



CITY COUNCIL MEETING

Monday, August 18, 2025 at 7:00 PM
Sandy City Hall and via Zoom

AGENDA

TO ATTEND THE MEETING IN-PERSON:

Come to Sandy City Hall (lower parking lot entrance) - 39250 Pioneer Blvd., Sandy, OR 97055

TO ATTEND THE MEETING ONLINE VIA ZOOM:

Please use this link: <https://us02web.zoom.us/j/81958831447>

Or by phone: (253) 215-8782; Meeting ID: 81958831447

6:00 PM - EXECUTIVE SESSION

The City Council will meet in executive session pursuant to ORS 192.660(2)(h)

7:00 PM – REGULAR MEETING

PLEDGE OF ALLEGIANCE

ROLL CALL

CHANGES TO THE AGENDA

PUBLIC COMMENT (3-minute limit)

The Council welcomes your comments at this time. The Mayor will call on each person when it is their turn to speak for up to three minutes.

-- If you are attending the meeting in-person, please submit your comment signup form to the City Recorder before the regular meeting begins at 7:00 p.m. Forms are available on the table next to the Council Chambers door.

-- If you are attending the meeting via Zoom, please complete the online comment signup webform by 4:00 p.m. on the day of the meeting:

<https://www.ci.sandy.or.us/citycouncil/webform/council-meeting-public-comment-signup-form-online-attendees>.

RESPONSE TO PREVIOUS COMMENTS

CONSENT AGENDA

1. [City Council Minutes: August 4, 2025](#)
2. [Policy Approval: Transit Drug and Alcohol Policy Update](#)

PRESENTATIONS

3. [Overview: 2025 Water Management and Conservation Plan Update](#)

EXECUTIVE SESSION

The City Council will meet in executive session pursuant to ORS 192.660(2)(f)

OLD BUSINESS

4. [Alternative Wastewater Systems: Discussion and Policy Direction](#)

REPORT FROM THE CITY MANAGER

COMMITTEE / COUNCIL REPORTS

STAFF UPDATES

Monthly Reports: <https://reports.cityofsandy.com/>

ADJOURN

Americans with Disabilities Act Notice: Please contact Sandy City Hall, 39250 Pioneer Blvd. Sandy, OR 97055 (Phone: 503-668-5533) at least 48 hours prior to the scheduled meeting time if you need an accommodation to observe and/or participate in this meeting.



CITY COUNCIL MEETING

Monday, August 04, 2025 at 7:00 PM

Virtual via Zoom

MINUTES

PLEDGE OF ALLEGIANCE

ROLL CALL

PRESENT

Mayor Kathleen Walker
Council President Don Hokanson
Councilor Chris Mayton
Councilor Laurie Smallwood
Councilor Rich Sheldon
Councilor Kristina Ramseyer
Councilor Lindy Hanley

CHANGES TO THE AGENDA

(none)

PUBLIC COMMENT (3-minute limit)

(none)

RESPONSE TO PREVIOUS COMMENTS

(none)

CONSENT AGENDA

1. City Council Minutes: July 21, 2025

MOTION: Adopt the consent agenda

Motion made by Councilor Sheldon, Seconded by Councilor Mayton.

Voting Yea: Mayor Walker, Council President Hokanson, Councilor Mayton, Councilor Smallwood, Councilor Sheldon, Councilor Ramseyer, Councilor Hanley

MOTION CARRIED: 7-0

OLD BUSINESS

2. Policy Adoption: Special Service Contract Program Guidelines

The Deputy City Manager summarized the staff report in the meeting packet. Council discussion ensued on the following topics:

- The Council asked how applicants would be scored if they have no previous record of grant implementation or responsible stewardship of public funds. It was the consensus of the Council that all applicants should receive the full 20 points for this category unless they have an unsuccessful track record of grant implementation.
- The Council sought clarity regarding the required timing of grant reporting, particularly for recipients receiving an alternative funding accommodation. It was noted that two written reports and a presentation to the Council at the end of the biennium is still desired, and that clarity and certainty will be to the benefit of the applicant as well as the Council. Staff responded that additional clarity will be added to the final guidelines.
- It was suggested that application scoring could potentially support equity and inclusion, as well as community engagement. After discussion, it was noted that such initiatives are broader than this particular program and are better addressed through the Council Policies.
- It was noted that the City Council has final discretion in SSCP funding decisions, and that the scoring results from the subcommittee constitute a recommendation to the Council.
- It was noted that all grant recipients must execute a written grant agreement with the City, and that any alternative funding accommodations would be explicitly included in an agreement.

MOTION: Adopt the 2025-2027 guidelines for the Special Service Contract Program with the following amendments: specify that applicants will receive the full allotment of points under the Grant Track Record category unless they have a unsuccessful track record of grant management; and provide additional specificity regarding the required timing of grant reporting and presentations

Motion made by Councilor Sheldon, Seconded by Councilor Smallwood.

Voting Yea: Mayor Walker, Council President Hokanson, Councilor Mayton, Councilor Smallwood, Councilor Sheldon, Councilor Ramseyer, Councilor Hanley

MOTION CARRIED: 7-0

NEW BUSINESS

3. Plan Adoption: SandyNet Master Plan

The SandyNet Director summarized the staff report in the meeting packet. Council discussion ensued on the following topics:

- Suggestion to strike the work 'political' from the subtitle on page 7 of the ranking system

- Clarification that new connections to the system are made with SandyNet's funds
- Discussion and clarification on staff's approach to determining which new connections are prudent investments:
 - Note that decisions to proceed with new connections are made after careful fiscal consideration
 - Note that the guideline of 12 subscribers per mile is an industry standard
- Emphasis on the importance of ensuring that existing residents are not unduly subsidizing the cost of new connections
- Suggestion that new connections must be evaluated on a case by case basis based on the expected revenue and return on investment, and the availability of capital to invest
- Note that some ranking criteria inherently involve discretion, while some others are purely objective
- Emphasis on staff's intentions to focus expansion on proximity to existing infrastructure, and on areas where multiple connections will be involved to reduce the cost per unit
- Note that existing infrastructure can likely accommodate five more years of system growth before additional main lines would need to be installed
- Agreement on the need to periodically assess the progress of system expansion to ensure guidelines and objectives are being met
- Note that staff will continue to work closely with the SandyNet Advisory Board which will provide oversight and guidance, and that expansion decisions that are complicated or difficult will be brought to the Council for review
- Suggestion that connections costing more than \$4,000 - \$5,000 might be deemed too expensive

MOTION: Adopt the SandyNet Master Plan with its included addendums and exhibits

Motion made by Councilor Smallwood, Seconded by Council President Hokanson.

Voting Yea: Mayor Walker, Council President Hokanson, Councilor Mayton, Councilor Smallwood, Councilor Sheldon, Councilor Ramseyer, Councilor Hanley

MOTION CARRIED: 7-0

REPORT FROM THE CITY MANAGER

- Legislative update from Nellie deVries, including the scheduled special session of the Legislature, possibilities that the Governor may exercise line item veto powers and the process for reallocating vetoed funds, and the City's interest in maintaining the traditional split of gas tax revenue
- Note of the upcoming Library Advisory Board meeting
- Note that the projector used for Starlight Cinema broke, and staff is evaluating potential options for the future
- Update on the current recruitments within the Police Department
- Note that an update for the Council on the status of Council Goals will be delivered soon

COMMITTEE / COUNCIL REPORTS

Councilor President Hokanson

- Appreciation for the Sandy Night Out event
- Concern about the recent OGEK ruling regarding serial meetings, especially as it may negatively impact the Council's ability to communicate and govern effectively
 - Suggestion that the City should draft a letter to this effect, or support such a communication already being organized by other jurisdictions
 - Note that onboarding new councilors is would be especially difficult given this ruling
 - Staff will send the answers provided by the City Attorney in response to Councilor Hokanson's recent questions to the entire Council

Councilor Hanley

- Thanks to the Police Department and Human Resources for all the work going into the current recruitment processes
- Praise for the Parks and Recreation Department for their work during recent community events
- Acknowledgement of the upcoming National Night Out block parties

Councilor Ramseyer

- Recap of the recent Planning Commission decision regarding the Deer Pointe Park covered basketball structure

Councilor Sheldon

(none)

Councilor Smallwood

- Congratulations to the D31 Foundation on a successful Sandy Night Out event

Councilor Mayton

(none)

Mayor Walker

- Thanks for the staff work on the SSCP program guidelines
- Update on the Library Task Force process and possible opportunities for cost adjustments
- Thanks to the Council President for beginning the meeting
- The Mayor explained her reasoning for postponing the discussion on alternative wastewater systems to the next meeting in order for staff to provide additional analysis and information on the long-term impacts of installing septic or other similar systems, especially in terms of forgoing SDC and utility rate revenue for extended periods of time. She suggested that Councilors should send any questions they might have to the City Manager in advance of the meeting. Concerns were raised by some Council Members about the procedural appropriateness of delaying the second reading of Ordinance 2025-17, the first reading of which was approved at the July 21, 2025 meeting. Council President Hokanson asked for the Mayor's assurances that a second

reading of the ordinance would be on the next regular meeting agenda, regardless of what is scheduled for the next work session. The Mayor stated that the next agenda would be developed in accordance with legal advice. The City Recorder confirmed that the first reading of the ordinance had indeed been approved as presented on July 21, 2025, and the City Attorney stated that he was unaware of any particular requirements about the precise timing of holding a second reading of an ordinance. The Mayor stated that Council Members had expressed confusion about what exactly had been approved on July 21st, and that it was of paramount importance that the Council have complete information before approving the second reading of the ordinance.

STAFF UPDATES

Monthly Reports: <https://reports.cityofsandy.com/>

ADJOURN

DRAFT



STAFF REPORT

Item # 2.

Meeting Type: City Council
Meeting Date: August 18, 2025
From: Muna Rustam, Transit Manager
Subject: Policy Approval: Transit Drug and Alcohol Policy Update

DECISION TO BE MADE:

Approval of updated Transit Drug and Alcohol policy

APPLICABLE COUNCIL GOAL:

- **Goal 4.1:** Continue to promote transit as a safe, efficient mode of transportation.

BACKGROUND / CONTEXT:

The Federal Transit Administration sets the drug and alcohol testing requirements for transit employees in safety sensitive positions. Transit agencies do have the option to have a zero-tolerance or second-chance policy for those who fail a drug or alcohol test. Sandy Transit has a zero-tolerance policy which requires any contracted employee who tests positive to either a drug or alcohol test to be terminated and referred to a Substance Abuse Professional (SAP).

The new draft of the policy remains zero-tolerance and has the following updates that align with FTA requirements; they are reflected in the attached Drug and Alcohol Policy.

For your convenience, updates are listed below:

1. Oral Fluid Drug Testing
 - a. Any reference to "urine" drug testing throughout the policy is updated to reflect "urine and/or oral fluid" drug testing.
2. Modifications to Definition Found In 49 CFR Part 40
 - a. The following definitions have been removed:
 - i. "Invalid drug test" and "Screening drug test"
 - ii. "Initial drug test (also known as "Screening drug text") has been removed and replaced with a definition for "initial drug test"
 - iii. "Limit of Quantification" has been removed and replaced with a definition for "Limit of Quantification (LOQ)"
 - b. The following definitions have been added:
 - i. "Alternate specimen"

- ii. Commercial Driver's License Drug and Alcohol Clearinghouse (Clearinghouse)
- iii. "Cutoff"
- iv. "Oral fluid specimen"
- v. "SSN or Employee ID No."
- vi. "Undiluted (neat) oral fluid"
- vii. "Urine specimen"
- c. The following definitions have been revised:
 - i. "Collection container"
 - ii. "Collection site"
 - iii. "Confirmatory drug test"
 - iv. "Initial specimen validity test"
 - v. "Invalid result"
 - vi. "Laboratory"
 - vii. "Limit of Detection (LOD)"
 - viii. "Non-negative specimen"
 - ix. "Primary specimen"
 - x. "Reconfirmed"
 - xi. "Shipping container"
 - xii. "Specimen bottle"
 - xiii. "Split specimen"
 - xiv. "Split specimen collection"
 - xv. "Substituted specimen"

KEY CONSIDERATIONS / ANALYSIS:

This policy aligns with Federal Transit Administration requirements.

BUDGET IMPACT:

None.

RECOMMENDATION:

Approve the updated Sandy Transit Drug and Alcohol Policy.

SUGGESTED MOTION LANGUAGE:

"I move to approve the August 2025 update of the Sandy Transit Drug and Alcohol Policy."

LIST OF ATTACHMENTS / EXHIBITS:

- Transit Drug and Alcohol Policy – August 2025

**DRUG AND ALCOHOL TESTING POLICY
CITY OF SANDY TRANSIT DEPARTMENT
Adopted as of August 18, 2025**

A. PURPOSE

- 1) Sandy Transit provides public transit and paratransit services for the residents of the City of Sandy, Oregon. Part of our mission is to ensure that this service is delivered safely, efficiently, and effectively by establishing a drug and alcohol-free work environment, and to ensure that the workplace remains free from the effects of drugs and alcohol in order to promote the health and safety of employees and the general public. In keeping with this mission, The City of Sandy Transit Department declares that the unlawful manufacture, distribution, dispense, possession, or use of controlled substances or misuse of alcohol is prohibited for all employees.
- 2) Additionally, the purpose of this policy is to establish guidelines to maintain a drug and alcohol-free workplace in compliance with the Drug-Free Workplace Act of 1988, and the Omnibus Transportation Employee Testing Act of 1991. This policy is intended to comply with all applicable Federal regulations governing workplace anti-drug and alcohol programs in the transit industry. Specifically, the Federal Transit Administration (FTA) of the U.S. Department of Transportation has published 49 CFR Part 655, as amended, that mandates urine and/or oral fluid drug testing and breath alcohol testing for safety-sensitive positions and prohibits performance of safety-sensitive functions when there is a positive test result, or a refusal to test. The U. S. Department of Transportation (USDOT) has also published 49 CFR Part 40, as amended, that sets standards for the collection and testing of urine, oral and breath specimens.
- 3) Any provisions set forth in this policy that are included under the sole authority of The City of Sandy Transit Department and are not provided under the authority of the above-named Federal regulations are underlined. Tests conducted under the sole authority of the City of Sandy Transit Department will be performed on non-USDOT forms and will be separate from USDOT testing in all respects.

B. APPLICABILITY

This Drug and Alcohol Testing Policy applies to all safety-sensitive employees (full- or part-time) when performing safety sensitive duties. See Attachment A for a list of employees and the authority under which they are included.

A safety-sensitive function is operation of public transit service including the operation of a revenue service vehicle (whether or not the vehicle is in revenue

service), maintenance of a revenue service vehicle or equipment used in revenue service, security personnel who carry firearms, dispatchers or persons controlling the movement of revenue service vehicles and any transit employee who operates a vehicle that requires a Commercial Driver's License to operate. Maintenance functions include the repair, overhaul, and rebuild of engines, vehicles and/or equipment used in revenue service. A list of safety-sensitive positions who perform one or more of the above-mentioned duties is provided in Attachment A. Supervisors are only safety sensitive if they perform one of the above functions. Volunteers are considered safety sensitive and subject to testing if they are required to hold a CDL or receive remuneration for service in excess of actual expense.

C. DEFINITIONS

Accident: An occurrence associated with the operation of a vehicle even when not in revenue service, if as a result:

- a. An individual dies;
- b. An individual suffers a bodily injury and immediately receives medical treatment away from the scene of the accident; or,
- c. One or more vehicles incur disabling damage as the result of the occurrence and is transported away from the scene by a tow truck or other vehicle. For purposes of this definition, *disabling damage* means damage which precludes departure of any vehicle from the scene of the occurrence in its usual manner in daylight after simple repairs. Disabling damage includes damage to vehicles that could have been operated but would have been further damaged if so operated but does not include damage which can be remedied temporarily at the scene of the occurrence without special tools or parts, tire disablement without other damage even if no spare tire is available, or damage to headlights, taillights, turn signals, horn, or windshield wipers that makes them inoperative.

Adulterated specimen: A specimen that has been altered, as evidence by test results showing either a substance that is not a normal constituent for that type of specimen or showing an abnormal concentration of an endogenous substance.

Alcohol: The intoxicating agent in beverage alcohol, ethyl alcohol, or other low molecular weight alcohols contained in any beverage, mixture, mouthwash, candy, food, preparation or medication.

Alcohol Concentration: Expressed in terms of grams of alcohol per 210 liters of breath as indicated by a breath test under 49 CFR Part 40.

Aliquot: A fractional part of a specimen used for testing, It is taken as a sample representing the whole specimen.

Alternate specimen: An authorized specimen of a type other than the one previously collected.

Canceled Test: A drug or alcohol test that has a problem identified that cannot be or has not been corrected, or which is cancelled. A canceled test is neither positive nor negative.

Collection container: A container used to collect a specimen.

Collection site: A place selected by the employer where employees present themselves for the purpose of providing a specimen for a drug test.

Commercial Driver's License (CDL) Drug and Alcohol Clearinghouse (Clearinghouse): A database, administered by the Federal Motor Carrier Safety Administration, containing records of commercial motor vehicle driver's violations of controlled substances and alcohol testing program requirements, set forth in part 382 of this title, as well as their return-to-duty status.

Confirmatory Drug Test: A second analytical procedure performed on a different aliquot of the original specimen to identify and a specific drug or metabolite.

Confirmatory Validity Test: A second test performed on a different aliquot of the original urine and/or oral specimen to further support a validity test result.

Covered Employee Under FTA Authority: An employee who performs a safety-sensitive function including an applicant or transferee who is being considered for hire into a safety-sensitive function (See Attachment A for a list of covered employees).

Cutoff: The analytical value (e.g., drug or drug metabolite concentration) used as the decision point to determine a result (e.g., negative, positive, adulterated, invalid or substituted) or the need for further testing.

Designated Employer Representative (DER): An employee authorized by the employer to take immediate action to remove employees from safety-sensitive duties and to make required decisions in testing. The DER also receives test results and other communications for the employer, consistent with the requirements of 49 CFR Parts 40 and 655.
DOT, The Department, DOT Agency: These terms encompass all DOT agencies, including, but not limited to, the Federal Aviation Administration (FAA), the Federal Railroad Administration (FRA), the Federal Motor Carrier Safety Administration (FMCSA), the Federal Transit Administration (FTA), the National Highway Traffic Safety Administration (NHTSA), the Pipeline and Hazardous Materials Safety Administration (PHMSA), and the Office of the Secretary (OST). For purposes of 49 CFR Part 40, the United States Coast Guard (USCG), in the Department of Homeland Security, is considered to be a DOT agency for drug testing purposes. These terms include any designee of a DOT agency.

Dilute specimen: A urine and/or oral specimen with creatinine and specific gravity values that are lower than expected for human urine or oral fluid.

Disabling damage: Damage which precludes departure of any vehicle from the scene of the occurrence in its usual manner in daylight after simple repairs. Disabling damage includes damage to vehicles that could have been operated but would have been further damaged if so operated, but does not include damage which can be remedied temporarily at the scene of the occurrence without special tools or parts, tire disablement without other damage even if no spare tire is available, or damage to headlights, taillights, turn signals, horn, or windshield wipers that makes them inoperative.

Drugs: The drugs for which tests are required under this part and DOT agency regulations are marijuana, cocaine, amphetamines, phencyclidine (PCP) and opioids.

Employee: Anyone who works for the City of Sandy Transit Department, whether directly or through contracted employment who is in a safety sensitive position.

Evidentiary Breath Testing Device (EBT): A device approved by the NHTSA for the evidential testing of breath at the 0.02 and the 0.04 alcohol concentrations and appears on ODAPC's Web page for "Approved Evidential Breath Measurement Devices" because it conforms with the model specifications available from NHTSA.

HHS: The Department of Health and Human Services or any designee of the Secretary, Department of Health and Human Services.

Initial Drug Test: The test used to differentiate a negative specimen from one that requires further testing for drugs or drug metabolites.

Initial Specimen Validity Test: The first test used to determine specimen is adulterated, diluted, substituted, or invalid.

Invalid Result: The result reported by an HHS-certified laboratory in accordance with the criteria established by the HHS when a positive, negative, adulterated, or substituted result cannot be established for a specific drug or specimen validity test.

Laboratory: Any U.S. laboratory certified by HHS under the National Laboratory Certification Program as meeting the minimum standards set by the HHS, or, in the case of foreign laboratories, a laboratory approved for participation by DOT under this part.

Limit of Detection (LOD): The lowest concentration at which the analyte (e.g., drug or drug metabolite) can be accurately established.

Limit of Quantitation (LOQ): For quantitative assays, the lowest concentration at which the identity and concentration of the measurand can be accurately established.

Medical Review Officer (MRO): A licensed physician (medical doctor or doctor of osteopathy) responsible for receiving laboratory results generated by the drug testing program who has knowledge of substance abuse disorders and has appropriate medical training to interpret and evaluate an individual's confirmed positive test result, together with his/her medical history, and any other relevant bio-medical information.

Negative Dilute: A drug test result which is negative for the five drug/drug metabolites but has creatinine and specific gravity values that are lower than expected for human urine and/or oral fluids.

Negative result: The result reported by an HHS-certified laboratory to an MRO when a specimen contains no drug or the concentration of the drug is less than the cutoff concentration for the drug or drug class and the specimen is a valid specimen. An alcohol concentration of less than 0.02 BAC is a negative test result.

Non-negative specimen: A specimen that is reported as adulterated, substituted, positive (for drug(s) drug metabolite(s)) and/or invalid.

Oral fluid specimen: A specimen that is collected from an employee's oral cavity and is a combination of physiological fluids produced primarily by the salivary glands. An oral fluid specimen is considered to be a direct observation collection for all purposes of this part.

Oxidizing Adulterant: A substance that acts alone or in combination with other substances to oxidize drugs or drug metabolites to prevent the detection of the drug or metabolites or affects the reagents in either the initial or confirmatory drug test.

Performing (a safety-sensitive function): A covered employee is considered to be performing a safety-sensitive function and includes any period in which he or she is actually performing, ready to perform, or immediately available to perform such functions.

Positive result: The result reported by an HHS- Certified laboratory when a specimen contains a drug or drug metabolite equal or greater to the cutoff concentrations.

Primary specimen: In drug testing, the specimen bottle that is opened and tested by a first laboratory to determine whether the employee has a drug or drug metabolite in his or her system; and for the purpose of specimen validity testing. The primary specimen is the portion of the donor's subdivided specimen designated as the primary ("A") specimen by the collector to distinguish it from the split ("B") specimen as defined in this section.

Prohibited drug: Identified as marijuana, cocaine, opioids, amphetamines, or phencyclidine at levels above the minimum thresholds specified in 49 CFR Part 40, as amended.

Reconfirmed: The result reported for a split (Bottle B) specimen when the second HHS-certified laboratory is able to corroborate the original result reported for the primary (Bottle A) specimen.

Rejected for Testing: The result reported by an HHS- Certified laboratory when no tests are performed for specimen because of a fatal flaw or a correctable flaw that has not been corrected.

Revenue Service Vehicles: All transit vehicles that are used for passenger transportation service.

Safety-sensitive functions: Employee duties identified as:

- (1) The operation of a transit revenue service vehicle even when the vehicle is not in revenue service.

- (2) The operation of a non-revenue service vehicle by an employee when the operation of such a vehicle requires the driver to hold a Commercial Drivers License (CDL).
- (3) Maintaining a revenue service vehicle or equipment used in revenue service.
- (4) Controlling the movement of a revenue service vehicle and
- (5) Carrying a firearm for security purposes.

Shipping container: A container that is used for transporting and protecting specimen bottles and associated documents from the collection site to the laboratory.

Specimen: Fluid, breath or other material collected from an employee at the collection site for the purpose of a drug or alcohol test.

Specimen bottle: The bottle that, after being sealed and labeled according to the procedures in this part, is used to hold a primary ("A") or split ("B") specimen during transportation to the laboratory. In the context of oral fluid testing, it may be referred to as a "vial", "tube", or "bottle".

Split specimen: In drug testing, a part of the specimen that is sent to a first laboratory and stored with its original seal intact, and which is transported to a second laboratory for retesting at the employee's request following MRO verification of the primary specimen as positive, adulterated or substituted.

Split Specimen Collection: A collection in which the single specimen collected is divided into two separate specimen bottles, the primary specimen (Bottle A) and the split specimen (Bottle B).

SSN or Employee ID No: This number serves as a unique identifier that must be used on the Federal Drug Testing Custody and Control Form (CCF) or Alcohol Testing Form (ATF) for a donor, on the MRO's reports, on SAP reports or on other documents that are required under this part. For all other purposes of this part, this term mean: only the Commercial Driver's License (CDL) number and the State of issuance for drivers tested under the authority of the Federal Motor Carrier Safety Administration (FMCSA); and, for all drivers and other safety-sensitive employees tested under the authority of the other DOT agencies, this can be the individual's actual Social Security Number, a unique identifier issued by the employer, a State-issued driver's license number (including a CDL number) or any other State-issued or federally-issued identification number.

Stand-down: The practice of temporarily removing an employee from the performance of safety-sensitive functions based only on a report from a laboratory to the MRO of a confirmed positive test for a drug or drug metabolite, an adulterated test, or a substituted test, before the MRO has completed verification of the test result.

Substance Abuse Professional (SAP): A licensed physician (medical doctor or doctor of osteopathy) or licensed or certified psychologist, social worker, employee assistance professional, state-licensed or certified marriage and family therapist, or drug and alcohol counselor (certified by an organization listed at

<https://www.transportation.gov/odapc/sap>) with knowledge of and clinical experience in the diagnosis and treatment of drug and alcohol related disorders.)

Substituted specimen: An employee's specimen not consistent with a normal human specimen, as determined by HHS (e.g., a urine specimen with creatinine and specific gravity values that are so diminished or so divergent that they are not consistent with normal human urine).

Test Refusal: The following are considered a refusal to test if the employee:

- (1) Fail to appear for any test (except a pre-employment test) within a reasonable time, as determined by the employer.
- (2) Fail to remain at the testing site until the testing process is complete. An employee who leaves the testing site before the testing process commences for a pre-employment test has not refused to test.
- (3) Fail to attempt to provide a breath, urine or oral specimen. An employee who does not provide a urine, oral or breath specimen because he or she has left the testing site before the testing process commenced for a pre-employment test has not refused to test.
- (4) In the case of a directly-observed or monitored urine or oral drug collection, fail to permit monitoring or observation of your provision of a specimen.
- (5) Fail to provide a sufficient quantity of urine, oral fluid or breath without a valid medical explanation.
- (6) Fail or decline to take a second test as directed by the collector or the employer for drug testing.
- (7) Fail to undergo a medical evaluation as required by the MRO or the employer's Designated Employer Representative (DER).
- (8) Fail to cooperate with any part of the testing process.
- (9) Fail to follow an observer's instructions to raise and lower clothing and turn around during a directly-observed test.
- (10) Possess or wear a prosthetic or other device used to tamper with the collection process.
- (11) Admit to the adulteration or substitution of a specimen to the collector or MRO.
- (12) Refuse to sign the certification at Step 2 of the Alcohol Testing Form (ATF).
- (13) Fail to remain readily available following an accident.
- (14) As a covered employee, if the MRO reports that you have a verified adulterated or substituted test result, you have refused to take a drug test.

