



MEMORANDUM

October 7, 2022

TO: MEMBERS, PORT COMMISSION
Hon. Willie Adams, President
Hon. Kimberly Brandon, Vice President
Hon. John Burton
Hon. Gail Gilman
Hon. Steven Lee

FROM: Elaine Forbes 
Executive Director

SUBJECT: Informational Presentation for Port to Enter into Agreement to Purchase Non-Potable Water from Mission Rock Utilities for China Basin Park and other Port-accepted Areas of the Mission Rock Site at Seawall Lot 337, Bound by China Basin Channel, Third Street, Mission Rock Street, and San Francisco Bay

DIRECTOR'S RECOMMENDATION: Information Only – No Action Required

EXECUTIVE SUMMARY

The "Mission Rock Project" (or "Project"), located at Seawall Lot 337, bound by China Basin Channel, Third Street, Mission Rock Street, and San Francisco Bay, is now over one year into Phase 1A horizontal and vertical construction activities. The Developer team has been successful in managing supply chain challenges and been able to maintain significant construction progress while staying within budget. Site milestones include completion of superstructures and façade installation at parcels A, B and G. The final Phase 1 building, a residential tower at Parcel F, has a completed foundation, an installed tower crane, and vertical superstructure work will begin this month. Phase 1 infrastructure construction is nearing completion with the City and Port beginning to work with developer

on the formal acceptance process for these improvements. Work on the inland portion of China Basin Park is advancing at a steady pace and is expected to be complete in time to welcome the project's first occupants in mid-2023.

At the March 8, 2022, Port Commission meeting, staff provided an informational presentation on a key element of the Project's Sustainability Strategy: production of District-scale, Black Water Recycling System to substantially decrease the use of potable (fresh) water for non-potable water uses (e.g., irrigation, toilet flushing, and cooling tower). Consistent with 2019 Port Commission Resolution No. 19-40 supporting the formation of a nonprofit to build, own, and operate District-scale utilities, the Developer and partners have formed Mission Rock Utilities to deliver a thermal District Energy System and non-potable water system.¹ To obtain and service private financing to construct these systems, Mission Rock Utilities must have contracts in place with customers. As the owner of future parks, the Port must secure water for irrigation.

The Black Water Recycling System will be a model of sustainability in development and at the forefront of policy to manage California's long-term drought conditions. It will be one of the first and largest black water recycling facilities in San Francisco. At full build out, the Black Water Recycling System will recycle 64,000 gallons of black water each day to save 43,000 gallons of potable water for a total of 13.9 million gallons of water saved each year.

Construction of the facility began in June 2021 in Building B. Substantial completion and pressurization using potable water and sewage pumping is expected in November 2022. Over the next year or more, the system will go through clean-water testing, reach sufficient flow of black water from buildings, and hold SFDPH compliance operations. In January 2024, substantial completion of recycled water operations is expected.

Today's staff report and presentation provide additional information about this important work including proposed terms between the Port and Mission Rock Utilities for a non-potable water purchase agreement including a contract length, minimum water production provisions, and maximum contract cost. Port staff will return to the Port Commission for consideration of action on this agreement. Contract execution would also require Board of Supervisor's action.

STRATEGIC OBJECTIVES

The Mission Rock Project supports the Port's Strategic Plan strategies of Productivity, Resilience, and Sustainability.

¹ See staff report and resolution here, item 7A. <https://sfport.com/meetings/san-francisco-port-commission-september-24-2019>

- **Productivity.** Redevelopment of a surface parking lot into the Mission Rock neighborhood supports the goal of enhancing the economic vitality of the Port.
- **Resilience.** The Mission Rock project will elevate the site to prepare for a 100-year flood and provide special tax sources for waterfront resilience projects across the Port.
- **Sustainability.** The on-site Blackwater Recycling System (BWRS) will treat wastewater for additional non-potable use within Mission Rock, reducing the project's overall potable water usage by 13.9 million gallons annually.

