

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2019/20 Project Budget**

| 6 | A | B | C | G | | | H | | | | I | | | | J | | K | | L | | M | | N | | O | | P | | Q | | S | | | | | | | | |
|----|--|---|--|------------------------------|---------------|--------|-----------------------------|--------|----------|-------|---------------------------|--------------|----------------------------|----------------------------------|---|----------------------------|----------------------------------|---------------------|---|--|---|--|---|--|---|--|---|--|---|--|---|--|--|--|--|--|--|--|--|
| | | | | PROJECT EXPENDITURES THIS FY | | | PROCEEDS FOR PROJECTS | | | | ADDITIONAL CHARGES | | Resulting Customer Charges | 2018/19 Prior Year Budget Amount | PROJECT DESCRIPTION | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | CATEGORY, LOCATION, PROJECT NUMBER & TITLE | | | Treatment | Base Facility | Total | Advance Charges (Collected) | Grants | Reserves | Loans | Advance Charges (Cur. FY) | Debt Service | | | | Resulting Customer Charges | 2018/19 Prior Year Budget Amount | PROJECT DESCRIPTION | | | | | | | | | | | | | | | | | | | | | |
| 8 | Maintenance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Essex Area Maintenance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | M1 | | Pipeline Maintenance | | 12,750 | 12,750 | | | | | | | 12,750 | 12,750 | ANNUAL PROJECT: Routine annual maintenance to include re-establishing access to the right-of-way, minor grading, sign replacement, and equipment maintenance. | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | M2 | | 12 kV Electric System Maintenance | | 4,000 | 4,000 | | | | | | | 4,000 | 4,000 | ANNUAL PROJECT: Required to inspect, clean, maintain, and ensure the safe operation of the existing 12kV system which supports the Domestic Water System, Industrial Water System, and the Control Center at Essex. | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | M3 | | Main Line Meter Flow Calibration | | 10,000 | 10,000 | | | | | | | 10,000 | 10,000 | ANNUAL PROJECT: The District uses a five-year cycle for mainline meter maintenance. This year, Manila meter is due for maintenance. The meters will be removed for calibration during the winter months. | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | M4 | | Technical Support and Software Updates to Include Control System | | 18,000 | 18,000 | | | | | | | 18,000 | 19,000 | ANNUAL PROJECT: This is an annual expense for licensing and technical support on an as needed basis: 1)Rockwell SCADA and control systems 2)ESRI GIS software 3) IMSI CAD software and 4)Microsoft operating systems. This also includes auxiliary software such as 5)Antivirus software 6) Firewall software 7) Phone system support. | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | M5 | | Generator Services | | 3,500 | 3,500 | | | | | | | 3,500 | 3,500 | ANNUAL PROJECT: Routine service on 2MW and 35kw emergency generators. | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | M6 | | TRF Generator Service | 500 | | 500 | | | | | | | 500 | 500 | ANNUAL PROJECT: Routine service on Korblex emergency generator. | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | M7 | | Hazard & Diseased Tree Removal | | 5,000 | 5,000 | | | | | | | 5,000 | 6,500 | ANNUAL PROJECT: Required to remove hazardous trees in the Essex parks. | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | M8 | | Cathodic Protection | | 6,500 | 6,500 | | | | | | | 6,500 | 6,500 | ANNUAL PROJECT: To inspect and perform minor maintenance on cathodic protection system. | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | M9 | | Maintenance Emergency Repairs | | 50,000 | 50,000 | | | | | | | 50,000 | 50,000 | ANNUAL PROJECT: Funding set aside for unforeseen maintenance, unplanned replacements, and emergency repairs. | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | M10 | | Fleet Paint Repairs | | 5,000 | 5,000 | | | | | | | 5,000 | 5,000 | ANNUAL PROJECT: This project continues preventive maintenance to preserve our equipment to prolong assets useful life. | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | 1 | Lab Instrument Calibration (Particle Counter) | | 1,250 | 1,250 | | | | | | | 1,250 | 0 | This is a regulatory required analytical instrument which requires factory calibration every two years. Charge is service, minor parts and shipping. Major parts, if required, are additional. | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | | | Chlorine Solution Line Replacement | | 10,500 | 10,500 | | | | | | | 10,500 | 0 | CIP PROJECT: This project will replace the chlorine solution carrier line between the chlorine injection room at Essex and the injection point on the source water line in West End Rd. Portions of this line are approaching 40 years old. It is a crucial part of our disinfection process and its integrity is essential to our operations. This project would also involve the installation of a new isolation valve directly off the injection point port to allow for isolation of this line closer to the source line for safety. | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | Paint Buildings at Winzler Control Center | | 2,250 | 2,250 | | | | | | | 2,250 | 0 | CIP PROJECT: This project will repaint various buildings located at the Winzler Control Center. Some structures such as: Control Room Office, Maintenance Shop and Pressure Washer Shed have gone many years without being repainted. This project would refresh existing coatings of these structures for longer life expectancy. This is an in-house project. Budget purchases materials only. | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | | | Chlorine Booster Pump rebuild Kits | | 8,000 | 8,000 | | | | | | | 8,000 | 0 | This project will provide for the purchase of rebuild kits for our chlorine system booster pumps which were replaced in 2016 due to obsolescence. These pumps are assessed and maintained on an annual basis and will require rebuilding at a service interval determined by the annual inspection and assessments. These rebuild kits will ensure we have the parts required to rebuild these pumps in order to maintain the continued uninterrupted use of our primary disinfection system. | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | | Replacement of Fleet Emergency Safety Beacons (Phase 2) | | 2,000 | 2,000 | | | | | | | 2,000 | 2,000 | This project is a second phase of updating existing and installing new safety strobes on remaining fleet vehicles. These vehicles either have no beacon or the existing beacon doesn't meet California regulations for safety warning devices. The new beacons are LED illuminated to provide high visibility during day or night activities. | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | Upgrade Essex Alarm Systems | | 4,750 | 4,750 | | | | | | | 4,750 | 0 | This project will replace three older security alarm panels and keypads at Essex. They are at end of their useful life and are obsolete models. This project would upgrade the controllers and keypads to currently supported models. | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | | | Replace Cat 420 Backhoe Tires | | 2,250 | 2,250 | | | | | | | 2,250 | 0 | This project will replace the two rear tires on the Districts larger backhoe. Currently the tires that are on the machine are original from it's purchase in 2004. | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | | | Replace Gates at I/W Reservoir and SBPS | | 3,000 | 3,000 | | | | | | | 3,000 | 0 | This project will replace the two access gates on the Samoa peninsula, one at the Samoa Booster Pump Station, and one at the Industrial Water Reservoir. Both of these gates have deteriorated over time based on exposure to the beach environment. Both gates would be replaced with the same type of gate, but incorporate materials that will require less maintenance and will better withstand this beach environment. | | | | | | | | | | | | | | | | | | | | | | | | |

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2019/20 Project Budget**

| A | | B | | C | | | G | H | I | J | K | L | M | N | O | P | Q | S |
|--|--|---|--|---|---------------|----------------|-----------------------------------|----------|----------|----------|---------------------------------|-----------------|----------------------------------|--------------------------------|---------------------|----------------|---|---|
