



# Oregon

Tina Kotek, Governor

Water Resources Department  
725 Summer St NE, Suite A  
Salem, OR 97301  
(503) 986-0900  
Fax (503) 986-0904  
[www.Oregon.gov/OWRD](http://www.Oregon.gov/OWRD)

## MEMORANDUM

**TO:** Water Resources Commission

**FROM:** Ivan Gall, Director

**SUBJECT:** Agenda Item D, March 13, 2025  
Water Resources Commission

### **REQUEST FOR AN EXCEPTION TO THE SANDY BASIN PROGRAM BY CITY OF TUALATIN UNDER ORS 536.295**

#### **I. Introduction**

Under ORS 536.295 the Water Resources Commission may, under certain circumstances, allow the Department to consider an application to appropriate water for a use not classified as allowable by the applicable basin program. The City of Tualatin (applicant) has requested an exception to the Sandy Basin Program.

#### **II. Background**

Basin programs are administrative rules adopted by the Commission that prescribe future allowable uses of water. The act of specifying the allowable future beneficial uses is called “classification” and is authorized under ORS 536.340. Classifying beneficial uses in a basin program involves analysis of basin-specific data and substantial public involvement. However, under ORS 536.295 the Commission may allow the Department to consider an application for a use not “classified” in a basin program if the use meets one or more of the criteria under subsection (1) of ORS 536.295 (Attachment 1). The Commission also must evaluate whether the proposed use is consistent with the general policies of the applicable basin program.

Commission approval of a request for an exception to a basin program does not guarantee that a water right will be issued, or if issued how it may be conditioned. The Commission is not making a public interest determination on the application. In allowing a basin program exception, the Commission allows the Department to complete the application review process considering the basin plan, scenic waterway flow requirements, potential conflict with existing water rights, and the resource standards in OAR 690-051-0160 through 690-051-0270. Public notice and comment opportunities will be provided in the same manner as any other hydroelectric water right application.

If the Commission does not grant the request, the application will continue to be processed but will likely be denied because the proposed use is not a classified use in the basin program.

### **III. Discussion**

#### ***A. Application Summary***

On August 8<sup>th</sup>, 2024, the City of Tualatin applied for a water right to use up to 4.5 cubic feet per second (CFS) of water they already divert in their municipal water system to operate a small turbine in parallel to their pressure reducing valve. After passing through the turbine, the water will flow back into the municipal water system and will have no impact on water resources, fish, or any aquatic life. The proposed use for power will be for onsite use to power the city facilities.

A map showing the location of the facility is provided as Attachment 3.

Generally, the Sandy Program classifies the allowed uses of water and when through-out the calendar year those uses are allowed. Oregon Administrative Rule (ORS) 690-503-0040(2) specifies that “Except as otherwise provided in sections (1) and (3) of this rule, all the surface waters of the Sandy Basin are classified only for fish life, domestic, stock, municipal, aesthetic, recreation and public park uses.” In addition, ORS 690-503-0040(3) specifies that “In addition to uses in section (2) of this rule, all tributaries of the Sandy River but not the main stem Sandy River are open for storage from December 1 to June 1 of each year. Water stored during this period may be used at any time for any beneficial use.”

#### ***B. Exception Request***

The Department received the applicant’s basin program exception request on August 8<sup>th</sup>, 2024 (Attachment 4). The application and supporting documents are provided in Attachment 2. ORS 536.295 provides that the Commission may allow the Department to consider an application to appropriate water for a use not classified in the applicable basin program if the use is consistent with any one of seven statutory criteria. In its request, the applicants assert that their use “is largely non-consumptive in nature and not likely to be regulated for other water rights” [ORS 536.295(1)(c)] since all flows are returned to the municipal water system. The proposed use of the water will also provide a public benefit as provided in ORS 536.295(1)(f) since it will reduce water system operating costs and improve water affordability for the population of the City of Tualatin.

### **IV. Conclusion**

To approve a basin program exception request under ORS 536.295, the Commission must find that the request meets statutory criteria, and the proposed use is consistent with the general policies of the applicable basin program. The applicant has demonstrated that approval of this request will allow for consideration of a proposed use that is largely non-consumptive in nature and not likely to be regulated for other water rights and is consistent with the general policies of the Sandy Basin Program.

