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CITY OF SIGNAL HILL

STAFF REPORT

2/25/2025

AGENDA ITEM

TO: **HONORABLE MAYOR**
AND MEMBERS OF THE CITY COUNCIL

FROM: **CARLO TOMAINO**
CITY MANAGER

BY: **THOMAS BEKELE**
PUBLIC WORKS DIRECTOR/CITY ENGINEER

SUBJECT:

CITY COUNCIL WORKSHOP TO DISCUSS WATER RATES AND A PROPOSED $3 MILLION DOLLAR INTERFUND LOAN FROM THE GENERAL FUND TO THE WATER ENTERPRISE FUND

Summary:

The 2023-2028 City of Signal Hill Strategic Plan identifies updating the Water Master Plan (WMP) and Water Rate Study as key Fiscal Year 2024-2025 initiatives. In December 2023, the City entered into a professional services agreement with Dudek to assist with preparing the WMP and Rate Study. On December 10, 2024, the City Council appointed a Water Rate Subcommittee to review the WMP and associated Capital Improvement Projects (CIP), evaluate various rate structures, and assess the reserve policy. The Subcommittee's role is to evaluate the Water Department's current and projected costs based on the results of the WMP and Rate Study and consider the optimal rate structure to support ongoing operations and capital projects for the next five years. The proposed rate adjustment would increase the average monthly water bill by $5.87 per month for the first year. Including the proposed adjusted water rate, the City's average monthly bill would remain 30% lower than the City of Long Beach.

Throughout this report, staff notes the need to adjust rates given various considerations such as the cost of water and deferred capital project improvements. While the City has increased water rates during the prior rate study period which lasted from 2019 to 2024, there was an 11-year period (from 2004-2015) where the City increased water rates by 13 percent, or approximately one percent per year. Because the City's historical water rate increases have not kept up with capital costs, there is a need to adjust water rates for the upcoming five-year period, which includes $17.3 million in critical capital projects necessary to provide the community with potable water.

The Water Rate Study evaluated the five-year capital needs of the Water Department while also considering the community's ability to pay for essential water services. The option recommended by the Water Rate Subcommittee would enable the Water Department to fully fund its operating, capital,

reserves, and debt service through a five-year rate adjustment without the need to issue new debt. Of the options discussed with the Subcommittee, the Self-Funded option (Option 1) provides the Water Department with the greatest opportunity to fund capital projects, pay off its debts, and establish a reserve fund to manage variances in water consumption and other factors.

The Public Works Department will conduct a workshop to present the Water Master Plan and three rate adjustment options reviewed by the Subcommittee and obtain feedback from the City Council and the community regarding the proposed rate adjustments. Following the workshop, the City Council will provide direction regarding the preferred rate adjustment and set a date for the subsequent Proposition 218 hearing.

Strategic Plan Goal(s):

Goal No. 1 Financial Stability: Ensure the City's long-term financial stability and resilience.

Goal No. 4 Infrastructure: Maintain and improve the City's physical infrastructure, water system, and recreational spaces.

Goal No. 5 High-Functioning Government: Strengthen internal communication, recruitment, retention, systems, and processes to increase the effectiveness and efficiency of City services.

Recommendations:

1. Provide City staff with direction regarding potential adjustments to water rates.

2. Authorize the Public Works Department to post the Draft Water Master Study on the City's website to facilitate feedback from the community as part of an upcoming Community Workshop.

3. Direct staff to prepare a Resolution to set a date to conduct Proposition 218 Protest Hearing.

4. Authorize the Mayor to execute an Inter-Fund Loan Agreement between the City's General Fund and Water Enterprise Fund for $3 million at three percent interest rate including a 20-year payment term, to fund the Gundry Reservoir Roof Replacement and Rehabilitation Project. This proposed agreement would mirror a similar agreement approved by the City Council on February 14, 2023, for the same project.

5. Adopt a resolution, entitled:

   A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SIGNAL HILL, CALIFORNIA, APPROVING A LOAN IN AN AMOUNT NOT TO EXCEED $3,000,000 FROM THE GENERAL FUND TO THE WATER FUND

Fiscal Impact:

As a result of the Water Rate Subcommittee meeting on January 27, 2025, staff is presenting three five-year rate adjustment options for consideration by the City Council:

1. Option 1: A phased increase of 15% in the first and second years, 14% in the third and fourth years, and 10% in the final year.

2. Option 2: A phased increase of 14% in the first year, 12% in the second year, 10% in the third year, and 8% in the fourth and fifth years; this option would require the City to issue a $9 million bond in the fourth year.

3. Option 3: A flat annual increase of 9% over five years. However, this option would require the City to issue a $6 million bond in the third year and an additional $6 million bond in the fifth year.