| 6 CATEGORY, LOCATION, PROJECT NUMBER & TITLE | | | | PROJECT EXPENDITURES THIS FY | | | PROCEEDS FOR PROJECTS | | | | ADDITIONAL CHARGES | | Resulting Customer Charges | 2018/19 | PROJECT DESCRIPTION | | | |
| | | | | Treatment | Base Facility | Total | Advance Charges (Collected) | Grants | Reserves | Loans | Advance Charges (Cur. FY) | Debt Service | | Prior Year Budget Amount | | | | |
| 28 | | | | | | | | | | | | | | | | | | |
| 29 | | | | TRF Limatorque Valve Retrofit Supplies (Phase 5 of 5) | 10,250 | | 10,250 | | | | | | | | 10,250 | 10,250 | | This is year five of a five year project to retrofit and maintain the Limatorque valve system at the TRF. We continue to be satisfied with the performance and maintenance on these valves and have confirmed with Limatorque that there is no pending obsolescence of these actuators in the near term. This years budget will continue to maintain and retrofit valves as necessary. |
| 30 | | | | TRF Water Quality Instrumentation Emergency Replacement Inventory | 15,000 | | 15,000 | | | | | | | | 15,000 | 7,250 | | This project will purchase: a new streaming current monitor for analyzing the dosage of alum for the treatment process; a complete Rosemount turbidity analyzer; several individual replacement components for other installed units; and a replacement submersible level transducer for the WWR Basins. All are important to the successful operation of the Turbidity Reduction Facility. |
| 31 | | | | TRF Rapid Mix Pump Rebuild Kit for Inventory | 2,250 | | 2,250 | | | | | | | | 2,250 | 0 | | This project will purchase a replacement rebuild kit and seal kit for the Rapid Mix Pumps. We rebuilt the # 1 pump in FY19 and consumed our inventory kit for this pump. |
| 32 | | | | TRF Flow Meter testing and Calibration (Phase 1) | 6,250 | | 6,250 | | | | | | | | 6,250 | 0 | | This project is phase one of four to flow test and calibrate the flow meters at the TRF. These meters have been in service for 17 years and should be flow tested and calibrated to maintain their accuracy for plant operations and reporting. This first year would be used to flow test and calibrate the 24" TRF Inlet flow meter. |
| 33 | | | | Ruth Area Maintenance | | | | | | | | | | | | | | |
| 34 | | | | Brush Abatement Ruth Hydro | | 6,500 | 6,500 | | | | | | | | 6,500 | 6,500 | | ANNUAL PROJECT: Dam-safety related; FERC and DSOD require that we remove or kill trees and brush to prevent the root systems of the trees from damaging the face of the Dam. It is essential to keep earth-fill dams clear of such growth so that root systems do not weaken the impervious clay core. |
| 35 | | | | Howell Bunger Valve Inspection | | 1,110 | 1,110 | | | | | | | | 1,110 | 1,110 | | ANNUAL PROJECT: Inspect the Howell Bunger Valve to see if it needs maintenance, repairs or replacement. This is a key component needed to operate the Hydro Plant at Ruth Lake. |
| 36 | | | | LTO Insurance | | 5,000 | 5,000 | | | | | | | | 5,000 | 5,000 | | ANNUAL PROJECT: This project is for purchasing insurance for our LTO for tree management on lease lots and general timber management. |
| 37 | | | | Log Boom Inspection | | 1,000 | 1,000 | | | | | | | | 1,000 | 1,000 | | ANNUAL PROJECT: This project is for boat rental, materials and parts as needed, to maintain the Worthington Log boom at Ruth. This is one of the more important safety features of the dam. |
| 38 | | | | Ruth Hydro Plant Synchronizer Tuning Project | | 5,250 | 5,250 | | | | | | | | 5,250 | 0 | | This project will allow us to hire a contractor with specific knowledge of the synchronizer components at the Ruth Hydro Plant. This contractor will perform the necessary testing and tuning of the synchronizers for better repeatable performance regarding machine start-ups on both generator units. |