## **V. Alternatives**

The Commission may consider the following alternatives:

1. Approve the request for a basin plan exception.
2. Deny the request for a basin program exception.
3. Take no action and direct staff to continue to work with the applicant.

## **VI. Recommendation**

The Director recommends Alternative 1, that the Commission approves the request by the applicant for an exception to the Sandy Basin Program as the use is largely non-consumptive in nature.

### **Attachments:**

1. ORS 536.295
2. Application
3. Copy of Exhibits and Map
4. City of Tualatin Exception Request

Katie Ratcliffe  
971-338-8105

Martin Sanchez  
971-375-6414

Dwight French  
503-871-7292

**536.295 Conditions for consideration of application for use not classified in basin program; rules. (1)**

Notwithstanding any provision of ORS 536.300 or 536.340, the Water Resources Commission may allow the Water Resources Department to consider an application to appropriate water for a use not classified in the applicable basin program if the use:

- (a) Will be of short duration during each year;
- (b) Will be for a continuous period of no longer than five years;
- (c) Is largely nonconsumptive in nature and not likely to be regulated for other water rights;
- (d) Is necessary to ensure public health, welfare and safety;
- (e) Is necessary to avoid extreme hardship;
- (f) Will provide a public benefit such as riparian or watershed improvement; or
- (g) Is of an unusual nature not likely to recur in the basin, and unlikely to have been within the uses considered by the commission in classifying the uses presently allowed in the applicable basin program including but not limited to:

- (A) Exploratory thermal drilling;
- (B) Heat exchange;
- (C) Maintaining water levels in a sewage lagoon; or
- (D) Facilitating the watering of livestock away from a river or stream.

(2) A permit granted on or before January 1, 1993, for a quasi-municipal use of water shall be considered a permit for a classified use under ORS 536.340 if at the time the application was submitted or the permit was granted, the basin program identified municipal use as a classified use.

(3) The commission by rule may determine the specific uses permitted within a classified use.

(4) In making the determination under subsection (1) of this section, the commission shall evaluate whether the proposed use is consistent with the general policies established in the applicable basin program.

(5) The Water Resources Department shall process and evaluate an application allowed by the commission under subsections (1) to (4) of this section in the same manner as any other water right application, including determining whether the proposed use would result in injury to an existing water right. [1989 c.9 §1; 1993 c.591 §1; 1999 c.703 §1]



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
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Application to Develop a Minor Hydroelectric Project (Less than 100 theoretical horsepower)

Please type or print in dark ink. If your application is found to be incomplete or inaccurate, we will return it to you. If any requested information does not apply, please insert "n/a". Please read and refer to the instructions guide when completing your application. Thank you.

1. APPLICANT INFORMATION

Applicants: Rachel Sykes
First Last

Organization: City of Tualatin

Mailing Address: 10699 SW Herman Road

Tualatin Oregon 97062
City State Zip

Phone: 503-691-3090
Home Work Other

E-mail address: rsykes@tualatin.gov

2. PROPERTY OWNERSHIP

Do you own all the land where you propose to divert, transport, and use water? This includes diversion location and place of use; roads; rights-of-way; and canals or ditches.

[X] Yes, (Skip to section 3 "Water Use")

[ ] No, Please check the appropriate box below.

[ ] I have a recorded easement or written authorization permitting access.

[ ] I do not currently have written authorization or easement permitting access.

Note: A water right cannot be issued without written authorization or easement provided to the Department.

List the names and mailing addresses of all affected landowners.

NA
[ ]
[ ]
[ ]
[ ]
[ ]

Attach a separate sheet if needed.

