

Appendix A

Comments from Original EA



IN REPLY REFER TO:
PN-6518
ENV-6.00

United States Department of the Interior

BUREAU OF RECLAMATION
Lower Columbia Area Office
1503 NE 78th Street, Suite 15
Vancouver, Washington 98665-9667

JAN 11 1996

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Subject: Public Comment Sought on Draft Environmental Assessment for Proposed Water Service Contract for the Palmer Creek Water District Improvement Company, Willamette River Basin Project, Oregon

Ladies and Gentlemen:

The Bureau of Reclamation is proposing to enter into a water service contract with Palmer Creek Water District Improvement Company for 12,937 acre-feet of irrigation water to be delivered from the Willamette Basin Reservoir System. The contracted water would be used to provide a primary water supply to 228 acres of irrigable lands and a supplemental water supply to 4,947 acres of land.

Lands proposed to receive water under the water service contract would receive water through an existing distribution system. The water supply would come from water diverted from the Willamette River where it is pumped to a canal which conveys it to Palmer Creek. Palmer Creek flows north for 15 miles to the city of Dayton, Oregon.

There are 11 reservoirs on the Willamette Basin Project which store water for irrigation. The proposed action is authorized under provisions of the Reclamation Act of June 17, 1902 (32 Stat. 388), Section 8 of the Flood Control Act of December 22, 1944 (58 Stat. 887, 891), and acts amendatory. Although the proposed action is statutorily authorized, Reclamation must first analyze the environmental impacts of the proposed action in compliance with the National Environmental Policy Act (NEPA) before a water service contract can be considered. The enclosed draft environmental assessment (EA) describes the proposed water service contract and provides an analysis of the potential environmental effects of the project.

We would appreciate your assistance in reviewing the draft EA and identifying any resource issues and potential environmental effects that could result from issuance of the proposed water service contract. Additional information or suggestions on alternative actions to the project are also solicited and will be considered prior to our final decision.

Your written comments should be submitted to the above address, Attention: PN-6518, by February 13, 1995. If you have questions, please contact Ms. Jill Lawrence at (208) 378-5035. Thank you for your assistance.

Sincerely,

A handwritten signature in cursive script, appearing to read "Eric Glover".

Eric Glover
Acting Area Manager
Lower Columbia Area Office

Enclosure



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

811 SW Sixth Avenue

Portland, OR 97204-1390

(503) 229-5696

TDD (503) 229-6993

December 24, 1998

Mr. Eric Glover
Area Manager
Lower Columbia Area Office
825 N. E. Multnomah Street, Suite 1110
Portland, OR 97232-2135

Re: Draft Environmental Assessment for the Proposed Palmer Creek Water Service Contract

Dear Mr. Glover:

DEQ reviewed your draft environmental assessment, dated January 1996, for the proposed water service contract for Palmer Creek Water District (PCWD). Our comments were provided in my letter to you of February 12, 1996. Since then, I understand that PCWD has revised the draft environmental assessment to clarify the amount of new flow proposed for the contract.

Mr. Richard Craven contacted me on November 25, 1998, to discuss the proposed project, our comments on the draft, and to clarify the nature of, and amount of flows that will be requested from storage. It is my understanding that the environmental assessment has been revised to clarify the contract request and that you wish to prepare a Finding of No Significant Impact at this time.

Based on clarifications received at the meeting with Mr. Craven, I understand the project as follows:

The PCWD presently has water rights for natural flows from the Willamette River and contracts with the Bureau of Reclamation for stored flows. Table I from the environmental assessment has been revised to document these water rights.

The PCWD desires to purchase additional water by contract with the Bureau of Reclamation for the purpose of assuring the availability of water to the PCWD during periods when natural flows already under permit may not be available. The permit application numbers and amount of water proposed for purchase are shown in Table I.

DEQ-1

The environmental assessment addresses impacts from purchase of stored water in a Corps of Engineers reservoir where water is stored and allocated for this purpose.

Additional natural stream flows in the Willamette River would not be purchased, nor would they be diverted by the contract.

The contract for stored flows would be up to 64.68 cfs. Of the 64.68 cfs, only 2.5 cfs would be for a primary right; the remaining 62.18 cfs would be for supplemental rights.

The stored flows that would supply 2.5 cfs would be a primary right to irrigate 228.19 acres of land.

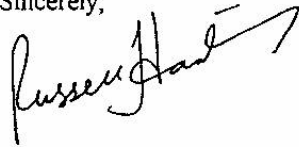
The stored flows that would supply up to 62.18 cfs would be a supplemental supply and would not be used in addition to present water rights unless present sources do not supply the presently permitted amounts. In other words, as the presently permitted natural and stored flows decrease, the new contract would allow additional flows to make-up the shortfall to provide irrigation water to land already presently irrigated.

The net change in present flows to the PCWD would be an additional 2.5 cfs for the primary right. The environmental assessment primarily addresses the additional 2.5 cfs. The net change in flow would not measurably adversely impact any water quality conditions.

The supplemental flow of up to 62.18 cfs would be used to offset natural flows that would not be available during dry water years or if more senior water rights had priority. The availability of contracted stored flows during dry water years to provide water in wetlands and riparian areas associated with the irrigation system would be beneficial to natural resources.

I believe that our concerns have been addressed in the clarification discussion and the revised draft environmental assessment. Based on the clarifications and my understanding, please regard this letter as DEQ's final comments on the project. We have no objections to the Bureau preparing a Finding of No Significant Impact for the project.

