



City of Garden Grove PUBLIC WORKS Water Rate Study

Public Outreach
September 27, 2023



The City of Garden Grove

Agenda

1. Why are we here today?
2. Your Water System
3. What Your Water Rates Pay For
4. Capital Projects, PFAS, Water Conservation
5. Customer Participation
6. Your Water Bill
7. Next Steps



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Why do a Water Rate Study?

- **“The mission of the City of Garden Grove is to provide responsible leadership and quality services as we promote safety, cultural harmony, and life enrichment.”**
 - “The goal of the Water Services Division is to provide sufficient and safe water at the lowest possible cost to the City’s residents.”



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Water Rate Study

- **Projects water utility revenues, expenses, and rates for a five-year period.**
- **Defines how to pay for water system repairs and Capital Improvements.**
- **Determines a cost-of-service based schedule of rates that incorporate the City's needs that will better serve our community.**



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Garden Grove Water System

- 85% of water supply is groundwater from Orange County
- 15% of water supply is from the State Water Project
- 433 miles of pipe ~ distance from Garden Grove to San Francisco
- 13 wells and 8 reservoirs
- 34,300 service connections
- Original cost, \$153 million City-owned water infrastructure
 - Between \$400 and \$800 million (estimated replacement cost to replace system in today's dollars)



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Currently In Progress

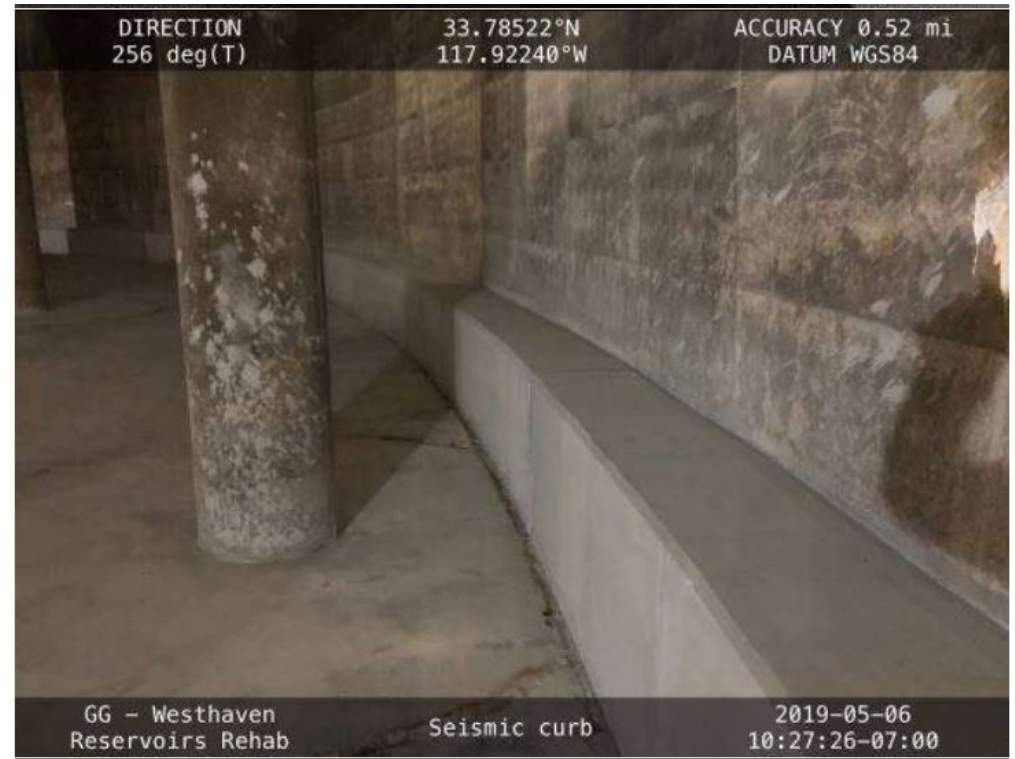
- **Magnolia Reservoir and Booster Pump Station Rehabilitation Project**
 - Repair and rehabilitation work for one 5 million-gallon fully buried pre-stressed concrete reservoir and the booster pump station.
- **Supervisory Control & Data Acquisition (SCADA) System**
 - Upgrading and rehabilitating the outdated SCADA System.
 - Gives staff the ability to manage and control the water system remotely.
- **Various Residential Streets Projects N of GG Blvd & E of Dale (120 water services and meter replacements)**
- **Lampson and Trask Reservoirs Rehabilitation**
- **Water Main Replacement (Orangewood Ave. – Dale St.)**



