

Board of Water Supply
Capital Improvement Program
FY 2024

Summary by Categories	Operating Fund (1)	State Revolving Fund (2)	Special Expendable Fund (3)	Improvement Fund (4)	Extramural Fund (5)	Total
I. Research and Development	3,500,000	-	550,000	2,500,000	10,000,000	16,550,000
II. Renewal and Replacement						
A. Pumps	4,380,000	-	-	7,660,000	-	12,040,000
B. Reservoirs	-	-	-	8,500,000	-	8,500,000
C. Pipelines	450,000	5,100,000	-	8,000,000	5,100,000	18,650,000
D. Treatment	4,500,000	-	-	-	-	4,500,000
E. Facilities	9,360,000	-	-	15,500,000	-	24,860,000
Category II - sub-total	18,690,000	5,100,000	-	39,660,000	5,100,000	68,550,000
III. Capacity Expansion						
A. Pumps	-	-	-	5,100,000	-	5,100,000
B. Reservoirs	-	15,700,000	-	-	-	15,700,000
C. Pipelines	-	15,000,000	-	3,300,000	3,300,000	21,600,000
D. Treatment	-	-	-	-	-	-
E. Facilities	-	-	35,000,000	-	25,000,000	60,000,000
Category III - sub-total	-	30,700,000	35,000,000	8,400,000	28,300,000	102,400,000
Total - Categories I - III	22,190,000	35,800,000	35,550,000	50,560,000	43,400,000	187,500,000
Construction Cost Index Account	1,586,000	3,580,000	3,500,000	4,370,000	4,375,976	17,411,976
Contract Adjustment Account	12,500,000	-	2,250,000	4,250,000	-	19,000,000
Capital Improvement Program - Total	36,276,000	39,380,000	41,300,000	59,180,000	47,775,976	223,911,976

(1) Operating Fund is defined as rate revenue or cash.

(2) State of Hawaii Department of Health State Revolving Fund (SRF) loan program is defined as low interest project loans from the State of Hawaii.

(3) Special Expendable Fund is a restricted fund in which water system facilities charges are deposited and the funding reserved for water system capacity expansion projects.

(4) Improvement Fund is defined as the proceeds of Water System Revenue Bonds.

(5) Extramural Fund is a restricted fund, established by Resolution No. 778, 2007, in which funds received from any governmental agency or private entity, pursuant to negotiated agreements, contracts and/or grants, are deposited and separately accounted for.

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			Operating Fund	State Revolving Fund	Special Expendable Fund	Improvement Funds	Extramural Fund	Total
<u>I. Research and Development</u>								
1. Exploratory Wells for Red Hill Contamination Response	Drill, case, install test pump and sample one exploratory well at Newtown 550' as possible replacement sources for the loss of Halawa Shaft due to the Red Hill fuel contamination.	Const	500,000	-	-	-	3,000,000	3,500,000
2. Monitoring Wells for Red Hill Contamination Response	Drill and case up to ten (10) monitoring wells for use as "sentinel" wells to warn of the presence of an underground fuel plume from the Red Hill fuel contamination.	Const	-	-	-	2,500,000	7,000,000	9,500,000
3. Construction Management for Various BWS Construction Projects	Provide construction management and training services for selected BWS construction projects.	P&E	2,000,000	-	-	-	-	2,000,000
42. DLNR Windward Exploratory Well State Well Number (3-2429-002)	Survey, video log, clean and clear, test pump and sample well. Provide technical report of findings and recommendations regarding feasibility of bringing well into service	P&E	-	-	550,000	-	-	550,000
43. BWS Water Master Plan Update	Update the BWS water master plan for the capacity expansion and repair and replacement of BWS water system and facilities, pumping optimization, resource protection, conservation, and development of a long range capital improvement program and financial plan with public outreach.	P&E	1,000,000	-	-	-	-	1,000,000
Total Category I - Research and Development			3,500,000	-	550,000	2,500,000	10,000,000	16,550,000

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			Operating Fund	State Revolving Fund	Special Expendable Fund	Improvement Funds	Extramural Fund	Total	
<u>II. Renewal and Replacement</u>									
A. Pumps									
4.	Waihee Tunnel and Inclined Wells Chlorinator	Renovate the existing motor control building for the inactive Waihee Wells I converting it to a chlorinator and telecommunications building.	Const	-	-	-	6,000,000	-	6,000,000
5.	Pump Renewal and Replacement	Renewal and replacement of various BWS pumps and plant facilities	Const	4,080,000	-	-	-	-	4,080,000
6.	Kalihi Hi-Service Booster Electrical Upgrades	Install electrical upgrades.	P&E	-	-	-	500,000	-	500,000
7.	Makakilo Booster No. 1 Electrical Upgrades and Facility Repairs	Install pump replacement, electrical upgrades, facility repairs and temporary pumping connection.	P&E	-	-	-	580,000	-	580,000
8.	Hawaii Loa Booster No. 1 Pump and MCC Replacement	Install pump and MCC replacement.	P&E	-	-	-	-	-	-
9.	Kaonohi Booster No. 2 MCC Replacement and Facility Repairs	Install pump and MCC replacement, and facility repairs.	P&E	-	-	-	580,000	-	580,000
10.	Pump Renewal and Replacement	Renewal and replacement of various BWS pumps and plant facilities.	P&E	300,000	-	-	-	-	300,000
Pumps Total				4,380,000	-	-	7,660,000	-	12,040,000
B. Reservoirs									
41.	Wilhelmina Rise 815 Reservoir Replacement	Replace the existing 0.43 reservoir and appurtenances.	Const	-	-	-	8,500,000	-	8,500,000
Reservoirs Total				-	-	-	8,500,000	-	8,500,000

