RESEARCH

League of Oregon Cities

Water Rates Survey Report

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2023 Water Rates Survey Report

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In its latest evaluation of municipal water systems, the League of Oregon Cities (LOC) has assembled insights into the dynamics of city drinking water, wastewater, and stormwater services across Oregon. The latest survey highlights nuanced differences across regions and population scales, reinforcing trends noted in preceding annual surveys. Notably, the study draws a parallel with the 2021 findings, revealing a trend towards increased water rates and additional fees. There is a discernible tightening in policies concerning overdue payments. Despite a general uptick in the adoption of water conservation management plans, the practical application of water reuse on private and public domains has seen a decline. The report also touches upon infrastructure capacity, indicating that, although some cities have bolstered their water systems to meet demand, others are on the brink of surpassing their operational thresholds. Finally, bolstered by additional fees charges, charges for water have increased significantly over the last four years.

Introduction

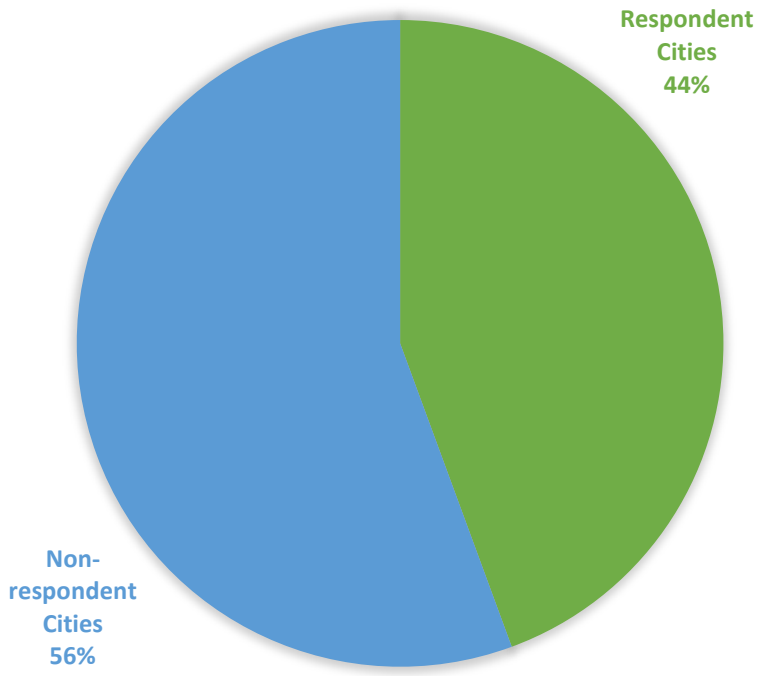
For the last 24 years, the LOC has gathered information to better understand city drinking water and wastewater rates. The ability to gather this information has been a useful tool that allows cities to better understand trends in drinking water,

wastewater, and stormwater rates; and to understand how water rates might be impacted based on region, population, or economic demographics. In the past, this survey was conducted in partnership with the University of Oregon and Oregon State university. However, the last four iterations of this survey have been accomplished solely by LOC.

Survey Methods

This survey was conducted from September 18 to October 15, 2023. Responses were received from 70 cities (out of Oregon's 241 cities) and represent 1,347,666 residents, or 44% of the population residing in Oregon cities. This is significantly fewer respondents than in previous years. The LOC created the survey with Qualtrics and distributed it to city managers, city recorders, and other individuals with positions equal to a city's chief executive officer. These individuals often relied on support from relevant city staff or forwarded the survey to be completed by city staff.

Population		
	#	%
Quintile		
1st Quintile	14	20.0%
2nd Quintile	15	21.4%
3rd Quintile	12	17.1%
4th Quintile	14	20.0%
5th Quintile	15	21.4%
TOTAL	70	
Region		
N. Coast	6	8.6%
Metro	6	8.6%
N. Willamette	14	20.0%
S. Willamette	11	15.7%
C. Coast	3	4.3%
S. Coast	1	1.4%
S. Oregon	6	8.6%
Gorge	6	8.6%
C. Oregon	3	4.3%
SC Oregon	1	1.4%
NE Oregon	8	11.4%
E. Oregon	5	7.1%
TOTAL	70	



Cities are divided into population quintiles or groups of cities representing roughly one-fifth of the 241 total cities. This provides a more accurate comparison of differences among city populations. If the LOC randomly selected cities from each quintile, we would expect 20% to come from each of the five quintiles. Among respondent cities, there was overrepresentation in the South Willamette and Gorge regions. Further, the survey showed an underrepresentation of cities in several regions, including Metro. Respondent distributions by population Quintiles were relatively uniformly distributed. In the above table, cells marked with green indicate an overrepresentation and those in red denote underrepresentation.

Please see Appendix C for a map of LOC's Small Cities Regions.

General Results

Billing, Late Fees, Penalties, and Collections

Ninety percent of cities issue water bills to their residents and customers monthly, which is consistent with previous iterations of this survey. Bi-monthly billing was common in cities with a population less than 10,600, and no city reported annual billing in this survey. Further, 59% of the city respondents allow for paperless billing, which is consistent with the 2021 survey, which saw a significant increase in paperless billing from 2019. Paperless billing is more common in cities with a population greater than 3,250, as well as in the Metro, North Coast, and both valley regions.

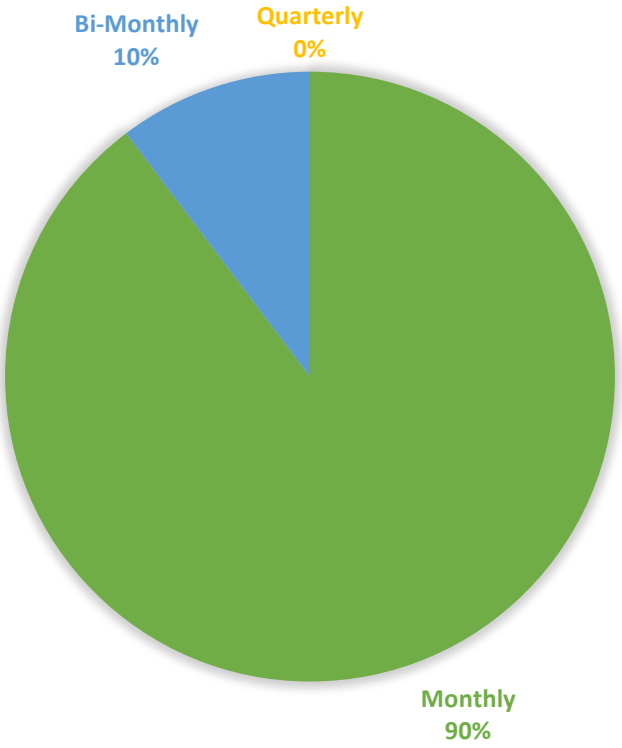


Figure 1: Billing Frequency

Late fees and interest rates vary. However, these average $12.05 in late fees and 4.6% for interest. This is a significant increase from the last two surveys (2.9% interest in 2019 and 3.9% in 2021). South Central Oregon has the highest average late fee ($30.00), and North Willamette Valley has the highest interest rate (10%). On average, late fees are assessed 25 days after the due date, far later than 2021 or 2019. Taken with the above information, the results show a continued trend toward stricter water billing policies in cities but with less frequent assessment of late water bills.