Sincerely,



Russell Harding, Manager,
Watershed-Basin Section
Water Quality Division

Table 1.--Present Water Rights for Natural, Contract, and Proposed Contract Flows

Source	Permit No.	Priority	Acres	Acre-Feet	Rate (cfs)
1.0 Natural flow from Palmer Creek <u>Willamette River</u>	32243	1967	3265.2	8163	40.82
	34436	1969	288.7	721.75	3.61
	36216	1971	53.6	134	0.67
	39385	1975	219.6	549	2.75
	41499	1977	103.3	258.25	1.29
	42316	1977	60	150	0.75
	43380	1978	234.2	585.5	2.92
	44954	1980	294.9	737.25	3.69
	47405	1981	262.39	655.98	16.87
	50945	1987	397.2	993	4.97
	A-70736	1990	439.6	1099	5.5
	A-71731	1991	100.45	251.1	1.26
Total			5719.14	14297.85	85.42
2.0 Existing Storage Contract with Reclamation for <u>Supplemental Water Supply</u>	43379	1977	591.2	591.2	7.39
3.0 <i>Proposed Contract with Reclamation</i>	<i>A-70109-10, 70736, 71731, 72555, 72668</i>				<i>2.5</i>
<i>Primary Supply</i>			<i>228.19</i>	<i>570.48</i>	<i>62.18</i>
<i>Supplemental</i>			<i>4946.45</i>	<i>12,366.13</i>	<i>64.68</i>
<i>TOTAL</i>			<i>5174.64</i>	<i>12,936.6</i>	



February 12, 1996

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

Eric Glover
Acting Area Manager
Lower Columbia Area Office
Bureau of Reclamation
1503 NE 78th Avenue, Suite 15
Vancouver, Washington 98665-9667

Re: Draft Environmental Assessment for
the Proposed Palmer Creek Water
Service Contract

Dear Mr Glover:

Thank you for the opportunity to review the Draft Environmental Assessment for the proposed Water Service Contract for the Palmer Creek Water District (PCWD). It is our understanding that the contract would be used to provide a primary water supply to 228 acres of irrigable lands and supplemental water to 4,947 acres. The proposal would divert an additional 12,936 AF of water as an "insurance policy".

Water is currently diverted (591 AF of stored water) from the Willamette River at river mile 73.5 and delivered through an existing 3 mile dirt canal distribution system to Palmer Creek. Palmer Creek flows north for 15 miles where it then flows into the Yamhill River at river mile 5 near Dayton.

Purpose and Need

The DEA states that irrigation water is scarce in the area due to limited surface water and groundwater resources. This statement is not substantiated with any data. The DEA states that due to the number of senior water rights in the area and the need to maintain minimum flows in the Willamette River it is possible that PCWD may be unable to use its existing water right for natural flows during water short years (every fifth year). This appears to be an estimate and is not supported with information. There is no data showing PCWDs irrigated acreage, historic water use, current or anticipated needs. No data is included showing that PCWD actually needs additional water much less 12,936.6 AF.

Other Related Actions and Activities

This section has several serious flaws and omits relevant actions in progress that would be critical to water appropriations of this size.



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To: Eric Glover	From: Barb Pritch
Co:	Co: BSA WA SIA
Dept: 2065768858	Phone #
Fax # 2065760121	Fax #

811 SW Sixth Avenue
Portland, OR 97204-139
(503) 229-5696
TDD (503) 229-6993
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Federal Clean Water Act

For example the Oregon Department of Environmental Quality (DEQ) under the Clean Water Act is responsible for listing Water Quality Limited Streams (WQL) and establishing Total Maximum Daily Loads (TMDL)

WQL is defined any waterbody that does meet federal water quality standards - even after the best available technology is applied to discharges. In other words, a WQL stream is over it's carrying capacity due to existing cumulative effects from both nonpoint source and point source pollution.

The DEA does not note that both the Willamette and Yamhill basins have existing water quality problems. Out of date water quality data is used. The draft 1996 303D list for Oregon is attached.

The Willamette River is Water Quality Limited (WQL) under the Federal Clean Water Act for dioxin. The Willamette in the vicinity of Dayton is also on the proposed WQL list (to be adopted in April 1996) for algae, fecal coliform, temperature, biological criteria (skeletal deformities in fish), and toxics (in tissue and the water column - 2,3,7,8-TCDD). The Yamhill basin is listed as Water Quality Limited under the Federal Clean Water Act for algae, fecal coliform, pH, phosphorus, and temperature.

EPA and DEQ are currently under a court order to identify and clean up WQL basins. Once a basin is declared WQL DEQ cannot allow additional permits or actions that would affect WQL streams exacerbating the known problems.

Minimal Stream Conversions in the Willamette Basin

The DEA fails to address or note the conversion of minimal stream flows in the Willamette Basin (mainstem and tributaries) which have not been converted to instream water rights, these pending instream water rights date from the 1960's. Unconverted minimum perennial stream flows exist on the mainstem above and below the proposed point of diversion. The minimum flows are critical to the health of the river - to provide dilution of the existing pollution load from point and nonpoint sources in the tributaries and mainstem. The proposed action would prejudice the conversions of minimum flows and exacerbate the existing water quality problems.

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Reauthorization Study

The Bureau of Reclamation is currently issuing contracts based on a 1969 study making allocations until the COE/WRD feasibility study of the Willamette Basin is done.

The DEA notes that in 1989 COE did a Reconnaissance Study of the Willamette Basin looking at alternative operational scenarios to provide increased flows for beneficial uses, earlier filling and later drawdown rates of reservoirs, changing drawdown priorities and associated storage changes. Please note that this resulted in COE, the State of Oregon and numerous Oregon municipalities cooperatively funding a full scale feasibility study. The feasibility study will determine if modifying the operation and storage allocations of the existing COE reservoirs in the Willamette Basin would better serve current and anticipated future water resource needs of all users.

Other Water Right Applications

There are also numerous existing outstanding water right applications pending with the Bureau which are not mentioned except briefly in another section. Irrigators and municipalities are seeking to reserve approximately 550,000 AF in the existing basins. The DEA fails to identify and address these additional contracts which are directly related to the proposed action.

