

**Oregon Water Resources Department  
Water Right Services Division**

**Application for Extension of Time**

In the Matter of the Application for an Extension of Time for Permit S-20177, Water Right Application S-24211, in the name of the City of Medford )  
 ) Proposed  
 ) Final Order  
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**Permit Information**

**Application File S-24211 / Permit S-20177**

Basin 15 – Rogue Basin / Watermaster District 13

Date of Priority: October 17, 1949

**Authorized Use of Water**

Source of Water:	Big Butte Springs and Willow Creek Reservoir constructed under Permit R-1118, tributaries of Big Butte Creek
Purpose or Use:	Municipal Use
Maximum Rate:	7.0 cubic feet per second (cfs) from Big Butte Springs and 95.0 cfs from Willow Creek Reservoir

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**This Extension of Time request is being processed in accordance with Oregon Administrative Rule Chapter 690, Division 315.**

***Please read this Proposed Final Order in its entirety as it contains additional conditions not included in the original permit.***

**Summary of Proposed Final Order for Extension of Time**

**The Department proposes to:**

- Grant an extension of time to complete construction from October 1, 1998, to October 1, 2056.
- Grant an extension of time to apply water to full beneficial use from October 1, 1998, to October 1, 2056.
- Make the extension of time subject to certain conditions as set forth below.

## **ACRONYM QUICK REFERENCE**

Application – Application for Extension of Time  
Department – Oregon Water Resources Department  
City - City of Medford  
FOF – Findings of Fact  
ODFW – Oregon Department of Fish and Wildlife  
PFO – Proposed Final Order  
WMCO – Water Management and Conservation Plan

## **Units of Measure**

AF – Acre-Feet  
cfs – cubic feet per second  
gpm – gallons per minute  
mgd – million gallons per day

## **AUTHORITY**

**Generally, see ORS 537.230 and OAR Chapter 690 Division 315.**

**ORS 537.230(2)** provides in pertinent part that the Oregon Water Resources Department (Department) may, for good cause shown, order and allow an extension to complete construction or perfect a water right. In determining the extension, the Department shall give due weight to the considerations described under ORS 539.010(5) and to whether other governmental requirements relating to the project have significantly delayed completion of construction or perfection of the right.

**ORS 539.010(5)** provides in pertinent part that the Water Resources Director, for good cause shown, may extend the time within which the full amount of the water appropriated shall be applied to a beneficial use. This statute instructs the Director to consider: the cost of the appropriation and application of the water to a beneficial purpose; the good faith of the appropriator; the market for water or power to be supplied; the present demands therefore; and the income or use that may be required to provide fair and reasonable returns upon the investment.

**OAR 690-315-0080** provides in pertinent part that the Department shall make findings to determine if an extension of time for municipal and/or quasi-municipal water use permit holders may be approved to complete construction and/or apply water to full beneficial use. Under specific circumstances, the Department may condition extensions of time for municipal water use permit holders to provide that use of the undeveloped portion of the permit maintains the persistence of listed fish species in the portions of the waterways affected by water use under the permit.

**OAR 690-315-0050(5)** authorizes the Department to include in an extension order, but is not limited to, any condition or provision needed to: ensure future diligence; mitigate the effects of the subsequent development on competing demands on the resource; and periodically document the continued need for the permit.

**OAR 690-315-0090(3)** authorizes the Department, under specific circumstances, to condition an extension of time for municipal and/or quasi-municipal water use permit holders to provide that diversion of water beyond the maximum rate diverted under the permit or previous extension(s) shall only be authorized upon issuance of a final order approving a WMCP Plan under OAR Chapter 690, Division 86 which grants access to water under this extended permit.

### **Findings of Fact**

1. On June 15, 1951, Permit S-20177 was issued by the Department. The permit authorizes the use of up to 7.0 cfs of water from Big Butte Springs, a tributary of Big Butte Creek and 95.0 cfs of stored water from Willow Creek Reservoir constructed under Permit R-1118, a tributary of the Willow Creek, for municipal use, of which 46.5 cfs from Willow Creek Reservoir has been perfected under Certificate 86995. The remaining authorized amount under the permit is 48.5 cfs from Willow Creek reservoir and 7.0 cfs from Big Butte Springs. The permit specified that actual construction work shall begin on or before June 15, 1952, construction of the water development project was to be completed by October 1, 1953, and that complete application of water was to be made on or before October 1, 1954.
2. Nine prior permit extensions have been granted for Permit S-20177. The most recent extension request resulted in the completion dates for construction and full application of water being extended to October 1, 1998.
3. Due to an ongoing permit extension rulemaking, in 1998 the Department stopped processing pending Applications for Extension of Time for municipal and quasi-municipal permits, and did not require municipal and quasi-municipal water use permit holders to submit Applications for Extension of Time during the rulemaking process.
4. Municipal and quasi-municipal water use permit extension rules OAR 690-315-0070 through 690-315-0100 became effective on November 1, 2002. The rules were subsequently amended, and the amended rules became effective on November 22, 2005.
5. On October 9, 1998, City of Medford (City) submitted an "Application for Extension of Time" (Application) to the Department requesting the time to complete construction and the time to apply water to full beneficial use under the terms and conditions of Permit S-20177 be extended from October 1, 1998, to October 1, 2020.
6. January 6, 2004, notification of the City's Application for Extension of Time for Permit S-20177 was published in the Department's Public Notice. No public comments were received regarding the extension application.
7. On August 2, 1999, December 26, 2003, January 30, 2004 and May 9, 2005, the City submitted supplemental information and update revisions to their pending Application for Extension of Time.

8. On July 15, 2016, the permit holder submitted additional information to supplement and update their Application for Extension of Time. The amendment requested the extended time to complete construction be changed from October 1, 2020 to October 1, 2056, and the extended time to apply water to full beneficial use be changed from October 1, 2020 to October 1, 2056.

**Review Criteria for Municipal and Quasi-Municipal Water Use Permits [OAR 690-315-0080(1)]**

*The time limits to complete construction and/or apply water to full beneficial use may be extended if the Department finds that the permit holder has met the requirements set forth under OAR 690-315-0080(1). This determination shall consider the applicable requirements of ORS 537.230<sup>1</sup>, 537.630<sup>2</sup> and/or 539.010(5)<sup>3</sup>*

**Complete Extension of Time Application [OAR 690-315-0080(1)(a)]**

9. On October 9, 1998, the Department received a completed application for extension of time and the fee specified in ORS 536.050.

**Start of Construction [OAR 690-315-0080(1)(b)]**

10. Permit S-20177 was issued prior to June 29, 2005; therefore, the permit holder is not required to provide evidence of actions taken to begin actual construction of the project.<sup>4</sup>

**Duration of Extension [OAR 690-315-0080(1)(c) and (1)(d)]**

*Under OAR 690-315-0080(1)(c) and (1)(d), in order to approve an extension of time for municipal and quasi-municipal water use permits the Department must find that the time requested is reasonable and the applicant can complete the project within the time requested.*

11. The remaining work to be accomplished under Permit S-20177 consists of planning and conducting studies including Flood Routing Study, cultural resource evaluation, Emergency Action Planning and Operations and Maintenance Planning; meeting regulatory and permitting requirements including preparation of Environmental Impact Statements, wetland mitigation, acquiring the required special use permits from the Forrest Service and Jackson County, and fish passage review from ODFW; expanding Willow Lake Reservoir and constructing a diversion and pipeline from Big Butte Springs; and applying water to full beneficial use.
12. Permit S-20177 authorized the use of 7.0 cfs of water from Big Butte Springs and 95.0 cfs of water from Willow Creek Reservoir for municipal purposes, of which 46.5 cfs of water from Willow Creek Reservoir has been perfected under Certificate 86995. There is

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<sup>1</sup> ORS 537.230 applies to surface water permits only.