All options include a one-time $3 million bridge loan from the General Fund to the Water Enterprise Fund to support the Gundry Reservoir Roof Replacement and Rehabilitation Project.

The Water Rate Subcommittee and staff recommend Option 1 as the preferred choice. This option avoids additional debt, helping to maintain the financial stability of the City's water department, which currently holds $12.8 million in existing loans and debt, with $6.8 million still outstanding in subsequent years.

Background:

The City's Water Department has numerous important obligations to maintain a safe water supply for the entire community. In addition to staffing the Water Department with professionals with the required training, certification, and experience to maintain and service the City's complex water system, the Water Department must also have a capital program that replaces and updates water systems regularly to meet safety standards. Due to continuously updated State water quality standards as well as the needs of the City's aging system, the City conducts a water rate study to assess the operating and capital needs of the Water Department and recommend rate adjustments as necessary. Given the important public health responsibilities associated with maintaining the water system, periodic rate adjustments are necessary to ensure the system remains financially solvent. Staff has attached the Water Rate Study for the City Council's information (Attachment A).

The City Council and staff have been sensitive to the financial needs of the community and worked to ensure that rate adjustments consider periodic rate adjustments over time. Signal Hill water rates have historically been on the lower end of the spectrum when compared to neighboring cities. For example, water rates increased a total of 13% from 2004 to 2015, while the rate of inflation over the same period of time increased by 26.62% (The Consumer Price Index [CPI] was 193.2 in 2004 and 244.63 in 2015). The City did not adjust rates between 2011 and 2015 as the City Council recognized the impacts of the Great Recession on residents and businesses. In 2016, the City Council approved an 8% annual increase for a period of five years. In 2019, the City implemented a five-year (2020-2024) rate structure that consisted of annual adjustments of 15%, 15%, 12%, 7.5% and 7.5% respectively. Over the course of this period of time, however, the City's rates have not kept pace with inflation or the capital needs of the water infrastructure.

Factors determining the water rates include operations and maintenance, debt service, reserves, capital improvements, and maintaining water related fund reserves. The City evaluates water rates as part of the development of the City's annual budget to ensure the expected costs are covered by

projected revenues. As an enterprise fund, it is important to note that the Water Department's rates are intended to fund all operating and capital activities. Over the course of the Water Department's history, the General Fund has subsidized the Water Department by providing multimillion dollar loans for required capital projects. However, as noted, the Water Department's revenues should enable it to fully fund its operating and capital costs.

On December 10, 2024, the City Council appointed a Water Rate Subcommittee to review a preliminary financial analysis of the Water Department. The Water Rate Subcommittee is comprised of the following members:

Robert D. Copeland	Council Member
Charlie Honeycutt	Council Member
Carlo Tomaino	City Manager
Yvette Aguilar	Deputy City Manager
Matthew Richardson	City Attorney
Siamlu Cox	Finance Director
Margarita Beltran	Contracts Manager
Greg Ripperger	Dudek Consultant
Kevin Kostiuk	Raftelis Consultant
Thomas Bekele, P.E.	Public Works Director/City Engineer

The Subcommittee met on January 27, 2025, and received a presentation covering water rate history, water system funds, reserve practices and policies, cost of service analysis, and factors driving the need for a rate adjustment. The presentation also outlined proposed capital improvement needs over the next five to ten years. The Subcommittee evaluated three five-year rate adjustment scenarios for consideration. Each scenario is intended to provide adequate funding of operations, maintenance, debt service, capital improvements, and reserves through 2030.

Water Master Plan (WMP)

The WMP serves as a comprehensive strategy for managing, distributing, and conserving the City's water resources over the next ten years. Key components of the WMP include current and future infrastructure needs to support the water system, an assessment of water supply and demand, and an evaluation of necessary improvements. Prioritizing water quality, the WMP focuses on replacing aging asbestos cement (AC) and cast-iron pipes, expanding groundwater capacity and ensuring compliance with state and federal regulatory standards. The plan also incorporates capital improvement projects, population growth forecasts, and long-term demand projections to support a reliable and sustainable water supply for the community.

Water Supply and Distribution

The City relies primarily on groundwater drawn from City-owned wells in the Central Basin Groundwater Aquifer. The City holds 2,022 acre-feet of annual groundwater extraction rights, which generally meet the community's water demands. If demand exceeds these rights or wells require maintenance, the City supplements its supply with imported water from the Central Basin Municipal Water District (CBMWD). Since imported water is significantly more expensive than local groundwater, the City actively works to minimize these purchases and optimize local water

resources.

