

Application for a Permit to Use Surface Water



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
503-986-0900
www.oregon.gov/OWRD

SECTION 1: APPLICANT INFORMATION AND SIGNATURE

Applicant

NAME CITY OF BANKS (POC: JOLYNN BECKER)			PHONE (HM)
PHONE (WK) 503-324-5112	CELL		FAX
ADDRESS 13680 NW MAIN ST			
CITY BANKS	STATE OR	ZIP 97106	E-MAIL * JBECKER@CITYOFBANKS.ORG

Organization

NAME SAME AS ABOVE			PHONE	FAX
ADDRESS			CELL	
CITY	STATE	ZIP	E-MAIL *	

Agent – The agent is authorized to represent the applicant in all matters relating to this application.

AGENT / BUSINESS NAME BOB LONG / CWM-H2O			PHONE 503-954-1326	FAX
ADDRESS 1319 SE MLK JR BLVD #204			CELL 503-799-0304	
CITY PORTLAND	STATE OR	ZIP 97214	E-MAIL * BOB.LONG@CWMH2O.COM	

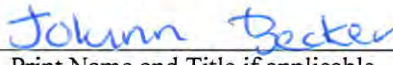
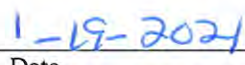
Note: Attach multiple copies as needed

* By providing an e-mail address, consent is given to receive all correspondence from the Department electronically. (Paper copies of the proposed and final order documents will also be mailed.)

By my signature below I confirm that I understand:

- I am asking to use water specifically as described in this application.
- Evaluation of this application will be based on information provided in the application.
- I cannot legally use water until the Water Resources Department issues a permit.
- The Department encourages all applicants to wait for a permit to be issued before beginning construction of any proposed diversion. Acceptance of this application does not guarantee a permit will be issued.
- If I begin construction prior to the issuance of a permit, I assume all risks associated with my actions.
- If I receive a permit, I must not waste water.
- If development of the water use is not according to the terms of the permit, the permit can be cancelled.
- The water use must be compatible with local comprehensive land use plans.
- Even if the Department issues a permit, I may have to stop using water to allow senior water right holders to receive water to which they are entitled.

 **I (we) affirm that the information contained in this application is true and accurate**

 Applicant Signature	 Print Name and Title if applicable city manager	 Date
_____ Applicant Signature	_____ Print Name and Title if applicable	_____ Date

SECTION 2: PROPERTY OWNERSHIP

Please indicate if you own all the lands associated with the project from which the water is to be diverted, conveyed, and used.

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- ☒ YES, there are no encumbrances.
- ☐ YES, the land is encumbered by easements, rights of way, roads or other encumbrances.
- ☐ NO, I have a recorded easement or written authorization permitting access.
- ☐ NO, I do not currently have written authorization or easement permitting access.
- ☐ NO, written authorization or an easement is not necessary, because the only affected lands I do not own are state-owned submersible lands, and this application is for irrigation and/or domestic use only (ORS 274.040).
- ☐ NO, because water is to be diverted, conveyed, and/or used only on federal lands.

Affected Landowners: List the names and mailing addresses of all owners of any lands that are not owned by the applicant and that are crossed by the proposed ditch, canal or other work, even if the applicant has obtained written authorization or an easement from the owner. (*Attach additional sheets if necessary*).

City of Banks
13680 NW Main Street
Banks, OR 97106

Legal Description: You must provide the legal description of: 1. The property from which the water is to be diverted, 2. Any property crossed by the proposed ditch, canal or other work, and 3. Any property on which the water is to be used as depicted on the map.

Taxlot 2N4360000100 – 1.66 ac in NE quarter of Section 36, T2N, R4W. Location of proposed POD. *See ATTACHMENT A for legal description.*

Taxlot 2N4360000601 – 0.65 ac in NE quarter of Section 36, T2N, R4W. Location of proposed POD. *See ATTACHMENT B for legal description.*

SECTION 3: SOURCE OF WATER

A. Proposed Source 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), and the locations of the point of diversion (POD):

Source 1: West Fork Dairy Creek	Tributary to: Dairy Creek
TRSQQ of POD: W.M. T. 2N., R. 4W., Sect. 36 NENE	

If any source listed above is stored water that is authorized under a water right permit, certificate, or decree, attach a copy of the document or list the document number (for decrees, list the volume, page and/or decree name).

B. Applications to Use Stored Water

Do you, or will you, own the reservoir(s) described in Section 3A above?

- ☐ Yes. ☐ No. (Enclose a copy of your written notification to the operator of the reservoir of your intent to file this application, which should have been mailed or delivered to the operator.)

If *all* sources listed in Section 3A are stored water, the Department will review your application using the expedited process provided in ORS 537.147, unless you check the box below. Please see the instruction booklet for more information.

- ☐ By checking this box, you are requesting that the Department process your application under the standard process outlined in ORS 537.150 and 537.153, rather than the expedited process provided by ORS 537.147. To file an application under the standard process, you must enclose the following:

- A copy of a signed non-expired contract or other agreement with the owner of the reservoir (if not you) to impound the volume of water you propose to use in this application.
- A copy of your written agreement with the party (if any) delivering the water from the reservoir to you.

SECTION 4: SENSITIVE, THREATENED OR ENDANGERED FISH SPECIES PUBLIC INTEREST INFORMATION

This information must be provided for your application to be accepted as complete. The Water Resources Department will determine whether the proposed use will impair or be detrimental to the public interest with regard to sensitive, threatened or endangered fish species.

To answer the following questions, use the map provided in [Attachment 3](#) or the link below to determine whether the proposed point of diversion (POD) is located in an area where the Upper Columbia, the Lower Columbia, and/or the Statewide public interest rules apply.

For more detailed information, click on the following link and enter the T,R,S,QQ or the Lat/Long of a POD and click on "Submit" to retrieve a report that will show which section, if any, of the rules apply:

https://apps.wrd.state.or.us/apps/misc/lkp_trsqq_features/

If you need help to determine in which area the proposed POD is located, please call the customer service desk at (503) 986-0801.

Upper Columbia - OAR 690-033-0115 thru -0130

Is the POD located in an area where the Upper Columbia Rules apply?

- ☐ Yes ☒ No

If yes, you are notified that the Water Resources Department will consult with numerous federal, state, local and tribal governmental entities so it may determine whether the proposed use is consistent with the "Columbia River Basin Fish and Wildlife Program" adopted by the Northwest Power Planning Council in 1994 for the protection and recovery of listed fish species. The application may be denied, heavily conditioned, or if appropriate, mitigation for impacts may be needed to obtain approval for the proposed use.

If yes,

- I understand that the proposed use does not involve appropriation of direct streamflow during the time period April 15 to September 30, except as provided in OAR 690-033-0140.