**3. WATER USE**

**A. Proposed Source and Amount of Water**

Provide the commonly used name of the water body from which water will be diverted, and the name of the stream or lake it flows into. If unnamed, say so. If the source will be a reservoir, list reservoir name and/or permit number:

Provide the amount of water you propose to use from each source, for each use, in cubic feet-per-second (CFS) or gallons per minute (GPM). If the proposed use is from storage, provide the amount in acre-feet (AF):

(1 cubic foot per second = 448.8 gallons per minute 1 acre-foot = 43,560 cubic feet)

Source	Tributary to	Amount (AF, CFS, GPM)
City of Tualatin Water System Pipeline		2.5 CFS

**B. Period of Use**

Indicate the time of year when you propose to use water:

Year round \_\_\_\_\_

**C. Power Development**

The project will utilize 392 (number of feet) of gross head to develop 75 (number) theoretical horsepower (THP).

THP is calculated by multiplying the quantity of water to be diverted in cubic feet per second by the vertical head in feet and dividing the product by 8.8). The head is the difference in elevation between the intake of the pipeline and the return discharge to the stream.

**D. Location**

The point of diversion is located within the SE ¼ of the NE ¼ of Section 22,

Township 2, Range 1, W.M.,

The power plant is located within the SE ¼ of the NE ¼ of Section 22,

Township 2, Range 1, W.M., in Washington County.

After passing through the power plant, the water utilized will be returned to

municipal pipe (stream) in the SE ¼ of the NE ¼ of Section 22,

Township 2, Range 1, W.M.

**E. Project Facilities**

- (IF APPLICABLE) The diversion dam will have a height of \_\_\_\_\_ feet, a crest width of \_\_\_\_\_ feet, an upstream slope of \_\_\_\_\_ feet horizontal to one foot vertical, and a downstream slope of \_\_\_\_\_ feet horizontal to one foot vertical.

Describe the type of dam and the material with which it will be constructed:

Not applicable. There is no diversion structure. This hydroelectric plant  
will operate in parallel with a municipal water system pressure reducing valve. It will  
be installed in an above-ground housing adjacent to an existing vault.

- (IF APPLICABLE) The storage reservoir will be located on:

\_\_\_\_\_ (body of water), tributary to \_\_\_\_\_ (body of water)

in Section \_\_\_\_\_, Township \_\_\_\_\_, Range \_\_\_\_\_, W.M.

When full the reservoir will have a surface area of \_\_\_\_\_ acres and a total storage volume of \_\_\_\_\_ acre-feet.

- (IF APPLICABLE) The canal will have a length of \_\_\_\_\_ feet, a slope of \_\_\_\_\_ feet horizontal /feet vertical, a base width of \_\_\_\_\_ feet, and a top width of \_\_\_\_\_ feet.

- (IF APPLICABLE) The pipeline will have a length of 22 feet, a diameter of 8 inches, and the difference in elevation between the intake and discharge will be 0 feet. The type of pipe used is \_\_\_\_\_

steel. The pressure difference is 235 ft. (102 PSID)

Describe the type of water wheel and generator that will be used: \_\_\_\_\_

Francis turbine

**A. Monitoring**

How will you monitor your diversion to be sure you are within the limits of your water right and you are not wasting water?

- Weir
- Meter
- Periodic Sampling

Have you planned for a minimum bypass flow?

- Describe

**5. RESOURCE PROTECTION**

In granting permission to use water from a stream or lake, the state requires careful control of activities that may affect the waterway or streamside area. Please indicate any of the practices you plan to undertake to protect water resources.

- Diversion will be screened to prevent uptake of fish and other aquatic life.

Describe planned actions:

The Francis turbine and generator will be located in an enclosure adjacent to an existing municipal water system vault and the facility will have no impact on water resources, fish or other aquatic life.

- Excavation or clearing of banks will be kept to a minimum to protect riparian or streamside areas. Describe planned actions: \_\_\_\_\_

Since the turbine and generator are contained in an enclosure, no riparian or streamside areas exist.

- Operating equipment in a water body will be managed and timed to prevent damage to aquatic life.

Describe: Since the power plant will be operating in an existing municipal water system, there will be no impact on aquatic life.

- Water quality will be protected by preventing erosion and run-off of waste or chemical products.

Describe: The turbine and generator will be located in an enclosure. There will be no erosion or run-off of water or chemical products involved in the project.