MISSION ROCK PROJECT BACKGROUND AND UPDATE

The entitled Mission Rock project anticipates approximately 1,200 units of new, rental housing, 1.4 million square feet of new commercial and office space, the rehabilitation of historic Pier 48, as well as space for small-scale manufacturing, retail, neighborhood services, waterfront parks, and public infrastructure. The mixed-use Mission Rock Project is located on about 28 acres, including SWL 337 and Pier 48.

Approved in 2018 and now an active construction site, the Project represents 12 years of effort, led by the Port Commission, Port and City staff, and Mission Rock Partners, a partnership between the San Francisco Giants and Tishman Speyer (the "Developer").

Phase 1 includes the following program elements:

- 537 apartment units
 - 199 of which are below market rate units
- 588,000 gross square feet office
- 50,000 gross square feet of retail
- District energy system located in Parcel A which will serve all of Mission Rock
- District scale Non-Potable Water Plant located in Parcel B which will serve all of Mission Rock's indoor and outdoor recycled water needs

Key public benefits include affordable housing, parks and open space, sustainability strategy goals, and achievement of workforce and local hire requirements and goals agreed upon in the Project's Development and Disposition Agreement and the Development Agreement.

Construction at the site continues forward as the project hits major horizontal and vertical milestones. Vertical construction continues to move forward, with the most recent critical milestone being the Parcel F mat pour. The project team successfully orchestrated a smooth overnight process, which entailed pouring and setting approximately 3200 cubic yards of concrete at the base of Parcel F. Parcel A recently demobilized the Hoist

(“manlift”) and is nearing completion of precast installation along the remaining corner of the building. The project team on Parcel G will begin filling planter boxes on the terraces with plants in the coming weeks. Parcel B continues to work toward completing necessary mechanical, electrical, plumbing inside the building, while preparing for paving work along the outdoor terraces.

China Basin Park is currently under construction with construction expected to be completed next year. The Port anticipates accepting the park around this time next year.

Despite increased construction costs and rising interest rates, the project is still on track to stay within the Phase 1 budget.

MISSION ROCK LOCAL BUSINESS ENTERPRISE UPDATE

The Mission Rock project was one of the City’s first development projects to commit to a Local Business Enterprise (“LBE”) participation goal. Working collaboratively with general contractors, RDJ Enterprises, Monica Wilson, Port staff, and the San Francisco Contract Monitoring Division, the project team continues to implement additional barrier mitigation strategies to help identify and assist local and historically underrepresented businesses to be competitive during the bid and awarding process.

During 2Q 2022, Mission Rock Partners realized an increase in overall LBE participation by \$20,633,551, while also increasing contract dollars awarded to minority- and women-owned local businesses. The equity efforts through Q2 2022 have resulted in \$85,579,895 LBE value awarded to minority-owned and woman-owned companies, equal to 70% of LBE contract values awarded. Additionally, minority-owned LBE awards increased from \$55,044,877 at end of Q1 2022, to \$64,715,577 cumulative through Q1 2022, increasing from 7.71% of total project awards to 8.18% of total project awards.

Some representative LBE-MBE companies awarded new or additional contracts in the Q2 2022 term include: Master Painting, Picture Painting, Temper Insulation, Harris Hoisting.

The project has established a goal of 20% overall LBE participation and the participation continues to trend upwards as Phase 1 procurement comes to an end. As of June 2022, Mission Rock’s total contracts to Local Business Enterprises totaled \$124.16 million, summing to 15.61% of overall.

The above data from the Developer is under thorough review by Port staff and will be confirmed and verified during the normal course of our quarterly review.

MISSION ROCK SUSTAINABILITY STRATEGY OVERVIEW

As originally reported to the Port Commission as part of a July 2017 staff report, the Mission Rock Sustainability Strategy summarizes how the Project will attain high levels of performance in social, economic, and environmental sustainability, with a focus on equity, resilience and climate protection. The Sustainability Strategy assumes that sustainability is not an isolated feature of the Project, but rather a way of thinking, designing, and implementing the Project that will be integrated into many elements of its neighborhood, from the way structures are designed to how water is used, from the provision of multi-modal transportation choices to landscape design. The Sustainability Strategy was approved by the Port Commission as DDA Exhibit B8.