<sup>2</sup> ORS 537.630 applies to ground water permits only.

<sup>3</sup> ORS 537.010(5) applies to surface water and ground water permits.

<sup>4</sup> Section 5, Chapter 410, Oregon Laws 2005 and OAR 690-315-0070(3)(d).

an undeveloped portion of 48.5 cfs of water from Willow Creek reservoir and 7.0 cfs of water from Big Butte Springs under Permit S-20177 as per OAR 690-315-0010(6)(g).

13. In addition to the remaining 7.0 cfs of water from Big Butte Springs and 48.5 cfs of stored water from Willow Creek Reservoir authorized under Permit S-20177 the City holds the following municipal use water right certificates and permits:
- Certificate 53323 for 30.0 cfs of water from Big Butte Creek;
  - Certificate 86994 for 10.8 cfs of water from Big Butte Springs;
  - Certificate 86832 for 60.85 cfs of water from the Rogue River;
  - Certificate 86995 for 46.5 cfs of water from Willow Lake Reservoir;
  - Certificate 87017 for 8,320 AF of water from Willow Creek;
  - Permit S-6703 for 19.2 cfs of water from Big Butte Springs;
  - Permit S-23210 for 39.15 cfs of water from the Rogue River;
  - Permit R-1118 for 1,680 AF of water from Willow Creek; and
  - Permit S-54935 for exclusive right to use waters from Big Butte Creek and of the springs at the head of and which form said stream, and of tributaries of said stream.

These water rights and permits total 167.0 cfs of live flow (surface) water, the storage of 10,000 AF of water and the use of 95.0 cfs of stored water. The City of Medford has not yet made use of 1,680 AF of water under Permit R-1118, 19.2 cfs of water under Permit S-6703, 39.15 cfs of water under Permit S-23210, and 48.5 cfs of stored water and 7.0 cfs of live flow water under Permit S-20177.

14. The City's 2009 Water Management and Conservation Plan identifies limitations to the City's water system which include:

- a. the existing maximum transmission capacity from Big Butte Springs is approximately 41.0 cfs;
- b. the existing transmission capacity from the Rogue River is approximately 141.0 cfs; and
- c. the existing treatment capacity at the Duff Water treatment Plant is approximately 110.0 cfs.

15. Additionally, the City also holds Certificates 11255, 12304 and 14200 for camp ground purposes, and Permit S-44058 for effluent treatment for irrigation purposes.

16. According to the Application, in 2005 the population within the service boundary of the City was 120,000. The City estimates the population will increase at a growth rate of 1.6 percent per year, reaching an estimated population of 273,247 by the year 2056.

17. According to the City's 2016 Draft Water Management and Conservation Plan, the City projects growth into the Urban Reserve Areas (URA) adopted as part of the Greater Bear Creek Valley Regional Plan on August 6, 2012. The types of lands and uses proposed to be served within the URA are expected to retain a mix of uses that is relatively consistent with the City's existing mix in its service population. These uses include residential, commercial, industrial and municipal uses.
18. The City's peak water demand within its service area boundaries was 92.40 cfs in 2005. This includes water supplied to the cities of Phoenix, Jacksonville, Talent, Central Point, Eagle Point, Butte Falls, White City and other unincorporated areas and water districts, collectively referred to as "other cities".
19. The City's peak day demand is projected to be approximately 161.50 cfs of water by the year 2056. This projection includes the other cities.
20. The City supplies water to other cities that are outside of the place use authorized by Permit S-20177. However, ORS 540.510(3)(a) allows water use under a permit issued to a municipality to be applied to beneficial use on lands to which the right is not appurtenant if the use continues to be for municipal purposes and would not interfere or impair prior vested water rights.
21. Full development of Permit S-20177 is needed to address the present and future water demand of the City of Medford, including system redundancy and emergency use. Due to projected maximum daily demands and anticipated limitations of the development of the City's other water rights as a result of "fish persistence" conditions, the City anticipates that full development of Permit S-20117 is necessary as part of a strategy for meeting long term municipal demand.
22. In accordance with OAR 690-315-0080(1)(d) and as described by Findings of Fact (FOF) 16, 17 and 18, the City demonstrated that their estimated demand projection is consistent with the amount and types of lands and uses proposed to be served by the water user.
23. Based on FOF 16 through 22, the Department finds that the City's request for an extension of time until October 1, 2056, to complete construction and to apply water to full beneficial use under the terms of Permit R-1118 is both reasonable and necessary.

**Good Cause [OAR 690-315-0080(1)(e) and (3)(a-g)]**

*The Department's determination of good cause shall consider the requirements set forth under OAR 690-315-0080(3).*

**Reasonable Diligence and Good Faith of the Appropriator [OAR 690-315-0080(3)(a), (3)(c) and (4)]**

*Reasonable diligence and good faith of the appropriator must be demonstrated during the permit period or prior extension period as a part of evaluating good cause in determining whether or not to grant an*

*extension. In determining the reasonable diligence and good faith of a municipal or quasi-municipal water use permit holder, the Department shall consider activities associated with the development of the right including, but not limited to, the items set forth under OAR 690-315-0080(4) and shall evaluate how well the applicant met the conditions of the permit or conditions of a prior extension period.*

24. Work was accomplished (specified in the Application for Extension of Time) during the original development time frame, being June 15, 1951, to October 1, 1953.
25. During the last extension period, being October 1, 1993, to October 1, 1998, the City accomplished the following:
  - established a watershed conservation easement and transmission main easement;
  - installed purification equipment;
  - installed transmission mains, lines and blow-offs;
  - installed streamflow monitoring equipment;
  - constructed Rossanley pump station;
  - installed temperature monitoring equipment;
  - installed fencing around Big Butte Springs diversion;
  - installed Cathodic protection equipment; and
  - repaired and replace air valves.
26. Since October 1, 1998, the City has accomplished the following:
  - installed a generator, transmission switch, propane tank, chlorine testers, mag meters and blow-off valves at Big Butte Springs;
  - installed analyzers, meters, blow-off valves and transmission lines throughout the City's water system; and
  - conducted aerial image survey over the Big Butte Springs watershed for mapping, analysis and planning purposes.
27. According to the Application, as of July 15, 2016, they have invested approximately \$9,256,721, which is about 17 percent of the total projected cost for complete development of this project. The City estimates a \$46,000,000 investment is needed for the completion of this project. The Department recognizes that while some of these investment costs are unique to construction and development solely under S-20177, other costs included in this accounting are not partitioned out for S-20177 because (1) they are incurred under the development of a water supply system jointly utilized under other rights held by the City, and (2) they are generated from individual activities counted towards reasonable diligence and good faith as listed in ORS 690-315-0080(4) which are not associated with just this permit, but with the development and exercise of all the City's water rights.
28. As of October 1, 1998, the City has perfected 46.5 cfs of water of the authorized 95.0 cfs from Willow Creek Reservoir for beneficial municipal purposes under the terms of this

permit under Certificate 86995. None of the 7.0 cfs authorized from Big Butte Springs has been developed under Permit S-20177.

