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Filed via email: arnold.id.comments@gmail.com

Arnold Irrigation District
c/o Farmers Conservation Alliance
AID Watershed Plan
102 State St
Hood River, OR 97031

Re: Comments on the Draft Environmental Assessment for the Arnold Irrigation District Irrigation Modernization Project

To Whom It Concerns:

Thank you for the opportunity to comment on the Draft Environmental Assessment (“EA”) for the Arnold Oregon Irrigation District Irrigation Modernization Project (“Project”). Central Oregon LandWatch (“LandWatch”) is a conservation organization which has advocated for preservation of natural resources in Central Oregon for over 30 years. With over 400 members in Central Oregon, LandWatch has worked on water resource issues in the Deschutes River Basin and in gaining special protection for Whychus Creek and the Metolius River and spring systems. LandWatch has lately been particularly concerned about flows in the Upper Deschutes River, the impacts of the management of the irrigation diversions from the River, and maintenance of flows in the River’s key tributaries. We continue to be interested in supporting an efficient irrigation-based farming community throughout Central Oregon.

This EA for Arnold Irrigation District’s (“AID” or the “District”) proposal to spend \$43mil of public money to pipe 13.2 miles of canals, benefitting only 149 patrons at a cost of over \$220,000 per patron, falls short of meeting the requirements that NRCS projects receiving public funding benefit the public. 7 CFR § 650.4, 622.2(c). This is especially true considering that the District historically diverts only 92 cfs of water, the Project proposes to conserve 32 cfs of water, yet proposes to reduce the District’s diversion to only 88 cfs. For \$43mil the EA proposes to reduce AID’s actual diversion by only 4 cfs. This result is entirely inadequate and irresponsible considering the dire needs in the Deschutes River basin for water conservation.



1. Purpose and need of Project

The EA states the purpose of this project is to improve water conservation in District-owned infrastructure, improve water delivery reliability to District patrons, and improve public safety on up to approximately 13.2 miles of District-owned canals and flume. EA at page 9. Public Law 83-566 authorizes federal assistance for only Projects that fit at least one of eight listed purposes: Flood Prevention, Watershed Protection, Public Recreation, Public Fish and Wildlife, Agricultural Water Management, Municipal and Industrial Water Supply, Water Quality Management, and Watershed Structure Rehabilitation. National Watershed Program Manual Title 390, Part 500, Section 500.3(B). The EA proposes only Agricultural Water Management as its purpose.

This stated purpose is overly narrow in scope when the purpose and need for water conservation extend well beyond district owned infrastructure. The overarching purpose of water conservation in the Deschutes River basin is to improve streamflows and aquatic habitat for fish and wildlife. We encourage the District to include Public Fish and Wildlife as a purpose of the Project. Improved streamflows for the benefit of fish and wildlife are widely understood to be the primary motivating factor for water conservation Projects in Central Oregon. Our state's congressional delegation agrees.¹ Senator Merkley, in his position on the Senate Appropriations Committee, found a funding mechanism that would help irrigation districts in Central Oregon upgrade their infrastructure and improve their water management practices in order to handle the new needs for water in the basin for listed species under the ESA. The purposes and needs should be listed in rank order of priority and weighted in the subsequent analysis of alternatives. Eliminating water loss and increasing instream flows for the benefit of fish and wildlife should be the primary purpose and need of this EA.

2. Project Scope.

a. Selection of Project area.

The EA proposes one small 13.2 mile section of canals to spend a proposed \$42 million. Aside from the proposed alternative (canal piping) being a relatively inefficient method of conserving water (discussed further below), the EA lacks any sort of analysis that explains why improving these 13.2 miles of canal best serve the Project purpose and need. Were other sections of district-owned canal examined? What makes the proposed section of canals the best option for accomplishing the Project purpose and need? How much water could be conserved, and how many patrons could have their deliveries improved, on other sections of District-owned canals or on patron-owned canals?

b. Cost/benefit assessment.