These approaches are integrated throughout the Project's key planning documents, including the SUD Design Controls, Transportation Plan, and Infrastructure Plan. The Sustainability Strategy acts as a reference document which consolidates and summarizes all the sustainability elements into one place.

- **Livability.** The Project will bring people together through an inviting and welcoming balance of uses including grocery, restaurants, laundry, childcare, space for artists and makers, 8 acres of open space; and through events such as open-air markets, concerts, films, and other special events.
- **Prosperity.** The Project aims to support employment and innovation onsite over the long-term. It sets targets of 10,000 permanent jobs and 11,000 construction jobs, with at least 20% LBE and Local Hire commitments for the construction jobs utilizing our local workforce. It also targets a robust mix of commercial office, residential, and a variety of ground floor retail spaces at full build-out.
- **Health & Wellness.** The Project aims to support active lifestyles through walking, bicycling, paddling, and active recreation opportunities. The Project's parks and open space are adjacent to each residential building.
- **Ecosystems and Resource Stewardship.** The Project aims to improve and enhance the extent and quality of ecosystem services, habitat connectivity and biodiversity present on the site. The Project's blackwater system, will manage stormwater and reduce water usage onsite. Street trees and greenery on streets, in parks and on rooftops, will improve air quality, provide expanded habitat area, and provide opportunities for residents and visitors to connect with nature.
- **Climate Protection & Energy Efficiency.** Objectives of the Sustainability Strategy are the construction of buildings and infrastructure that achieve top-performing energy efficiency ratings; greenhouse gas emission reductions from

energy use on-site; and reduction of urban heat island effects. Consistent with the Phase 1 approval, the Developer will also implement a site-wide district energy system appropriate for San Francisco's mild climate, which will supply hot and cold water from a single plant to each building through a network of underground distribution pipes. Mission Rock has achieved LEED-Gold certification for Neighborhood Development, supporting a long-intended environmental milestone for the project.