- I understand that I will install, operate and maintain a fish screen and fish passage as listed in ORS 498.301 through 498.346, and 509.580 through 509.910, to the specifications and extent required by Oregon Department of Fish and Wildlife, prior to diversion of water under any permit issued pursuant to this application.
- I understand that the Oregon Department of Environmental Quality will review my application to determine if the proposed use complies with existing state and federal water quality standards.
- I understand that I will install and maintain water use measurement and recording devices as required by the Water Resources Department, and comply with recording and reporting permit condition requirements.

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Lower Columbia - OAR 690-033-0220 thru -0230

Is the POD located in an area where the Lower Columbia rules apply?

☒ Yes ☐ No

If yes, you are notified that that the Water Resources Department will determine, by reviewing recovery plans, the Columbia River Basin Fish and Wildlife Program, and regional restoration programs applicable to threatened or endangered fish species, in coordination with state and federal agencies, as appropriate, whether the proposed use is detrimental to the protection or recovery of a threatened or endangered fish species and whether the use can be conditioned or mitigated to avoid the detriment.

If a permit is issued, it will likely contain conditions to ensure the water use complies with existing state and federal water quality standards; and water use measurement, recording and reporting required by the Water Resources Department. The application may be denied, or if appropriate, mitigation for impacts may be needed to obtain approval of the proposed use.

If yes, provide the following information (the information must be provided with the application to be considered complete).

☐ Yes ☒ No The proposed use is for more than **one** cubic foot per second (448.8 gpm) and is not subject to the requirements of OAR 690, Division 86 (Water Management and Conservation Plans).

If yes, provide a description of the measures to be taken to assure reasonably efficient water use:

The proposed use is for more than one cubic feet per second, but only for high flow months of the year. The City of Banks is subject to the requirements of OAR 690, Division 86 and has an approved Water Mangement and Conservation Plan (WMPC)(2010). An updated (2020) version is in process and will be submitted for OWRD review by late June 2020.

Water will only be diverted from West Fork Dairy Creek during high flow periods (December - April).

Banks is considering diverting all approved water from this permit through a water treatment plant (WTP)(to be built), and then to an Aquifer Storage and Recovery System (ASR) (if feasible). This will help ensure diverted water during high flow winter months is available for municipal use during low flow, high summer demand months.

Statewide - OAR 690-033-0330 thru -0340

Is the POD located in an area where the Statewide rules apply?

For Department Use: App. Number: _____

☒ Yes ☐ No

If yes, the Water Resources Department will determine whether the proposed use will occur in an area where endangered, threatened or sensitive fish species are located. If so, the Water Resources Department, Department of Fish and Wildlife, Department of Environmental Quality, and the Department of Agriculture will recommend conditions required to achieve “no loss of essential habitat of threatened and endangered (T&E) fish species,” or “no net loss of essential habitat of sensitive (S) fish species.” If conditions cannot be identified that meet the standards of no loss of essential T & E fish habitat or no net loss of essential S fish habitat, the agencies will recommend denial of the application unless they conclude that the proposed use would not harm the species.

SECTION 5: WATER USE

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 cfs equals 448.8 gpm. 1 acre-foot equals 325,851 gallons or 43,560 cubic feet)

SOURCE	USE	PERIOD OF USE	AMOUNT
West Fork Dairy Cr	Municipal	December- April 2.0 cfs	☒ cfs ☐ gpm ☐ af

Please indicate the number of primary and supplemental acres to be irrigated.

Primary: NA Acres Supplemental: NA Acres

If supplemental acres are listed, provide the Permit or Certificate number of the underlying primary water right(s):
NA

Indicate the maximum total number of acre-feet you expect to use in an irrigation season: NA

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- If the use is **municipal or quasi-municipal**, attach **Form M**
- If the use is **domestic**, indicate the number of households: NA
- If the use is **mining**, describe what is being mined and the method(s) of extraction: NA

SECTION 6: WATER MANAGEMENT

A. Diversion and Conveyance

What equipment will you use to pump water from your source?

- ☒ Pump (give horsepower and type): Pump Station to Water Treatment Plant (WTP) TBD
☐ Other means (describe): _____

Provide a description of the proposed means of diversion, construction, and operation of the diversion works and conveyance of water.

Water will be pumped only during high flow periods (December 1 to April 30) and sent to a Water Treatment Plant (To Be Built), and then possibly to an ASR (if feasible).

B. Application Method

What equipment and method of application will be used? (e.g., drip, wheel line, high-pressure sprinkler)

NA

C. Conservation

Please describe why the amount of water requested is needed and measures you propose to: prevent waste; measure the amount of water diverted; prevent damage to public uses of affected surface waters.

The City of Banks has been under a water moratorium, even as it continues to expand due to population growth and annexations. To meet both current and future summertime maximum daily demands, the City needs new water sources. This new point of diversion from West Fork Dairy Creek will only divert water when its available, during the months of December to April. A meter will be installed. Water will be transferred to a water treatment plant (WTP)(to be built) and then to an ASR (if feasible) to limit loss. Banks' current water supply has had past instances of not meeting maximum daily water demand, and current population and demand projections indicate this will continue without new sources. Banks has/is taking significant efforts to conserve water and minimize losses within its current water supply systems. The replacement of leaky water lines along Banks and Sellars Road area expected to be completed by 2024. However, even with these significant infrastructure

upgrades and other conservation measures taken. Banks will need other water sources to ensure a stable and reliable water supply currently, and through 2050.

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SECTION 7: RESOURCE PROTECTION

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In granting permission to use water from a stream or lake, the state encourages, and in some instances requires, careful control of activities that may affect the waterway or streamside area. See instruction guide for a list of possible permit requirements from other agencies. Please indicate any of the practices you plan to undertake to protect water resources:

- ☒ Diversion will be screened per ODFW specifications in ORS 498.301 through 498.346 to prevent uptake of fish and other aquatic life.
Describe planned actions: Banks will follow ODFW guidance and recommendations to minimize harm to fish and other aquatic life
- ☒ Excavation or clearing of banks will be kept to a minimum to protect riparian or streamside areas.
Note: If disturbed area is more than one acre, applicant should contact the Department of Environmental Quality to determine if a 1200C permit is required.
Describe planned actions and additional permits required for project implementation: If Banks decides to pursue a water treatment plant near the point of diversion, they will coordinate closely with the DEQ to obtain and follow a 1200-C permit, and with any other state or federal agencies as necessary.
- ☒ Operating equipment in a water body will be managed and timed to prevent damage to aquatic life. Describe planned actions and additional permits required for project implementation: Project development and construction timetable can be coordinated with state agencies to limit damage to aquatic life.
- ☐ Water quality will be protected by preventing erosion and run-off of waste or chemical products.
Describe planned actions: _____
- ☐ List other federal and state permits or contracts to be obtained, if a water right permit is granted.