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			Operating Fund	State Revolving Fund	Special Expendable Fund	Improvement Funds	Extramural Fund	Total
C. Pipelines								
11. Kahilina Place and Aiea Heights Drive Water System Improvements	Install 8-inch mains and appurtenances along Kahilina Place, from Aiea Heights Drive to end; along Aiea Heights Drive, from Hoio Street to Aiea 277 Reservoir; along Aheahe Street, from Kanaloa Street to Aiea Heights Drive; and along Hakina Street, from Kanaloa Street to Kaulainahee Place - approx. 4,070 lin. ft.	Const	-	5,100,000	-	-	5,100,000	10,200,000
12. Kakela Drive and Mohala Way Water System Improvements	Install 8-inch mains and appurtenances along Kakela Drive, from McKinley Street to McKinley Street; and along Mohala Way, from East Manoa Road to Beckwith Street - approx. 1,865 lin. ft. Install 8-inch and 4-inch mains along Kakela Place, from Kakela Drive to end; and along Kakela Iki Place, from Kakela Drive to end - approx. 300 lin. ft.	Const	-	-	-	3,000,000	-	3,000,000
13. Halupa Street Water System Improvements	Install 12-inch mains and appurtenances along Halupa Street, from Punih Street to Haloa Drive – approx. 2,000 lin. ft.	Const	-	-	-	3,000,000	-	3,000,000
14. Service Lateral Replacement at Various Locations	Install and replace service laterals at various locations.	Const	-	-	-	1,000,000	-	1,000,000
15. Water Main Installation and Replacement	Install and replace water mains at various locations.	Const	100,000	-	-	-	-	100,000
16. Water System Improvements at Various Locations	Install mains and appurtenance to replace high risk water mains at various locations throughout the island.	P&E	-	-	-	1,000,000	-	1,000,000
17. Service Laterals of Unknown Materials Replacement	Replace service laterals of unknown materials at various locations.	P&E	100,000	-	-	-	-	100,000
18. Service Lateral Replacement at Various Locations	Topographic Survey for the service lateral replacement at various locations.	P&E	150,000	-	-	-	-	150,000
19. Water Main Installation & Replacement	Install and replace water mains at various locations.	P&E	100,000	-	-	-	-	100,000
Pipelines Total			450,000	5,100,000	-	8,000,000	5,100,000	18,650,000

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D. Treatment								
20. GAC Interior Corrosion Control at Various Locations	Perform interior corrosion control of selected BWS GAC facilities. CM services funding included for this project.	Const	2,500,000	-	-	-	-	2,500,000
21. Mililani Wells I - GAC Replacement	Replace piping and valves, replace backwash filter tanks with stainless steel filters, provide new platform at backwash filters.	Const	2,000,000	-	-	-	-	2,000,000
Treatment Total			4,500,000	-	-	-	-	4,500,000
E. Facilities								
22. Nuuanu Reservoir No. 1 Dam Improvements	Rehabilitate dam, spillway and outlet works; install remote water level monitoring equipment.	Const	-	-	-	5,200,000	-	5,200,000
23. Nanakuli 242 Altitude Valve	Install altitude valve and appurtenances in the vicinity of the Nanakuli Booster.	Const	-	-	-	1,500,000	-	1,500,000
24. Honouliuli Water Recycling Facility Reroofing	Reroofing of the Honouliuli Water Recycling Facility Buildings.	Const	260,000	-	-	-	-	260,000
25. Pump Station Instrumentation & Controls and SCADA Upgrade	Upgrade instrumentation and controls equipment at various pump stations and revamp SCADA system to provide smarter functionality.	Const	-	-	-	1,000,000	-	1,000,000
26. Security Improvements at Various Locations	Security improvements and enhancements includes, but not limited to fencing, doors and windows, vegetation setbacks and access control systems at various BWS locations.	Const	2,000,000	-	-	-	-	2,000,000
27. Makaha Shaft Tunnel Rehabilitation	Replacement of all MCC, SCADA system, and all electrical components and appurtenances; replacement of pump units and associated piping, valves and appurtenances; replacement of ventilation system, plumbing system, and inclined elevator; replacement of 8-inch waterline and appurtenances; rehabilitation and expansion of the portal building; and replacement of the perimeter fencing.	Const	-	-	-	7,500,000	-	7,500,000
28. Facility Repair and Renovation	Repair, renovation, reroofing, fencing and repainting of selected BWS facilities.	Const	5,000,000	-	-	-	-	5,000,000