The City's water system provides potable water to approximately 3,150 residential, commercial, and industrial accounts. Given the City's diverse topography, the system is designed to ensure efficient water distribution. Water is pumped from the Gundry Reservoir, which serves as a forebay, to the Hilltop Reservoir, requiring a vertical lift of up to 330 feet. To ensure consistent water pressure and flow, the system is divided into three independent water service zones, managed through a Supervisory Control and Data Acquisition (SCADA) system. The SCADA system monitors and regulates water distribution across pump stations, reservoirs, and pressure-reducing stations.

The City's water infrastructure consists of three key components:

1. Groundwater pumping and treatment facilities
2. A water distribution piping network
3. Water storage and pumping facilities.

The City supplies water through its three groundwater wells which include Well No. 7, Well No. 9, and Well No. 10. Well No. 7, located at 6476 Orange Avenue in the City of Long Beach, was constructed in 1978 with an initial production capacity of 1,830 gallons per minute (GPM). Over the years, production has steadily declined, with annual averages of 585 GPM in Fiscal Year (FY) 2020, 403 GPM in FY 2021, and 281 GPM in FY 2023. A 2010 evaluation by Richard Slade and Associates determined that the stainless-steel casing liner installed in 2005 extended the well's lifespan. However, biological growth and sanding issues continue to reduce efficiency. The Water Department must replace Well No. 7 within the next three years to maintain groundwater production levels.

Well No. 9, drilled in 2008, is located at the City of Signal Hill's Public Works Yard (2175 28th Street). Well No. 9 remained offline for years due to groundwater discoloration issues. An advanced treatment facility, completed in 2017, resolved these concerns, and the Water Department brought this Well online in 2018. Although designed with a 1,200 GPM capacity, Well No. 9 currently operates at 650-700 GPM. Annual production has steadily declined from 650 acre-feet per year (AFY) to 340 AFY, and most recently to 270 AFY. As noted in the WMP, to restore the capacity of Well No. 9 will require redrilling, repacking, and redevelopment.

The Water Department completed Well No. 10, located at 6065 Cherry Avenue, in 2022 as a replacement for Well No. 8, which was previously decommissioned. The Water Department designed Well No. 10 to produce 1,200 GPM, but it remains inactive while awaiting final permitting from the Department of Drinking Water (DDW) before integration into the City's distribution system.

Water Distribution Piping Network

The City's water supply and distribution system spans approximately 50 miles (273,516 linear feet), with pipelines ranging from 4 inches to 20 inches in diameter, made from various materials:

- 41% (110,799 linear feet) Asbestos Cement (AC) pipes
- 28% (77,611 linear feet) Cast-Iron pipelines
- 27% (74,796 linear feet) Ductile Iron pipelines

- 3% (9,385 linear feet) Steel pipelines
- Less than 1% Cement Mortar Lined and Coated (CML&C) Welded Steel Pipe (WSP)
-

In November 2023, the Division of Drinking Water conducted a Sanitary Survey of the City's water system. Following an extensive evaluation, District Engineers directed critical system upgrades, including the replacement of AC pipes to eliminate potential contamination risks. Water quality testing at the City's sampling stations has not detected asbestos in the system, but proactive pipeline replacement remains a priority. In addition, over the past two years, the City has spent over $360,000 repairing leaks and failures in aging cast-iron pipelines. In addition to cost, emergency leak repairs are disruptive to day-to-day operations. The Water Master Plan includes a phased pipeline replacement program, with an annual 1.5% increase in replacement rates to improve system reliability and reduce emergency repair costs.

Water Enterprise Fund

Revenue Structure: The City's water system revenue primarily comes from customer water rates, which are structured based on usage tiers and customer classifications (residential, commercial, industrial, and irrigation). Additional sources of revenue include connection fees and potential state or federal grants. Another source of revenue that is unpredictable in terms of consistency is the Water Development Fund, which collects fees from developers to finance water system capacity enhancements necessitated by new development projects. The fund balance fluctuates based on the level of development activity and related project expenditures.

Expense Structure: Operating expenses cover water supply costs, maintenance, system upgrades, administrative expenses, and debt service payments. These costs are influenced by inflation and infrastructure investment needs, with periodic adjustments based on projected demand and operational requirements.

Analysis:

Factors Impacting Water Rate Increase

The proposed water rate increase is necessary to address multiple financial and operational challenges, including unfunded state and federal mandates, aging infrastructure requiring significant capital improvements, revenue losses resulting from conservation efforts, rising water purchase costs from the Water Replenishment District (WRD) and the Metropolitan Water District (MWD), and increasing operations and maintenance expenses. Without a rate adjustment, the City will face challenges maintaining service reliability, ensuring regulatory compliance, and funding necessary infrastructure projects to support the long-term sustainability of the water system.

