

Board of Water Supply
Capital Improvement Program
FY 2025

| Summary by Categories | Operating Fund (1) | State Revolving Fund (2) | Special Expendable Fund (3) | Improvement Fund (4) | Extramural Fund (5) | Water Infrastructure Finance and Innovation Act (6) | Total |
|-------------------------------------|-----------------------|--------------------------------|-----------------------------------|-------------------------|------------------------|---|-------------|
| I. Research and Development | 16,000,000 | - | 500,000 | 8,000,000 | 1,000,000 | - | 25,500,000 |
| II. Renewal and Replacement | | | | | | | |
| A. Pumps | 22,050,000 | 1,250,000 | - | - | - | - | 23,300,000 |
| B. Reservoirs | - | 400,000 | - | - | - | - | 400,000 |
| C. Pipelines | 2,350,000 | 55,576,000 | - | 18,000,000 | - | - | 75,926,000 |
| D. Treatment | 9,250,000 | 3,000,000 | - | - | - | - | 12,250,000 |
| E. Facilities | 14,550,000 | 4,000,000 | - | 7,500,000 | - | - | 26,050,000 |
| Category II - sub-total | 48,200,000 | 64,226,000 | - | 25,500,000 | - | - | 137,926,000 |
| III. Capacity Expansion | | | | | | | |
| A. Pumps | 275,000 | - | 500,000 | 5,750,000 | - | - | 6,525,000 |
| B. Reservoirs | - | 20,000,000 | - | - | - | - | 20,000,000 |
| C. Pipelines | - | 15,000,000 | 900,000 | - | - | - | 15,900,000 |
| D. Treatment | - | 100,000 | - | - | - | - | 100,000 |
| E. Facilities | - | - | 4,860,000 | - | 19,000,000 | 49,700,000 | 73,560,000 |
| Category III - sub-total | 275,000 | 35,100,000 | 6,260,000 | 5,750,000 | 19,000,000 | 49,700,000 | 116,085,000 |
| Total - Categories I - III | 64,475,000 | 99,326,000 | 6,760,000 | 39,250,000 | 20,000,000 | 49,700,000 | 279,511,000 |
| Construction Cost Index Account | 3,635,000 | 6,750,000 | - | 3,925,000 | - | 4,970,000 | 19,280,000 |
| Contract Adjustment Account | 11,350,000 | 800,000 | 350,000 | 5,100,000 | - | - | 17,600,000 |
| Capital Improvement Program - Total | 79,460,000 | 106,876,000 | 7,110,000 | 48,275,000 | 20,000,000 | 54,670,000 | 316,391,000 |

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

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

(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.

(6) Water Infrastructure Finance and Innovation Act (WIFIA) Program is defined as a federal low fixed interest project loan administered by the Environmental Protection Agency (EPA) for water infrastructure projects.

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| | | | Operating Fund | State Revolving Fund | Special Expendable Fund | Improvement Funds | Extramural Fund | Water Infrastructure Finance and Innovation Act | Total |
|---|--|-------|-------------------|----------------------------|-------------------------------|----------------------|--------------------|--|-----------|
| <u>I. Research and Development</u> | | | | | | | | | |
| 1. Monitoring Wells for Red Hill Contamination Response | Drill and case up to three (3) monitoring wells for use as "sentinel" wells to warn of the presence of an underground fuel plume from the Red Hill fuel contamination. | CONST | - | - | - | 8,000,000 | 1,000,000 | - | 9,000,000 |
| 2. DLNR Windward Exploratory Well State Well Number (3-2449-002) | Prepare environmental assessment and Public Infrastructure Map (PIM) Amendment for one (1) production well at the existing Hawaii State Hospital site (Well 3-2449-002). | P&E | - | - | 500,000 | - | - | - | 500,000 |
| 3. Exploratory Wells for Red Hill Contamination Response – Ka'ōnohi 850' | Prepare design for one (1) exploratory well, environmental assessment, and Public Infrastructure Map (PIM) Amendment for the well, pump station and connecting pipelines at Ka'ōnohi 850'. | P&E | 1,750,000 | - | - | - | - | - | 1,750,000 |
| 4. Exploratory Wells for Red Hill Contamination Response – Waiau 550' | Prepare design for one (1) exploratory well, environmental assessment, and Public Infrastructure Map (PIM) Amendment for the well, pump station and connecting pipelines at Waiau 550'. | P&E | 1,750,000 | - | - | - | - | - | 1,750,000 |
| 5. 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 long-range capital improvement program and financial plan with public outreach. | P&E | 4,000,000 | - | - | - | - | - | 4,000,000 |
| 6. Environmental Investigation of Emerging Contaminants | Provide environmental, engineering and hydrology-geology consulting services related to emerging contaminants in groundwater supply. | P&E | 3,000,000 | - | - | - | - | - | 3,000,000 |
| 7. Construction Management for Various BWS Construction Projects | Provide construction management and training services for selected BWS construction projects. | P&E | 5,000,000 | - | - | - | - | - | 5,000,000 |

