



Orem Sewer Base Rate

Public Works Advisory Commission

- The PWAC is staffed by a group of diverse and well-respected professionals and community representatives.
- Tai Riser, Chairman – Financial Adviser and CEO
- K.C. Shaw, Vice Chairman – Central Utah Water Conservancy District Professional Engineer
- Stan Roberts – Provo River Commissioner and Professional Engineer
- Luke Peterson – Utah Valley University Professor
- Carol Walker – Clear Horizons
- Bill Peperone – Provo City Planner
- Val Hale – Director of the Governor's Office of Economic Development

Implementation Plan

- December 2014 – Presented concept to CC.
- February 2015 – Hired a GIS professional to identify all non-residential and residential units within the City.
- August 2015 – Completed study.
- September 2015 – Presented study to PWAC.
- October 2015 – Presented study to CC in work session.
- December 2015 – Sent notification to public.
- December 8, 2015 – Public Hearing at CC.
- December 15, 2015 – Discussed with PWAC with CC.
- January 2015 – Sent additional notification to public.
- January 12, 2016 – Present to CC for adoption.
- July 1, 2016 – Implement new billing policy.

EQUAL RESIDENTIAL SEWER BASE RATES FOR ALL



Current Sewer Base Rate Philosophy



12-unit Apartment Complex
\$ 9.32

4-Plex
\$ 9.32

Single Family Home
\$ 9.32

Proposed Sewer Base Rate Philosophy



12-unit Apartment Complex
\$ 9.32 x 12 units
= \$111.84 per month

4-Plex
\$ 9.32 x 4 units
= \$37.28 per month

Single Family Home
\$ 9.32
(No Change)

What is the Sewer Base Rate?

The sewer base rate is the monthly charge for the availability of a public sewer system. The amount is billed each month, whether the services are used or not. The ability to discharge to the public sewer system is the basis for the fixed monthly base rate. Those with the potential to discharge more will pay more. Revenues collected from the fee are used to maintain, operate, and replace the sewer system. Presently, the sewer base rate is \$9.32 per month.

Why Change the Sewer Base Rate Structure?

EQUALITY

Properties with more living units require larger pipe sizes and more treatment plant capacity. It is not fair that an apartment, condo, or mobile home complex with multiple living units pays the same base rate as a single-family home.

NEEDED IMPROVEMENTS

Changing the base rate billing method will generate additional revenue. This money will be used to replace aged infrastructure such as treatment plant equipment and pipes and will help keep future rate increases for all users as low as possible. Paying for it this way will spread the costs of those needed improvements and maintenance to the users more equitably.

When will this Change take Effect?

If the City Council approves these changes on December 8, 2015, the new sewer base rate billing method will take effect July 1, 2016.

Find out more by visiting utilities.orem.org



EQUAL NON-RESIDENTIAL SEWER BASE RATES FOR ALL

Current Sewer Base Rate Philosophy



Large Industrial Business with 4-inch meter
\$ 9.32

Mid-sized business with 1.5-inch meter
\$ 9.32

Small business with 3/4-inch meter
\$ 9.32

Proposed Sewer Base Rate Philosophy



Large Industrial Business with 4-inch meter
\$ 9.32 x 20.00
AWWA Multiplier
= \$186.40 per month

Mid-sized business with 1.5-inch meter
\$ 9.32 x 3.33
AWWA Multiplier
= \$31.03 per month

Small business with 3/4-inch meter
\$ 9.32
(No Change)

What is the AWWA (American Water Works Association) Multiplier?

The AWWA multiplier is a calculation that represents the quantity of water that can pass through a water meter as a relationship to each other. As shown in the example above, a 1.5-inch meter can pass 3.33 times more water than a 3/4-inch meter. Likewise a 4-inch meter can pass 20 times more water than a 3/4-inch meter.

What is the logic behind the multiplier?