The estimated cost of the project is \$ 690,000.

The proposed use or market for the power to be developed is: \_\_\_\_\_

Onsite use to power City facilities.

The time schedule for completing the project after a water right is issued is \_\_\_\_\_

March 2024

The estimated life of this project is 20+ years. Upon a decision to terminate project operations, the project must be decommissioned under applicable Oregon laws. Upon project termination, the proposed method of removal is \_\_\_\_\_

Removal of turbine and replacement of pressure reducing valve, if necessary.

**7. NEIGHBORS**

The following individuals own property within 300 feet of the proposed powerhouse:  
(include names, physical addresses, and mailing addresses)

The project site is located on City' owned property within an industrial area.

There are no homes within 300 feet of the project location.

**8. REMARKS**

If you would like to clarify any information you have provided in the application, please do so here and reference the specific application question you are addressing.

The new hydroelectric installation will be located in an enclosure in close proximity to an existing underground water system vault operated by the City of Tualatin Public Works Department. It will make use of the water pressure differential at an existing pressure control valve. A FERC conduit exemption application has been filed.

**9. MAP REQUIREMENTS**

The Department cannot process your application without accurate information showing the source of water and location of water use. You must include a map with this application form that clearly indicates the township, range, section, and quarter-quarter section of the proposed diversion location and powerhouse. See the map guidelines sheet for detailed map specifications.

**10. SIGNATURE**

By my signature below I confirm that I understand:

- X I am asking to use water specifically as described in this application.
- X Evaluation of this application will be based on information provided.
- X I cannot legally use water until the Water Resources Department issues a water right to me.
- X If I get a water right, I must not waste water.
- X If development of the water use is not according to the terms of the water right, the water right can be canceled.
- X The water use must be compatible with local comprehensive land use plans.
- X Even if the Department issues a water right to me, I may have to stop using water to allow senior water right holders, instream water rights or minimum bypass flows to get water they are entitled to, and

I affirm that all information provided in this application is true and correct to the best of my knowledge.

*Revered Syvan*

8-5-2024

Signature of applicant

Date

Signature of applicant

Date

## Exhibits

### Exhibit A: Narrative Statement

The City of Tualatin's water supply is sourced from the Sandy River at a diversion point at river mile (RM) 6.5.

Water is impounded behind two dams owned and operated by the City of Portland, OR. The impounded water behind dam 2 is diverted into a combination of any of three conduits, depending on seasonal demands. The conduits are either 44", 48" or 52." These conduits transport water approximately 26 miles to a metered delivery point at the intersection of SW 80th Avenue and SW Florence Court where Portland's conduit connects with the City of Tualatin's water distribution system. Water from the delivery point flows through three sections of conduit to the project site. Section 1 consists of a 48" concrete pipe for 2.3 miles. Section 2 consists of 36" of concrete cylinder pipe for 6.2 miles. Section 3 consists of 18" ductile iron pipe for a distance of 1.25 miles to the project location.

The proposed Tualatin Service Center Hydroelectric Energy Recovery Project is to be operated automatically based on available pressure and flow (customer demand). Existing water transfer will not be disrupted, but rather through the proposed project in a 115" x" enclosure on the surface adjacent to where the existing conduit (existing pressure reducing valve (PRV)), is housed in an 86" by 186" subsurface vault. The project is composed of compatible intake and discharge pipes, a turbine generating unit, control valves and sensors and meter. The controlling device will be housed in an appropriate electrical box. The project will be installed in a bypass adjacent to the existing PRV vault.

The facility will be within the property boundary of an existing building that houses the City's Public Works and other Departments. There is already a functioning PRV at this location in a vault. The new hydroelectric facility will operate and function the same as the existing pressure control facility, incurring no additional environmental or operational impacts.

Exhibit B: Project Map

Washington County, Tualatin, Township 2S Range 1, Sect. 22, SE 1/4 NE 1/4.