Capital Improvement Projects and Unfunded Mandates

The primary driver of the proposed water rate increase is the City's Capital Improvement Project (CIP) plan, addressing deferred maintenance and compliance with unfunded state and federal mandates. These regulations require significant infrastructure upgrades to maintain water quality, adding financial burdens. Ongoing regulatory challenges also impact infrastructure projects and efforts to operate independently from imported water. For example, the Water Department completed

Well 10 in 2022, however, this well remains offline due to new PFOA/PFOS testing requirements and required revisions of several operation manuals and procedures throughout the system. In order to comply with these new requirements, the Water Department must replace well components with NSF 61-certified materials or prove equivalency. Additionally, the City must revise its Operations and Maintenance Standards and disinfection strategy to meet evolving regulations, limiting efforts to reduce reliance on imported water from MWD.

A recent State Water Board survey confirmed the safety of the City's water and also identified required capital projects, including:

- Replacing over 110,000 linear feet of asbestos cement (AC) pipes at $550-$900 per linear foot cost.

- Clearing vegetation at Temple Reservoir and constructing a new disinfection station at an estimated cost of $400,000, with annual chemical expenses ranging from $50,000-$70,000 to meet current water quality code standards.

To address these infrastructure and regulatory demands, a water rate adjustment is essential to ensure service reliability, regulatory compliance, and long-term sustainability, with the table below outlining the proposed Capital Improvement Projects. Staff has taken considerable care to ensure the proposed list of projects would be completed within the rate adjustment period as these costs impact the proposed rate structure.
The table below provides an overview of essential capital projects required for the water system over a ten-year period. The options proposed as part of this workshop only take into consideration capital projects through Fiscal Year 2028-2029.

Table 1: Proposed Capital Improvement Project Emergency Drought Declaration and Conservation Impact

Rec #	Priority	Project name	FY24-25	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	FY30-31	FY31-32	FY32-33	FY33-34
1	High	Gundry reservoir roof replacement and coating	$2,000,000	$3,500,000								
2	High	Electrical upgrades at Hilltop PS		$100,000								
3	High	SCADA upgrades		$70,000	$430,000							
4	High	Well 9 - Rehab		$150,000	$150,000							
5	High	Rehab of Well 7			$750,000	$750,000						
6	High	New well installation				$262,500		$2,625,000	$2,362,500			
7	Medium	Automated Meter Reading (AMR)				$400,000	$400,000					
8	Medium	Temple reservoir soil removal / upgrades					$300,000					
9	Medium	Gundry pump station rehabilitation								$942,986		
10	Medium	Disinfection improvements at Gundry		$300,000								
11	Medium	Lakewood water line by-pass					$520,000					
12	Medium	Well 9 Treatment Bypass								$924,000	$1,876,000	
13	Medium	Valve replacement		$350,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000
14	Medium	Cast iron/asbestos cement pipeline replacement		$762,000	$1,532,520	$1,532,520	$1,532,520	$1,532,520	$1,532,520	$1,532,520	$1,532,520	$1,532,520
15	Medium	Site security for Well 10				$20,000						
16	Medium	Upsize pipelines on hydrants that do not meet fire flow requirements										$2,387,582
17	Low	Gundry Reservoir Treatment Enhancement										
18	Low	Rehab MWD connection to Hilltop										
19	Low	Temple reservoir expansion										
20	Low	Hilltop Disinfection Station										
			$2,000,000	$5,232,000	$3,362,520	$3,465,020	$3,252,520	$4,657,520	$4,395,020	$3,899,506	$3,908,520	$4,420,102

Recent Rate Increase and Water Conservation

The recent rate increase, which took place in 2019, did not anticipate a major decline in water consumption. Shortly after the new rates took effect in 2020, Governor Newsom declared a statewide drought emergency in 2021, leading to the implementation of Level II conservation measures. These restrictions limited landscape irrigation to three assigned days per week for a limited number of minutes, prohibited watering within 48 hours of rainfall, and restricted washing of hard surfaces to health and safety purposes. The State's goal was to achieve a 20% reduction in water use during supply shortages. In September 2024, after two consecutive wet seasons improved water supplies, the Governor lifted the emergency drought declaration. However, conservation laws such as AB 1572 remain in effect, prohibiting the use of potable water for irrigating non-functional turf, and the State Water Resources Control Board continues to enforce wasteful water use restrictions. These ongoing regulations contributed to a decline in the City's water consumption, which decreased by 67 million gallons between 2019 and 2024. Per capita water use fell from 146 gallons per day in 2020 to 119 gallons per day in 2023. This reduction resulted in a significant revenue loss of approximately $600,000 to $900,000 over four years.