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Accomplished Since Last Rate Study

Accomplished Since Last Rate Study		
No.	Project Name	Project Amount
1	Water Main Replacement (Alwood Ave-Anthony Ave)	\$1.4 M
2	Water Main Replacement (Woolley Ln)	\$170,000
3	Well #21 Improvement	\$200,000
4	Westhaven Reservoir Rehabilitation	\$4.4 M
5	Pressure Reducing Valve Project	\$50,000
6	City Water Service Line Replacements (Orangewood-Brookhurst-Chapman-Palmwood)	\$1.3 M
7	Well #16, 19, 25 Condition Evaluation	\$ 0.5 M
8	Water Master Plan	\$1.0 M



Seismic Curb

Westhaven Reservoir Membrane and Seismic Curb



- Repair and rehabilitation work on two 10 million-gallon fully-buried reservoirs.
- Crack, spall, and joint repair.
- Construction of seismic curb, roof waterproofing, rust spot repair.
- Addition of a fall protection system for the reservoirs.
- Installation of the perimeter fence to prevent vehicle driving over the reservoirs.



Membrane for the Roof Side
The City of Garden Grove

Water Main Replacement Projects

- Water main replacements are needed to address fire flow deficiencies.
- A total of 18,150 lineal feet of pipe from various projects have been replaced since the last water rate increase.



Water Main Replacement Alwood Ave-Anthony Ave (4,200 lf)



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Other Completed Projects

- **Well #21 Improvements**
 - Cleaning and redeveloping the well
 - Refurbishing the pump motor, replacing the well pump
- **Water Service Line Replacements**
 - Oranewood-Brookhurst-Chapman-Palmwood
 - New 6" replacement water main, one new fire hydrant
 - Replacement of 441 - 1" copper water service lines and water meters
- **Water Master Plan Update 2020**
 - A road map for the water system's capital improvement needs
- **Well #16, #19, #25 Condition Evaluation**



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Location of Pipes, Wells, Booster Pumps, PFAS Facilities and Reservoirs



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Current Water Bill

- **Water bills are sent out every two months. Each bill contains:**
 - **Minimum Charge: \$33.85 for most customers, plus**
 - **Capital Improvements Charge: \$7.00 for most customers, plus**
 - **Commodity Delivery Charge:**
 - Depends on water use
 - Two tiers
 - 1st Tier: \$3.26 per hundred cubic feet
 - **A portion of the Commodity Delivery Charge is a pass through of water supply costs which is adjusted annually.**
- **Low-Income Senior Discount**

Average residential customer uses 22 hcf/bi-monthly, resulting in \$112.57 in water charges every two months



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How Much Water is 11 hcf?



Answer: 54 5-gallon bottles every day



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FY 23/24 Financial Status: Revenue and Expense Comparison, \$M

Revenue and Expense Comparison FY 23/24 Budget, \$ Millions	
Revenues from Rates	\$41.3 M
Other Revenues	0.9
Total Revenues	\$42.2 M
O&M Expenses	\$32.7 M
Debt Service	3.9
Replacement Projects	3.8
Capital Projects	19.2
Total Expenses	\$59.5 M
Surplus (Deficits)	(\$17.3) M

- About half of O&M expenses are for water supply. City has no control over these costs.
- Utility will spend reserves and debt proceeds to pay for capital projects

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Water System Upgrades and Replacements