Site coordinates 45°23'02.3424"N, -122°47'14.9712"

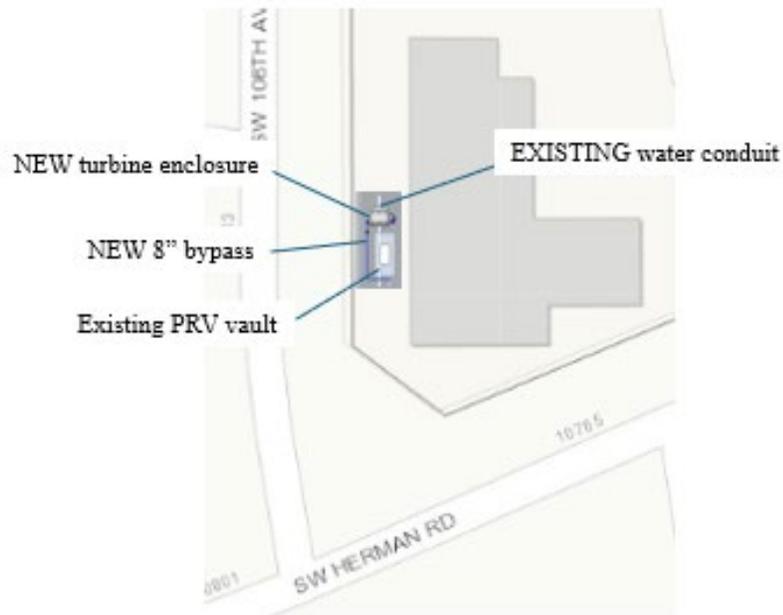


Exhibit C: Tax assessors map with property lines within 300 feet of the proposed powerhouse

