

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

Water Rights Application  
Number S-8092

**Final Order**  
**Extension of Time for Permit Number S-6703**  
**Permit Holder: City of Medford**

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**Permit Information**

**Application File S-8092/ Permit S-6703**

Basin 15 – Rogue Basin / Watermaster District 13

Date of Priority: October 20, 1923

**Authorized Use of Water**

Source of Water:	Big Butte Springs, Tributary to Big Butte Creek
Purpose or Use:	Municipal Use
Maximum Rate:	19.2 Cubic Feet per Second (cfs)

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**This Extension of Time request is being processed in accordance with Oregon Revised Statute 537.230 and 539.010(5), and Oregon Administrative Rule Chapter 690, Division 315**

**Appeal Rights**

**This is a final order in other than a contested case.** This order is subject to judicial review under ORS 183.484. A request for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either file for judicial review, or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

**Application History**

Permit S-6703 was issued by the Department on April 25, 1925. The permit called for completion of construction by April 25, 1930, and complete application of water to beneficial use by October 1, 1931. On September 28, 2000, City of Medford submitted an application to the Department for an extension of time for Permit S-6703. In accordance with OAR 690-315-0050(2), on October 1, 2013, the Department issued a Proposed Final Order proposing to extend the time to complete construction to October 1, 2056, and the time to fully apply water to beneficial use to October 1, 2056. The protest period closed November 15, 2013, in accordance

with OAR 690-315-0060(1). No protest was filed.

### **Findings of Fact**

The Department adopts and incorporates by reference the findings of fact in the Proposed Final Order dated October 1, 2013.

At time of issuance of the Proposed Final Order the Department concluded that, based on the factors demonstrated by the applicant, the permit may be extended subject to the following conditions:

## **CONDITIONS**

### **1. Development Limitations**

Diversion of any of the remaining unperfected portion of water under Permit S-6703, being 19.2 cfs, 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 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-6703 must be consistent with this and subsequent WMCP's approved under OAR Chapter 690, on file with 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**

#### **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-6703 from the Rogue River, a change in or addition of point(s) of diversion 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-6703 will be limited as part of any transfer process to the amount of water lawfully available from Big Butte Springs at the original POD(s) located at the headwaters of Big Butte Creek.

B. Fish Persistence Target Flows

- a. Fish persistence target flows in the Rogue River as recommended by ODFW are in Table 1, 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 1**

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

- b. Alternate Streamflow Measurement Point  
The location of a target flow measurement point as established in these Conditions to Maintain the Persistence of Listed Fish may be revised if the City 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 undeveloped portion of Permit S-6703 that can be diverted as a result of this fish persistence condition is determined in proportion to the amount by which the flows shown in Table 1 are missed based on a seven day rolling average of mean daily flows measured 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 actual flow measured at the designated location based on the seven day rolling average, and  $Q_T$  is the target flow (from Table 1).

The percent by which the target flow is missed applied to the undeveloped portion of the permit provides the maximum amount of the undeveloped portion of the

permit 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 undeveloped portion of the permit, being 19.2 cfs.

The maximum amount of undeveloped portion of the permit that can be diverted as a result of this fish persistence condition may be adjusted by a Consumptive Use Percentage, when applicable, as per Item 2.I.D., below.

When  $Q_A \geq Q_T$ , the amount of the undeveloped portion of the permit that can be diverted would not need to be reduced as a result of this fish persistence condition.

D. Consumptive Use Percentages for Utilization in Rogue River Calculations

a. Initial Consumptive Use Percentages

The City of Medford has not identified any Consumptive Use Percentages based on the return of flows to the Rogue River through effluent discharge. Thus, at this time the City may not utilize Consumptive Use Percentages for the purpose of calculating the maximum amount of the undeveloped portion of Permit S-6703 that can be diverted as a result of this fish persistence condition.

b. First Time Utilization of Consumptive Use Percentages

Utilization of Consumptive Use Percentages for the purpose of calculating the maximum amount of the undeveloped portion of Permit S-6703 that can be diverted as a result of this fish persistence condition may begin after the issuance of the Final Order for this extension of time.