The DEA proposal would limit options being reviewed under the Reauthorization study by committing 12, 936.6 AF of the conservation storage space. DEQ does not believe that the proposed contract or any other contracts should be issued until the Reauthorization study is done. This contract would in essence circumnavigate Bureau of Reclamation's stated goal of managing water for the benefit of the public, which includes all users, not just irrigators.

Alternatives Discussion:

Issuance of any contract at this time, in particular with PCW, would circumnavigate the intent and purpose of the Reauthorization study. At this time the Willamette Basin is the only basin left in the state that does not have minimum flow water rights (priority dates from 1960's) that have been converted by WRD for beneficial uses. It is very likely that to meet the minimum flows for beneficial uses stored water will need to be contracted by the state. Until the Feasibility study and Willamette conversions are done no additional water from the Willamette should be contracted due to water quality impacts.

The water quality impacts from allocation of this water to PCWD are not discussed in light of the lack of minimum flow

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conversions or the feasibility study. Removal of additional water will exacerbate the existing poor water quality of both the Willametta and the Yamhill Rivers.

The DEA states that no new diversions or irrigation ditches would be needed and no new land leveling activities because the canal would be capable of conveying the additional water. This is unlikely, higher flows would necessitate changes in diversions and the higher flows would increase erosion, requiring action (new 401 permits and DEQ water quality certifications).

PCWD notes that it would use the technical resources from OWRD and Reclamation to develop and implement a Water Conservation Plan and Schedule as a condition of the proposed contract. Yet under the "Conservation Alternative" this alternative is not actually evaluated or considered.

The DEA states that the PCWD is operating at an efficiency of only 50 to 70% yet no data is offered to validate this. Then the DEA notes that the operating efficiency as being within common industry practices. This is important since the PCWD is located in a WQL basin. What are common industry practices? Next the DEA states that the costs associated with conservation measures are expected to be prohibitive; this again is not documented. What is this based on? How much water could be saved if measures are taken? What would the effect be on water quality? What are the costs?

To address existing water quality concerns a lined canal would at least stop the existing contamination of local groundwater resources by surface water uses (page 2-2 notes that there is potential for interference with surface water). At a minimum conservation must be implemented by all water users as growth occurs in the Willamette Valley over the next decade. This is particularly important in those basins listed as WQL.

In short conservation options need to be fully developed and documented. By presenting only one contract option the DEA ignores the alternatives. An obvious alternative is a short term contract pending until the results of the Reauthorization study.

Affected Environment

The existing conditions "will provide the baseline from which effects of PCWD proposed action on the environment can be measured". Yet in most instances little actual baseline data is presented. The impacts are not evaluated in terms of effects to other users and proposed projects.

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Hydrology

No hydrology data is presented other than flow data for surface water being diverted. What about effects to groundwater? Increased flow for the diversion could alter erosion patterns on the main stem impacting other users. What about potential impacts on existing permittees with mixing zones? Increased bed sediment transportation? The DEA states no measurable effect would occur but this is not backed up with any real data (which is the purpose of the Feasibility study and modeling). Please detail the impacts to the Yamhill river which will have "significantly" lower return flows. Might this impact other beneficial uses and water rights holders? No mitigation measures are offered.

Water Quality

The existing conditions fail to note that the Willamette and Yamhill are WQL/TMDL streams. It is noted that return water has elevated nutrient and fecal coliform levels. Please document the differences in the quality of the existing return flow to the Yamhill River. DEQ data is cited from 1987, please use the available data from 1994 and draft 1996 303D list which is much more accurate and applicable to the existing baseline.

Under the Clean Water Act DEQ is required to identify streams that are water quality limited. Once identified as WQL local basin water users are required to develop Water quality management plans (see SB1010). Water quality management plans in Oregon for non point source pollution are to be developed by the Oregon Department of Agriculture in tangent with NRCS. What actions has the PCWD taken to reduce their existing contribution to the non point pollution in the Yamhill basin? No additional discharges are allowed for the parameters listed as long as the river is listed as WQL. All water users in the Yamhill basin are considered to be part of the problem in the basin.

The DEA does not provide DEQ with adequate data (ie. monitoring for listed problems) to prove that no impact will occur from additional discharges by the applicant. The report does not establish what the existing baseline (ie. nutrient delivery) is, therefore the effects are not known. While increased flows might help to dilute the water quality problems, continuing over use without conservation only adds to the problem. Until minimum flows for this subbasin are converted to instream water rights any additional loss of water from the mainstem or to the Yamhill will exacerbate the existing problems to other beneficial uses.

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Increased flow alone will not help with water temperature problems, rather it can best be lowered by replacing the riparian habitat buffer, fencing off livestock and planting trees.

The DEA states that it is possible that nutrient loads from return flows to Palmer Creek may increase and negatively impact the Yamhill. What would be the impact be to groundwater and surface water or other users? How would the PCWD mitigate this? PCWD offers to monitor the quality of Palmer Creek water near the confluence with the Yamhill to determine the increased nutrient loading. However, PCWD would be investigating pollution reduction only after impacting other users, leaving PWCD open to lawsuits. It is upon the applicant to first prove that they will have no impact to other users.

It is commendable that water quality would be address further in the water conservation plan, but this has yet to be developed and submitted to DEQ for review and approval. PCWD offers to maintain existing erosion control structures and to apply erosion control to future construction - this is already required as part of their existing permits and would be required for any new state permits. To prevent and control erosion associated with the canal it should be either lined or have a riparian buffer of 25 feet for erosion control. Wetlands could be replaced and enhanced to filter pollutants.

Currently by taking water from the Willamette into the Yamhill PCWD is risking the chance that dioxins and other toxics are being introduced into crops and groundwater (local drinking water) and polluting the Yamhill.