- **Anticipated water system needs:**
 - Reservoir rehabilitation projects
 - Replace small diameter water mains with larger ones: improved fire flows and public safety
 - Well Assessments
 - SCADA/Fiber communications project - ongoing
 - Ongoing replacement of facilities as they age:
 - Water meters
 - Fire hydrants
 - Valves
 - Pipe



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Capital Improvement/Facilities Plan Cost Summary (2023-2028)

Category	Project Name	Cost (2023 dollars)
Recurring Replacements	Service Lines, Fire Hydrants, Meters, Valves, and Appurtenances	\$17,807,227
Wells	Well Condition Assessment & Rehabilitation	\$2,257,142
Reservoirs	Reservoir Rehabilitations	\$7,630,000
Water Mains	Water Main Upsizing and Replacement	\$23,638,487
SCADA	SCADA Upgrades	\$7,411,136
Property Purchase	Well 26 Property Purchase	\$1,643,000
Total		\$60,386,992



What is PFAS?

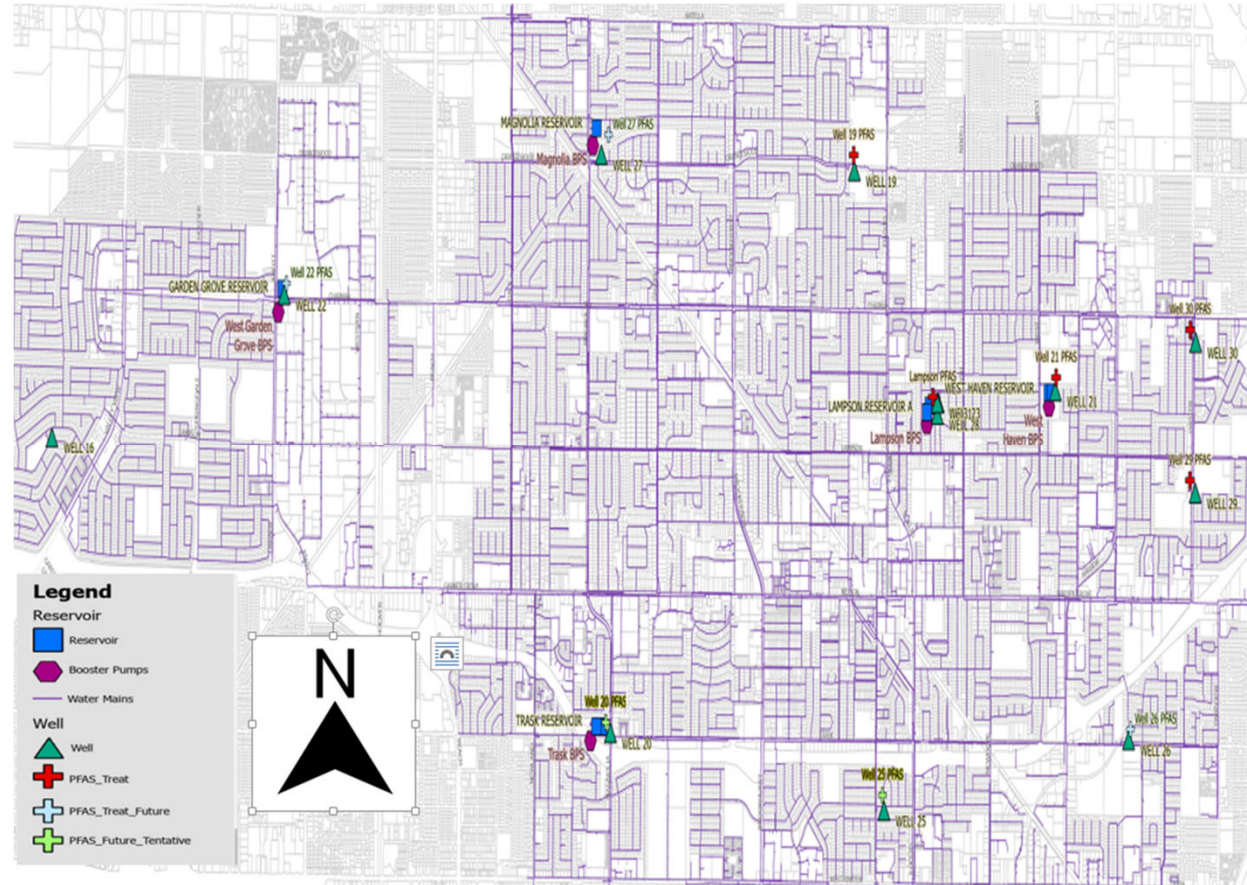
- **Chemicals used in industrial and consumer products since the 1950s**
 - Coatings for textiles, paper products and cookware.
 - Some firefighting foams and in the aerospace and aviation industries, such as at military installations nationwide.
- **The Environmental Protection Agency (EPA) indicates exposure to these compounds over certain levels may result in adverse health effects.**
- **The City partnered with the Orange County Water District (OCWD) to construct water treatment facilities equipped with Ion Exchange (IX) systems to remove contaminants to comply with applicable regulatory limits.**