Water shut offs in 2019 were consistently an average of 30 days across populations and regions. These variations in 2021 averaged about 40 days, but the differences in population and region could vary as much as two weeks.

How many days after due date before you disconnect water service?	
Quintile	
1st Quintile	65.7
2nd Quintile	31.1
3rd Quintile	27.8
4th Quintile	32.8
5th Quintile	46.9
TOTAL	40.8
Region	
N. Coast	30.0
Metro	61.6
N. Willamette	24.5
S. Willamette	47.3
C. Coast	57.5
S. Coast	30.0
S. Oregon	34.0
Gorge	55.0
C. Oregon	39.0
SC Oregon	45.0
NE Oregon	41.0
E. Oregon	41.5
TOTAL	40.8

Table 1: Disconnection Limit

What dollar amount or number of days late triggers collections? - Dollar Amount	
Quintile	
1st Quintile	$251.00
2nd Quintile	$160.00
3rd Quintile	NA
4th Quintile	$11.25
5th Quintile	$51.25
TOTAL	$74.47
Region	
N. Coast	NA
Metro	$100.00
N. Willamette	$23.75
S. Willamette	$35.00
C. Coast	NA
S. Coast	NA
S. Oregon	$77.50
Gorge	$10.00
C. Oregon	NA
SC Oregon	$10.00
NE Oregon	$87.50
E. Oregon	$251.00
TOTAL	$74.47

Table 2: Collection Limit (Dollars)

What dollar amount or number of days late triggers collections? – Days	
Quintile	
1st Quintile	82.8
2nd Quintile	73.3
3rd Quintile	61.3
4th Quintile	80.3
5th Quintile	79.1
TOTAL	76.9
Region	
N. Coast	45.0
Metro	106.3
N. Willamette	47.5
S. Willamette	79.8
C. Coast	180.0
S. Coast	NA
S. Oregon	83.3
Gorge	NA
C. Oregon	NA
SC Oregon	90.0
NE Oregon	43.3
E. Oregon	105.0
TOTAL	76.9

Table 3: Collection Limit (Days)

Tables 1-3 show the breakdown of not only when water services are disconnected but also what triggers bills being sent to collection. Again, here we see much more leeway from cities with fewer than 450 residents; however, this number has dramatically decreased from the average of $500 in 2019. In fact, the fourth and fifth quintiles are the only population categories that did not decrease the dollar amount to trigger collections in the last four years. Cities average about $52 in back payments, or 87 days before bills are sent to collections.

Waivers, Discounts and Adjustments

Forty-one percent of cities provide waivers, discounts or reductions to certain segments or their customer base, which is relatively consistent with the 39% found in 2019 and 43% in 2021. This is most commonly based on the low-income status of residents, low-income housing and for senior citizens. Such accommodations are most likely to occur in cities with a population greater than 3,275 and in the Metro, North Coast, and South Willamette regions.

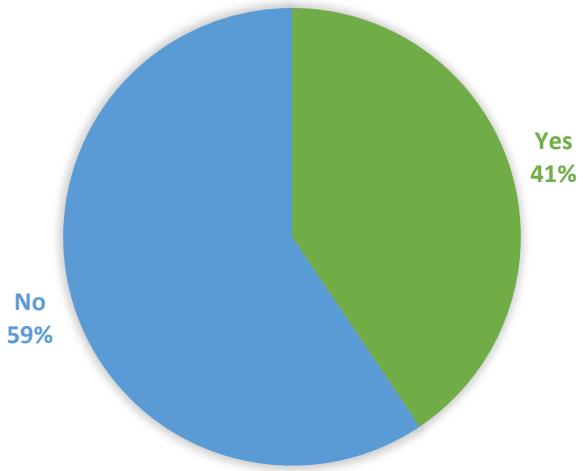


Figure 2: Does your city issue waivers, discounts, and adjustments?

Accommodation is often made for detected leaks that could significantly increase water bills. On average, cities will go as far back as 62 days to provide a billing adjustment, an average consistent with the previous survey. Data collected on this shows a clear pattern based on population. Table 4 shows that while smaller cities are more lenient on delinquent payments (3rd quintile being an outlier), there is far less accommodation for miscalculation of bills due to detected leaks. Cities with a population less than 500 average 25 days readjustment, whereas cities with a population greater than 10,600 average 66 days, or about two monthly billing cycles. While this may be an artifact of lower response rates in this year's survey, the lowest population category and the largest population category reduced their adjustment period significantly from 2021.

If a leak is detected, how far back does the city make adjustments to the water bill? - Days	
Quintile	
1st Quintile	25.0
2nd Quintile	41.3
3rd Quintile	143.8
4th Quintile	63.3
5th Quintile	66.0
TOTAL	61.8
Region	
N. Coast	42.0
Metro	80.0
N. Willamette	103.9
S. Willamette	55.7
C. Coast	180.0
S. Coast	30.0
S. Oregon	60.0
Gorge	15.0
C. Oregon	0.0
SC Oregon	NA
NE Oregon	30.0
E. Oregon	22.5
TOTAL	61.8

Table 2: Bill Adjustments for Water leaks – Days

Asset Management Systems

Cities were asked if they maintain asset management systems for drinking water, wastewater, and stormwater services, respectively. According to the U.S. Environmental Protection Agency (EPA), asset management is "a process water and wastewater utilities can use to make sure that planned maintenance can be conducted and capital assets (pumps, motors, pipes, etc.) can be repaired, replaced, or upgraded on time and that there is enough money to pay for it." Figure 3 shows that 29 cities (or 41% of respondents) utilize asset management for drinking water, 22 cities (31% of respondents) for wastewater, and 14 cities (20% of respondents) for stormwater. These results are consistent with the 2019 results rather than in 2021, which saw a near doubling in all cases of respondent cities using an asset management system. These systems are consistently more likely to be utilized by cities with a population greater than 3,275 and in the Valley regions. This suggests that larger systems, with greater revenue and staffing capacity, are more likely to engage in asset management.