29. The Department has considered the City's compliance with conditions, and did not identify any concerns.

Based on FOF 25 through 29, the Department finds that work has been accomplished since the beginning of the last authorized extension time period, which provides evidence of good cause and reasonable diligence in developing the permit.

#### **Financial Investment and Cost to Appropriate and Apply Water to a Beneficial Purpose**

*[OAR 690-315-0080(3)(b)]*

30. According to the Application, as of July 15, 2016, they have invested approximately \$9,256,721, which is about 17 percent of the total projected cost for complete development of this project. The City estimates a \$46,000,000 investment is needed for the completion of this project.

#### **The Market and Present Demands for Water** *[OAR 690-315-0080(3)(d)]*

31. As described in FOF 16 through 21 above, the City has indicated, and the Department finds that the City must rely on full development of their Permit S-20177.
32. The City estimates an annual population growth rate of 1.6 percent per year over a 51 year period, being the years 2005 to 2056. The City projects growth into the Urban Reserve Areas (URA) adopted as part of the Greater Bear Creek Valley Regional Plan on August 6, 2012. The types of lands and uses proposed to be served within the URA are expected to retain a mix of uses that is relatively consistent with the City's existing mix in its service population. These uses include residential, commercial, industrial and municipal uses.
33. Given the current water supply situation of the City, including current and expected demands, the need for system redundancy, and emergency water supply, there is a market and present demand for the water to be supplied under Permit S-20177.
34. OAR 690-315-0090(3) requires the Department to place a condition on this extension of time to provide that any diversion of the remaining unperfected portion of water under the permit, being 48.5 cfs of water from Willow Creek reservoir and 7.0 cfs of water from Big Butte Springs, shall only be authorized upon issuance of a final order approving a Water Management and Conservation Plan (WMCP) under OAR Chapter 690, Division 86 that authorizes access to a greater rate of diversion of water under the permit consistent with OAR 690-086-0130(7). The amount of water used under Permit S-20177 must be consistent with this and subsequent WMCP's approved under OAR Chapter 690, on file with the Department. A "Development Limitation" condition" is specified under Item 1 of the "Conditions" section of this PFO to meet this requirement.



**Fair Return Upon Investment [OAR 690-315-0080(3)(e)]**

35. The City expects to obtain a fair and reasonable return on investment by continuing development of Permit S-20177.

**Other Governmental Requirements [OAR 690-315-0080(3)(f)]**

36. Delays caused by any other governmental requirements in the development of this project have not been identified.

**Events which Delayed Development under the Permit [OAR 690-315-0080(3)(g)]**

37. Delay of development under Permit R-1118 was due, in part, to the size and scope of the municipal water system, which was designed to be phased in over a period of years, financial considerations and the full rate has not yet been in demand.

**Maintaining the Persistence of Listed Fish Species [OAR 690-315-0080(1)(f) and (2)]**

*The Department's determination regarding maintaining the persistence of listed fish species shall be based on existing data and advice of the Oregon Department of Fish and Wildlife (ODFW). The determination shall be limited to impacts related to stream flow as a result of use of the undeveloped portion of the permit and further limited to where, as a result of use of the undeveloped portion of the permit, ODFW indicates that stream flow would be a limiting factor for the subject listed fish species.*

38. The pending municipal Application for Extension of Time for Permit S-20177 was delivered to ODFW on November 9, 2011, for ODFW's review under OAR-690-315-0080.
39. Notification that the pending municipal Application for Extension of Time for Permit S-20177 was delivered to ODFW for review was sent to the City on November 10, 2011.
40. Notification that the pending municipal Application for Extension of Time for Permit S-20177 was delivered to ODFW for review was published in the Department's Public Notice dated November 22, 2011. On November 22, 2011, Water Watch of Oregon submitted a comment requesting copies of ODFW advice and proposed fish persistence conditions.
41. On February 3, 2017, the Department received ODFW's Division 315 Fish Persistence Evaluation and Proposed Fish Persistence Conditions for Permit S-20177.

**continued on following page**

42. Summary and Excerpts of Advice from ODFW:

Use of water from Big Butte Springs (live flow)<sup>5</sup> under the portion of this permit that is undeveloped as of the October 1, 1998, which was the completion date for application of water to full beneficial use authorized in the most recent extension of time, should be conditioned to maintain the persistence of listed fish species in the portions of waterways affected by water use under the permit. ODFW has determined that South Fork Big Butte Creek, Big Butte Creek, and the Rogue River will be affected by water use under this permit. ODFW's advice is based on the best available information and existing data.

ODFW recognizes that long term climatic variations will affect the amount of water in the system. In favorable water years, fish populations tend to increase and in unfavorable water years, fish populations contract. The long term objective for a listed species is to have the population increase to a sustainable level over time and to be able to maintain itself through natural fluctuations in the environment.

Portions of ODFW's advice are given as Option #1 and Option #2, depending on the location(s) from which the undeveloped portion of Permit S-20177 from Big Butte Springs is diverted. These two options are summarized separately.

**Option #1**

- a. This option can only be exercised if water under this permit from Big Butte Springs (live flow) is allowed to flow down into the Rogue River to be diverted from the Rogue River near or below the Duff Water Treatment Plant located in DLC 41 within the SWNW, Section 13, Township 36 South, Range 2 West, W.M. (By statute, transfer processes cannot allow injury or enlargement, and as a result, any point(s) of diversions [POD(s)] which have been or will be moved or added downstream pursuant to an OWRD transfer process will be limited to the amount of water lawfully available at the original POD). ODFW prefers Option #1 because water from Big Butte Springs is important to the fishery in the Big Butte Creek basin and in the 23 miles on the Rogue River above the Duff treatment plant.

For Option #1, the target flows, in Table 1, below, are ODFW's recommended flows for maintaining the persistence of listed fish species in the Rogue River from May 1 through September 10 measured near Agness, Oregon; and from September 11 through April 30 measured at Raygold, near Central Point.

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<sup>5</sup> This permit also authorizes the use of water from Willow Creek Reservoir (stored water). Water is authorized for storage in Willow Creek Reservoir under Permit R-24210. The undeveloped portion of water stored under Permit R-24210 is separately conditioned to maintain the persistence of listed fish. Thus ODFW found that use of the stored water under Permit S-20177 will maintain the persistence of listed fish.

Under Option #1, the severity of the measures to be taken by the water user should reflect the degree to which the recommended target flows are being missed and the percentage of water that is withdrawn by the municipality as compared to the overall streamflow level, and may be adjusted by the ratio of water withdrawn to water being returned directly to the Rogue River through effluent discharges.

**Table 1 (Option #1)**

<b>ODFW'S RECOMMENDED FISH PERSISTENCE TARGET FLOWS IN THE ROGUE RIVER NEAR AGNESS, OREGON</b>	
<b>Month</b>	<b>Cubic Feet per Second</b>
May 1 – June 30	3800
July 1 – Sept 10	2000
<b>ODFW'S RECOMMENDED FISH PERSISTENCE TARGET FLOWS IN THE ROGUE RIVER AT RAYGOLD, NEAR CENTRAL POINT, OREGON</b>	
<b>Month</b>	<b>Cubic Feet per Second</b>
Sept 11 – April 30	1200

**b. Streamflow Measurement Points**

After analysis of flow records and how the USACE stores and releases water from its facilities to meet Rogue River target flows, ODFW has determined that from May 1 through September 10, measuring streamflows on the Rogue River at the Agness gage is sufficient to ensure that target flows are met in order to maintain the persistence of listed fish species. From September 11 through April 30, ODFW has determined that measuring streamflows at the Raygold gage (also on the Rogue River) is sufficient for ensuring that target flows are met in order to maintain the persistence of listed fish species.