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| | | | Operating Fund | State Revolving Fund | Special Expendable Fund | Improvement Funds | Extramural Fund | Water Infrastructure Finance and Innovation Act | Total |
|---|---|-----|-------------------|----------------------------|-------------------------------|----------------------|--------------------|--|-------------------|
| 8. Construction Management for Various BWS - WSO Construction Projects | Provide construction management and training services for selected BWS - WSO construction projects. | P&E | 500,000 | - | - | - | - | - | 500,000 |
| Total Category I - Research and Development | | | 16,000,000 | - | 500,000 | 8,000,000 | 1,000,000 | - | 25,500,000 |

II. Renewal and Replacement

A. Pumps

| | | | | | | | | | |
|---|--|-------|-----------|---------|---|---|---|---|-----------|
| 9. Waipi'o Heights Wells II Pump Replacement and Electrical Upgrades | Replace pump nos. 1 and 2, replace MCC and other electrical components, and other control building upgrades. | CONST | 3,750,000 | - | - | - | - | - | 3,750,000 |
| 10. Waiau Booster No. 2 Electrical Upgrades | Replace MCC and other electrical components, replace pump nos. 1 and 2, and other control building upgrades. | CONST | 5,000,000 | - | - | - | - | - | 5,000,000 |
| 11. Pearl City Booster No. 3 MCC Replacement | Replace MCC, SCADA system, and all electrical components and appurtenances. | CONST | 4,000,000 | - | - | - | - | - | 4,000,000 |
| 12. Pump Renewal and Replacement | Renewal and replacement of various BWS pumps and plant facilities. | CONST | 5,000,000 | - | - | - | - | - | 5,000,000 |
| 13. Temporary Pumping Connections | Install connections for temporary pumps at critical pump stations to improve reliability. | CONST | 3,500,000 | - | - | - | - | - | 3,500,000 |
| 14. Wai'ala'e Iki Booster No. 3 MCC Replacement | Replace MCC and appurtenances. | P&E | - | 400,000 | - | - | - | - | 400,000 |
| 15. Hālawā Booster No. 1 Pump and MCC Replacement | Replace pump, MCC and appurtenances. | P&E | - | 450,000 | - | - | - | - | 450,000 |
| 16. 'Ālewa Heights Booster No. 1 MCC Replacement | Replace MCC and appurtenances. | P&E | - | 400,000 | - | - | - | - | 400,000 |
| 17. Pump Renewal and Replacement | Renewal and replacement of various BWS pumps and plant facilities. | P&E | 300,000 | - | - | - | - | - | 300,000 |