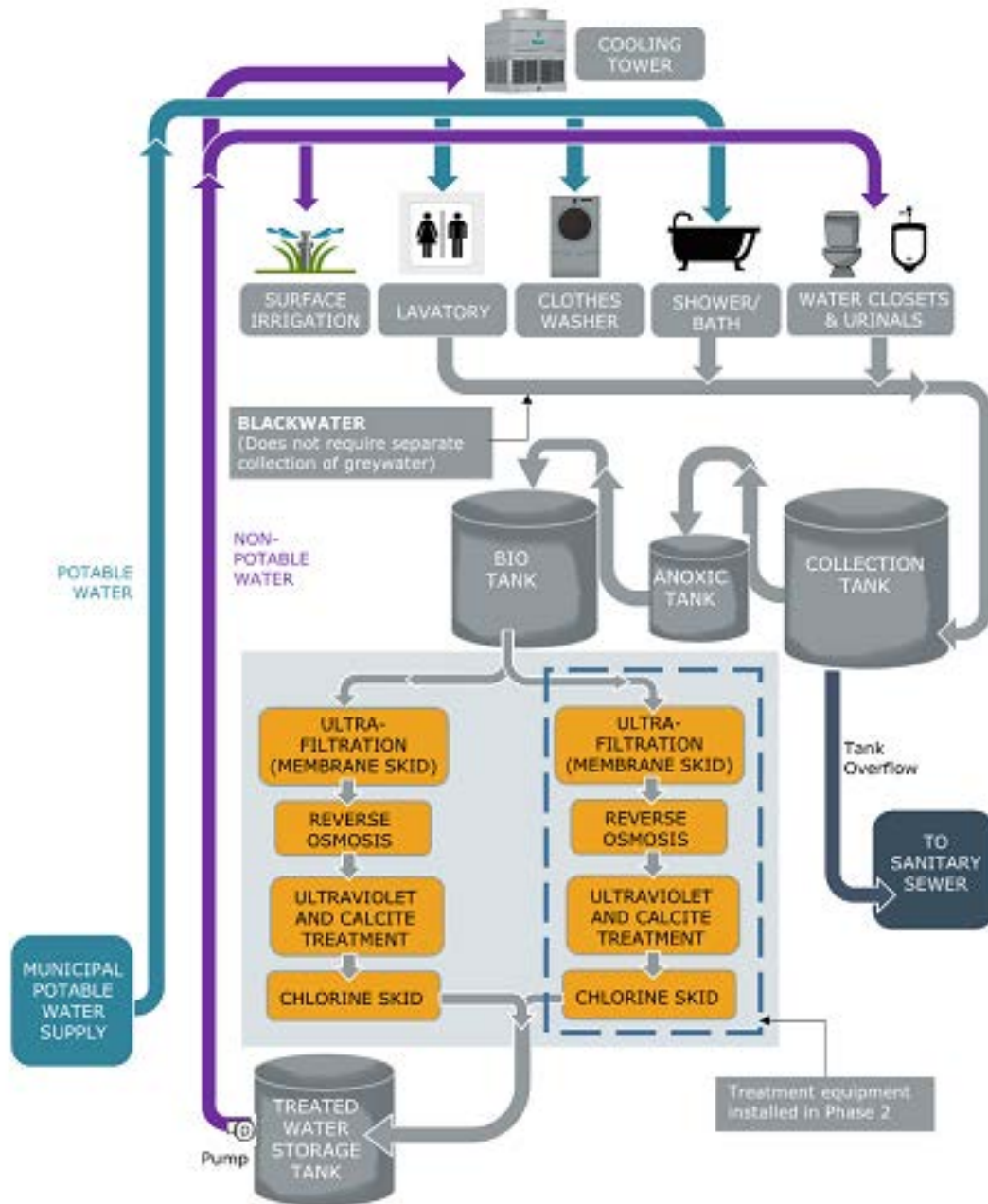
Achieving Sustainability Targets

Every aspect required under the Sustainability Strategy is included in approved regulatory documents including the DDA, Infrastructure Plan, and Design Controls. The targets in the Sustainability Strategy form the basis for regular monitoring.

The Mission Rock Sustainability Strategy includes goals to build healthy and energy-efficient buildings, reduce greenhouse gas emissions, and create a resilient site to protect against future sea level rise. Important targets of the Sustainability Strategy include obtaining 100% of operational energy from renewable sources and meeting 100% of non-potable water demand with non-potable sources.

Unique sustainability features include a thermal District Energy System ("DES") designed to reduce carbon emissions and water use and a district scale BWRS that will provide recycled water to the entire project site. The DES will supply hot and cold water from a single plant through a network of underground distribution pipes for heating and cooling in each building. The BWRS will treat water collected from sinks, showers, and toilets in a central plant and supply recycled water to all buildings and open spaces for irrigation, toilet flushing, and cooling tower makeup water. The diagram below shows the process for collecting, treating, and using recycled water.

Figure 2. Blackwater Treatment Process



MISSION ROCK UTILITIES

On September 24, 2019, the Port Commission adopted Resolution Nos. 19-39 and 19-40. The staff report supporting Resolution No. 19-39, which approved the Phase 1 budget, explained that the budget did not include the Blackwater Plant because: (1) the Plant would not be owned and operated by SFPUC due primarily to its small size and (2) the private entity model allowed for the upfront costs to be financed outside of the project's finite, public financing proceeds. Along with a supporting letter from SFPUC, the Port Commission also passed Resolution No 19-40, supporting formation of Mission Rock

Utilities, Inc. (“MRU”) as a nonprofit entity to build and operate the DES and BWRS for the Project.