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Existing PFAS Affected Well Sites

- **Lampson (Wells #23, 28, 31)**
 - Operational (July 1, 2023)
- **Well #21**
 - Operational (November 2021)
- **Well #30**
 - Operational (July 26, 2022)
- **Well #29**
 - Operational (April 12, 2023)
- **Well #19**
 - Under construction next year, anticipated to become operational by 2025
 - *Delay due to need for a Variable Frequency Drive (VFD) installation prior to constructing treatment equipment*



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New PFAS Treatment Sites



PFAS Equipment at the Westhaven Reservoir



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Projected PFAS O&M Costs

Projected PFAS O&M Costs					
	FY 23/24	FY 24/25	FY 25/26	FY 26/27	FY 27/28
Prefilters (Cartridges)	\$156,868	\$163,143	\$187,536	\$396,582	\$406,497
Ion Exchange Resin Changeout	2,276,780	3,846,731	4,393,444	9,526,203	9,764,359
Labor: Future Hires	0	177,600	171,995	176,295	180,702
Power	193,500	210,210	272,470	297,916	305,364
Analytical	4,800	5,616	9,594	13,112	13,440
Maintenance Cost	47,250	52,650	104,335	154,883	158,755
O&M Contingency	208,133	237,064	435,758	622,589	638,154
Total	\$2,887,331	\$4,693,014	\$5,575,132	\$11,187,581	\$11,467,271
Less Partial Reimbursement	(\$166,293)	(\$1,067,377)	(\$1,159,552)	(\$1,502,986)	(\$1,643,355)
Total Through Rates	\$2,721,038	\$3,625,637	\$4,415,580	\$9,684,595	\$9,823,916

- **OCWD recovers the cost of PFAS O&M reimbursement through its Replenishment Assessment**
- **O&M costs are partially reimbursed by OCWD**
- **Ion exchange resin changeout is the largest cost**



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Water Conservation Requirements

- The State established long-term improvements in water conservation and drought-planning to adapt to climate change, where local water providers are placed on a retail-wide water budget.



Residential
Indoor Use



Real
Water Loss



Residential
Outdoor Use



CII landscapes
with DIMs



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Why is a Rate Increase Necessary?

- Provide sufficient and safe water at the lowest possible cost
- Maintain our water infrastructure
- Less expensive to maintain than to do emergency repairs
- Capital Improvements
- Public Health - PFAS



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How Customers Can Participate in the Process

- Proposition 218
- Comment forms available tonight
- Website
gg.city/water-rate
- Water Rate Study Hotline: (714) 741-5520



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Review Current Rate Structure

- **Minimum Charge:** depends on meter size; **\$33.85** every two months for most customers
- **Capital Recovery Charge:** depends on meter size; **\$7.00** every two months for most customers
- **Commodity Charge:** depends on water use.