Undiluted (neat) oral fluid: An oral fluid specimen to which no other solid or liquid has been added. For example: A collection device that uses a diluent (or other component,

process or method that modifies the volume of the testable specimen) must collect at least 1mL of undiluted (neat) oral fluid.

Urine Specimen: Urine collected from an employee at the collection site for the purpose of a drug test.

Vehicle: A bus, electric bus, van, automobile, rail car, trolley car, trolley bus, or vessel. A public transit vehicle is a vehicle used for public transportation or for ancillary services.

Verified negative test: A drug test result reviewed by a medical review officer and determined to have no evidence of prohibited drug use above the minimum cutoff levels established by the Department of Health and Human Services (HHS).

Verified positive test: A drug test result reviewed by a medical review officer and determined to have evidence of prohibited drug use above the minimum cutoff levels specified in 49 CFR Part 40 as revised.

Validity testing: The evaluation of the specimen to determine if it is consistent with normal human urine and/or oral fluid. Specimen validity testing will be conducted on all urine and/or oral specimens provided for testing under DOT authority. The purpose of validity testing is to determine whether certain adulterants or foreign substances were added to the urine and/or oral fluid, if the urine and or oral fluid was diluted, or if the specimen was substituted.

D. EDUCATION AND TRAINING

- 1) Every covered employee will receive a copy of this policy and will have ready access to the corresponding federal regulations including 49 CFR Parts 655 and 40, as amended. In addition, all covered employees will undergo a minimum of 60 minutes of training on the signs and symptoms of drug use including the effects and consequences of drug use on personal health, safety, and the work environment. The training also includes manifestations and behavioral cues that may indicate prohibited drug use.

All supervisory personnel or company officials who are in a position to determine employee fitness for duty will receive 60 minutes of reasonable suspicion training on the physical, behavioral, and performance indicators of probable drug use and 60 minutes of additional reasonable suspicion training on the physical, behavioral, speech, and performance indicators of probable alcohol misuse.

E. PROHIBITED SUBSTANCES

- 1) Prohibited substances addressed by this policy include the following:
 - a. Illegally Used Controlled Substance or Drugs Under the Drug-Free Workplace Act of 1988 any drug or any substance identified in Schedule I through V of Section 202 of the Controlled Substance Act (21 U.S.C. 812), and as further defined by 21 CFR 1300.11 through 1300.15 is prohibited at all times in the workplace unless a legal prescription has been written for the substance. This includes, but is not limited to: marijuana, amphetamines,

opioids, phencyclidine (PCP), and cocaine, as well as any drug not approved for medical use by the U.S. Drug Enforcement Administration or the U.S. Food and Drug Administration. Illegal use includes use of any illegal drug, misuse of legally prescribed drugs, and use of illegally obtained prescription drugs. Also, the medical use of marijuana, or the use of hemp related products, which cause drug or drug metabolites to be present in the body above the minimum thresholds is a violation of this policy.

Federal Transit Administration drug testing regulations (49 CFR Part 655) require that all employees covered under FTA authority be tested for marijuana, cocaine, amphetamines, opioids, and phencyclidine as described in Section H of this policy. Illegal use of these five drugs is prohibited at all times and thus, covered employees may be tested for these drugs anytime that they are on duty. Although marijuana and/or hemp products have been legalized in Oregon, the FTA regulations remain in place for all safety sensitive positions.

- b. Legal Drugs: The appropriate use of legally prescribed drugs and non-prescription medications is not prohibited. However, the use of any substance which carries a warning label that indicates that mental functioning, motor skills, or judgment may be adversely affected must be reported to an employee's drug and alcohol management supervisor and the employee is required to provide a written release from his/her doctor or pharmacist indicating that the employee can perform his/her safety-sensitive functions.
- c. Alcohol: The use of beverages containing alcohol (including mouthwash, medication, food, candy) or any other substances containing alcohol in a manner which violates the conduct listed in this policy is prohibited.

F. PROHIBITED CONDUCT

- 1) All covered employees are prohibited from reporting for duty or remaining on duty any time there is a quantifiable presence of a prohibited drug in the body above the minimum thresholds defined in 49 CFR Part 40, as amended.
- 2) Each covered employee is prohibited from consuming alcohol while performing safety-sensitive job functions or while on-call to perform safety-sensitive job functions. If an on-call employee has consumed alcohol, they must acknowledge the use of alcohol at the time that they are called to report for duty. The covered employee will subsequently be relieved of his/her on-call responsibilities and subject to discipline for not fulfilling his/her on-call responsibilities.
- 3) The Transit Department shall not permit any covered employee to perform or continue to perform safety-sensitive functions if it has actual knowledge that the employee is using alcohol.
- 4) Each covered employee is prohibited from reporting to work or remaining on duty requiring the performance of safety-sensitive functions while having an alcohol concentration of 0.04 or greater regardless of when the alcohol was consumed.
 - a. An employee with a breath alcohol concentration which measures 0.02-0.039 is not considered to have violated the USDOT-FTA drug and alcohol regulations, provided the employee hasn't consumed the alcohol

within four (4) hours of performing a safety-sensitive duty. However, if a safety-sensitive employee has a breath alcohol concentration of 0.02-0.039, USDOT-FTA regulations require the employee to be removed from the performance of safety-sensitive duties until:

- i. The employee's alcohol concentration measures less than 0.02; or
 - ii. The start of the employee's next regularly scheduled duty period, but not less than eight hours following administration of the test.
- 5) No covered employee shall consume alcohol for eight (8) hours following involvement in an accident or until he/she submits to the post-accident drug/alcohol test, whichever occurs first.
- 6) No covered employee shall consume alcohol within four (4) hours prior to the performance of safety-sensitive job functions.
- 7) The City of Sandy Transit Department, under its own authority, also prohibits the consumption of alcohol at all times the employee is on duty, or anytime the employee is in uniform.
- 8) Consistent with the Drug-free Workplace Act of 1988, all City of Sandy Transit Department employees are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of prohibited substances in the work place including transit system premises and transit vehicles.

G. DRUG STATUTE CONVICTION

Consistent with the Drug Free Workplace Act of 1998, all employees are required to notify the City of Sandy Transit Department management of any criminal drug statute conviction for a violation occurring in the workplace within five days after such conviction. Failure to comply with this provision shall result in disciplinary action as defined in Section Q of this policy.

H. TESTING REQUIREMENTS

- 1) Analytical urine and/or oral fluid drug testing and breath testing for alcohol will be conducted as required by 49 CFR Part 40 as amended. All employees covered under FTA authority shall be subject to testing prior to performing safety-sensitive duty, for reasonable suspicion, following an accident, and random as defined in Section K, L, M, and N of this policy, and return to duty/follow-up.
- 2) A drug test can be performed any time a covered employee is on duty. A reasonable suspicion, random or follow-up alcohol test can only be performed just before, during, or after the performance of a safety-sensitive job function. Under the City of Sandy Transit Department authority, a non-DOT alcohol test can be performed any time a covered employee is on duty.
- 3) All covered employees will be subject to urine and/or oral fluid drug testing and breath alcohol testing as a condition of ongoing employment with City of Sandy

Transit Department. Any safety-sensitive employee who refuses to comply with a request for testing shall be removed from duty and subject to discipline as defined in Section Q of this policy.

I. DRUG TESTING PROCEDURES

- 1) Testing shall be conducted in a manner to assure a high degree of accuracy and reliability and using techniques, equipment, and laboratory facilities which have been approved by the U.S. Department of Health and Human Service (HHS). All testing will be conducted consistent with the procedures set forth in 49 CFR Part 40, as amended. The procedures will be performed in a private, confidential manner and every effort will be made to protect the employee, the integrity of the drug testing procedure, and the validity of the test result.
- 2) The drugs that will be tested for include marijuana, cocaine, opioids, amphetamines, and phencyclidine. After the identity of the donor is checked using picture identification, a urine and/or oral specimen will be collected using the split specimen collection method described in 49 CFR Part 40, as amended. Each specimen will be accompanied by a DOT Custody and Control Form and identified using a unique identification number that attributes the specimen to the correct individual. The specimen analysis will be conducted at a HHS certified laboratory. An initial drug screen and validity test will be conducted on the primary urine and/or oral specimen. For those specimens that are not negative, a confirmatory Gas Chromatography/Mass Spectrometry (GC/MS) or Liquid Chromatography/Mass Spectrometry (LC/MS) test will be performed. The test will be considered positive if the amounts of the drug(s) and/or its metabolites identified by the GC/MS or LC/MS test are above the minimum thresholds established in 49 CFR Part 40, as amended.
- 3) The test results from the HHS certified laboratory will be reported to a Medical Review Officer. A Medical Review Officer (MRO) is a licensed physician with detailed knowledge of substance abuse disorders and drug testing. The MRO will review the test results to ensure the scientific validity of the test and to determine whether there is a legitimate medical explanation for a confirmed positive, substitute, or adulterated test result. The MRO will attempt to contact the employee to notify the employee of the non-negative laboratory result, and provide the employee with an opportunity to explain the confirmed laboratory test result. The MRO will subsequently review the employee's medical history/medical records as appropriate to determine whether there is a legitimate medical explanation for a non-negative laboratory result. If no legitimate medical explanation is found, the test will be verified positive or refusal to test and reported to City of Sandy Transit Department. If a legitimate explanation is found, the MRO will report the test result as negative.
- 4) If the test is invalid without a medical explanation, a retest will be conducted under direct observation. Employees do not have access to a test of their split specimen following an invalid result.

- 5) Any covered employee who questions the results of a required drug test under paragraphs L through P of this policy may request that the split sample be tested. The split sample test must be conducted at a second HHS-certified laboratory. The test must be conducted on the split sample that was provided by the employee at the same time as the primary sample. The method of collecting, storing, and testing the split sample will be consistent with the procedures set forth in 49 CFR Part 40, as amended. The employee's request for a split sample test must be made to the Medical Review Officer within 72 hours of notice of the original sample verified test result. Requests after 72 hours will only be accepted at the discretion of the MRO if the delay was due to documentable facts that were beyond the control of the employee. The City of Sandy Transit Department will ensure that the cost for the split specimen analysis is covered in order for a timely analysis of the sample, however the Sandy Transit Department will seek reimbursement for the split sample test from the employee.
- 6) If the analysis of the split specimen fails to confirm the presence of the drug(s) detected in the primary specimen, if the split specimen is not able to be analyzed, or if the results of the split specimen are not scientifically adequate, the MRO will declare the original test to be canceled.

The split specimen will be stored at the initial laboratory until the analysis of the primary specimen is completed. If the primary specimen is negative, the split will be discarded. If the primary specimen is positive, it will be retained in frozen storage for one year and the split specimen will also be retained for one year. If the primary is positive, the primary and the split will be retained for longer than one year for testing if so requested by the employee through the Medical Review Officer, or by the employer, by the MRO, or by the relevant DOT agency.

7) Observed collections

- a. Consistent with 49 CFR Part 40, as amended, collection under direct observation (by a person of the same gender) with no advance notice will occur if:
 - i. The laboratory reports to the MRO that a specimen is invalid, and the MRO reports to the City of Sandy Transit Department that there was not an adequate medical explanation for the result;
 - ii. The MRO reports to the City of Sandy Transit Department that the original positive, adulterated, or substituted test result had to be

cancelled because the test of the split specimen could not be performed;

- iii. The laboratory reported to the MRO that the specimen was negative-dilute with a creatinine concentration greater than or equal to 2 mg/dL but less than or equal to 5 mg/dL, and the MRO reported the specimen as negative-dilute and that a second collection must take place under direct observation (see §40.197(b)(1)).
- iv. The collector observes materials brought to the collection site or the employee's conduct clearly indicates an attempt to tamper with a specimen;
- v. The temperature on the original specimen was out of range;
- vi. Anytime the employee is directed to provide another specimen because the original specimen appeared to have been tampered with.
- vii. All follow-up-tests; or
- viii. All return-to-duty tests.

J. ALCOHOL TESTING PROCEDURES

- 1) Tests for breath alcohol concentration will be conducted utilizing a National Highway Traffic Safety Administration (NHTSA)-approved Evidential Breath Testing device (EBT) operated by a trained Breath Alcohol Technician (BAT). A list of approved EBTs can be found on ODAPC's Web page for "Approved Evidential Breath Measurement Devices". Alcohol screening tests may be performed using a non-evidential testing device (alcohol screening device (ASD)) which is also approved by NHTSA. A list of approved ASDs can be found on ODAPC's Web page for "Approved Screening Devices to Measure Alcohol in Bodily Fluids". If the initial test indicates an alcohol concentration of 0.02 or greater, a second test will be performed to confirm the results of the initial test. The confirmatory test must occur on an EBT. The confirmatory test will be conducted no sooner than fifteen minutes after the completion of the initial test. The confirmatory test will be performed using a NHTSA-approved EBT operated by a trained BAT. The EBT will identify each test by a unique sequential identification number. This number, time, and unit identifier will be provided on each EBT printout. The EBT printout, along

with an approved alcohol testing form, will be used to document the test, the subsequent results, and to attribute the test to the correct employee. The test will be performed in a private, confidential manner as required by 49 CFR Part 40, as amended. The procedure will be followed as prescribed to protect the employee and to maintain the integrity of the alcohol testing procedures and validity of the test result.

- 2) A confirmed alcohol concentration of 0.04 or greater will be considered a positive alcohol test and in violation of this policy. The consequences of a positive alcohol test are described in Section Q. of this policy. Even though an employee who has a confirmed alcohol concentration of 0.02 to 0.039 is not considered positive, the employee shall still be removed from duty for at least eight hours or for the duration of the work day whichever is longer and will be subject to the consequences described in Section Q of this policy. An alcohol concentration of less than 0.02 will be considered a negative test.
- 3) The City of Sandy Transit Department affirms the need to protect individual dignity, privacy, and confidentiality throughout the testing process. If at any time the integrity of the testing procedures or the validity of the test results is compromised, the test will be canceled. Minor inconsistencies or procedural flaws that do not impact the test result will not result in a cancelled test.
- 4) The alcohol testing form (ATF) required by 49 CFR Part 40 as amended, shall be used for all FTA required testing. Failure of an employee to sign step 2 of the ATF will be considered a refusal to submit to testing.

K. PRE-EMPLOYMENT TESTING

- 1) All applicants for covered transit positions shall undergo urine and/or oral fluid drug testing prior to performance of a safety-sensitive function.
 - a. All offers of employment for covered positions shall be extended conditional upon the applicant passing a drug test. An applicant will not be allowed to perform safety-sensitive functions unless the applicant takes a drug test with verified negative results.
 - b. An employee shall not be placed, transferred or promoted into a position covered under FTA authority or company authority until the employee takes a drug test with verified negative results.

- c. If an applicant fails a pre-employment drug test, the conditional offer of employment shall be rescinded and the applicant will be provided with a list of at least two (2) USDOT qualified Substance Abuse Professionals. Failure of a pre-employment drug test will disqualify an applicant for employment for a period of at least one year. Before being considered for future employment the applicant must provide the employer proof of having successfully completed a referral, evaluation and treatment plan as described in section 655.62 of subpart G. The cost for the assessment and any subsequent treatment will be the sole responsibility of the applicant.
- d. When an employee being placed, transferred, or promoted from a non-covered position to a position covered under FTA authority or company authority submits a drug test with a verified positive result, the employee shall be subject to disciplinary action in accordance with Section Q herein.
- e. If a pre-employment test is canceled, the City of Sandy Transit Department will require the applicant to take and pass another pre-employment drug test.
- f. In instances where an FTA covered employee does not perform a safety-sensitive function for a period of 90 consecutive days or more regardless of reason, and during that period is not in the random testing pool the employee will be required to take a pre-employment drug test under 49 CFR Part 655 and have negative test results prior to the conduct of safety-sensitive job functions.
- g. Following a negative dilute the employee will be required to undergo another test. Should this second test result in a negative dilute result, the test will be considered a negative and no additional testing will be required unless directed to do so by the MRO.
- h. Applicants are required (even if ultimately not hired) to provide the City of Sandy Transit Department with signed written releases requesting USDOT drug and alcohol records from all previous, USDOT-covered, employers that the applicant has worked for within the last two years. Failure to do so will result in the employment offer being rescinded. The City of Sandy Transit Department is required to ask all applicants (even if ultimately not hired) if they have tested positive or refused to test on a pre-employment test for a USDOT covered employer within the last two years. If the applicant has tested positive or refused to test on a pre-employment test for a USDOT covered employer, the applicant must provide the City of Sandy Transit Department proof of having

successfully completed a referral, evaluation and treatment plan as described in section 655.62 of subpart G.

L. REASONABLE SUSPICION TESTING

- 1) All City of Sandy Transit Department FTA covered employees will be subject to a reasonable suspicion drug and/or alcohol test when the employer has reasonable suspicion to believe that the covered employee has used a prohibited drug and/or engaged in alcohol misuse. Reasonable suspicion shall mean that there is objective evidence, based upon specific, contemporaneous, articulable observations of the employee's appearance, behavior, speech or body odor that are consistent with possible drug use and/or alcohol misuse. Reasonable suspicion referrals must be made by one or more supervisors who are trained to detect the signs and symptoms of drug and alcohol use, and who reasonably concludes that an employee may be adversely affected or impaired in his/her work performance due to possible prohibited substance abuse or alcohol misuse. A reasonable suspicion alcohol test can only be conducted just before, during, or just after the performance of a safety-sensitive job function. However, under the City of Sandy Transit Department authority, a non-DOT reasonable suspicion alcohol test may be performed any time the covered employee is on duty. A reasonable suspicion drug test can be performed any time the covered employee is on duty.
- 2) The department's designated representative shall be responsible for transporting the employee to the testing site. Supervisors should avoid placing themselves and/or others into a situation which might endanger the physical safety of those present. The employee shall be placed on administrative leave pending disciplinary action described in Section Q of this policy. An employee who refuses an instruction to submit to a drug/alcohol test shall not be permitted to finish his or her shift and shall immediately be placed on administrative leave pending disciplinary action as specified in Section Q of this policy.
- 3) A written record of the observations which led to a drug/alcohol test based on reasonable suspicion shall be prepared and signed by the supervisor making the observation. This written record shall be submitted to the City of Sandy Transit Department.
- 4) When there are no specific, contemporaneous, articulable objective facts that indicate current drug or alcohol use, but the employee (who is not already a participant in a treatment program) admits the abuse of alcohol or other substances to a supervisor in his/her chain of command, the

employee shall be referred for assessment and treatment consistent with Section Q of this policy. The City of Sandy Transit Department shall place the employee on administrative leave in accordance with the provisions set forth under Section Q of this policy. Testing in this circumstance would be performed under the direct authority of the Sandy Transit. **Since the employee self-referred to management, testing under this circumstance would not be considered a violation of this policy or a positive test result under Federal authority.** However, self-referral does not exempt the covered employee from testing under Federal authority as specified in Sections L through N of this policy or the associated consequences as specified in Section Q.

M. POST-ACCIDENT TESTING

- 1) **FATAL ACCIDENTS** – A covered employee will be required to undergo urine or oral fluid and breath testing if they are involved in an accident with a transit vehicle, whether or not the vehicle is in revenue service at the time of the accident, that results in a fatality. This includes all surviving covered employees that are operating the vehicle at the time of the accident and any other whose performance could have contributed to the accident, as determined by the employer using the best information available at the time of the decision.
- 2) **NON-FATAL ACCIDENTS** - A post-accident test of the employee operating the public transportation vehicle will be conducted if an accident occurs and at least one of the following conditions is met:
 - a. The accident results in injuries requiring immediate medical treatment away from the scene, and the covered employee may have contributed to the accident.
 - b. One or more vehicles incurs disabling damage as a result of the occurrence and must be transported away from the scene, and the covered employee may have contributed to the accident.

In addition, any other covered employee whose performance could have contributed to the accident, as determined by the employer using the best information available at the time of the decision, will be tested.

As soon as practicable following an accident, as defined in this policy, the transit supervisor investigating the accident will notify the transit employee operating the transit vehicle and all other covered employees whose performance could have contributed to the accident of the need for the test.

The supervisor will make the determination using the best information available at the time of the decision.

The appropriate transit supervisor shall ensure that an employee, required to be tested under this section, is tested as soon as practicable, but no longer than eight (8) hours of the accident for alcohol, and no longer than 32 hours for drugs. If an alcohol test is not performed within two hours of the accident, the Supervisor will document the reason(s) for the delay. If the alcohol test is not conducted within (8) eight hours, or the drug test within 32 hours, attempts to conduct the test must cease and the reasons for the failure to test documented.

Any covered employee involved in an accident must refrain from alcohol use for eight (8) hours following the accident, or until he/she undergoes a post-accident alcohol test.

An employee who is subject to post-accident testing who fails to remain readily available for such testing, including notifying a supervisor of his or her location if he or she leaves the scene of the accident prior to submission to such test, may be deemed to have refused to submit to testing.

Nothing in this section shall be construed to require the delay of necessary medical attention for the injured following an accident, or to prohibit an employee from leaving the scene of an accident for the period necessary to obtain assistance in responding to the accident, or to obtain necessary emergency medical care.

In the rare event that the City of Sandy Transit Department is unable to perform an FTA drug and alcohol test (i.e., employee is unconscious, employee is detained by law enforcement agency), Sandy Transit may use drug and alcohol post-accident test results administered by local law enforcement officials in lieu of the FTA test. The local law enforcement officials must have independent authority for the test and the employer must obtain the results in conformance with local law.

N. RANDOM TESTING

- 1) All covered employees will be subjected to random, unannounced testing. The selection of employees shall be made by a scientifically valid method of randomly generating an employee identifier from the appropriate pool of safety-sensitive employees. Employees who may be covered under company authority will be selected from a pool of non-DOT-covered employees.

- 2) The dates for administering unannounced testing of randomly selected employees shall be spread reasonably throughout the calendar year, day of the week and hours of the day.
- 3) The number of employees randomly selected for drug/alcohol testing during the calendar year shall be not less than the percentage rates set each year by the FTA administrator. The current year testing rates can be viewed online at <https://www.transportation.gov/odapc/random-testing-rates>.
- 4) Each covered employee shall be in a pool from which the random selection is made. Each covered employee in the pool shall have an equal chance of selection each time the selections are made. Employees will remain in the pool and subject to selection, whether or not the employee has been previously tested. There is no discretion on the part of management in the selection.
- 5) Covered transit employees that fall under the Federal Transit Administration regulations will be included in one random pool maintained separately from the testing pool of non-safety-sensitive employees that are included solely under the City of Sandy Transit Department authority.
- 6) Random tests can be conducted at any time during an employee's shift for drug testing. Alcohol random tests can only be performed just before, during, or just after the performance of a safety sensitive duty. However, under the City of Sandy Transit Department authority, a non-DOT random alcohol test may be performed any time the covered employee is on duty. Testing can occur during the beginning, middle, or end of an employee's shift.
- 7) Employees are required to proceed immediately to the collection site upon notification of their random selection.

O. RETURN-TO-DUTY TESTING

The City of Sandy Transit Department will terminate the employment of any employee that tests positive or refuses a test as specified in section Q of this policy. However, in the rare event an employee is reinstated with court order or other action beyond the control of the transit system, the employee must complete the return-to-duty process prior to the performance of safety-sensitive functions. All covered employees who previously tested positive on a drug or alcohol test or refused a test, must test negative for drugs, alcohol (below 0.02 for alcohol), or both and be evaluated and released by the Substance Abuse Professional before returning to work.

Following the initial assessment, the SAP will recommend a course of rehabilitation unique to the individual. Following the initial assessment, the SAP will recommend a course of rehabilitation unique to the individual. The SAP will recommend the return-to-duty test only when the employee has successfully completed the treatment requirement and is known to be drug and alcohol-free and there are no undue concerns for public safety. The SAP will determine whether the employee returning to duty will require a return-to-duty drug test, alcohol test, or both.

P. FOLLOW-UP TESTING

Covered employees that have returned to duty following a positive or refused test will be required to undergo frequent, unannounced drug and/or alcohol testing following their return-to-duty test. The follow-up testing will be performed for a period of one to five years with a minimum of six tests to be performed the first year. The frequency and duration of the follow-up tests (beyond the minimums) will be determined by the SAP reflecting the SAP's assessment of the employee's unique situation and recovery progress. Follow-up testing should be frequent enough to deter and/or detect a relapse. Follow-up testing is separate and in addition to the random, post-accident, reasonable suspicion and return-to-duty testing.

In the instance of a self-referral or a management referral, the employee will be subject to non-USDOT follow-up tests and follow-up testing plans modeled using the process described in 49 CFR Part 40. However, all non-USDOT follow-up tests and all paperwork associated with an employee's return-to-work agreement that was not precipitated by a positive test result (or refusal to test) does not constitute a violation of the Federal regulations will be conducted under company authority and will be performed using non-DOT testing forms.

Q. RESULT OF DRUG/ALCOHOL TEST

- 1) Any covered employee that has a verified positive drug or alcohol test, or test refusal, will be removed from his/her safety-sensitive position, informed of educational and rehabilitation programs available, and will be provided with a list of at least two (2) USDOT qualified Substance Abuse Professionals (SAP) for assessment, and will be terminated.
- 2) Following a negative dilute the employee will be required to undergo another test. Should this second test result in a negative dilute result, the test will be considered a negative and no additional testing will be required unless directed to do so by the MRO.

3) Refusal to submit to a drug/alcohol test shall be considered equivalent to a positive test result and a direct act of insubordination and shall result in termination and referral to a list of USDOT qualified SAPs. A test refusal includes the following circumstances:

- a. Fail to appear for any test (except a pre-employment test) within a reasonable time, as determined by the employer.
- b. Fail to remain at the testing site until the testing process is complete. An employee who leaves the testing site before the testing process commences for a pre-employment test has not refused to test.
- c. Fail to attempt to provide a breath, urine or oral specimen. An employee who does not provide a urine, breath or oral specimen because he or she has left the testing site before the testing process commenced for a pre-employment test has not refused to test.
- d. In the case of a directly observed or monitored urine or oral drug collection, fail to permit monitoring or observation of your provision of a specimen.
- e. Fail to provide a sufficient quantity of urine, oral fluid or breath without a valid medical explanation.
- f. Fail or decline to take a second test as directed by the collector or the employer for drug testing.
- g. Fail to undergo a medical evaluation as required by the MRO or the employer's Designated Employer Representative (DER).
- h. Fail to cooperate with any part of the testing process.
- i. Fail to follow an observer's instructions to raise and lower clothing and turn around during a directly-observed test.
- j. Possess or wear a prosthetic or other device used to tamper with the collection process.
- k. Admit to the adulteration or substitution of a specimen to the collector or MRO.
- l. Refuse to sign the certification at Step 2 of the Alcohol Testing Form (ATF).
- m. Fail to remain readily available following an accident.

As a covered employee, if the MRO reports that you have a verified adulterated or substituted test result, you have refused to take a drug test.