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|---|---|-------|-------------------|----------------------------|-------------------------------|----------------------|--------------------|--|-------------------|
| 18. Temporary Pumping Connections | Install connections for temporary pumps at critical pump stations to improve reliability. | P&E | 500,000 | - | - | - | - | - | 500,000 |
| Pumps Total | | | 22,050,000 | 1,250,000 | - | - | - | - | 23,300,000 |
| B. Reservoirs | | | | | | | | | |
| 19. Wai'ala'e 180 3.0 MG Reservoir Replacement | Prepare environmental assessment and Public Infrastructure Map (PIM) Amendment. | P&E | - | 400,000 | - | - | - | - | 400,000 |
| Reservoirs Total | | | - | 400,000 | - | - | - | - | 400,000 |
| C. Pipelines | | | | | | | | | |
| 20. Keolu Hills Water System Improvements, Part II | Install 12-inch mains and appurtenances along Keolu Drive, from 'Akumu Street to Naniali'i Street; along 'Akumu Street, from Keolu Drive to Alahaki Street; along Iana Street, from Keolu Drive to FH W00766; and along Keolu Drive, from Kanapu'u Drive to Akalani Loop - approx. 3,580 lin. ft. Install 8-inch mains and appurtenances along 'Akumu Street, from Alahaki Street to Holoholo Street; along Keolu Drive, from Akalani Loop to Akahai Street; along Akahai Street, from Keolu Drive to Akamai Street; along Akaiki Street, from Akahai Street to Akamai Street; and along Halula Place, from 'Akumu Street to end - approx. 4,270 lin. ft. Install 4-inch mains and appurtenances along 'Akumu Place, from 'Akumu Street to end; along 'Akiu Place, from 'Akumu Street to end; and along Akalei Place from 'Akumu Street to end - approx. 540 lin. ft. | CONST | - | - | - | 18,000,000 | - | - | 18,000,000 |

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|---|--|-------|-------------------|----------------------------|-------------------------------|----------------------|--------------------|--|------------|
| 21. Mā'ili'iili Road 20-Inch Main, Pa'akea Road to Lualualei Homestead Road | Install 20-inch main and appurtenances along Mā'ili'iili Road, from Pa'akea Road to Lualualei Homestead Road - approx. 3,800 lin. ft. | CONST | - | 7,500,000 | - | - | - | - | 7,500,000 |
| 22. Ali'ipoe Drive and Pa'ihī Street Area Water System Improvements | Install 12-inch and 8-inch mains and appurtenances along Ali'ipoe Drive, from near FH L00776 to Pōhue Street - approx. 2,110 lin. ft. Install 8-inch mains and appurtenances along Pa'ihī Street, from Ali'ipoe Drive to Pōhue Street; along Hōka'a Street, from Pa'ihī Street to Pōhue Street; along 'Iwa'iwa Street, from Hōka'a Street to Pōhue Street; along 'Iwa'iwa Street, from Hālawa Heights Road to Nahiolea Street; and along Pōhue Street, from Ali'ipoe Drive to Pa'ihī Street - approx. 4825 lin. ft. Install 8-inch and 4-inch mains and appurtenances along Pōhue Place, from Pōhue Street to end; and along Pōhuli Street, from Pa'ihī Street to 150' past FH L00790 - approx. 650 lin. ft. | CONST | - | 13,000,000 | - | - | - | - | 13,000,000 |
| 23. Waiapo Place, Waihua Place and Waimomona Place Water System Improvements | Install 12-inch mains and appurtenances along Kolowaka Drive, from Waiapo Place to Waimomona Place - approx. 610 lin. ft. Install 8-inch and 4-inch mains and appurtenances along Waiapo Place, from Kolowaka Drive to end; along Waihua Place, from Kolowaka Drive to end; along Waimomona Place, from Kolowaka Drive to end - approx. 2,190 lin. ft. | CONST | - | 5,000,000 | - | - | - | - | 5,000,000 |
| 24. Farrington Highway 24-Inch Main Rehabilitation | Rehabilitate 24-inch main along Farrington Highway from Barber's Point Line Booster to Nānākuli Avenue - approx. 25,000 lin. ft. | P&E | - | 1,500,000 | - | - | - | - | 1,500,000 |
| 25. Service Lateral Replacement at Various Locations | Install and replace service laterals at various locations. | CONST | 1,000,000 | - | - | - | - | - | 1,000,000 |