The size of the meter servicing a commercial property has a direct impact on the needed infrastructure and capacity that the City is required to have in place to meet the needs of non-residential properties during peak times. For example, the amount of infrastructure needed to service a City would be different if all properties used a 3/4" meter versus a 10" meter. The multiplier attempts to distribute the costs of operating the system fairly.

Why Change the Non-Residential Sewer Base Rate Structure?

Currently, the users of a small office building and a large industrial building pay the same base rate, even though the industrial building requires more infrastructure. This change creates equity in the charge so that those requiring more infrastructure pay their proportional share.

PUBLIC HEARING | December 8, 2015 - 6pm
City Council Chambers



COMMUNITY NEWS & INFORMATION
54 NORTH STATE STREET
OREM, UT 84057

OREM RESIDENT
84057
84058
84097

PRSR1 STD
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ECRWSS

Original Outreach (December)

- 10,100 emails to utility account holders
- Businesses Email: **63%** of **995** email addresses opened their email at least once.
- Multi-Family Email: **55%** of **806** email addresses opened their email at least once.
- Businesses Robocall: **92%** of **2,262** phone calls either answered the phone or had a message left.
- Multi-Family Robocall: **80%** of **1,199** phone calls either answered the phone or had a message left.
- Personal phone calls received staff.

Additional Outreach (January)

- Mailed to all valid commercial and multi-family owner addresses (arrived week of January 4).
- **3,010** total mailings, **737** of which were to addresses outside of Orem.
- Emailed **806** commercial and multi-family accounts as a reminder (January 11).
- This is additional outreach to previous efforts.

EQUAL RESIDENTIAL SEWER BASE RATES FOR ALL



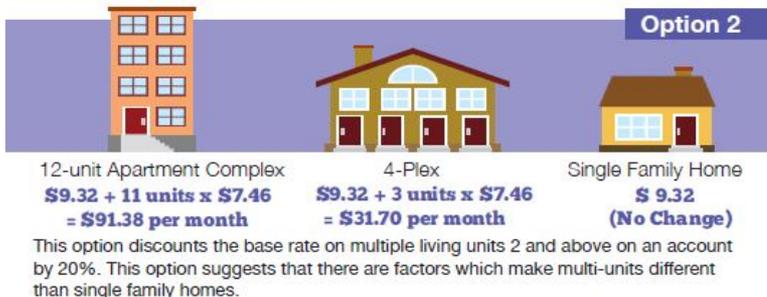
Why is the City Council Considering a Change?

A third-party engineering firm completed a master plan of Orem's sewer system and identified significant capital needs in the coming years that currently aren't funded through existing revenue. Before raising usage rates, the City Council is looking to address inequities in the rate system.

Currently, the Orem sewer base rate charge is \$9.32 per utility account regardless of how many living units are under a single account.

The City Council is considering all options. Below are two examples of potential plans.

While the public hearing for this issue has already taken place, additional public comments can be submitted through utilities.orem.org. The City Council will review all comments before the meeting on Jan 12.



City Council Decision Update

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PERMIT NO. 8
ECRVWS5

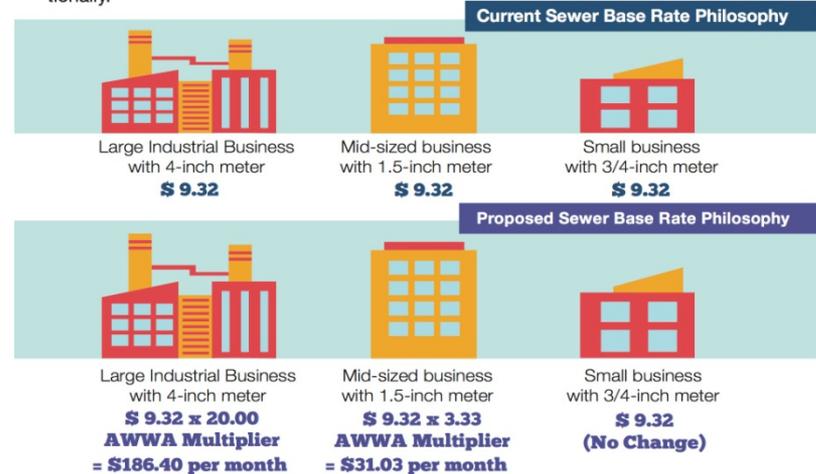
- On December 8th the City Council met to discuss a proposed change to how the sewer base rate is applied to different types of buildings in the City.
- After gathering feedback from the community, the City Council decided to continue studying the issue and to explore other options.
- Possible options are laid out on the reverse side of this mailer. "Option 1" is the original proposal that was discussed by the City Council on Dec. 8th. "Option 2" is an option used in other communities.



