

Permit to Appropriate the Public Waters of the State of Oregon

STATE OF OREGON,
County of Marion, ss.

This superseding permit, in the name of

**CITY OF MEDFORD
200 IVY STREET ROOM 177
MEDFORD OR 97501**

is issued to describe an amendment for an additional point of diversion proposed under Permit Amendment Application T-11916, approved by Special Order Vol. 96, Page 37-40, entered June 3, 2015, and to describe extension of time for complete application of water approved November 22, 2013 and a Water Management and Conservation Plan approved May 18, 2009. This permit supersedes Permit S-6884.

This is to certify that I have examined the foregoing application and do hereby grant the same, subject to the following limitations and conditions:

Subject to existing rights the City of Medford is hereby granted the exclusive right to the use of the waters of Big Butte Creek and of the springs at the head of and which form said stream, and of tributaries of said stream, for municipal purposes, as provided in Chapter 166, Laws of Oregon for 1925.

The amount of water appropriated shall be limited to the amount which can be applied to beneficial use and not exceedSee above..... cubic feet per second, or its equivalent in case of rotation. The priority date of this permit is ...May 28, 1925..., the date upon which the law providing for this appropriation became effective.

Authorized Points of Diversion:

Twsp	Rng	Mer	Sec	Q-Q	DLC	Measured Distances
THE BIG BUTTE CREEK WATERSHED (see ORS 538.430(1))						
36 S	2 W	WM	13	SW NW	41	DUFF WATER TREATMENT PLANT POD – SOUTH 25° 25' 28" EAST 4385.6 FEET FROM THE NE CORNER OF DLC 42.

Authorized Place of Use:

MUNICIPAL USE WITHIN THE BOUNDARIES OF CITY OF MEDFORD

Permit Amendment T-11916 Conditions

The quantity of water diverted at the new additional point of diversion shall not exceed the quantity of water lawfully available at the mouth of Big Butte Creek, measured at USGS Stream Gage Station number 14337500, Big Butte Creek Near McLeod, OR.

For purposes of water use regulation by priority date, the use of water at the additional point of diversion on the Rogue River, as authorized by Permit Amendment T-11916, will be subordinate to Eagle Point Irrigation District's water use for generation of electric power under Certificate 31970 during the non-irrigation season (November 1 through March 31) of each year.

Water use measurement conditions:

- a. Before water use may begin under this order, the water user shall install a totalizing flow meter, or, with prior approval of the Director, another suitable measuring device, at each point of diversion (new and existing).
- b. The water user shall maintain the meter(s) or measuring device(s) in good working order.
- c. The water user shall allow the Watermaster access to the meter(s) or measuring device(s); provided however, where the meter(s) or measuring device(s) are located within a private structure, the Watermaster shall request access upon reasonable notice.

Water shall be acquired from the same surface water source as the original point of diversion.

The water user shall operate and maintain an approved fish screen at the new point of diversion. If Oregon Department of Fish and Wildlife (ODFW) determines the screen is not functioning properly, and is unsuccessful in working with the water user to meet ODFW standards, ODFW may request that OWRD regulate the use of water until OWRD receives notification from ODFW that the fish screen is functioning properly.

Extension of Time Conditions

1. Development Limitations

Diversion of any water beyond 3.1 cfs under Permit S-54935 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 November 22, 2013. The amount of water used under Permit S-54935 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 Point(s) of Diversion

- a. Prior to diversion of any water under Permit S-54935 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-54935 will be limited as part of any transfer process to the amount of water measured in Big Butte Creek near the mouth at USGS Gage No. 14337500, or its equivalent.

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

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 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 developed portion of the permit, 3.1 cfs, is *not* subject to these fish persistence conditions.

The maximum amount of the undeveloped portion of Permit S-54935 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 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:

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

where E is the undeveloped portion of the permit. For water use under Option #1 for Permit S-54935, the undeveloped portion of the permit is equivalent to the streamflow at the mouth of Big Butte Creek as measured at USGS Gage No. 14337500, or its equivalent, minus any portion of the 3.1 cfs developed portion of the permit not diverted above the gage.