- 4) An alcohol test result of 0.02 to 0.039 BAC shall result in the removal of the employee from duty for eight hours or the remainder of the workday whichever is longer. The employee will not be allowed to return to safety-sensitive duty for his/her next shift until he/she submits to a NONDOT alcohol test with a result of less than 0.02 BAC.
- 5) In the instance of a self-referral or a management referral, disciplinary action against the employee shall include:

- a. Mandatory referral for an assessment by an employer approved counseling professional for assessment, formulation of a treatment plan, and execution of a return-to-work agreement;
 - b. Failure to execute or remain compliant with the return-to-work agreement shall result in termination from the City of Sandy Transit Department employment.
 - i. Compliance with the return-to-work agreement means that the employee has submitted to a drug/alcohol test immediately prior to returning to work; the result of that test is negative; the employee is cooperating with his/her recommended treatment program; and, the employee has agreed to periodic unannounced follow-up testing as described in Section P of this policy; however, all follow-up testing performed as part of a return-to-work agreement required under section Q of this policy is under the sole authority of Sandy Transit and will be performed using non-DOT testing forms.
 - c. Refusal to submit to a periodic unannounced follow-up drug/alcohol test shall be considered a direct act of insubordination and shall result in termination. **All tests conducted as part of the return-to-work agreement will be conducted under company authority and will be performed using non-DOT testing forms.**
 - d. **A self-referral or management referral to the employer's counseling professional that was not precipitated by a positive test result does not constitute a violation of the Federal regulations and will not be considered as a positive test result in relation to the progressive discipline defined in Section Q of this policy.**
 - e. Periodic unannounced follow-up drug/alcohol testing conducted as a result of a self-referral or management referral which results in a verified positive shall be considered a positive test result in relation to the progressive discipline defined in Section Q of this policy.
 - f. A Voluntary Referral does not shield an employee from disciplinary action or guarantee employment with Sandy Transit.
 - g. A Voluntary Referral does not shield an employee from the requirement to comply with drug and alcohol testing.
- 6) Failure of an employee to report within five days a criminal drug statute conviction for a violation occurring in the workplace shall result in termination.

R. GRIEVANCE AND APPEAL

The consequences specified by 49 CFR Part 40.149 (c) for a positive test or test refusal is not subject to arbitration.

S. PROPER APPLICATION OF THE POLICY

The City of Sandy Transit Department is dedicated to assuring fair and equitable application of this substance abuse policy. Therefore, supervisors/managers are required to use and apply

all aspects of this policy in an unbiased and impartial manner. Any supervisor/manager who knowingly disregards the requirements of this policy, or who is found to deliberately misuse the policy in regard to subordinates, shall be subject to disciplinary action, up to and including termination.

T. INFORMATION DISCLOSURE

- 1) Drug/alcohol testing records shall be maintained by the City of Sandy Transit Department's designated representative Drug and Alcohol Program Manager and, except as provided below or by law, the results of any drug/alcohol test shall not be disclosed without express written consent of the tested employee.
- 2) The employee, upon written request, is entitled to obtain copies of any records pertaining to their use of prohibited drugs or misuse of alcohol including any drug or alcohol testing records. Covered employees have the right to gain access to any pertinent records such as equipment calibration records, and records of laboratory certifications. Employees may not have access to SAP follow-up testing plans.
- 3) Records of a verified positive drug/alcohol test result shall be released to the Drug and Alcohol Program Manager, and other transit system management personnel on a need to know basis.
- 4) Records will be released to a subsequent employer only upon receipt of a written request from the employee.
- 5) Records of an employee's drug/alcohol tests shall be released to the adjudicator in a grievance, lawsuit, or other proceeding initiated by or on behalf of the tested individual arising from the results of the drug/alcohol test. The records will be released to the decision maker in the proceeding.
- 6) Records will be released to the National Transportation Safety Board during an accident investigation.
- 7) Information will be released in a criminal or civil action resulting from an employee's performance of safety-sensitive duties, in which a court of competent jurisdiction determines

that the drug or alcohol test information is relevant to the case and issues an order to the employer to release the information. The employer will release the information to the decision maker in the proceeding with a binding stipulation that it will only be released to parties of the proceeding.

- 8) Records will be released to the DOT or any DOT agency with regulatory authority over the employer or any of its employees.
- 9) Records will be released if requested by a Federal, state or local safety agency with regulatory authority over the City of Sandy Transit Department or the employee.
- 10) If a party seeks a court order to release a specimen or part of a specimen contrary to any provision of Part 40 as amended, necessary legal steps to contest the issuance of the order will be taken
- 11) In cases of a contractor or sub-recipient of a state department of transportation, records will be released when requested by such agencies that must certify compliance with the regulation to the FTA.

Attachment A

SAFETY-SENSITIVE POSITIONS DEFINED

| Job Title | Job Duties | Testing Authority |
|-------------------------------------|---------------------------------|-------------------|
| Contract & Operations supervisor | All supervision | FTA |
| Operations Supervisor | All operations | FTA |
| Control Room Staff | Bus operations | FTA |
| Maintenance Supervisor | Bus maintenance & repairs | FTA |
| Safety & Driver Training Supervisor | Safety & Driver training | FTA |
| Dispatcher/Scheduler | Bus movements & trip scheduling | FTA |
| Drivers full & part-time | Bus operating | FTA |
| Mechanic | Bus maintenance & repair | FTA |

Any administrative position(s) which may be required to perform safety-sensitive duties All positions are screened for safety-sensitive job descriptions.

For any questions on any of the Drug and Alcohol Policies please contact your direct supervisor or Human Resources.

Attachment B Contacts

Any questions regarding this policy or any other aspect of the substance abuse policy should be directed to the following individual(s).

The City of Sandy Transit Department Drug and Alcohol Program Manager

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Phone: 503.489.0925

Name: Muna Rustam
Title: Transit Manager
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Phone: 503.489.0927

Medical Review Officer

Name: Fernando D. Proano MD
Title: MRO
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Burin, WA 98148
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Substance Abuse Professional

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Phone: 503.295.7974

Name: Betty Friedman, LSW
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HHS Certified Laboratory Primary Specimen

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Gresham, OR
Phone: 503.666.5050

HHS Certified Laboratory Primary Specimen

Name: Sandy Urgent Care
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Sandy, OR
Phone: 503.668.8002

HHS Certified Laboratory Split Specimen

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Phone: 1.800.950.529

Third Party Administrator:

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Phone: 503.535.6654

This Policy was adopted by the *City Council* on August 18, 2025

[APPLICABLE SIGNATURES]



STAFF REPORT

Item # 3.

Meeting Type: City Council
Meeting Date: August 18th, 2025
From: AJ Thorne, Public Works Director
Subject: Overview: 2025 Water Management and Conservation Plan Update

DECISION TO BE MADE:

No decision is required at this meeting. This meeting is an opportunity for the Council to review the Water Management and Conservation Plan (WMCP) and comment before it is submitted to the Oregon Water Resources Department (OWRD) in November.

APPLICABLE COUNCIL GOAL:

- **Goal 7.3:** Complete Water Management Conservation Plan Update.
- **Goal 7.4:** Explore a tiered rate structure for water consumption; review and update agreements with wholesale water customers.

BACKGROUND / CONTEXT:

Required by the State of Oregon and administered by OWRD, the Water Management and Conservation Plan is a document that is intended as a guide for water conservation and water management programs for Sandy's water system. The guiding principles of this document are sustainable water use and planning for future water needs. The WMCP addresses topics such as water loss, promotion of water conservation throughout the City and planning efforts to be made to ensure Sandy remains efficient and sustainable. Sandy's Water Curtailment Plan is also contained within this document.

The sections of this document are as follows:

- Section 1 – Municipal Water Supplier Plan Elements
- Section 2 – Municipal Water Suppliers Descriptions
- Section 3 – Municipal Water Conservation Element
- Section 4 – Municipal Water Curtailment Element
- Section 5 – Municipal Water Supply Element

Sandy's current WMCP was approved by OWRD in 2016. One requirement of this plan is that an updated WMCP is to be submitted to OWRD by November 30, 2025. The City is also required to provide 5-year progress reports to OWRD on the benchmarks included in this plan.

KEY CONSIDERATIONS / ANALYSIS:

While the majority of this document is an update of the previous plan, there are some key changes. Most notably, the included curtailment plan has been rewritten to provide better response options for wildfire events threatening Sandy's water supply. Previously, it was written to respond to drought conditions. It will now allow the City to move through the curtailment steps at a more rapid pace in response to wildfires that could interrupt the production of water.

This draft of the WMCP also has language that supports council Goal 7.4: The exploration of tiered rates for the City of Sandy.

The purpose of this agenda item is to introduce this draft document to the Council for review and comment. Staff welcomes any feedback the Council may wish to provide on the draft document; a follow up discussion with the Council may be scheduled if necessary before the document is submitted to OWRD for review. Once approved by OWRD, the document will need to be adopted by Council. This could be as early as Q1 2026.

BUDGET IMPACT:

Implementation of a tiered rate structure would require careful analysis to ensure the City can continue to receive revenue adequate to meet our obligations. At this point, the City's stated intention is simply to "explore" such a rate structure.

RECOMMENDATION:

Staff recommends the City Council review the draft of Sandy's Water Management and Conservation Plan and provide feedback that can be addressed before the document is submitted to the Oregon Water Resources Department. A further discussion with the Council on this topic may be scheduled if necessary before the submission deadline.

SUGGESTED MOTION LANGUAGE:

n/a

LIST OF ATTACHMENTS / EXHIBITS:

- 2025 Sandy Water Management and Conservation Plan

Draft

Water Management and Conservation Plan

City of Sandy



August 2025

Prepared by:

GSI Water Solutions, Inc.

1600 SW Western Boulevard, Suite 240

Corvallis, OR 97333

541.753.0745

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Appendices

Appendix A- Letters to Affected Local Governments

Appendix B- 2025 City Water Rates

Appendix C- City's August 2024 Newsletter

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1. Municipal Water Supplier Plan Elements

This section satisfies OWRD's requirements to include a list of affected local governments to whom the plan was made available and a proposed date for submittal of an updated plan.

1.1 Introduction

The City of Sandy (City or Sandy), once the site of a trading post on the Oregon Trail, is a growing community in the western foothills of Mt. Hood. The City is the eastern-most city in Clackamas County and serves as a gateway to Mt. Hood. Sandy serves an estimated population of 13,144, including some customers located outside of the City limits. These water utility customers of the City receive water from three sources: Alder Creek (a tributary of the Sandy River), Brownell Springs, (a tributary of Beaver Creek), and the City of Portland Water Bureau (the PWB), which provides the City water from its Bull Run surface water supply.

The City is surrounded by scenic rivers and wilderness areas appreciated by both residents and tourists. This proximity to precious natural resources continuously reminds the City of the importance of environmental sustainability. As a result, the City views planned management and conservation of its water resources as a key priority. With this in mind, the City has developed this updated Water Management and Conservation Plan (WMCP, or Plan), to guide development and implementation of water management and conservation programs promoting sustainable water use.

The purpose of this WMCP is to guide development and implementation of water management and conservation programs that promote sustainable water use and to consider the City's future water needs.

1.2 Plan Requirement

This updated WMCP meets the requirements of a final order issued by the Oregon Water Resources Department (OWRD) on June 1, 2016 approving the City's 2016 WMCP. This order included the requirement for the City to submit an "updated" WMCP within 10 years and no later than November 30, 2025. This WMCP satisfies this requirement and meets OWRD's content requirements for WMCPs.

1.3 Plan Organization

The WMCP is organized into the following sections, each addressing specific OWRD requirements. Section 2 is a self-evaluation of the City's water supply, water use, water rights, and water system. The information developed for Section 2 is the foundation for the sections that follow. The ensuing sections use this information to consider how the City can improve its water conservation and water supply planning efforts.

Section 1 – Municipal Water Supplier Plan Elements

Section 2 – Municipal Water Suppliers Descriptions

Section 3 – Municipal Water Conservation Element

Section 4 – Municipal Water Curtailment Element

Section 5 – Municipal Water Supply Element

The City referenced and used multiple sources of information during development of this WMCP. The major sources referenced include:

- City of Sandy's 2022 Water System Master Plan (WSMP)¹
- City of Sandy's 2021 Water Management and Conservation Plan Progress Report²
- City of Sandy's 2016 Water Management and Conservation Plan³

1.4 Affected Governments

The following local governments may be affected by this WMCP:

- Clackamas County

Thirty days before submitting this WMCP to OWRD, the City made the draft WMCP available for review to the affected local government listed above along with a request for comments relating to consistency with the local government's comprehensive land use plan. The letter requesting comments is in Appendix A. **No comments were received.**

In addition, the City provided the PWB, Alder Creek-Barlow Water District (Alder Creek-Barlow WD), Section Corners Water Association (Section Corners WA), and Skyview Acres Water Company (Skyview Acres WC) with a digital copy of the plan as a courtesy.

1.5 Plan Update Schedule

The City anticipates submitting an update of this WMCP within 10 years of the final order approving this WMCP. As required by OWRD, a progress report will be submitted within 5 years of the final order.

1.6 Time Extension

The City is not requesting additional time to implement metering or a previous benchmark.

¹ City of Sandy, Water System Master Plan (2022), Consor

² City of Sandy, Water Management and Conservation Plan Progress Report (2021), GSI Water Solutions, Inc

³ City of Sandy, Water Management and Conservation Plan (2016), GSI Water Solutions, Inc.

2. Municipal Water Supplier Description

This section satisfies OWRD's requirements to include descriptions of the water supplier's water sources, service area and population, water rights, and adequacy and reliability of the existing water supply. OWRD also requires descriptions of the water supplier's customers and their water use, the water system, interconnections with other water suppliers, water supply agreements, and quantification of water loss.

2.1 Terminology

System Demand or *demand* refers to the quantity of water delivered to the City's distribution system from its three water supplies. This includes treated water from the Alder Creek Water Treatment Plant (WTP), the water diverted from Brownell Springs, and wholesale water purchased from the PWB. Demand includes metered consumption by the City's customers and for City use, unmetered public uses, such as firefighting, hydrant flushing, and water lost to leakage, reservoir overflow, and other factors.

Consumption is equal to metered water use and unmetered, authorized water uses (e.g., system flushing).

Water loss is calculated by subtracting consumption from demand.

Generally, demand and consumption in municipal and quasi-municipal systems are expressed in units of millions of gallons per day (mgd), but also may be expressed in cubic feet per second (cfs) or gallons per minute (gpm). One mgd is equivalent to 1.55 cfs or 694 gpm. For annual or monthly values, a quantity of water is typically reported in million gallons (MG). Water use per person (per capita use) is expressed in gallons per capita per day (gpcd).

The following terms are used to describe specific values of system demands:

Average day demand (ADD) equals the total annual demand divided by 365 days.

Maximum day demand (MDD) equals the highest system demand that occurs on any single day during a calendar year. It is also called the one-day MDD or peak day demand.

Peaking factor is the ratio of the MDD to the ADD.

2.2 Water Sources

The City has three sources of supply: Alder Creek (a tributary of the Sandy River), Brownell Springs, (a the headwaters of Beaver Creek), and the PWB, which provides the City water from its Bull Run surface water supply.

The Alder Creek diversion is approximately 7 miles east of the City. The City has a raw water intake located along the creek, approximately one mile upstream from its confluence with

the Sandy River. The City's Alder Creek water treatment plant (WTP) is located 4,000 feet downstream from this point of diversion.

Brownell Springs consists of a group of eight natural springs located approximately 6 miles southeast of the City, on the north slope of Lenhart Butte. Brownell Springs is located at the headwaters of Beaver Creek, a tributary of Cedar Creek, which flows into the Sandy River.

The City also purchases wholesale water from the PWB as a supplemental water supply and to provide water supply redundancy in the event of an emergency.

The City also holds Permit S-48451 for use of water from the Salmon River but does not currently use this water source.

2.3 Interconnections with Other Systems

The City has had an interconnection with the PWB since 2014. The PWB water supply supplements the City's Brownell Springs and Alder Creek sources. This supply also reduces the City's reliance on the single transmission line along Highway 26 conveying water to its service area from Alder Creek and Brownell Springs, and provides redundancy in case of emergencies. The City does not have the ability to convey water back to the PWB through this interconnection.

The City serves wholesale water to the Alder Creek-Barlow WD, Skyview Acres WC, and Section Corners WA. Skyview Acres WC can receive water from the PWB whereas the other entities do not currently have other sources of supplies. The City's interconnections with its wholesale customers are unidirectional, such that the City cannot import water into its system from these providers. According to the Oregon Health Authority's Drinking Water Data Online, the Alder Creek-Barlow WD serves 125 service connections and Skyview Acres WC serves 76. Section Corners WA serves 8 residential customers according to City records.

2.4 Intergovernmental Agreements

The City is party to four water supply agreements. The terms of these agreements that are relevant to this WMCP are noted below. Common among these agreements are terms that address required responses to water shortages. These terms are noted in this section, but are detailed in the City's Curtailment Plan in Section 4 of this WMCP.

2.4.1 Portland Water Bureau

The City holds two water sales agreements with the PWB for wholesale water purchases. The active agreement provides for existing sales through June 30, 2028. The existing agreement allows the City to obtain a minimum of 0.5 million gallons per day (mgd) and up to a maximum of 3 mgd from the PWB's Bull Run source. The City is required to pay for at least 0.5 mgd regardless of the amount used. If the average of the three highest usage days in any calendar year exceeds the minimum purchase amount (0.5 mgd), then that 3-day average becomes the new minimum purchase amount for subsequent years. The PWB is responsible for maintaining and calibrating the master meter at the water system

connection. The agreement requires the City to submit a Water Conservation Plan consistent with OWRD WMCP requirements to the PWB every 5 years. If the PWB declares a water shortage, the City is required to implement curtailment measures that meet the requirements of the mutually agreed-upon curtailment plan.

The City has elected to terminate its existing agreement with the PWB by July 1, 2026, replacing this agreement with a new agreement executed in 2024 between the parties. This future agreement does not stipulate minimum or maximum purchase volumes or rates, unlike the existing agreement, allowing Sandy to purchase water on an as-needed basis. During periods of water supply shortages that affect the PWB, the PWB can require the City to implement curtailment measures to meet demand reduction targets set by the PWB. Section 4 of this WMCP details these agreement requirements and how Sandy has integrated the requirements into its curtailment plan. Under the future agreement, the PWB will continue to own and maintain the master meter at the interconnection, in keeping with the existing agreement.

2.4.2 Alder Creek-Barlow WD

The City's water supply agreement with Alder Creek-Barlow WD has been in place since 1984. As of 2004, the agreement automatically renews every two years unless either party wishes to terminate the agreement. The agreement provides surplus water to the District and does not specify minimum or maximum volumes or rates of water that the City will supply. It also identifies the water district's responsibility for operating and maintaining its water system to minimize water "losses, leakage, and overuse". The City is responsible for testing and calibrating the master meter bi-annually. The agreement also discusses how water may be successively curtailed in times of water shortage depending upon the severity of the shortage.

2.4.3 Skyview Acres WC

The City also has a water supply agreement with Skyview Acres WC effective July 1, 2014 through June 30, 2034. The agreement can be renewed every 5 years. According to the terms of the agreement, the City will supply up to a maximum rate of 60,000 gallons per day and a maximum flow rate of 200 gallons per minute to the Skyview Acres WC, with the option to increase these in the future. The City is responsible for bi-annual testing and calibration of the master meter. The company and its water users are subject to the water use regulations, water conservation practices, and curtailment measures applicable to the City's other wholesale and retail customers and/or its water purchase agreement with the PWB. Skyview Acres WC is responsible for operating and maintaining its water distribution system in a manner that minimizes water "losses, leakage, and overuse". As described in the agreement, Sandy owns and operates the master meter at the interconnection.

2.4.4 Section Corners WA

The City provides wholesale water to the Section Corners WA from water treated at the City's water treatment plant under a 1979 agreement between the parties. Currently, eight residences are served by the association. In the event of a water shortage, Sandy may

prorate water available to the association and impose a schedule of use for association members' non-domestic purposes or prohibit non-domestic purposes.

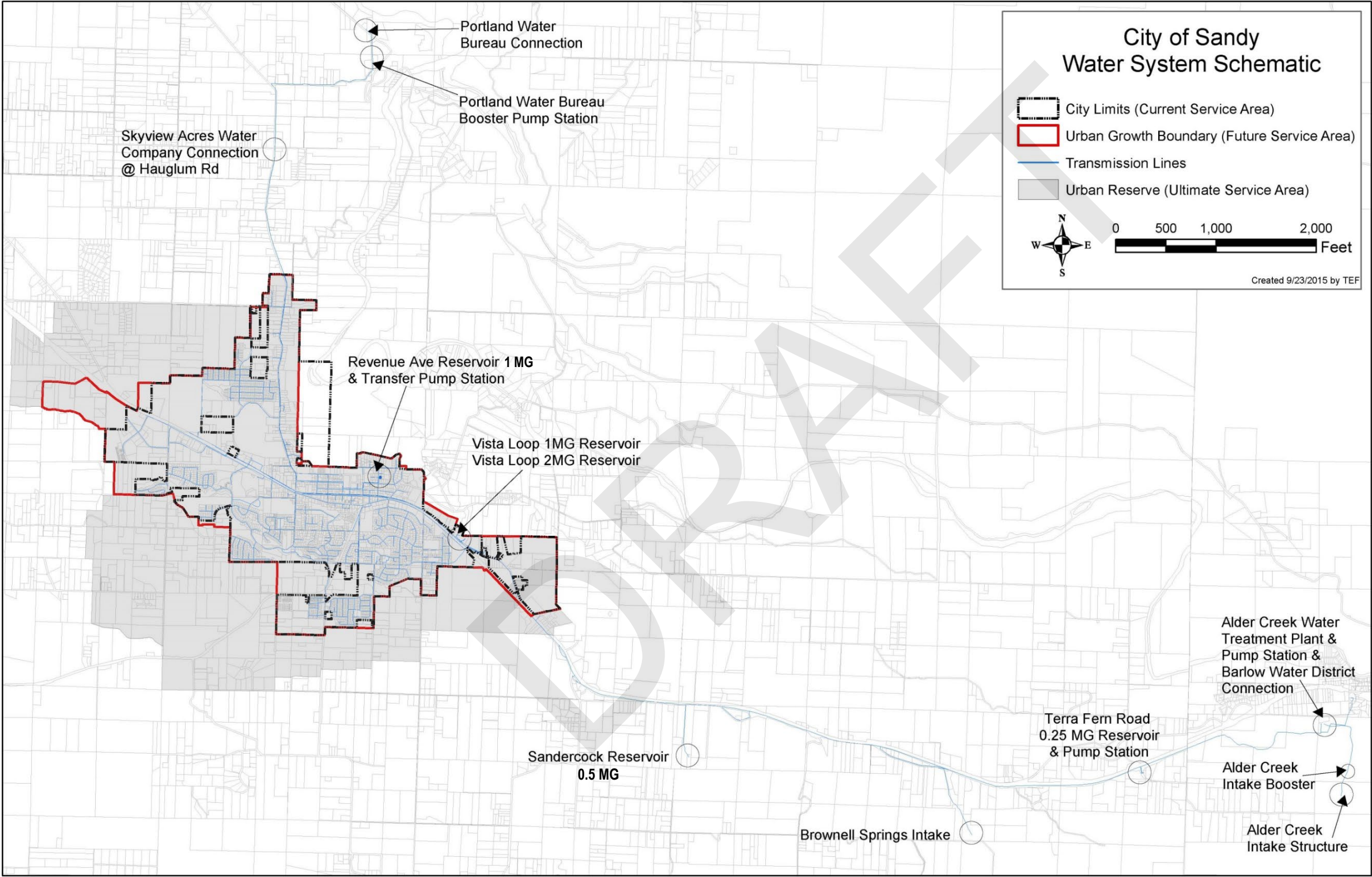
2.5 Current Service Area Description and Population

The City's service area population has continued a long trend of growth. The estimated 2024 service area population is 13,144, which includes the population of the City of 12,933 and the estimated number of people served directly by the City located outside the City limits (211 persons). In the City's 2016 WMCP, the City identified a 2013 service area population of 10,387, translating to a 27 percent increase in 11 years.

The City's 2024 service area population was obtained from Portland State University's Population Research Center (PSU PRC). The population served outside the City limits was estimated by the City by multiplying the number of residential connections outside the city limits (77), according to City records, and by the City's estimated persons per household (2.74), according to the 2020 US Census.

Exhibit 2-1 shows the City's current service area, which consists of the area within city limits plus the approximately 77 residential connections located primarily east of the City limits along Highway 26 (not shown).

Exhibit 2-1. Service Area Map and System Schematic



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2.6 Water System Demands

The City's water demands from 2019 through 2023 are summarized in Exhibit 2-2.

Exhibit 2-2. Historical Demand, 2019-2023

| Year | Demand (MG) | ADD (mgd) | MDD (mgd) | Peaking Factor |
|-------------------------|--------------|------------|------------|----------------|
| 2019¹ | 395.6 | 1.1 | 2.5 | 2.3 |
| 2020² | 424.1 | 1.2 | 3.3 | 2.8 |
| 2021 | 500.8 | 1.4 | 2.6 | 1.9 |
| 2022 | 446.4 | 1.2 | 2.5 | 2.1 |
| 2023 | 432.5 | 1.2 | 2.5 | 2.1 |
| Average | 439.9 | 1.2 | 2.7 | 2.2 |

¹ Monthly demand was not available for January and February of 2019. Averages of each of these months observed in 2020 through 2023 were used in replacement.

² The City's WMCP Progress Report identifies a demand of 460.8 MG in 2020, however, the volume for 2020 has been corrected for this WMCP.

Records of demand data for January and February of 2019 were not available due to the City's transition to a new private operator of the City's WTP at that time. Data for these months was estimated by averaging the monthly volumes for January and February in 2020 through 2023.

The average annual demand ranged between 395.6 MG (2019) and 500.8 MG (2021). Annual demand shows an increasing trend over time. The City's 2016 WMCP identified an average annual demand of 395.8 MG from 2006 to 2014, whereas the average annual demand from 2019 to 2023 was 439.9 MG. The City attributes this increasing trend to the large increase in the number of customers served.

ADD is a function of demand and therefore has the same pattern of fluctuations as demand. The City's MDD averaged 2.7 mgd and ranged from 2.5 mgd (2019, 2022, and 2023) to 3.3 mgd (2020). MDD occurred in July, August, or September over this period and these months, in addition to June, are considered the City's peak season when demand is greatest. MDD is an important value for water system planning. Water rights and supply facilities (e.g. treatment plants, pipelines, and reservoirs) must be capable of meeting a city's MDD. If the MDD exceeds the combined supply capacity on any given day, finished water storage levels will be reduced, and if the MDD exceeds combined supply capacity on several consecutive days, a water shortage may occur.

Weather patterns and the economy strongly influence MDD. Weather patterns that can cause fluctuations in MDD from year to year include extreme ambient temperatures, the number of consecutive days with high temperatures, overall rainfall levels during the summer, and consecutive days without rainfall. Unusually hot and/or dry weather results in more outdoor irrigation, which increases the MDD. The economy can affect MDD by

influencing customer spending on irrigation, the number of new homes with landscapes needing intense irrigation for plant establishment, the opening or closing of facilities that use water in their operations, and seasonal business cycles.