JANUARY
Tuesday
12

The City Council will resume discussion of this topic at the City Council meeting on **January 12, 2016 at 6 p.m. in the City Council Chambers.**

The Dec. 8th proposal for non-residential accounts is not changing, but is reproduced here for your information. The AWWA multiplier is based on meter size and charges facilities with larger meters more as a method of distributing fixed costs more proportionally.



let the city council know how you feel about this issue by visiting

UTILITIES.OREM.ORG

Sewer Rate Principles

- Sewer rates should be designed to follow the principles outlined in the design cost-causative (cost of service) procedures recommended by the Water Pollution Control Federation, American Society of Civil Engineers, and American Public Works Association.
- Sewer costs are recovered from individual customers based on their impact on various system cost of service factors (e.g. wastewater volume, strength, use of system capacity, and customer-related costs).
- Monthly base rates are used to collect costs associated with factors that are fixed (e.g. sewer infrastructure capacity, customer-related costs, etc.).

Sewer Rate Principles

- The vast majority of the fixed costs are associated with the use of sewer infrastructure capacity, which include the cost of maintaining the infrastructure and manpower necessary to provide capacity in the system for potential flows.
- Distribution of capacity costs should be based on the potential of wastewater flow from each customer and those with similar potential should pay similarly.
- Cost of service analyses are performed to equitably recover costs from customers.
- *“If someone challenges a City service fee, such as the sewer fee, the ultimate question is whether the fee is reasonable. Courts do not require the fee structure to be the best or optimal solution, but only that it is reasonable.”* - Greg Stephens, Orem City Attorney

1998 Water and Sewer Rate Study

- *“Cost of allocation provides the basis for recovering revenues from classes of customers...according to the demand the they place on the utility.”*
- Costs are allocated to functional categories (e.g. operating, maintenance, capital, and administrative expenses).
- Costs are distributed to customer classes for water (meter sizes) **but not sewer.**
- Functional categories for water included customer service, customer account, direct fire protection, base capacity, and peak capacity.
- Functional categories for sewer included customer service, customer account, and volume—**no discussion of base capacity or peak capacity.**

Peak Capacity

- Do other public and private utilities design their infrastructure for peak events? YES!
- Examples: Rocky Mountain Power, Questar Gas, Central Utah Water Conservancy District, Water Utilities, Wastewater Utilities, Communications Utilities, etc.
- Sewer systems are not designed to accommodate average daily flow but peak flows.

1998 Water and Sewer Rate Study

- Why separate water users into different classes and not separate sewer users into different classes?
- Why give consideration for water “with providing system capacity to meet varying levels of usage in excess of average day demand such as irrigation.” but not consider “peak” in sewer?
- This was the City’s decision NOT the recommendation from the consultant.
- This calculation did not consider peak but rather monthly volumes in sewer conveyance and maintenance.
- “ $\frac{3}{4}$ ” meter customers pay substantially more than allocated costs, while cost are under-recovered from most larger meter size customers.” pg. 15

Utah Apartment Association Email

Steven –

I'm assuming this is sewer (it doesn't say). Or sewer and water.

Some of my members forwarded this to us and asked us to get involved. The UAA position on these issues is that sewer charges should be by appliance (how many showers, toilets, etc) or flow. Unfortunately most systems aren't set up to measure either.