What about changes in types of crops? Wouldn't this change the types of chemicals used and farm practices? Why would the contract water only be used during drought years? Changes in water use might increase nutrient loads and further impair water quality this would be a significant impact that must be addressed. As the Willamette and Yamhill basins do not meet existing standards and it could be worse if the reservoirs do not release water to meet minimum flows.

Flooding and Wetlands

The existing reservoirs are noted to support extensive wetlands. Wetlands are valued as flood catchment areas and as filters for water quality. This is not addressed. What percentage of the original wetlands on Palmer Creek still exist and are functional? What percent are now farmed? Is this related to the decline in the water quality? How would the additional use of the irrigation water affect existing and downstream wetlands? Have the wetlands been delineated following DSL wetland identification? Until this is answered this subject has not been

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adequately addressed and is not documented.

The DEA states that no impact to floodplains is anticipated. It further states that floodplains along rivers do not change as dramatically as they do in the reservoirs. This is not accurate, the Willamette floodplain has been extensively manipulated by human activities, which with growth, has acted to raise the flooding level over time. To what elevation did it flood in February 1996? If the PCWD diversion had been breached, allowing flood water to flowing into the canal would the flood levels and impacts have been greater? Include increased economic loss as a factor.

Since the return flows to the Yamhill are not documented the impacts are unknown and must be determined through data collection before stating that they would not be significant.

Vegetation

No data is offered on existing riparian vegetation. Is there a riparian buffer to filter return water from irrigation or is the land current farmed down to the waters edge? Is there tree cover to shade the waterway? How would this effect downstream users and water quality? Please provide more information about the enhancement of riparian areas and the existence of the retention facility on the Stoller property. Document why riparian conditions are considered to be good (page 3-14)? Increased flows would likely increase bank erosion, removing existing vegetation and requiring the use of riprap. This is not noted.

Fisheries

The DEA identifies a variety of local resources (fall and spring) chinook, cutthroat trout, sturgeon, perch, bass, and others in the Willamette. There are winter steelhead, coho, cutthroat trout also in the Yamhill. ODFW information finds that most of these are likely to have been present in Palmer Creek historically.

Palmer Creek currently supports a localized sport fishery of large mouthed bass and crappie. Prior to the establishment of PCWD the creek was dried up during the irrigation season, eliminating the sport fishery. PCWD has maintained the stream's water flow year round. What effects would changes to the water quality and flow have on the various fisheries?

The water intake at the diversion point is screened to avoid fish entrapment as are the 40 other diversions located along the canal and creek. The DEA states that low flow conditions, water temperature, presence of low head irrigation dams and flash board diversions hinder upstream fish migration of coho and cutthroat

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so it is unlikely that this use exists now. The data thus presented shows it is likely that the local fishery (beneficial use) has been impacted by human alteration. This is a significant adverse impact.

Increased flow would dilute the existing pollution and potentially improving habitat and fishing opportunities. Yet the increased flow could also erode the habitat which is not identified.

Several of the fish species that are noted to exist in the Yamhill and Willamette are candidates to be listed as threatened and endangered, which needs to be addressed.

Wildlife

Page 3-16 notes that PCWD lands do not have heavily vegetated riparian areas. This is in conflict with statements made earlier. Higher flow would likely flood out and change the nesting areas of the documented upland game species and waterfowl. This impact is not addressed nor are the impacts of changes in water quality on the wildlife. What species are missing due to existing pollution problems? How would this change with more water?

The DEA says no crop changes will occur due to the additional water use. How would a crop shift affect the riparian fringe, water quality, wildlife and fishery?

The DEA documents degradation of the wildlife habitat due to illegal dumping of wastes from bridges and offers to monitor and clean up such actions which is commendable, but could be expensive.

Other Beneficial Uses

The remaining discussions of other beneficial uses are also inadequate and need better documentation. Correlations must be dealt with linking back to changes in flow, water quality and likely impacts. By taking water from the Willamette what impacts will occur to downstream users and other beneficial uses? This is not addressed.

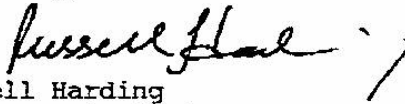
Cumulative Impacts

Only three proposed or ongoing activities are identified. The DEA hardly addresses those listed not to mention those missing as noted in this review. All potential cumulative effects must be addressed and documented before this contract is implemented. The Reauthorization study will be evaluating these issues in detail, and could provide answers to assist in this evaluation.

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DEQ cannot support this proposed action due to potential water quality impacts to minimum flows, the reauthorization study and other beneficial uses that must be protected. Thank you for the opportunity to outline our concerns. Attached please find a copy of the proposed 1996 303D list of Water Quality Limited waters for Oregon.

Sincerely,



Russell Harding
Manager, Standards and Assessments
Water Quality Division

BP:burecl.1

cc:

Joni Lowe, LOC
Reed Benson, Waterwatch
Dwight French, WRD

Water Watch

RIVERS NEED WATER
February 12, 1996

Eric Glover
Acting Area Manager, LCAO
1503 NE 78th Street, Suite 15
Vancouver, WA 98665

VIA TELECOPIER AND REGULAR MAIL

Re: comments on proposed contract for Palmer Creek Water District

Dear Eric:

WaterWatch of Oregon is a nonprofit environmental group that works at the state and federal levels to restore and protect streamflows on rivers throughout Oregon. We have reviewed the Draft Environmental Assessment (DEA) on the proposed water service contract for Palmer Creek Water District Improvement Company (PCWD), and offer the following comments.

The proposed contract

We believe the proposed contract should not be issued at this time. The Corps of Engineers, the State of Oregon and many Northwest Oregon municipalities are currently spending hundreds of thousands of dollars on a study of the Willamette River Basin Project. This study will identify and analyze options for a reauthorization of the project, so that it can better support a full range of public uses in the Willamette Basin. The reauthorization study is extremely important, particularly since it involves several issues which have been front-page news in Oregon over the past several months: flood control, salmon/steelhead survival, and Portland municipal water supply, to name a few.