| 39 | | | | Ruth Hydro Crane Rail and Lighting Replacement | | 5,000 | 5,000 | | | | | | | | 5,000 | 0 | | This project will replace the exterior sections of overhead crane rail that have been damaged over time by the door travel and UV exposure. It will also replace the high pressure sodium lighting on the interior walls of the plant with new LED lighting. The Hydro crane is an essential piece of equipment that is used to move very heavy items such as barrels of oil and large equipment for the annual May maintenance. This crane is required for any major work on the turbines and generators. The District is under regulatory requirements to have this crane certified each year. The maintenance of this crane and effective lighting in the work area is essential for staff safety. |
| 40 | | | | Ruth HQ Dock Decking Replacement | | 13,750 | 13,750 | | | | | | | | 13,750 | 0 | | This project will replace the current Ruth Headquarters dock and catwalk decking with composite materials. It would also include the cleanup and painting of the dock catwalk steel support structure. The current decking is plywood and is delaminating in some areas. Newer composite decking reduces maintenance cost by requiring no periodic maintenance compared to conventional wood decking. This will extend the useful life of the dock. |
| 41 | | | | Dead/Dying Tree Removal at Headquarters & Surrounding Area | | 20,000 | 20,000 | | | | | | | | 20,000 | 20,000 | | This project has been ongoing for several years and needs to be continued another year. There are dead/dying trees around headquarters and other essential District structures in the Ruth area. At this point very few of the trees have any value due to rot and wood beetles. The deteriorating condition of the trees not only makes it more critical (for safety concerns) to remove them, but more expensive since there is little/no value to them. |
| 42 | | | | Replace Slide gate hydraulic oil | | 8,000 | 8,000 | | | | | | | | 8,000 | 0 | | This project will replace the hydraulic oil that operates the slide gate. The current oil is nearly 20 years old and the oil sample is showing some water content in the oil. During the May 2019 Ruth annual maintenance, we installed some specialized water absorbent filters. If these filters do not remove enough of the water content, the oil must be replaced. |
| 43 | | | | Subtotal Maintenance Projects | 34,250 | 214,360 | 248,610 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 248,610 | 170,860 | | |

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2019/20 Project Budget**

| 6 | A | B | C | G | | | H | | | | I | | | | J | | K | | L | | M | | N | | O | | P | | Q | | S |
|----|--|---|--|------------------------------|------------------|------------------|-----------------------------|------------------|----------|----------|---------------------------|----------------|----------------------------|----------------------------------|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|
| | | | | PROJECT EXPENDITURES THIS FY | | | PROCEEDS FOR PROJECTS | | | | ADDITIONAL CHARGES | | Resulting Customer Charges | 2018/19 Prior Year Budget Amount | PROJECT DESCRIPTION | | | | | | | | | | | | | | | | |
| 7 | CATEGORY, LOCATION, PROJECT NUMBER & TITLE | | | Treatment | Base Facility | Total | Advance Charges (Collected) | Grants | Reserves | Loans | Advance Charges (Cur. FY) | Debt Service | | | | | | | | | | | | | | | | | | | |
| 44 | CAPITAL PROJECTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 45 | Essex Area Capital Proj. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 46 | C1 | | Ranney Collector 3 and Techite Pipeline Projects -Debt Service | | | | | | | | | 162,200 | 162,200 | 162,200 | <p>CIP - Related: Debt Service for the Ranney Collector 3 and Techite Pipeline projects. Funding- US Bank loan amount was \$1,418,000 for both projects. Financed for 10 years at 2.63% interest with debt service of \$162,200/year. First debt service payment made in 11/12, last will be made in FY20/21.</p> | | | | | | | | | | | | | | | | |
| 47 | | | 12KV Grant (FY20) | | 1,833,263 | 1,833,263 | 508,013 | 1,325,250 | | | | | 0 | 0 | <p>This project will relocate the 12kV Switchgear from the side of the shop building up to Railroad Grade (Annie-Mary Trail), and out of the floodplain. It is largely funded by a FEMA Hazard Mitigation Grant. This project will be completed mid 2019. Anticipated Project total is \$2,032,050 - HMG funding is 75% or \$1,524,050, remaining District portion is \$508,000.</p> | | | | | | | | | | | | | | | | |