**Option #2**

- a. This option must be exercised if water is diverted at the Big Butte Springs (live flow) POD as currently provided for under Permit S-20177. The target flows, in Table 2, below, are ODFW's recommended flows measured at three locations. Only when target flows are met at all three locations (named below), may water be diverted from Big Butte Springs (live flow) under the undeveloped portion of this permit.

**Table 2 (Option #2)**

<b>ODFW'S RECOMMENDED FISH PERSISTENCE TARGET FLOWS                      IN SOUTH FORK BIG BUTTE CREEK BELOW EPID'S POD #1<sup>a</sup>                      (1) SOUTH FORK BIG BUTTE CREEK AT APPROX. RM 1</b>	
Month	Cubic Feet per Second
Jan 1 – Jan 31	70
Feb 1 – May 15	120
May 16 – Jun 30	70
July 1 – Oct 31	47
Nov 1 – Nov 30	60
Dec 1 – Dec 31	70
<b>ODFW'S RECOMMENDED FISH PERSISTENCE TARGET FLOWS                      IN BIG BUTTE CREEK                      (2) NEAR CONFLUENCE OF NORTH AND SOUTH FORK BIG BUTTE CREEK BELOW EPID'S POD 2<sup>b</sup> AND                      (3) NEAR MCLEOD, OREGON</b>	
Month	Cubic Feet per Second
Jan 1 – May 15	135
May 16 – June 30	80
July 1 – Aug 15	54
Aug 16 – Dec 31	135

<sup>a</sup>Eagle Point Irrigation District's (EPID) POD #1 is located within the NENE, Section 10, Township 35 South, Range 2 East, W.M.

<sup>b</sup>Eagle Point Irrigation District's (EPID) POD #2 is located within the NWNW, Section 3, Township 35 South, Range 2 East, W.M.

**b. Streamflow Measurement Points**

After analysis of flow records, ODFW has determined that streamflows must be measured at three locations for ensuring that target flows are met in order to maintain the persistence of listed fish species throughout South Fork Big Butte Creek and Big Butte Creek. The first location is on South Fork Big Butte Creek at approximately RM 1, below the Eagle Creek Irrigation District's (EPID) POD #1. The second location is on Big Butte Creek a short distance downstream from the confluence of the North and South Forks of Big Butte Creek, below EPID's POD #2. The third location is near the mouth of Big Butte Creek at USGS Gage No. 14337500.

43. Department's Findings Based on Review of ODFW's Advice:

The Department is proposing conditions in this extension of time consistent with ODFW's advice (See Item 2 of the "Conditions" section of this PFO). When ODFW's recommended flows targets are not met, the Department's proposed conditions will reduce the permit holder's access to the maximum total amount of the undeveloped portion of Permit S-20177 that legally can be diverted. The conditions are based on the following findings:

**A. Option #1 (Water from Big Butte Springs diverted from the Rogue River)**

- a. Exercise of Option #1 is contingent upon withdrawal of water (live flow portion under the permit) from POD(s) located on the Rogue River near or below the Duff Water Treatment Plant located in DLC 41 within the SWNW, Section 13, Township 36 South, Range 2 West, W.M. (To avoid injury or enlargement, the Department will limit diversion of water from any POD(s) which have been or will be legally moved or added downstream to the Rogue River under an authorized OWRD transfer process to the amount of water lawfully available at the original POD).
- b. There is an undeveloped portion of 7.0 cfs of water from Big Butte Springs (live flow) under Permit S-20177 as per OAR 690-315-0010(6)(g). For the purpose of conditioning this permit to maintain the persistence of fish, the Department finds that the amount of the undeveloped portion of water from Big Butte Springs (live flow) under Permit S-20177 is 7.0 cfs. Therefore, 7.0 cfs is the amount of water from Big Butte Springs (live flow) under Permit S-20177 that must be conditioned for the persistence of listed fish species. Authorization to use any water from Big Butte Springs (live flow) up to the permitted quantity of 7.0 cfs under this permit can only be granted through the Department's review and approval of the municipal water user's future WMCPs (OAR 690-086). When ODFW's recommended target flows are missed, the proposed conditions may result in a reduction in the amount of water from live flow conditioned for fish persistence under Permit S-20177 that can be diverted. The proposed conditions for Option #1 are based on the following findings:
  - i. From May 1 – September 10, the flows needed to maintain the persistence of fish must be measured in the Rogue River near Agness, Oregon, USGS GAGE No.14372300, or its equivalent.
  - ii. From September 11 – April 30, the flows needed to maintain the persistence of fish must be measured in the Rogue River at Raygold, near Central Point Oregon, USGS GAGE No.14359000, or its equivalent.

- iii. When target flows are not met in the Rogue River, the amount of water conditioned for fish persistence from live flow diverted under the permit may need to be reduced in proportion to the degree to which the recommended target flows are being missed. ODFW's formula for determining the percent shortfall, or missed target flows in the Rogue River is defined as:

$$1 - (Q / Q_T),$$

where Q is the flow at the point of interest, and  $Q_T$  is the target flow (from Table 1).

- iv. ODFW's advice recognized if Big Butte Springs water is diverted from the Rogue River that the use of the undeveloped portion from live flow under the permit represents less than 1% of the existing stream flow in the Rogue River.
- v. ODFW's advice recognizes that municipalities may return a certain amount of flow to a river or stream through their effluent discharge. If the withdrawal points and effluent discharges are within reasonable proximity to each other, such that fish habitat between the two points is not impacted significantly, then ODFW recommends that the amount of water from live flow conditioned for fish persistence under Permit S-20177 should be adjusted by the monthly estimated percentage of the difference between the total water withdrawals and their return flows. Therefore, consistent with ODFW's advice, when appropriate, the Department proposes to adjust any reduction by a "Consumptive Use Percentage," as generally determined by  $(1 - [\text{total municipal wide returned flows} / \text{total municipal wide diverted flows}])$ .

**B. Option #2 (Water from Big Buttes Springs is diverted at the head of Butte Creek)**

- a. Option #2 must be exercised by the water user if the undeveloped portion of Permit S-20177 from live flow is diverted from the POD at Big Butte Springs.
- b. There is an undeveloped portion of 7.0 cfs of water from Big Butte Springs (live flow) under Permit S-20177 as per OAR 690-315-0010(6)(g). For the purpose of conditioning this permit to maintain the persistence of fish, the Department finds that the amount of the undeveloped portion of water from Big Butte Springs (live flow) under Permit S-20177 is 7.0 cfs. Therefore, 7.0 cfs is the amount of water from Big Butte Springs (live flow) under Permit S-20177 that must be conditioned for the persistence of listed fish species. Authorization to use any water from Big Butte Springs (live flow) up to the permitted quantity of

7.0 cfs under this permit can only be granted through the Department's review and approval of the municipal water user's future WMCPs (OAR 690-086). The proposed conditions for Option #2 may result in no diversion, or a limit on diversion, of the amount of water from Big Butte Springs (live flow) conditioned for fish persistence under Permit S-20177. The proposed conditions for Option #2 are based on the following findings:

- i. The flows needed to maintain the persistence of fish must be measured at the three following locations:
  1. On South Fork Big Butte Creek at approximately RM 1, below the EPID's point of diversion (POD) located within the NENE, Section 10, Township 35 South, Range 2 East, W.M.
  2. On Big Butte Creek a short distance downstream from the confluence of the North and South Forks of Big Butte Creek, below EPID's POD located within the within the NWNW, Section 3, Township 35 South, Range 2 East, W.M.
  3. On Big Butte Creek near McLeod, Oregon, USGS GAGE No.14337500, or its equivalent.
- ii. Target flows ( $Q_T$ ) must be compared to the mean daily flow at the point of interest ( $Q$ ) at each of the three measurement locations listed above.
  - a. When  $Q \leq Q_T$  at any location :  
No water may be diverted from Big Butte Springs (live flow) under this water right.
  - b. When  $Q > Q_T$  at each location :  
The maximum amount of water conditioned for fish persistence that could be diverted from Big Butte Springs (live flow) is based on comparing  $Q - Q_T$  at each of the three measurement locations. The maximum amount that could be diverted would equal the *smallest* difference of  $(Q - Q_T)$ , not to exceed the amount of water conditioned for fish persistence ( $E$ ), and is defined as:

$$(Q - Q_T), \text{ not to exceed } E,$$

where  $Q$  is the flow at the point of interest,  $Q_T$  is the target flow (from Table 2), and  $E$  is the amount of water from Big Butte Springs (live flow) conditioned for fish persistence, being 7.0 cfs.

ODFW's advice recognizes that the use of the undeveloped portion of the permit from live flow diverted at the Big Butte Springs POD, could represent a significant part of the existing flow in Big Butte Creek downstream from EPID's diversions.

44. The Department finds, based on ODFW's advice, that in the absence of conditions, the use of the undeveloped portion of live flow from Big Butte Springs under Permit S-20177 will not maintain the persistence of listed fish species in the portions of the waterways affected by water use under the permit, and as a result of the use of the undeveloped portion of the permit, stream flows would be a limiting factor for the listed fish species.
45. Based on ODFW's advice, the Department proposes to require conditions to maintain, in the portions of the waterways affected by water use under Permit S-20177, the persistence of fish species listed as sensitive, threatened or endangered under state or federal law. (See Item 2 of the "Conditions" section of this PFO.)<sup>6</sup>
46. On February 15, 2017, the Department notified the City as per OAR 690-315-0080(2)(f) of ODFW's written advice and the "Conditions to Maintain the Persistence of Listed Fish" proposed in this PFO for the pending municipal Application for Extension of Time for Permit S-20177.

### **CONCLUSIONS OF LAW**

1. The City is entitled to apply for an extension of time to complete construction and completely apply water to the full beneficial use pursuant to ORS 537.230(2).
2. The City has submitted a complete extension application form and the fee specified under ORS 536.050(1)(k), as required by OAR 690-315-0080(1)(a).
3. As required by OAR 690-315-0080(1)(b), the permit holder was able to demonstrate that actual construction of the project began (commenced) within the time period required by ORS 537.230(2), being no later than June 15, 1952, as specified in the permit.
4. Pursuant to ORS 540.510(3)(a) and (b), water under Permit S-20177 may be applied to beneficial use on land to which the right is not appurtenant.
5. The time requested to complete construction and apply water to full beneficial use is reasonable, as required by OAR 690-315-0080(1)(c).
6. Completion of construction and full application of water to beneficial use can be completed by October 1, 2056<sup>6</sup>. The estimated demand projection is consistent with

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<sup>6</sup> The Department, based on advice from the ODFW, finds that the conditions contained in this PFO are appropriate for this extension. In other municipal extensions that require conditions to maintain the persistence of listed species, different conditions may be warranted depending on the advice received from ODFW and communications with the particular extension applicant.



the amount and types of lands and uses proposed to be served by the permit holder pursuant to OAR 690-315-0080(1)(d).

7. The Department has considered the reasonable diligence and good faith of the appropriator, the cost to appropriate and apply water to a beneficial purpose, the market and present demands for water to be supplied, the financial investment made and the fair return upon the investment, the requirements of other governmental agencies, and unforeseen events over which the water right permit holder had no control, and the Department finds that the City has shown good cause for an extension of time to complete construction and to apply the water to full beneficial use pursuant to OAR 690-315-0080(1)(e).
8. As required by OAR 690-315-0090(3) and as described in FOF 34, above, and specified under Item 1 of the "Conditions" section of this PFO, any diversion of the remaining unperfected portion of water under the permit, being 7.0 cfs of water from Big Butte Springs and 95.0 cfs of stored water from Willow Creek Reservoir, under Permit S-20177 shall only be authorized upon issuance of a final order approving a Water Management and Conservation Plan (WMCP) under OAR Chapter 690, Division 86 that grants access to a greater rate of diversion of water under the permit consistent with OAR 690-086-0130(7).
9. In accordance with OAR 690-315-0080(1)(f), and as described in FOF 38 through 46, above, the persistence of listed fish species will not be maintained in the portions of the waterways affected by water use of the undeveloped portion under this municipal use permit, in the absence of special conditions. Therefore, the diversion of water any water from Big Butte Springs under Permit S-20177 will be subject to the conditions specified under Item 2 of the "Conditions" section of this PFO.

### **Proposed Order**

Based upon the foregoing Findings of Fact and Conclusions of Law, the Department proposes to issue an order to:

Extend the time to complete construction under Permit S-20177 from October 1, 1998, to October 1, 2056.

Extend the time to apply the water to beneficial use under Permit S-20177 from October 1, 1998, to October 1, 2056.

## CONDITIONS

### 1. Development Limitations

No diversion of water is currently allowed under the unperfected portion of Permit S-20177<sup>7</sup>. Any diversion of the remaining unperfected portion of water under the permit, being 7.0 cfs of water from Big Butte Springs and 48.5 cfs of stored water from Willow Creek Reservoir, shall only be authorized upon issuance of a final order approving a Water Management and Conservation Plan (WMCP) under OAR Chapter 690, Division 86 that authorizes access to a greater rate of diversion of water under the permit consistent with OAR 690-086-0130(7). The required WMCP shall be submitted to the Department within 3 years of this Final Order. The amount of water used under Permit S-20177 must be consistent with this and subsequent WMCP's approved under OAR Chapter 690, on file with the Department.

The Development Limitation established in the above paragraph supersedes any prior limitation of the diversion of water under Permit S-20177 that has been established under a prior WMCP or Extension final order issued by the Department.

The deadline established in the Extension Final Order for submittal of a WMCP shall not relieve a permit holder of any existing or future requirement for submittal of a WMCP at an earlier date as established through other orders of the Department. A WMCP submitted to meet the requirements of the final order may also meet the WMCP submittal requirements of other Department orders.

### 2. Conditions to Maintain the Persistence of Listed Fish

*Up to 48.5 cfs of stored water from Willow Creek Reservoir<sup>8</sup> under this or any subsequent water right(s) originating from Permit S-20177 is not and will not be conditioned to maintain fish persistence.*

The undeveloped portion of the permit from Big Butte Springs (live flow) subject to these fish persistence conditions is established as 7.0 cfs in accordance with 537.230(2)(c). The use of 7.0 cfs of water from Big Butte Springs (live flow) as authorized under this permit must be hereafter conditioned with these fish persistence conditions. Therefore, all subsequent water right(s) originating from Permit S-20177

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<sup>7</sup> Permit S-20177 was issued for a total of 95.0 cfs of stored water from Willow Creek reservoir and 7.0 cfs of water from Big Butte Springs; 46.5 cfs was partially perfected under Certificate 86995.