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| | | | Operating Fund | State Revolving Fund | Special Expendable Fund | Improvement Funds | Extramural Fund | Water Infrastructure Finance and Innovation Act | Total |
|--|--|-------|-------------------|----------------------------|-------------------------------|----------------------|--------------------|--|-------------------|
| 26. Lead and Copper Rule Improvements (LCRI) Implementation | Develop updated service line inventory (LCRI baseline inventory). Replace lead service lines (LSLs) and certain galvanized service within 10 years or less, at various locations, as required by the final rule. | P&E | | 28,576,000 | - | - | - | - | 28,576,000 |
| 27. Service Lateral Replacement at Various Locations | Topographic Survey for the service lateral replacement at various locations. | P&E | 150,000 | - | - | - | - | - | 150,000 |
| 28. Water Main Installation and Replacement | Install and replace water mains at various locations. | CONST | 100,000 | - | - | - | - | - | 100,000 |
| 29. 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 |
| 30. Water Main Installation and Replacement | Install and replace water mains at various locations. | P&E | 100,000 | - | - | - | - | - | 100,000 |
| Pipelines Total | | | 2,350,000 | 55,576,000 | - | 18,000,000 | - | - | 75,926,000 |
| D. Treatment | | | | | | | | | |
| 31. GAC Corrosion Control at Various Locations | Perform corrosion control of selected BWS GAC facilities. CM services funding included for this project. | CONST | 3,500,000 | - | - | - | - | - | 3,500,000 |
| 32. Granular Activated Carbon Disposal Options | Develop an implementation plan for the construction of a GAC reactivation plant and provide support during implementation. | P&E | 750,000 | - | - | - | - | - | 750,000 |
| 33. Mililani Wells I GAC Valve Replacement | Replacement of piping and valves and painting. | CONST | - | 3,000,000 | - | - | - | - | 3,000,000 |
| 54. Temporary Drinking Water Treatment Systems | Install temporary drinking water treatment systems at various locations. | CONST | 5,000,000 | - | - | - | - | - | 5,000,000 |
| Treatment Total | | | 9,250,000 | 3,000,000 | - | - | - | - | 12,250,000 |

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|--|--|-------|----------------|----------------------|-------------------------|-------------------|-----------------|---|-----------|
| E. Facilities | | | | | | | | | |
| 34. Mākaha 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 |
| 35. Mānana Wells Control Valve Installation | Install a control valve assembly and water line connections to allow the controlled release of Pearl Harbor 285 system water into the Metropolitan 180 system needed due to the loss of Hālawā Shaft because of the Red Hill fuel contamination. | CONST | - | 2,000,000 | - | - | - | - | 2,000,000 |
| 36. Ka'ahumanu Wells Control Valve Renovation | Upgrade control valve assembly and water line connections to more efficiently allow the controlled release of Pearl Harbor 285 system water into the Metropolitan 180 system needed due to the loss of Hālawā Shaft because of the Red Hill fuel contamination. | CONST | - | 2,000,000 | - | - | - | - | 2,000,000 |
| 37. 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 | 1,500,000 | - | - | - | - | - | 1,500,000 |
| 38. 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 | 2,300,000 | - | - | - | - | - | 2,300,000 |
| 39. 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 | 3,000,000 | - | - | - | - | - | 3,000,000 |

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| | | | Operating Fund | State Revolving Fund | Special Expendable Fund | Improvement Funds | Extramural Fund | Water Infrastructure Finance and Innovation Act | Total |
|---|--|-------|-------------------|----------------------------|-------------------------------|----------------------|--------------------|--|--------------------|
| 40. Facility Repair and Renovation | Repair, renovation, reroofing, fencing and repainting of selected BWS facilities. | CONST | 6,000,000 | - | - | - | - | - | 6,000,000 |
| 41. Facility Repair and Renovation | Repair, renovation, reroofing, fencing and repainting of selected BWS facilities. | P&E | 1,000,000 | - | - | - | - | - | 1,000,000 |
| 42. Monitoring Well Assessment and Repair | Provide well condition assessment and associated repair services for monitor wells. | P&E | 150,000 | - | - | - | - | - | 150,000 |
| 43. 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 |
| 44. Pump Station Assessment and Operations/Repairs | Update pump station condition assessments and operations database. | P&E | 300,000 | - | - | - | - | - | 300,000 |
| Facilities Total | | | 14,550,000 | 4,000,000 | - | 7,500,000 | - | - | 26,050,000 |
| Total Category II - Renewal and Replacement | | | 48,200,000 | 64,226,000 | - | 25,500,000 | - | - | 137,926,000 |