This write up says single family may be subsidizing multifamily but it's the other way around – apartments usually pay a disproportionate amount because the residents have smaller family size and use so much less than single family homes do. In addition, big complexes maintain all the pipes on property and only tie in to the main line in a couple of places. For instances, a 300 unit complex may tie in two places, where 300 homes tie in 300 places, requiring lots more maintenance and service than we do.

However, we would not oppose this change for three reasons. 1 – except in subsidized housing, these fees are generally passed on to the tenant. 2 – landlords aren't a sympathetic group and no one listens to the minority in these issues anyway. 3 – Most systems already impose charges strictly per unit and don't have base fees like Orem does. So you are currently an anomaly. **Your new system would be like what everyone else already does.**

So feel free to tell the council while the industry disagrees on the argument that multifamily units use a disproportionate share of the sewer system (we think it can be proven to be opposite), and we think that the maintenance costs are much lower, the UAA isn't going to oppose this change because these fees eventually get passed on to the tenant anyway.

If its water, same argument – charging by usage not base rates is fairest.

We want to be a partner with Orem, not an adversary.

Thanks. See you in January.

Utah Apartment Association Email Response

- The City does not maintain the sewer laterals (including the connection to the main). The “2 vs. 300” connection analogy does not apply here.
- Sewer mains are designed for “**peak flow**”. 300 multi-family units (apartments, condos, duplexes, four-plexes, and 300 single-family units would see a similar “peak flow” demand on the system (both conveyance and treatment). It is agreed that the average daily demand may be lower, but that is where the volume charge will equalize the different user types.
- The average household in Orem is 3.7 persons/unit. Both single-family homes and multi-family units have the potential to be above or below the average.
- Orem is the anomaly when it comes to applying base rates.

How do other cities bill? (Original)

City	Base Rate	Accounts	Living Units	Monthly Sewer Base Rate Bill	Monthly Difference (Current)	Monthly Difference (Proposed)
Orem (Current)	\$9.32	10	196	\$93.20	\$0.00	-\$1,733.52
Orem (Proposed)	\$9.32	10	196	\$1,826.72	\$1,733.52	\$0.00
Payson	\$32.39	10	196	\$6,348.44	\$6,255.24	\$4,521.72
Santaquinn (Incorporated)	\$37.44	10	196	\$7,338.24	\$7,245.04	\$5,511.52
Santaquinn (Unincorporated)	\$74.88	10	196	\$14,676.48	\$14,583.28	\$12,849.76
American Fork	\$35.35	10	196	\$6,928.60	\$6,835.40	\$5,101.88
Provo	\$7.31	10	196	\$73.10	-\$20.10	-\$1,753.62
Pleasant Grove	\$24.14	10	196	\$4,731.44	\$4,638.24	\$2,904.72
Lindon	\$16.97	10	196	\$3,326.12	\$3,232.92	\$1,499.40
Springville	\$19.93	10	196	\$3,906.28	\$3,813.08	\$2,079.56
Spanish Fork	\$16.59	10	196	\$3,251.64	\$3,158.44	\$1,424.92
St. George	\$10.68	10	196	\$2,093.28	\$2,000.08	\$266.56

How do other cities bill?