<sup>8</sup> Permit S-20177 also authorized the use of 95.0 cfs of water stored in Willow Creek Reservoir, of which 46.5 cfs has been perfected under Certificate 86995. Under this permit, 48.5 cfs of water stored in Willow creek reservoir and 7.0 cfs of water from Big Butte Springs is remaining to be perfected. (See Order: IN THE MATTER OF PARTIAL PERFECTION OF WATER RIGHT PERMIT S-20177 IN THE NAME OF THE CITY OF MEDFORD, Vol 83, Page 936.)

must include these Conditions to Maintain the Persistence of Listed Fish. If more than one resulting water right is subject to these Conditions to Maintain the Persistence of Listed Fish, then legal use of the 7.0 cfs conditioned to maintain the persistence of listed fish species shall be determined among all the permit/water right holders of record; all the permit/water right holders of record subject to these Conditions to Maintain the Persistence of Listed Fish must ensure that these fish persistence conditions are met.

**I. Conditions to Maintain the Persistence of Listed Fish - Option #1**

**A. Authorization for a Change in/Additional of Point(s) of Diversion**

- a. Prior to diversion of any water under Permit S-20177 from the Rogue River, a change in or addition of point(s) of diversion (POD) to a location on the mainstem of the Rogue River near or below the Duff Water Treatment Plant located in DLC 41 within the SWNW, Section 13, Township 36 South, Range 2 West, W.M. must be approved by the Department in accordance with ORS 537.211 or ORS 540.510.
- b. To prevent injury or enlargement, diversion of water from the Rogue River under Permit S-20177 will be limited as part of any transfer process to the amount of water lawfully available from Big Butte Springs at the original POD located at Big Butte Springs.

**B. Fish Persistence Target Flows**

- a. Fish persistence target flows in the Rogue River as recommended by ODFW are in Table 3, below; flows are to be measured in the Rogue River near Agness, Oregon (USGS Gage Number 14372300, or its equivalent), or at Raygold, near Central Point, Oregon (USGS Gage Number 14359000, or its equivalent), depending on the time of year.

**Table 3**

ODFW'S RECOMMENDED FISH PERSISTENCE TARGET FLOWS MEASURED AT USGS GAGE 14372300, ROGUE RIVER AT AGNESS, OREGON	
Month	Cubic Feet per Second
May 1 – June 30	3800
July 1 – Sept 10	2000
ODFW'S RECOMMENDED FISH PERSISTENCE TARGET FLOWS MEASURED AT USGS GAGE 14359000, ROGUE RIVER AT RAYGOLD, OREGON	
Month	Cubic Feet per Second
Sept 11 – April 30	1200

b. Alternate Streamflow Measurement Point

The location of a streamflow measurement point as established in these Conditions to Maintain the Persistence of Listed Fish may be revised if the permit or water right holder provides evidence in writing that ODFW has determined that persistence flows may be measured at an alternate streamflow measurement point and provides an adequate description of the location of the alternate streamflow measurement point, and the Water Resources Director concurs in writing.

C. Determining Water Use Reductions – Generally

The maximum amount of the 7.0 cfs of water from live flow conditioned for fish persistence that can be diverted is determined in proportion to the amount by which the target flows shown in Table 3 are missed based on a seven-day rolling average of mean daily flows as measured or determined by the water user in the Rogue River at the specified gage location. The percent of missed target flows is defined as:

$$(1 - [Q_A / Q_T]) \times 100\%$$

where  $Q_A$  is the mean daily flow measured at the designated location based on the seven-day rolling average, and  $Q_T$  is the target flow (from Table 3).

The percent by which the target flow is missed applied to the amount of water (from live flow) conditioned for fish persistence provides the maximum amount of water that can be diverted as a result of this fish persistence condition, and is defined as:

$$E - (E \times \% \text{ missed target flow}),$$

where  $E$  is the amount of water from Big Butte Springs (live flow) conditioned for fish persistence, being 7.0 cfs.

The maximum amount of water (live flow) conditioned for fish persistence that can be diverted may be adjusted by a Consumptive Use Percentage, when applicable, as per Item I.D., below.

When  $Q_A \geq Q_T$ , the amount water from live flow conditioned for fish persistence that can be diverted would not need to be reduced.

D. Consumptive Use Percentages for Utilization in Rogue River Calculations

a. First Time Utilization of Consumptive Use Percentages

Utilization of Consumptive Use Percentages for the purpose of calculating

the amount of water conditioned for fish persistence that can be appropriated may begin after the issuance of the Final Order for an extension of time under which these fish persistence conditions were established.

First time utilization of Consumptive Use Percentages is contingent upon the permit or water right holder (1) providing evidence in writing that ODFW has determined that withdrawal points and effluent discharges are within reasonable proximity to each other, such that fish habitat between the two points is not impacted significantly, and (2) submitting monthly Consumptive Use Percentages and receiving the Water Resources Director's concurrence with the proposed Consumptive Use Percentages. Utilization of Consumptive Use Percentages is subject to an approval period described in I.D.e., below.

Consumptive Use Percentages submitted to the Department for review must (1) be specified as a percentage (may be to the nearest 1/10 percent) for each month of the year and (2) include a description and justification of the methods utilized to determine the percentages. The proposed Consumptive Use Percentages should be submitted on the *Consumptive Use Percentages Update Form* provided by the Oregon Water Resources Department.

b. Consumptive Use Percentages Updates

Continuing the utilization of Consumptive Use Percentages for the purpose of calculating the amount of water conditioned for fish persistence that can be appropriated, beyond an approval period (as described in I.D.e., below) is contingent upon the permit or water right holder submitting updated Consumptive Use Percentages and receiving the Water Resources Director's concurrence with the proposed Consumptive Use Percentages Updates. Utilization of Consumptive Use Percentages Updates is subject to an approval period described in I.D.e., below.

The updates to the Consumptive Use Percentages must (1) be specified as a percentage (may be to the nearest 1/10 percent) for each month of the year and (2) include a description and justification of the methods utilized to determine the percentages. The updates should be submitted on the *Consumptive Use Percentages Update Form* provided by the Department.

c. Changes to Wastewater Technology and/or Wastewater Treatment Plant Practices

If there are changes to either wastewater technology or the practices at the permit or water right holder's waste water treatment facility resulting in 25% or more reductions in average monthly return flows to Rogue River, then the Consumptive Use Percentages in effect at that time may no longer be utilized for the purpose of calculating the amount of water conditioned for fish

persistence that can be appropriated. The 25% reduction is based on a 10-year rolling average of monthly wastewater return flows to Rogue River as compared to the average monthly wastewater return flows from the 10 year period just prior to date of the first approval period described in I.D.e., below.

If such changes to either wastewater technology or the practices at the permit or water right holder's waste water treatment facility occur resulting in 25% reductions, further utilization of Consumptive Use Percentages is contingent upon the water right holder submitting Consumptive Use Percentages Updates as per I.D.b., above, and receiving the Water Resources Director's concurrence with the proposed Consumptive Use Percentages.

d. Relocation of the Point(s) of Diversion(s) and/or Return Flows

If the point(s) of diversion(s) and/or return flows are relocated, Consumptive Use Percentages in effect at that time may no longer be utilized for the purpose of calculating the amount of water conditioned for fish persistence that can be appropriated.