Aging Infrastructure and System Failures

Aging infrastructure continues to be a critical issue, further impacting system reliability and contributing to the need for rate adjustments. Many of the City's pipelines, reservoirs, and treatment facilities have exceeded their useful life, leading to increased maintenance costs and emergency repairs. The City's aging cast iron pipes are a key infrastructure concern, with frequent leaks causing water loss and costly repairs. Over the past two years, the City has repaired more than 15 mainline leaks, totaling approximately $360,000 in repair costs. The proposed CIP plan includes replacing 1.5% of both asbestos cement and cast-iron pipes annually to prevent further failures. Other aging infrastructure include the Gundry Reservoir, which was built in 1929 and has surpassed its expected lifespan. The treatment facility's tank walls, also constructed in 1929, require structural improvements, while high-pressure valves and pressure-reducing stations from the 1960s and 1980s need replacement. Well 7, built in 1978, has also deteriorated significantly. Originally operating at 1,830 GPM, the pump now produces only 900 GPM, reducing capacity by nearly half. Replacement of Well 7 is included in the water rate study for years 3 to 5, with an estimated cost of $5.5 million.

Rising Operations and Maintenance Costs

Raising operations and maintenance costs further contribute to the necessity of a rate adjustment. State and federal laws require all public water systems to be operated by certified water operators with specialized training. The City's Water Division operates 24/7 to ensure compliance with stringent water quality monitoring requirements. While there have been no major changes to salaries and benefits outside of a single reclassification of a Senior Operator position to Supervisor, overall operations and maintenance costs continue to rise. Factors contributing to increased operating costs include an increase in quantity and cost of disinfecting chemicals, higher insurance premiums, with the Water Department's current insurance costs totaling approximately $500,000 per year, as well as increased debt service obligations related to infrastructure projects and compliance with state and federal mandates.

Water Replenishment and Imported Water Cost Increases

Water replenishment and imported water costs have also increased significantly, further impacting

the City's budget. The Water Replenishment District's (WRD) replenishment assessment fee increased from $382 per acre-foot in 2020 to $437 per acre-foot in 2024, a 15% increase. Meanwhile, the cost of purchasing imported water from MWD rose from $1,078 per acre-foot in 2020 to $1,395 per acre-foot in 2024, a 30% increase. Assuming the City's average annual water consumption remains at 1,655 acre-feet, with 70% sourced from WRD and 30% from MWD respectively, these rate increases have resulted in roughly $200,000 or more in additional ongoing annual costs.

Well 9 Advanced Water Treatment Project

Completed in 2016, the Well 9 Advanced Water Treatment Facility was designed to enhance groundwater pumping capacity. However, due to poor water quality and high sediment concentration, Well 9, when operating, currently produces only 650 GPM, significantly lower than its originally designed operational pumping capacity of 1200 GPM. To restore output, the City plans to redevelop the well and install a turbine pump, as an improvement project included in the proposed Five-Year CIP plan.

Reserve Policy

The reserve policy outlined in the rate study is designed to ensure the City's long-term financial stability and resilience in managing its water system operations and capital improvements. The new policy includes three key components:

1. Capital Reserve: The City will maintain a capital reserve equivalent to 50% of the five-year average annual Capital Improvement Plan (CIP) costs. This reserve is intended to fund future capital projects, address unexpected infrastructure failures, and manage cost overruns without relying on external financing. By proactively setting aside funds, the City ensures the sustainability of its infrastructure investments while minimizing financial disruptions.

2. Rate Stabilization Reserve: To mitigate fluctuations in revenue and stabilize water rates, 15% of commodity revenues will be allocated to a rate stabilization reserve. This reserve acts as a financial buffer against variables such as changes in water consumption patterns, drought-related restrictions, and economic downturns. The stabilization fund helps prevent sudden rate spikes, ensuring more predictable billing for customers and maintaining public trust.

3. Operating Reserve: The reserve policy targets maintaining approximately 365 days of operating cash on hand, providing funds to cover the City's operational expenses in the event of unexpected revenue shortfalls or emergencies. This level of reserve exceeds typical municipal benchmarks, reflecting the City's commitment to financial prudence and preparedness for unforeseen events such as natural disasters, regulatory changes, or infrastructure emergencies.

Water Rate Adjustment

On December 10, 2024, the City Council-appointed Water Rate Subcommittee received a presentation on a financial analysis performed by Dudek, Raftelis, and City staff that included water rate history, water system fund accounts, water fund reserve policies, and cost factors driving the need for a rate adjustment. The Subcommittee reviewed three rate structure options, driven by the reserve policy discussed above and the necessary capital improvement projects.