SECTION 8: PROJECT SCHEDULE

- a) Date construction will begin: May 2021
b) Date construction will be completed: October 2022
c) Date beneficial water use will begin: December 2022

SECTION 9: WITHIN A DISTRICT

- ☐ Check here if the point of diversion or place of use are located within or are served by an irrigation or other water district.

Irrigation District Name	Address	
City	State	Zip

SECTION 10: REMARKS

Use this space to clarify any information you have provided in the application. (*Attach additional sheets if necessary*).

Water need and supporting data are identified in the City of Banks Water Management and Conservation Plan approved in 2010 and under the update submitted in August 2020, as well as in attached Form M.

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Minimum Requirements Checklist

Minimum Requirements (OAR 690-310-0040, OAR 690-310-0050 & ORS 537.140)

Include this checklist with the application

Check that each of the following items is included. The application will be returned if all required items are not included. If you have questions, please call the Water Rights Customer Service Group at (503) 986-0900.

Please submit the original application and signatures to the Water Resources Department. Applicants are encouraged to keep a copy of the completed application.

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- ☒ SECTION 1: Applicant Information and Signature
- ☒ SECTION 2: Property Ownership
- ☒ SECTION 3: Source of Water
- ☒ SECTION 4: Sensitive, Threatened or Endangered Fish Species Public Interest Information
- ☒ SECTION 5: Water Use
- ☒ SECTION 6: Water Management
- ☒ SECTION 7: Resource Protection
- ☒ SECTION 8: Project Schedule
- ☒ SECTION 9: Within a District
- ☒ SECTION 10: Remarks

Include the following additional items:

- ☒ Land Use Information Form with approval and signature of local planning department (*must be an original*) or signed receipt.
- ☒ Provide the legal description of: (1) the property from which the water is to be diverted, (2) any property crossed by the proposed ditch, canal or other work, and (3) any property on which the water is to be used as depicted on the map.
- ☐ Fees - Amount enclosed: **\$ 2,150**
See the Department's Fee Schedule at www.oregon.gov/owrd or call (503) 986-0900.
- ☒ Map that includes the following items:
 - ☐ Permanent quality and drawn in ink
 - ☐ Even map scale not less than 4" = 1 mile (example: 1" = 400 ft, 1" = 1320 ft, etc.)
 - ☐ North Directional Symbol
 - ☐ Township, Range, Section, Quarter/Quarter, Tax Lots
 - ☐ Reference corner on map
 - ☐ Location of each diversion, by reference to a recognized public land survey corner (distances north/south and east/west)
 - ☐ Indicate the area of use by Quarter/Quarter and tax lot identified clearly.
 - ☐ Number of acres per Quarter/Quarter and hatching to indicate area of use if for primary irrigation, supplemental irrigation, or nursery
 - ☐ Location of main canals, ditches, pipelines or flumes (if well is outside of the area of use)

Land Use Information Form



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
503-986-0900
www.oregon.gov/OWRD

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NOTE TO APPLICANTS

In order for your application to be processed by the Water Resources Department (WRD), this Land Use Information Form must be completed by a local government planning official in the jurisdiction(s) where your water right will be used and developed. The planning official may choose to complete the form while you wait, or return the receipt stub to you. Applications received by WRD without the Land Use Form or the receipt stub will be returned to you. Please be aware that your application will not be approved without land use approval.

This form is NOT required if:

- 1) Water is to be diverted, conveyed, and/or used only on federal lands; **OR**
- 2) The application is for a water right transfer, allocation of conserved water, exchange, permit amendment, or groundwater registration modification, and all of the following apply:
 - a) The existing and proposed water use is located entirely within lands zoned for exclusive farm-use or within an irrigation district;
 - b) The application involves a change in place of use only;
 - c) The change does not involve the placement or modification of structures, including but not limited to water diversion, impoundment, distribution facilities, water wells and well houses; and
 - d) The application involves irrigation water uses only.

NOTE TO LOCAL GOVERNMENTS

The person presenting the attached Land Use Information Form is applying for or modifying a water right. The Water Resources Department (WRD) requires its applicants to obtain land use information to be sure the water rights do not result in land uses that are incompatible with your comprehensive plan. Please complete the form or detach the receipt stub and return it to the applicant for inclusion in their water right application. You will receive notice once the applicant formally submits his or her request to the WRD. The notice will give more information about WRD's water rights process and provide additional comment opportunities. You will have 30 days from the date of the notice to complete the land use form and return it to the WRD. If no land use information is received from you within that 30-day period, the WRD may presume the land use associated with the proposed water right is compatible with your comprehensive plan. Your attention to this request for information is greatly appreciated by the Water Resources Department. If you have any questions concerning this form, please contact the WRD's Customer Service Group at 503-986-0801.

Land Use Information Form



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
503-986-0900
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Applicant

NAME CITY OF BANKS		PHONE (HM) OWRD	
PHONE (WK) 503-324-5112	CELL		FAX 503-324-6674
ADDRESS 13680 NW MAIN ST			
CITY BANKS	STATE OR	ZIP 97106	E-MAIL* JBECKER@CITYOFBANKS.ORG

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	¼ ¼	Tax Lot #	Plan Designation (e.g., Rural Residential/RR-5)	Water to be:			Proposed Land Use:
2N	3W	31	ALL Sections			☐ Diverted	☒ Conveyed	☒ Used	
2N	3W	30	SWSW			☐ Diverted	☒ Conveyed	☒ Used	
2N	3W	25	SESE			☐ Diverted	☒ Conveyed	☒ Used	
2N	3W	36	NENE			☒ Diverted	☐ Conveyed	☐ Used	

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

The City of Banks Service Area is its Urban Growth Boundary, Washington County, OR

Water diverted from West Fork Dairy Creek during high flow months (December 15-April 15) only

Water to be treated at Water Treatment Facility on City owned TL0600 (to be determined/built) before entering City water distribution system.

See Attached Map

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 Groundwater Registration Modification
☐ Limited Water Use License
 ☐ Allocation of Conserved Water
 ☐ Exchange of Water

Source of water: ☐ Reservoir/Pond ☐ Groundwater ☒ Surface Water (name) West Fork Dairy Creek

Estimated quantity of water needed: 2.0 ☐ 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:

Water will only be diverted during high flow months (December thru April) to supplement the City's constrained water needs



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.

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Land Use Information Form



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Applicant

NAME CITY OF BANKS		PHONE (HM)	
PHONE (WK) 503-324-5112	CELL	FAX 503-324-6674	
ADDRESS 13680 NW MAIN ST			
CITY BANKS	STATE OR	ZIP 97106	E-MAIL* JBECKER@CITYOFBANKS.ORG

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	¼ ¼	Tax Lot #	Plan Designation (e.g., Rural Residential/RR-5)	Water to be:	Proposed Land Use:
2N	3W	31	ALL Sections			☐ Diverted ☐ Conveyed ☒ Used	
2N	3W	30	SWSW			☐ Diverted ☐ Conveyed ☐ Used	
2N	3W	25	SESE			☐ Diverted ☐ Conveyed ☐ Used	
2N	3W	36	NENE			☒ Diverted ☐ Conveyed ☐ Used	

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

The City of Banks Service Area is its Urban Growth Boundary, Washington County, OR

Water diverted from West Fork Dairy Creek during high flow months (December 15-April 15) only

Water to be treated at Water Treatment Facility on City owned TL0600 (to be determined/built) before entering City water distribution system.