| 48 | | | Chlorine Scrubber (FY21) | | 1,340,000 | 1,340,000 | 335,000 | 1,005,000 | | | | | 0 | 0 | <p>This project will install a Chlorine Scrubber adjacent to the Chlorine Building. This will drastically increase safety for Essex staff and neighbors. Currently in the approval process for FEMA Hazard Mitigation Grant funding, construction is anticipated in FY20/21. Project total is currently budgeted at \$1,340,000 with a District match of \$335,000.</p> | | | | | | | | | | | | | | | | |
| 49 | | | TRF Emergency Generator (FY21) | 1,900,000 | | 1,900,000 | | 1,425,000 | | | 275,000 | | 275,000 | 0 | <p>This project will install a larger Emergency Generator at the TRF. The larger generator will allow the facility to fully function should there be a total loss for power for an extended period. The District recently experienced a situation where all power was lost during a winter storm - due to the number of backwashes needed and the length of the power loss, the current generator was not large enough to operate the facility at full capacity. Currently in the approval process for FEMA Hazard Mitigation Grant funding, construction is anticipated in FY20/21. Project total is currently budgeted at \$1,900,000 with a District match of \$475,000.</p> | | | | | | | | | | | | | | | | |
| 50 | | | Collector 2 Rehabilitation (FY22) | | 1,200,000 | 1,200,000 | 180,245 | 600,000 | | | 145,000 | | 145,000 | | <p>This project will begin the rehabilitation of Collector 2. This will include the design/engineering/replacement for the laterals for that Collector. Construction is anticipated in FY20/21. The project is currently estimated to be \$1,200,000 and has received NCRP Prop. 1 grant funding of \$600,000, leaving a District balance of \$600,000.</p> | | | | | | | | | | | | | | | | |
| 51 | | | 3x Tank Seismic Retro Grant (FY22) | 1,750,000 | 1,750,000 | 3,500,000 | | 2,625,000 | | | 145,000 | | 145,000 | | <p>This project will provide a Seismic Retrofit for all three storage reservoirs (1MG and 2MG at TRF, and 1MG Industrial). This will bring all three reservoirs up to the current seismic code. Currently in the approval process for FEMA Hazard Mitigation Grant funding, construction is anticipated in FY21/22. Project total is currently budgeted at \$3,500,000 with a District match of \$875,000.</p> | | | | | | | | | | | | | | | | |
| 52 | TRF Capital Proj. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 53 | | | TRF Line Shed 5 | 0 | 28,250 | 28,250 | | | | | | | 28,250 | | <p>This project will be for the construction of a new line shed 5 to be located at the TRF next to Workshop 5. This line shed will be used to store items directly related to the treatment plant facility such as filter media, valves, pumps and other spare equipment. This will allow TRF-related supplies to be moved out of the chemical storage area and will provide a more effective and drier storage space than the current metal storage container. The building will be of a single sloped wood framed, metal roof construction measuring 30 feet long by 18 feet deep with two steel rollup doors and a side entry door.</p> | | | | | | | | | | | | | | | | |
| 54 | Eureka Office Capital Proj. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 55 | Ruth Area Capital Proj. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 56 | | | Ruth Residence Roof | | 30,000 | 30,000 | | | | | | | 30,000 | | <p>CIP PROJECT: This project will replace the roof on the Headquarters Residence. The current roof age is unknown, and was spot-repaired in 2005. The new roof will also be metal as is the current roof and it will match the Bunkhouse. This budget is for materials only and assumes District staff will install the new roof.</p> | | | | | | | | | | | | | | | | |
| 59 | Subtotal Capital Projects | | | 3,650,000 | 6,181,513 | 9,831,513 | 1,023,258 | 6,980,250 | 0 | 0 | 565,000 | 162,200 | 785,450 | 162,200 | | | | | | | | | | | | | | | | | |

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2019/20 Project Budget**

| A | | B | | C | | G | | H | | I | | J | | K | | L | | M | | N | | O | | P | | Q | | S | | |
