



Oregon

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Oregon Water Resources Department

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RE: ODFW Comments for the Deschutes County January 4, 2022 Public Hearing Regarding Plan Approval for Phase A-2 and Site Plan Review for Thornburgh Destination Resort (FILE NUMBERS: 247-21-000637-TP, 948-A and 247-21-000537-SP, 998-A, 1009-A)

The Oregon Department of Fish and Wildlife (ODFW) is providing the following comments regarding Deschutes County's (County) hearing of approval for 108 single family residential dwelling units under Phase A-2 and site plan review of welcome center, gatehouse, golf clubhouse, and community hall for the Thornburgh Destination Resort (Resort). Under Phase A-2 development, the Resort must provide evidence that water is available to support previously agreed-upon mitigation requirements that result in no net loss or net degradation of fish and wildlife habitat quantity and quality and provide a net benefit to the resource. As we have stated in past comments, ODFW has concerns, as reiterated below, that the water source agreed upon in part for mitigation may not be reliable and available to meet the developer's obligation. It is ODFW's understanding that the Resort has previously applied to the Oregon Water Resources Department (OWRD) for permits to supply quasi-municipal water to the Resort in various degrees and has been working with Deschutes County on land use approvals. ODFW would like to acknowledge that water right permits in the Deschutes Study Area will be mitigated through OWRD's Deschutes Groundwater Mitigation Program, but also reiterate that the County has approved a Mitigation Plan for the Resort that, in combination with OWRD's mitigation, is intended to result in no net loss or net degradation of fish and wildlife habitat quantity and quality and provide a net benefit to the resource. This Mitigation Plan was developed in consultation with ODFW over a decade ago and is outlined in the Resort's Final Master Plan, with impacts to fishery resources specifically addressed in the 2008 Thornburgh

Resort Fish and Wildlife Mitigation Plan Addendum Relating to Potential Impacts of Ground Water Withdrawals on Fish Habitat (Addendum).

ODFW's support of the 2008 Addendum was based on many expectations becoming reality. In particular, ODFW put much weight on the Big Falls Ranch mitigation providing a sufficient quantity of cold, spring-fed water from Deep Canyon Creek that will be legally protected into the Deschutes River down to Lake Billy Chinook. The Addendum consistently includes language that supports the mitigation intent being an increase in actual streamflow (e.g., flow...will remain in the creek; instream flow created; additional flow; restoring natural stream flow to the system; water, originating from springs, will flow to the Deschutes River; Big Falls mitigation water offers the additional temperature benefit of providing relatively cool waters from Deep Canyon Creek; etc.). In particular, Thornburgh states they "...will fully exercise the option for purchasing 464.9 acres of water rights under its existing option agreement with Big Falls Ranch, Inc. in fulfilling its mitigation obligation under the OWRD water right. By making this commitment, Thornburgh ensures that nearly two-thirds of its total mitigation water (expected total 836.82 AF per year) will come from a source that contributes cold spring-fed water to the Deschutes River above the Thornburgh location of impact. By retiring an existing irrigation water right, this measure will also **result in restoration of 5.5 cfs of cold surface water flow to the Deschutes River from Deep Canyon Creek during the irrigation season.**" (page 9). The 5.5 cfs of actual flowing mitigation water from Deep Canyon Creek spring is critical for evaluating instream flow and temperature benefits. In addition, the Addendum concludes that at full build-out of the Resort, "...Thornburgh will eliminate approximately 7.5 to 10.4 cfs of existing surface water diversions during the irrigation season, **restoring natural stream flow to the system at or above the area of impact from Thornburgh wells during the time period when stream flows are typically the lowest and temperatures are warmest.**" (Page 9).

Given our expectations for successful mitigation resulting in legal protection of actual cold streamflow, it is unclear at this time if there remains a clear nexus between the numerous water right applications, Phase A-1 and Phase A-2 development, the County's and OWRD's mitigation requirements, and ODFW's concerns for fish and wildlife habitat. In addition, it is becoming increasingly unlikely that the mitigation agreed upon in 2008 will offset the loss or net degradation of fish and wildlife habitat quantity and quality and provide a net benefit to the resource due to ongoing declines in groundwater and streamflow. There is concern for the present and future viability of the Deep Canyon spring to provide the intended flow volume and temperature benefit for mitigation and meet the no net loss standard. In the face of a changing climate and current and potential human impacts both regionally and in the vicinity of the Resort, the viability of Deep Canyon Creek spring to provide the intended ecological functions is under consideration. Furthermore, during the time that has elapsed since the 2008 Mitigation Agreement, the Oregon Department of Fish and Wildlife formalized a Climate and Ocean Change Policy in 2020 (OAR 635-900-0001 through 635-900-0020). The Policy is the framework under which ODFW will evaluate the impacts of climate change on fish, wildlife, and their habitats, and adopt management practices to safeguard those resources.

Recent studies by the USGS have reported groundwater levels in the Redmond Area showing a modest and spatially variable decline in recent decades, about 25 ft since 1990, and 15 ft between 2000-2016 (Gannet et al. 2017¹). Simulation of pumping 20 cfs from a hypothetical well east-northeast of Sister and east of the Sisters fault zone shows declines in groundwater discharge not only in the Deschutes River between Lower Bridge and the gage near Culver, but also in the lower Crooked River and Opal Springs (Gannet et al. 2017). In addition, an initial ODFW assessment of well logs is showing local groundwater-level elevations for the Big Falls Ranch wells have continued to decline below the elevation (approximately 2,541 feet above sea level) for the primary spring in Deep Canyon Creek.