See Attached Map and Table of Service Area TRSQQ

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 Groundwater Registration Modification
☐ Limited Water Use License
 ☐ Allocation of Conserved Water
 ☐ Exchange of Water

Source of water: ☐ Reservoir/Pond ☐ Groundwater ☒ Surface Water (name) West Fork Dairy Creek

Estimated quantity of water needed: 2.0 ☐ 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:

Water will only be diverted during high flow months (December thru April) to supplement the City's constrained water needs

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.

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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:	
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Pursued
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Pursued
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Pursued
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Pursued
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ 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 MAITREYEE SINHA		TITLE: ASSOCIATE PLANNER
SIGNATURE 	PHONE: 503-846-3835	DATE: 6/19/2020
GOVERNMENT ENTITY WASHINGTON COUNTY		

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: _____

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City of Banks Service Area (Urban Growth Boundary):

Township		Range		Meridian	Sec	$\frac{1}{4}$, $\frac{1}{4}$	
2	N	3	W	W.M.	30	NW	SW
2	N	3	W	W.M.	30	SW	SW
2	N	4	W	W.M.	25	SE	SE
2	N	4	W	W.M.	36	NE	NE
2	N	4	W	W.M.	36	SE	NE
2	N	4	W	W.M.	36	NE	SE
2	N	4	W	W.M.	36	SE	SE
2	N	3	W	W.M.	31	NE	NE
2	N	3	W	W.M.	31	NW	NE
2	N	3	W	W.M.	31	NE	NW
2	N	3	W	W.M.	31	NW	NW
2	N	3	W	W.M.	31	SW	NW
2	N	3	W	W.M.	31	SE	NW
2	N	3	W	W.M.	31	SW	NE
2	N	3	W	W.M.	31	NE	SE
2	N	3	W	W.M.	31	NW	SE
2	N	3	W	W.M.	31	NE	SW
2	N	3	W	W.M.	31	NW	SW
2	N	3	W	W.M.	31	SW	SW
2	N	3	W	W.M.	31	SE	SW
2	N	3	W	W.M.	31	SW	SE
2	N	3	W	W.M.	31	SE	SE

Water diverted from:

2	N	4	W	W.M.	36	NE	NE
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FORM M

FOR MUNICIPAL AND QUASI-MUNICIPAL WATER SUPPLIES

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[Information needed to make findings related to ORS 537.153(3)(c)]

- Please supply the required information in the spaces provided below.
- Do not attach reference documents. If there is a need, the Department will request them.
- Your signature is certification that identified information is contained in the reference document(s).
- If adequate space is not available on this form to describe and justify your request for additional water, attach additional pages as necessary.

Water Supplier Information

Please provide the following information related to the water supplier requesting additional water. It should be noted that the name of a water supplier is often different than the service area (e.g., *City of ABC and XYZ Urban Growth Boundary*).

Cities are not the only municipal corporation; many kinds of special districts are also allowed to purvey water. Applications requesting to use water for Quasi-Municipal use may be submitted by entities including, but not limited to, the following types of governance: a water association; private water company; or (*if under the articles of incorporation*) a broader corporation such as a destination resort. Please attach a copy of the article of incorporation related to your distribution of water.

Name of Water Supplier/Entity	Name of Service Area	Governance	Contact Person
City of Banks	Bank's Service Area (Urban Growth Boundary)	City	Jolynn Becker
List any water suppliers within the same service area and/or any self-supplied industrial user. (Attach an extra sheet, if necessary.)			

Request for Additional Water

Briefly explain the reason(s) for your request for additional water (e.g. *loss of current supply, backup, emergency supply, peak demand, growth, or other*). Much of the information needed may be contained in your Water Management and Conservation Plan, Water System Master Plan, or Capital Improvement Plan (*as applicable*).

Reason(s) for the Request for Additional Water	Time Table for Development of the Additional Water	Justification for Water Source & Amount Requested
Expected growth and difficulty meeting peak demand during summer months	2020-2025	Water moratorium, WMCP, ASR Study

The City of Banks operates a municipal water system and utility that serves all residential homes and businesses within the city limits and surrounding Urban Growth Boundary (UGB). However, maximum

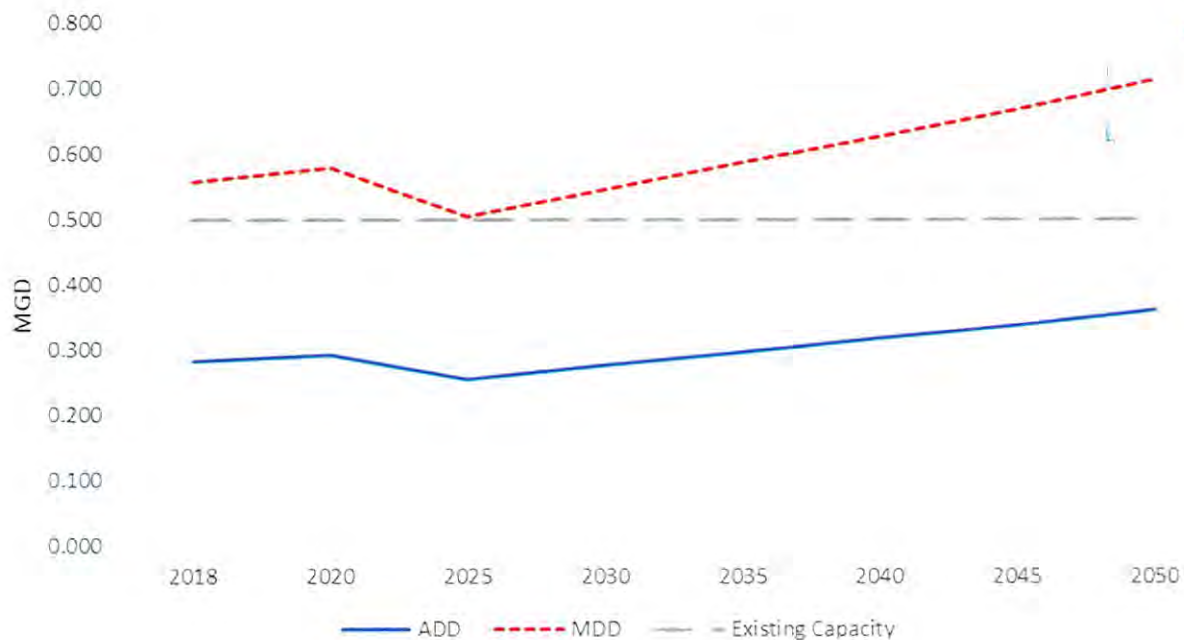
daily demand has exceeded its supply capacity during the summer high demand, low supply months (June through August).