City	Base Rate	Accounts	Living Units	Monthly Sewer Base Rate Bill	Sewer Volume Unit Rate	Monthly Volume Charge	Total Monthly Sewer	Monthly Difference (Current)	Monthly Difference (Proposed)
Orem (Current)	\$9.32	10	196	\$93.20	\$1.42	\$1,196.78	\$1,289.98	\$0.00	-\$1,733.52
Orem (Proposed)	\$9.32	10	196	\$1,826.72	\$1.42	\$1,196.78	\$3,023.50	\$1,733.52	\$0.00
Payson	\$32.39	10	196	\$6,348.44	\$1.09	\$918.65	\$7,267.09	\$5,977.12	\$4,243.60
Santaquinn (Incorporated)	\$37.44	10	196	\$7,338.24	\$0.75	\$632.10	\$7,970.34	\$6,680.36	\$4,946.84
Santaquinn (Unincorporated)	\$74.88	10	196	\$14,676.48	\$0.75	\$632.10	\$15,308.58	\$14,018.60	\$12,285.08
American Fork	\$35.35	10	196	\$6,928.60	\$1.40	\$1,179.92	\$8,108.52	\$6,818.54	\$5,085.02
Provo	\$7.31	10	196	\$73.10	\$2.00	\$1,685.60	\$1,758.70	\$468.72	-\$1,264.80
Pleasant Grove	\$24.14	10	196	\$4,731.44	\$2.26	\$1,904.73	\$6,636.17	\$5,346.19	\$3,612.67
Lindon	\$16.97	10	196	\$3,326.12	\$3.17	\$2,671.68	\$5,997.80	\$4,707.82	\$2,974.30
Springville	\$19.93	10	196	\$3,906.28	\$1.32	\$1,112.50	\$5,018.78	\$3,728.80	\$1,995.28
Spanish Fork	\$16.59	10	196	\$3,251.64	\$1.52	\$1,281.06	\$4,532.70	\$3,242.72	\$1,509.20
St. George	\$10.68	10	196	\$2,093.28	\$0.00	\$0.00	\$2,093.28	\$803.30	-\$930.22

* A monthly volume of 4.3K gallons for each unit

How do other cities bill?

City	Monthly Difference (Proposed)
Orem (Current)	-\$1,733.52
Orem (Proposed)	\$0.00
Payson	\$4,243.60
Santaquinn (Incorporated)	\$4,946.84
Santaquinn (Unincorporated)	\$12,285.08
American Fork	\$5,085.02
Provo	-\$1,264.80
Pleasant Grove	\$3,612.67
Lindon	\$2,974.30
Springville	\$1,995.28
Spanish Fork	\$1,509.20
St. George	-\$930.22

The values in black represent how much MORE the complex would pay compared to Orem's PROPOSED method. These values include the base rate and the volume charge.

Water Reclamation Fund - Rates

- The underlying principle is to support the ongoing operations of everyday conveyance and treatment to meet the standards set forth in our State of Utah (under the direction of the EPA) discharge permit and a responsible replacement program.
- Although the AWWA multipliers are established and used, multipliers can be modified and set by the council as they see fit.
- Different cities, entities, and districts have all chosen different methods and means to fund the operations with different and unique billing multipliers and proportions to base charge and volume charge.
- “Fairness” – Tom Macdonald

Arguments Against

1. The City doesn't bill each unit. The landlord has to collect.
2. The City doesn't have billing cost for the units and doesn't read meters for each unit.
3. The billing should be mostly based on volume.
4. The distance between units isn't 80' or 100'.
5. Some meters are sized for landscaping, fire flow, or other needs.

Options

1. Apply water meter multiplier across every account, regardless of residential or non-residential.
2. Apply a reduction factor (%) or value (\$) for all multi-family dwellings.
3. Charge 100% of sewer base rate for every residential living unit as originally proposed.
4. No volume charge.
5. All volume charge.
6. Base fee includes some volume charge.

Option Pros and Cons

1. Some 1" meters may serve a 4-plex or a 10-plex.
2. Remove the administration costs for billing.
3. As originally proposed. 1 unit = 1 base rate. Simple and logical. Volume equalizes.
4. Does not reward or incentivize for conservation.
5. Does not account for peaking capacity.
6. Cost of service is placed on total volume and not peak.

How much does it cost the sewer fund for billing administration?

Utility Billing Charge	= \$159,300
Meter Readers	= \$48,855
Blue Stakes	= <u>\$19,500</u>
Total	= \$ 224,655

Total Utility Account = 22,000 +/-

$$\$224,655 / 22,000 / 12 = \underline{\$0.85/\text{account}}$$

What would the Year 1 volume charge be if it we eliminated the base rate?