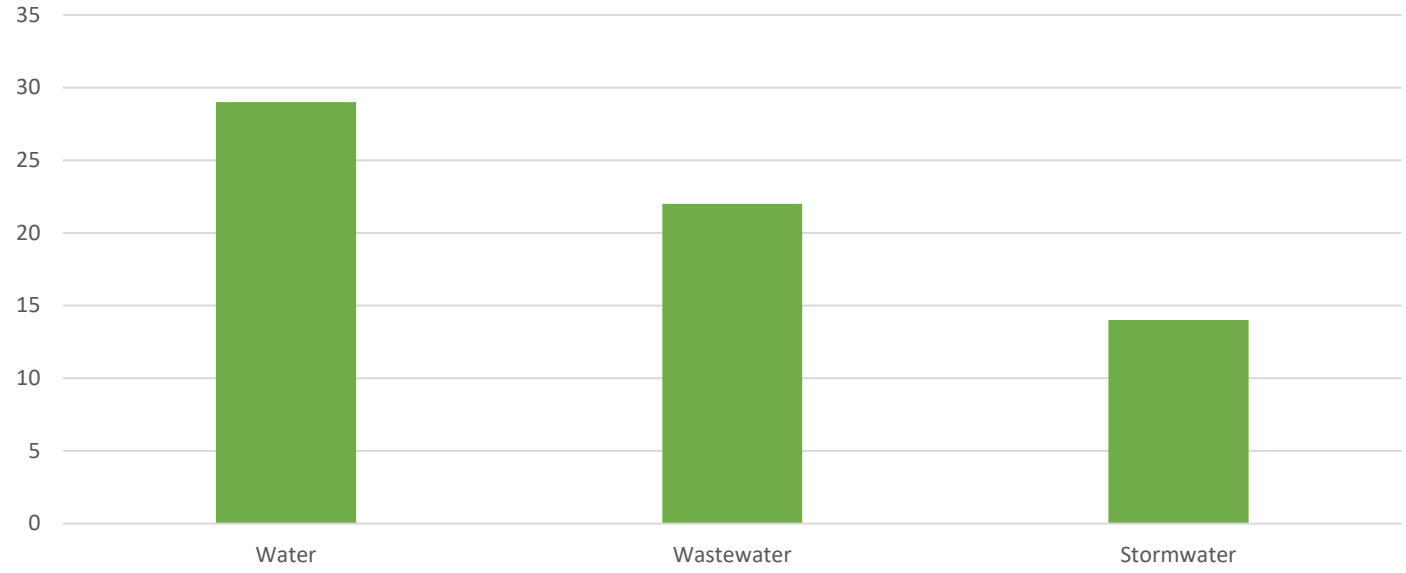


Figure 3: Asset Management Systems by Water Service Type

Rate Studies and Methodology

Cities were asked to indicate the last time they updated their rate and calculation methodology through a rate study. Rate studies are often conducted to help municipalities develop financial plans and rates that will generate sufficient revenue to fund operating and capital needs, and to help ensure that the rates charged to adequately fund the system are assessed equitably among ratepayers. The survey shows in all cases (water wastewater, stormwater) that rates and methodologies have been updated in the last six years. The Gorge region appears to be the only outlier with an average most recent rate study year of 2014.

Other Billing and Rate Details

Seventy-two percent of cities do not require water utilities to be registered in the property owner's name. This is most common in cities with a population greater than 500. Most cities handle billing for vacant properties by closing the account with no additional charge. However, eight cities do charge a vacancy rate. Others will bill a base rate or flat fee to the property owner. The survey also solicited data on any additional fees that may be added to utility bills. Additional fees indicated include backflow testing, new account fees, shutoff fees, and fees for tampering with water or wastewater lines. The commonality of all these types of fees increased since 2019.

Figure 4: Commonly Added Fees to Utility Bills

Other additional fees are unique to cities. As indicated below, some cities utilize drinking water and wastewater bills to assess non-related fees for services such as public safety or ambulance fees. While the fee revenue is not generated for the purpose of supporting drinking water, wastewater or stormwater services, the practice of including other fees on water-related bills can serve as a more efficient means for billing and collecting other revenues. Responses included:

- Ambulance Fee
- Capital Improvements
- Debt Service
- Dirt Fill/Blocked Access
- Door Hanger Fee
- Excess Water Usage
- Fire Flow Charges
- Franchise Fees
- Garbage/Sanitation
- Streets and Infrastructure
- Streetlights
- Irrigation
- Late Fees
- Public Safety Fees
- Reconnection Fees
- System Development Charges

Most cities do not charge for stormwater services on their utility bill. Those cities that do are most likely to have a population greater than 3,750 population or be located in the Metro, Southern Oregon, and Willamette Valley regions. This reflects federal requirements for certain municipalities (based on population) to obtain a Municipal Separate Storm Sewer System (MS4) permit. Phase 1 permits are required by the EPA for designated areas with a population greater than 100,000, and Phase II permits are required for those with a population less than 100,000 but located within a Census Bureau designated "urbanized area."

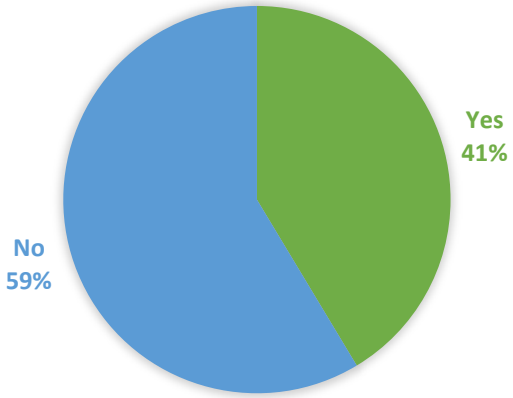


Figure 5: Is Stormwater Included in the Utility Bill?

Drinking Water Rates and Methods

Seventy-eight percent of respondent cities charge for drinking water services. On average, 2022 was the last year that water rates were changed. This indicates that rate changes occur nearly annually. as the 2021 survey found average changes in 2020. Nearly all regions and populations had made such adjustments in the last three years. Cities with a population less than 3,750 had lower median year alterations of 2020 and 2022, respectively. Among the 70 cities that responded to this question, all noted that the water rate adjustment was an increase. The amount of increase varied dramatically. On average, the increase was 10.7%, which is significantly higher than the 6% increase in 2021.

While many cities noted increases of less than 3%, 10 cities noted double digit increases. Nehalem had the highest rate increase of 58%. The LOC asked cities to describe the reason for these increases. Seventy-one percent of cities listed "inflation" as the reason for the increase in rates. Note that despite inflation being the primary reason for rate increases, many of these cities did not raise their rates to a level that would keep pace with inflation.

The Rate % Increase for Water Services	
Quintile	
1st Quintile	16.5%
2nd Quintile	14.8%
3rd Quintile	7.9%
4th Quintile	5.8%
5th Quintile	9.8%
TOTAL	10.7%
Region	
N. Coast	20.0%
Metro	13.6%
N. Willamette	6.1%
S. Willamette	5.7%
C. Coast	4.4%
S. Coast	9.0%
S. Oregon	9.7%
Gorge	3.0%
C. Oregon	NA
SC Oregon	8.2%
NE Oregon	4.2%
E. Oregon	29.3%
TOTAL	10.7%

Table 3: Rate Service Increases by Population and Region

Among the cities that responded, most utilize a drinking water rate structure that includes a base or flat rate (based on a certain quantity threshold of water use), with an additional rate based on additional water use beyond that threshold amount. This rate structure is commonly referred to as an inclining block rate structure. The LOC provided a hypothetical water service scenario in which a residential customer was billed for 5,000 gallons (6.684 CCFs) with a 3/4" meter size. Cities were asked to provide calculated amounts that would be charged based on their methods and rate. As water rates can vary based on quantity of water consumed and the meter size, this exercise was intended to provide for a more consistent mechanism to compare water rates. Table 6 shows the average across all cities at $52.81, an increase from the average in 2019 of $41.23 and from $44.17 in 2021. This means water rates charged on the same hypothetical water use increased by 28% in the last four years. Much of this dramatic increase appears to be in cities with a population less than 3,275.

For water services, what dollar amount would you bill them?		
Quintile		
1st Quintile	$	59.16
2nd Quintile	$	52.64
3rd Quintile	$	71.82
4th Quintile	$	50.20
5th Quintile	$	39.19
TOTAL	$	52.81
Region		
N. Coast	$	45.47
Metro	$	42.82
N. Willamette	$	53.53
S. Willamette	$	62.03
C. Coast	$	56.43
S. Coast	$	48.50
S. Oregon	$	74.58
Gorge	$	37.75
C. Oregon	NA	
SC Oregon	$	23.96
NE Oregon	$	44.83
E. Oregon	$	55.67
TOTAL	$	52.81

Table 4: For water services, what dollar amount would you bill them, including the base rate?