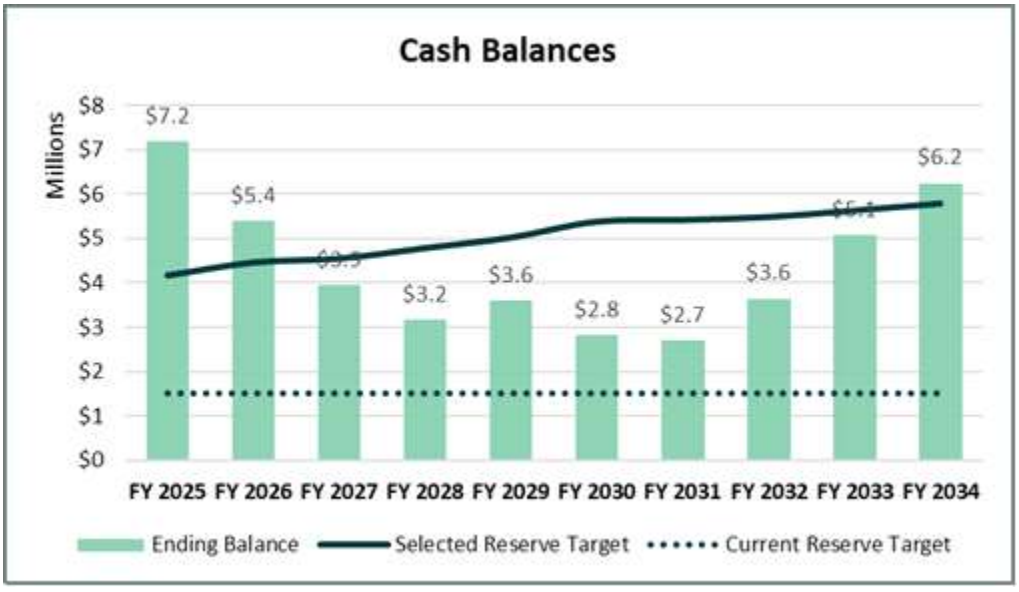
As noted during the introductory section of this report, the Subcommittee carefully considered various financial factors related to the Water Department, but also the needs of the community. Important to this section of the discussion is that for the City to have continuously successful Water Department that provides safe drinking water for the entire community, it must reinvest into the systems that treat, store, and distribute water. The proposed improvements reflected in the proposed Five-Year Capital Improvement Project are at a critical juncture and the updated rate structure accommodates important maintenance and improvements to the water system.

The Subcommittee is forwarding for consideration an annual rate adjustment proposed as Option 1. The proposed rate adjustment would ensure adequate funding of operations, maintenance, debt service, and capital improvements through calendar year 2030.

Option 1: Self-Funded CIP

This option includes a phased increase of 15% in the first and second years, followed by 14% in the third and fourth years, and 10% in the final year. The proposed option presents a fiscally conservative and strategically advantageous approach by financing all water system improvements directly from existing cash reserves and future revenues, completely avoiding the need for debt issuance. One of the most significant benefits of this option is the elimination of interest payments, which results in substantial long-term cost savings. Another major advantage of this option is the immediate and unencumbered ownership of infrastructure assets. Once the Water Department completes projects, these are fully owned by the City, free from any long-term debt obligations, However, the primary drawback of this option is the need for upfront rate increases.