This contract jumps the gun on the reauthorization study. It narrows the options by committing almost 13,000 AF of the conservation storage space. While the action may be authorized by existing federal laws and state water rights, it is not good public policy. It simply does not fit with Reclamation's stated goal of managing water for the benefit of the public, not simply irrigation.

No contract should be issued until the reauthorization study is completed. *At a minimum, the proposed water service contract should terminate after four years, so that Reclamation can revisit this matter after the reauthorization study is completed.*

The Draft Environmental Assessment

The DEA is seriously inadequate. Crucial data are missing or insufficient. The alternatives considered are far too narrow. The water quality section is badly flawed. And the cumulative impacts discussion omits major factors. A supplemental EA should be issued which corrects these flaws.

Crucial data are missing or insufficient.

The proposed action is based on PCWD's request for up to 12,936.6 AF of stored water. However, the DEA provides no hard facts showing that PCWD actually needs that much water. The only information supporting a need for any additional water is a personal communication with Sam Sweeney of PCWD. There are no data showing PCWD's actual irrigated acreage, historic water use, or current or anticipated water demands. There are no data on the adequacy or reliability of existing supply—only an unsupported statement about senior water rights and a guess by Sweeney that the supplemental supply would be needed once every five years. In fact, the DEA can only conclude that "it is feasible that PCWD may be unable to use its existing water rights for natural flows during water-

WaterWatch of Oregon • 213 Southwest Ash, Suite 208 • Portland, OR 97204
Phone: (503) 295-4039 Fax: (503) 295-2791 Email: watrwtch@teleport.com

short years" (pp. 2-1, 2-2). In other words, it isn't at all clear that PCWD really needs water, or if it does, how much it needs.

The same is true regarding irrigation efficiency and the prospects for water conservation. The only information showing PCWD's current water use efficiency is an estimate by Sweeney that it is around 50-70 percent. This appears to be a "ballpark figure," and nothing shows what the broad range of 50-70 percent is based on, but the DEA accepts it uncritically. The DEA then states that PCWD's estimated efficiency is "within common industry practices," but again there are no facts to support that assertion. Finally, the DEA states that the cost associated with water conservation measures "is expected to be prohibitive" (p. 2-4). What is this cost? Who expects it to be prohibitive? Based on what? How much water might be saved if these measures were implemented? The DEA doesn't say.

Finally, the DEA uses outdated water quality information. The Oregon Department of Environmental Quality recently issued a draft 303(d) report, which provides more recent and complete water quality data for the Willamette and Yamhill Rivers.

The alternatives considered are too narrow.

The DEA really considers only two alternatives: no action, and a PCWD water service contract for up to 12,936.6 AF of unspecified but presumably long duration. The DEA lists four other alternatives, including water conservation, as having been considered but eliminated from further consideration.

The conservation option needs further consideration. As stated above, the section on conservation contains no data on PCWD's existing efficiency or on the possible cost or effectiveness of various conservation measures (p. 2-4). The DEA states that even at 100 percent efficiency, the system would still provide too little water to meet PCWD's needs, but there are no facts or analysis on what those needs really are.

By presenting only one contract option, the DEA ignored some obvious alternatives. It should have considered smaller contracts, that is, contracts for lesser amounts of water. If the DEA had data showing PCWD's actual water demands and the prospects for feasible water conservation measures, it might show that the district could get by with a lot less stored water than proposed.

In addition, the DEA should have considered an option for a *short-term* water service contract to last no longer than, say, four years. This option would preserve Reclamation's ability to revisit the contract at the completion of the pending reauthorization study. It also would allow data to be developed on PCWD's actual water needs and on the environmental effects of the proposed use.

The water quality section is badly flawed.

Probably the major environmental impacts of the proposed action relate to water quality. The DEA, however, gives short shrift to these potential impacts in just over two pages of analysis. The data and analysis presented do not support the conclusion that there will be no significant water quality impacts (p. 3-9).

As already mentioned, the DEA uses outdated water quality data.

Many key statements in the DEA are unsupported by data, analysis or environmental commitments, and several of them seem counterintuitive. These statements include:

- > "The quality of Palmer Creek water is not expected to change significantly due to the proposed action". This statement appears based on an assumption that irrigation practices within PCWD won't change because of the proposed action. But if district growers suddenly have an additional 13,000 AF of water at their disposal, they probably will do some things differently.
- > "The impacts expected for the Yamhill River are limited primarily to maintenance of flow levels". This statement assumes not only that the previous statement is true, but that Palmer Creek flows don't change as a result of the proposed action. But if Palmer Creek flows increase as a result of the contract (which they probably would if PCWD uses the contract as anything more than an emergency drought supply), and if that water is as polluted as other irrigation return flows in the Yamhill Basin, the proposed action could further impair water quality in the Yamhill.
- > "The proposed water contract would be used primarily during drought years". This statement appears to be based solely on wishful thinking. The PCWD manager stated only that the district's existing supply was inadequate to meet existing demands in roughly every fifth year; he *did not* say that the district would use the water only in drought years, or that PCWD's cropping patterns would not change if it received the proposed contract. In fact, providing PCWD with a secure source of stored water seems likely to lead to long-term changes in district water use, as water supply no longer constrains growers' planting decisions.

The EA does admit that the proposed contract might cause changes in PCWD's water use, which could increase nutrient loading and further impair water quality in the already-polluted Yamhill. However, the EA makes no effort to assess how likely or serious these effects could be. And the EA fails to explain its conclusion that further irrigation-related water quality problems in the Yamhill are not a significant environmental impact (p. 3-9).

