose of supplying water for irrigation and ensuring sufficient streamflow in the lower Deschutes River. The water levels in these lakes have been low in recent years due to drought in the region. When water is limited, the supply rate is determined by the age of water rights, with the more senior water permits having priority over the youngest. The Swalley and Central Irrigations are the most senior in the county, while the North Union Irrigation District is the most junior."

- This description credits the drought with lower reservoir levels, but completely fails to mention the Spotted Frog recovery plan, which is having a significant impact on reservoir levels. In fact, if I recall correctly, 2021 saw 35,000 acre feet released from the reservoir for frog management instead of for irrigation. That would have raised roughly 60,000 tons of hay.

- Regarding the Wildfire description, I like the current description regarding the buildup of fuel loads, but might add forest management practices such as reduced timber harvest and wilderness designations have impacted wildfire responses and control strategies.

. Historically, wildland fires have shaped the forests and wildlands valued by residents and visitors. These landscapes, however, are now significantly altered due to increased rural development and the generally warmer and dryer conditions attributed to climate change are a root cause of increased fire severity in western forest and grasslands. a general lack of large-scale treatments, resulting in overgrown forests with dense fuels that burn more intensely than in the past.