¹ <https://www.merkley.senate.gov/news/press-releases/merkley-wyden-announce-investments-in-rural-oregon-as-key-bill-passes-full-senate>



The Project cost/benefit assessment (pg xiii) is based largely on spurious claims that the project will reduce NUID agricultural damage by \$1,489,000 per year. Despite its claim to the contrary, the project does not provide a new water source for NUID. The water that is conserved through canal piping will be left instream for NUID, but since AID's diversion will not be reduced much below its actual historical diversion, there will be a negligible amount new water instream. NUID will only have access to water that has always been instream and traditionally been available to them. AID can generate better water availability for NUID only to the extent that the district reduces its diversion below its historic diversion.

The primary beneficiaries of this project are 149 district patrons. To pipe a mere 13.2 miles of canals in AID, the Project proposes to spend \$42 million, a direct public subsidy of \$282,000 per patron. Also, the project proposes to conserve 10,526 acre-feet of water each year at the unrealistically high price of \$4,062 per acre foot of water conserved.

On these numbers, the Project proposes significant financial costs but delivers benefits only to 149 private water patrons and, critically, only *de minimis* benefits to fish or NUID water supplies. Without actually reducing AID's historic diversion and leaving that water instream for fish and/or NUID, the Project does not benefit the public and is not worth its exorbitant costs.

3. Alternatives

The EA fails to consider a reasonable range of alternatives, violating NEPA as well as the NRCS Watershed Program Manual, Water Resources Development Act of 2007, the Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies and Federal Water Resource Investments ("PR&G"). The final EA should consider an alternative that meets the Project purpose and need for less cost to the public, using nonstructural measures, and providing greater public benefit, as proposed below.

a. Unreasonable range of alternatives

The EA only considers two alternatives: the no action alternative and the preferred alternative. National Watershed Program Manual Title 390, Part 500, Section 501.12(A)(1) requires that "[a]ll reasonable alternatives that address the purpose and need for action must be presented in the watershed Project plan, including those not within the program authorities of the NRCS and those not preferred by sponsors." The EA only considers the alternative preferred by the sponsor.

The EA further only considers a structural alternative and fails to seriously consider nonstructural alternatives that could achieve the Project purpose and need with greater efficiency and at less cost to the public. NRCS has a legal duty to consider nonstructural alternatives. 7 CFR § 622.2(b).



Further, the Project must comply with the Water Resources Development Act of 2007 and the principles and guidelines that the Act requires be used in the formulation, evaluation, and implementation of water resources projects. EA at page 9; Water Resources Development Act of 2007 at Section 2031(b)(2)-(3). The PR&G require that nonstructural alternatives must be fully considered and carried forward to the final array of alternatives, and that project evaluation ensures that water resources projects are justified by public benefits. PR&G at page 12.

Examples of nonstructural alternatives include modifications to public policy, regulatory policy and pricing policy, as well as management practices, including green infrastructure. PR&G at page 11.

The PR&G also requires that alternatives must also be evaluated to ensure public benefits and that any recommendation for federal investment “must be justified by the public benefits when compared to costs.” PR&G at 6, 13.

The EA’s limited consideration of alternatives assumes that piping 13.2 miles of District canals is the only reasonable method for achieving the Project’s purpose and need. Several other alternatives, including nonstructural alternatives like regulatory or pricing policy, would achieve that Project’s goal, and would do so more efficiently, conserving more water and providing greater irrigation water reliability for less cost to the public. A basic requirement of NEPA is that a project such as this considers a reasonable range of alternatives.

The results from the recently completed Deschutes Basin Study show that the most cost-effective way for irrigation districts to conserve water is through on-farm efficiencies, piping of private laterals, voluntary duty reductions, and market-based water leasing and transfers. See Exhibits B-E (Selected Basin Study Work Group technical reports).

The reasons given by the EA for excluding from consideration these types of alternatives are inadequate. The EA must give a rationale for eliminating alternatives from detailed study (“For alternatives that were eliminated from detailed study, the rationale for this elimination will be provided.”) National Watershed Program Manual Title 390, Part 500, Section 501.12(A)(2).

The alternative to pipe private laterals would conserve water and greatly improve deliveries to patrons. If the purpose and needs of the Project had been ranked and weighted properly, conserving water lost in the system and improving flows for ESA-listed species should have dominated the priorities. When factoring in cost, piping private laterals would generate far more water at a much lower cost.