After relocation of the point(s) of diversion(s) and/or return flows, further utilization of Consumptive Use Percentages is contingent upon the permit holder (1) providing evidence in writing that ODFW has determined that any relocated withdrawal points and effluent discharge points are within reasonable proximity to each other, such that fish habitat between the two points is not impacted significantly, and (2) submitting Consumptive Use Percentages Updates as per I.D.b., above, and receiving the Water Resources Director's concurrence with the proposed Consumptive Use Percentages.

e. Approval Periods for Utilization of Consumptive Use Percentages

The utilization of Consumptive Use Percentages for the purpose of calculating the amount of water conditioned for fish persistence that can be appropriated may continue for a 10 year approval period that ends 10 years from the Water Resources Director's most recent date of concurrence with Consumptive Use Percentages Updates as evidenced by the record, unless sections I.D.c., or I.D.d. (above) are applicable.

Consumptive Use Percentages (first time utilization or updates) which are submitted and receive the Director's concurrence will begin a new 10 year approval period. The approval period begins on the date of the Water Resources Director's concurrence with Consumptive Use Percentages Updates, as evidenced by the record. The permit holder at its discretion may submit updates prior to the end of an approval period.

## E. Examples

### Example 1: Target flow met.

On June 15, the last seven mean daily flows in the Rogue River at the Agness gage were 4100, 4000, 4100, 4000, 3900, 3800 and 3800 cfs. The seven-day rolling average ( $Q_A$ ) is 3957 cfs. The amount of water from Big Butte Springs (live flow) conditioned for fish persistence that can be diverted would not be reduced because the seven-day average of mean daily flows is greater than the 3800 cfs target flow ( $Q_T$ ) for June 15. In this example,  $Q_A \geq Q_T$ .

### Example 2: Target flow missed.

Step 1: If on June 15, the average of the last seven mean daily flows ( $Q_A$ ) was 2600 cfs, and the target flow ( $Q_T$ ) is 3800, then the target flow would be missed by 31.6 %.

$$(1 - (2600 / 3800)) \times 100\% = 31.6\%$$

Step 2: Assuming the Consumptive Use Percentage is 62.2% during the month of June and the utilization of this percentage is authorized, and the target flow is missed by 31.6% (from Step 1), then the amount of the water from Big Butte Springs (live flow) conditioned for fish persistence that could be diverted would be reduced by 19.7%.

$$(62.2\% \times 31.6\%) / 100 = 19.7\%$$

(If use of a Consumptive Use Percentage is not authorized, then the amount of water conditioned for fish persistence would only be reduced by the % by which the target flow is missed – 31.6% in this example).

Step 3: Given that the amount of water from Big Butte Springs conditioned for fish persistence ( $E$ ) is 7.0 cfs, which needs to be reduced by 19.7% (from Step 2), or 1.4 cfs, then the maximum amount of water conditioned for fish persistence that can be appropriated as a result of this fish persistence condition is 5.6 cfs. (This maximum amount may be limited as illustrated in Step 4, below.)

$$(7.0 \times 19.7\%) / 100 = 1.4$$

$$7.0 - 1.4 = 5.6$$

Step 4: The calculated maximum amount of water that could be diverted due to the fish persistence condition may not exceed the amount of water

to which the City is legally entitled to divert. In this example, if the amount of water legally authorized for diversion from live flow under this permit or subsequent water right is 5.0 cfs (for example, authorization provided through a WMCP or partial perfection), then 5.0 cfs would be the maximum amount of (live flow) diversion allowed under the water right, rather than 5.6 cfs from Step 3.

(Conversely, if the amount of water legally authorized for (live flow) diversion under the permit or subsequent water right is 6.5cfs, then 5.6 cfs (from Step 3) would be the maximum amount of (live flow) diversion allowed under the water right.)

## **II. Conditions to Maintain the Persistence of Listed Fish - Option #2**

### **A. Fish Persistence Target flows**

- a. Fish persistence target flows for South Fork Big Butte Creek and Big Butte Creek as recommended by ODFW are in Table 4, below. Flows are to be measured at three locations, being (1) below Eagle Point Irrigation District's (EPID) POD #1 on South Fork Big Butte Creek at approximately RM 1, (2) below EPID's POD #2 on Big Butte Creek – near the confluence of North and South Forks of Big Butte Creek, and (3) in Big Butte Creek near McLeod, Oregon (USGS Gage Number 14337500, or its equivalent).

**continued on following page**



**Table 4**

<b>ODFW'S RECOMMENDED FISH PERSISTENCE TARGET FLOWS IN SOUTH FORK BIG BUTTE CREEK, MEASURED (1) BELOW EPID'S POD #1<sup>a</sup> ON SOUTH FORK BIG BUTTE CREEK AT APPROX. RM 1</b>	
Month	Cubic Feet per Second
Jan 1 – Jan 31	70
Feb 1 – May 15	120
May 16 – Jun 30	70
July 1 – Oct 31	47
Nov 1 – Nov 30	60
Dec 1 – Dec 31	70
<b>ODFW'S RECOMMENDED FISH PERSISTENCE TARGET FLOWS IN BIG BUTTE CREEK, MEASURED (2) BELOW EPID'S POD 2<sup>b</sup> ON BIG BUTTE CREEK – NEAR CONFLUENCE OF NORTH AND SOUTH FORK BIG BUTTE, AND (3) USGS GAGE 14337500, BIG BUTTE CREEK NEAR MCLEOD, OREGON</b>	
Month	Cubic Feet per Second
Jan 1 – May 15	135
May 16 – June 30	80
July 1 – Aug 15	54
Aug 16 – Dec 31	135

<sup>a</sup>Eagle Point Irrigation District's (EPID) POD #1 is located within the NENE, Section 10, Township 35 South, Range 2 East, W.M.

<sup>b</sup>Eagle Point Irrigation District's (EPID) POD #2 is located within the NWNW, Section 3, Township 35 South, Range 2 East, W.M.

**B. Determining Water Use Reductions – Generally**

The maximum amount water from Big Butte Springs (live flow) conditioned for fish persistence that can be diverted is based on a comparison of the target flows ( $Q_T$ ) at three locations, to the corresponding mean daily flows ( $Q_A$ ) prior to diversion of any water conditioned for fish persistence from live flow.

- i. When  $Q_A \leq Q_T$  at any measurement location:

No water may be diverted from Big Butte Springs (live flow) under this fish persistence condition when  $Q_A \leq Q_T$  at any of the three

measurement locations described above, where  $Q_A$  is the mean daily flow based on a seven-day rolling average, and  $Q_T$  is the target flow (from Table 4).

- ii. When  $Q_A > Q_T$  at all measurement locations:

Water from Big Butte Springs (live flow) conditioned for fish persistence may be diverted when  $Q_A > Q_T$  at all three measurement locations. The maximum amount of water conditioned for fish persistence that can be diverted is equal to the smallest difference between  $Q_A$  and  $Q_T$  among the three measurement locations:

$$(Q_A - Q_T), \text{ not to exceed } E,$$

where  $Q_A$  is the mean daily flow based on the seven-day rolling average, and  $Q_T$  is the target flow (from Table 4), and  $E$  is the amount of water from Big Butte Springs (live flow) conditioned for fish persistence, being 7.0 cfs.

- iii. When  $Q_A - Q_T \geq E$  at each location, the amount of water from Big Butte Springs (live flow) conditioned for fish persistence that can be diverted would not need to be reduced.

### C. Examples

Example 1: Target flows met at each location, no reduction needed.

