

**Responses to written questions received by the District regarding the Deschutes Basin HCP
February 11, 2022**

1. Why does the frog need extra water all winter? Isn't it hibernating under the snow?

***Response:** Spotted frogs live in water year-round. During the winter they spend most of their time in soft mud and decomposing vegetation at the bottoms of wetlands, ponds and slow-moving streams. Many of the wetlands along the Deschutes River become dry and uninhabitable by frogs during the winter when the flow is reduced for irrigation storage. This is believed to be a major limitation to the spotted frog population in the basin. Under the HCP, the winter flow downstream of Wickiup Dam will be increased to support wetlands for overwintering frogs. The increase will be modest (to 100 cubic feet per second) in the early years to help ensure there is still adequate storage to support both irrigation and frog habitat during the summer.*

2. In a dry year like last year, would it be better for the frog to release less water in the winter so it can have more in the summer?

***Response:** It is true that frogs, like irrigators, rely on summer flows out of Wickiup Reservoir. Dry years like we have been experiencing present a challenge for biologists managing the frog habitat because the release of water in the winter reduces the amount of water available to support habitat in the summer. However, the current winter flow of 100 cfs represents a modest increase from the historical low of 20 cfs and the impact to storage for summer is relatively small, particularly when compared to the benefits it will provide for overwintering frogs. The increase from 20 cfs to 100 cfs through the winter is expected to provide a considerable increase in the wetted area within the river channel for several miles downstream of Wickiup Dam. This will benefit Oregon spotted frogs and fish alike.*

3. Is there a way, with the HCP, if it is a wet spring, to release less water in April so we can build up the reservoir (since no one will be needing the water until later in the year).

***Response:** April is a key period in the life cycle of the Oregon spotted frog because it is the time of breeding. Spotted frog eggs and tadpoles are more sensitive to water depth than any other life stage. The adults breed in the wetlands that are dry much of the winter due to flow reductions, and the spring release of water from Wickiup Reservoir is key to successful breeding. However, the timing of breeding is at least partially dependent on weather conditions in the spring, and frogs have been known to delay breeding in cold springs. For this reason, the HCP includes provisions for monitoring breeding activity in late March and early April, and delaying the ramp-up in flow until it is necessary. This provision was specifically included in the HCP to conserve Wickiup Reservoir storage until it is needed downstream for frogs. In both of the past two springs (2020 and 2021), Oregon spotted frog breeding was delayed in the Upper Deschutes by cold weather, and NUID was therefore able to delay the ramp-up. However, in both years NUID also found it necessary to begin ramp-up to meet irrigation demand by mid-April.*

4. Bottom line is, can the HCP be adjusted as needed depending on the weather conditions?

Response: Yes, as noted above the HCP includes provisions for modifying Deschutes River flows in response to weather conditions. There are limits to the degree of modification that can occur, however, in order to avoid serious harm to the spotted frog population. This balancing of certainty for both frogs and irrigators was a key aspect of HCP development over the past 12 years. It consumed more of the team's time than any other part of the HCP. Irrigators and frogs alike are being heavily impacted by the unprecedented drought we are experiencing, and both are currently dealing with extremely low water conditions. Simply put, there really isn't much water available right now to move from the frog side of the equation to the irrigation side. Relatively small increases in storage that could be provided by reducing winter flows would have disproportionately large impact to spotted frogs. The HCP helps to ensure that doesn't happen.

5. Who did the negotiations for the incremental increases in water for the frog? Why did the HCP support such a drastic increase in water release instead of increasing by smaller increments? Please cite scientific resources that determined what levels would be the optimum levels for survival and increasing the population of the frog. (Search of the references used didn't answer this question.)

Response: All negotiations on behalf of NUID were led by the District Manager at the direction of the Board, with assistance from project legal staff and biologists.

The current increases in winter flow for Oregon spotted frogs required by the HCP are not drastic. In fact, they represent only a fraction of the natural winter flow that would be present in the absence of Wickiup Reservoir.

Two studies cited in the Chapter 8 of the HCP (River Design Group 2017 and USFWS 2017) led US Fish and Wildlife Service (USFWS) to propose considerably higher winter flows for Oregon spotted frogs in the upper Deschutes River. The winter flow requirements of the HCP start out less than the original USFWS proposal; however, because it was determined that: a) physical habitat improvements in the river are needed to protect summer habitat conditions as summer flows decrease in response to winter flow increases, and b) NUID needs time to replace the reduction in storage (through acquisition of summer live flow) that will result from higher winter flows. The habitat improvements will be done under the direction of USFWS and supported by the Upper Deschutes Habitat Conservation Fund. The acquisition of summer live flow will occur through cooperative piping projects between NUID and COID, and others.

6. What has actively been done in conjunction with increasing irrigation flow to remove predators i.e., the bullfrog, and improve other factors for frog survival? [Questioner then quotes passage from pages 8-9 of US Fish and Wildlife Service Incidental Take Permit regarding use of Upper Deschutes Conservation Fund to implement "(1) predator control

projects (e.g., bullfrog removal), thus further reducing mortality to OSF; and (2) removal of encroaching invasive plants to open up and expand suitable habitats for OSF.”] Has this been done?

Response: Use of the Upper Deschutes Habitat Conservation Fund is being directed by USFWS, which will determine the best use of funds to improve conditions for Oregon spotted frogs. All of the items described in the Incidental Take Permit will be considered. The HCP Permittees made their first contribution to the fund in mid-2021, and the first funded project (bullfrog eradication) began shortly thereafter.