ORS 545.287 specifically allows an irrigation district to upgrade private laterals:

“When improvements for the distribution or delivery of water to any tract of land are not owned by the district and the owner or person in control of the improvement fails to maintain, repair or replace the improvement as required for the proper and efficient distribution or delivery of water to any tract.



...

When the interest or convenience of such tracts requires the construction, repair or maintenance of any ditch, flume, dike, aqueduct or other improvement, the board may construct, repair or maintain the improvement.”

A Project that proposes benefiting private patrons by improving water deliveries should not exclude alternatives that would conserve water through upgrades to private patrons’ infrastructure.

b. Recommended project alternative

To remedy the EA’s failure to analyze a reasonable range of alternatives, including its failure to consider nonstructural alternatives, we recommend the final EA/EIS consider a project alternative that uses nonstructural market incentives combined smaller investment in structural measures. Full consideration of this approach is called for in the PR&G:

“A nonstructural measure or measures may in some cases offer a more effective alternative to a traditional structural measure. In other cases, nonstructural measures may be combined with fewer or smaller traditional structural measures to produce a complete alternative plan. Full consideration and reporting on nonstructural alternative actions or plans should be an integral part in the evaluation of Federal investments in water resources.” (PR&G at page 11)

The purpose and need of the Project are to maximize water conservation in AID for the benefit of both public fish and wildlife and junior water rights holders in NUID whose patrons produce far more agricultural products than AID patrons. These purposes and needs can be best accomplished by an alternative primarily based around nonstructural regulatory and pricing policy. This would take the form of a water bank, wherein money is used to incentivize AID patrons to temporarily lease their water to instream uses and/or to NUID.

This nonstructural project expenditure would be accompanied by funding on-farm efficiency upgrades for those patrons who continue using their water, piping and other structural conservation work on smaller private laterals, and, if funding is available, some repair and lining of AID’s main canal system.

As discussed above, the results of the multi-year, multi-stakeholder Deschutes River Basin Study Work Group show that this approach is the most cost-effective means of improving water conservation and improving water delivery reliability in the DBBC districts.

4. Environmental baseline

As discussed in greater detail below, the Project fails to establish an accurate environmental baseline condition concerning the amount of water that AID currently diverts from the Deschutes River. Provision of accurate baseline environmental information is a basic prerequisite for



determining the environmental effects of a federal action. *See Oregon Nat. Desert Ass'n v. Jewell*, 840 F.3d 562, 568 (9th Cir. 2016). The EA fails to present accurate baseline information about AID's actual, historic water use, and instead uses an unsubstantiated, arbitrary figure. EA at page 66. Accurate baseline information is necessary for determining the environmental effects of the Project. Water conserved from the project can only be analyzed for its environmental effects if it is compared to accurate baseline information about existing water use by the District. This EA fails to disclose that information, resulting in a faulty analysis that violates NEPA.

5. Protection of instream water

The EA, at page 66, describes how AID plans to conserve water, make this water available to NUID, and how NUID will protect an equal volume instream:

“AID's water right currently allows it to divert up to 150 cfs, and this rate exceeds AID's historical diversion rates. To reduce effects on junior water right holders, AID would voluntarily reduce this maximum rate and identify 120 cfs as the District's pre-project diversion rate for the purposes of any water rights administrative processes.

Following construction of each phase, AID would reduce its diversion by the amount of water saved (up to 10,526 acre-feet per year). AID would bypass this water in the Deschutes River for diversion by NUID. Due to seepage losses in the Deschutes River between AID and NUID's diversions, there would be 10,123 acre-feet of water available for NUID to divert annually. This additional water would assist NUID in fulfilling its patrons' existing water rights throughout the irrigation season. No effect would occur to AID patrons' certificated rate and duty. This alternative would reduce NUID patron's dependence on water stored in Wickiup Reservoir to fulfill their water rights. Following the completion of each phase, AID would work with OWRD and its partners to verify and measure all water savings prior to creating any instream water leases.