|--|--|----|--|------------------------------|---------------|--------|-----------------------------|--------|----------|-------|---------------------------|--------------|----------------------------|--------------------------|--|---------------------|--|---|--|---|--|---|--------|--------|--|---|--|---|--|--|
| CATEGORY, LOCATION, PROJECT NUMBER & TITLE | | | | PROJECT EXPENDITURES THIS FY | | | PROCEEDS FOR PROJECTS | | | | ADDITIONAL CHARGES | | Resulting Customer Charges | 2018/19 | | PROJECT DESCRIPTION | | | | | | | | | | | | | | |
| | | | | Treatment | Base Facility | Total | Advance Charges (Collected) | Grants | Reserves | Loans | Advance Charges (Cur. FY) | Debt Service | | Prior Year Budget Amount | | | | | | | | | | | | | | | | |
| Equipment/Fixed Assets | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Essex Area Equipment/Fixed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 61 | | 1 | Replace Administrative Computers | | 4,750 | 4,750 | | | | | | | | | | | | | | | | | 4,750 | 6,250 | | Annually replace two obsolete workstations in the administration network with new computers including peripherals, printers and monitors. This will also maintain software security to the highest levels currently available. | | | | |
| 62 | | 5 | Replace Customer Service Vehicle (Unit 3) | | 60,750 | 60,750 | | | | | | | | | | | | | | | | | 60,750 | 0 | | CIP PROJECT: This is the Customer Service vehicle, used for both Humboldt Bay Retail and Fieldbrook-Glendale Community Services District. It was purchased in 2012 will have over 100,000 miles on it when replaced. The current vehicle will not be sold, but will instead replace an older vehicle with over 137,XXX miles. | | | | |
| 63 | | | Hazardous Atmosphere Monitoring Equipment Replacement | | 7,000 | 7,000 | | | | | | | | | | | | | | | | | 7,000 | 0 | | This project will replace one multi-gas hazardous atmosphere monitors, replace sensors for four other like-kind units, and purchase two new chlorine single gas detectors. The current set of four multi-gas detectors were purchased five years ago and one unit has shown some inconsistent and intermittent operating parameters. Functional and reliable monitoring units are crucial for staff safety. These units are regularly used in harsh environments. This project will also include the purchase of the consumable sensors that need periodic replacement to maintain the unit functionality. The new chlorine single gas detector units would be purchased for use during a chlorine leak response event to determine safe approach distances and zone boundaries for personnel working in the staging and decontamination zones. This is an incremental replacement approach to insure functionality at all times. | | | | |
| 64 | | | SCBA Upgrade and Additional Hazardous Response Equipment | | 19,750 | 19,750 | | | | | | | | | | | | | | | | | 19,750 | 0 | | This project will replace the Districts current Self Contained Breathing Apparatus (SCBA) cache. Our current SCBA's have become obsolete. In addition this project would be used to purchase additional chemical suits, over-boots and cryogenic gloves for critical response/rescue situations involving hazardous exposure situations. | | | | |
| 65 | | | Laptop SCADA Software Upgrade | | 4500 | 4,500 | | | | | | | | | | | | | | | | | 4,500 | 0 | | Install Studio 5000 in one or both laptops to access PLCs in the event the license server is unavailable during an emergency. | | | | |
| 66 | | 4 | Replacement of UPS's (Phase 2) | 6,589 | 21,411 | 28,000 | | | | | | | | | | | | | | | | | 28,000 | 33,000 | | This project is phase 2 of 2 in the replacement of all existing Uninterruptable Power Supplies (UPS) for the communications and operational control equipment. The new UPS units have a Lithium-ion battery guaranteed for 10 years, with an actual life expectancy of 10-15 years. They also serve to protect connected equipment from power surges which can also damage electronics. Our current UPS' use a lead acid type battery that typically only lasts 2 years. The cost of ownership on these new units is actually less than the current units due to the longevity of the new equipment, with the District seeing substantial savings if they last to the full 15 years. | | | | |