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-54935 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-54935 that can be diverted as a result of this fish persistence condition may begin after the issuance of the Final Order for the 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 the extension of time, approved November 22, 2013.

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-54935 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 the extension of time approved November 22, 2013.

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-54935 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-54935 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-54935 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. Big Butte Creek Flow Restoration Credits for Utilization in Rogue River Calculations

This flow restoration credit is based on the amount of water restored to Big Butte Creek through qualified and Department-approved instream transfers. The credit is in cubic feet per second (cfs). When target flows are not met, the credit may be used to increase allowed diversions to the extent discussed below, when diverting the undeveloped portion of Permit S-54935 from the Rogue River.¹

- a. The credit will equal the total combined maximum rate of the instream transfer(s) that protect water to the mouth of Big Butte Creek and also meet at least one of the following three criteria:
 1. The POD(s) are downstream of Eagle Point Irrigation District's (EPID) Big Butte Creek diversion located within the NWNW, Section 3, Township 35 South, Range 2 East, W.M.; or
 2. The priority date(s) are senior to April 21, 1915; or
 3. A written agreement with EPID protects the water transferred instream past EPID's Big Butte Creek diversion located within the NWNW, Section 3, Township 35 South, Range 2 East, W.M.
- b. The credit may be applied to the calculated allowed diversion of the undeveloped portion of Permits S-54935 so long as (1) water under the undeveloped portion of the permit is diverted from the mainstem Rogue River, (2) the allowed diversion of the undeveloped portion of the permit is determined in accordance with 2.I.A., 2.I.B., 2.I.C., and 2.I.D. above, (3) the total credit as determined above is not exceeded, and (4) the legal amount of water that can be diverted under the permit as granted through the Department's review and approval of the municipal water user's WMCP under OAR 690-086 is not exceeded.
- c. Establishing the Flow Restoration Credit
 The City of Medford has not identified any instream transfers in Big Butte Creek that meet the criteria in Section 2.I.E.a., above, for the purpose of a flow restoration credit. Thus, at this time the City may not utilize a Flow Restoration Credit for the purpose of offsetting any required reduction to use of the undeveloped portion of Permit S-54935 due to fish persistence conditions.

In order to establish the Flow Restoration Credit, the City must receive the Water Resources Director's concurrence with any proposed Flow Restoration Credit.

¹ A separate potential credit based on the same instream transfers is also applicable to the undeveloped portion under Permit S-23210.

F. Examples for Option #1

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%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 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, 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: If the gage reading on Big Butte Creek near the mouth at USGS Gage No. 14337500, or its equivalent, is 70 cfs, and the City is diverting the 3.1 cfs developed portion of the permit above the gage, then in this example, the undeveloped portion of Permit S-54935 (E) would be 70.0 cfs.

Step 4: If the undeveloped portion of this permit (E) is 70.0 cfs, and the undeveloped portion of the permit needs to be reduced by 19.7% (from Step 2), or 13.8 cfs, then the maximum amount of the undeveloped portion of Permit S-54935 that can be diverted as a result of this fish persistence condition is 56.2 cfs.

$$(70.0 \times 19.7\%) / 100 = 13.8$$

$$70.0 - 13.8 = 56.2$$

² 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-54935 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.

Step 5: Assuming the Flow Restoration Credit is 5.0 cfs, and the utilization of this whole credit is authorized, then the maximum amount of water that could be diverted under the undeveloped portion of the permit as a result of this fish persistence condition is 61.2 cfs. (This maximum amount may be limited as illustrated in Step 6, below.)

$$56.2 + 5.0 = 61.2$$

Step 6: The calculated maximum amount of water that could be diverted under the permit 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 60.0 cfs (for example, authorization provided through a WMCP), then 60.0 cfs would be the maximum amount of diversion allowed under this permit including the developed portion of the permit, being 3.1 cfs.