Based on AID's historical practices, AID only diverts the water that patrons need. Following project implementation, the District's conveyance system would be more efficient and they would decrease their diversion rate proportionally to the amount of water being saved; therefore, any water that the District does not divert would remain in the Deschutes River and would be available for junior water right holders, including the Deschutes River itself.

Protecting Water Released by NUID to the Deschutes River

Following the completion of each phase, NUID would legally protect the water released from Wickiup Reservoir through an instream lease under Oregon water law (ORS 537.348 [2] and OAR 690-077). The water leased instream would retain the same priority date as the originating water right (Certificate 51229). The instream lease would protect water in the Deschutes River downstream from Wickiup Reservoir during the non-irrigation season (i.e., in the late fall, winter, and early spring). Once an instream lease was approved by OWRD,



the leased portion of NUID's water right would be unavailable for use by NUID or its patrons.

Oregon statute allows for NUID's storage water rights to be permanently transferred instream (ORS 537.348). However, OARs need further clarity to allow these storage water rights to be permanently transferred instream. An agreement would be established specifying that these instream leases would be renewed in perpetuity or until the State of Oregon provided the clarity needed for a permanent change.

Water released by NUID during the non-irrigation season would be in addition to the HCP minimum winter flow target of 100 cfs in the Deschutes River downstream from Wickiup Reservoir. This additional flow would be beneficial to the Deschutes River until Year 8 of the HCP (January 2028) when the minimum winter flow target is increased to 300 cfs."

The EA proposes a new disposition of water that violates basic tenets of Oregon water law and court decrees in a couple of ways.

First, the Project fails to recognize that water conserved through prevention of seepage losses must be left instream under long-standing caselaw. The project proposes to conserve water at a rate of 32 cfs through the irrigation season, but as described in the EA, there is no assurance that the saved water will be left instream. The EA says that as AID becomes more efficient, their demand would decrease and "any water that the district does not divert would remain in the river." It does not say, on the other hand, that all the seepage losses recovered by the project must be left instream. The canal's seepage losses are not owned by the district and are not part of AID's certificated water rights. A series of circuit court decisions in the 1920s and 30s (known as the Duffey decrees) authorized irrigation districts in Central Oregon to divert more water from the river than is contained in their water rights so that water deliveries to patrons could be assured. By piping the canal, AID loses the right to divert this water and must leave it instream.

Second, the Project fails to propose a transfer of actual "wet" water rights to instream and/or to NUID, and instead only proposes to transfer dry "paper" water rights that AID has not historically diverted and are already instream. Leaving water conserved by the Project instream does not generate the alternative water source for NUID claimed in the EA. The EA claims it will generate 10,123 acre-feet of new water for NUID by piping 13.2 miles of AID's canals. The project can only generate an additional water source for NUID, however, if AID reduces its diversion below its real historical diversion rate. Over the last ten years, the average of AID's mean daily diversion rate was 92 cfs during peak summer months, June 15 – September 15 (Oregon Water Resources Department Near Real-Time diversion gauge data 2011-2020). Exhibit A.² AID proposes to reduce its maximum diversion rate of 150 cfs to 120 cfs to establish a pre-project diversion rate for water

² Exhibit A is daily median diversion data for OWRD gauge 14065500 downloaded from OWRD's website. The 92 cfs daily average diversion rate was calculated by taking the average of daily median flows for each year 2011-2020. Then, all ten years' average flows were averaged, yielding a daily average diversion rate for the 10-year period of 92 cfs.



rights administration purposes. This voluntary reduction, however, is not sufficient to generate new water supply for NUID because such a large portion of AID's water right is a "paper right," a water right on paper but not actually diverted. The project will conserve 32 cfs. Subtracting this amount from AID's diversion rate of 120 cfs yields 88 cfs. Compared to AID's actual average of mean daily diversion rates over the past 10 years of 92 cfs, the water potentially available to NUID under this project is only approximately 4 cfs. The remaining 28 cfs has not been diverted by AID historically, and thus, has traditionally been instream and available to NUID already. To generate the full 10,123 acre-foot benefit for NUID, AID would have to reduce its post-project diversion below its actual historical diversion rate of 92 cfs by 32 cfs, which calculates to be 60 cfs.