Based on the ratio of MDD to ADD, the City's peaking factor averaged 2.2 from 2019 to 2023. Relative to other water providers in the area, Sandy's peaking factor was slightly greater than averages for Clackamas River Water (1.9 from 2016 to 2020)⁴ and the cities of Lake Oswego (2.5 from 2003 to 2017)⁵ and Tigard (2.0 from 2002 to 2017)². A peaking factor can be an important tool used in demand forecasting and in developing targeted water conservation measures.

2.6.1 Monthly Demand

The City's monthly demands are cyclical and fluctuate with the seasons, the lowest monthly (base) demands occurring during the winter and highest (peak) in the summer. Most of the increase between the base and peak seasons results from outdoor uses of water primarily. Exhibit 2-3 presents these monthly volumes and shows these seasonal variations.

The exhibit also shows the monthly volume allocated by source of supply, except for January and February of 2019, where use by source was not available and estimated. The City's use of Alder Creek has increased over this period, offsetting declines in wholesale purchases from PWB near the end of the period. Since mid-2022, Alder Creek has been used to meet the majority of the City's system demands, meeting 56 percent of system demand in 2023. The City's Brownell Springs source of supply has been used consistently over this period except for two four-month periods in 2019 and 2020. Since 2021, the City's use of this spring complex increases during peak season, defined as June through September, to supplement the City's other supply sources. The City has been regulated off this source of supply in favor of more senior rights, as further described below. In 2023, Brownell Springs met 20 percent of demand and water from the PWB was used to supplement 24 percent of demand.

⁴ Clackamas River Water, Water Management and Conservation Plan (2020), GSI Water Solutions, Inc.

⁵ City of Lake Oswego, Water Management and Conservation Plan (2023), GSI Water Solutions, Inc.

Exhibit 2-3. Monthly Demand by Source of Supply, 2019-2023

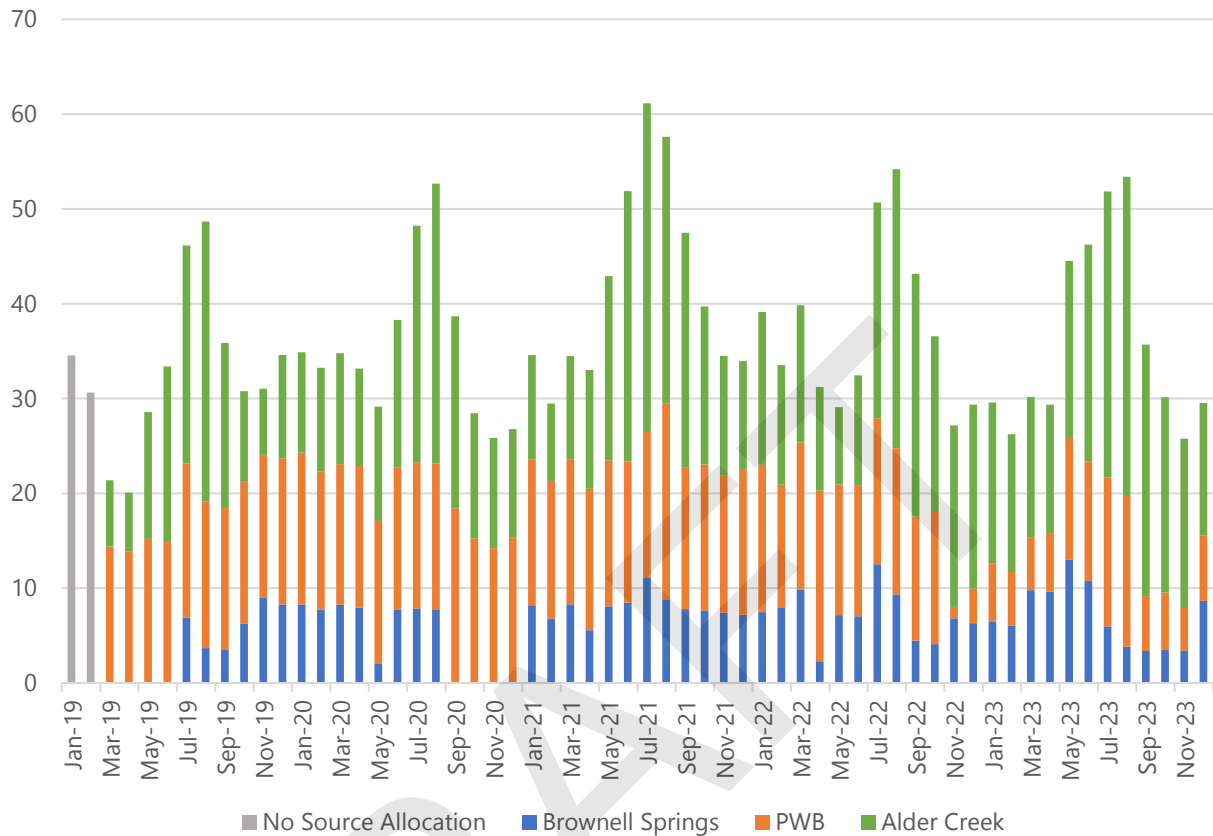
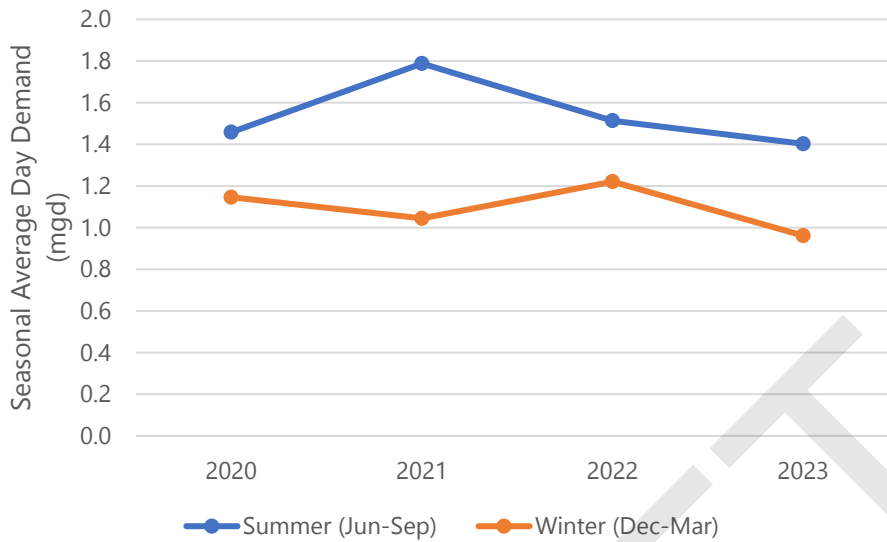


Exhibit 2-4 compares the base and peak seasons from 2020 through 2023 as measured using ADD, with the winter season ADD defined by demands from December to March and the summer season defined by demands in June through September. The winter ADD ranged from 1.0 mgd (2021 and 2023) to 1.2 mgd (2022) and summer ADD ranged from 1.4 mgd (2023) to 1.8 mgd (2021). During this period, the average of the City's ADD in the summer was approximately 1.4 times greater than the average of the City's ADD in winter. The difference between seasons is largely attributable to water demand for outdoor uses of water during the summer months, as previously described.

Exhibit 2-4. Seasonal ADD, 2020-2024



2.7 Customer Characteristics and Use Patterns

One of the major contributors to system demand is metered customer demand. This section describes the historical water use characteristics of the City's metered customers by account type, including the timing of use by the City's customers, differences of use among customer types, and trends of use. This information is helpful to the City when developing its water conservation program and its curtailment plan, among other benefits.

2.7.1 Customer Description

For billing purposes, the City categorizes its customer accounts into four primary classes: single-family residential, multi-family residential, commercial/industrial, and wholesale. Single-family residential accounts are defined as customers with one primary meter that serves one dwelling unit. Multi-family accounts include properties with two to four units per property. Properties with greater than four units are categorized as commercial/industrial accounts. The City has some accounts that it serves located outside of City limits that are categorized as "outside" accounts. These outside accounts are subsets of the City's primary account classes.

Exhibit 2-5 shows the number of accounts by class in 2023. The City's single-family residential and single-family residential outside accounts make up the largest class with 3,721 accounts.

In comparison to the number of accounts in 2014, the last year of available data in the City's 2016 WMCP, the count of residential customer accounts has increased by 16 percent, multi-family accounts increased by 5 percent from 2014 to 2023, commercial-industrial and commercial-industrial outside the City limits decreased by 43 percent. Wholesale accounts remained constant.

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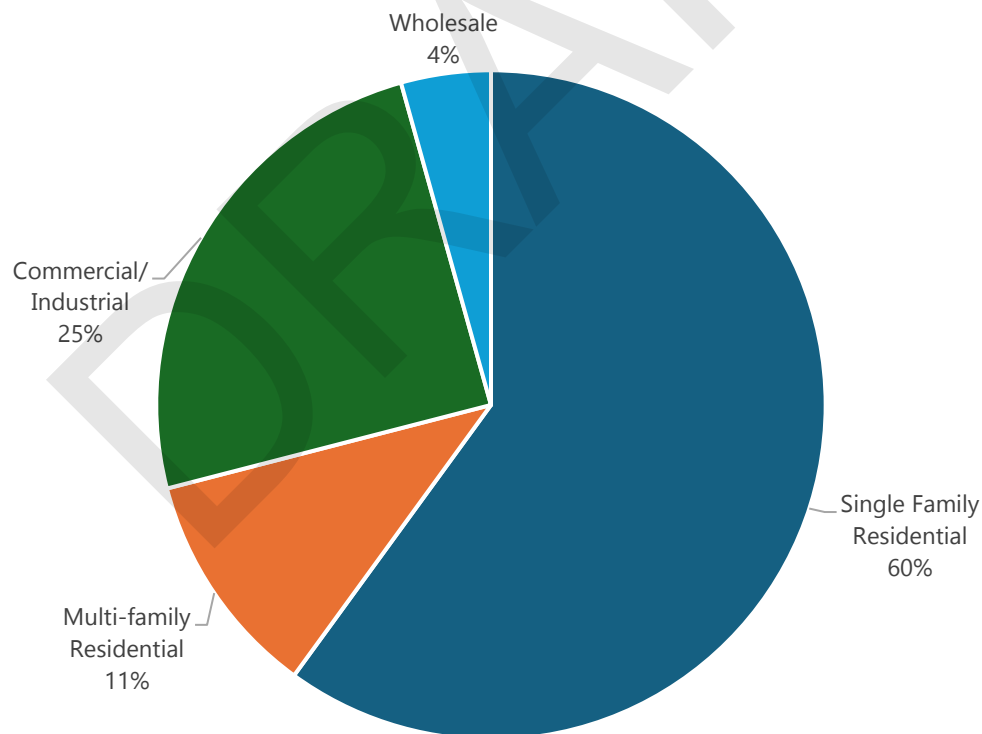
Exhibit 2-5. Count of Customers by Account Type, 2023

| Account Type ¹ | Count |
|---------------------------|--------------|
| Single-family Residential | 3,644 |
| -Outside | 77 |
| Multi-family | 91 |
| Commercial-Industrial | 262 |
| -Outside | 20 |
| Wholesale | 2 |
| Total | 4,094 |

¹The counts displayed for the "outside" account types are separate from the primary account types for which they are a subset.

Exhibit 2-6 shows the percent of consumption in 2023 by each account type, with the single-family residential class consuming 60 percent of all water consumed, representing the greatest volume of water in this year. Consumption by this account type has been consistently the largest of any of the City's account types. Water conservation efforts targeting all customer categories would be beneficial, but particularly targeting single-family residential customers could be most cost-effective.

Exhibit 2-6. Percent of Annual Consumption by Customer Account Type, 2023



2.7.2 Annual Consumption

Annual consumption by account type is shown in Exhibit 2-7 ranging from 2006 to 2023. Data from 2006 to 2020 was obtained from the City's 2021 WMCP Progress Report. Consumption for 2021 through 2023 was obtained from reports produced by the City's utility billing system in 2024.

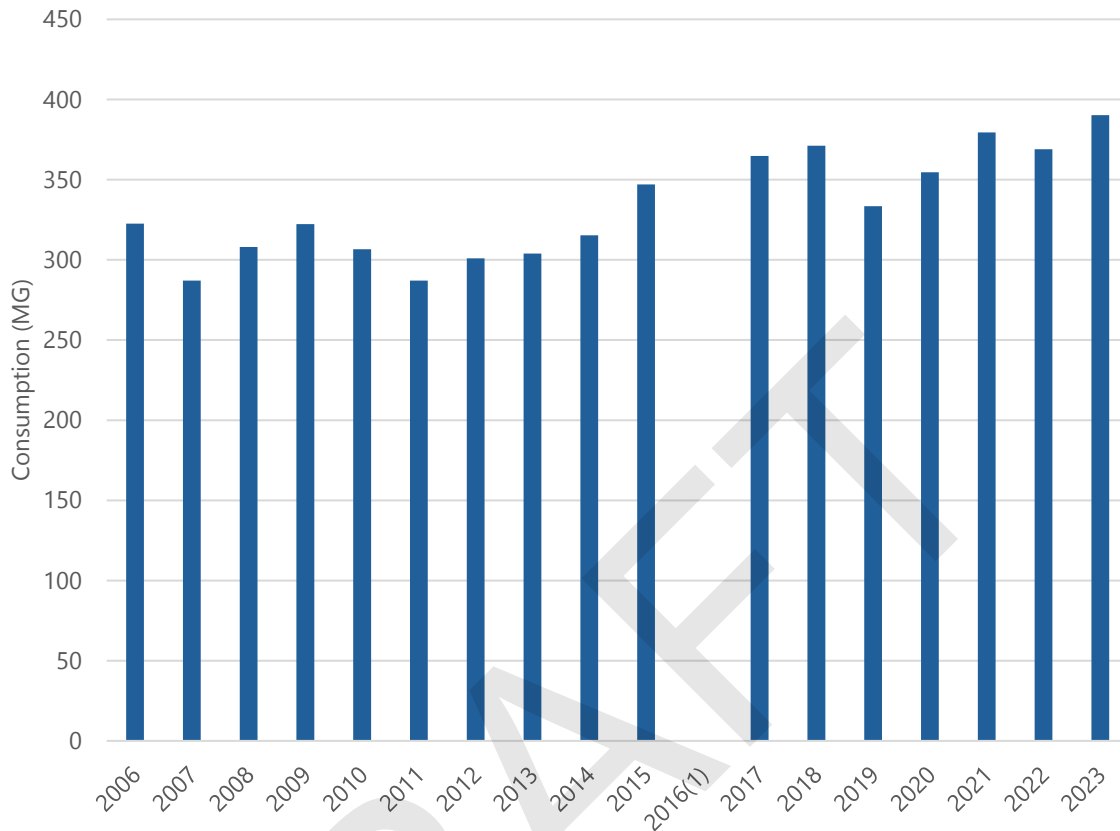
Exhibit 2-7. Consumption by Customer Class, 2006-2023 (MG)

| | Single-family Residential | Multi- family Residential | Commercial/ Industrial | Wholesale | Total |
|-------------------------|------------------------------|---------------------------------|---------------------------|-----------|-------|
| 2006 | 185.8 | 38.3 | 92.9 | 5.6 | 322.6 |
| 2007 | 176.3 | 35.9 | 71.0 | 3.9 | 287.1 |
| 2008 | 189.3 | 37.5 | 74.3 | 6.9 | 308.0 |
| 2009 | 202.8 | 38.8 | 72.8 | 7.9 | 322.3 |
| 2010 | 190.4 | 36.1 | 72.1 | 8 | 306.6 |
| 2011 | 186.6 | 33.1 | 60.0 | 7.4 | 287.1 |
| 2012 | 198.2 | 32.6 | 61.2 | 8.9 | 300.9 |
| 2013 | 198.3 | 34.9 | 63.6 | 7.1 | 303.9 |
| 2014 | 203.8 | 35.0 | 69.4 | 7.1 | 315.3 |
| 2015 | 231.7 | 34.4 | 67.6 | 13.3 | 347.0 |
| 2016¹ | - | - | - | - | - |
| 2017 | 232.9 | 35.8 | 80.4 | 15.7 | 364.8 |
| 2018 | 234.3 | 36.4 | 86.3 | 14.2 | 371.2 |
| 2019 | 208.9 | 33.2 | 80.3 | 11.1 | 333.5 |
| 2020 | 229.4 | 38.5 | 71.1 | 15.6 | 354.6 |
| 2021 | 236.4 | 36.9 | 88.8 | 17.4 | 379.5 |
| 2022 | 223.8 | 40.0 | 87.7 | 17.5 | 369.0 |
| 2023 | 234.2 | 42.8 | 96.4 | 16.9 | 390.3 |

¹Consumption data by customer category was not available for the months of August through November 2016 due to a change in billing software.

Over time, total consumption has increased, as shown in Exhibit 2-8. Comparing the average total consumption for 2006 to 2009 and 2021 to 2023, the City's total consumption has increased approximately 24 percent.

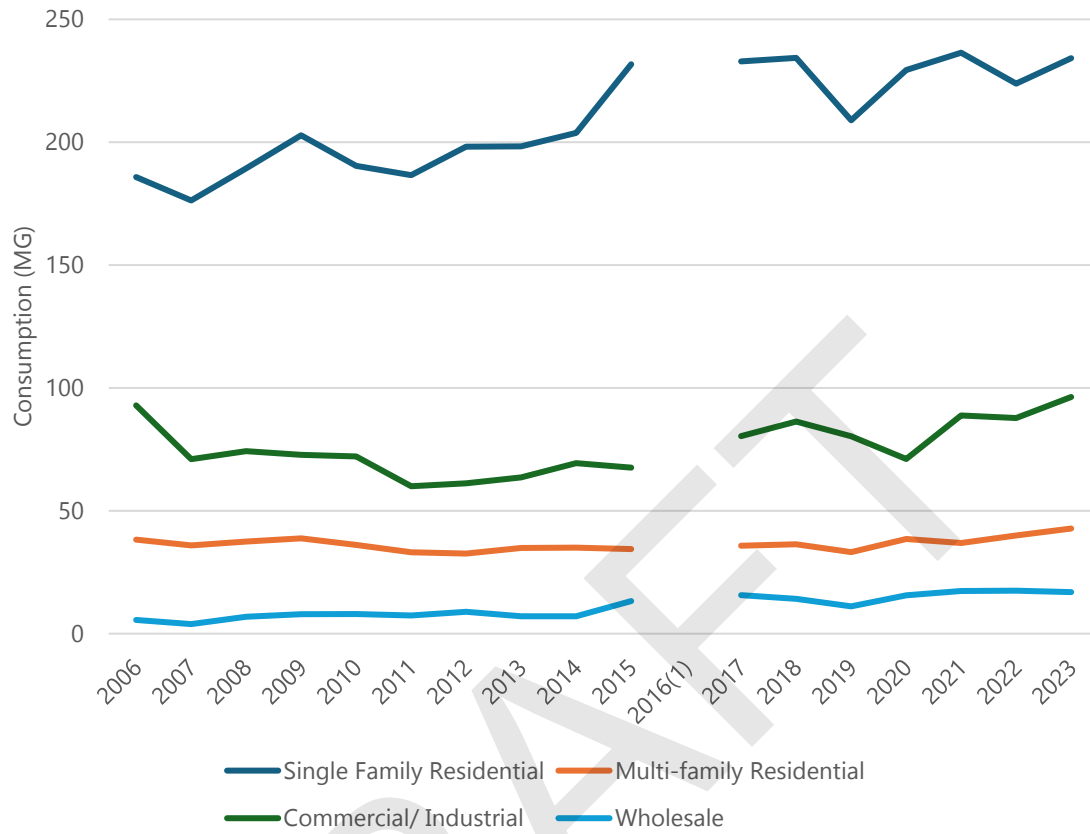
Exhibit 2-8. Total Annual Consumption, 2006-2023



¹Consumption data by customer category was not available for the months of August through November 2016 due to a change in billing software.

Exhibit 2-9 graphs consumption by customer account type over an 18-year period and shows an increase for each account type. The increasing trend in consumption of single-family residential accounts is likely due to the increasing number of active accounts in this class. Though consumption of the commercial/industrial accounts decreased early in this period, consumption of this class shows a recovery by 2023, with 2023 slightly exceeding all annual historical volumes. The increase in consumption of the commercial/industrial accounts was due to the City's meter replacement program that replaced inaccurate meters with new accurate meters. Wholesale accounts produced a slight overall increase in consumption, whereas consumption by the City's multi-family customers remained consistent.

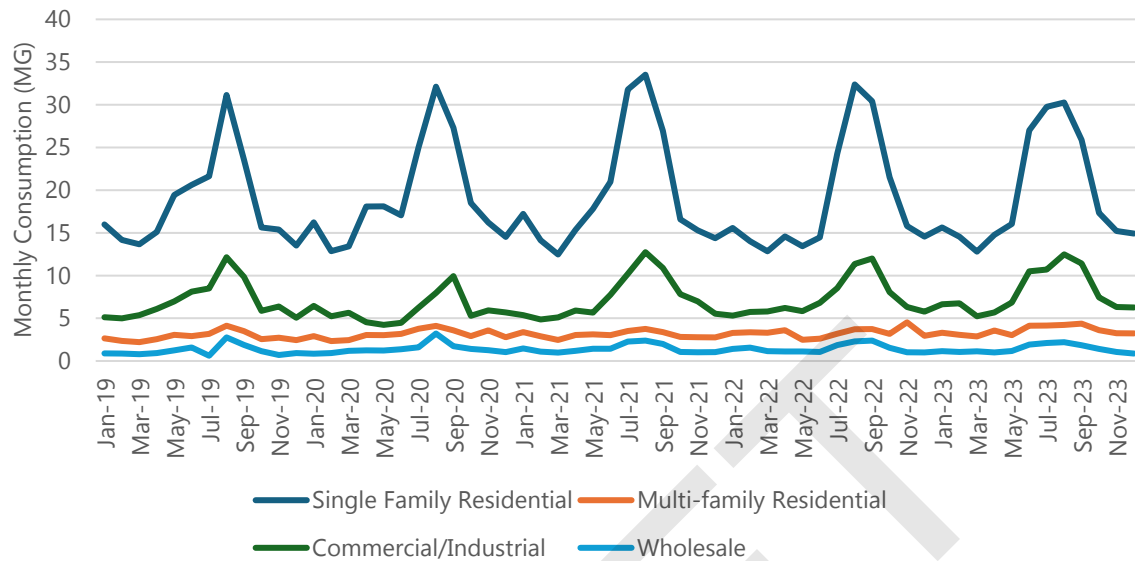
Exhibit 2-9. Consumption by Account Type, 2006-2023



¹Consumption data by customer category was not available for the months of August through November 2016 due to a change in billing software.

Exhibit 2-10 provides a more detailed look at consumption by presenting monthly use by account type.

Exhibit 2-10. Monthly Consumption by Account Type, 2019-2023



Consumption for each of the customer classes follows a seasonal pattern, with increases in the summer months and decreases during the winter months. Previous exhibits graphing monthly demands reflect these monthly changes. Seasonal increases are likely attributed to outdoor water use for all the account types, with the residential class increasing use in the summer the most. Consumption by the City's commercial/industrial customers is largely reflective of seasonal business cycles.

2.8 Water Loss

Water loss is a component of system demand. To calculate water loss, the City compared annual volumes of consumption to demand for 2020 through 2023 as shown in Exhibit 2-11. Within the consumption category, the City included volumes of process water and bulk water in addition to metered volumes attributed to service connections. Process water is water used at the City's WTP to maintain the integrity and efficiency of the plant filters. The City meters its use of process water. Bulk water includes water obtained at City fire hydrants for the use at construction projects (e.g. dust suppression), water hauling, hydro-seeding operations, and general construction. Temporary meters are installed on hydrants during fill-ups associated with these bulk water uses to record volumes dispensed. Starting in 2023, the City initiated a rigorous program to better track use and record these volumes. Prior to 2023, the City estimated these volumes, which are thought to be overly conservative.

The City believes that both apparent and real losses contributed to the water losses shown in Exhibit 2-11. Apparent losses could include unauthorized consumption, meter inaccuracies, and data handling errors. The City is unaware of any unauthorized consumption at this time. Real losses include system leakage, evaporation, and overflows.

Exhibit 2-11. Water Loss, 2020 to 2023

| | Demand (MG) | Consumption (MG) | | | Estimated Loss | |
|-------------|----------------|------------------------|-------------------------------|----------------------------|----------------|---------|
| | | Service Connections | Process Water ¹ | Bulk Water ² | Volume (MG) | Percent |
| 2020 | 424.1 | 354.6 | 1.5 | 0.5 | 67.5 | 15.9% |
| 2021 | 500.8 | 379.5 | 1.5 | 0.5 | 119.3 | 23.8% |
| 2022 | 446.4 | 369.0 | 1.6 | 0.5 | 75.3 | 16.9% |
| 2023 | 432.5 | 390.2 | 1.6 | 1.1 | 39.6 | 9.2% |

¹ Water used at the WTP for facility maintenance and operations.

² Consumption at temporary connections at hydrants.

In 2022 and 2023, the City identified and repaired three major leaks, resulting in a substantial decrease in loss. These repairs included the following.

- Revenue Avenue reservoir level reading equipment was replaced, eliminating overflows of approximately 100,000 to 200,000 gallons per day.
- Leak repair in the foundation of Sandercock Lane reservoir.
- Distribution system line leak repair was conducted along Bluff Road, reducing loss by approximately 1 percent (4.3 MG per year).

These repairs, coupled with the City's ongoing implementation of other components of its water loss reduction program, reduced loss to 9.2 percent in 2023, which was below OWRD's goal of 10 percent for water providers.

2.9 Water Rights

Exhibit 2-12 provides detailed information about the City's municipal water rights. The City holds three water right certificates for the use of water from Brownell Springs. Certificate 5427 is for the use of up to 0.2 cfs, Certificate 26132 is for the use of up to 0.7 cfs, and Certificate 91156 is for the use of up to 0.3 cfs for municipal purposes. The City holds Certificate 93884 for the use of up to 4.0 cfs from Alder Creek.

The City also holds Permit S-48451 for the use of up to 25.0 cfs from the Salmon River. This is an extended permit with a completion date of October 1, 2069.

Exhibit 2-13 provides information about Certificate 41492 which is a non-municipal water right for the use of up to 0.01 cfs from a spring. This certificate authorizes domestic use for one family. The City does not deliver water through its municipal distribution system for municipal customer supply under this water right.

Exhibit 2-14 shows water use by source of supply from 2020 to 2023.