(Conversely, if the amount of water legally authorized for diversion under this permit is 70.0 cfs, then 64.3 cfs (61.2 from Step 5 + the 3.1 developed portion) 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 January 1 – December 31

- 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 each designated location that is downstream of the allowable POD(s) being used under Permit S-54935. The three designated measurement locations are (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

ODFW'S RECOMMENDED FISH PERSISTENCE TARGET FLOWS IN SOUTH FORK BIG BUTTE CREEK, MEASURED (1) BELOW EPID'S POD #1^a ON SOUTH FORK BIG BUTTE CREEK AT APPROX. RM 1	
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
ODFW'S RECOMMENDED FISH PERSISTENCE TARGET FLOWS IN BIG BUTTE CREEK, MEASURED (2) BELOW EPID'S POD 2^b ON BIG BUTTE CREEK – NEAR CONFLUENCE OF NORTH AND SOUTH FORK BIG BUTTE CREEK, AND (3) USGS GAGE 14337500, BIG BUTTE CREEK NEAR MCLEOD, OREGON	
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

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

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

B. Determining Water Use Reductions – Generally

The developed portion of the permit, 3.1 cfs, is *not* subject to these fish persistence conditions.

a. January 1 through December 31.

Diversion of the undeveloped portion of Permit S-54935 cannot reduce stream flows below target levels at any of the designated measurement location(s) located below any allowable POD(s) being used under this permit.

The maximum amount of the undeveloped portion of Permit S-54935 that can be diverted as a result of this fish persistence condition is based on a comparison of the target flows (Q_T) at the designated measurement locations located downstream of the allowable POD(s) being used under Permit S-54935, to the corresponding actual flows (Q_A) prior to any 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 designated measurement location(s) downstream from the allowable POD(s) being used under Permit S-54935:

No water beyond 3.1 cfs may be diverted from Big Butte Creek and its tributaries and springs under this permit when $Q_A \leq Q_T$ at any of the three pertinent 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 designated measurement location(s) downstream from the allowable POD(s) being used under Permit S-54935:

Water may be diverted from Big Butte Creek and its tributaries and springs under the undeveloped portion of the permit when $Q_A > Q_T$ at all pertinent 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 pertinent measurement locations:

$$(Q_A - Q_T)$$

where Q_A is the actual flow based on the seven day rolling average, and Q_T is the target flow (from Table 2).

C. November 1 – April 30: Required Diversion Caps or Protection Agreement

In the absence of a Protection Agreement with ODFW for related seasonally varying flows, any diversion of the undeveloped portion of Permit S-54935 as determined in Sections 2.II.A and 2.II.B will be capped as recommended by ODFW in Table 3, below.

TABLE 3

DIVERSION CAPS FOR BIG BUTTE CREEK AS RECOMMENDED BY ODFW NOVEMBER 1 – APRIL 30	
Month	Cubic Feet per Second
November	0
December	9
January	33
February	102
March	145
April	112

D. Examples for Option #2

May 1 – October 31

In these examples, the POD is located above EPID's POD #1, therefore all three designated measurement locations are pertinent to determining the maximum amount of the undeveloped portion of the permit that can be diverted.

Example 1 – Target flows met at each measurement location – diversion limited

Step 1: On July 15, the last seven mean daily flows in the South Fork Big Butte Creek below EPID's POD #1 were 62, 62, 61, 60, 59, 59 and 58 cfs. The seven day rolling average (Q_A) is 60 cfs. The target flow (Q_T) for July 15 at this location is 47. $Q_A - Q_T = \underline{13 \text{ cfs.}}$

$$60 - 47 = 13$$

AND, on July 15, the last seven mean daily flows in Big Butte Creek below EPID's POD #2 were 72, 72, 71, 70, 69, 69 and 68 cfs. The seven day rolling average (Q_A) is 70 cfs. The target flow (Q_T) for July 15 at this location is 54. $Q_A - Q_T = \underline{16 \text{ cfs.}}$

$$70 - 54 = 16$$

AND, on July 15, the last seven mean daily flows in Big Butte Creek at Gage 14337500 were 82, 82, 81, 80, 79, 79 and 78 cfs. The seven day rolling average (Q_A) is 80 cfs. The target flow (Q_T) for July 15 at this location is 54. $Q_A - Q_T = \underline{26 \text{ cfs.}}$

$$80 - 54 = 26$$

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.

The smallest difference from Step 1 is 13.0, 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 under the permit 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 including the developed portion of the permit, being 3.1 cfs.