Wastewater Rates and Methods

Eighty-two percent of cities charge for wastewater services, consistent with the 2021 survey. This is more common in cities with a population of more than 1,250, as well as cities in the South Willamette region. It can be assumed that populations residing within cities that do not provide public/municipal wastewater service either depend on residential septic systems or are served by another municipality, such as a county or special service district.

On average, 2022 was the last year that wastewater rates were changed. Nearly all regions and populations had adjusted wastewater rates in the last five years. This indicates that drinking water rates may change far more frequently than wastewater rates. As was true for drinking water, all respondents noted an increase in wastewater rates. On average, the increase was 9.6%, a significant increase from the 6.6% increase found in 2021.

While many cities noted increases of less than 3%, many reported much higher increases. Six cities noted double digit increases. The LOC asked cities to describe the reason for these increases. Again, most increases are due to CPI and inflation adjustments. Five cities listed state and federal mandates as reasons for rate increases.

The Rate % Increase for Wastewater Services	
Quintile	
1st Quintile	16.5%
2nd Quintile	18.5%
3rd Quintile	10.0%
4th Quintile	4.2%
5th Quintile	8.1%
TOTAL	9.6%
Region	
N. Coast	6.2%
Metro	11.5%
N. Willamette	9.8%
S. Willamette	7.1%
C. Coast	4.4%
S. Coast	8.6%
S. Oregon	14.4%
Gorge	5.0%
C. Oregon	4.8%
SC Oregon	8.2%
NE Oregon	9.6%
E. Oregon	16.5%
TOTAL	9.6%

Table 5: Wastewater Rate Service Increases by Population and Region

Among the cities that responded, most charge for wastewater based on a base or flat rate with an additional rate for amount consumed afterward. The LOC provided a hypothetical water service scenario in which a residential customer was billed for 5,000 gallons (6.684 CCFs) with a 3/4" meter size, the same scenario as requested for drinking water. Table 6 shows the average across all cities at $68.87, which is nearly a $14 average increase from the 2021 answer ($55.15). This is a 34.7% increase since 2021 (average in 2021 was $51.14).

For wastewater services, what dollar amount would you bill them?	
Quintile	
1st Quintile	$37.00
2nd Quintile	$64.62
3rd Quintile	$107.11
4th Quintile	$67.30
5th Quintile	$55.29
TOTAL	$68.87
Region	
N. Coast	$67.85
Metro	$60.75
N. Willamette	$72.52
S. Willamette	$76.46
C. Coast	$75.52
S. Coast	$52.50
S. Oregon	$103.17
Gorge	$56.34
C. Oregon	$41.28
SC Oregon	$64.50
NE Oregon	$51.27
E. Oregon	$44.33
TOTAL	$68.87

Table 6: For wastewater services, what dollar amount would you bill them, including the base rate?

Stormwater Rates and Methods

Forty-one percent of cities charge for stormwater services, nearly identical to the 39 and 40% captured in the previous two surveys. These services are present almost exclusively in cities with a population greater than 3,250 and those in the Metro, and Valley regions. Again, this likely reflects those cities that are required by the EPA to have a Municipal Separate Storm Sewer System permit (commonly known as a MS4 permit).

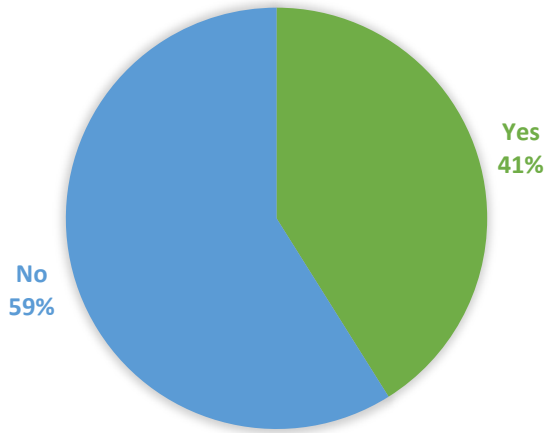


Figure 6: Does your City Charge for Stormwater Services?

Again, 2022 was the last year on average in which stormwater rates were changed. Nearly all regions and populations had made such adjustments in the last five years. All respondent cities noted that this adjustment was an increase. On average, the increase was 31% compared to the 2019 average of 13.6% and a 2021 average of 10.2%. This change was most significant in cities in the North Willamette and Southern Oregon regions, which saw an average increase of 53% and 54% respectively. However, this is likely skewed by three cities (Turner, Riddle, and Dundee) that reported 100% increases in their stormwater rates.

The Rate % Increase for Stormwater Services	
Quintile	
1st Quintile	NA
2nd Quintile	100.0%
3rd Quintile	100.0%
4th Quintile	16.3%
5th Quintile	14.7%
TOTAL	31.0%
Region	
N. Coast	16.7%
Metro	19.9%
N. Willamette	53.0%
S. Willamette	17.0%
C. Coast	5.8%
S. Coast	NA
S. Oregon	54.0%
Gorge	3.0%
C. Oregon	1.0%
SC Oregon	NA
NE Oregon	NA
E. Oregon	NA
TOTAL	31.0%

Table 7: Stormwater Rate Service Increases by Population and Region

Most respondent cities charge for stormwater as a separate utility fee on a dollar per month basis. Table 8 shows the average across all cities at $8.61, which is $0.33 higher than the previous survey's figure of $8.28.

For Stormwater services, what dollar amount would you bill them?	
Quintile	
1st Quintile	$5.00
2nd Quintile	$2.88
3rd Quintile	$4.75
4th Quintile	$6.24
5th Quintile	$13.24
TOTAL	$8.61
Region	
N. Coast	$10.90
Metro	$11.32
N. Willamette	$9.29
S. Willamette	$7.19
C. Coast	$7.59
S. Coast	NA
S. Oregon	$3.39
Gorge	$9.38
C. Oregon	$8.51
SC Oregon	NA
NE Oregon	NA
E. Oregon	NA
TOTAL	$8.61

Table 8: For stormwater services, what dollar amount would you bill them on a per month basis?

Service Population, Consumption, and Infrastructure

Cities provide water services to residents but may also provide service to individuals outside city limits. The average service population for respondent cities was proportional to the size of each city. While this is no shock, the more interesting insight is the proportion of customers receiving drinking water services outside of city limits. On average, the number of serviced residential accounts with drinking water outside of city limits was 31% of the number of accounts inside the city proper. Still, the proportion of accounts outside of city limits increases as city population increases. This may be a reflection of urbanization and population growth occurring within urban growth boundaries.

In terms of gallons, city residents (and outside city limits customers) consumed an average of 882 million gallons of drinking water in 2023, which is a significant increase from the average from respondents in 2021. This increase is potentially due to two factors. First, several large cities responding to this survey (Salem in particular) consume a truly massive volume of water annually. Secondly, there may have been confusion from cities in the past about whether this question is asking for average per household or average per year citywide. Table 9 shows that several regions are more likely to consume more water. Water consumption can be impacted by several factors, including water conservation efforts and plans, or aging infrastructure that may be subject to increased leakage.