Mission Rock Utilities, LLC was formed as a Delaware Non-Stock Corporation in December 2019 for this purpose. Through the resolution, MRU and Port staff are encouraged to work towards the provision of recycled water to the Project. The primary purpose of MRU is the provision of utility services in a manner that meets the Project’s goals for environmental sustainability and cost efficiency. MRU will only serve the Project, providing thermal energy for heating and cooling buildings and recycled water for non-potable uses such as toilet flushing and irrigation.

MRU was able to seek debt financing at rates lower than the cost of horizontal equity, allowing for a cost savings to be achieved by the project. MRU issued \$25 million of bonds in November 2020 to fund the initial construction of the BWRS and DES. In June 2022, MRU issued new debt totaling \$43.525 million to repay the original shorter-term debt and fund the remaining costs for the system and startup operations. Over time, MRU will repay these bonds, ongoing operations costs, and the costs of recycled water through customer charges only. All costs of operating the BWRS will eventually pass on to the customers – the Port and building owners through the Master Association – who share the cost burden equitably. In any event customers will pay their pro-rata share of actual costs incurred by MRU, and the structure ensures that MRU will not make a profit.

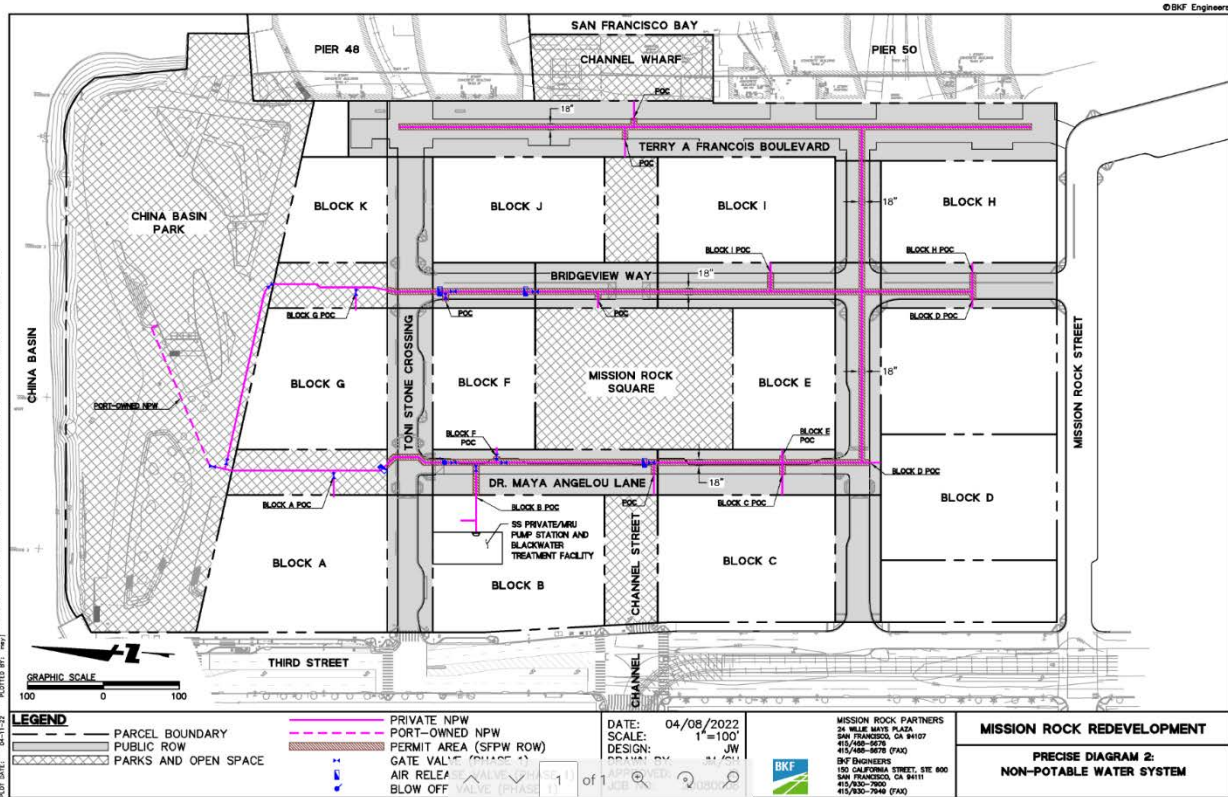
MRU began construction on the BWRS in Building B in June 2021. The horizontal infrastructure construction included service piping to connect wastewater pipes to the BWRS and return recycled water to the buildings and open spaces for non-potable uses. Substantial completion and pressurizing of the facility with potable water and sewage pumping are currently anticipated in November 2022. In 2023, the facility will undergo clean-water testing, achieve sufficient sewage flow upon building occupancy, and hold a 90-day SFDPH compliance operation period. Substantial completion of the facility and recycled water operations is expected in January 2024 pending the production of wastewater from building occupancy.