Recent population estimates from the Portland State University (PSU) Population Research Center project an increase from current estimates of 2,160 to 3,314 in 30 years. Historic peak days during periods of hot weather in 2014, 2015, and 2018 have stressed the system to the point of failure and have required the use of Stage 1 curtailment procedures.

The City of Banks city council declared and adopted a water moratorium on new development throughout the City (Resolution 2018-19 and renewed under Resolution 2019-16) and a Water Supply Development Moratorium Corrective Action Plan (Kennedy/Jenks 2019) as part of its comprehensive efforts to identify and implement a number of corrective actions to address its water supply challenges.

In addition to the Water Moratorium, the City is making significant infrastructure upgrades to help address leaks in its water system. Current upgrades to waterlines along Sellars and Banks Roads (estimated 2024 completion) are expected to significantly help reduce water losses due to leaks.

However, even with these improvements and conservation efforts, maximum daily demand (MDD) will continue to exceed the system's supply capacity as shown in the graph below (WMCP 2020):



This graph is based on a steady growth scenario using available trend data from the PSU Population Research Center. However, other growth scenarios, such as a rapid build-out of the current UGB in the next 5-10 years, are possible and could necessitate additional water supply sooner. Please note that all projections of future population and water demand are based on the steady growth scenario outlined in the updated to the Banks WMCP submitted in August 2020.

Water Management and Conservation

- Do you have an approved Water Management and Conservation Plan? ☒ Yes ☐ No
- List the "In-Effect" date of your most recently approved Water Management and Conservation Plan: 10/12/2010
- Is your system fully metered? ☒ Yes ☐ No
- Do you perform annual water audits? ☒ Yes ☐ No
- Annual amount of water produced (MG): 102.9
(diverted or appropriated)
- Annual amount of water billed for (MG): 51.49
(metered consumption)
- Identify your system's current annual water loss: 50.65
(difference between the amount of water produced and the water billed for)
- Describe your rate structure and billing schedule:

The City bills customers for delivered water based on metered water usage. Water customers are charged a flat rate for the first 400 cubic feet per month, and a unit price for any water used above that base amount. Meters are read manually and bills are rendered on a bi-monthly basis (WMCP 2010)

[e.g., commodity rate (uniform rate, declining or inverted block rate); fixed charge with a commodity rate; or a fixed charge and commodity rate using a seasonal differential.]

Population

A supplier's population includes both permanent residential and transient populations. Residential population should be from census data or, if estimated, the method of estimation must be documented. Adopted comprehensive land use plans, water system master plans, or water management and conservation plans are examples of acceptable documentation. Transient populations are routine users of water by employers (*such as manufacturing or call center type facilities*) that increase the demand within a supplier's service area. Resort areas, regional airports, sea ports, areas with seasonally variable populations, and colleges/universities are also subject to this transient population test. Special events which are rare occasions (*such as parades, rodeos, festivals, etc.*) are not reasons to apply the transient population test.

Below, please indicate the current population to which you serve water, and cite the source of that information. Please also provide the historic population growth rate over the past 10 years and the projected population you anticipate serving in 20 years.

Present Population being Served:	Source of Information
Estimated: 2,160 (2020)	*Data from Oregon Population Research Center March 2020 Proposed Population Forecast for Banks, OR
Historic population growth rate over the past 10 years:	Source of Information
1,740 (2007) to 2,080 (2017) - Growth rate: 1.95%	Growth Rate Calculation
Projected Population to be Served in 20 Years:	Source of Estimate/Method Used
Estimated: 2,913 (2040), 3,314 (2050)	*Data from Oregon Population Research Center March 2020 Proposed Population Forecast for Banks, OR

Size of Service Area

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The area/size standard includes, but is not limited to, the following: existing boundaries, city limits, urban growth boundaries, urban reserves and zoning maps. Quasi-Municipal applicants must supply a map of the intended service area with an overlay of zoning.

Present Size of Service Area (in Acres)	List Current Zones by Percent of Total (Include any special zoning, such as a shovel-ready industrial zone of more than 50 contiguous acres)	Source of Information
City Limits – 476.8 Acres	Commercial – 6.55% Parks & Open Space – 50.84% Future Urban Development – 0%* Single-Family – 32.82% Multi-Family – 1.07% Industrial – 8.68%	City Limits Boundary and Generalized Zoning Layer from Metro RLIS
Projected Size in 20 Years (in Acres)	Anticipated Zoning by Percent	Source of Estimate
Urban Growth Boundary – 705.3 Acres	Commercial – 4.75% Parks & Open Space – 36.50% Future Urban Development – 27.99%* Single-Family – 23.76% Multi-Family - .77% Industrial – 6.23%	Banks Urban Growth Boundary and Generalized Zoning Layer from Metro RLIS.

* Metro RLIS Zoning layer had some undesignated areas (see graphics below). Missing areas most likely Future Urban Development

The City of Banks has approved a number of annexations over the last few years, significantly expanding its City Limits since the 2010 WMCP. The Urban Growth Boundary has remained the same.

The first figure below shows the updated City limits boundary along with the urban growth boundary. The second and third figures show the generalized zoning breakout for both the City Limits and the UGB, respectively. All data were acquired from Metro RLIS on May 22, 2020. Please note, that some areas are missing a zone designation. Consultation with Metro RLIS and Bank's planners revealed that the primary missing area is slated to become "Future Urban Development" (thus the anticipated zoning percent for that category may be slightly higher than shown in the table above).