| 67 | | 6 | Fleet Maintenance Equipment | | 3,500 | 3,500 | | | | | | | | | | | | | | | | | 3,500 | 0 | | This project will include items that the shop currently does not have and also replace some items that are in need of replacement. This includes new high capacity bottle jacks, battery charger, jump start pack, impact wrench, topside creeper and a battery load tester. We continue to perform many of the necessary and regulated maintenance inspections and repairs to our fleet and this equipment is essential to perform those tasks. | | | | |
| 68 | | | Electrical Voltage Rated tools and Safety Equipment | | 3,250 | 3,250 | | | | | | | | | | | | | | | | | 3,250 | 0 | | This project will purchase a high voltage rated tool kit and a Salisbury Arc Flash 40 Cal Hood System. The hood system will have an integrated battery operated air circulating system keeps the viewing window from fogging up from the accumulation of heat and sweat. The high voltage tool set is a complete kit including all voltage rated tools in a hard pelican rolling case. The case provides a specific location in the box for each tool for ease of identification and to help keep track of them in the field. This kit would be a shared cache used by both electricians and is essential for their duties. | | | | |
| 69 | | 8 | Traffic Control Equipment | | 4,000 | 4,000 | | | | | | | | | | | | | | | | | 4,000 | 0 | | This project will upgrade our current traffic control equipment to a more uniform and compliant status. Dilapidated equipment will be replaced and the inventory of signs, cones and barricades will be increased. These additions will allow work crews to control multiple work sites and traffic control scenarios safely and effectively. | | | | |
| 70 | | 9 | Vegetation Management Equipment | | 4,250 | 4,250 | | | | | | | | | | | | | | | | | 4,250 | 0 | | This project will increase available equipment for right-of-way (ROW) vegetation clearing and management. This equipment will help provide extra equipment resources for both the full time maintenance crew and part-time workers during high use seasons and also emergency operations. | | | | |
| 71 | | 10 | Portable Radio replacements (Phase 2) | | 4,750 | 4,750 | | | | | | | | | | | | | | | | | 4,750 | 0 | | This project will continue the replacement of the remaining Vertex radios with Motorola radios. These new radios include a display for frequencies and a six bank battery charger with diagnostic window. Twelve radios will be shared between Operations and Maintenance that are all programmed the same with all of the necessary emergency interoperability channels. | | | | |
| 72 | | 8 | Replace Meter Reader Handheld Unit | | 4,500 | 4,500 | | | | | | | | | | | | | | | | | 4,500 | 0 | | This project will replace the current hand-held Meter Reader Unit that is obsolete. This purchase includes the unit itself (Caselle compatible) and additional software to communicate with the Utility Billing program (Caselle). The total cost of the unit is \$12,750. The \$4,500 is the District's portion, with Fieldbrook responsible for \$8,250. Fieldbrook has been included in the discussion of this purchase, however, if they are unable to include this purchase in their budget, the hand-held device will not be purchased in this budget year. | | | | |
| 73 | | 11 | Purchase Job Boxes | | 2,250 | 2,250 | | | | | | | | | | | | | | | | | 2,250 | 0 | | This project will purchase two metal job boxes that would be used to pack, haul and securely store tools and equipment for off site work. They are moveable by forklift and crane will fit in the back of most fleet vehicles to secure equipment during transport and field work. These would be used for projects like Ruth annual maintenance, spillway repair, and potentially any location where the extended nature of the project requires tools, equipment or supplies to be stored and secured off-site. | | | | |
| 74 | | 12 | Pipe Tapping Machine | | 3,750 | 3,750 | | | | | | | | | | | | | | | | | 3,750 | 0 | | Project will replace dilapidated pipe tapping equipment with a new base machine, toolbox, carbide hole cutters and arbor bits to allow us to tap up to 2" services on ductile, cast iron, AC and PVC pipes. | | | | |
