STATE OF OREGON, |
County of Marion, |ss.

This superseding permit, in the name of

CITY OF ARLINGTON
P.O. BOX 68
ARLINGTON OR 97812

is issued to describe an amendment for a change in point of diversion proposed under Permit Amendment Application T-11115 and approved by Special Order Vol. 89, Page 971-973, entered June 12th, 2013, and to describe an extension of time for complete application of water approved April 26, 2013. This permit supersedes Permit S-35058.

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

The right herein granted is limited to the amount of water which can be applied to beneficial use and shall not exceed .....8.16..... *cubic feet per second measured at the point of diversion from the stream, or its equivalent in case of rotation with other water users, from* Columbia River.....

The use to which water is to be applied is municipal use.....

.....

The points of diversion are located:

Twp	Rng	Mer	Sec	Q-Q	GLot	Measured Distances
3 N	21 E	WM	21	NW SW	4	DIVERSION NO. 1 - 1320 FEET NORTH AND 800 FEET EAST OF THE SW CORNER OF SECTION 21
3 N	21 E	WM	20	SE SE	1	DIVERSION NO. 2 - 740 FEET NORTH AND 660 FEET WEST OF THE SE CORNER OF SECTION 20.
4 N	22 E	WM	35	NW NW	1	DIVERSION NO. 3 - 425 FEET SOUTH AND 4555 FEET WEST OF THE NE CORNER OF SECTION 35

The place of use is located:

MUNICIPAL USE (CITY OF ARLINGTON AND ENVIRONS)				
Twp	Rng	Mer	Sec	Q-Q
3 N	21 E	WM	21	NW NE
3 N	21 E	WM	21	SW NE
3 N	21 E	WM	21	NE SW
3 N	21 E	WM	21	SW SW
3 N	21 E	WM	21	SE SW
3 N	21 E	WM	21	NW SE
3 N	21 E	WM	21	SW SE
3 N	21 E	WM	28	NW NE
3 N	21 E	WM	28	SW NE
3 N	21 E	WM	28	NE NW
3 N	21 E	WM	28	NW NW
3 N	21 E	WM	28	SW NW
3 N	21 E	WM	28	SE NW
3 N	21 E	WM	28	NE SW
3 N	21 E	WM	28	NW SW
3 N	21 E	WM	28	NE SE
3 N	21 E	WM	28	NW SE
3 N	21 E	WM	29	NE NE
3 N	21 E	WM	29	SE NE
3 N	21 E	WM	29	NE SE

If for irrigation, this appropriation shall be limited to ..... of one cubic foot per second or its equivalent for each acre irrigated and shall further be limited to a diversion of not to exceed ..... acre feet per acre for each acre irrigated during the irrigation season of each year;

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and shall be subject to such reasonable rotation system as may be ordered by the proper state officer.

Permit Amendment T-11115 Conditions

The quantity of water diverted at the new points of diversion shall not exceed the quantity of water lawfully available at the original point of diversion located 2000 feet North and 640 feet East from the SW Corner of Section 21, NW¼ SW¼, Section 21, T 3 N, R 21 E, W.M.

Water use measurement conditions:

a. Before water use may begin from the new points of diversion, 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.

b. The water user shall maintain the meters or measuring devices in good working order.

c. The water user shall allow the Watermaster access to the meters or measuring devices; provided however, where the meters or measuring devices are located within a private structure, the Watermaster shall request access upon reasonable notice.

Prior to diverting water, the water user shall install an approved fish screen at the new point of diversion and shall provide to the OWRD a written statement from Oregon Department of Fish and Wildlife (ODFW) that the installed screen meets the state's criteria, or that ODFW has determined a screen is not necessary.

The water user shall operate and maintain the fish screen at the new point of diversion consistent with ODFW's operational and maintenance standards. If 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.

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

Extension of Time Conditions

1. Development Limitations

Diversion of any water beyond 2.67 cfs under Permit S-35058 (superseded by Permit S-54814) 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 the final extension order. The amount of water used under Permit S-54814 must be consistent with this and subsequent WMCP's approved under OAR Chapter 690, on file with the Department.

The deadline established by the Extension of Time 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 Extension of Time Final Order may also meet the WMCP requirements of other Department orders.

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

A. Minimum Fish Flow Needs

a. Minimum fish flow needs in the Columbia River as recommended by ODFW are in Table 1, below; flows are to be measured in the Columbia River at McNary Dam. Daily flow reports for McNary Dam are available from the Fish Passage Center (FPC) established by the Northwest Power Planning Council (NPPC) at http://www.fpc.org/currentdaily/flowspil.txt.

Table 1

ODFW'S RECOMMENDED MINIMUM FISH FLOW NEEDS IN THE COLUMBIA RIVER, MEASURED AT MCNARY DAM NEAR UMATILLA, OREGON	
Month	1000 Cubic Feet per Second
April 10 – June 30	260
July 1 – August 31	200

b. Alternate Streamflow Measurement Point

The location of a steamflow 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.