III. Capacity Expansion

A. Pumps

| | | | | | | | | | |
|---|---|-------|----------------|----------|----------------|------------------|----------|----------|------------------|
| 45. Ma'akua Wells 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 | - | - | - | 5,750,000 | - | - | 5,750,000 |
| 46. Mānoa Well II Unit No. 2 | Prepare environmental assessment and Public Infrastructure Map (PIM) Amendment for a second production well at existing Mānoa Well II Station (TMK: 2-9-054:033). | P&E | 275,000 | - | - | - | - | - | 275,000 |
| 47. Red Hill Contamination Response Production Wells - Ka'ōnohi 850' | Land acquisition near the existing Ka'ōnohi 850' reservoir site to install new pump station and appurtenances. | LAND | - | - | 500,000 | - | - | - | 500,000 |
| Pumps Total | | | 275,000 | - | 500,000 | 5,750,000 | - | - | 6,525,000 |

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| | | | Operating Fund | State Revolving Fund | Special Expendable Fund | Improvement Funds | Extramural Fund | Water Infrastructure Finance and Innovation Act | Total |
|---|---|-------|-------------------|----------------------------|-------------------------------|----------------------|--------------------|--|-------------------|
| B. Reservoirs | | | | | | | | | |
| 48. 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 | - | 20,000,000 | - | - | - | - | 20,000,000 |
| Reservoirs Total | | | - | 20,000,000 | - | - | - | - | 20,000,000 |
| C. Pipelines | | | | | | | | | |
| 49. Kualaka'i 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 Kualaka'i Parkway; and along Kualaka'i Parkway, from Farrington Highway to Kapolei Parkway - approx. 12,000 lin. ft. | CONST | - | 15,000,000 | - | - | - | - | 15,000,000 |
| 50. Honolulu District 42-Inch Mains - Liliha to Mō'ili'ili 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 Mō'ili'ili. | P&E | | | 900,000 | | | | 900,000 |
| Pipelines Total | | | - | 15,000,000 | 900,000 | - | - | - | 15,900,000 |
| D. Treatment | | | | | | | | | |
| 51. Mililani Wells II GAC Installation | Land acquisition for the installation two (2) new GAC vessels, backwash tank system, including pump and filter setup, chlorinator infrastructure and piping. | LAND | - | 100,000 | - | - | - | - | 100,000 |
| Treatment Total | | | - | 100,000 | - | - | - | - | 100,000 |

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| | | | Operating Fund | State Revolving Fund | Special Expendable Fund | Improvement Funds | Extramural Fund | Water Infrastructure Finance and Innovation Act | Total |
|---|--|-------|-------------------|----------------------|-------------------------|-------------------|-------------------|---|--------------------|
| E. Facilities | | | | | | | | | |
| 52. 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 Ōla'i Street, along Ōla'i Street from end to Kalaeloa Boulevard, along Kalaeloa Boulevard from Ōla'i Street to the existing 16-inch main near the Northern end of TMK 9-1-031:022- approx. 4,800 lin. ft. | CONST | - | - | - | - | 19,000,000 | 49,700,000 | 68,700,000 |
| 53. Kalaeloa Sea Water Desalination Facility | Project Management Services to monitor DBOM progress, plan review and RFI response. | P&E | - | - | 4,860,000 | - | - | - | 4,860,000 |
| Facilities Total | | | - | - | 4,860,000 | - | 19,000,000 | 49,700,000 | 73,560,000 |
| Total Category III - Capacity Expansion | | | 275,000 | 35,100,000 | 6,260,000 | 5,750,000 | 19,000,000 | 49,700,000 | 116,085,000 |
| Total Categories I - III | | | 64,475,000 | 99,326,000 | 6,760,000 | 39,250,000 | 20,000,000 | 49,700,000 | 279,511,000 |
| Construction Cost Index Adjustment | | | 3,635,000 | 6,750,000 | - | 3,925,000 | - | 4,970,000 | 19,280,000 |
| Contract Adjustment Account | | | 11,350,000 | 800,000 | 350,000 | 5,100,000 | - | - | 17,600,000 |
| FY25 Capital Improvement Program Total | | | 79,460,000 | 106,876,000 | 7,110,000 | 48,275,000 | 20,000,000 | 54,670,000 | 316,391,000 |