Figure 1: Self-Funded CIP Model

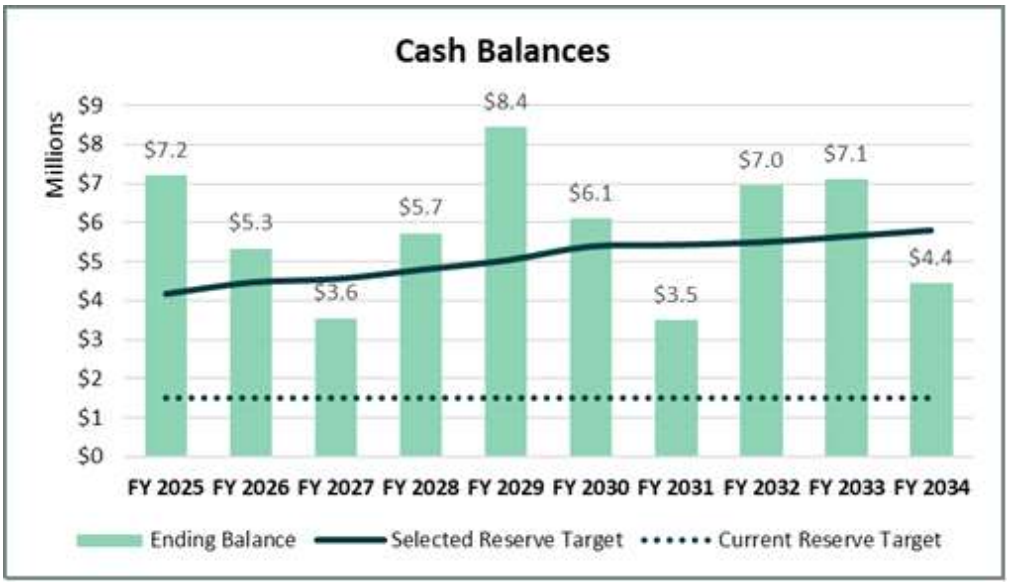


Option 2: Partially Debt-Financed CIP - Model 1

This option includes an increase of 14% in the first year, 12% in the second year, 10% in the third year, and 8% in the fourth and fifth years. In addition, this option would require the City to issue a $9 million bond in the fourth year. A key benefit of this option is that it allows the City to spread the cost of capital projects over time, minimizing immediate rate increases for residents and businesses. By issuing two revenue bonds, the City can ensure that critical infrastructure projects are completed promptly without depleting cash reserves, which helps maintain financial flexibility for operational needs or unforeseen expenses. Additionally, if bonds are issued during favorable market conditions with low-interest rates, the long-term cost of borrowing can be minimized, making this an efficient financing strategy.

However, this option introduces long-term debt obligations, which will increase the total cost of capital projects due to interest payments over time. Future, ratepayers will bear the burden of debt service even after the projects are completed, potentially requiring future substantial rate increases to meet these obligations. The City will also be subject to debt covenants, which may impose financial restrictions and require adherence to specific performance metrics, potentially limiting financial flexibility. For these reasons, issuing new debt would only marginally decrease rate increases but increase the Water Department's long-term debt service and capital costs due to interest.

Figure 2: Partially Debt-Financed CIP Model -1



Option 3: Partially Debt-Financed CIP - Model 2

This option includes a flat annual increase of 9% over five years and $6 million bond third and $6 million bond the fifth year. This option minimizes near-term rate increases while ensuring the timely completion of critical infrastructure projects. By distributing the financial burden across two bonds, the Water Department can preserve cash reserves, maintain strong financial flexibility.

However, Option 3 results in the highest long-term debt obligations, increasing interest payments and the total cost of capital improvements. The additional bond issuance heightens exposure to market risks, especially if future bonds face higher interest rates. Managing multiple bonds adds financial complexity, requiring strict adherence to debt covenants and careful credit management. While this

option minimizes immediate rate increases, it may likely lead to future rate increases to cover rising debt service costs and could limit financial flexibility for new projects or emergencies.

Figure 3: Partially Debt-Finance CIP Model - 2

Comparison with other Cities

When comparing water rates across neighboring cities, Signal Hill remains among the lowest cost per user, even with proposed adjustments to support capital improvements. The rate study indicates that many surrounding municipalities, such as Long Beach, Santa Monica, Seal Beach, Lynwood Lomita, Golden State Water have implemented higher water rate adjustments to address infrastructure needs and rising operational costs. For example, the City of Long Beach includes a daily service charge of $0.887, in addition to higher consumption rates, contributing to significantly larger monthly bills for residents when compared to Signal Hill. Signal Hill's rate structure has historically maintained lower per-unit costs and fewer fixed charges, keeping overall bills more affordable. Cities such as Seal Beach are anticipating a 32% increase in year 2 and other double digit increases in subsequent years.

A critical aspect of comparing water rates is the standard unit of measurement for water consumption. In Signal Hill, as in most California municipalities, one billing unit is equivalent to 748 gallons or 100 cubic feet (CCF). On average, a single-family household in Signal Hill uses approximately 9 billing units, or 6,732 gallons of water, per month. Each water bill typically consists of two components: a fixed service charge based on the meter size, and a usage charge that varies depending on water usage by the customer.

As reflected in the comparative table below, the City's water rates are near the lowest among seven agencies listed. The proposed rate adjustment staff discussed under Option 1 would increase the

average monthly water bill by $5.87 per month for the first year. Including the proposed adjusted water rate for Year 1, the City's average monthly bill would remain 30% lower than the City of Long Beach.

Table 2: Rate Comparison

	Lakewood	Signal Hill (Current)	Signal Hill (Proposed)	Santa Monica	Seal Beach	Lynwood	Lomita	Long Beach	GSW
Service Charge	$22.54	$25.76	$28.08	$19.43	$48.50	$40.84	$61.03	$26.61	$58.58
Cost for 9 Units	$27.18	$39.42	$42.97	$59.49	$31.41	$42.84	$51.30	$36.43	$44.21
Monthly Cost	$49.72	$65.18	71.05	$78.92	$79.91	$83.68	$112.33	$92.80	$102.79

General Fund Loan: Gundry Reservoir Roof Replacement and Rehabilitation Project

All proposed rate structures include a one-time bridge loan from the General Fund to the Water Fund for the construction of the Gundry Reservoir Roof Replacement and Rehabilitation Project (Gundry). This project is located within Reservoir Park, is a cylindrical concrete water storage tank with a five-million-gallon capacity, originally constructed in 1929. Over the years, the reservoir has undergone significant upgrades, including replacing its wooden roof framing with a steel structure in the 1990s and applying a watertight coating in 2006.