Exhibit 2-12. Municipal Water Rights

| Application | Permit | Certificate | Source | Priority Date | Completion Dates | Type of Beneficial Use | Maximum Instantaneous Rate Allowed | Maximum Rate of Diversion | Maximum Annual Volume of Diversion |
|-------------|---------|-------------|------------------|---------------|------------------|------------------------|------------------------------------|---------------------------|------------------------------------|
| S-9669 | S-6597 | 5427 | Brownell Springs | 7/11/1924 | --- | Municipal | 0.2 cfs | 0.2 cfs | 151.6 MG |
| S-27810 | S-21879 | 26132 | | 11/10/1952 | --- | Municipal | 0.7 cfs | 0.7 cfs | |
| S-47254 | S-35394 | 91156 | | 7/23/1970 | --- | Municipal | 0.3 cfs | 0.3 cfs | |
| S-48840 | S-36601 | 93884 | Alder Creek | 11/11/1971 | --- | Municipal | 4.0 cfs | 4.0 cfs | 306.2 MG |
| S-65051 | S-48451 | --- | Salmon River | 4/28/1983 | 10/1/2069 | Municipal | 25.0 cfs | 0 cfs | 0 MG |

Exhibit 2-13. Non-Municipal Water Right

| Source | Application | Permit | Certificate | Priority Date | Type of Beneficial Use | Authorized Rate (cfs) |
|------------------------------------|-------------|---------|-------------|---------------|-----------------------------|-----------------------|
| A spring, tributary of Cedar Creek | S-47255 | S-35395 | 41492 | 7/23/1970 | Domestic use for one family | 0.01 |

Exhibit 2-14. Average Monthly and Daily Diversions by Source, 2020-2023

| Source | Application | Permit | Certificate | 4 Year Monthly Average Diversions (MG) (1) | | | | 4 Year Daily Average Diversions (MG) (1) | | | |
|------------------|-------------|---------|-------------|--|-------|-------|-------|--|------|------|------|
| | | | | 2020 | 2021 | 2022 | 2023 | 2020 | 2021 | 2022 | 2023 |
| Brownell Springs | S-9669 | S-6597 | 5427 | 4.80 | 7.95 | 7.11 | 7.03 | 0.16 | 0.26 | 0.24 | 0.23 |
| | S-27810 | S-21879 | 26132 | | | | | | | | |
| | S-47254 | S-35394 | 91156 | | | | | | | | |
| Alder Creek | S-48840 | S-36601 | 93884 | 15.17 | 18.23 | 17.41 | 20.36 | 0.51 | 0.61 | 0.58 | 0.68 |
| Salmon River | S-65051 | S-48451 | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(1) Diversions for 2019 are not included because the City was not able to access this information for this WMCP.

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2.9.1 Aquatic Resource Concerns

OAR 690-086-140(5) requires municipal water suppliers to identify the following for each of its water sources: 1) any listing of the source as water quality limited (and the water quality parameters for which the source was listed); 2) any streamflow-dependent species listed by a state or federal agency as sensitive-threatened or endangered that are present in the source; and 3) any designation of the source as being in a critical groundwater area.

1. Water Quality

The City's sources of supply authorized by its water rights are Alder Creek, Brownell Springs, and the Salmon River.

Every two years the Oregon Department of Environmental Quality's (DEQ) is required to assess water quality and report to the Environmental Protection Agency on the condition of Oregon's waters. The Clean Water Act, Section 303(d) requires DEQ to identify waters that do not meet water quality standards and where a Total Maximum Daily Load (TMDL) that identifies a pollutant load limit needs to be developed. Water quality parameters may be removed from the 303(d) list when TMDLs or other control measures have been established that are expected to improve water quality, when the data shows water quality has improved, and in some cases when water quality standards are revised. The City reviewed DEQ's 2022 Integrated Report for the water quality status of the streams used as sources of supply by Sandy.

The City's point of diversion (POD) on Alder Creek is at approximately River Mile (RM) 1, located in Assessment Unit OR_WS_170800010401_02_103643 within the Wildcat Creek-Sandy River subwatershed. Alder Creek is listed by DEQ as water quality limited for temperature.

The City's POD on the Salmon River is at approximately RM 7.5, located in Assessment Unit OR_SR_1708000107_02_103616. At this location, the Salmon River is listed by DEQ as water quality limited for pH; temperature, year-round; alkalinity, aquatic life toxics; iron (total), aquatic life toxics; and copper, aquatic life toxics.

The Brownell Springs PODs are located at the headwaters of Beaver Creek, a tributary of Cedar Creek, which flows into the Sandy River. Beaver Creek is within the Cedar Creek-Sandy River subwatershed and is not listed as water quality limited.

2. Listed Streamflow-Dependent Species

Exhibit 2-15 shows the fish species listed under the state and federal endangered species acts in the lower Columbia River, Sandy River, and Salmon River drainages (Hydrologic Unit Code 17080001 subbasin).

Exhibit 2-15. Listed Fish Species¹

| Species | Common Name | Evolutionarily Significant Unit (ESU) (if applicable) | Federal Listing | State Listing |
|---------|-------------|---|-----------------|---------------|
|---------|-------------|---|-----------------|---------------|

| | | | | |
|---------------------------------|-------------------------|---|------------------------|------------------------|
| <i>Oncorhynchus tshawytscha</i> | Chinook | Lower Columbia River ESU (fall and spring runs) | Threatened | Sensitive "Critical" |
| <i>Oncorhynchus mykiss</i> | Steelhead | Lower Columbia River ESU, (winter run) | Threatened | Sensitive "Critical" |
| <i>Oncorhynchus keta</i> | Chum | Columbia River – Oregon ESU | Threatened | Sensitive "Critical" |
| <i>Oncorhynchus clarkii</i> | Coastal Cutthroat Trout | Southwestern Washington/Columbia River ESU | -- | Sensitive "Vulnerable" |
| <i>Oncorhynchus kisutch</i> | Coho | Lower Columbia River ESU | Threatened | Endangered |
| <i>Lampetra richardsoni</i> | Western Brook Lamprey | -- | -- | Sensitive "Vulnerable" |
| <i>Lampetra tridentate</i> | Pacific Lamprey | -- | Petitioned for listing | Sensitive "Vulnerable" |
| <i>Thaleichthys pacificus</i> | Pacific Eulachon | Southern DPS, including the Columbia River system | Threatened | -- |

1 The fish species listed in this exhibit are from all of the sources combined, such that not all of the species listed are found in each source.

Sources:

Federal ESA listed species (T&E), from NOAA Fisheries Office of Protected Resources:

<http://www.nmfs.noaa.gov/pr/species/esa/fish.htm>

and http://www.westcoast.fisheries.noaa.gov/maps_data/species_population_boundaries.html

Federal Sensitive species, from the Interagency Special Status/Sensitive Species Program for Oregon and Washington State:

<http://www.fs.fed.us/r6/sfpnw/issssp/agency-policy/>

Oregon State ESA listed species, from the Oregon Department of Fish & Wildlife:

http://www.dfw.state.or.us/wildlife/diversity/species/threatened_endangered_candidate_list.asp

Oregon State Sensitive Species, from the Oregon Department of Fish & Wildlife:

http://www.dfw.state.or.us/wildlife/diversity/species/sensitive_species.asp

Federal Species of Concern, from the U.S. Fish & Wildlife Service, Oregon Fish & Wildlife Office:

<http://www.fws.gov/oregonfwo/Species/Data/PacificLamprey/default.asp>

ODFW's Division 315 Evaluation of Fish Persistence for Municipal Extension City of Sandy Application Number S-65051

3. Critical Groundwater Area

The City does not have groundwater rights and thus is not directly affected by its location within the Sandy/Boring Groundwater Limited Area.

2.10 Evaluation of Water Rights/Supply

As previously described, the City's sources of water supply are Alder Creek, Brownell Springs, and wholesale water from the PWB. The following is an analysis of the adequacy and reliability of these water sources.

2.10.1 Alder Creek and Brownell Springs

The City's Alder Creek water right allows for the use of up to 4.0 cfs and its Brownell Springs water rights allow for the use of up to 1.2 cfs, for a total of 5.2 cfs (3.37 mgd). However, the City's ability to divert the full 5.2 cfs is limited by streamflows and periodically limited by water rights that are senior to those held by the City.

1. Source Reliability

One of the primary measures that the City uses to evaluate the reliability of Alder Creek as a source of supply is the consistency by which streamflows allow for the City's use of Certificate 93844 (4.0 cfs). The City recently conducted a streamflow monitoring study⁶ that included nine monitoring events from August 2023 to June 2024 and compared the results to the City's authorized rate of diversion. Over the duration of the study, streamflows exceeded 4.0 cfs at each monitoring event except one that showed a flow of 3.77 cfs. Based on this data, the City developed a streamflow model that the City used to predict the frequency at which historical streamflows were less than 4.0 cfs. The model predicted that average water year flows should remain above 4.0 cfs. However, this model also suggested that flows in 39 of the previous 62 years were lower than 4.0 cfs for an average of 31 days per year. Low flows (defined here as below 4.0 cfs) are most likely to be observed from August 1 to November 1. Thus, Alder Creek is a reliable source of supply generally based on streamflow, however the creek may not be able to support a maximum rate of diversion of 4.0 cfs during dry water years in late summers and early falls.

According to the City's 2022 WSMP, Brownell Springs reliably produces approximately 0.46 cfs (0.3 mgd). This rate is less than the City's combined rates of its three certificates for Brownell Springs of up to 1.2 cfs.

2. Regulatory Reliability

The City's Alder Creek water right Certificate 93884 has a priority date of November 11, 1971, and is junior in priority date to four surface water rights that name Alder Creek as the authorized source. Of the four water rights, two are small domestic use water rights (0.01 and 0.005 cfs, respectively), and another is a non-consumptive power water right downstream of the City's POD. The fourth is a domestic use water right for 1.0 cfs that is in the name of Alder Creek Water Company, which is now held by Alder Creek-Barlow WD. The Alder Creek-Barlow WD has not been using its water right on Alder Creek and fully relies on Sandy for wholesale purchases to meet its system demands. There is no history of water use regulation on Alder Creek. The City's Certificate 93884 is senior to instream water right Certificate 72636, which has a 1991 priority date and protects flows in the reach from RM 2.0 to the mouth of Alder Creek. The City's Certificate 93884 is also senior to instream water rights Certificate 73015 and Certificate 75992 on the lower Sandy River, which have 1991 and 1992 priority dates, respectively. Based on this information, the City can rely on the supply

⁶ Alder Creek Rating Curve Technical Memorandum (June 19, 2024), David Evans and Associates, Inc.

available under Certificate 93448 from Alder Creek not being subject to regulation for existing water rights.

The City's three water rights on Brownell Springs have priority dates of 1924, 1952 and 1970. According to OWRD's web-based water rights database, there are no other water rights for use of Brownell Springs and no senior water rights for "a spring" that is the headwaters to Beaver Creek. In addition, the City's 1924 priority water right for 0.2 cfs is the most senior right on Beaver Creek and the Cedar Creek system. The City's 1952 water right for 0.7 cfs is junior in priority to two small water rights on Beaver Creek (0.01 and 0.26 cfs respectively) and to two small water rights on Cedar Creek (0.03 cfs and 0.01 cfs respectively). However, the City's 1952 water right for 0.7 cfs and the 1970 water right for 0.3 cfs are junior to the Oregon Department of Fish and Wildlife's (ODFW) 25.0 cfs water right for fish propagation (hatchery) with a priority date of 1949. The State of Oregon Watermaster has curtailed the City's use of these two junior rights during five of the last six years (since 2018) in favor of ODFW's water right, allowing the City access only to its 0.2 cfs water right. The Brownell Springs water rights are senior to instream water right Certificate 72630, which protects instream flows in the reach from Cedar Creek's confluence with Beaver Creek to the mouth of Cedar Creek. The Brownell Springs water rights are also senior to instream water right Certificate 73015 and Certificate 75992 on the lower Sandy River. Based on this information, the City can only rely on 0.2 cfs from Brownell Springs to meet water supply needs during the peak season.

2.10.2 Salmon River

The City holds Permit S-48451 for the use of up to 25.0 cfs from the Salmon River, which is currently undeveloped and has an extension of time to October 1, 2069. The Salmon River was designated as a federal Wild and Scenic River in 1988 and is managed by the Bureau of Land Management and the U.S. Forest Service. Management standards for the Wild and Scenic River are detailed in the Salmon National Wild and Scenic River Management Plan (USFS, 1993). This water right is intended to provide a long-term water supply to accommodate the City's growth. In the Agreement for Instream Conversion (executed October 24, 2002) associated with Portland General Electric's decommissioning of the Marmot dam (PGE Agreement), the City voluntarily agreed to reduce this permit from 25.0 cfs to 16.3 cfs when the flow available in the Sandy River near Marmot, OR is 600 cfs or less. The City can still divert up to 25.0 cfs when the flow available is more than 600 cfs. There are no gages currently operating near Marmot, OR that can provide a picture of the flow regime in the Sandy River at that location. Regardless, the City understands that 600 cfs will not frequently be met.

In addition, as part of the extension of time for Permit S-48451, there are two sets of conditions placed on the permit. "Condition A" pertains to any POD upstream from the confluence of the Salmon River and Boulder Creek. Under "Condition A," the City cannot divert water between August 16 and October 31; diversions between March 1 through August 15 are subject to the PGE Agreement; and diversions from November 1 through February 29 will be reduced if the target flows of 129 cfs or the average flow for the previous

October, whichever is less, is not met. Diversions from November 1 through February 29 are also subject to the PGE Agreement. "Condition B" pertains to any POD downstream from the confluence with Boulder Creek. Under "Condition B," the City's diversions are only subject to the PGE Agreement. Under "Condition A" and "Condition B," the City must also provide OWRD with an executed agreement between the City and ODFW specifying fish passage requirements that ensure adequate upstream and downstream passage.

The Salmon River water right is junior to several very small domestic water rights. These rights range from 0.005 cfs to 0.1 cfs. Streamflow records from a U.S. Geological Survey gage in the vicinity (14135500, Salmon River Above Boulder Creek near Brightwood, OR), with a record period from 1936 to 1952, show that the lowest streamflows met or exceeded 97 cfs 50 percent of the time. Permit S-48451 is senior to instream water right certificates 72636 and 72637, which have priority dates of 1991 and protect water instream from RM 16.3 to the mouth of the river. The Salmon River is a tributary to the Sandy River and Permit S-48451 is also senior to the two instream water rights on the lower Sandy River. Based on existing data and considering other senior water rights, it appears that the Salmon River source would be reliable for meeting the City's long-term supply needs to accommodate growth. However, until the City determines where it will locate the POD, the reliability of water under Permit S-48451 is unclear with respect to the required permit conditions.

2.10.3 Bull Run River via the PWB

The City uses water from the PWB as a supplemental water supply, particularly when its use of Brownell Springs is regulated back and when Alder Creek flows are insufficient. The PWB water source is also a redundant supply if the City's water sources were to become unavailable. The PWB can provide Sandy water from Bull Run Lake and two reservoirs that impound water from the Bull Run River. This supply is generally reliable, however water quality may be degraded from events such as fires, landslides, or storms in the watershed. The PWB does not offer a backup supply to Sandy if water from the Bull Run Watershed is not available. The reliability of the PWB water is described in detail in the PWB's WMCP.

Overall, the City's MDD exceeds its own supplies due to regulation of Brownell Springs and low flows during peak season of Alder Creek. However, the City maintains an adequate and reliable supply with the use of water from PWB to supplement its own sources.

2.11 System Description

Exhibit 2-1 presents a schematic of the City's water sources, WTP, and major water distribution components. The City's POD on Alder Creek is located approximately 7 miles east of the City and 1 mile upstream from its confluence with the Sandy River. The concrete intake structure has a fish screen to prevent fish entrapment. The City also maintains water quality monitoring equipment that measures water temperature, turbidity, conductivity, and flow rates. Water diverted from Alder Creek is pumped by low-lift pumps to the Alder Creek WTP, which is located approximately 4,000 feet downstream of the POD. The Alder Creek WTP is a filtration treatment plant constructed to treat up to 2.6 mgd, however the City estimates the WTP capacity is currently 1.4 mgd due to the condition of several components.

The City plans to expand the WTP to a maximum operating capacity of 4.0 mgd by September 2027. After filtration and chlorination at the WTP, the water is pumped to Terra Fern Road Reservoir (0.25 MG).

Water is diverted from Brownell Springs using open bottom concrete boxes that are built into the slope of Lenhart Butte. Water in these boxes is gravity-fed to a common holding tank. Water diverted from Brownell Springs is then chlorinated and blended with water pumped from the Terra Fern Road Reservoir (0.25 MG). The blended water is conveyed to Sandercock Lane Reservoir (0.5 MG) and the two Vista Loop Road Reservoirs (2.0 MG and 1.0 MG), at which point it flows by gravity to the majority of the City's water distribution system.

The City connects to the PWB system at the Hudson Road Intertie site. About 1,000 feet southeast of the connection on Hudson Road, the City has a booster pump station that pumps the PWB water through approximately 27,000 feet of 18-inch and 24-inch diameter pipe to a 1.0 MG reservoir on Revenue Avenue in the City. Another pump station then pumps water from the 1.0 MG reservoir up to the Vista Loop Reservoirs. The PWB is constructing a new WTP near the City's existing intertie site. The City will construct transmission and pumping infrastructure to connect to this WTP and this connection will serve as the City's primary means by which water is conveyed to Sandy from the PWB.

3. Water Conservation Element

This section addresses OWRD's water conservation element requirements by describing the City's progress meeting historical conservation measures benchmarks and providing future conservation measures and associated benchmarks and additional conservation measures to be implemented by the City.

3.1 Current Conservation Measures

3.1.1 Progress Report

This is the City's third WMCP. The City submitted a five-year progress report to OWRD in 2021 describing the City's progress on meeting the conservation benchmarks presented in its 2016 WMCP. Exhibit 3-1 provides an update on the City's progress toward meeting these 2016 benchmarks.

3.2 Use and Reporting Program

The City's water measurement and reporting program complies with OWRD's measurement and reporting standards in OAR Chapter 690, Division 85.

The City currently measures water demand using four ultrasonic master meters. These master meters are located at the Alder Creek WTP, Brownell Springs diversion, Hudson Road pump station, and Revenue Avenue pump station.

The City submits monthly water use measurements to OWRD on an annual basis. Annual reporting is for the previous water year (October 1 to September 30). The City's water use records can be found at the OWRD website

(http://apps.wrd.state.or.us/apps/wr/wateruse_report/).

3.3 Required Conservation Programs

During the next five years, the City plans to initiate, continue, or expand the following conservation measures that are required of all municipal water suppliers when a condition of a water use permit, permit extension, or another order or rule requires a WMCP:

- Annual water audit
- System-wide metering
- Meter testing and maintenance
- Water rate structure
- Water loss analysis
- Public education

The following sections describe how the City is meeting these required water conservation measures and how the City intends to expand its conservation program. Benchmarks for these measures are provided. These benchmarks are designed to be met within five years

unless otherwise noted. Exhibit 3-2 aggregates these measures and benchmarks into one table.

3.3.1 Annual Water Audit

OWRD defines a water audit as an analysis of the water system that includes a thorough accounting of all water entering and leaving the system to identify leaks in the system, and authorized and unauthorized water uses, metered or estimated. The water audit also includes analysis of the water supplier's own water use.

The City conducts monthly audits to closely monitor system water losses. This data is aggregated periodically to estimate annual water losses. The City's water loss was 9.2 percent in 2023.

The City Parks Department implemented the following measures to increase the efficiency of its own use of water: (1) installed rain sensors at some City parks to avoid unnecessary irrigation during or following precipitation events, (2) installed activation delays and timers on splash pad water features to prevent constant flow at these features, and (3) continues to adjust park irrigation schedules to meet the needs of the irrigated plants and grass based on predicted weather.

The City's water audits include diversions from Brownell Springs. Most of the water produced at Brownell Springs enters the City's distribution system; however, there are three connections along the transmission line near the springs located downstream of the master meter measuring springs diversions. These connections allow spring water to meet the needs of approximately 10 private residences. In 2024, the City began recording metered volumes of water for these residences and incorporated an estimate of the annual usage for its 2024 water audit based on several months of metered data.

Benchmarks:

- Continue to collect and perform monthly audits and aggregate this data to monitor annual water losses.
- By 2027, incorporate into the annual water audit, the usage of customers connected to the Brownell Springs transmission line.
- Continue to analyze the City's own use of water to identify possible alternatives to increase efficiency.

Exhibit 3-1. Water Conservation Progress Report

| Required Conservation Measures | 2016 Conservation Measures Benchmarks | 2021 Status | 2025 Status |
|--|---|---|--|
| Annual Water Audit | The City will continue to conduct an annual water audit. | The City conducts monthly audits of production versus consumption, and will aggregate the monthly data into annual water audits. | Monthly audits are conducted comparing production to consumption and annual aggregation of monthly data is performed. |
| | In the next two years, the City will investigate its billing software for potential sources of accounting errors. | A new billing (UB) software system was installed in August 2016 which eliminated the accounting errors that were observed in the City's previous system. | Active monitoring for accounting errors continues to occur, and investigations are conducted upon discovery. Errors were rectified, resulting in fewer anomalies post-installation of the new UB software. |
| System-wide Metering | The City will continue to install AMI (Advanced Meter Infrastructure) meters on all new connections. | AMI meters are installed on all new connections. | All customer meters within city limits use AMI technology. Current efforts are being made to add AMI metering to additional extra-jurisdictional connections. |
| | In the next five years, the City will complete a cost-benefit analysis of replacing all non-AMR meters with AMR meters and will decide how to proceed with meter replacement. | The cost-benefit analysis was completed in 2019, and all non-AMI meters have been replaced with AMI meters. | Benchmark has been met. |
| Meter Testing and Maintenance | The City will continue its meter testing and maintenance program. In the next five years, the City will begin to track the number of meters that it replaces at existing connections. | Tracking the number of replaced meters was performed during installation of AMI meters. The average age of meters system-wide is now less than two years. | Benchmark has been met. |
| | In the next five years, the City will complete a cost-benefit analysis of replacing all non-AMR meters with AMR meters and will decide how to proceed with meter replacement. | The cost-benefit analysis was completed in 2019, and all non-AMI meters have been replaced with AMI meters. | Benchmark has been met. |
| Water Rate Structure and Billing Practices that Encourage Conservation | The City will continue to bill customers based on the quantity of water metered at the service connection. | Billing continues to be based, in part, on the quantity of water metered at each service connection. | Billing continues to be based, in part, on the quantity of water metered at each service connection. |
| | The City will continue to bill its customers monthly and to periodically include water conservation messages in utility bills. | Billing continues to occur monthly, and water conservation messaging is included in utility bills seasonally. | Billing continues to occur monthly, and water conservation messaging is included in utility bills seasonally. |
| Leak Detection | The City will continue to conduct its leak detection and repair program. | Leak detection and repair now includes the use of billing software system that is capable of alerting the City of leaks and unusual water consumption daily. The City investigates leaks soon after alert and customers are notified of unusual consumption as soon as possible. | Ongoing leak detection measures continue to include use of UB software to detect potential leaks on the customers' side of the service meters. Leak detection includes use of correlators in pressure zone 4 and visual observations in other pressure zones. Upon discovery, large leaks are repaired and smaller leaks are placed on a list for ongoing observation. |
| Public Education | The City will continue to be a member of the Regional Water Providers Consortium. | The City remains a member of the Regional Water Providers Consortium. | Maintains a membership with the Regional Water Providers Consortium. |
| | The City will continue to promote water conservation at the City's Earth Day event and neighborhood events. | The City promoted water conservation at Earth Day events annually from 2016 through 2019. No events were conducted in 2020 or 2021 due to the pandemic. The City anticipates that neighborhood events may resume in summer 2021, and water conservation kits and messaging will be provided to attendees. | The City promotes water conservation at two neighborhood events: Earth Day and Longest Day Parkway. Promotion includes distribution of conservation information in written form and verbally, and distribution of water conservation devices. |

| Required Conservation Measures | 2016 Conservation Measures Benchmarks | 2021 Status | 2025 Status |
|---|--|---|--|
| Technical and Financial Assistance | In the next five years, the City will explore ways to increase interest in the xeriscaping outreach program materials. | The City promotes its Xeriscaping program materials at City-sponsored neighborhood events to increase interest in Xeriscaping. | Promotion of water efficient outdoor landscaping, which incorporates many Xeriscaping principles, continues at community events and on the RWPC's website, for which the City has a link on its website. |
| Supplier Financed Retrofit or Replacement of Inefficient Fixtures | The City will continue to make water conservation kits available at no charge to any customer requesting one. | The City continues to make water conservation kits available at no cost to customers at City-sponsored events, such as the Earth Day event and neighborhood events. | Water conservation devices and written materials are available at no cost to customers at City-sponsored events, such as the Earth Day event and the annual Longest Day Parkway neighborhood events. |
| Water Reuse, Recycling, and Non-potable Opportunities | The City will continue to make downspout rain barrels available to water customers to reduce demand for finished water for residential irrigation. | Downspout rain barrels were made available at Earth Day events from 2016 through 2019. No Earth Day events were held in 2020 or 2021, but the City anticipates offering rain barrels again at future events. Approximately 12 rain barrels were distributed annually. | Rain barrels are available upon request and promoted during community events. Approximately 5 to 7 are distributed annually. |
| | The City will continue the water reuse project with Iseli Nursery. | The City continues to send all treated wastewater to Iseli Nursery between May 1 and October 31 of each year. | Continues to send all treated wastewater to Iseli Nursery between May 1 and October 31 of each year. |
| | In the next five years, the City will explore additional water reuse, recycling, and non-potable water opportunities. | The City conducted a market analysis of demand for non-potable reuse water in 2020 as part of a new wastewater treatment project. | Benchmark has been met. |

3.3.2 System-wide Metering

The City's water system is fully metered. As a result of a meter replacement program that concluded in 2020, approximately 95 percent of all meters within the City's service area are less than five years old and all of the service area meters within the City are fitted with Advanced Meter Infrastructure (AMI) technology. This technology allows near real-time tracking of use, and reduces incidences of meter read errors as compared to unconnected,

Benchmark:

- Continue metering all water service connections.

3.3.3 Meter Testing and Maintenance

The City maintains master meters that measure water entering and leaving its distribution system along with large and small water service connection meters. The City's master meters are located at its interconnection with the PWB, Sandy's WTP, Brownell Springs, and at the three interconnections where the City provides wholesale water to the District, Company, and Association.

The City has four mechanical master meters, which are located at the interconnections where the City exports water to the District, Company, and Association. Due to their moving parts, mechanical meters require frequent maintenance. The City has sporadically tested, calibrated, repaired, or replaced these mechanical master meters as needed. Starting in 2026, the City will begin testing its mechanical master meters at least once every three years.⁷

Unlike mechanical meters, electro-magnetic and ultrasonic meters have long-lifespans and do not require regular maintenance. The City uses electro-magnetic meters where the connections require a meter greater than 3 inches in diameter, for example, at the Alder Creek WTP and at Brownell Springs. For these meter types, the City will periodically perform an informal accuracy check by reviewing historical records from each meter. When current metered volumes are unexpectedly dissimilar from historical metered volumes, the City will perform further investigation to determine the cause and rectify any inaccuracies, as needed. The City will also follow the manufacturer's recommended meter maintenance schedule. If a meter is thought to be faulty, the City will repair or replace the meter. The City's master meters at the Alder Creek WTP and Brownell Springs will be replaced within the next three years.