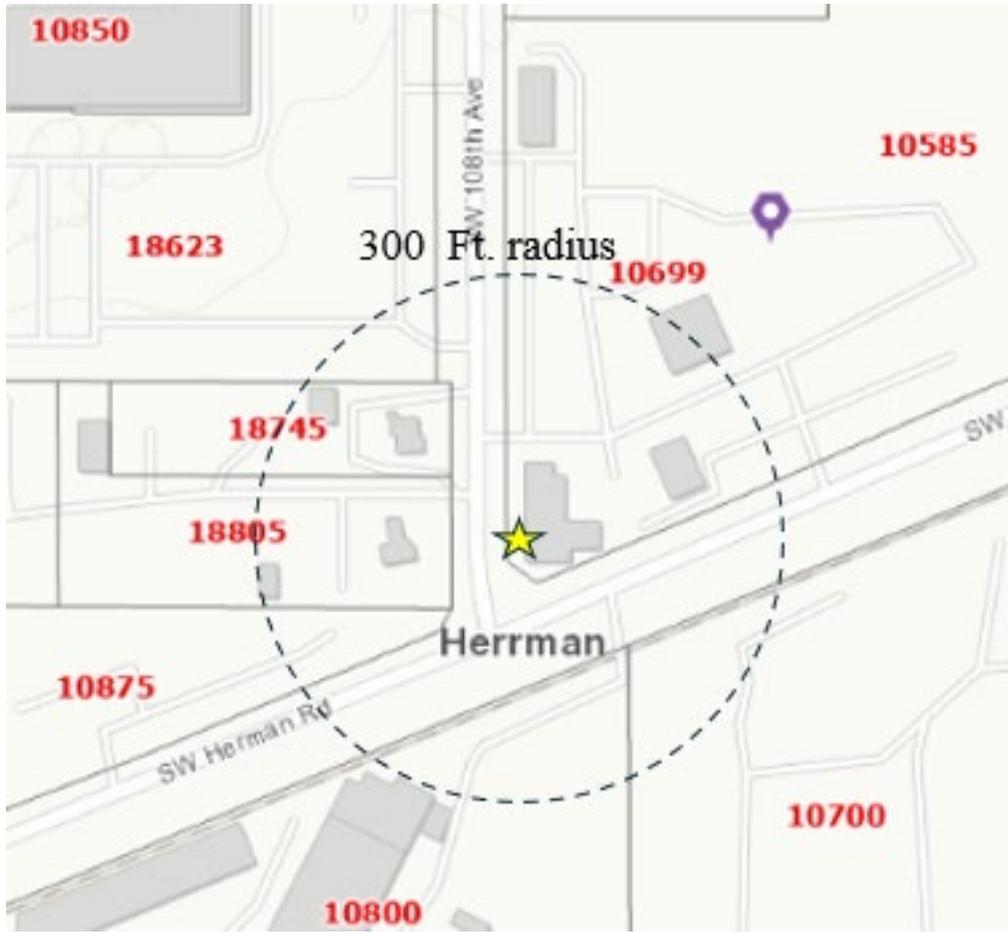


Exhibit D: Land use form

# Land Use Information Form



Applicant(s): City of Tualatin Public Works

Mailing Address: 10699 SW Herman Road

City: Tualatin

State: OR

Zip Code: 97062

Daytime Phone: 503-691-3090

### A. Land and Location

Please include the following information for all tax lots where water will be diverted (taken from its source), conveyed (transported), and/or used or developed. Applicants for municipal use, or irrigation uses within irrigation districts may substitute existing and proposed service-area boundaries for the tax-lot information requested below.

Township	Range	Section	%%	Tax Lot #	Plan Designation (e.g., Rural Residential/RR-5)	Water to be:			Proposed Land Use:
						<input checked="" type="checkbox"/> Diverted	<input checked="" type="checkbox"/> Conveyed	<input type="checkbox"/> Used	
<u>02 South</u>	<u>01 West</u>	<u>22</u>	_____	<u>2S122AD 00200</u>	<u>IN - Institutional</u>	<input checked="" type="checkbox"/> Diverted	<input checked="" type="checkbox"/> Conveyed	<input type="checkbox"/> Used	_____
_____	_____	_____	_____	_____	_____	<input type="checkbox"/> Diverted	<input type="checkbox"/> Conveyed	<input type="checkbox"/> Used	_____
_____	_____	_____	_____	_____	_____	<input type="checkbox"/> Diverted	<input type="checkbox"/> Conveyed	<input type="checkbox"/> Used	_____
_____	_____	_____	_____	_____	_____	<input type="checkbox"/> Diverted	<input type="checkbox"/> Conveyed	<input type="checkbox"/> Used	_____

List all counties and cities where water is proposed to be diverted, conveyed, and/or used or developed:

Tualatin, Washington County

### B. Description of Proposed Use

Type of application to be filed with the Water Resources Department:

- Permit to Use or Store Water   
  Water Right Transfer   
  Permit Amendment or Ground Water Registration Modification  
 Limited Water Use License   
  Allocation of Conserved Water   
  Exchange of Water

Source of water:  Reservoir/Pond   
 Ground Water   
 Surface Water (name) Bull Run Reservoir

Estimated quantity of water needed: 1200   
 cubic feet per second   
 gallons per minute   
 acre-feet

Intended use of water:  Irrigation   
 Commercial   
 Industrial   
 Domestic for \_\_\_\_\_ household(s)  
 Municipal   
 Quasi-Municipal   
 Instream   
 Other \_\_\_\_\_

Briefly describe:

In-Pipe in-PRV micro turbine will be installed along an existing City of Tualatin high pressure line.  
Above ground cabinet will capture generated electricity and feed into existing electrical grid.

Note to applicant: If the Land Use Information Form cannot be completed while you wait, please have a local government representative sign the receipt at the bottom of the next page and include it with the application filed with the Water Resources Department.

See bottom of Page 3. →

## For Local Government Use Only

The following section must be completed by a planning official from each county and city listed unless the project will be located entirely within the city limits. In that case, only the city planning agency must complete this form. This deals only with the local land-use plan. Do not include approval for activities such as building or grading permits.

**Please check the appropriate box below and provide the requested information**

- Land uses to be served by the proposed water uses (including proposed construction) are allowed outright or are not regulated by your comprehensive plan. Cite applicable ordinance section(s):
  
- Land uses to be served by the proposed water uses (including proposed construction) involve discretionary land-use approvals as listed in the table below. (Please attach documentation of applicable land-use approvals which have already been obtained. Record of Action/land-use decision and accompanying findings are sufficient.) If approvals have been obtained but all appeal periods have not ended, check "Being pursued."