Current Base Rate and Volume Charge Revenues
= \$6,500,000

Desired Base Rate and Volume Charge Revenues
+\$1,100,000 = \$7,600,000

Current Gallons Treated = 2,840,000,000

$\$7.6 \text{ M} / (2.84 \text{ BG} / 1,000 \text{ gal}) = \underline{\$2.67 \text{ per } 1,000 \text{ gal}}$

What would the Year 1 base rate be if we eliminated the volume charge?

Current Billing Method = 22,000 Accounts

Proposed Billing Method = 27,500 Living Units

$\$7.6\text{M} / 22,000 \text{ accounts} / 12 = \$28.76 \text{ per account}$

$\$7.6\text{M} / 29,200 \text{ units} = \21.67 per unit^*

*1 business = 1 unit

Note: Current Single-Family Home is about \$22.10 at 9,000 gal/month

What would the Year 1 volume charge be to generate \$1.1M in new revenue?

Year 1 desired funding level = \$1,100,000

Current Volume = 2.84 BG

$\$1.1\text{M} / (2.84 \text{ BG} / 1,000 \text{ gal}) = \underline{\$0.39 / 1,000 \text{ gal}}$

Single-Family = Plus \$3.51 / month in Year 1

Proposed Fees and Charges

Monthly Sewer Rates

Residential Base Rate ¹	\$9.32/Living Unit (<i>unchanged</i>)
Non-Residential Base Rate ²	\$9.32 x AWWA Multiplier
Mixed-Use Base Rate ³	\$9.32/Living Unit + Non-Residential Component
Volume Charge ⁴	\$1.42/1,000 Gallons (<i>unchanged</i>)

¹ Each residential utility account will be assessed a sewer base rate according to the number of residential living units associated with the account. For example, a single-family dwelling will be billed for 1 sewer base rate, a duplex (including single-family dwellings with an accessory apartment) will be billed for 2 sewer base rates, a 4-plex will be billed for 4 sewer base rates, a 12-plex will be billed for 12 sewer base rates, etc.

² All non-residential utility account holders will be billed using a water meter size multiplier based on American Water Works Association (AWWA) guidelines. (Table 28-2 from American Water Works Association Manual of Water Supply Practices M1 – “Principles of Water Rates, Fees, and Charges” for water meters up to 3-inches in size and Table 2-2 from American Water Works Association Manual of Water Supply Practices M6 – “Water Meters – Selection, Installation, Testing, and Maintenance” for water meters larger than 3-inches in size.) The following table details the AWWA Multiplier for various water meter sizes. **All non-residential utility account holders for water meter sizes 2” and larger may request an adjustment to the multiplier based on qualifying site-specific criteria.**

Meter Size	¾"	1"	1½"	2"	3"	4"	6"	8"	10"
AWWA Multiplier	1.00	1.67	3.33	5.33	10.00	20.00	41.67	53.33	96.67

³ Mixed-use utility accounts will be assessed according to (1) the number of residential living units and (2) the non-residential component of the mixed-use development. The non-residential component is calculated by determining the equivalent water meter size required to service only the non-residential portion of the mixed-use development using the International Plumbing Code 2012 version, Appendix E201.1 (pressure range over 60) and E103.3(2). The AWWA multiplier associated with the equivalent water meter size will then be applied to determine the non-residential component of the sewer base rate.

⁴ Effective July 1 of each year, the monthly charge shall be based on the average winter water usage for the preceding winter months.

Proposed Fees and Charges

Meter Size	¾"	1"	1½"	2"	3"	4"	6"	8"	10"
AWWA Multiplier	1.00	1.67	3.33	5.33	10.00	20.00	41.67	53.33	96.67

All non-residential utility account holders for water meter sizes 2" and larger may request an adjustment to the multiplier based on qualifying site-specific criteria.



Concluding Remarks by PWAC



Thoughts?