What is the annual average water consumption for residential customers (in gallons)?	
Quintile	
1st Quintile	17,398,014
2nd Quintile	68,445,360
3rd Quintile	169,793,493
4th Quintile	136,866,815
5th Quintile	4,554,671,576
TOTAL	882,748,596
Region	
N. Coast	171,314,933
Metro	273,814,076
N. Willamette	2,056,783,709
S. Willamette	791,423,286
C. Coast	32,441,576
S. Coast	NA
S. Oregon	NA
Gorge	41,890,000
C. Oregon	NA
SC Oregon	NA
NE Oregon	87,553,333
E. Oregon	NA
TOTAL	882,748,596

Table 9: Average Annual Residential Consumption (Gallons)

This high demand and high consumption translate into an increased need for water infrastructure. The table below shows the average number of pumps and lift stations, zones and water levels, and the total miles of water pipe (not including laterals). Comparing regions is far less useful in this case as regional geographic differences influence city water infrastructure. However, there is an obvious trend in the water infrastructure by population. Each column in Table 10 shows that as a city grows, even with regional variation, infrastructure expands and becomes more complex.

City Infrastructure Averages				
	Drinking Water Pumps and Lift Stations	*Zones and Levels*	*Total Miles of Water Pipes*	*Total Miles of Sewer Lines*
Quintile				
1st Quintile	1.7	2.0	4.8	NA
2nd Quintile	2.3	1.3	8.4	6.6
3rd Quintile	10.0	2.0	13.0	8.3
4th Quintile	4.2	2.3	46.3	38.7
5th Quintile	14.4	8.0	213.0	246.9
TOTAL	7.5	4.1	97.1	95.2
Region				
N. Coast	3.8	2.4	52.4	58.5
Metro	18.0	9.7	122.4	122.6
N. Willamette	8.1	5.3	140.6	189.6
S. Willamette	5.3	1.3	70.2	54.1
C. Coast	4.5	3.0	50.5	47.2
S. Coast	NA	NA	NA	NA
S. Oregon	13.0	5.0	188.0	102.5
Gorge	0	5.0	83.0	60.0
C. Oregon	NA	NA	NA	157.0
SC Oregon	NA	NA	NA	NA
NE Oregon	7.0	1.0	3.7	31.1
E. Oregon	NA	NA	NA	NA
TOTAL	7.5	4.1	97.1	95.2

Table 10: Averages for City Water Infrastructure

On average, the last major update for city drinking water systems was in 2011. Most responding cities were within 10 years of this average. Despite recent updates, additional expansion may be needed for many cities. Respondent cities noted daily production would exceed the design of their water systems by 2040, which is consistent with the 2019 average of 2038. Wastewater systems, on average, are due to reach design capacity by 2033, which is significantly less time than the average forecast of 2038 from the 2021 survey. This is most likely to occur sooner in cities with a population less than 10,600. North Coast and North Willamette and Central Oregon regions will exceed capacity first (average 2023, 2029, and 2028, respectively).

Water Conservation, Management, and Reclamation

Eighty-six percent of cities have a water management and conservation plan (WMCP), which is an increase from 71% in 2019 and 83% in 2021. These plans can be adopted voluntarily but are often a required condition associated with state-issued water right permits. Cities with a WMCP tend to have a population greater than 3,250 and be in the Metro and Valley regions. Eighty-nine percent of respondents measure their water loss. This is also more likely to occur in the above stated quintiles and regions.

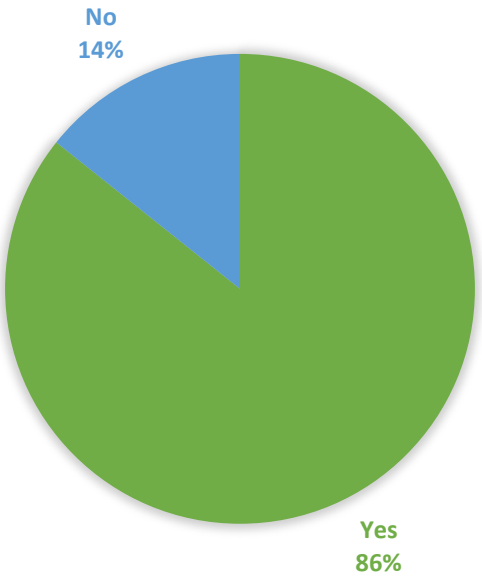


Figure 7: Does your city have an approved water conservation and management plan?

Forty-two percent of cities utilize or provide reclaimed water for irrigation on public or private property, which is consistent with results in previous surveys. This is most likely to occur in cities with a population greater than 1,350 as well as in the Metro, Willamette Valley, Central, Gorge, and Northeastern Oregon regions. On average, 22.9% of reclaimed water is reused and applied to these properties, which is also a decrease from 2021. Many cities with such a program noted that most of their water was reclaimed for city use. Farmlands and golf courses were the most common property for which the water was reused.

Fewer cities apply biosolids to public or private property. Twenty-nine percent have such a program for biosolids, and these cities are more likely to have a population greater than 10,600. Cities on average landfill 78.4% of biosolids.

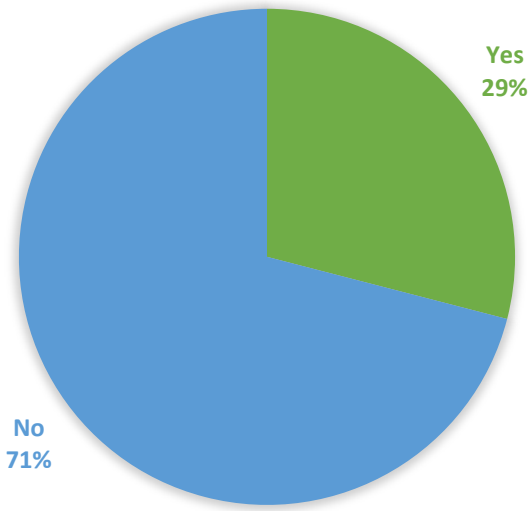


Figure 8: Does your city apply biosolids to public/ private property?

Appendix A: Invitation to Participate

The League needs your help – please complete this survey by Friday, October 15.

For over two decades, the LOC has sent members a water-rate survey every two years. This information is gathered and framed into a report that has been helpful to municipalities across Oregon. The data that is collected provides an excellent source of detail to better understand city drinking water and wastewater city rates.

Please take time to fill out the survey. It will be useful to you and other cities across Oregon. The target date for completion is this Friday at 5PM.

NOTE: Please submit all answers using the online form. Please use the attached PDF only for information and guidance.

Survey Link Below:

https://orcities.co1.qualtrics.com/jfe/form/SV_4HkpU6iFjzCU4nQ

Please don't hesitate to contact me if you have any questions regarding the survey at research@orcities.org or 503-588-6550.

Thank you in advance for taking the time to fill out this important survey.

Appendix B: Survey Instrument

Water Rates Survey 2023

Q1 **Water Rates Survey 2023**

***Note**: Unless otherwise stated, the following questions pertain to residential (non-commercial) water, wastewater, and stormwater rates.*

Q2 Respondent Information:

- City Name: (1) _____
- Your Name: (2) _____
- Your Job Title: (3) _____
- Your Email Address: (4) _____
- Your Phone Number: (5) _____

Q3 **UTILITY BILLING**

This section asks questions about city billing including rates and methods. All questions relate to residential utility billing.