The EA is vague on how exactly AID will reduce its certificated water rights. This sentence in particular appears to indicate that AID will forfeit 30 cfs of its water rights before any conserved water transfer is pursued: To reduce effects on junior water right holders, AID would voluntarily reduce this maximum rate and identify 120 cfs as the District's pre-project diversion rate for the purposes of any water rights administrative processes." EA at page 66. A careful reading of the EA however indicates that it is silent on what is intended by this language. To "identify" a pre-project diversion rate is not the same as formally canceling through OWRD administrative processes a portion of AID's water right that it has not historically put to beneficial use. LandWatch is concerned that with construction of a new flume and main canal as proposed in this Project, AID could **increase** their diversion from the historic actual average diversion of 92 cfs. The final EA/EIS must clarify this point.

As LandWatch pointed out in our scoping comments, any portion of AID's certificated water rights that it has not historically used is already forfeit and cannot be now relied on as a baseline "pre-project diversion rate." We fully incorporate by reference LandWatch's scoping comments dated May 15, 2019 into these comments on the draft EA. The EA should use the District's actual historical average diversion rate of 92 cfs as its baseline from which water conserved through this Project is subtracted for the purposes of any water rights administrative process.

The fact that so little new water (4 cfs) will be available to NUID under this project casts significant doubt about NUID's ability to release water below Wickiup Dam in the non-irrigation season. In the Piping Alternative analysis on page 50 of the EA, the project is justified as meeting its purpose and need as follows, among others:

"Enhance streamflow and habitat conditions for fish and aquatic species: Following the completion of the project and verification and measurement of the total water savings, AID would pass up to 10,526 acre-feet/year to NUID through the Deschutes River during the irrigation season. In return, NUID would release an equal volume of water minus losses in the Deschutes River between the AID and NUID diversions, up to 10,123 acre-feet/year, from Wickiup Reservoir into the Deschutes River during the non-irrigation season (see Section 6.8). Streamflow and habitat conditions along the Deschutes River would benefit from this protected water."



As proposed the project cannot meet this significant purpose and need. It would generate practically no improvement to habitat conditions for fish and aquatic species anywhere in the Deschutes River. The project would offer no protection of streamflow in the Upper Deschutes below Wickiup, nor would it protect streamflow in the middle reach of the river. We recommend that the project be revised to generate real, demonstrable benefits for the Deschutes River

As it now stands, \$42 million of public funds are proposed to implement a project that direct benefits to only 142 private landowners and provides no real public benefit. Water conserved through the project must be subtracted from AID's actual average historic use of 92 cfs. Otherwise, the project proposes to transfer paper water rights that are already instream, and it achieves virtually no benefit for fish, wildlife, or NUID.

6. Failure to Take a Hard Look; EIS required

NCRS has no basis by which to conclude that this project will not have a significant effect on the human environment. Due to the focus on "paper" water rights rather than actual diversion rates, the agency's analysis of the environmental effects is inadequate and fails to take a hard look at the environmental effects of the project. The project is also highly controversial by stating that its intents are to restore instream flows to the Deschutes River and provide agricultural water supply to the North Unit Irrigation District, yet it fails to propose a transfer of actual "wet" water rights and instead only transfer dry "paper" water rights. To adequately and accurately disclose the environmental and other effects of the project, the agency either should prepare a revised draft EA that provides a full and fair accounting of the project's impacts, or a formal EIS for this project.

Thank you for your consideration of these comments. Please keep us updated as to all future Project matters, and inform us of any further opportunities for comment and appeal at rory@colw.org.

Sincerely,

/s/ Rory Isbell

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Attachments:

- Exhibit A OWRD data for gauge 14065500, 2011-2020
- Exhibit B Multi-Criteria Evaluation of Alternatives and Scenarios
- Exhibit C Market-Based Approaches as a Water Supply Alternative
- Exhibit D Water Conservation Assessment
- Exhibit E Water Right, Legal and Policy Opportunities and Impediments Associated with Options for Water Movement