The City replaced its service meters in the 2000s, in the late 2010s, and again in the early 2020s, resulting in service meters that are well within the typical 20-year lifespan of mechanical meter types. Given the frequency at which the City has replaced its service meters and the typical lifespan of the meters, the City has not established a meter testing program. However, the City tracks these meters and identifies faulty meters through automatic alerts from the City's utility billing system based on a comparison of historical and

⁷ Meters installed within the preceding three years will not be tested.

current reads. The City's customers may also inform the City of potentially faulty meters. In both cases, the City inspects the meters in question and replaces them as needed. Larger service meters are repaired instead of replaced when it is cost effective to do so.

The City will establish a meter testing program for service meters larger than 2 inches in diameter, such that these meters will be tested at least every three years. This schedule aligns with the City's program to test its mechanical master meters. The purpose of this program is to identify inaccurate meters and repair or replace these meters when they are out of specification.

Benchmarks:

- By 2027, replace master meters at the Alder Creek WTP (two meters) and Brownell Springs (one meter).
- Test mechanical wholesale master meters at least every three years starting in 2026 and calibrate, repair, or replace these meters as needed.
- Over the next five years, periodically perform informal accuracy tests of ultra-sonic and electromagnetic master meters, abide by manufacturer's recommended maintenance schedule, and repair and replace these meters as needed.
- Continue to inspect potentially faulty small service meters (2 inches and smaller in diameter) and replace or repair faulty meters as needed.
- Starting in 2026, test large meters (greater than 2 inches in diameter) at least every three years and repair or replace faulty meters as needed.

3.3.4 Water Rate Structure

The City has a rate structure consisting of a monthly base charge (to cover fixed costs, such as meter reading, billing, and debt service), a meter charge based on the size of the meter (the larger the meter, the greater the charge), and a volume charge that is based on the quantity of water metered at the connection. The City has significantly increased volumetric water rates since 2014 in order to increase revenue for water system improvement projects and to encourage water conservation. For example, the single-family residential monthly customer charge in 2014 was \$2.46 per 100 cubic feet of use, which is \$8.17 per 100 cubic feet of use in 2025. Appendix B details water rates applied to all the City's customer classes.

Within the next five years, Sandy intends to assess the impacts of replacing its current flat rate structure with a tiered rate structure. Tiered rate structures incentivize more efficient use of water, among other benefits, by sending pricing signals to customers based on use.

Benchmark:

- Continue to bill customers based, in part, on the monthly quantity of water metered at the service connection.
- In the next five years, assess the use of a tiered-rate structure.

3.3.5 Water Loss Analysis

OWRD requires municipal water suppliers to take certain steps if annual audits show an estimated water loss of greater than 10 percent. As described in Section 2, Sandy's water loss was estimated at 9.2 percent. Though Sandy achieved a water loss percentage below OWRD's threshold for action, the City continues to administer its water loss control program.

Sandy observed a decrease in its annual water loss estimate from 2023 to 2024 in part due to the implementation of a smart pressure management system employed in 2023 in Zone 4, which is one of five pressure zones within the City's service area. Zone 5 is geographically similar in size to most of the other pressure zones and represents approximately 7.1 percent of system-wide consumption. This zone was selected for leak reduction measures because of an estimated historical water loss of 33 percent. The smart pressure management system includes the use of water line leak identification and pressure zone management.

Line leak identification occurs through the use of water leak correlators installed at fire hydrants throughout Zone 4 that record and pinpoint the location of leaks. Upon discovery, the City promptly repairs or replaces leaking lines or other leaking system components.

Pressure zone management measures include the planned reduction in water pressure during late evening/early mornings to reduce the volume of leakage at customers' sites and at leaks within the distribution system that were too small to be identified through the use of the correlators.

Water loss in this zone has decreased by approximately 20 percent since the system was deployed in 2023. Given the success of this program, the City intends to expand this program to other pressure zones. The City is also evaluating an alternative leak detection system that relies on the use of aerial imaging and satellite surveys for the remainder of its system. This program could be conducted in partnership with the PWB and other water providers in the vicinity.

The City manages a more traditional leak detection and repair program in its other pressure zones. The City has conducted leak detection studies in its distribution system and the results have been inconclusive or only identified a small number of minor leaks. Based on these results, the City determined that leaks are not a major contributor to its water losses. The City currently monitors for leaks on a regular basis using visual inspections only. For example, the City discovered a significant leak at the base of Sandercock reservoir which was regularly monitored and eventually repaired in 2023. As evident in this example, the City balances the expense of repair against the size of known leaks. Usually, as in this case, small leaks are monitored and not immediately repaired. Sandy maintains a "leak list" for those too small to repair that includes the location, cause of the leak, the age and type of the pipe, and any other pertinent information. This record is referenced when determining candidate lines for future repair or replacement as part of the City's water line repair and replacement program.

The City finances a water line replacement budget annually to provide funding for the replacement of aging water lines as a preventative measure against future leaks and to replace lines that have a history of leaks.

Leaks may also occur on the customers' side of the meters. These leaks and leak repairs are the responsibility of the customers. However, the City provides a service and test kits that help inform the customers of potential leaks. Leaks may be discovered based on changes in consumption from month-to-month as flagged by the City's utility billing system. In these instances, the City will inform customers of the potential for leaks (since these leaks are not always obvious to the customer) and perform a simple leak check by testing for flow at the meter when all water fixtures on the property are turned off. Though water loss due to leaks on the customers' side of the meters do not impact its water loss estimates, the City prides itself on excellent customer service and extends its good stewardship of water resources even where use of these resources are not the responsibility of the City.

Benchmarks:

- Following completion of Zone 4 smart pressure management system, evaluate expansion of the system into other zones or consider using aerial imaging and satellite surveys to identify water line leaks in these other areas of the system.
- Continue monitoring for leaks that surface and promptly repair or replace leaking water lines.
- Continue funding and implementing the water line replacement program as a leak reduction measure.
- Continue informing customers of the potential for leaks at the customers' sites and work with these customers to confirm leaks.

3.3.6 Public Education

The City promotes efficient use of water to its customers through its public education program. The program includes a combination of local and regional efforts. Locally, the City staffs a booth at the annual Earth Day and Longest Day Parkway events. At these events, the City interacts with customers by distributing information and devices about and for water conservation and answering any of their questions. In addition, the City occasionally includes water conservation messages in its monthly newsletter printed on the back of utility bills. See Appendix C for an example of a water conservation message in the August 2024 newsletter.

The City is a member of the Regional Water Providers Consortium (RWPC). One of the benefits of membership in the RWPC is that it makes a variety of water conservation public outreach opportunities available to the City. For example, the RWPC provides workshops for land developers and landscapers who operate in the region. These workshops focus on water-efficient landscape design and installation, and promote water-efficient irrigation equipment. The RWPC develops conservation displays that are available to members for use at local events and produces water conservation brochures with information broad enough

in content to be applicable to all members. In addition, the RWPC sponsors a regional summer water conservation media campaign that includes TV and radio advertisements and news interviews on local stations. It also conducts outreach at large regional events (e.g., the Yard, Garden, and Patio Show and the Salmon Festival) and maintains a website (<https://www.regionalh2o.org/>) that has indoor and outdoor water conservation information and suggestions.

Though local and regional conservation efforts meet OWRD's public education requirements, Sandy intends to expand its programming to better provide conservation opportunities to more of its customers and increase the frequency of their exposure to water conservation messaging.

First, Sandy will begin annually including at least two articles related to conservation in *The Sandy Source*, the City's monthly newsletter (<https://www.ci.sandy.or.us/administration/page/sandy-source-newsletter>). This newsletter is distributed via email and posted on the City's website and other social media outlets. These articles may be timed to coincide with the irrigation season (June through September) and will promote efficient use of water used for irrigation and identify other solutions to help reduce peak season usage. Articles published during the shoulder season and winter may focus on efficient indoor uses of water, end-of-irrigation season maintenance tips, and other topics.

Second, in 2026 the City will begin sending notifications to its customers who have the City's app installed on their mobile phones, which is approximately one quarter of the City's customers. Notifications will be sent during peak season to encourage efficient use of water outdoors.

Third, the City will provide content to *The Sandy Post*, the local news source for City residents and businesses, for an annual article about efficient landscaping, timed with the start of RWPC's summer water conservation multi-media campaign.

Fourth, the City will expand its education program by making improvements to water conservation content and the layout of this information on its website. Existing conservation content on the City's website includes a link to the RWPC website, tips to reduce outdoor water use in landscapes, and leak detection tips. This information is found on the City's website. Per the City's campaign to expand its public education offerings, the City will centralize conservation information on its website. This change will make it easier for customers to quickly locate conservation information. In addition, the City will expand the conservation content on its website to include additional conservation topics pertinent to its customers.

Benchmarks:

- Continue membership in the RWPC and participate in programs offered by the RWPC.
- Continue promoting water conservation at local community events, such as the City's

Longest Day event.

- By 2027, revise conservation content on the City's website and centralize topics related to conservation onto one webpage.
- Starting in 2026, publish two water conservation articles annually in *The Sandy Source*.
- Starting in 2026, annually provide content to the *Sandy Post*, in concert with the RWPC's annual peak season marketing campaign, to encourage the newspaper to run annual articles about water conservation.
- Starting in 2026, send app blasts to customers that include water conservation information and links to the City's conservation webpage.

3.4 Additional Conservation Measures

OWRD requires municipal water suppliers that serve a population greater than 1,000 and propose to expand or initiate the diversion of water under an extended permit for which resource issues have been identified. Alternatively, if the population served is greater than 7,500, a supplier is to provide a description of the specific activities, along with a five-year schedule to implement additional conservation measures. The City served a population greater than 7,500 in 2024, therefore, it is required to address the following additional conservation measures. Exhibit 3-2 shows the specific measures implemented or to be implemented by the City and associated benchmarks.

3.4.1 Technical and Financial Assistance Programs

As noted in Section 3.3.6, Sandy offers technical assistance to its customers on its website. Conservation topics posted on the City's website include methods to detect leaks; efficient irrigation practices; and links to the RWPC website.

The City also provides technical assistance to customers who have potential leaks on the customers' side of meters, as described in Section 3.3.5. If leaks are likely the cause of the change in consumption, City staff will discuss ways to resolve the leaks with affected customers. To enhance this offering, the City will determine if a leak detection and repair brochure is available through the RWPC and, if available, begin providing them to customers during the City's courtesy leak checks.

Sandy's water bills include a graph showing 12 months of monthly consumption. This information can be used by customers to monitor and adjust water consumption practices if increasing trends of use are observed.

Benchmarks:

- Continue providing technical assistance on the City's website on the topics of leak detection and efficient irrigation practices and information on water bills. Provide a link on the City's website to the RWPC website.

- By 2026, determine if the RWPC has a leak detection and repair brochure. If available, starting in 2026, begin distributing it to customers during the City's courtesy leak checks.
- Continue providing water use history on customers' water bills.

3.4.2 Supplier-Financed Retrofit or Replacement of Inefficient Fixtures

As mentioned in Section 3.3.6, the City makes water conservation devices available to all existing customers. The City offers these devices at some community events. These devices include low-flow sink aerators, shower heads, and watering/irrigation gauges. In addition, the City offers rain barrel kits to customers. These kits contain a recycled 55-gallon drum and installation information. The kits allow customers to capture rainwater from gutter downspouts and use this water for irrigation, offsetting use of City-supplied water for irrigation.

The City will begin to inform customers of the availability of these devices and drums via its website and provide these upon request.

Benchmarks:

- Continue to provide water conservation devices and recycled rain drum reuse kits to customers free-of-charge.
- By 2027, begin to advertise the availability of water conservation devices and rain barrel kits on the City's website.

3.4.3 Rate Structure and Billing Practices that Encourage Conservation

City water rates are based, in part, on the quantity of water used, in addition to other charges. The use of a volumetric charge encourages efficient use of water. The City bills customers monthly to provide timely feedback about water usage to customers. Additionally, customers' bills include usage for the month billed and for the same month in the previous year. Monthly billing and printing of historical usage on bills allow customers to detect changes in use over time and adjust usage accordingly.

A tiered-rate structure can incentivize conservation, among other benefits. Sandy is considering replacing its flat tiered structure with a tiered-rate structure and intends to assess this option within the next five years.

Benchmark:

- Continue to bill customers monthly and to include historical water use in utility bills.
- In the next five years, assess the use of a tiered-rate structure.

3.4.4 Water Reuse, Recycling, and Non-potable Water Opportunities

As noted in Section 3.4.2, the City makes rain barrel kits available to water customers to reduce demand for finished water for outdoor watering. Since April 2008, the City has

distributed approximately 126 downspout rain barrels to utility customers. Recently, an average of five to seven rain barrels are provided to customers per year. The City promotes its rain barrel program at City events.

In addition, the City partnered with Iseli Nursery in August 2012 to implement a water reuse project at the nursery. From May 1 to October 31, the City provides up to 2.90 cfs of reclaimed water to the nursery for nursery uses and for irrigation of approximately 348 acres, with the potential to provide water for irrigation of up to 614 acres. Treated wastewater is delivered to the nursery through approximately 8,000 feet of 14-inch-diameter pipe. Reclaimed water is blended with other water in storage ponds at the nursery.

Benchmarks:

- Continue to make recycled rain drum reuse kits available to water customers to reduce demand for finished water for residential irrigation.
- By 2027, update the City's website with information about the City's rain barrel kits.
- Continue the water reuse project with Iseli Nursery.

3.4.5 Other Conservation Measures

Sandy approved the *Envision Sandy 2050 Comprehensive Plan* in October 2024. This plan incorporates several goals related to water conservation as a means to stretch water supplies, promote source water quality, and allow for sustainable aquatic habitat. These goals include:

- Internal City collaboration to educate and promote winter wet/summer dry landscaping and vegetation in developments, rights-of-way, parks, and open lands.
- Implement water conservation measures at City facilities, and encourage and support water conservation efforts among residents and local businesses.
- Safeguard natural waterways by utilizing water conservation measures and programs that limit water demand from Sandy, its residents, and local business owners, particularly during late summer when natural flows are the lowest of the year.
- Advocate for the use of Xeriscaping as a water-wise landscaping practice that conserves water, reduces maintenance needs, and enhances sustainability.

The goals within this WMCP are intended to drive City policies related to growth. This plan demonstrates the City's long-term commitment to efficient use of its water sources and encourages inter-departmental coordination to identify methods that meet these goals. In many ways, the City is already meeting most of these goals to some extent. The City recognizes additional programs can be instituted and measures implemented to further these goals. The conservation measures in this WMCP that expand the City's existing conservation program brings the City closer to fully realizing these goals.

For the Xeriscaping goal, the City intends to include information about Xeriscaping on its website as part of the City's development of a water conservation webpage.

Benchmarks

- Continue to include water conservation goals in the City's comprehensive plan.
- Over the next five years, identify and implement methods to meet conservation goals in the comprehensive plans. By 2027, add Xeriscape information on the City's conservation webpage.

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Exhibit 3-2. 2025 Water Conservation Program Measures and Benchmarks

| Required Conservation Measures | Conservation Measures' Benchmarks |
|--------------------------------|--|
| Annual Water Audit | Continue to collect and perform monthly audits and aggregate this data to monitor annual water losses. |
| | By 2027, incorporate into the annual water audit the usage of customers connected to the Brownell Springs transmission line. |
| | Continue to analyze the City's own use of water to identify possible alternatives to increase efficiency. |
| System-wide Metering | Continue metering all water service connections. |
| Meter Testing and Maintenance | By 2028, replace master meters at the Alder Creek WTP (two meters) and Brownell Springs (one meter). |
| | Test mechanical wholesale master meters at least every three years starting in 2026 and calibrate, repair, or replace these meters as needed. |
| | Over the next five years, periodically perform informal accuracy tests of ultra-sonic and electromagnetic master meters, abide by manufacturer's recommended maintenance schedule, and repair and replace these meters as needed. |
| | Continue to inspect potentially faulty small service meters (2 inches and smaller in diameter) and replace or repair faulty meters as needed. |
| | Starting in 2026, test large meters (greater than 2 inches in diameter) at least every three years and repair or replace faulty meters as needed. |
| Water Rate Structure | Continue to bill customers based, in part, on the monthly quantity of water metered at the service connection. |
| Water Loss | Following completion of Zone 4 smart pressure management system, evaluate expansion of the system into other zones or consider using aerial imaging and satellite surveys to identify water line leaks in other areas of the system. |
| | Continue monitoring for leaks that surface and promptly repair or replace leaking water lines. |
| | Continue funding and implementing the water line replacement program as a leak reduction measure. |
| | Continue informing customers of the potential for leaks at the customers' sites and work with these customers to confirm leaks. |

| Required Conservation Measures | Conservation Measures' Benchmarks |
|---|--|
| Public Education | Continue membership in the RWPC and participate in programs offered by the RWPC. |
| | Continue promoting water conservation at local community events, such as the City's Earth Day event. |
| | By 2027, revise conservation content on the City's website and centralize topics related to conservation onto one webpage. |
| | Starting in 2026, publish two water conservation articles annually in <i>The Sandy Source</i> . |
| | Starting in 2026, annually provide content to the <i>Sandy Post</i> , in concert with the RWPC's annual peak season marketing campaign, to encourage the newspaper to run annual articles about water conservation. |
| | Starting in 2026, send app blasts to customers that include water conservation information and links to the City's conservation webpage. |
| Technical and Financial Assistance | Continue providing technical assistance on the City's website on the topics of leak detection and efficient irrigation practices and information on water bills. Provide a link on the City's website to the RWPC website. |
| | By 2026, determine if the RWPC has a leak detection and repair brochure. If available, starting in 2026, begin distributing it to customers during the City's courtesy leak checks. |
| | Continue providing water use history on customers' water bills. |
| Supplier Financed Retrofit or Replacement of Inefficient Fixtures | Continue to provide water conservation devices and recycled rain drum reuse kits to customers free-of-charge. |
| | By 2027, begin to advertise the availability of water conservation devices and rain barrel kits on the City's website. |
| Rate Structure | Continue to bill customers monthly and to include historical water use in utility bills. |
| Water Reuse, Recycling, and Non-potable Opportunities | Continue to make recycled rain drum reuse kits available to water customers to reduce demand for finished water for residential irrigation. |
| | By 2027, update the City's website with information about the City's rain barrel kits. |
| | Continue the water reuse project with Iseli Nursery. |
| Other Conservation Measures | Continue to include water conservation goals in the City's comprehensive plan. |
| | Over the next five years, identify and implement methods to meet conservation goals in the comprehensive plans. By 2027, add Xeriscape information on the City's conservation webpage. |

4. Water Curtailment Element

This section satisfies OWRD's requirement to provide a description of past supply deficiencies and current capacity limitations. It also includes the required stages of alert and the associated triggers and curtailment actions for each stage.

4.1 Introduction

Water curtailment plans outline measures that water suppliers may take to reduce demand and to find alternative supplies during short-term water supply shortages. The intent of water curtailment plans is to minimize the impacts of water supply shortages and to ensure an adequate water supply that minimally meets public health and safety needs.

4.2 Historical Supply Deficiencies and Capacity Limitations

Sandy has not implemented water curtailment measures during the past 10 years. The City activated Stage 1 voluntary curtailment on July 27, 2009, in response to a combination of record high air temperatures that increased water demands and record low stream flow levels in Alder Creek that affected the City's ability to divert water. To enable the City to provide more water to the WTP at that time, the City made adjustments to its diversion dam and intake structure. Sandy lifted Stage 1 voluntary curtailment on July 31, 2009, in response to decreased temperatures.

In 2020, severe forest fires occurred near the City and prompted evacuation notices for some Clackamas County cities, including Sandy. These fires were also close to the City's sources of water supplies, endangering the City's ability to produce water. Simultaneously, consumption increased significantly as users attempted to protect properties by sprinkling roofs and vegetation. As a result, system demand exceeded Sandy's ability to meet this demand. To alleviate this deficit at that time, Sandy received additional water from PWB until the fire danger receded and demand abated. During this event, customers were not requested to curtail their water use.

Currently, Sandy's water system infrastructure is sufficient to meet water demands and does not have capacity limitations that would restrict the City's ability to meet typical (non-emergency) demands. Sandy benefits from its interconnection with PWB; during shortage events, Sandy may be able to rely on PWB to provide more water than contracted amounts until the shortage ends. As noted below, this scenario would meet Sandy's Stage 1 initiating condition and trigger associated curtailment measures.

4.3 Curtailment Stages

The City has adopted a four-stage curtailment plan that will be implemented during certain water supply shortages. These shortages could result from several feasible scenarios

identified by the City, including mechanical or electrical equipment failure in the system, fires in the watershed that directly or indirectly affect surface water quality, landslides or earthquakes that affect diversion or transmission infrastructure, and source water contamination. These stages may be implemented successively (e.g., from Stage 1 to Stage 2), or Sandy may bypass stages (e.g., from Stage 1 to Stage 3).

Each stage is initiated or triggered when defined conditions are met. These “initiating conditions” serve as guidelines and may be changed to reflect the water shortage event at hand. In addition to these initiating conditions, Sandy will also consider the knowledge and judgment of staff members familiar with the water system as criteria to determine when the curtailment plan should be implemented and which stage of curtailment should be implemented. Staff members may consider the extent of system damage or contamination, duration of repair, costs, fire hazards, and weather forecasts, among other factors, to determine Sandy’s response to a water supply shortage.

Exhibit 4-1 presents the four curtailment stages and initiating conditions. The City’s initiating conditions are defined by the relationship between system demand and water system capacity. Generally, when system demand approaches, is equivalent to, or exceeds the capacity of the Sandy’s water system, one of the stages of this curtailment plan may be implemented. Water system capacity is defined as the combination of supply available from the City’s surface water systems and wholesale supplies from PWB and the operational capacities of the distribution and transmission systems and the WTP.

Exhibit 4-1. Curtailment Stages 1 through 4

| Curtailment Stage | Initiating Conditions |
|-------------------|---|
| Stage 1 | Demand reaches or is anticipated to reach 90 percent of supply capacity for 3 or more consecutive days, ¹ or |
| | Call by City to PWB for additional supply beyond contracted amount and PWB is able to meet the amount requested by the City, or |
| | Temporary loss or potential temporary loss of water supply from PWB, but the City’s reservoirs will be able to maintain a minimum of 4.75 |
| Stage 2 | Demand reaches or is anticipated to reach 100 percent of supply capacity for 3 or more consecutive days. ¹ |
| Stage 3 | Demand exceeds or is anticipated to exceed 100 percent of supply capacity for 2 or more consecutive days. ¹ |
| Stage 4 | The water supply capacity can only meet basic health and safety needs of customers. ¹ |

¹ Among numerous other scenarios, this initiating condition may be met when PWB issues a notice to curtail.

² Sum of recommended fire (3.24 MG) and emergency storage (2.66 MG) volumes per Sandy’s 2022 Water System Master Plan.

4.4 Authority

The City Manager may declare or rescind a Stage 1 response to a water supply shortage based on the initiating conditions of this curtailment plan or other factors deemed appropriate by the City Manager. The City Council may declare or rescind Stages 2 through 4 responses to water supply shortages per the initiating conditions of this plan or other factors deemed appropriate by the City Council. The City Manager will implement all responses to shortages.

4.5 Curtailment Plan Measures

Each of the four stages of alert includes specific curtailment measures applicable to Sandy and Sandy's retail customers; these measures are designed to offset demand. The City intends to provide access to its water supply to wholesalers during supply shortages, in accordance with its agreements with those wholesale customers.

These measures are described below for each stage of alert. These measures may be modified or removed, and additional measures may be added by Sandy to address the specific supply shortage at hand.

Curtailment measures are not intended to negatively affect the health and safety of Sandy's customers. Sandy may modify or remove measures that unintentionally result in these types of impacts. Sandy also may provide waivers to individual customers or groups of customers for specific uses.

The City's wholesale water supply agreement with the PWB (effective July 1, 2026) describes that PWB may require wholesale customers to curtail use in times of shortage. The PWB will work with these customers to avoid curtailment through implementation of mitigation actions. If these actions are not adequate to address the shortage, wholesalers may be asked to curtail demand by meeting curtailment reduction targets. Sandy's curtailment measures can help reduce demand to meet these targets.

4.5.1 Stage 1: Water Shortage Advisory

Under Stage 1, Sandy may take the following actions to curtail water use:

- Ask customers to voluntarily decrease water use (indoor and outdoor) using, for example, water conservation tips recommended by the City.
- Request that City staff and customers caring for large turf areas, such as schools, parks, and cemeteries, voluntarily reduce water use.
- Request that customers using City water for irrigation purposes use a water delivery attachment on the end of the hose, such as a sprinkler, soaker, or other sprinkling device.
- Limit City water use for street sweeping and for hydrant and water line flushing.

4.5.2 Stage 2: Moderate Water Shortage Alert

In Stage 2, all the curtailment actions under Stage 1 become mandatory and the following additional measures will be implemented:

- Irrigation of landscapes and gardens will be restricted from 8 pm to 8 am.
- City to encourage vehicle washing during regulated irrigation hours only. All vehicle washing not performed at a washing station where wash water is recirculated, such as a commercial car wash, must be done using a hand-operated spray nozzle device equipped with a spring-loaded trigger assembly or other mechanism in working order, which can be used to stop the flow of water.
- Restrict sprinkler irrigation of parking strips to the above established irrigation hours; water runoff into the streets should be kept to a practical minimum.
- Prohibit the use of water for cleaning or washing down sidewalks, driveways, parking lot areas, or other similar exterior cleaning uses at all times.
- Limit hydrant and water main flushing to emergencies only.
- Cease washing City vehicles except at facilities equipped with water re-circulation equipment or if necessary for public health or safety (e.g., garbage trucks or food transport) or as required by law.
- Ask commercial and industrial customers to voluntarily reduce non-essential water use.
- Ask large water volume commercial and industrial customers to eliminate non-business-essential use.

4.5.3 Stage 3: Severe Water Shortage Alert

In addition to curtailment actions under Stage 2, Sandy may take the following actions to curtail water use under Stage 3:

- Prohibit use of City water to clean, fill, or maintain levels in decorative streams, ponds, or fountains unless they have recirculating water systems.
- Prohibit use of City water to fill or top off swimming pools and hot tubs.
- Prohibit the installation of new turf and landscape.
- Impose a temporary moratorium on new water delivery connections and temporary water delivery (i.e., construction operations).
- Prohibit the use of City water to wash vehicles.
- In a Stage 3 emergency water shortage, the City may implement a water allocation regimen based on customer type and use history, for example:

- Single-family and multifamily - Hybrid of per-capita and percentage reduction
- Commercial/Industrial - Percentage Reduction
- New Customers - Per-capita (no allocation for new landscaping during Stage 3).

The percentage reductions for each customer class will be based on the customers' previous year's water bills as available or based on historical consumption of groups of customers.

4.5.4 Stage 4: Water Shortage Emergency

In addition to curtailment actions under Stage 3, Sandy may take the following action to curtail water use under Stage 4:

- Prohibit water use to those uses necessary for basic health and sanitation.