Q4 How often are bills issued?

- Monthly (1)
- Bi-Monthly (2)
- Quarterly (3)
- Other (Please Specify) (4) _____

Q5 What methods of payment are accepted? (Check all that apply)

- ☐ Cash (1)
- ☐ Check (2)
- ☐ Credit/Debit (3)
- ☐ Money Order (4)
- ☐ Direct Deposit (5)
- ☐ e-check (6)

Q6 Do you provide paperless billing?

- ❍ Yes (1)
- ❍ No (2)

Q7 What methods of enforcement are used for late or nonpayments? (Check all that Apply)

- ☐ Late Fee (1)
- ☐ Late Fee and Interest (2)
- ☐ Disconnect Water Service (3)
- ☐ Collections (4)
- ☐ Lien on Property (5)
- ☐ Other (Please Specify) (6) _____

Display This Question:
If What methods of enforcement are used for late or nonpayments? (Check all that Apply) = Late Fee
Or What methods of enforcement are used for late or nonpayments? (Check all that Apply) = Late Fee and Interest

Q8 What is the late fee rate?

_____

Display This Question:
If What methods of enforcement are used for late or nonpayments? (Check all that Apply) = Late Fee and Interest

Q9 What is the interest rate?

_____

Display This Question:
If What methods of enforcement are used for late or nonpayments? (Check all that Apply) = Late Fee

Q10 How many days past due date are allowed before the late fee is assessed?

_____

Display This Question:
If What methods of enforcement are used for late or nonpayments? (Check all that Apply) = Late Fee and Interest

Q11 What is the penalties amount and interest rate?

- Penalties Amount (1) _____
- Interest Rate (2) _____

Display This Question:
If What methods of enforcement are used for late or nonpayments? (Check all that Apply) = Disconnect Water Service

Q12 How many days after due date before you disconnect water service?

_____

Display This Question:
If What methods of enforcement are used for late or nonpayments? (Check all that Apply) = Collections

Q13 What dollar amount or number of days late triggers collections?

- Dollar Amount (1) _____
- Days (2) _____

Q14 Does the city provide waivers, discounts or reductions to certain utility customers?

- ❍ Yes (1)
- ❍ No (2)

Display This Question:
If Does the city provide waivers, discounts or reductions to certain utility customers? = Yes

Q15 Please describe these waivers, discounts and reductions:

_____
_____
_____
_____
_____

Q16 Does your city provide credit or make any billing adjustments for leaks or billing errors?

- ❍ Yes, water leaks (1)
- ❍ Yes, billing errors (2)
- ❍ Yes, both (3)
- ❍ No (4)

Display This Question:
If Does your city provide credit or make any billing adjustments for leaks or billing errors? = Yes, water leaks
Or Does your city provide credit or make any billing adjustments for leaks or billing errors? = Yes, both

Q17 For what services are adjustments made for customer water leaks

- ☐ Water (1)
- ☐ Wastewater (2)

Q18 If a leak is detected, how far back does the city make adjustments to the water bill?

- ❍ Days (1) _____
- ❍ Other Comments (2) _____

Display This Question:
If For what services are adjustments made for customer water leaks = Wastewater

Q19 Please describe what you do for wastewater adjustments.

_____
_____
_____
_____
_____

Q20 Please email copies of your city **Water/Wastewater Shutoff Policy** and the city **Water Rate Schedule** to research@orcities.org.

Q21 **RATES & CHARGES**

This section asks questions about debt services, asset management, and types of rates charged for water, wastewater, and stormwater.

Q22 What percentage of rate revenue is obligated to debt services for the following systems?

	Rate Revenue	Not Applicable
	% (1)	N/A (1)
Water (1)		☐
Wastewater (2)		☐
Stormwater (3)		☐

Q23 Does your city maintain an asset management system for the following services?

	Yes (1)	No (2)	N/A (3)
Water (1)	❍	❍	❍
Wastewater (2)	❍	❍	❍
Stormwater (3)	❍	❍	❍

Q24 What was the last year you did a Rate Study for the following services?

- ❍ Water (1) _____
- ❍ Wastewater (2) _____
- ❍ Stormwater (3) _____

Q25 What was the last year you did a Methodology Update for the following services?

- ❍ Water (1) _____
- ❍ Wastewater (2) _____
- ❍ Stormwater (3) _____

Q26 Does your city require accounts to be in the name of the property owner?

- ❍ Yes (1)
- ❍ No (2)

Q27 How does your city handle billing for vacant properties?

- ❍ Close accounts with no charges until opened by next occupant (1)
- ❍ Our city does not handle billing for vacant properties (5)
- ❍ Charge a vacant rate upon request of the owner. (Please Explain) (2)
  _____
- ❍ Other (Please Specify) (4) _____

Q28 What other account fees or charges are included on the utility bill? (Check all that apply)

- ☐ Backflow (1)
- ☐ New Account (2)
- ☐ Shutoff (3)
- ☐ Tampering (4)
- ☐ None (5)
- ☐ Other (Please Specify) (6) _____

Q29 Is stormwater included in the utility bill?

- ❍ Yes (1)
- ❍ No (2)
- ❍ Unsure (3)

Q30 What general government fees are included on the utility bill? (Check all that apply)

- ☐ Streets & Streetlights (1)
- ☐ Parks & Recreation (2)
- ☐ Police (3)
- ☐ Fire (7)
- ☐ Library (4)
- ☐ Surface Water Management (8)
- ☐ Other (Please Specify) (6) _____

Q31 Does city ordinance have an automatic CPI/Income adjustment for the following services?

	Yes (1)	No (2)	N/A (3)
Water (4)	❍	❍	❍
Wastewater (5)	❍	❍	❍
Stormwater (6)	❍	❍	❍

Q32 Does your city charge for drinking water service?

- ❍ Yes (1)
- ❍ No (2)

Skip To: End of Block If Does your city charge for drinking water service? = No

Q33 What was the last effective date of your city's most recent rate change for water services? (Please respond with the year only)

_____

Q34 Overall, did the rate increase or decrease at the most recent rate change? Please also include the percent (%) change.

- ❍ Increase (% Increase) (1) _____
- ❍ Decrease (% Decrease) (2) _____

Q35 Why did the city change water rates? (Check all that apply)

- ☐ State/ Federal Mandate (1)
- ☐ Inflation/ CPI (2)
- ☐ Treatment Costs (3)
- ☐ Labor Costs (4)
- ☐ Capital Improvement (5)
- ☐ Unknown (6)
- ☐ Other (Please Specify) (7) _____

Q36 What is the rate structure for your city's water service?

- ❍ Flat Rate (Monthly Lump Sum) (1)
- ❍ Uniform Rate (Monthly Rate based on Number of Gallons Used) (5)
- ❍ Inclining Block Rate (2)
- ❍ Flat + Inclining Rate (6)
- ❍ Declining Block Rate (3)
- ❍ Flat + Declining Rate (7)
- ❍ Other (Please Specify) (4) _____

Q37 For water services, if you were to bill a residential customer for 5,000 gallons (6.684 CCFs) with a 3/4" meter size, what dollar amount would you bill them, including the base rate?

_____

Q38 Does your city charge for wastewater service?