FY 23/24 Financial Status: Reserves, \$M

Projected End of Fiscal Year 23/24	\$24.8 M
Some reserves are dedicated for:	
Two months of cash flow	\$ 5.6 M
\$500,000 for Emergency Contingency	\$ 0.5
5% of Net Plant	<u>\$ 8.6</u>
Total, Dedicated Reserves	\$ 14.8 M
Reserves Available for Capital, Replacement	\$ 10.0 M



Proposed Minimum Charges

Bi-Monthly

Meter Size	Current	Proposed Minimum Charges				
		1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028
5/8 x 3/4"	\$33.85	\$35.10	\$38.23	\$40.47	\$42.84	\$43.68
1"	\$50.48	\$54.54	\$61.54	\$65.77	\$70.29	\$72.39
1-1/2"	\$78.20	\$87.28	\$100.39	\$107.95	\$116.05	\$120.24
2"	\$111.45	\$126.55	\$147.01	\$158.57	\$170.96	\$177.65
3"	\$200.15	\$231.29	\$271.34	\$293.55	\$317.38	\$330.77
4"	\$299.92	\$349.13	\$411.20	\$445.40	\$482.10	\$503.03
6"	\$577.08	\$676.44	\$799.72	\$867.20	\$939.66	\$981.52
8"	\$909.67	\$1,069.22	\$1,265.94	\$1,373.37	\$1,488.73	\$1,555.71
10"	\$1,353.12	\$1,592.92	\$1,887.56	\$2,048.26	\$2,220.83	\$2,321.29



Proposed Capital Improvement Charge

Bi-Monthly

Meter Size	Current	Proposed Bi-Monthly Capital Improvement Charge				
		1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028
5/8 x 3/4"	\$7.00	\$7.45	\$7.92	\$8.43	\$8.97	\$9.20
1"	\$17.50	\$18.62	\$19.81	\$21.08	\$22.43	\$22.99
1-1/2"	\$35.00	\$37.24	\$39.62	\$42.16	\$44.85	\$45.98
2"	\$56.00	\$59.58	\$63.39	\$67.45	\$71.77	\$73.56
3"	\$112.00	\$119.16	\$126.79	\$134.90	\$143.53	\$147.12
4"	\$175.00	\$186.19	\$198.10	\$210.78	\$224.27	\$229.88
6"	\$350.00	\$372.37	\$396.21	\$421.56	\$448.54	\$459.76
8"	\$560.00	\$595.80	\$633.93	\$674.50	\$717.67	\$735.61
10"	\$840.00	\$893.70	\$950.89	\$1,011.75	\$1,076.50	\$1,103.41



Commodity Charges: How Costs (\$/hcf) Are Calculated

Tier 1	Cost of Locally Produced Groundwater; 85% of Water Use
Tier2	Cost of Imported Water and Locally Produced Ground Water; 15% of Water Use

- **Imported water costs more to produce than locally produced groundwater.**
- **There is a limit to the amount of Locally Produced Groundwater that can be pumped.**



Proposed Commodity Delivery Charges

	Current	Proposed Commodity Delivery Charges				
		1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028
Tier 1	\$3.26	\$3.40	\$3.53	\$3.83	\$4.14	\$4.27
Tier 2	\$4.80	\$5.29	\$5.67	\$5.84	\$6.02	\$6.10

- **Does not include future Commodity Delivery Charge Pass-Through Adjustments.**
- **Per City ordinance, the Commodity Delivery Charge is adjusted each year based on changes in purchased water costs**



Proposed hcf included, Bi-Monthly

Meter Size	Maximum hcf, Tier 1
5/8 x 3/4"	33
1"	83
1 1/2"	165
2"	264
3'	528
4'	825
6"	1650

- Proposed hcf maximum in Tier 1 per bi-monthly billing period
- hcf above the Tier 1 maximum will be billed at Tier 2 level