Type of Land-Use Approval Needed (e.g., plan amendments, rezones, conditional-use permits, etc.)	Cite Most Significant, Applicable Plan Policies & Ordinance Section References	Land-Use Approval:	
Minor Architectural Review (Type I - non-discretionary)	Utility facilities allowed per TDC 49.22, subject to TDC 33.020.	<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input checked="" type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
		<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
		<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
		<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
		<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued

Local governments are invited to express special land-use concerns or make recommendations to the Water Resources Department regarding this proposed use of water below, or on a separate sheet.

Name: Steve Koper Title: Asst. Comm. Dev. Director

Signature: Phone: 503-691-3028 Date: 4/10/2024

Government Entity: City of Tualatin

Note to local government representative: Please complete this form or sign the receipt below and return it to the applicant. If you sign the receipt, you will have 30 days from the Water Resources Department's notice date to return the completed Land Use Information Form or WRD may presume the land use associated with the proposed use of water is compatible with local comprehensive plans.



### Receipt for Request for Land Use Information

Applicant name: \_\_\_\_\_

City or County: \_\_\_\_\_ Staff contact: \_\_\_\_\_

Signature: \_\_\_\_\_ Phone: \_\_\_\_\_ Date: \_\_\_\_\_

August 5, 2024  
Mr. R. Craig Kohanek  
Oregon Water Resources Department  
725 Summer St. NE, Suite A  
Salem OR 97301-1271

Re: Request for an Exception of Surface Water Appropriation as Allowed Under ORS 536.295

Dear Mr. Kohanek:

The City of Tualatin Public Works Department operates a potable water distribution system that serves 27,779 residential customers as well as businesses with a combined 30,491 employees. The Tualatin's water supply is sourced from the City of Portland's Sandy River diversion point at river mile (RM) 6.5. Conduits transport water approximately 26 miles to a metered delivery point at the intersection of SW 80th Avenue and SW Florence Court where Portland's pipeline connects with the City of Tualatin's water distribution system.

The City currently operates a pressure reducing station located in a vault at the corner of SW 108th avenue and SW Herman Road. This site is adjacent to the Tualatin Services Center that houses an Emergency Preparedness Center, the SCADA Control center that manages the City's water infrastructure, the Public Works, Community Development and Parks Maintenance Division Departments as well as the Municipal Court and EV chargers for City fleet vehicles.

The City is seeking to utilize a fraction of the water flowing through a water main at this pressure control facility to produce electricity from a micro-hydroelectric facility (56 kW capacity/75 horsepower) that will serve to power the Services Center. As such, the City is requesting from the Oregon Water Resources Commission an exception to Oregon Administrative Rule 690-503-0040, which limits the use of Sandy Basin surface water.

We request an exception to the classified uses of surface water under the provisions of ORS 536.295 subsections C and F.

Subsection C allows for consideration of a use if it is predominantly non-consumptive in nature. The proposed use for conduit hydropower will be nonconsumptive as the project shall divert water from the water pipeline via an 8-inch bypass, feed it through a turbine located in an enclosure adjacent to the existing pressure control station vault, and completely return it back to the water conduit.

Subsection F allows for consideration if it will provide a public benefit. This project shall provide multiple such benefits. The project shall serve to reduce water system operating costs and improve water affordability for the population of the City of Tualatin. This project, which reduces dependence on fossil fuels, represents a step towards the City meeting its Climate Action Plan goals to achieve net zero carbon emissions by 2050. Note that the City is planning to supply any energy generated in excess of site usage (approximately 1/3 of projected generation) to the PGE low-income energy assistance programs for low-income households, which serves about 75,000 customers. Additionally, the availability of this onsite generation shall serve to improve resilience for mission-critical City facilities.

Please contact me if you have any questions regarding this request.

Thank you for your consideration.

Sincerely,



Rachel Sykes  
Public Works Director  
City of Tualatin  
10699 SW Herman Road  
Tualatin, OR 97062  
[rsykes@tualatin.gov](mailto:rsykes@tualatin.gov)  
503-691-3090