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29. Pump Station Instrumentation & Controls And SCADA Upgrade	Upgrade instrumentation and controls equipment at various pump stations and revamp SCADA system to provide smarter functionality.	P&E	-	-	-	300,000	-	300,000
30. Facility Repair and Renovation	Repair, renovation, reroofing, fencing and repainting of selected BWS facilities.	P&E	1,500,000	-	-	-	-	1,500,000
31. Professional Services for BWS Projects	Obtain services of archaeologists, botanists, environmental engineers, water quality labs, planners, government agencies and others.	P&E	300,000	-	-	-	-	300,000
32. Pump Station Assessment and Operations/Repairs	Update pump station condition assessments and operations database.	P&E	300,000	-	-	-	-	300,000
Facilities Total			9,360,000	-	-	15,500,000	-	24,860,000
Total Category II - Renewal and Replacement			18,690,000	5,100,000	-	39,660,000	5,100,000	68,550,000
III. Capacity Expansion								
A. Pumps								
33. Maakua Well Unit No. 2	Install new pump no. 2 in existing well including piping, valves, instrumentation, MCC, mute building, and retaining wall. (TMK: 5-4-005:001).	Const	-	-	-	4,500,000	-	4,500,000
34. Red Hill Contamination Response Production Well - Aiea 497'	Prepare environmental assessment and Public Infrastructure Map (PIM) Amendment for the Red Hill contamination response production well at Aiea 497'.	P&E	-	-	-	300,000	-	300,000
35. Waialae Nui Well	Prepare environmental assessment and Public Infrastructure Map (PIM) Amendment for one (1) production well at the existing Waialae Nui Well site (Well 3-1747-003).	P&E	-	-	-	300,000	-	300,000
Pumps Total			-	-	-	5,100,000	-	5,100,000

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B. Reservoirs							
36. East Kapolei 215 R-1 3.0 MG Reservoir	Install 3.0 MG R-1 reservoir and appurtenances (TMK: 9-1-018:008). Install 16-inch main and appurtenances along the access road, from the reservoir to Farrington Highway - approx. 2,300 lin. ft.	Const	-	15,700,000	-	-	15,700,000
Reservoirs Total		-	15,700,000	-	-	-	15,700,000
C. Pipelines							
37. Kualakai Parkway 16-Inch Recycled Water Main	Install 16-inch transmission main and appurtenances along Farrington Highway, from the access road to East Kapolei 215 recycled water reservoir to Kualakai Parkway; and along Kualakai Parkway, from Farrington Highway to Kapolei Parkway - approx. 12,000 lin. ft.	Const	-	15,000,000	-	-	15,000,000
38. Honolulu District 42-Inch Mains - Liliha to Moiliili	Phase I - Install 42-inch mains and appurtenances along North King Street, from Dillingham Boulevard to North Beretania Street; and along North Beretania Street, from North King Street to Nuuanu Avenue - approx. 2,830 lin. ft.	P&E	-	-	-	3,000,000	3,000,000
39. Honolulu District 42-Inch Mains - Liliha to Moiliili AIS	Prepare and submit an archaeological inventory survey (AIS) plan, and conduct and complete an AIS for the Honolulu District 42-Inch Mains - Liliha to Moiliili.	P&E	-	-	-	300,000	300,000
Pipelines Total		-	15,000,000	-	3,300,000	3,300,000	21,600,000
D. Treatment							
Treatment Total		-	-	-	-	-	-

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E. Facilities								
40. Kalaeloa Sea Water Desalination Facility	Design-Build-Operate-Maintain (DBOM) contract for a 1.7 mgd desalination facility with limited oversizing for future expansion. Install 16-inch transmission main along the project boundary from desalination facility to Olai Street, along Olai Street from end to Kalaeloa Boulevard, along Kalaeloa Boulevard from Olai Street to the existing 16-inch main near the Northern end of TMK 9-1-031:022- approx. 4,800 lin. ft.	Const	-	-	35,000,000	-	25,000,000	60,000,000
Facilities Total			-	-	35,000,000	-	25,000,000	60,000,000
Total Category III - Capacity Expansion			-	30,700,000	35,000,000	8,400,000	28,300,000	102,400,000
Total Categories I - III			22,190,000	35,800,000	35,550,000	50,560,000	43,400,000	187,500,000
Construction Cost Index Adjustment			1,586,000	3,580,000	3,500,000	4,370,000	4,375,976	17,411,976
Contract Adjustment Account			12,500,000	-	2,250,000	4,250,000	-	19,000,000
FY24 Capital Improvement Program Total			36,276,000	39,380,000	41,300,000	59,180,000	47,775,976	223,911,976