Moreover, the DEA does not even acknowledge a major water quality issue regarding the proposed action. The Willamette River does not meet water quality standards for several parameters, and it would be far worse if the Willamette Basin Project reservoirs did not release water to meet minimum flows in the mainstem. In the future, particularly in drought years, there may be too little water stored in these reservoirs to meet all demands for irrigation, M&I uses, and instream needs for water quality and fish & wildlife habitat. The proposed contract would commit 13,000 AF to irrigation uses, foreclosing the possibility of using it for anything else, including water quality needs. That 13,000 AF could be significant, especially in a drought year when the Willamette Basin reservoirs are well short of filling.

For these reasons, the EA needs far more information and analysis on water quality impacts. Reclamation should consult with the Oregon Department of Environmental Quality, which was apparently not contacted for the DEA (p. 4-1).

The cumulative impacts discussion omits major factors.

The cumulative impacts discussion on pp. 3-31 and 3-32 identified three "proposed or ongoing activities that could result in incremental impacts to various resources that could be affected by the proposed action." These activities were Corps of Engineers flow releases from the Willamette Basin dams, Reclamation's water marketing program, and state water right applications. But the DEA devotes only two sentences to each activity, and in each case it leaves out a major factor.

As for Willamette Basin project releases, the DEA states that the Corps of Engineers does not

WaterWatch comments on proposed contract for Palmer Creek Water District
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Page 4

anticipate changing its release patterns. It is possible that dam release operations will change significantly, however, based on the results of the pending reauthorization effort. A major focus of the study will be changes in dam releases. The DEA needs to evaluate how reauthorization might affect the proposed action, and vice versa. As stated above, WaterWatch believes Reclamation should not issue the proposed contract until the reauthorization is completed.

In mentioning Reclamation's water marketing program for the Willamette Basin, the DEA notes that there are 60 other pending applications for the use of up to an additional 11,000 AF of water. (Presumably this is the cumulative total for the 60 applications, although the statement as written is ambiguous.) The DEA ignores the prospect of additional contract requests. Given that both irrigation and municipal interests are seeking to reserve at least 550,000 AF of space in the existing Willamette Basin reservoirs (as explained below), such requests are not only foreseeable, but likely. The DEA should consider this probability, rather than focusing only on existing contract requests.

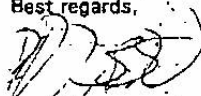
Under the heading of "OWRD Applications," the DEA notes that new water rights cannot be issued on the Willamette below Salem because it is already overappropriated. The DEA ignores requests by the Oregon Department of Agriculture and the Oregon Department of Land Conservation and Development to reserve mammoth quantities of water for irrigation and municipal & industrial uses, respectively. The irrigation request seeks 1127 cfs of live streamflow, 225,000 AF from future storage, and 550,000 AF from existing federal storage. The M&I request seeks 266,225 AF of live streamflow and 20,992 AF from existing and future storage. By failing to identify these reservation requests, the DEA ignores enormous new claims on Willamette Basin water which are directly related to the proposed action.

Other OWRD Applications which the DEA fails to mention are minimum perennial streamflows in the Willamette Basin which have not yet been converted to instream water rights as required by law. There are unconverted minimum perennial streamflows on the mainstem Willamette both above and below the point of diversion, as well as on the tributaries with Willamette Basin Project reservoirs. One reason the minimum perennial streamflows remain unconverted is the uncertainty regarding the availability of water from federal storage. The proposed action could prejudice the conversions of the minimum perennial streamflows, but the DEA fails even to consider this issue.

Any cumulative impacts analysis of the proposed action should assess all these factors and more, such as water quality and fish needs on the Willamette mainstem and tributaries. All of these issues will be evaluated as part of the reauthorization study. This is another reason why the proposed action should be deferred until reauthorization is completed.

Thank you for the opportunity to comment.

Best regards,


Reed D. Benson
Reclamation Issues Director

xc: US Army Corps of Engineers
Oregon Department of Environmental Quality
Oregon Water Resources Department

MEMO

To: Reed Benson, Water Watch
From: Richard E. Craven
Subject: Palmer Creek Water District Improvement Company, EA

Palmer Creek has decided to proceed with the completion of the EA for the proposed water service contract with the Bureau of Reclamation. The EA has been revised to reflect comments received from the DEQ relating to the amount of water requested. Palmer Creek is requesting an additional 570.48 acre-feet (2.5 cfs) as a primary right to irrigate 228.19 acres of land not presently irrigated. The remainder of the request (62.18 cfs) will be used to offset declining flows during drought years or when Palmer cannot divert flows because of other senior rights by other entities that predate Palmer's water rights.

I discussed the clarification with DEQ. According to DEQ, their concerns have been addressed. I have attached the DEQ letter for your files as discussed today. If you have any questions about the technical specifics of the letter, I probably can address them. If you have questions of a policy nature that relates to the Bureau of Reclamation (BR), then you probably should contact Eric Glover, although Bob Christensen (BR) in Boise is responsible for completing the EA. Mr. Christensen's phone number is 208-378-5039.

You can contact me at 650-0683. My fax number is 557-7540. My email is edmunds@teleport.com.

Memo

To: Reed Benson
From: Richard E. Craven
Subject: Palmer Creek Water District Improvement Company
Date: January 26, 1999

I appreciate the time for the conversation last Friday night concerning questions that you have about the Palmer Creek project. I called Sam Sweeney of the District that evening to discuss your request for additional information. He has provided additional information that may clarify your question of the historic delivery of water to the District, that is does the District presently divert or use 2.5 acre-feet per acre.

The District started operation in 1968. Since 1968, the District has increased in size from approximately 3500 acres to 5900 acres. Irrigation water is pumped from the Willamette River to the District canal. Water flows down the canal and eventually to Palmer Creek. Water in Palmer Creek is then pumped to provide irrigation flows.

Water use between 1968 and 1977 is shown below. Water pumped to the canal and the acre-feet pumped from the canal and Palmer Creek are shown for comparison.