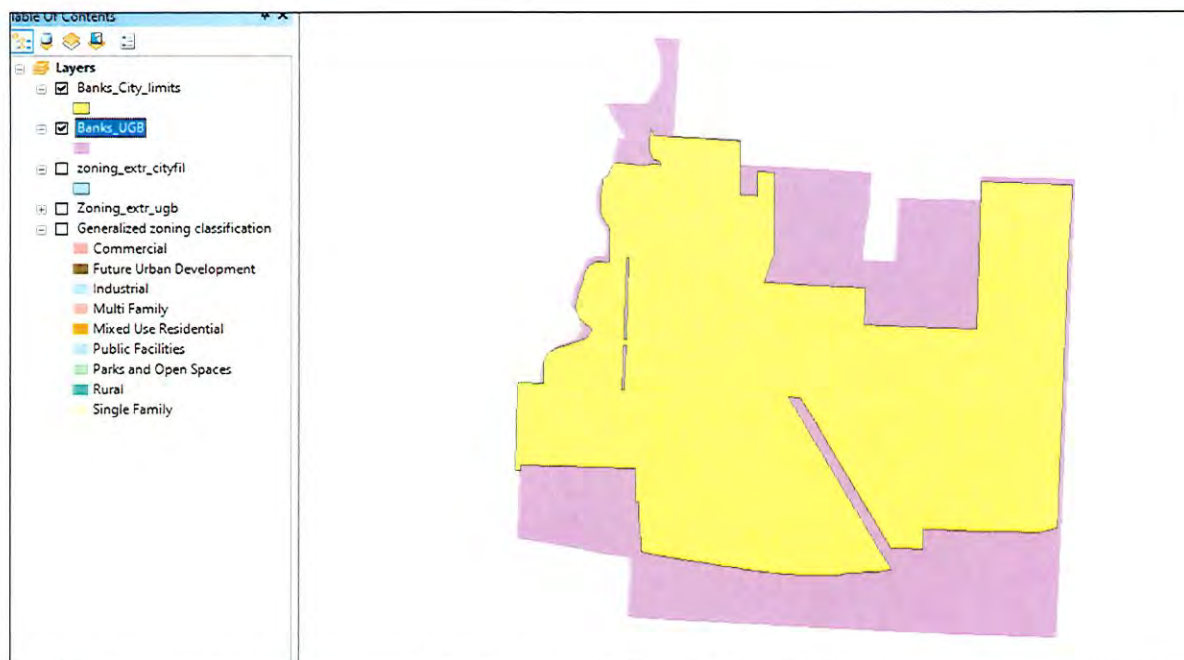


Figure 1. Boundaries of updated City Limits (yellow) and UGB (purple)

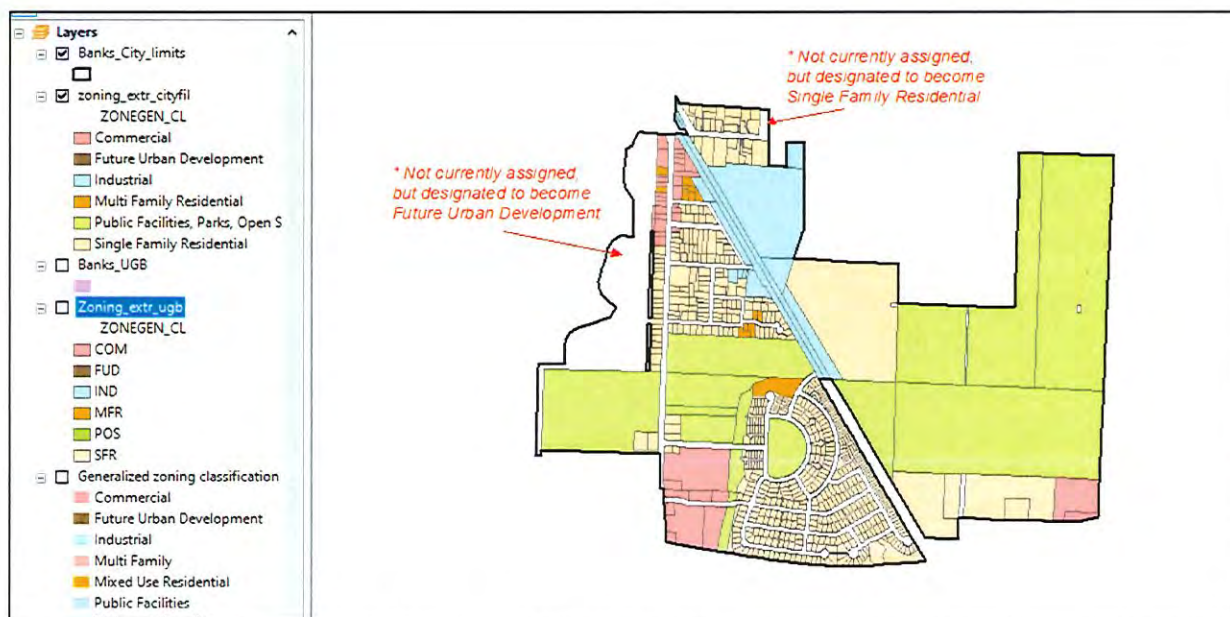


Figure 2. Generalized Zoning Classes within City Limits

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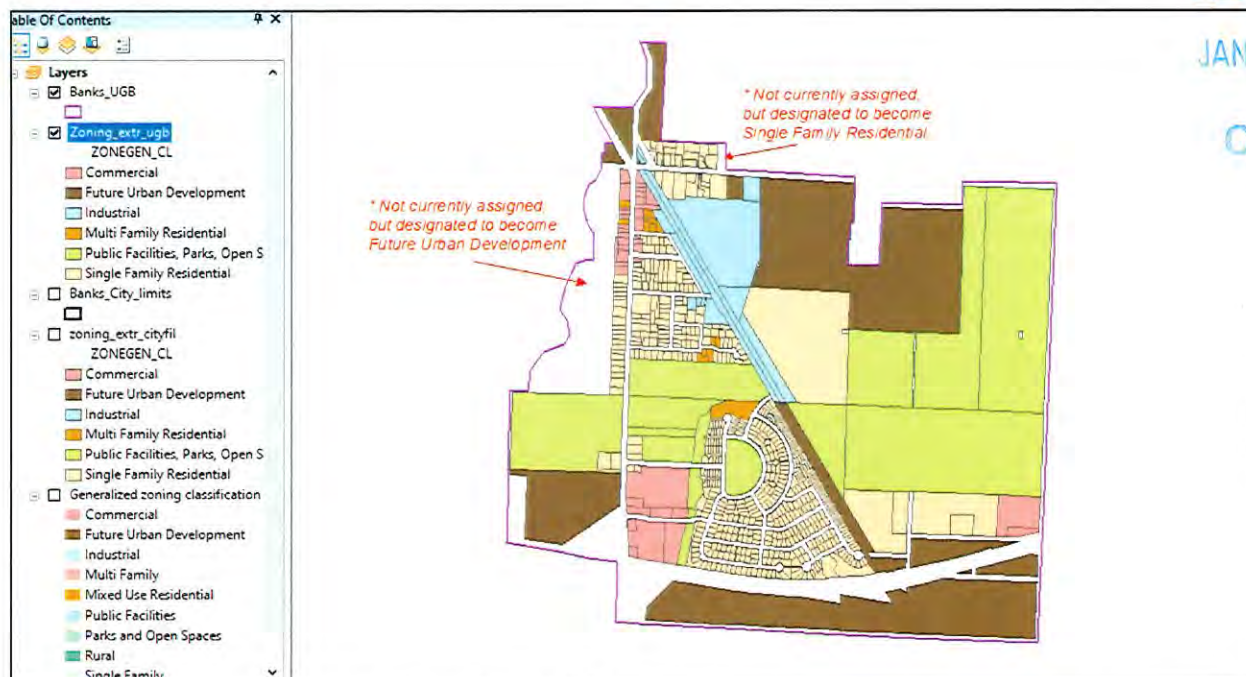


Figure 3. Generalized Zoning Classes within UGB

Current Water Supply

In the table below, please describe all of the sources of your current water supply inventory (*both active and inactive*). Identify those sources and associated water rights that are currently in use. Additionally, please identify any water sources/water rights that are not currently used, or used only on a seasonal or emergency basis, and describe the reason(s) why. If any portion of your water supply is being purchased, identify the supplying entity and, if possible, indicate the water source.