Proposed Private Fire Service Rates

Meter Size	Current	Proposed Private Fire Service Rates				
		1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028
1-1/2"	\$2.99	\$3.42	\$3.84	\$4.09	\$4.35	\$4.46
2"	\$6.38	\$7.28	\$8.18	\$8.70	\$9.26	\$9.49
3"	\$18.55	\$21.16	\$23.77	\$25.29	\$26.91	\$27.58
4"	\$39.51	\$45.09	\$50.67	\$53.91	\$57.36	\$58.79
6"	\$114.76	\$130.97	\$147.17	\$156.59	\$166.61	\$170.78
8"	\$244.55	\$279.09	\$313.62	\$333.69	\$355.05	\$363.93
10"	\$439.79	\$501.90	\$564.01	\$600.11	\$638.52	\$654.48



Low-Income Senior Discount

- **Eligibility Criteria:**
 - Resident that lives at the billing address
 - Bill must be in the Resident's name
 - 65 years or older
 - Enrolled in SCE's CARE Program
- **Discount is \$5/month, \$10 per billing period**
- **No changes to the Discount Program**



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Water Bill Comparisons: Average Single-Family Residence

	Current	Single-Family Residence, 22 hcf Bi-Monthly Water Use Proposed Bi-Monthly Water Bill				
		1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028
Bi-Monthly Minimum Charge	\$33.85	\$35.10	\$38.23	\$40.47	\$42.84	\$43.68
Commodity Delivery Charge	\$71.72	\$74.80	\$77.66	\$84.26	\$91.08	\$93.94
Capital Improvement Charge	\$7.00	\$7.45	\$7.92	\$8.43	\$8.97	\$9.20
Total	\$112.57	\$117.34	\$123.81	\$133.16	\$142.89	\$146.81
% Increase		4.2%	5.5%	7.5%	7.3%	2.7%

- Amounts do not include future Commodity Delivery Charge Pass-Thru Cost Adjustments



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Water Bill Comparisons: 50-Unit Apartment Building, 3" Meter

	Multi-Family 50 Units, 3" Meter, 18 hcf Bi-Monthly Water Use Proposed Bi-Monthly Water Bill					
	Current	1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028
Bi-Monthly Minimum Charge	\$200	\$231	\$271	\$294	\$317	\$331
Commodity Delivery Charge	\$3,507	\$3,763	\$3,973	\$4,195	\$4,425	\$4,524
Capital Improvement Charge	\$112	\$119	\$127	\$135	\$144	\$147
Total	\$3,819	\$4,114	\$4,371	\$4,623	\$4,886	\$5,002
% Increase		7.7%	6.3%	5.8%	5.7%	2.4%

- **Amounts do not include future Commodity Delivery Charge Pass-Thru Cost Adjustments**



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Water Bill Comparisons: Example Commercial, 2" Meter

	Example Commercial, 2" Meter, 500 hcf Bi-Monthly Water Use					
	Current	Proposed Bi-Monthly Water Bill				
		1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028
Bi-Monthly Minimum Charge	\$111	\$127	\$147	\$159	\$171	\$178
Commodity Delivery Charge	\$1,630	\$1,700	\$1,765	\$1,915	\$2,070	\$2,135
Capital Improvement Charge	\$56	\$60	\$63	\$67	\$72	\$74
Total	\$1,797	\$1,886	\$1,975	\$2,141	\$2,313	\$2,386
% Increase		4.9%	4.7%	8.4%	8.0%	3.2%

- **Amounts do not include future Commodity Delivery Charge Pass-Thru Cost Adjustments**



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Next Steps

- **Proposition 218 notification to all customers October 10, 2023**
- **Public Hearing and 1st Ordinance Adoption November 28, 2023**
- **2nd Ordinance Adoption December 12, 2023**
- **Anticipated rate adjustments, if adopted by Council, effective mid-January 2024**



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Feedback, Questions, Comments?

Garden Grove Bl

GARDEN GROVE
Est. 1874
HISTORIC
MAIN STREET
County of Orange

Thank you for your time.



SPEED
LIMIT
25