First time utilization of Consumptive Use Percentages is contingent upon the City (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 2.I.D.f., 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 with the Final Order for this extension of time.

c. Consumptive Use Percentages Updates

Continuing the utilization of Consumptive Use Percentages for the purpose of calculating the maximum amount of the undeveloped portion of Permit S-6703 that can be diverted as a result of this fish persistence condition

beyond an approval period (as described in 2.I.D.f., below) is contingent upon the City 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 2.I.D.f., 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 with the Final Order for this extension of time.

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

If there are changes to either wastewater technology or the practices at the City's wastewater treatment facility resulting in 25% or more reductions in average monthly return flows to the Rogue River, then the Consumptive Use Percentages in effect at that time may no longer be utilized for the purposes of calculating the maximum amount of the undeveloped portion of Permit S-6703 that can be diverted as a result of this fish persistence condition. The 25% reduction is based on a 10-year rolling average of monthly wastewater return flows to the 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 2.I.D.f., below.

If such changes to either wastewater technology or the practices at the City's wastewater treatment facility occur resulting in 25% reductions, further utilization of Consumptive Use Percentages is contingent upon the City submitting Consumptive Use Percentages Updates as per 2.I.D.c., above, and receiving the Water Resources Director's concurrence with the proposed Consumptive Use Percentages.

e. 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 purposes of calculating the maximum amount of the undeveloped portion of Permit S-6703 that can be diverted as a result of this fish persistence condition.

After relocation of the point(s) of diversion(s) and/or return flows, further utilization of Consumptive Use Percentages is contingent upon the City (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 2.I.D.c., above, and receiving the Water Resources Director's concurrence with the proposed Consumptive Use Percentages.

f. Approval Periods for Utilization of Consumptive Use Percentages

The utilization of Consumptive Use Percentages for the purpose of calculating the maximum amount of the undeveloped portion of Permit S-6703 that can be diverted as a result of this fish persistence condition 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 2.I.D.d., or 2.I.D.e. (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 City 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 the undeveloped portion of the permit that can be diverted would not be reduced because the 7 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%<sup>1</sup> 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 undeveloped portion of the permit that could be diverted would be reduced by 19.7%.

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

(If adjustments are not to be made by a Consumptive Use Percentage,

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<sup>1</sup> Currently, the City of Medford may not utilize Consumptive Use Percentages for the purpose of calculating the amount of the undeveloped portion of Permit S-6703 that can be diverted as a result of this fish persistence condition. The utilization of the Consumptive Use Percentage 62.2% is only for illustrative purposes in this example.

then the undeveloped portion of the permit would be reduced only by the % by which the target flow is missed – 31.6% in this example).

Step 3: Given that the undeveloped portion of this permit (E) is 19.2 cfs, and the undeveloped portion of the permit needs to be reduced by 19.7% (from Step 2), or 3.8 cfs, then the maximum amount of the undeveloped portion of Permit S-6703 that can be diverted as a result of this fish persistence condition is 15.4 cfs.

$$(19.2 \times 19.7\%) / 100 = 3.8$$

$$19.2 - 3.8 = 15.4$$

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 under this permit is 10.0 cfs (for example, authorization provided through a WMCP), then 10.0 cfs would be the maximum amount of diversion allowed under this permit, rather than 15.4 cfs from Step 3.

(Conversely, if the amount of water legally authorized for diversion under this permit is 18.0 cfs, then 15.4 cfs (from Step 3) would be the maximum amount of diversion allowed under this permit.)

## 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 2, below. Flows are to be measured at three locations, being (1) below EPID's 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).

**Table 2**

<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 of the undeveloped portion of Permit S-6703 that can be diverted as a result of this fish persistence condition is based on a comparison of the target flows ( $Q_T$ ) at three locations, to the corresponding actual flows ( $Q_A$ ) prior to diversion of the undeveloped portion under this permit.  $Q_A$  is based on a seven day rolling average of mean daily flows.

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

No water may be diverted from Big Butte Springs under the undeveloped portion of this permit when  $Q_A \leq Q_T$  at any of the three measurement locations described above, where  $Q_A$  is the actual flow and  $Q_T$  is the target flow (from Table 2).  $Q_A$  is based on a seven day rolling average of mean daily flows.

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

Water may be diverted from Big Butte Springs under the undeveloped portion of the permit when  $Q_A > Q_T$  at all three measurement locations. The maximum amount of the undeveloped portion of the permit 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 actual flow based on the seven day rolling average, and  $Q_T$  is the target flow (from Table 2), and  $E$  is the undeveloped portion of the permit as of this extension, being 19.2 cfs.