Water Source (Include any wholesale purchases of water)	Water Right Numbers (Permit and/or Certificate)	Priority Date	Amount of Water Allowed	Actively Used? (Yes or No) If "No," explain.
Spring 1 (West Spring)	S-6516, c5353	10/3/1923	0.42 cfs	Yes
Spring 2 (East Spring)	S-48173, c83138	8/25/1983	0.18 cfs	Yes
Well 1 (Behrman Well)	G-7593, T-10055	9/29/1977	0.67 cfs	Yes
Well 2	G-16312	12/5/2002	1.00 cfs	Yes

Is this application for a new water use permit intended to be used as a primary or backup source? Explain how this right will be used to meet current demand and/or how it will be used to increase reliability and resiliency?

This new water use permit is intended to supplement the City's existing water supply to ensure it can meet current and future maximum daily demands. Water will only be diverted during high flow periods (Dec-April). Banks is looking into the feasibility of constructing a water treatment plant (WTP) and Aquifer Storage and Recovery (ASR) facility to ensure the water diverted during the high flow period is available later for use during the summer high demand months.

Those suppliers that have prepared a WMCP may also wish to attach a copy of their water rights inventory table (typically included in the *Water Supplier Description* element of a WMCP).

See Attached

Current Water Use

Describe the nature of your current demands for water, as well as the water sources used to meet those needs.

Current Demands for Water (Year: 2015-2019)

Water Source (Including wholesale water purchases)	Water Right Numbers (Permit and/or Certificate)	Peak or Maximum Demand			Average Demand	
		Maximum Instantaneous Rate (in cfs or gpm)	Maximum Daily Demand (MG)* (Theoretical)	Maximum Daily Demand (MG)* (Actual)	Average Daily Demand (MG) (2015-2019)	Average Annual Demand (MG) (2015-2019)
Spring 1 (West Spring)	S-6516, c5353	0.40 (5/2017)	0.33	0.17	0.17	62.8
Spring 2 (East Spring)	S-48173, c83138	0.08 (8/2016)	0.08	0.03	0.02	6.2
Well 1 (Behrman Well)	G-7593, T-10055	0.76 (9/2016)	0.19	0.04	0.01	4.5
Well 2	G-16312	1.09 (8/2018)	0.39	0.26	0.08	29.5
Total			1.0*	0.5	0.3	103.0

*Max Daily Demand (Theoretical) is the theoretical capacity for the system if all sources were at peak simultaneously. However, since they are never at peak all at once, a "Maximum Daily Demand – Actual" column has been added to the above table. The 'Actual' daily demand takes into account that the Springs are limited due to seasonal events and the capacity of the sand filter treatment facility. Similarly, the City's two groundwater production wells typically do not operate simultaneously due to well interference, limiting the overall volume of water that they can provide at one time.

- Per-capita daily demand (in gallons): 67.8 gpcpd (based on the City's Consumption/Sales data); 135.5 gpcpd based on the City's daily recorded diversion data

(Divide average annual water sales by population to arrive at consumption, and then divide by 365 to get daily values.)

- Peak season (by month/day): June 1 to Aug 31

- Peak Season number of hours diverted/pumped (if available): NA

- Peak season per-capita daily consumption (in gallons): 110.9 gpcpd (based on the City's Consumption/Sales data); 268 gpcpd based on daily recorded diversion data

(Divide total peak season demand by population and the number of days during the peak.)

- Peaking Factor (ratio between max day demand and average day demand): $110.9\text{gpcpd}/67.8\text{gpcpd} = \mathbf{1.64}$ (based on the City's Consumption data) and/or $268\text{gpcpd}/135.5\text{gpcpd} = \mathbf{1.98}$ (based on diversion data)

Note: The City's consumption/sales data are not broken out by source (only by Commercial, Residential & Bulk) so could not be readily applied to the "Current Demand by Source" table.

The City's daily diversion records were used to calculate demand by source.

The 2018 population estimate of 2,080 was used to calculate per capita use over the 2015-2019 use period.

Projected Water Use

Describe your anticipated water demands for the next 20 years, and identify the sources of water (*existing and/or new*) that will be used to meet those demands. Please also describe the methodology and/or information source used to make the projected water demand estimates.

Projected Demands for Water in 20 Years (Year: **2040**)

• Current average per capita demand (in gallons): <u>135.5 gpcpd</u> (108.6 gpcpd after Sellars and Banks Road pipelines are upgraded) • Projected population served in year (2040): <u>2913</u> • Projected average annual demand (MG): <u>115.3</u> • Projected average daily demand (MG): <u>0.316</u> • Current peaking value: <u>1.98</u> • Projected maximum daily demand (MG): <u>0.626</u>						
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Water Source (Including wholesale water purchases)	Water Right Numbers (Permit and/or Certificate) If a new water source, indicate so.	Projected Peak Daily Demand			Projected Average Daily Demand	
		Maximum Instantaneous Rate (in cfs or gpm)	Maximum Daily Demand (MG) (Max Capacity)	Maximum Daily Demand (MG) (Required in 2040)	Average Daily Demand (MG)	Average Annual Demand (MG)
Spring 1 (West Spring)	S-6516, C5353	0.42 cfs	0.17	0.22	0.11	40.6
Spring 2 (East Spring)	S-48173, C83138	0.18 cfs	0.03	0.03	0.02	5.5
Total Springs		0.60 cfs	0.2	0.25	0.13	46.1
Well 1 (Behrman Well)	G-7593, T-10055	0.67 cfs	0.04	0.04	0.02	9.0
Well 2	G-16312	1.0 cfs	0.26	0.26	0.17	60.2
Total Wells		1.67 cfs	0.3	0.38	0.19	69.2
Total System (Springs + Wells)		2.47 cfs	0.5	0.626	0.316	115.3

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Source or Methodology Used for Demand Projections:

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The future water demand estimates for the overall water system were developed from the analysis of daily spring diversion, SSFP output, and groundwater pumping records, along with monthly consumption data from 2015-2019. The following historic water use metrics were used in calculating future demand based on population projections:

- The average 2015-2019 gallons per capita per day (135.5 gpcpd), which is estimated by dividing the 2015-2019 Average Day Demand (ADD) of 0.281 MGD by the 2018 total population estimate (ADD/population = gpcpd),
- The 2015-2019 Maximum Day Demand (MDD) was measured on July 31st, 2015 and was calculated as 0.558 MGD or 268.2 gpcpd (Kennedy/Jenks, 2019),
- The estimated current system capacity, based on the demand during three peak-use days and curtailment events in 2015 and 2018, of 0.500 MGD,

The 2015-2019 peaking factor for the Banks system (MDD/ADD = Peaking Factor) is estimated at 1.98, slightly higher than the 2013-2017 Peaking Factor of 1.9.