AGREEMENT TO PURCHASE NON-POTABLE WATER

To fulfill the commitment under the Mission Rock sustainability strategy, Port staff and MRU have negotiated an agreement for the Port to purchase recycled water (“Water Purchase Agreement” or “WPA”) from MRU’s BWRS for non-potable uses (non-drinking water, e.g., toilets and irrigation) in China Basin Park (“CBP”) and other future public open spaces accepted by Port within the Mission Rock Project site.

The agreement will be effective upon the Port’s acceptance of the Phase 1 public open spaces (anticipated in mid-2023 and called the “Initial Premises” in the contract) and continue for thirty years, at which point the Port will have the option to extend the term. Port staff plan to seek a Sole Source Waiver from the Board of Supervisors for this agreement. Figure 2 below generally represents the area of the recycled water service pipes for all phases of the Mission Rock Project and within Port-accepted facilities.

Figure 2. Mission Rock Recycled Water Service Pipes



MRU will need a separate license with the Port to access and maintain MRU infrastructure on Port property shown above. Port staff anticipate returning to the Port Commission for approval of a no fee license for MRU’s pipes within Port-owned parks and open space.

MRU’s obligations, including debt service for the facility, are paid by MRU but funded solely by customers within the Mission Rock project including the Port and building owners (through the Master Association). All building owners, including those in future phases of the project, will become MRU customers.

All customers of the BWRS will pay two different cost-based charges to utilize recycled water: a Capacity Charge and a Flow Charge. The Capacity Charge will pay the debt service on bonds and other fixed operating costs (e.g., maintenance, repairs, and water testing). It is a fixed charge that will be billed as a consistent amount each month. The Port

has the option to approve the use of future Phase horizontal project funds to pay off MRU bonds, which would eliminate debt service costs in the capacity charge and significantly reduce overall water costs under the WPA. This option is in line with anticipated financing at Project approvals in 2018. At that time, the Port and Developer anticipated SFPUC would accept and operate a BWRS plant for the site and the Port would use public financing to pay for the plant’s construction costs. However, for a variety of reasons including size (the system is small relative to SFPUC systems) and ongoing costs (e.g., rental costs for space within Parcel B), SFPUC decided not to operate the BWRS. SFPUC encouraged the project team to integrate the plant into the district under nonprofit management to achieve Sustainability Goals.

The Flow Charge will cover the variable amount of water each customer uses monthly and will be based on actual recycled water usage and costs. The Flow Charge is estimated to be \$33.12 per CCF (one-hundred cubic-feet or 748 gallons) and may be compared to the SFPUC rate for potable water of \$10.55 – 10.76 per CCF. The higher rate compared with Hetch Hetchy water is due to the costs of treating and testing recycled water and to promote conservation. The Mission Rock Contingent Services Special serves as the funding source for both WPA costs.

The Port’s agreement includes a cap on both Capacity Charges and Flow Charges of projected costs plus a 10 percent contingency, escalated at no more than 5 percent annually. The cap will increase annually by the rate at which the Mission Rock Contingent Services Special Tax increases annually as defined by the Rate and Method of Apportionment. Actual charges will be based on actual fixed costs to operate the system plus actual recycled water usage, with a maximum cap. Table 1 below shows the cap for Capacity and Flow Charges, and Table 2 below shows the projected costs for Capacity and Flow Charges.