- iii. When  $Q_A - Q_T \geq E$  at each location, the undeveloped portion of the permit 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 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 undeveloped portion of this permit ( $E$ ) is 19.2 cfs, then the 7 day average of mean daily flows minus the 47 cfs target flow ( $Q_T$ ) for July 15 is greater than undeveloped portion of the permit ( $E$ ). At this location,  $Q_A - Q_T \geq E$ .

$$68 - 47 \geq 19.2$$

AND, on July 15, the last seven mean daily flows in Big Butte 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 undeveloped portion of this permit (E) is 19.2 cfs, then the 7 day average of mean daily flows minus the 54 cfs target flow ( $Q_T$ ) for July 15 is greater than undeveloped portion of the permit (E). At this location,  $Q_A - Q_T \geq E$ .

$$75 - 54 \geq 19.2$$

AND, on July 15, the last seven mean daily flows in Big Butte 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 undeveloped portion of this permit (E) is 19.2 cfs, then the 7 day average of mean daily flows minus the 54 cfs target flow ( $Q_T$ ) for August 15 is greater than undeveloped portion of the permit (E). At this location,  $Q_A - Q_T \geq E$ .

$$75 - 54 \geq 19.2$$

The amount of the undeveloped portion of the permit that can be diverted would not be reduced because actual flows minus target flows are greater than the undeveloped portion of the permit 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 below EPID's POD #1 was 60 cfs, and the target flow ( $Q_T$ ) is 47, then  $Q_A - Q_T = \underline{13.0}$  cfs.

$$60 - 47 = 13.0$$

AND, on July 15, the last seven mean daily flows ( $Q_A$ ) in Big Butte below EPID's POD #2 was 70 cfs, and the target flow ( $Q_T$ ) is 54, then  $Q_A - Q_T = \underline{16.0}$  cfs.

$$70 - 54 = 16.0$$

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

$$80 - 54 = 26.0$$

Step 2: The maximum amount of the undeveloped portion of the permit that can be diverted equals the smallest difference ( $Q_A - Q_T$ ) among the three measurement locations, not to exceed the undeveloped portion of the permit.

The smallest difference from Step 1 is 13.0 which does not exceed the undeveloped portion of the permit, thus the maximum amount of the undeveloped portion of the permit that can be diverted is 13.0 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 fish persistence conditions 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 under this permit is 10.0 cfs (for example, authorization provided through a WMCP), then 10.0 cfs would be the maximum amount of diversion allowed under this permit, rather than 13.0 cfs from Step 2.

(Conversely, if the amount of water legally authorized for diversion under this permit is 18.0 cfs, then 13.0 cfs (from Step 3) would be the maximum amount of diversion allowed under this permit.)

Example 2: Actual 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 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 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 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.

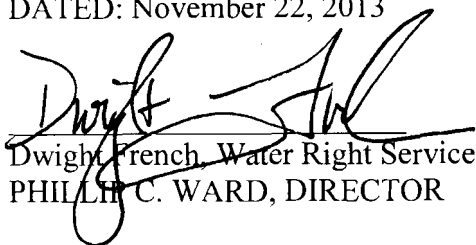
In this example no water may be diverted from Big Butte Springs under the undeveloped portion of this permit as a result of this fish persistence condition because the flow target was missed at one of the three measurement locations.

The applicant has demonstrated good cause for the permit extension pursuant to ORS 537.230, 539.010(5) and OAR 690-315-0080(3).

### **Order**

The extension of time for Application S-8092, Permit S-6703, therefore, is approved subject to conditions contained herein. The deadline for completing construction is extended from October 1, 2000 to October 1, 2056. The deadline for applying water to full beneficial use within the terms and conditions the permit is extended from October 1, 2000 to October 1, 2056.

DATED: November 22, 2013



Dwight French, Water Right Services Division Administrator *for*  
PHILIP C. WARD, DIRECTOR

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If you have any questions about statements contained in this document, please contact Ann L. Reece at (503) 986-0834.

If you have other questions about the Department or any of its programs, please contact our Water Resources Customer Service Group at (503) 986-0900

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