4.6 Communication

Customers will be notified of each stage of activation through various means, such as local newspapers, print media, local radio, television, the City's website, mailings, or notifications sent via the City's app. Sandy's communications with customers will describe the activities that may be curtailed (under Stage 1) or the activities required to be curtailed (all other stages) and will provide water conservation measures that will help its customers reduce use.

4.7 Drought Declaration

If a declaration of a severe drought in Clackamas County is declared by the Governor per ORS 536.720, the Oregon Water Resources Commission may order political subdivisions within any drainage basin or subbasin to implement a water conservation or curtailment plan or both, approved under ORS 536.780. The conservation and curtailment elements of this WMCP meet these requirements. If the City's service area falls within a severe drought area declared by the Governor, such as Clackamas County, the City will consider whether curtailment measures are needed to meet system demands. If ordered to implement a water conservation or curtailment plan during a declared drought, the City will comply by implementing the water conservation and curtailment provisions of this WMCP. Regardless of whether curtailment is needed, the City will continue to encourage its customers to use water efficiently.

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5. Municipal Water Supply Element

This section satisfies OWRD’s requirements to describe the water provider’s current and future service area and population projections, demand projections for 10 and 20 years, and the schedule for when the water provider expects to fully exercise its water rights. OWRD also requires a comparison of the water provider’s projected water needs and the available sources of supply, an analysis of alternative sources of water, and a description of required mitigation actions.

5.1 Delineation of Service Areas

Exhibit 2-1 shows the City limits and the urban growth boundary (UGB). All areas within the UGB are anticipated to receive additional growth over the 20-year planning period, in the form of infill within City limits, and expansion of City limits to new areas within the UGB.

5.2 Population Projections

The City’s projected 2035 service area population is 14,214 and 16,719 in 2045 as shown in Exhibit 5-1. These estimates were projected by applying the average annual growth rate (AAGR) per PSU PRC’s 2024 population forecast for Sandy’s UGB and applying these to Sandy’s 2024 city population of 12,933 (this excludes the 211 outside customers in order to hold the number of these customers constant). The AAGRs were 0.7 percent from 2024 to 2035 and 1.4 percent from 2035 to 2045. An additional 211 persons were added to these projections to account for the City’s existing customers located outside of the City limits.

Exhibit 5-1. Population Projection, 2035 and 2045

| | Population |
|-----------------------|------------|
| 2024 (current) | 13,144 |
| 2035 | 14,214 |
| 2045 | 16,719 |

5.3 Demand Forecast

Sandy projected the maximum rate of water it would need to meet system demand in 2035 and 2045. This projection is based on historical demand plus WTP process water used at its WTP. To project use, Sandy added the annual average volume of process water of 2.99 MG to its annual historical average demand of 439.9 MG (see Exhibit 2-2) to obtain an average of 442.9 MG. Average annual water demand from 2019 through 2023 was used instead of annual demand for 2023 to provide a historically representative annual water demand. Then, Sandy applied the population AAGR of 0.7 percent to obtain projected demand for 2035 and applied the population AAGR of 1.4 percent to the 2035 value to obtain projected demand for 2045. These values were converted to ADD by dividing them by 365 and were converted to MDDs by multiplying the ADDs by a peaking factor of 2.8. A peaking factor of 2.8 was selected as a conservative estimate of future MDD based on the highest historical peaking factor that Sandy observed from 2019 to 2023.

The results of this forecast are shown in Exhibit 5-1. The demand projections estimate that the City's MDD will reach up to 3.7 mgd (5.67 cfs) by 2035 and up to 4.3 mgd (6.6 cfs) by 2045.

Exhibit 5-2. Future Demand, 2035 and 2045

| | AAGR | Annual Demand (MG) | ADD (mgd) | MDD (mgd) | MDD (cfs) |
|-------------|-------------|-------------------------------|----------------------|----------------------|----------------------|
| 2035 | 0.7% | 479.5 | 1.3 | 3.7 | 5.7 |
| 2045 | 1.4% | 556.9 | 1.5 | 4.3 | 6.6 |

5.4 Schedule to Exercise Permits and Comparison of Projected Need to Available Sources

As described in Section 2, the City currently relies principally on its Alder Creek and Brownell Springs water rights to supply water to its customers and the PWB water is used as a supplemental water supply. The City currently is authorized to use up to 4.0 cfs under its Alder Creek water rights and 1.2 cfs under its Brownell Springs water rights. The City intends to fully utilize its Alder Creek and Brownell Springs water rights to help meet projected demands. Due to streamflows and regulatory conditions, the reliable rate of supply under these rights is 4.2 cfs (4 cfs from Certificate 93884 and 0.2 cfs from Certificate 5427). This rate is less than the projected demand of 6.6 cfs in 2045. To fully meet the 2045 demand projection, the City intends to rely on wholesale supplies from the PWB.

PSU's PRC 2024 forecast for Sandy shows continued growth in Sandy through 2074, indicating that the City may require additional supplies in the future. Permit S-48451 authorizing use of the Salmon River is intended to provide a long-term water supply to accommodate the City's growth. This source of supply is preferable over continued reliance on wholesale water from the PWB to meet demand. For example, extended reliance on the PWB sources of supply that are a significant distance from Sandy exposes Sandy to potential supply disruptions due to transmission system failures resulting from seismic activity, landslides, or major line breaks. Thus, the City anticipates that it will have begun to exercise this permit by the completion date of October 1, 2069 and may require an extension of time to fully develop this permit. The City will continue to provide updates on plans for use of Permit S-48451 in subsequent WMCPs.

5.5 Alternative Sources

OWRD requires an analysis of alternative sources of water if any expansion or initial diversion of water allocated under existing permits is necessary to meet future water demand. The City is not seeking expansion or initial diversion of water under its existing permits; therefore, this provision is not applicable.

5.6 Quantification of Projected Maximum Rate and Monthly Volume

OWRD requires a quantification of the maximum rate of withdrawal and maximum monthly use if any expansion or initial diversion of water allocated under an existing permit is necessary to meet demands

in the 20-year planning horizon. The City is not seeking expansion or initial diversion of water under its existing permits; therefore, this provision is not applicable.

5.7 Mitigation Actions under State and Federal Law

OWRD requires that for any expansion or initial diversion of water under an existing permit, the water supplier must describe mitigation actions it is taking to comply with legal requirements of the Endangered Species Act, Clean Water Act, and other applicable state or federal environmental regulations.

The City currently is not required to take any mitigation actions under state or federal law. The final order approving an extension of time for the City's Permit S-48451 (use of water from Salmon River) did, however, include "fish persistence" conditions. These conditions were included to maintain the persistence of fish species listed under the Endangered Species Act in portions of the river affected by the water user under the permit. The City is fully aware of these conditions, and upon initiating use of Permit S-48451, the City will monitor streamflows and use as needed to comply with its permit requirements.

5.8 New Water Rights

Under OAR 690-086-0170(8), if a municipal water supplier finds it necessary to acquire new water rights within the next 20 years in order to meet its projected demand, an analysis of alternative sources of the additional water is required. The analysis must consider availability, reliability, feasibility and likely environmental impacts and a schedule for development of the new sources of water. The City does not intend to acquire new water rights to meet demands within the next 20 years, so the provisions of this section are not applicable.

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The letters in Appendix A have not been sent.

Appendix A

Letters to Affected Local Governments

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**Date**

Name, Title
Clackamas County
150 Beaver Creek Rd, Rm 225
Oregon City, OR 97045
zoninginfo@clackamas.us

Subject: Water Management and Conservation Plan for City of Sandy

Dear _____,

The City of Sandy has developed a draft Water Management and Conservation Plan (WMCP) to fulfill the requirements of Oregon Administrative Rules Chapter 690, Division 86 of the Oregon Water Resources Department.

Under these rules, the water supplier will make its draft WMCP available for review by affected local governments and seek comments related to consistency with the local governments' comprehensive land use plans. We are providing you an electronic version of Sandy's draft WMCP for your review.

Please provide any comments within 30 days from the date of this letter. If the WMCP appears consistent with your Comprehensive Land Use Plan, a letter or email response to that effect would be appreciated. You may send your comments to me at thenkle@gsiws.com.

If you have any questions, please feel free to contact me at 971-236-2550. Thank you for your interest.

Sincerely,
GSI Water Solutions Inc.

A handwritten signature in black ink that reads "Tim Henkle".

Tim Henkle
Water Resources Consultant

Enclosure



Date

Section Corners Water Association

Title

Address

_____, OR 97 ____

Subject: Water Management and Conservation Plan for the City of Sandy

Dear _____,

The City of Sandy has developed a draft Water Management and Conservation Plan (WMCP) to fulfill the requirements of Oregon Administrative Rule Chapter 690, Division 86 of the Oregon Water Resources Department.

Given the relationship between Sandy and your water district, we are providing you with an electronic copy of the draft WMCP as a courtesy. If you have any questions, please feel free to contact me at 971-236-2550 or thenkle@gsiws.com.

Sincerely,
GSI Water Solutions Inc.

A handwritten signature in black ink that reads "Tim Henkle".

Tim Henkle
Principal Water Resources Consultant

Enclosure



Date

Alder Creek-Barlow Water District

Title

19415 SE Summertime Dr
Sandy, OR 97055

Subject: Water Management and Conservation Plan for the City of Sandy

Dear _____,

The City of Sandy has developed a draft Water Management and Conservation Plan (WMCP) to fulfill the requirements of Oregon Administrative Rule Chapter 690, Division 86 of the Oregon Water Resources Department.

Given the relationship between Sandy and your water district, we are providing you with an electronic copy of the draft WMCP as a courtesy. If you have any questions, please feel free to contact me at 971-236-2550 or thenkle@gsiws.com.

Sincerely,
GSI Water Solutions Inc.

A handwritten signature in black ink that reads "Tim Henkle".

Tim Henkle
Principal Water Resources Consultant

Enclosure



Date

Name, Title

Portland Water Bureau
1120 SW 5th Ave, Ste 405
Portland, OR 97204

Subject: Water Management and Conservation Plan for the City of Sandy

Dear _____,

The City of Sandy has developed a draft Water Management and Conservation Plan (WMCP) to fulfill the requirements of Oregon Administrative Rule Chapter 690, Division 86 of the Oregon Water Resources Department.

Given the relationship between Sandy and your water district, we are providing you with an electronic copy of the draft WMCP as a courtesy. If you have any questions, please feel free to contact me at 971-236-2550 or thenkle@gsiws.com.

Sincerely,
GSI Water Solutions Inc.

A handwritten signature in black ink, appearing to read "Tim Henkle", is written over a large, light gray "DRAFT" watermark.

Tim Henkle
Principal Water Resources Consultant

Enclosure

**Date**

Mike Persons, President
Skyview Acres Water Company
PO Box 2072
Sandy, OR 97055
Mikepersons23@yahoo.com
skyviewacreswater@gmail.com

Subject: Water Management and Conservation Plan for the City of Sandy

Dear Mr. Persons,

The City of Sandy has developed a draft Water Management and Conservation Plan (WMCP) to fulfill the requirements of Oregon Administrative Rule Chapter 690, Division 86 of the Oregon Water Resources Department.

Given the relationship between Sandy and your water district, we are providing you with an electronic copy of the draft WMCP as a courtesy. If you have any questions, please feel free to contact me at 971-236-2550 or thenkle@gsiws.com.

Sincerely,
GSI Water Solutions Inc.

A handwritten signature in black ink that reads "Tim Henkle".

Tim Henkle
Principal Water Resources Consultant

Enclosure

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Appendix B

2025 City Water Rates

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CITY OF SANDY MASTER FEE SCHEDULE

DRAFT

January 2025

- a. City wide \$6,126.36 per equivalent residential unit
- b. Wastewater Tapping Fees Costs + 20%

C. Park

- a. Single Family \$12,117.67
- b. Multi-Family \$8,984.50
- c. Mobile Home \$9,760.26

D. Payment in Lieu of Park Land Dedication

- a. Payment in Lieu of Park Land Dedication, Not Deferred \$869,242.00 per acre
per acre, plus 10% administration fee on the amount of
- b. Payment in Lieu of Park Land Dedication, Deferred \$869,242.00 the remaining portion owed

E. Street

- a. Residential \$9,716.00 per single family dwelling unit
- b. AADPT (Trip) Cost \$613.38 per adjusted average daily person trip

7. WATER RATES**A. Base by Customer Class**

- a. Single Family \$20.36 per month
- b. Single Family - Reduced \$10.18 per month
- c. Multi-Family \$20.36 per month
- d. Commercial/Industrial \$20.36 per month
- e. Wholesale \$24.36 per month
- f. Single Family - outside City limits \$30.62 per month

B. Charge by Meter Size - inside city limits

- a. 5/8" Meter \$0.73 per month
- b. 3/4" Meter \$1.10 per month
- c. 3/4" Meter - Reduced \$0.55 per month
- d. 1" Meter \$1.89 per month
- e. 1 1/2" Meter \$3.61 per month
- f. 2" Meter \$5.77 per month
- g. 3" Meter \$10.96 per month
- h. 4" Meter \$18.17 per month
- i. 6" Meter \$36.42 per month
- j. 8" Meter \$58.25 per month
- k. 10" Meter \$83.79 per month

C. Charge by Meter Size - outside city limits

- a. 5/8" Meter \$1.07 per month
- b. 3/4" Meter \$1.69 per month
- c. 1" Meter \$2.76 per month
- d. 1 1/2" Meter \$5.46 per month
- e. 2" Meter \$8.62 per month
- f. 3" Meter \$16.25 per month
- g. 4" Meter \$27.07 per month
- h. 6" Meter \$54.08 per month
- i. 8" Meter \$90.21 per month
- j. 10" Meter \$124.46 per month

D. Volume Charge by Customer Class

- a. Single Family \$8.17 per 100 cubic feet
- b. Single Family - Reduced \$4.08 per 100 cubic feet
- c. Multi-Family \$7.69 per 100 cubic feet
- d. Commercial/Industrial \$7.04 per 100 cubic feet
- e. Wholesale \$8.62 per 100 cubic feet
- f. Single Family - outside City limits \$12.25 per 100 cubic feet
- g. Commercial/Industrial - outside City limits \$10.96 per 100 cubic feet
- h. Skyview Acres \$2.11 per 100 cubic feet, plus COP pass through

E. Metered Use From Fire Hydrant

- a. Deposit \$300.00
- b. Set-up/take-down/billing fee \$60.00
- c. Meter Rental (day 1 to day 30) \$2.00 per day
- d. Meter Rental (day 31 and beyond) \$5.00 per day
- e. Water Rate Inside or Outside Comm/Ind depending on location

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Appendix C

City's August 2024 Newsletter

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SHARE:

[Join Our Email List](#)

The Sandy Source

Big Progress at Cedar Park!

Volume 51 | August 2024

Significant progress has been made at [Cedar Park](#), the newest addition to Sandy's fabulous park system! Spanning 10 acres, this new gem promises endless fun and is set to become a premier destination for outdoor enthusiasts locally and throughout the region.

The [Base Camp Action Sports](#) complex, the showpiece feature of Cedar Park, will be the only combined pump track and skatepark in the Pacific Northwest!

Check out the latest drone footage!





The 40,000 square foot "Base Camp Action Sports" area is taking shape beautifully, featuring a 20,000 square foot skatepark, a 20,000 square foot pump track, and a total of 1,300 linear feet of asphalt jump lines.

We'd like to thank Lango Hansen Landscape Architects, American Ramp Company, Goodfellow Bros., and the Oregon Parks & Recreation Department Local Government Grant Program for helping making this project a reality.

Most importantly, we extend our sincere gratitude to the Sandy community, as well as the Parks and Trail Advisory Board, the Skaters of Sandy, and all our future park users for their heartfelt support and enthusiasm. We're excited to welcome you to your new park soon!

Stay tuned for more updates as we aim to complete and open Cedar Park by early 2025!

Welcome Chief Huskey

The City is pleased to announce that Patrick Huskey began work as Sandy's new [Chief of Police](#) on August 1st.

Chief Huskey was previously the Portland Area Commander for the Oregon State Police, overseeing all patrol activities for Clackamas and Multnomah Counties.

"I am truly grateful for this opportunity to serve as Sandy's next Police Chief," said Chief Huskey. "I have worked in the Sandy area for over 20 years with the Oregon State Police, and it has always been one of my favorite places. As Sandy's Chief I intend to be a visible member of the community, participating in events and making myself available for conversations with local residents. I look forward to working together to address our challenges, solve problems, and keep our town safe as we continue to grow."



Please join us in welcoming Chief Huskey to Sandy!

(photo courtesy of the Sandy Post / Brit Allen)

Library Highlights

Composting Made Easy.

Join us on August 15th from 6:00 to 7:00 p.m. at the [Sandy Library](#) Community Room where [Master Recycler](#) Kris LaMar will deliver a presentation on composting with garden debris - an easy and cheap way to build a strong and healthy garden!

Learn how to use compost to provide nutrients, to reduce your need for fertilizer, and to improve the quality of clay or sandy soil. Compost can also be used as a mulch to control weeds and save water.

A worm bin can eliminate most of your food waste and at the same time provide soil amendments and fertilizer. Redworms are recyclers that transform kitchen waste to humus-rich soil conditioner in just a few months. To make worms work for you, you need only supply them with a home furnished with bedding and food.

This program is offered in partnership with the [Master Recycler Program](#).

Sandy Seed Library Series

Composting

with Garden Debris and Worm Bins

Learn the two common methods of composting at home: garden debris and worm bins with Master Recycler, Kris LaMar
Contact Brianna Chase for more information bchase@ci.sandy.or.us

MASTER RECYCLER PROGRAM

Sandy Public Library
Community Room

**Thursday,
August 15
6:00 pm**

SANDY PUBLIC LIBRARY **LINCC.ORG** **Friends of SANDY LIBRARY**

Special Exhibit: Native Innovations

Sandy Library Fireplace Room

August 13th through September 10, the Sandy Public Library will be hosting a special traveling exhibit entitled [Native Innovations](#).

Celebrate engineering innovations designed and used by First Nations in Oregon. This exhibit will explore how Native Americans have used knowledge, creativity, and ingenuity to solve problems for thousands of years, and continue to do so today. Participants will be invited to try their own hand at engineering, while learning from examples of traditional indigenous technologies related to housing, travel, tools, recreation, resource management, and more.

This program is offered by the [Museum of Natural and Cultural History](#) as part of the 2024 Summer Reading Program.



Check out Sandy's New Street Sweeper

Have you seen Sandy's new street sweeper around town yet?

Sandy Public Works is proud to have its very own street sweeper for the first time! Previously, street sweeping has been contracted out to external providers. With rising contract costs in recent years however, it now makes more financial sense for the City to purchase its own sweeper and provide sweeping services directly. The City Council approved the purchase at a [meeting](#) in June.



[Operating our own sweeper](#) also means better service for Sandy residents, as crews can respond more quickly to storm events or incidents involving debris in roadways.

Make sure to wave hi next time you see the sweeper!



Conserving Water This Summer

During the warm summer months, most of us spend time outdoors tending to our lawns, growing our gardens, and washing our cars — all activities that depend on water. As a result, water usage can increase significantly.

Here's a great video on how to optimize your irrigation system, and below are tips on how to conserve water and still maintain a green and vibrant landscape!



10 tips to conserve water and still maintain a green and vibrant landscape:

1. **Adjust your sprinklers** so that they're watering your lawn and garden, and not the street or sidewalk.
2. **Water early in the morning** (before 10:00) **or later in the evening** (after 6:00) when temperatures are cooler and evaporation is minimized.
3. **Set it, but don't forget it!** Whether you have a manual or automatic system, be sure to adjust your **watering schedules** throughout the irrigation season.
4. **Water established lawns about 1 inch per week** (a bit more during hot, dry weather). Find out how much to water this week with the **Weekly Watering Number**.
5. **Inspect your irrigation system** for leaks, broken lines, or blockage in the lines. A well-**maintained** system will save you money, water, and time.
6. **Consider replacing some turf area** with **low water use plants** and ornamental grasses. They are easier to maintain than turf, look beautiful, and require far less water.
7. **Group plants with like watering needs**. Creating "watering zones" in your garden will allow you to give each plant the water it requires — not too much or too little.
8. **Add a shut-off nozzle to your garden hose** and save about 5-7 gallons each minute your hose is on.
9. **Adjust your mower to a higher setting**. A taller lawn provides shade to the roots and helps retain soil moisture, so your **lawn** requires less water.
10. **Apply the amount of water your soil can absorb**. Water thoroughly, but infrequently. If run off or puddling occurs, break longer watering sessions into several short sessions allowing water to soak into the soil between each session.

Fight the Bites

Are you are tired of mosquitoes and flies? If so good news - there is a way to reduce and possibly eliminate those "vectors" that really bug you!

Clackamas County Vector Control District is committed to controlling flying vectors (mosquitoes and flies) in Clackamas County and has developed a program to tackle this issue. They offer **FREE property inspections**, **mosquito fish** for ponds and pools, and **educational presentations** to help you protect yourself from mosquitoes.



To learn more visit fightthebites.com where you can request services, watch educational videos, and stay alert with their news and updates. Or simply call (503) 655-8394 between the hours of 6:30 AM and 5 PM, Monday-Thursday.

You can also visit them this month and pick up your free 2025 calendar at the [Clackamas County Fair](#), booth # 28 in the Garden Market.

Clackamas County Vector Control District wants to help you enjoy being outdoors this summer BUZZ free!

Current Land Use Applications

Status

- Any -

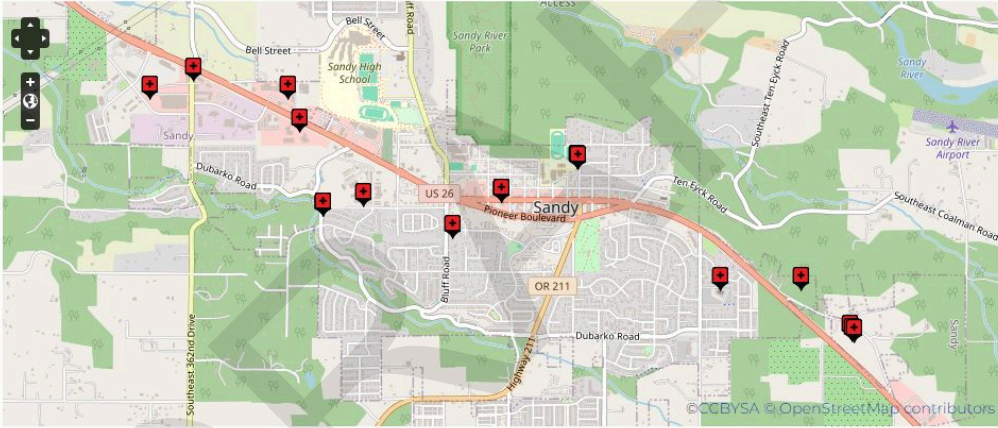
Land Use Project Type

- Any -

Search

Apply

Reset



123456789...next>last>

| Title | Project ID | Land Use Project Type | Project Status |
|---|-------------|-----------------------|----------------------|
| Sandy Chamber of Commerce 75th Celebration (with Dick Hannah) | 24-041 TEMP | Other | Application Received |
| Comprehensive Plan Amendment (CPA) | 24-040 CPA | Comp Plan Changes | Under Review |
| 40155 Hwy 26 - Garage Addition | 24-038 VAR | Other | Under Review |
| Knollwood Estates Hazard Tree Removal - Space 32 | 24-039 TREE | Other | Approved |
| Tickle Creek Village Condos Tree Removal | 24-037 TREE | Other | Approved |

Here's the latest in our [comprehensive database of active land use applications](#), complete with links to public meetings, documents, plans, maps, explanatory videos, staff reports, and other materials! You'll also find links to opportunities to take part in the decision-making process by submitting your own testimony.

Please feel free to [contact us](#) if you have any questions.

Upcoming Public Meetings

Be a part of the process! Members of the public are always welcome at meetings of the City Council and other boards and commissions.

Get meeting details and learn more about the variety of ways you can participate by visiting our [online meeting portal](#).

Mark Your Calendars:

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- Urban Renewal Board: August 5th
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- Economic Development Advisory Board: August 14th
- SandyNet Advisory Board: August 15th
- City Council: August 19th
- Planning Commission: August 26th

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STAFF REPORT

Item # 4.

Meeting Type: City Council
Meeting Date: August 18, 2025
From: Tyler Deems, City Manager
Subject: Alternative Wastewater Systems: Discussion and Policy Direction

DECISION TO BE MADE:

Provide staff with direction on next steps for Sandy Municipal Code additions related to alternative wastewater systems.

APPLICABLE COUNCIL GOAL:

- **Goal 7.8:** Explore possible alternative wastewater treatment systems to facilitate targeted economic development under the moratorium.

BACKGROUND / CONTEXT:

As initially discussed with the City Council on [November 4, 2024](#), and then again on [March 17, 2025](#), staff is seeking to implement alternative wastewater systems municipal code modifications to facilitate targeted economic development while the moratorium is in effect. When this topic was first discussed in late 2024, staff had been approached by two property owners who own land on/near Industrial Way and Champion Way. Both of these properties are zoned 'industrial.' In addition, there was an initial focus towards advancing Goal 3 of the [Economic Development Strategic Plan](#), which is specific to metals manufacturing. Subsequent discussion was more focused on what types of systems would be allowed, the overall review process, approval criteria (specifically designed to be more discretionary to ensure that the City's objectives are met under the new program), and specifying the terms in which future connection to the City's wastewater system would be required.

The Planning Commission held a legislative public hearing on [June 30, 2025](#). The Planning Commission recommended approval of the ordinance with the following two amendments for the City Council's consideration:

- 1) Modify Section 17.84.70.F.7. to require that porta-potties are cleaned at least twice a week.
- 2) Modify Section 17.84.70.E.1.b. to broaden the allowance for commercial and industrial uses where the general public is received. Note: The examples that were mentioned by the Planning Commission were auto parts stores and convenience stores.

The City Council held a legislative public hearing on [July 21, 2025](#). The City Council approved a first reading of Ordinance 2025-17 with a 6:1 vote, with 'Exhibit A. Code Amendments (original)' and Exhibit

B. To be clear, the first reading that was passed did not include the modifications that were recommended by the Planning Commission.

After the vote occurred, the City Attorney asked the City Council if they would like any other modifications, such as those recommended by the Planning Commission, added to Exhibit A prior to it returning for a second reading. Several members of the City Council verbally stated that they would like the code language to be modified to include the ability for 'big box retailers' to have an alternative wastewater system. This direction was not unanimous and was not included in the approval of the first reading.

On August 4, 2025, Mayor Walker indicated that staff would be bringing this topic back before the Council for further discussion and requested that any questions be forwarded to the City Manager. Those questions have been answered to the best of staff's ability at this time and are provided as an attachment to this staff report.

KEY CONSIDERATIONS / ANALYSIS:

At this time, staff is seeking clear direction on what additions, subtractions, or other modifications need to be made to Ordinance 2025-17 in order to advance the ordinance for a second reading. More specifically, staff need to better understand the desire of the Council, in terms of how broad or restrictive the ordinance should be, what economic development opportunities the Council is hoping to achieve, and whether there are any specific wastewater alternatives the Council is not comfortable with allowing. As a reminder, the list of alternatives in the ordinance is not all-encompassing, since new alternatives may be developed in the future.