B. Determining Water Use Reductions – Generally

The maximum amount of the undeveloped portion of Permit S-54814 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 Columbia River at McNary Dam. The percent of missed target flows is defined as:

$$(1 - [QA / QT]) \times 100\%,$$

where QA is the actual flow measured at the designated location based on the seven day rolling average, and QT is the target flow (from Table 1).

The percent missed target flows applied to the undeveloped portion of the permit provides the maximum amount of undeveloped water 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 as of this extension, being 5.49 cfs.

The maximum amount of undeveloped water 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.C., below. The overall reduction to the amount of the undeveloped portion of the permit will not exceed 20%.

When $QA \geq QT$, 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.

C. Consumptive Use Percentages for Utilization in Columbia River Calculations

a. Initial Consumptive Use Percentages

The City of Arlington has not identified any Consumptive Use Percentages based on the return of flows to the Columbia 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-54814 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-54814 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.C.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-54814 that can be diverted as a result of this fish persistence condition beyond an approval period (as described in 2.C.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.C.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 waster water treatment facility resulting in 25% or more reductions in average monthly return flows to the Columbia 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-54814 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 Columbia 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.C.f., below.

If such changes to either wastewater technology or the practices at the City's waster water 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.C.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-54814 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.C.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-54814 that can be diverted as a result of this fish persistence condition may continue for a 10 year approval period that begins 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.C.d., or 2.C.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.

D. Examples

Example 1: Target flow met.

On April 15, the last seven mean daily flows in the Columbia River at McNary Dam[1] were 310K, 290K, 280K, 260K, 260K, 240K and 250K cfs. The seven day rolling average (QA) is 270K 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 260K cfs target flow (QT) for April 15. In this example, QA ≥ QT.

Example 2: Target flow missed.

Step 1: If on July 15, the average of the last seven mean daily flows (QA) was 170K cfs, and the target flow (QT) is 200K, then the target flow would be missed by 15.0%.

$$(1 - (170 / 200)) \times 100\% = 15.0\%$$

Step 2: Assuming the Consumptive Use Percentage is 62.2%[2] during the month of July and the utilization of this percentage is authorized, and the target flow is missed by 15.0% (from Step 1), then the amount of the undeveloped portion of the permit that could be diverted would be reduced by 9.3%.

$$(62.2\% \times 15.0\%) / 100 = 9.3\%$$

(If adjustments are not to be made by a Consumptive Use Percentage, then the undeveloped portion of the permit would only be reduced by the % by which the target flow is missed – 15.0% in this example).

Step 3: The overall reduction of 9.3% of the amount of the undeveloped portion of the permit does not exceed 20%.

Step 4: The undeveloped portion of this permit as of this extension (E) is 5.49 cfs. Therefore, in this example, the maximum amount of the undeveloped portion of Permit S-35058 that can be diverted as a result of this fish persistence condition is 5.0 cfs.

$$5.49 - ((5.49 \times 9.3\%) / 100) = 5.0$$

Step 5: Given that the permitted quantity under this right is 8.16 cfs, and the undeveloped portion is 5.49 cfs, if the amount of water legally authorized for a diversion at a given point in time is 4.0 cfs, then only 1.33 cfs of undeveloped water would be used to satisfy the 4.0 cfs.

$$4.0 - (8.16 - 5.49) = 1.33$$

[Note: (8.16 – 5.49) equals the developed portion of the permit]

In this example, the 1.33 cfs of undeveloped water is less than the 5.0 cfs maximum undeveloped portion (from Step 4) that can be diverted as a result of this fish persistence condition. Therefore, there would be no required reduction in water use of the undeveloped portion under the permit.

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[1] Daily flow data for McNary Dam is available at http://www.fpc.org/currentdaily/flowspil.txt.

[2] Currently, the City of Arlington may not utilize Consumptive Use Percentages for the purpose of calculating the amount of the undeveloped portion of Permit S-35058 that can be diverted as a result of this fish persistence condition. The utilization of the Consumptive Use Percentage 65.2% is only for illustrative purposes in this example.

Step 6: If the amount of water legally authorized for a diversion at a given point in time is 8.0 cfs, then 5.33 cfs of undeveloped water would be used to satisfy the 8.0 cfs.

$$8.0 - (8.16 - 5.49) = 5.33$$

In this example, the 5.33 cfs of undeveloped water is greater than the 5.0 cfs maximum undeveloped portion (from Step 4) that can be diverted as a result of this fish persistence condition. Therefore, the amount of undeveloped water diverted by the permit holder would need to be reduced by 0.33 cfs.

$$5.33 - 5.0 = 0.33$$

In this example, the maximum amount of water that could be appropriated is 7.67 cfs.

$$8.0 - 0.33 = 7.67$$

The priority date of this permit is .....December 1, 1970.....

Actual construction work shall begin on or before .....October 1, 1999..... *and shall thereafter be prosecuted with reasonable diligence and be completed on or before* October 1, 2030.....

Complete application of the water to the proposed use shall be made on or before October 1, 2030.....

WITNESS my hand this.....*day of* June, 2013.

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Dwight French, Water Right Services Administrator, for
PHILLIP C. WARD, DIRECTOR