In March 2022, an inspection of the reservoir's interior and structural components revealed failing roof members, necessitating a complete roof replacement and recoating to maintain water quality and structural integrity. As of late 2024, the condition of the reservoir roof and the adjacent sand basin has further deteriorated, reaching a critical state where the risk of catastrophic failure is imminent, making immediate action is essential.

On February 14, 2023, the City Council approved an inter-fund loan agreement of $1.9 million to fund the construction of the Gundry Reservoir Roof Replacement and Rehabilitation Project. This amount was based on the 2023 engineer's construction cost estimate for the project at the time. Final bid-ready plans and specifications were completed in July 2024, and on September 27, 2024, the Water Department issued the project for bid through the City's formal procurement process.

The lowest bid, submitted by Spies Construction Company, Incorporated totaled $5,599,895.55 which significantly exceeds the engineer's estimate of $2,859,000 and the available project funds. Over the past two to three years, construction costs for similar projects have escalated drastically, largely driven by ongoing supply chain disruptions and inflationary pressures. Other contributing factors to the high bid included aluminum cost uncertainties due to the political climate at the time, unknown subfloor conditions inside the reservoir, and access challenges for sand removal from the sand basin.

Due to budget constraints, the City Council rejected all bids, and staff have since been exploring funding opportunities. Given the roof is already deteriorating, structurally compromised, and at risk of collapse, staff is proposing the City Council approve a $3 million loan with a three percent (3%) interest rate and a 20-year repayment term (Attachment B). Staff determined the interest rate based on the estimated rate of return on investment of surplus General Funds. The proposed bridge loan would allow the City to proceed with the necessary repairs before a structural failure occurs, ensuring the continued safety and functionality of the reservoir.

Staff will also note that the General Fund should no longer provide loans to the Water Department unless an imminent safety-related or extenuating circumstance exists, as determined by the City Manager and approved by the City Council. Staff recognizes the General Fund is not designed to support the City's overall operations while also subsidizing the Water Department. Continuing the practice of providing loans to the Water Department affects other City projects and may imperil the City's ability to provide regular services. Staff is proposing the bridge loan as a stopgap to address the significant liability posed by deferring maintenance of the Gundry Reservoir.

Conclusion and Recommendations

In conclusion, the need for capital improvement projects is critical to ensure the reliability, safety, and sustainability of the City's water infrastructure. Aging pipelines, potential regulatory risks like asbestos contamination, and increasing maintenance costs underscore the urgency of addressing these issues through a proactive and well-funded capital projects budget. Equally important is the reserve policy, which safeguards the Water Department's financial stability by maintaining adequate funds for emergency response, and rate stabilization. A strong reserve ensures the Water Department can respond effectively to unexpected challenges while minimizing the risk of sudden rate increases for residents and businesses or seeking urgent loans from the General Fund.

Considering these factors, Option 1: Self-Funded CIP, emerges as the best long-term strategy. By eliminating debt, the Water Department avoids interest payments, reducing the overall cost of improvements while maintaining full financial independence and control over projects. Although this option requires higher upfront rate increases, Option 1 aligns with the City's commitment to fiscal responsibility and sustainable water management. The combination of a robust reserve policy and a debt-free approach positions the Water Department for long-term success, providing reliable, cost-effective water services for current and future generations.

The Water Department also desires to avoid future loans and prioritize repaying existing debt to the best of its ability. The Water Department currently carries $12.8 million in debt, with $6.8 million remaining to be paid. Increasing this debt burden with additional bonds, or series of bonds, would not resolve the Water Department's financial issues in a sustainable, long-term manner. Therefore, adopting a rate adjustment model that balances the long-term needs of the Water Department while also recognizing the City's desire to provide water at an affordable rate is an important consideration. Staff recommends the Self-Funded model as the most practical way to ensure the City can have a high-functioning Water Department.

NEXT STEPS

In order to adjust water utility rates, the City must comply with Proposition 218 notice and hearing

requirements. In addition to the requirements of Proposition 218, staff will conduct a community workshop to explain the proposed rate adjustment. Dates for the rate adjustment process are:

City Council Meeting Water Rate Workshop (Today)	February 25, 2025
Community Water Rate Workshop	March 10, 2025
Resolution to Intent to Amend SHMC and Establish New Rates	March 25, 2025
Mail and publish Notice of Prop 218 hearing	March 28, 2025
Hold public hearing (Completion of Prop 218)	May 27, 2025
Second Reading	June 10, 2025
New rate effective date	July 1, 2025

Reviewed for Fiscal Impact:

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Siamlu Cox

Attachments:

A. Draft Water Master Plan
B. Interfund Loan Agreement
C. Resolution