On July 15, the last seven mean daily flows in the South Fork Big Butte Creek below EPID's POD #1 were 69, 69, 68, 68, 67, 67 and 68 cfs. The seven-day rolling average ( $Q_A$ ) is 68 cfs. Given that the amount of water from Big Butte Springs conditioned for fish persistence ( $E$ ) is 7.0 cfs, and the target flow ( $Q_T$ ) for July 15 is 47 cfs, then at this location,  $Q_A - Q_T \geq E$ . The target flow is met.

$$68 - 47 \geq 7.0$$

AND, on July 15, the last seven mean daily flows in Big Butte Creek below EPID's POD #2 were 76, 76, 75, 75, 74, 74 and 75 cfs. The seven-day rolling average ( $Q_A$ ) is 75 cfs. Given that the amount of water from Big Butte Springs conditioned for fish persistence ( $E$ ) is 7.0 cfs, and the target flow ( $Q_T$ ) for July 15 is 54 cfs, then at this location,  $Q_A - Q_T \geq E$ . The target flow is met.

$$75 - 54 \geq 7.0$$

AND, on July 15, the last seven mean daily flows in Big Butte Creek at Gage 14337500 were 86, 86, 85, 85, 84, 84 and 85 cfs. The seven-day rolling average ( $Q_A$ ) is 85 cfs. Given that the amount of water from Big Butte Springs conditioned for fish persistence ( $E$ ) is 7.0 cfs, and the target flow ( $Q_T$ ) for July 15 is 54 cfs, then at this location,  $Q_A - Q_T \geq E$ . The target flow is met.

$$85 - 54 \geq 7.0$$

The amount water from Big Butte Springs (live flow) that can be diverted would not be reduced because the mean daily flows minus target flows are greater than the amount conditioned for fish persistence at each designated measuring location. In this example,  $Q_A - Q_T \geq E$  at *each* location.

Example 2: Target flows met at each location, reduction needed.

Step 1: If on July 15, the average of the last seven mean daily flows ( $Q_A$ ) at South Fork Big Butte Creek below EPID's POD #1 was 50 cfs, and the target flow ( $Q_T$ ) is 47, then  $Q_A - Q_T = \underline{3.0 \text{ cfs}}$ .

$$50 - 47 = 3.0$$

AND, on July 15, the last seven mean daily flows ( $Q_A$ ) in Big Butte Creek below EPID's POD #2 was 60 cfs, and the target flow ( $Q_T$ ) is 54, then  $Q_A - Q_T = \underline{6.0 \text{ cfs}}$ .

$$60 - 54 = 6.0$$

AND, on July 15, the last seven mean daily flows ( $Q_A$ ) in Big Butte Creek at Gage 14337500 was 80 cfs, and the target flow ( $Q_T$ ) is 54, then  $Q_A - Q_T = \underline{26.0 \text{ cfs}}$ .

$$80 - 54 = 26.0$$

Step 2: The maximum amount of water conditioned for fish persistence that can be diverted equals the smallest difference ( $Q_A - Q_T$ ) among the three measurement locations, not to exceed 7.0 cfs.

The smallest difference from Step 1 is 3.0 cfs [which does not exceed 7.0 cfs], thus the maximum amount water from Big Butte Springs that can be diverted is 3.0 cfs. (This maximum amount may be limited as illustrated in Step 3, below.)

Step 3: The calculated maximum amount of water that could be diverted due

to the fish persistence condition may not exceed the amount of water to which the permit or water right holder is legally entitled to divert. In this example, if the amount of water legally authorized for diversion under the permit or subsequent water right is 2.5 cfs (for example, authorization provided through a WMCP or partial perfection), then 2.5 cfs would be the maximum amount of diversion allowed under the water right, rather than 3.0 cfs from Step 2.

(Conversely, if the amount of water legally authorized for (live flow) diversion under the permit or subsequent water right is 5.0 cfs, then 3.0 cfs (from Step 2) would be the maximum amount of (live flow) diversion allowed under the water right.)

**Example 3: Mean daily flows are less than target flows at one measurement location.**

If on July 15, the average of the last seven mean daily flows ( $Q_A$ ) at South Fork Big Butte Creek below EPID's POD #1 was 50 cfs, and the target flow ( $Q_T$ ) is 47, then  $Q_A > Q_T$ . The target flow is met at this location.

AND, on July 15, the last seven mean daily flows ( $Q_A$ ) in Big Butte Creek below EPID's POD #2 was 30 cfs, and the target flow ( $Q_T$ ) is 54, then  $Q_A \leq Q_T$ . The target flow is NOT met at this location.

AND, on July 15, the last seven mean daily flows ( $Q_A$ ) in Big Butte Creek at Gage 14337500 was 60 cfs, and the target flow ( $Q_T$ ) is 54, then  $Q_A > Q_T$ . The target flow is met at this location.

In this example no water may be diverted from Big Butte Springs (live flow) as a result of this fish persistence condition because the target flow was missed at one of the three measurement locations.

DATED: March 28, 2017

  
\_\_\_\_\_  
Dwight French  
Water Right Services Division Administrator

*If you have any questions, please check the information box on the last page for the appropriate names and phone numbers.*

## **Proposed Final Order Hearing Rights**

1. Under the provisions of OAR 690-315-0100(1) and 690-315-0060, the applicant or any other person adversely affected or aggrieved by the proposed final order may submit a written protest to the proposed final order. The written protest must be received by the Water Resources Department no later than **May 12, 2017**, being 45 days from the date of publication of the proposed final order in the Department's weekly notice.
2. A written protest shall include:
  - a. The name, address and telephone number of the petitioner;
  - b. A description of the petitioner's interest in the proposed final order and if the protestant claims to represent the public interest, a precise statement of the public interest represented;
  - c. A detailed description of how the action proposed in the proposed final order would adversely affect or aggrieve the petitioner's interest;
  - d. A detailed description of how the proposed final order is in error or deficient and how to correct the alleged error or deficiency;
  - e. Any citation of legal authority supporting the petitioner, if known;
  - f. Proof of service of the protest upon the water right permit holder, if petitioner is other than the water right permit holder; and
  - g. The applicant or non-applicant protest fee required under ORS 536.050.
3. Within 60 days after the close of the period for requesting a contested case hearing, the Director shall:
  - a. Issue a final order on the extension request; or
  - b. Schedule a contested case hearing if a protest has been submitted, and:
    - 1) Upon review of the issues, the Director finds there are significant disputes related to the proposed agency action; or
    - 2) The applicant submits a written request for a contested case hearing within 30 days after the close of the period for submitting protests.

**Notice Regarding Service Members:** Active duty service members have a right to stay proceedings under the federal Service Members Civil Relief Act. 50 U.S.C. App. §§501-597b. You may contact the Oregon State Bar or the Oregon Military Department for more information. The toll-free telephone number for the Oregon State Bar is: 1 (800) 452-8260. The toll-free telephone number of the Oregon Military Department is: 1 (800) 452-7500. The Internet address for the United States Armed Forces Legal Assistance Legal Services Locator website is: <http://legalassistance.law.af.mil>

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If you have any questions about statements contained in this document, please contact Jeffrey D. Pierceall at 503-986-0802.

If you have questions about how to file a protest or if you have previously filed a protest and you want to know the status, please contact Patricia McCarty at 503-986-0820.

If you have any questions about the Department or any of its programs, please contact our Water Resources Customer Service Group at 503-986-0801.

Address any correspondence to:      Water Right Services Division  
725 Summer St NE, Suite A  
Fax: 503-986-0901                      Salem, OR 97301-1266

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