7. What rationale was used to finalize the HCP knowing that North Unit Irrigation District would be the hardest hit economically and could be at risk of having to switch to dryland farming? It is stated several times in the HCP summary that North Unit will potentially suffer the greatest agricultural losses vs. the other districts involved in the HCP.

Response: Simply put, NUID will incur proportionally higher costs than many of the other Permittees because NUID has by far the greatest impact on Oregon spotted frogs. The annual storage and release of water from Wickiup Reservoir for NUID has a profound impact on winter flow in the Deschutes River. This, in turn, has a profound impact on Oregon spotted frog habitat from Wickiup Dam to Bend, a distance of over 50 miles. Fortunately, the Endangered Species Act has specific provisions for limiting the economic impact of HCP measures to the Permittee. Had these provisions not existed, the costs of mitigation to NUID would likely be much higher than they currently are.

Also note that NUID’s current shortage of water is primarily due to the ongoing drought. The presence of the HCP reduces Wickiup Reservoir storage compared to pre-HCP conditions, but the incremental reduction in water currently caused by the HCP is small compared to the effects of the drought. Wickiup Reservoir has a storage capacity of 200,000 acre-feet. The current HCP winter flow requirement of 100 cfs below Wickiup Dam allows roughly 29,000 acre-feet of water to pass that could otherwise be stored, but this only reduces total winter storage in years when there is not enough natural inflow. The 100-cfs winter flow began in the fall of 2016, yet the reservoir reached 174,000 acre-feet in the spring of 2017 and it completely filled to 200,000 acre-feet in 2018. Winter storage has declined since then due to multiple years of unprecedented drought.

NUID is also experiencing greater shortages of water than other districts because its water rights are junior to the other districts. The same state law that protects NUID’s water right from appropriation for instream flow also makes NUID junior to the districts with more-senior rights. This situation has existed since 1913; it is simply more apparent this year due to the drought.

8. What was the reason that the HCP rough draft wasn’t given to the patrons to read before this was signed and the patrons were committed to this thirty year plan?

Response: The draft HCP was made available to the general public (including all NUID patrons) for review and comment during the environmental review process in 2019. Several NUID patrons commented on the draft. In addition, the HCP has been a regular topic of discussion at NUID's Board meetings, where the HCP was discussed routinely during the 12 years it took to develop the HCP. Development of the HCP was also covered frequently by The Madras Pioneer and The Bend Bulletin, and was discussed during the Jefferson County Farm Fair and meetings of the Jefferson County Farm Bureau, Kiwanis, Rotary, and others for many years.

9. How much have we paid these attorneys up to this date for their services?

Response: Since the inception of the effort to complete the HCP, the District has paid on average approximately \$45,000 per year for legal services associated with the HCP. Per agreement with other districts making up the Deschutes Basin Board of Control (DBBC), the District's share of legal fees for a particular task is split depending on whether the task involves the upper Deschutes River, Crooked River, the HCP generally, etc. In addition, a portion of the District's legal fees for the HCP have been covered by non-District funding sources (e.g., grants, etc.).

10. Who was the person who physically signed the HCP contract?

Response: Each permittee, including the Board for North Unit, adopted a resolution approving submittal of the HCP to USFWS and National Marine Fisheries Service (NMFS). The application for the incidental take permit was signed by the Chair of the DBBC.

11. Who hired the lawyer to review the HCP and what was their background in environmental law?

Response: The DBBC retained David Filippi, a partner with Stoel Rives LLP, to provide legal advice related to development of the HCP. His background and credentials are here: <https://www.stoel.com/people/david-e-filippi>

12. Who hired the biologist? Did we research that person before hiring them?

Response: The DBBC retained Marty Vaughn with Biota Pacific Environmental Sciences to provide biological services and advice related to the development of the HCP. The DBBC went through an Request for Proposals (RFP) process as required by State of Oregon public contracting law at the beginning of the HCP development process before selecting Biota Pacific.

13. What board members actually read the whole HCP contract?

Response: The North Unit Board reviewed the draft HCP and the many iterations of the sections of the HCP involving North Unit operations prior to the HCP being finalized. The Board discussed the HCP as it was being developed on numerous occasions.

14. Did anyone do the math on the HCP Contract?

Response: The DBBC, its member districts, biologists and counsel were all closely involved in development of the HCP, and were all well aware of the commitments included in the HCP. In addition, the Bureau of Reclamation developed a detailed RiverWare model to help forecast the potential effects of the commitments on irrigation supply and river flow during the term of the HCP.

15. Did we actually have to sign it or were we bullied and scared into it?

Response: The decision to develop an HCP and apply for incidental take permits from USFWS and NMFS was voluntary. In part, the DBBC and its member districts chose this path for complying with the Endangered Species Act, as it was preferable to leaving compliance with the ESA up to the Bureau of Reclamation under section 7 of the Act.

16. Are we going to hire a biologist to prove some accurate science on the frog and if there is a chance to possibly get it off the endangered species list?

Response: At this time, the DBBC and North Unit are focused on implementing the HCP and adhering to the terms and conditions contained in the incidental take permit. At this time, there are no plans by the DBBC or North Unit to hire a biologist for purposes of HCP review or seek to have the Oregon spotted frog delisted.

17. Why did we sign a contract if we did not thoroughly understand the impact and have the science facts to support what the environmentalist told us?

Response: The DBBC and North Unit fully understood the impact the conservation measures contained in the HCP could have on irrigation operations when they approved the final HCP. As discussed above, the shortages experienced by the District in 2021 were primarily due to the drought.