(Conversely, if the amount of water legally authorized for diversion under this permit is 20.0 cfs, then 16.1 cfs (13.0 from Step 2 + the 3.1 developed portion) 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 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 Creek and its tributaries and 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 designated measurement locations.

November 1 – April 30

In these examples, the POD is located below EPID's POD #1, but above EPID's POD #2. Therefore the two designated measurement locations pertinent to determining the maximum amount of the undeveloped portion of the permit that can be diverted are EPID's POD #2 and Big Butte Creek at Gage 14337500.

Example 3: – Target flows met at each pertinent measurement location – diversion limited

Step 1: On January 15, the last seven mean daily flows in Big Butte Creek below EPID's POD #2 were 172, 172, 171, 170, 169, 169 and 168 cfs. The seven day rolling average (Q_A) is 170 cfs. The target flow (Q_T) for January 15 at this location is 135. $Q_A - Q_T = 35$ cfs.

$$170 - 135 = 35$$

AND, on January 15, the last seven mean daily flows in Big Butte Creek at Gage No. 14337500 were 182, 182, 181, 180, 179, 179 and 178 cfs. The seven day rolling average (Q_A) is 180 cfs. The target flow (Q_T) for January 15 at this location is 135. $Q_A - Q_T = 45$ cfs.

$$180 - 135 = 45$$

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 two relevant measurement locations, subject to a cap as shown in Step 3, below.

The smallest difference is 35.0, thus the maximum amount of the undeveloped portion of the permit that can be diverted is 35.0 cfs, subject to the cap (Step 3).

Step 3: The cap in January based on ODFW's determination of "Net Available Water" is 33.0 cfs. Assuming the City does not have an agreement with ODFW regarding seasonally varying flows, the maximum amount of the undeveloped portion of the permit that can be diverted is capped at 33.0 cfs. (This maximum amount may be limited as illustrated in Step 4, below.)

Step 4: The calculated maximum amount of water that could be diverted under the permit due to the fish persistence condition may not, however, 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 25.0 cfs (for example, authorization provided through a WMCP), then 25.0 cfs would be the maximum amount of diversion allowed under this permit including the developed portion of the permit, being 3.1 cfs.

(Conversely, if the amount of water legally authorized for diversion under this permit is 40.0 cfs, then 36.1 cfs (33.0 from Step 3 + the 3.1 developed portion) would be the maximum amount of diversion allowed under this permit.)

Example 4: – Actual flows are less than target flows at one measurement location.

If, on January 15, the last seven mean daily flows (Q_A) in Big Butte Creek below EPID's POD #2 was 130 cfs, and the target flow (Q_T) is 135, then $Q_A \leq Q_T$. The target flow is NOT met at this location.

AND, on January 15, the last seven mean daily flows (Q_A) in Big Butte Creek at Gage 14337500 was 160 cfs, and the target flow (Q_T) is 135, then $Q_A > Q_T$. The target flow is met at this location.

In this example no water may be diverted from Big Butte Creek and its tributaries and 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 two pertinent measurement locations.

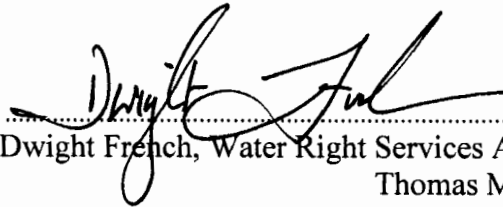
Water Management and Conservation Plan Conditions

The Medford Water Commission's Water Management and Conservation Plan shall remain in effect until April 13, 2019, unless rescinded pursuant to OAR 690-086-0920.

The Medford Water Commission shall submit an updated plan meeting the requirements of OAR Chapter 690, Division 86 (effective November 1, 2002) within 10 years (of the plan approval) and no later than October 7, 2018.

Actual construction work shall begin on or beforeSeptember 18, 1930.... and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 2056 complete application of the water to the proposed use shall be made on or before October 1, 2056.

WITNESS my hand this 3rd day of June, 2015



Dwight French, Water Right Services Administrator, for
Thomas M. Byler, Director
Oregon Water Resources Department