In order to derive demand estimates by individual sources, some assumptions were applied to the overall system maximum daily demand of 500,000 gallons. The wells generally contribute 60% (or 300,000 gallons/day) and the Springs make up the remaining 40% (or 200,000 gallons per day) of the max capacity. More specially, Springs 1 and 2 are diverted to a slow sand filter water treatment facility that yields a maximum daily demand of 200,000 gallons per day. A loss analysis of the overall water distribution system estimates an 18-20% water loss at the limited capacity facility.

Spring 1 (West Spring) generally produces 88% of the total Springs water supply, while Spring 2 (East Spring) contributes 12%. Applying those proportions to the total sand filter facility maximum daily output of 200,000 gallons, results in a Max Daily Demand for Spring 1 and 2 as 0.17 MG and 0.03 MG, respectively.

Similarly, the combined Wells Maximum daily demand is approximately 300,000G, with Well 2 contributing 87% to that total and Well 1 contributing the remaining 13%. These proportions were applied to the combined Wells demand to determine the demand for each well.

Describe any issues, deficiencies or limitations associated with your current water supply inventory contributing to the need to acquire additional water in order to satisfy your current and/or projected 20-year demands:

Historic peak days during periods of hot weather in 2014, 2015, and 2018 have stressed Banks' water system to the point of failure and have required the use of Stage 1 curtailment procedures. The three highest daily demands on record from 2015 – 2019 all occurred in 2015: July 31, 2015 (557,757 gallons, or 387 gpm), June 1, 2015 (537,653 gallons, or 373 gpm), and on June 27, 2015 (506,807 gallons, or 352 gpm).

Current MDD values far exceed the current long-term supply of approx. 266 gpm. Furthermore, flow from the springs that make up approximately 40% of the total supply varies with climate and is sometimes unreliable due to high-turbidity events. Based on this information and the long-term population projections for the Banks service area), an additional source is necessary to safely meet current maximum summer demands, and will be necessary to meet the City's average daily water demands within 30 years.

Banks's plans to meet the 10- and 20-year MDD rate projections by first implementing several water-distribution infrastructure improvement projects. A leak detection and repair program was started in 2014 and continues presently. This program involves the replacement of old meters to gather accurate loss data. Future projects include the replacement of the Sellers Road pipeline, installation of radio-read meters, looping of dead-end lines in nine different areas of the system, and the replacement of Banks Road and Cedar Canyon Road pipelines.

Additionally, Banks is investigating the feasibility of constructing an Aquifer Storage and Recovery system for additional capacity. This ASR system would consist of a new well under an ASR Limited License which would utilize treated surface water from the West Fork of Dairy Creek during high winter flow for underground storage and later recovery. The target capacity of this ASR system was estimated at 41.6 MGY (CwM-H2O, 2018) and would address much of the anticipated demand.

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Annual Water Use by Type

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In the table below, list the quantity of water diverted for each type of water use and the percentage of the total diversion associated with that use type: The percent breakouts of zone type identified in the “Size of Service Area” were applied to the average annual demands for 2020 and 2040 to produce the table below.

Type	Current Use (Zoning in City Limits)		Use In 20 Years (Zoning in UGB)	
	Quantity Diverted:	Percentage of Total Diversion:	Projected Quantity to be Diverted:	Percentage of Total Diversion:
Residential:	36.2	33.89	28.28	24.53
Commercial:	7.0	6.55	5.48	4.75
Institutional: (Parks, Public Facilities)	54.3	50.84	42.08	36.50
Agricultural:	-	-	-	-
Industrial:	9.3	8.68	7.18	6.23
Other: Future Urban Development (specify use)	-	-	32.27	27.99
Non-revenue water:				
Total: Avg Annual Demand :	106.8 MGY	100%	115.3 MGY	100%

Banks does not have a detailed break out of water use by zoning type. For the purposes of the above table, the current average annual demand (AAD) was broken out proportionally to the Metro RLIS zoning data designated within the current City Limits. Similarly, the projected average annual demand for the year 2040 was proportionally broken up to designated Metro-RLIS zoning categories within the urban growth boundary (UGB). The Metro RLIS generalized zoning data set does not have an “Institutional” category. It does however have a Parks, Public Facilities and Open Space category. That category has been assigned to “Institutional” for the purposes of this table. For details on the evaluation of non-revenue water, see the 2020 WMCP report. A more accurate usage table is shown below using the designations defined by the City of Banks.

Additionally, although Banks does not keep a detailed breakout of water use by zoning type, it has historically tracked (i.e., billed) water users under the following designations: Residential use both inside and outside of the UGB, commercial use inside and outside of the UGB, and “bulk” use (construction, street cleaning, pipe flushing, and other city uses). The breakdown of average water use by percent from 2015 – 2019 is presented below. The number of connections and customers are based on 2020 data. The majority of billed water consumption (70.29%) is through residential connections.

Estimated Water Use by Customer Category		
Use Category	Count	Usage Percentage
1 - Residential Inside UGB	648 connections (1,855 people)	58.45%
2 - Commercial Inside UGB	63 connections	28.61%
3 – Residential Outside UGB	85 connections (305 people)	11.83%
4 – Commercial Outside UGB	5 connections	0.38%
5 – Bulk Water Use		0.73%
Total	801 connections	100.00%

Estimated Water Use by Customer Classification			
Customer Type	Avg Monthly Use (CF)	Avg Daily Use (CF)	Avg Daily Use (gal)
Residential inside UGB	335,000	11,000	82,400
Residential outside UGB	67,800	2,200	16,700
Commercial inside UGB	164,000	5,400	40,300
Commercial outside UGB	2,200	70	530
Bulk water use	4,200	140	1,000

Note: Based on the average billed water use from 2015 to 2019.

The usage ratios presented above for the 2015 – 2019 period are comparable to those calculated in the 2010 Banks WMCP. For the period between 2006 and 2009, residential use accounted for 74.18% and commercial for 23.15% of overall consumption. The peak for all use categories occurs between June and September. Residential monthly usage is 1.47 – 1.66 times higher in these peak months than during the rest of the year. Commercial usage is 2.35 – 2.48 times higher in peak months. Although overall bulk water use is minimal at less than 1% of overall use its 3.23 times higher during peak months (WMCP 2020).

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