- ❍ Yes (1)
- ❍ No (2)

Skip To: End of Block If Does your city charge for wastewater service? = No

Q39 What was the last effective date of your city's most recent rate change for wastewater services? (Please respond with the year only)

_____

Q40 Overall, did the rate increase or decrease at the most recent rate change? Please include percent (%) change.

- ❍ Increase (% Increase) (1) _____
- ❍ Decrease (% Decrease) (2) _____

Q41 Why did the city change wastewater rates? (Check all that apply)

- ☐ State/ Federal Mandate (1)
- ☐ Inflation/ CPI (2)
- ☐ Treatment Costs (3)
- ☐ Labor Costs (4)
- ☐ Capital Improvement (5)
- ☐ Unknown (6)
- ☐ Other (Please Specify) (7) _____

Q42 What is the rate structure for your city's wastewater service?

- ❍ Flat Rate (1)
- ❍ Winter average water consumption used in summer months (2)
- ❍ Winter average water consumption used all year (3)
- ❍ Other (Please Specify) (4) _____

Q43 For wastewater services, if you were to bill a residential customer for 5,000 gallons (6.684 CCFs) with a 3/4" meter size, what dollar amount would you bill them, including the base rate?

_____

Q44 Does your city charge for stormwater service?

- ❍ Yes (1)
- ❍ No (2)

Skip To: End of Block If Does your city charge for stormwater service? = No

Q45 What was the last effective date of your city's most recent rate change for stormwater services? (Please respond with the year only)

_____

Q46 Overall, did the rate increase or decrease at the most recent rate change? Please include the percent (%) change.

- Increase (% Increase) (1) _____
- Decrease (% Decrease) (2) _____

Q47 Is your city subject to an MS4 Phase I or Phase II (DEQ Issued Stormwater) Permit?

- Yes (1)
- No (2)
- Unsure (3)

Q48 Why did the city change stormwater rates? (Check all that apply)

- State/ Federal Mandate (1)
- Inflation/ CPI (2)
- Treatment Costs (3)
- Labor Costs (4)
- Capital Improvement (5)
- Unknown (6)
- Other (Please Specify) (7) _____

Q49 What is the rate structure for your city's stormwater service?

- ❍ Stormwater fees are included in wastewater rates (1)
- ❍ Stormwater fees are a separate utility fee (2)
- ❍ Stormwater fees are paid to a joint district within the county (3)
- ❍ Other (Please Specify) (5) _____

Q50 Does your city offer stormwater fee reductions or credits for onsite stormwater management?

- ❍ Yes (1)
- ❍ No (2)

Display This Question:
If Does your city offer stormwater fee reductions or credits for onsite stormwater management? = Yes

Q51 Please describe the reduction or credit (including the amount for onsite stormwater management)

_____
_____
_____
_____
_____

Q52 What does the average house pay for stormwater services (dollars per month)?

_____

Q53 **DRINKING WATER SERVICES**

This section asks questions about water services characteristics such as connections, facilities, water sources, system age and condition, conservation, water loss, and metering.

Q54 Does your city provide drinking water services?

- ❍ Yes (1)
- ❍ No (2)

Skip To: End of Block If Does your city provide drinking water services? = No

Q55 What is the service population in 2022?

	Inside City Limits (1)	Outside City Limits (2)
Service Population (Permanent Residents) (1)		
Service Population (Including Peak Seasonal) (2)		

Q56 Please list the number of connections for the following:

	Inside City Limits (1)	Outside City Limits (2)
Residential (1)		
Commercial (2)		
Other (3)		

Q57 What is the annual average water consumption for residential customers (in gallons)?

_____

Q58 Please provide the following facility and water source information:

- Total miles of water lines (all sizes), not including service laterals (1)

_____

- Total number of pumps and lift stations in your city (2)

_____

- How many levels or zones based on elevation do you have? (3)

_____

- How far away is the water source from the city (miles)? (4)

_____

Q59 Please provide the following system age and capacity information:

- Year of original system construction completion (1)

_____

- Year of last major update (2) _____
- What is the capacity of your water source? (3) _____
- What is the design capacity of your water plant(s) (MGD)? (4)

_____

- What was the average daily production in 2022 (MG)? (5)

_____

- How much of your daily average production is sold (not including city use)? (6)

_____

- What was the peak flow of water treated in a 24-hour period in 2022? (7)

_____

Q60 Please list the amount of raw and treated water storage you have for the different types of applicable storage:

	Raw Water Storage (MG) (1)	Treated Water Storage (MG) (2)
Closed Tanks (1)		
Covered Urban Reservoirs (2)		
ASR Reservoir (3)		
Other (Please Specify) (4)		

Q61 In what year will your daily production exceed design capacity?

_____

Q62 Does your city have an approved water conservation and management plan?

- ❍ Yes (1)
- ❍ No (2)

Q63 Do you measure water loss?

- ❍ Yes (1)
- ❍ No (2)

Q64 What method is used to determine water loss in the system?

- IWA/AWWA water loss methodology (2)
- Comparison of productions meters and customer metered volumes (3)
- Other (Please Specify) (4) _____
- Unsure (5)

Q65 What percentage of the system does each type of meter represent?

- Radio (%) (1) _____
- Touch (%) (2) _____
- Manual Read (%) (3) _____

Q66 Do you have any additional comments on water services?

_____
_____
_____
_____
_____

Q67 **WASTEWATER SERVICES**

This section asks questions about water services characteristics such as connections, facilities, treatment, system age and condition, and city wastewater programs.

Q68 Does your city provide wastewater services?

- Yes (1)
- No (2)

Skip To: End of Block If Does your city provide wastewater services? = No

Q69 What is the service population in 2020?

	Inside City Limits (1)	Outside City Limits (2)
Service Population (Permanent Residents) (1)		
Service Population (Including Peak Seasonal) (2)		

Q70 Please list the number of connections for the following:

	Inside City Limits (1)	Outside City Limits (2)
Residential (1)		
Commercial (2)		
Other (3)		

Q71 What is the annual average wastewater base (volume) for a residential customer (x1000 gal. or 1.337 CCFs)?

_____

Q72 Please provide the following facility, lines, and treatment information:

- Total miles of sewer lines (all sizes), not including service laterals (1)

_____

- Total number of pumps and lift stations in your city (2)

_____

- Total number of treatment plants (3) _____
- What percent of city wastewater lines also serve stormwater (i.e. combined sewer)? (4)

_____

Q73 What level of wastewater treatment is provided to city wastewater (Check all that apply)?

- ☐ Primary (1)
- ☐ Secondary (2)
- ☐ Advanced Treatment/ Tertiary (3)
- ☐ Nitrogen Removal (4)
- ☐ Phosphorous Removal (5)
- ☐ Other (Please Specify) (6) _____

Q74 Please provide the following system age and capacity information:

- Year of original plant construction completion (1) _____
- Year of last major plant update (2) _____
- What is the design capacity of your treatment plant(s) in dry weather (MGD)? (3)

_____

- What is the design capacity of your treatment plant(s) in peak wet weather (MGD)? (4)

_____

- What is the total amount of wastewater treated in 2022 (MG)? (5)

_____

- What was the peak wet weather flow in 2022 (MGD)? (6)

_____

- What was the peak dry weather flow in 2022 (MGD)? (7)

_____

Q75 At what percent (%) capacity is the entire wastewater system operating?

_____

Q76 In what year will the wastewater system be at maximum capacity?