Ordinance Options:

It should be noted that the Planning Commission proposed allowing alternative wastewater systems to be used in locations "where the public is generally not anticipated to use on-site restroom facilities." After reviewing this proposal further, staff believes it would be exceedingly difficult to define clear parameters around this and would not recommend this approach.

There are several paths forward, which are summarized below:

- Option 1: Approve only porta potties and grey water systems, but no other alternative wastewater systems, such as septic systems. This could also be limited to only land zoned 'industrial,' or could be expanded to include commercial land. This option aligns with the original concept, dating back to 2024. This is the most restrictive option in terms of development opportunities.
- Option 2: Approve porta potties and grey water systems, with the option to consider and approve other alternative wastewater systems, but only for businesses "where the public generally is not received." This option aligns with the original text of Ordinance 2025-17. This is what was approved with the first reading.
- Option 3: Approve porta potties and grey water systems, with the option to consider and approve other alternative wastewater systems, but expanded to include all commercial and

industrial businesses regardless of whether the public is generally received. This is the most unrestricted option in terms of development opportunities.

| | Option 1 | Option 2 | Option 3 |
|--|-----------|----------|----------|
| Residential Land? | No | No | No |
| Commercial Land? | Likely No | Yes | Yes |
| Industrial Land? | Yes | Yes | Yes |
| Allows porta potties and grey water systems? | Yes | Yes | Yes |
| Allows other systems (for example, septic tanks)? | No | Yes | Yes |
| Allows retail space open to the public? | No | No | Yes |

Please be aware that other regulatory agencies may require applications and approval for alternative wastewater systems. The City has no ability to guarantee that another regulatory agency would approve an application and potential property owners seeking to develop their property and use an alternative wastewater system should do their due diligence to ensure that the alternative system is appropriate and will be approved by the appropriate regulatory agency.

It should also be noted there appeared to be some confusion as to how long an alternative system, specifically a septic system, could remain in use before the property owner would be required to vacate the alternative system and connect to the City's wastewater system. Ordinance 2025-17, as written, would allow for that timeline to be determined and solidified by the Council in the final approval of the alternative treatment solution. For example, a property owner could apply to install a septic system and argue that the system has a useful life for 40 years. The Council could, after reviewing all the information, determine that the useful life of that system is only 20 years. Upon the expiration of 20 years, the property owner would be required to connect to the City's wastewater system, pay any related system development charges, and be subject to monthly utility charges for their usage.

BUDGET IMPACT:

Staff has received several questions regarding the financial impact to the City, should an alternative wastewater system ordinance be adopted. While these questions are extremely difficult to answer, some information is provided below. Please be aware that the underlying assumptions for number of equivalent residential units (ERUs), and water consumption, are estimates and impossible to accurately calculate until an actual application for development is received by staff. This information is intended to provide the Council with a rough order of magnitude and is subject to change upon receipt of actual development applications.

System Development Charges (SDCs)

SDCs are one-time fees that are charged at the time that permits are issued by the Building Division. The City of Sandy currently assesses SDCs for water, wastewater, and transportation for commercial and industrial development. Park SDCs are currently only assessed for residential development.

Below are estimated SDC charges for two example types of businesses:

| | Small Industrial Business | Big Box Retailer |
|-----------------------|----------------------------------|---|
| Water | \$147,819 | \$461,935 |
| Wastewater | \$56,768 | \$383,184 |
| Transportation | \$81,330 | Unknown; it could be in the millions of dollars |

Assuming the proposed business elected to use an alternative wastewater system, the amount of lost SDC revenue for the Wastewater Fund could range from \$57,000 to \$383,000 in the short-term. However, the business would eventually be required to connect to the wastewater system and would be required to pay SDCs at the time of connection. Water and transportation SDCs would be collected with issuance of the building permit at today's rates.

Utility Charges

The City of Sandy bills monthly for utility services. Charges that appear on the monthly City utility bill include water, wastewater, stormwater, public safety fee, and SandyNet, if applicable. Water and wastewater charges are based on consumption, while the other charges are a flat fee.

Below are estimated monthly utility bills for two example types of businesses:

| | Small Industrial Business | Big Box Retailer |
|--------------------------|----------------------------------|------------------------------|
| Water | \$260 | \$3,400 |
| Wastewater | \$430 | \$2,300 |
| Stormwater | \$231 | \$1,900 |
| Public Safety Fee | \$12.50 | \$12.50 |
| SandyNet | \$67.00 | \$67.00 (likely much higher) |

Assuming a useful life of 20 years for any alternative wastewater system, the amount of lost utility rate revenue for the Wastewater Fund could range from approximately \$103,000 to \$552,000.

Property Tax Revenue

Determining property tax value is extremely difficult. For purposes of these estimates, staff have reviewed similarly sized projects in terms of property size and building square footage.

Below is an example of annual property tax payments to the City and Urban Renewal District:

| | Small Industrial Business | Big Box Retailer |
|-------------------------------|----------------------------------|-------------------------|
| City of Sandy | \$5,000 | \$95,000 |
| Urban Renewal District | \$1,500 | \$37,000 |

**NOTE* this is not the total property tax bill*

Advanced Financing Reimbursement District

Depending on the location of the development, repayment to the City for the advanced financing reimbursement district may be required. This District is the Bell Street / 362nd Avenue area and has a

total value of \$2,480,935. Assuming that the entirety of the District is developed, the full \$2,480,935 would be remitted to the Street Fund, replenishing street maintenance dollars that were allocated to construction. These funds could be used for future reinvestment in local roads or reserved for future capital projects.

Transit Tax Revenue

New businesses would also be subject to paying quarterly payroll tax to fund the City's local transit system. Below is an example of annual Transit Tax revenue based on full-time employment with an average wage of \$30 per hour:

| | Small Industrial Business | Big Box Retailer |
|-----------------------------------|----------------------------------|-------------------------|
| Number of Employees | 30 | 250 |
| Annual Transit Tax Revenue | \$11,000 | \$94,000 |

Each new business would also pay an annual business license fee of \$85.

RECOMMENDATION:

Discuss the various options and provide staff with clear direction as to what modifications, if any, should be reflected in Exhibit A of Ordinance 2025-17. Once clear direction is received, staff will prepare a final Exhibit A for Ordinance 2025-17 and bring to Council for a second reading and adoption.

LIST OF ATTACHMENTS / EXHIBITS:

- Attachment 1: Ordinance 2025-17 (as adopted with first reading)
 - Exhibit A: Code Language
 - Exhibit B: Findings
- Attachment 2: Responses to questions and comments regarding alternative treatment



ORDINANCE NO. 2025-17

AN ORDINANCE AMENDING CHAPTERS 17.12 AND 17.84 RELATED TO ALTERNATIVE WASTEWATER SYSTEMS

WHEREAS, the City of Sandy is currently under a development moratorium enacted pursuant to ORS 197.510 et seq., relating to a lack of capacity in its wastewater system; and

WHEREAS, the City has received requests from property and business owners to consider allowing alternative wastewater systems during the moratorium as a means of enabling certain limited types of development to occur without impacting the City's sanitary sewer system; and

WHEREAS, as a result of those requests, staff developed an outline of potential terms under which such a program could operate and discussed this issue in a public work session with the City Council on March 17, 2025; and

WHEREAS, based on the direction received at that work session, staff prepared this ordinance, which would amend the City's development code to allow the issuance of permits for alternative wastewater systems under certain circumstances; and

WHEREAS, the Planning Commission held a public hearing on June 30, 2025, allowing the public an opportunity to provide testimony on the proposed code amendments; and

WHEREAS, the City Council held a public hearing on July 21, 2025, allowing the public an opportunity to provide testimony on the proposed code amendments.

NOW, THEREFORE, THE CITY OF SANDY ORDAINS AS FOLLOWS:

Section 1: Title 17 Development Code, Chapters 17.12 and 17.84, are hereby amended as reflected in Exhibit A, attached to this ordinance and incorporated by reference.

Section 2: This ordinance is supported by findings, attached as Exhibit B, and incorporated by reference.

Section 3: This ordinance shall take effect thirty days after it is adopted by the City Council.

This ordinance is adopted by the City Council of the City of Sandy this xx day of xx, 2025.

Kathleen Walker, Mayor

ATTEST:

Jeffrey Aprati, City Recorder

DRAFT

Sec. 17.12.40. - Type IV.

Type IV decisions are usually legislative but may be quasi-judicial.

Type IV (Quasi-Judicial) procedures apply to individual properties. This type of application is generally considered initially by the Planning Commission with final decisions made by the City Council.

Type IV (Legislative) procedures apply to legislative matters. Legislative matters involve the creation, revision, or large-scale implementation of public policy (e.g., adoption of land use regulations, zone changes, and comprehensive plan amendments that apply to entire districts, not just one property). Type IV matters are typically considered first by the Planning Commission with final decisions made by the City Council. Occasionally, the Planning Commission will not consider a legislative matter prior to its consideration by the City Council.

Applications processed under a Type IV procedure involve a public hearing pursuant to the requirements of Chapter 17.20. Notification of this public hearing shall be noticed according to the requirements of Chapter 17.22 with appeal of a Type IV decision made to the state Land Use Board of Appeals according to the provisions of Chapter 17.28.

- A. The City Council shall consider the recommendation of the Planning Commission and shall conduct a public hearing pursuant to Chapter 17.20. The Director shall set a date for the hearing. The form of notice and persons to receive notice are as required by the relevant sections of this Code. At the public hearing, the staff shall review the report of the Planning Commission and provide other pertinent information, and interested persons shall be given the opportunity to present new testimony and information relevant to the proposal that was not heard before the Planning Commission and make final arguments why the matter should or should not be approved and, if approved, the nature of the provisions to be contained in approving action.
- B. To the extent that a finding of fact is required, the City Council shall make a finding for each of the applicable criterion and in doing so may sustain or reverse a finding of the Planning Commission. The City Council may delete, add or modify any of the provisions pertaining to the proposal or attach certain development or use conditions beyond those warranted for compliance with standards in granting an approval if the City Council determines the conditions are appropriate to fulfill the criteria for approval.
- C. To the extent that a policy is to be established or revised, the City Council shall make its decision after information from the hearing has been received. The decision shall become effective by passage of an ordinance.
- D. Types of Applications:
 1. Appeal of Planning Commission decision.
 2. Comprehensive Plan text or map amendment.
 3. Zoning District Map changes.
 4. Village Specific Area Plan (master plan).
 5. Annexations.
 6. Extension of City Services Outside the City Limits.
 7. Vacating of Public Lands and Plats.
 8. Zoning Map Overlay Districts.
 9. [Alternative Wastewater System Permits.](#)

- E. *Timing of Requests.* The City accepts legislative requests twice yearly, in March and September. The City Council may initiate its own legislative proposals at any time.

Sec. 17.84.60. - Public facility extensions.

- A. All development sites shall be provided with public water, sanitary sewer, broadband (fiber), and storm drainage and shall meet the following requirements:
1. The required improvements shall be installed at the expense of the developer.
 2. Public water facilities shall meet the requirements of Title 13 of the Sandy Municipal Code and the 2022 City of Sandy Water System Master Plan and shall be designed in conformance with the City of Sandy Water Service Utility Standard Details.
 3. Sanitary sewer facilities shall meet the requirements of Title 13 of the Sandy Municipal Code and shall be designed in conformance with the City of Sandy Sewer Service Utility Standard Details.
 4. Storm drainage facilities meet the requirements of Title 13 of the Sandy Municipal Code and the City of Portland Stormwater Management Manual, as adopted by the City of Sandy, and shall be designed in conformance with the City of Sandy Stormwater Utility Standard Details.
- B. Where necessary to serve property as specified in A. above, required public facility installations shall be constructed concurrent with development, and shall be completed prior to issuance of a Certificate of Occupancy.
- C. Off-site public facility extensions necessary to fully serve a development site and abutting properties, as shown in the utility plan, shall be constructed concurrent with development.
1. If requested by the applicant, the City Engineer or designee may approve an alternative to the off-site public facility extensions required under Subsection C., based upon information submitted by the applicant showing that the extensions which would otherwise be required by this code would not be reasonably related or roughly proportional to the impact of the proposed development, as determined by the City.
- D. Public facilities installed concurrent with development of a site shall be extended through the site and extended or stubbed out to adjacent undeveloped land or to a point in the street that allows for connection with adjacent property(ies). If abutting land has an approved tentative plat, public facilities shall align with public facilities in the approved tentative plat.
- E. Private on-site sanitary sewer and storm drainage facilities shall only be considered [either as described in Section 17.84.70, or](#) if all the following conditions exist:
1. Extension of a public facility through the site is not necessary for the future development of adjacent properties;

2. The development site remains in one ownership and land division does not occur (with the exception of land divisions that may occur under the provisions of 17.84.50.E.7. or 17.84.50.F.5., above);
3. The facilities are designed and constructed in accordance with the Uniform Plumbing Code and other applicable codes, and permits and/or authorization to proceed with construction is issued prior to commencement of work.

Sec. 17.84.70. – Alternative wastewater systems.

A. Purpose. The purpose of Section 17.84.70 is to provide a means by which certain types of development may obtain a permit to allow use of an alternative wastewater system in lieu of connecting to the City's sanitary sewer system as otherwise required by this code.

B. Definitions. As used in Section 17.84.70, the following terms are defined as follows:

1. "Alternative wastewater system" means a system which provides for the collection and treatment or reuse of sanitary waste and/or wastewater by a means other than through connection to the City's sanitary sewer system. It includes, but is not limited to, greywater systems and portable restrooms.
2. "Associated use" means the use on the subject property which produces sanitary waste and/or wastewater which will flow into an alternative wastewater system.
3. "Greywater system" means a system which collects wastewater for reuse for non-potable purposes such as irrigation.
4. "Portable restroom" means a movable, self-contained toilet which is not connected to the City's sanitary sewer system and which collects sanitary waste and/or wastewater for off-site disposal.
5. "Sanitary waste" means waste from toilets, urinals, and similar devices.
6. "Wastewater" means water which has been used for shower, sink, washing machine, and similar purposes, but does not include sanitary waste.

C. Application requirements. An application shall be made on forms provided by the Director. The application shall be accompanied by the following:

1. A narrative description of the proposed alternative wastewater system accompanied by site plans, technical specifications, and a screening plan when applicable.
2. A description of the operation and maintenance requirements for the proposed alternative wastewater system.
3. Payment of the alternative wastewater system permit fee established by resolution.
4. Such other information and materials as may be necessary to demonstrate compliance with the approval criteria in Subsection E.

D. Review Process. Alternative wastewater system permit applications will be processed as a Type IV decision.

E. Criteria for Approval.

1. All applications for an alternative wastewater system permit shall meet the following criteria:

- a. The alternative wastewater system will be located on a lot or parcel with a commercial, industrial, or community service use and will be used only in connection with a commercial, industrial, or community service use;
- b. If the associated use is commercial or industrial, the use is of a type where the public generally is not received;
- c. The alternative wastewater system will have no impact on the City's sanitary sewer system and will adequately protect against environmental contamination;
- d. Disposal of waste will occur entirely outside the City's sanitary sewer system;
- e. The alternative wastewater system, including its operation and maintenance program, is adequate to meet the wastewater character and volumes of the associated use;
- f. The alternative wastewater system will be fully screened from view from public right-of-way and adjacent properties; and
- g. The proposed alternative wastewater system complies with all applicable federal, state, and local laws, including but not limited to the Americans with Disabilities Act.

2. In addition to the criteria specified in Subsection (E)(1), an application for an alternative wastewater system permit seeking approval for an alternative wastewater system other than a portable restroom or greywater system shall meet the following criteria:

- a. The alternative wastewater system proposal, taken as a whole, is not materially detrimental or injurious to the public welfare or the surrounding area; and
- b. The associated use is identified as a target industry in the City's Economic Development Strategic Plan or otherwise advances the goals of the Economic Development Strategic Plan.

F. Conditions of Approval. Any approval of an alternative wastewater system permit will be subject to the following conditions of approval:

- 1. Prior to certificate of occupancy, the applicant shall install all interior plumbing and fixtures required by the building code (e.g. toilets, urinals, sinks, etc.), all sanitary sewer infrastructure otherwise required by this code, and all infrastructure necessary for the associated use to connect to the City's sanitary sewer system, up to the point of connection in the public right-of-way or a public utility easement, but no connection may be made until authorized by the City in writing.

2. When the alternative wastewater system includes portable restrooms, the applicant shall remove all portable restrooms from the property and connect to the City's sanitary sewer system within ninety (90) calendar days after written notice from the City.
 3. Grey water systems may remain in place for the useful life of the system. Substantial replacement of a greywater system will require a new alternative wastewater system permit.
 4. Alternative wastewater systems other than portable restrooms and greywater systems are subject to the requirements of Subsection (F)(2) or (F)(3) as specified by the City Council based on an evaluation of the nature of the alternative wastewater system.
 5. Sanitary sewer system development charges are due and payable at the time of issuance of any permits required for connection to the City's sanitary sewer system, or upon such connection, whichever occurs sooner.
 6. The property owner shall record a deed restriction, in a form approved by the City Attorney, obligating the property owner and all successors to comply with Subsections (F)(2) through (5) and setting forth the penalties described in Subsection (G).
 7. The alternative wastewater system shall be operated and maintained in accordance with the approved proposal.
 8. Such other conditions of approval as the City Council may determine necessary to ensure compliance with the approval criteria and the purposes of Section 17.84.70.
- G. Enforcement. In addition to and not in lieu of enforcement under Chapter 17.06 for any violation of Section 17.84.70, if a property owner fails to connect to the City's sanitary sewer system as described in Subsection (F)(2) through (4), the City may at its option perform or cause to be performed the work required to effectuate the connection at the property owner's sole cost and expense. The City shall notify the property owner in writing of the final cost within thirty (30) calendar days after completing the work, and the property owner shall submit payment in full within thirty (30) calendar days after the date the City sends such notice by U.S. mail to the owner's address reflected in the property records of Clackamas County. Any amounts unpaid after such date shall become a lien upon the real property and shall be recorded in the City lien docket. That lien shall have priority over all other liens and encumbrances of any character. The lien shall accrue interest at the rate applicable for municipal assessment liens from the date of docketing until clearance. The lien may be foreclosed on and the property sold as may be necessary to discharge the lien in the manner specified in ORS 223.505 through 223.595.

Ordinance 2025-17 Findings

Goal 1: Citizen Involvement

This goal calls for "the opportunity for citizens to be involved in all phases of the planning process."

Findings: The City held public hearings before both the Planning Commission and City Council to afford the public the opportunity to be involved. Notice of the two hearings was published in the Sandy Post, posted on the City's website, and on the City Facebook account. Notice was provided to the Department of Land Conservation and Development on May 21, 2025.

Conclusion: *Goal 1 Public Involvement requirements are met.*

Goal 2: Land Use

This goal requires each local government in Oregon to have and follow a comprehensive land use plan and implementing regulations. Cities and counties must build their comprehensive plans on a factual base and follow their plan when making decisions on appropriate zoning.

Findings: The proposed alternative wastewater systems code amendments show that the City is continuing to seek alternative actions during the sanitary sewer moratoria. Allowing alternative wastewater systems for limited types of development validates the City's decision making to mitigate the negative impact on the City's economic goals, while providing continued support to the development community and business owners.

Conclusion: *Goal 2 Land Use requirements are met.*

Goal 9: Economic Development

This goal requires cities to provide adequate opportunities for a variety of economic activities vital to the health, welfare, and prosperity of their citizens. Cities comply with Goal 9 through analysis of economic development needs and inventories of related land supplies.

Findings: The proposed alternative wastewater systems ordinance will assist with economic development growth which is critical to meet future economic development needs as outlined in the 2024 Economic Opportunities Analysis (EOA). The proposed code amendments provide the development community and business owners with an approval process for limited types of development that would otherwise not be possible during the sanitary sewer moratoria.

Conclusion: *Goal 9 Economic development requirements are met.*

Goal 11: Public Facilities

This goal is to establish policies to plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

Findings: The City's comprehensive plan contains an acknowledged Goal 11 element that contains policies to ensure sufficient and adequate public services are available (or will be available as appropriate) to serve lands within the UGB. This alternative wastewater systems option during the moratorium is a means of enabling certain limited types of development to occur without impacting the City's sanitary sewer system. Therefore, this ordinance will not be in violation of the moratorium and will not place any additional burdens on the sanitary sewer treatment system than what is already anticipated.

Conclusion: *Goal 11 Public Facilities requirements are met.*

Goal 12: Transportation

This goal is to establish policies to provide and encourage a safe, convenient, and economic transportation system.

Findings: The City's Comprehensive Plan with respect to Goal 12, its transportation system plan, and its standards governing transportation and transportation-related facilities are not affected by this decision. The City's comprehensive plan contains an acknowledged Goal 12 element that contains policies to ensure sufficient and adequate transportation facilities and services are available (or will be available as appropriate) to serve lands within the UGB. This alternative wastewater systems ordinance would enable some industrial and commercial land to be developed, thus prompting frontage improvements, including additional sidewalks in Sandy.

Conclusion: *Goal 12 Transportation requirements are met.*

Questions and Comments Regarding Wastewater Submitted to Staff**1. What is the purpose of the ordinance?**

Ultimately, this is a question for Council to answer: What is Council trying to accomplish with this ordinance? Staff's understanding from prior discussions with Council on this subject was that Council was looking for ways to facilitate economic development activity in the City during the time period that the City anticipates being under a development moratorium relating to wastewater system capacity, by providing the flexibility to allow alternative wastewater systems under appropriate circumstances, subject to a discretionary review by Council. Furthermore, the City Council set the following goal for 2025-27: "7.8: Explore possible alternative wastewater treatment systems to facilitate targeted economic development under the moratorium."

2. How does that align with the Economic Development Strategic Plan?

It depends on what the proposed use is. Uses with higher average incomes and that are in a target industry are preferred. One target industry, metals manufacturing, is one of the proposed developments that prompted the City to first consider alternative treatment systems.

3. The ordinance should spell out exactly what the target industry is that we are trying to accommodate.

If desired by Council, the ordinance could certainly be drafted to more narrowly target a specific industry, or if Council prefers, it could remain more flexible as it is currently drafted. Reviewing the Economic Development Strategic Plan would provide the most guidance on the identification of the City's target industries.

4. The ordinance should clearly identify the criteria for approval of an alternative wastewater system.

The approval criteria were drafted to maximize flexibility and provide a high level of discretion, but if desired by Council, the criteria could certainly be drafted in a more black and white (clear and objective) manner.

5. The ordinance should clarify/define grey-water and what it can be used for.

Similar to the above, this was drafted to maximize flexibility because a particular business may be able to use grey water in a way that the City cannot currently anticipate. However, it could be drafted more prescriptively if Council prefers.

6. Who reviews and approves the application for potra-potties, holdings tanks, or other systems? Does DEQ need to be consulted?

In addition to the review that would be required by City Council under this ordinance, other agency reviews and approvals may be required depending on the type of system proposed. Any septic or alternative sewer treatment system will require Clackamas County approval to be accepted. Greywater recycling systems will be reviewed by Public Works engineering regarding the function of the system, usage locations for recycled water and cleaning schedule. Disposal

locations will also be confirmed by Public Works. All onsite plumbing will require the proper permits and inspection. Electrical components will require Clackamas County permitting and approval.

7. What is the definition of community service use?

This, too, was drafted to maximize flexibility and discretion, but could be drafted more narrowly if Council desires. As defined in Title 17 of the Sandy Municipal Code, a community service use is defined as, “a community use, including but not limited to, schools, churches, community centers, fire stations, libraries, parks and playgrounds, cemeteries, or government buildings.”

8. How many alternative solutions could be installed before environmental contamination could become a problem?

Any septic type system approved by Clackamas County will be built to appropriate standards to have minimal environmental impacts. Most, if not all septic systems approved by Clackamas County require a maintenance contract which is regulated by the county, ensuring new systems will function as designed. Staff is following up with Clackamas County to get additional information and may be able to provide more clarity during the Council meeting.

9. What is the process for dealing with associated industrial waste from the manufacturing process for both short- and long-term treatment solutions?

This is difficult to answer in the abstract, because it will depend on the type of use on the property and the type of system proposed. One of the approval criteria is that the proposed system “will adequately protect against environmental contamination.” The applicant will therefore need to provide sufficient information about their proposed system and use to convince Council that this standard is met.

10. What is the requirement process for forcing a connection to the City’s wastewater system at a later date? Can a specific date be set by Council?

The answer to this question depends on the nature of the system the applicant is proposing:

- a. For porta-potties, the City can decide at any time to require the property owner to connect to the City’s wastewater system. When the City makes that determination, the City will notify the property owner, and they will have 90 days to connect.
- b. For grey water systems, they will be required to connect to the City’s wastewater system when the useful life of the grey water system has come to an end. Council should specify the useful life of the system in its approval of the application, thereby setting a required connection date.
- c. For all other types of systems, Council would evaluate the type of system proposed and decide whether it should be treated like “A” above or like “B” above.

11. If a property owner fails to comply, the City can fine them until they comply, or the City can perform the work itself, bill the property owner for the cost of the work, and lien the property if the bill is unpaid.

If Council would prefer a different means of dealing with this issue, the ordinance could be drafted differently to accomplish that goal.

12. Who is monitoring the alternative wastewater system to ensure proper operation and maintenance?

The City would have the authority to do so under this ordinance, subject of course to its limited resources and priorities. Depending on the nature of the system installed, other agencies may also have some monitoring authority. Systems will be under the authority of Clackamas County. Approvals of any system are to be written to give the City the authority to inspect at will. The systems in question will have an appropriate inspection period by Public Works staff. The City can report to Clackamas County, when appropriate, for enforcement.

13. Does the greywater system need a broader definition, similar to a type 1, 2, or 3 as defined by the state?

The current definition would encompass all three types of grey water systems. If Council desires a different approach, the ordinance can be drafted accordingly.

14. How much do current large commercial accounts contribute to our overall rates?

This is difficult to answer with respect to large or small commercial accounts. In July 2025, all commercial accounts made up 22% of total wastewater rate revenue, and 25% of total water rate revenue.

15. Would it be better to allow alternative treatment and allocate all remaining ERUs to residential?

It depends. There are several considerations to take into account, including potential property tax revenue, potential jobs created, potential water consumption, total SDCs potentially collected, etc.

16. Are residential connections better for SDCs and rate revenue?

SDCs are charged on a per ERU basis, so in theory a business that takes 20 ERUs and 20 new residential houses would pay the same. Rate revenue is subject to consumption, which varies greatly depending on business type and number of people in the household. In terms of property tax revenue, a commercial property that is developed and uses 20 ERUs would likely generate somewhere in the \$100,000 range per year in property tax revenue. Those same 20 ERUs allocated to residential would likely generate approximately \$23,000 per year in property tax revenue. In summary, one type of use isn't better than the other in terms of SDC collections, but property tax revenue is significantly different when analyzing commercial vs. residential properties.