Table 1. Cap for Capacity and Flow Charges

Year	Non-Potable Water Capacity Charge (\$) [1]	Port Non-Potable Water Flow Charge (\$)	Total (\$)
1	607,534	64,611	672,145
2	637,911	67,841	705,752
3	669,806	71,234	741,040
4	703,297	74,795	778,092
5	738,462	78,535	816,997
6	775,385	82,462	857,846
7	814,154	86,585	900,739
8	854,862	90,914	945,776
9	897,605	95,460	993,064

Year	Non-Potable Water Capacity Charge (\$) [1]	Port Non-Potable Water Flow Charge (\$)	Total (\$)
10	942,485	100,233	1,042,718
11	989,609	105,244	1,094,854
12	1,039,090	110,507	1,149,596
13	1,091,044	116,032	1,207,076
14	1,145,596	121,833	1,267,430
15	1,202,876	127,925	1,330,801
16	1,263,020	134,321	1,397,341
17	1,326,171	141,038	1,467,208
18	1,392,479	148,089	1,540,569
19	1,462,103	155,494	1,617,597
20	1,535,209	163,269	1,698,477
21	1,611,969	171,432	1,783,401
22	1,692,568	180,004	1,872,571
23	1,777,196	189,004	1,966,200
24	1,866,056	198,454	2,064,510
25	1,959,358	208,377	2,167,735
26	2,057,326	218,795	2,276,122
27	2,160,193	229,735	2,389,928
28	2,268,202	241,222	2,509,424
29	2,381,612	253,283	2,634,896
30	2,500,693	265,947	2,766,640

Table 2. Projected Costs for Capacity and Flow Charges

Year	Port Non-Potable Water Capacity Charge (\$) [1]	Port Non-Potable Water Flow Charge (\$)	Total (\$)
1	552,304	64,611	616,915
2	579,919	67,841	647,760
3	608,915	71,234	680,148
4	639,361	74,795	714,156
5 (Phase 2)	512,170	95,421	607,591
6	537,778	100,192	637,970
7	564,667	105,202	669,869
8	592,900	110,462	703,362
9	622,545	115,985	738,530
10 (Phase 3)	652,029	131,862	783,891
11	684,630	138,455	823,085
12	718,862	145,377	864,239

Year	Port Non-Potable Water Capacity Charge (\$) [1]	Port Non-Potable Water Flow Charge (\$)	Total (\$)
13	754,805	152,646	907,451
14	792,545	160,279	952,824
15	832,173	168,293	1,000,465
16	873,781	176,707	1,050,488
17	917,470	185,543	1,103,013
18	963,344	194,820	1,158,163
19	1,011,511	204,561	1,216,072
20	1,062,086	214,789	1,276,875
21	1,115,191	225,528	1,340,719
22	1,170,950	236,805	1,407,755
23	1,229,498	248,645	1,478,143
24	1,290,973	261,077	1,552,050
25	1,355,521	274,131	1,629,652
26	1,423,297	287,837	1,711,135
27	1,494,462	302,229	1,796,692
28	1,569,185	317,341	1,886,526
29	1,647,645	333,208	1,980,852
30	1,730,027	349,868	2,079,895

[1] This charge is largely the financing charges for the upfront costs of the system. The Port has the option to use public financing in future phases to repay this debt and thereby reduce the financing costs. Had the facility been built and accepted by SFPUC, the full costs of the system would have been paid for upfront by the project vial public financing.

As shown in Table 2 above, the Port anticipates Capacity Charges will decrease over time as later Phases are completed and more buildings share the fixed costs of BWRS capital and operations. Additionally, Table 2 does not reflect the paydown of MRU debt by future phase horizontal funds, which could materially reduce the capacity charges.