_____

Q77 In what year will your daily production exceed design capacity?

_____

Q78 Does your city administer an industrial wastewater pre-treatment program?

- Yes (1)
- No (2)

Q79 Does your city apply or provide reclaimed water to public/private property?

- Yes (1)
- No (2)

Q80 What percentage (%) of total reclaimed water is reused/applied?

_____

Display This Question:
If Does your city apply or provide reclaimed water to public/private property? = Yes

Q81 Where does this reuse and application occur (i.e. city park, private golf course, industrial cooling tower, etc.)?

_____
_____
_____
_____
_____

Q82 Does your city apply biosolids to public/ private property?

- ❍ Yes (1)
- ❍ No (2)

Display This Question:
If Does your city apply biosolids to public/ private property? = Yes

Q83 Where does this biosolid application occur (i.e. city park, private golf course, etc.)?

_____
_____
_____
_____
_____

Q84 Does your city landfill biosolids?

- ❍ Yes (1)
- ❍ No (2)

Display This Question:
If Does your city landfill biosolids? = Yes

Q85 What percentage (%) of biosolids are landfilled?

_____

Q86 Do you have any additional comments on wastewater services?

_____
_____
_____
_____
_____

Q87 **STORMWATER SERVICES**

This section asks questions about water services characteristics such as number of customers, piped system, open channel, etc.

Q88 Does your city provide stormwater services?

- ❍ Yes (1)
- ❍ No (2)

Skip To: End of Block If Does your city provide stormwater services? = No

Q89 Please list the number of accounts for the following:

	Inside City Limits (1)	Outside City Limits (2)
Residential (1)		
Commercial (2)		
Other (3)		

Q90 Please provide the following facility and water source information:

- ❍ Total miles of piped system (1) _____
- ❍ Total miles of open channels, ditches, and swales (2) _____

Q91 What is the average Equivalent Dwelling Unit (EDU) for residential in square feet?

_____

Q92 Do you have any additional comments on stormwater services?

_____

_____

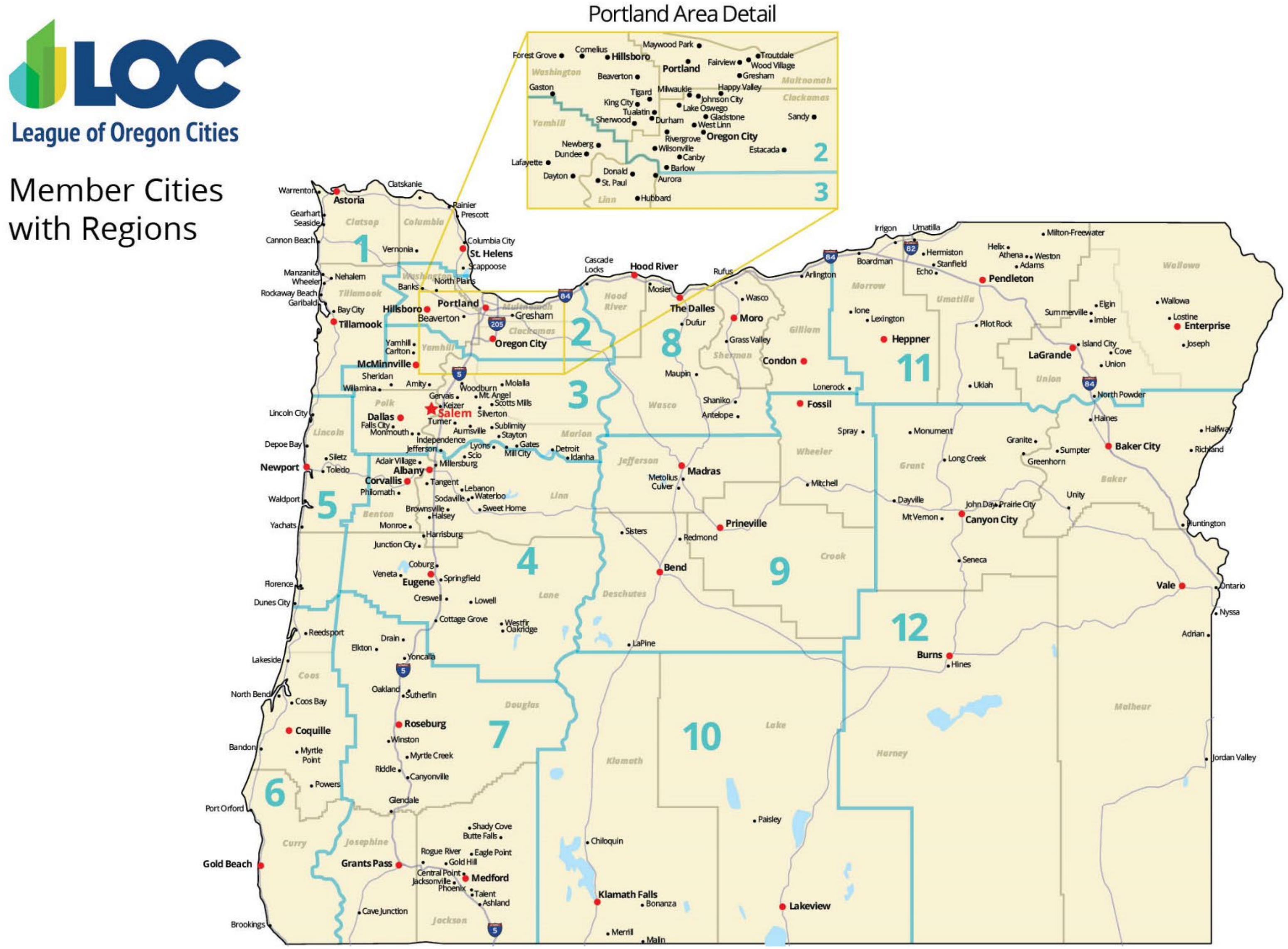
_____
_____
_____

Q93
Thank You for participating in this survey.

Do you have any additional comments on any topic in this survey?

_____
_____
_____
_____
_____

Appendix C: Map of LOC Regions



Appendix D: Population Quintile and Regional Breakdowns

Quintile	Ranges	# Cities	% Cities
1st Quintile	<500	48	19.8%
2nd Quintile	501-1350	48	19.8%
3rd Quintile	1351-3275	48	19.8%
4th Quintile	3276-10650	48	19.8%
5th Quintile	>10650	49	20.2%
Small Cities	<5000	161	66.5%
Top 5 %	>45000	12	5.0%

	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12	
	N. Coast	Metro	N. Willamette	S. Willamette	C. Coast	S. Coast	S. Oregon	Gorge	C. Oregon	SC Oregon	NE Oregon	E. Oregon	TOTALS
1st Quintile	3	1	4	3	0	0	2	9	3	2	8	13	48
2nd Quintile	2	4	5	7	2	2	5	3	1	3	10	4	48
3rd Quintile	8	2	9	4	3	3	6	1	2	1	5	4	48
4th Quintile	5	5	10	6	3	5	6	1	2	0	3	2	48
5th Quintile	1	19	7	6	1	1	5	1	3	1	3	1	49
TOTALS	19	31	35	26	9	11	24	15	11	7	29	24	241
	8%	13%	15%	11%	4%	5%	10%	6%	5%	3%	12%	10%	100%