Year	Acres in District	Water Diverted to the Canal (Acre-feet)	Acre-Feet Used
1968	3462	2366	826
1969	3569	2366	1245
1970	3569	2470	1465
1971	3620	2040	1470
1972	3620	1880	1448
1973	3620	2900	1612
1974	3938	3010	1172
1975	3938	2020	1134
1976	3938	2580	1015
1977	4050	2130	1244

As shown, the amount used is less than the amount diverted. The Water Resources Department measured flows diverted and acre-feet used for irrigation. An average of approximately 55% of the water diverted to the canal was pumped from the canal and Palmer Creek for irrigation. The remainder of the diverted water remained in Palmer Creek. According to Sam Sweeney, the value of 55% is not a canal efficiency (indicating loss of water during conveyance) since the canal is highly impermeable. The difference in water diverted to water used is a result of not pumping it from Palmer Creek.

MEMO

To: Reed Benson
From: Richard E. Craven
Subject: Palmer Creek Water District Improvement Company
Date: February 3, 1999

I appreciate the time for conversation concerning questions that you have about the Palmer Creek project. I called Sam Sweeney of the District to discuss your request for additional explanation. He has provided additional information that may clarify your question of the historic delivery of water to the District, that is does the District presently divert or use up to 2.5 acre-feet per acre.

The District started operation in 1968. Since 1968, the District has increased in size from approximately 3500 acres to 5900 acres. The District's use of water begins by pumping from the Willamette River to the District canal. The amount of water pumped to the canal depends on the amount needed for irrigation or for conveyance of water through the system. Excess water is not pumped because of the electrical pumping costs.

Once in the canal, water flows down the canal and eventually to Palmer Creek. Some water is pumped directly from the canal for irrigation, but the majority of water is pumped from Palmer Creek to provide irrigation flows.

Water use between 1968 and 1977 is shown below. Water pumped to the canal and the acre-feet pumped from the canal and Palmer Creek are shown for comparison.

Year	Acres in District	Water Diverted to the Canal (Acre-feet)	Ac-Ft/Ac	Acre-Feet Used
1968	3462	2366	.68	826
1969	3569	2366	.66	1245
1970	3569	2470	.69	1465
1971	3620	2040	.56	1470
1972	3620	1880	.52	1448
1973	3620	2900	.80	1612
1974	3938	3010	.76	1172
1975	3938	2020	.51	1134
1976	3938	2580	.65	1015
1977	4050	2130	.53	1244

The Water Resources Department measured flows diverted and acre-feet used for irrigation during these years. Based on acres in the District and the water diverted to the canal, the

Reed Benson
Page 2
February 3, 1999

application of water for irrigation was 0.51 to 0.80 acre-feet/acre.

As shown, the amount used is less than the amount diverted from the canal. An average of approximately 55% of the water diverted to the canal was pumped from the canal and Palmer Creek for irrigation. The remainder of the diverted water was necessary for conveyance, evaporation, seepage, or remained in Palmer Creek. According to Sam Sweeney, the value of 55% is not a canal efficiency (indicating loss of water during conveyance) since the canal is highly impermeable. The primary difference in water diverted to water used is a result of not pumping it from Palmer Creek. The water left in Palmer Creek likely cannot be reduced because conveyance flows are necessary to distribute water to users. Water remaining in Palmer Creek provides a beneficial impact to riparian conditions as well as the creek, and District considers this a cost of doing business.

Additional information also was provided by the District for comparison. The Water Resources Department did not measure water diverted to the canal (efficiency) during the years between 1988 and 1998.

Year	Acres in District	Water Diverted to the Canal	Acre-Foot Used
1988	4781	no data	3085
1989	4880	no data	2719
1990	5321	no data	2530
1991	5421	no data	2813
1992	5469	no data	3390
1993	5661	no data	2501
1994	5661	no data	3292
1995	5850	no data	2775
1996	5851	no data	2673
1997	5870	no data	2987
1998	5870	no data	3013

Measurements of the amount diverted to the canal versus acre-feet used were not made. According to Sam Sweeney, the value of 55% for "efficiency" is probably applicable for these years as well.

Based on the information provided, the District does not divert or use all the flow allowable, therefore the historic delivery to the District is less than the 2.5 acre-feet.

From: Richard Craven <edmunds@teleport.com>
To: Reed Benson <rdbwater@teleport.com>
Cc: Robert Christensen <rchristensen@pn.usbr.gov>; Eric Glover
<eglover@pn.usbr.gov>
Date: Wednesday, March 03, 1999 6:45 AM
Subject: Palmer Creek

I talked to Sam Sweeney of Palmer Creek last night concerning the number of acres irrigated each year. He said that in recent years the number of acres irrigated is roughly the same number as the acre feet. If you review the February 3, 1999 memo from me for the years 1988 to 1998, this would be between approximately 2,500 to 3,400 acres, depending on the year (i.e., the right hand column on page 2).

From: "Richard Craven" <edmunds@teleport.com>
 To: "Reed Benson" <rdbwater@teleport.com>
 Date: 3/9/99 8:38AM
 Subject: Re: Palmer Creek

Sorry that I did not get back to you. I have had a minor problem getting on email from home. You can contact me at the office Monday if you would like to talk or clarify any information. Richard.

-----Original Message-----

From: Reed Benson <rdbwater@teleport.com>
 To: Richard Craven <edmunds@teleport.com>
 Date: Wednesday, March 03, 1999 7:41 AM
 Subject: Re: Palmer Creek

>Richard,

>

>thanks for all your research on this. I got a call from Bob Christiansen
 >the other day asking if we were going to send in comments on the proposed
 >contract. I need to sit down, probably on Friday, go over this file and
 >draft some sort of comment letter. Do we need to talk before then? If so,
 >please give me a call some time in the next day or two. If not, I'll send
 >you a copy of the letter.