For example:

- Over the last 25 years (1996-2020) the groundwater-level elevation of groundwater well log ID DESC 768 has declined 4.9 ft.
- Since the 2008 Mitigation Agreement, the groundwater-level elevation of groundwater well log ID DESC 768 has declined 3.0 feet (from 2487.3 to 2484.3 ft AMSL)
- Since the 2008 Mitigation Agreement, the groundwater-level elevation of groundwater well log ID DESC 2087 has declined 4.1 feet (from 2541.8 to 2537.7 ft AMSL)
- Since the 2008 Mitigation Agreement, the groundwater-level elevation of groundwater well log ID DESC 2100 has declined 4.5 feet (from 2544.6 to 2540.1 ft AMSL)

With uncertainties surrounding potential water use for Phase A-1 and Phase A-2, recent water right applications, and groundwater/surface water declines in the Deschutes Basin, ODFW requests a meeting with the County and OWRD to further discuss the following:

- Clarification from OWRD and Deschutes County on whether the agreed-upon mitigation is still available and able to return actual cold, spring fed flow to the Deschutes River in suitable quantities to offset impaired habitat quality and quantity under both entities' authority and if it is reasonably certain to succeed. ODFW would like an assessment of:
 1. The current seasonal discharge of Deep Canyon Creek spring and whether the volume of cold water agreed upon in 2008 is currently available to fulfill the mitigation obligation for Phase A-1 and Phase A-2.
 2. Whether Deep Canyon Creek spring discharge is diminishing and has declined since the 2008 Mitigation Agreement.
 3. Forecasted local groundwater-level elevations and spring discharge to provide reasonable assurance that mitigation can be maintained in perpetuity.
- In a November 20, 2015, letter from ODFW Director Melcher to the County, we reiterated a reassurance from OWRD that "any diminishment of mitigation water must be replaced." Given the groundwater declines in the area, and specific declines in groundwater that is supplying cold, spring-fed water to Deep Canyon Creek and the Deschutes River, ODFW urges OWRD and the County to determine if replacement water for diminished spring flows is needed prior to moving forward with any

¹ Gannett, M.W., Lite, K.E., Jr., Risley, J.C., Pischel, E.M., and La Marche, J.L., 2017, Simulation of groundwater and surface-water flow in the upper Deschutes Basin, Oregon: U.S. Geological Survey Scientific Investigations Report 2017-5097, 68 p., <https://doi.org/10.3133/sir20175097>.

permitting decisions. If a replacement is necessary, it is ODFW's understanding that OWRD would require the diminished mitigation water be replaced in the General Zone of Impact but that the County requirements would control the types of water that could be used to replace any decline in spring flow (i.e., the replacement water would need to be another source of cool spring water) to meet the mitigation obligation.

- Information regarding Phase A-2 and the potential need for any increased water use that may result in new, unmitigated impacts to the quality and quantity of fish and wildlife habitat. Increased use was not considered in the 2008 Addendum and associated Findings of Fact and, therefore, may necessitate the need for additional mitigation. ODFW would like to see documentation that no additional water use is expected, and no additional water rights will be sought, or a new mitigation plan to address any planned increase in water use.

As in ODFW's November 20, 2015, letter, we request that the following conditions be met:

- The Resort must provide replacement mitigation water as required in their water right permit if OWRD finds that the Deep Canyon Creek spring flows are diminishing.
- The required replacement mitigation water for the Deep Canyon Creek diminished spring water is consistent with condition #38 in the FMP and previous intent of the Mitigation Plan to supply cold spring-fed water to the Deschutes River (i.e., secure another source of cool spring water).
- Appropriate wildlife mitigation projects are completed on BLM lands.
- A determination from the County as to whether the required mitigation in Whychus Creek has been met. In condition 38, the hearings officer concluded that the additional mitigation offered through the Three Sisters Irrigation District restoration program is necessary to assure that water temperatures in Whychus Creek are not affected by the proposed development.

The Mitigation Plan for the Resort outlines that mitigation must be in place *prior to the use of water*, generally for each phase of the development. Regardless of the water right(s) utilized for quasi-municipal uses in the end, the use must be mitigated per the intent of the agreement, and the mitigation must result in no net loss or net degradation of fish and wildlife habitat quantity and quality and provide a net benefit to the resource. If there are additional water right applications or mitigation is found to no longer be available, OWRD and the County should reassess mitigation needs to ensure Phase A-1 and Phase A-2 development (and future proposed phases) results in no net loss or net degradation of fish and wildlife habitat quantity and quality and provide a net benefit to the resource. ODFW would need a better understanding of the proposed uses and associated mitigation in order to assess whether they align with the agreed-upon mitigation or if additional mitigation is needed. Until such time as we can meet to discuss and resolve these concerns, ODFW requests the record be left open. We look forward to discussing these concerns with you soon.

Sincerely,

Letter to WRD and Deschutes County

January 3, 2022

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A handwritten signature in cursive script that reads "Chandra Ferrari".

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