The final liability and indemnity provisions and insurance levels will be determined in accordance with the City's Risk Manager's recommendations.

Neither party can terminate the WPA for convenience to ensure long-term sustainability goals are met. However, the Port will suspend payment if MRU does not perform its obligations under the agreement. Additionally, if other customers of MRU terminate their agreements, the Port will have the option to terminate the WPA.

Under the WPA, MRP is required to maintain operating standards to ensure continuous availability of recycled water for non-potable uses. However, if at any time the facility

cannot provide recycled water due to an equipment failure, system malfunction, other reason, MRU may fulfill their obligations by providing potable water from the SFPUC at the actual cost of water. Table 3 below summarizes the key terms of the WPA:

Table 3. Summary of Key Terms in WPA

Commencement	Acceptance of Phase I parks and open spaces (anticipated in mid-2023)
Length	30 years
Annual Initial Cap (combined Capacity + Flow Charges)	\$672,145 (increases up to 5 percent annually and tied to increases to special taxes in RMA)
Projected 1st year costs	\$616,915
Non-Potable Water Use (Phase 1)	3,999 gallons per day (1.5 million gallons annually)
Non-Potable Water Use (Project)	5,260 gallons per day (1.9 million gallons annually)
Price of Water	\$33.12 per CCF (one-hundred cubic-feet)
Intention to Assign	Port intends to assign obligations of this agreement to the entity that manages parks and open space in a future parks lease, releasing Port from any obligations or liability
Revenue Source	If Port is responsible instead of park tenant, Contingent Special Services Tax is used to pay for WPA charges

INTENTION TO ASSIGN WPA TO PARKS TENANT

The Port intends to assign the obligations of the WPA to Mission Rock Commons LLC (“MRC”, or another Mission Rock affiliate as similar park tenant, or to the extent necessary, the Port’s selected park tenant), through a lease for China Basin Park and other public open spaces (the “Parks Lease”). Port staff are in the process of negotiating the Parks Lease and anticipates returning to the Commission for approval of the Parks Lease. Through this assignment, in addition to its other management obligations, MRC or another park tenant will assume all the Port’s obligations under the WPA, and MRU will release the Port of all the Port’s obligations under this agreement. Through the Parks Lease, the Port will have no costs for the WPA or parks and open space management; therefore, the Contingent Special Services tax will not be levied.

If at any time the Port or MRC terminate the Parks Lease, the obligations of the WPA would return to the Port. The Port would then have the option to assign the WPA to another entity for management, at which point the obligations of the WPA would transfer so long as that entity was performing.

FUNDED BY COMMUNITY FACILITIES DISTRICT CONTINGENT SERVICES TAX

If for any reason the Port elects to not have a park tenant or the Parks Lease terminates, and the Port desires to manage China Basin Park and other opens space areas directly, the Port will utilize a dedicated revenue source from the Mission Rock Community Facilities District to pay for services under this agreement. The Contingent Special Services Tax is not levied on the Community Facilities District so long as the Parks Lease is in place, but the tax is triggered upon the lease’s termination if it ever occurs. If that circumstance occurs in the future, the Port will use the Contingent Special Services Tax revenues to pay for WPA costs and to fund maintenance of parks and open spaces at Mission Rock.

The Maximum Contingent Services Special Tax for the entire project in FY22-23 would be \$2,741,959. This amount will continue to escalate as set forth in the RMA for each tax year. For Phase 1 only, the Maximum Contingent Services Special Tax would be \$1,303,608. If managed directly, the Port intends to fully fund its obligations under the WPA and the operations of China Basin Park and other open spaces with these revenues.

CONCLUSION

The Mission Rock Project’s Sustainability Strategy contributes to a vibrant, accessible, environmentally thoughtful approach to building a new neighborhood. These tools will help the City and region grow responsibly while supporting the financial and functional needs of an active new waterfront neighborhood. Port staff looks forward to returning to Port Commission to seek approval of the finally negotiated Water Purchase Agreement and then seek Board of Supervisors thereafter.

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