>

> Reed

>

>At 06:45 AM 3/3/99 -0800, you wrote:

>>I talked to Sam Sweeney of Palmer Creek last night concerning the number
 of

>acres irrigated each year. He said that in recent years the number of
 acres

>irrigated is roughly the same number as the acre feet. If you review the
 >February 3, 1999 memo from me for the years 1988 to 1998, this would be
 >between approximately 2,500 to 3,400 acres, depending on the year (i.e.,
 the

>right hand column on page 2).

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>>night concerning the number of acres irrigated each year. He said
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>>acre feet. If you review the February 3, 1999 memo from me for the
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>>1988 to 1998, this would be between approximately 2,500 to 3,400 acres,
 >>depending on the year (i.e., the right hand column on page

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CC: "Robert Christensen" <rchristensen@pn.usbr.gov>, "Eric Glover"
<eglover@pn.usbr.gov>

WaterWatch

RIVERS NEED WATER

March 4, 1999

Eric Glover
 Area Manager, LCAO
 US Bureau of Reclamation
 825 NE Multnomah
 Portland, OR 97232

U.S. BUREAU OF RECLAMATION GENERAL FILE COPY		DATE MADE BY
MAR 5 1999		
ENV 6.00 Palmer Creek EA		
TO	DATE	
1000	03/31/99	
FILE		

Re: proposed contract, Palmer Creek Water District

Dear Eric:

As you know, I have talked and exchanged several e-mails with Richard Craven regarding the proposed Palmer Creek Water District (PCWD) water service contract and the draft Environmental Assessment (DEA) on that contract. Richard has been very helpful in producing useful information on this issue, answering some of my big questions.

WaterWatch continues to have major concerns regarding the proposed contract and the DEA. Based on Richard's response to my questions, it is not at all clear whether or why PCWD needs the water, or how it will be used. And to my knowledge, none of the other concerns I raised in my comment letter of 2/12/96 (copy attached) have been addressed. In fact, with the imminent Endangered Species Act listings of steelhead and chinook salmon in the upper Willamette Basin, we have greater concerns today than we did three years ago. Thus, WaterWatch still opposes Reclamation's proposal to issue a long-term water service contract to PCWD.

Need for/ Use of the Water

In my 1996 comment letter, I criticized the EA for having no data on PCWD's current water use or any analysis of need for the water. Richard has provided some good information on PCWD's water use since 1968, and in my view, it tends to show that the district really doesn't need the water. I base this on three factors: First, PCWD has never used more than 3390 AF in any year, roughly 1 AF/acre. There is no indication of why the district needs a storage contract for nearly 13,000 AF or 2.5 AF/acre. Second, PCWD has never been regulated off by the water master—even in such severe drought years as 1977 and 1992. Thus, it is not clear that the district has any real need for a backup supply in drought years, as their rights remain in priority. Third, the highest diversion year in district history was the severe drought year of 1992—and there is nothing to indicate that the district did not have adequate water in that year. In sum, PCWD seems to need nowhere near 13,000 AF in any year, drought or otherwise, barring a dramatic change in irrigated acreage or cropping patterns. The DEA makes no mention of any such changes—and in fact, the Oregon DEQ letter of 12/24/98 seems to assume that such changes would not occur.

WaterWatch of Oregon • 213 Southwest Ash, Suite 208 • Portland, OR 97204
 Phone: (503) 295-4039 Fax: (503) 295-2791 Email: watrwtch@teleport.com

Eric Glover
WaterWatch comments on proposed Palmer Creek WD contract
March 4, 1999
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Water Quality

The new information regarding PCWD's current water use reinforces my concerns regarding the potential water quality effects of the proposed contract. In my 1996 letter, I suggested that there could be significant water quality impacts in Palmer Creek and the Yamhill River if PCWD changed its irrigation practices. It now appears that PCWD has no real need for the contract, or certainly for 13,000 AF of water supply, unless it changes its irrigation practices dramatically. The DEA must provide some analysis of possible water quality impacts from such changes--that is, from expanding the irrigated acreage, increasing the volume of water applied per acre, or both.

DEQ's letter of 12/24/98 appears to assume that the proposed contract will only maintain the status quo of irrigation deliveries within the district. Given the size of the proposed contract versus the district's history of water use, I believe that is a highly questionable assumption. At a minimum, there has been no commitment that if PCWD receives the contract, it will not increase irrigated acreage or water deliveries per acre, or even that it will only use the contracted water in a drought year.

Endangered Species Listing

The National Marine Fisheries Service is due to make a decision within days on listing both chinook salmon and steelhead in the Upper Willamette Basin under the Endangered Species Act. Most observers expect these populations to be listed under the ESA. The potential effects of the proposed contract on these imperiled fish populations were not examined in the DEA. The DEA did note, however, that both chinook and steelhead are present in the Willamette River near the PCWD diversion, and steelhead are present in the Yamhill River and possibly even Palmer Creek. Prior to issuing any proposed contract for PCWD, there must be a full analysis of the contract's possible effects on chinook and steelhead, and consultation with NMFS. Anything less would be a dereliction of Reclamation's ESA conservation duties.

Other issues raised in 1996 comments

WaterWatch raised several other issues in its 1996 comments, including the range of alternatives considered in the DEA, the cumulative impacts analysis, and the pending Willamette Reservoir study. None of these issues has been addressed. As for the Willamette Reservoir study, it is finally nearing completion, and therefore we believe even more strongly that no new long-term contract should issue until it is finished. If Reclamation issues any contract at all, it should be limited to a maximum of two years, so that it may be revisited after the completion of the study.

Eric Glover
WaterWatch comments on proposed Palmer Creek WD contract
March 4, 1999
page 3

Thank you for the opportunity to comment. Please call me if you have questions or would like to discuss this matter.

Best regards,



Reed D. Benson
Executive Director

enclosures

cc: Russell Harding, ODEQ
Lance Smith, NMFS
Bob Christiansen, USBR
Richard Craven for PCWD