| 75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2019/20 Project Budget**

| 6 | A | B | C | G | | | H | | | | I | | | | J | | K | | L | | M | | N | | O | | P | | Q | | S |
|----|---|----|---|------------------------------|----------------|----------------|-----------------------------|----------|----------|----------|---------------------------|--------------|--|--|----------------------------|----------------------------------|---------------------|--|---|--|----------------|--------|---------------|--------|--|---|---|--|---|--|---|
| | | | | PROJECT EXPENDITURES THIS FY | | | PROCEEDS FOR PROJECTS | | | | ADDITIONAL CHARGES | | | | Resulting Customer Charges | 2018/19 Prior Year Budget Amount | PROJECT DESCRIPTION | | | | | | | | | | | | | | |
| 7 | CATEGORY, LOCATION, PROJECT NUMBER & TITLE | | | Treatment | Base Facility | Total | Advance Charges (Collected) | Grants | Reserves | Loans | Advance Charges (Cur. FY) | Debt Service | | | | | | | | | | | | | | | | | | | |
| 76 | | 13 | Grapple Attachment for JD 110 | | 4,000 | 4,000 | | | | | | | | | | | | | | | | 4,000 | | | 0 | This project will purchase a grapple bucket to be used on the JD110. These grapples would be used to move brush, tree debris and logs associated with right-of-way and property maintenance | | | | | |
| 77 | | | 18,000 Lb. Excavator | | 222,750 | 222,750 | | | | | 34,000 | | | | | | | | | | | 34,000 | | 0 | This multi-year funding project will provide the District with an excavator to be used for general excavation, valve replacements, pipeline repairs, demolition, vegetation management and other activities. This excavator is designed and sized for operation in confining areas where the backhoe is less suitable or has difficulty operating due to its footprint. This excavator will also provide a platform for attachments (included in the project cost) such as a 12" trench bucket, a 60" grading bucket, and a hydraulic powered mulching head unit for Right-of-Way maintenance. This is the largest excavator that can be self-transported by the District with the existing dump truck and equipment trailer, eliminating the need to hire an equipment hauler to transport. | | | | | | |
| 78 | | | Hydrant Meter and Backflow Preventer | | 2,250 | 2,250 | | | | | | | | | | | | | | | | 2,250 | | 0 | This project will purchase a new portable hydrant and backflow assembly. Currently we have two older assemblies which both get heavy use during the summer construction season. | | | | | | |
| 79 | TRF Equipment/Fixed Assets | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | | | N-Poly Pump Skid Replacement | 12,250 | | 12,250 | | | | | | | | | | | | | | | | 12,250 | | 12,250 | CIP PROJECT: This project would replace the original N-poly pumping skid primarily used to mix polymer into a diluted solution to be used in the wash water return process. This equipment has been in service for 16 seasons and replacement is part of our capital improvement plan. These skids have served the District well, but some of the components are becoming difficult to replace. The new skids will also provide for a vertical type skid that will serve to be more ergonomic for operations and maintenance staff. The District is also moving towards a new system designed by the same manufacturer that has proven to be very durable and reliable in our other chemical pumping systems. | | | | | | |
| 81 | | | TRF Radio System Cabinet Replacement | 8,500 | | 8,500 | | | | | | | | | | | | | | | | 8,500 | | 0 | This project would upgrade the existing radio cabinet at the TRF. The existing cabinet has had multiple generations of equipment installed in it. Much of the old obsolete equipment and wiring is still installed and interspersed within the cabinet with our newer equipment and wiring. This project will eliminate the old equipment and wiring and reorganize and document the remaining equipment to streamline troubleshooting and maintenance. It will also include time for the collection of the technical information and a review for update of our radio system and its topology. The CAD work will be done by District and the system information and review process would be performed by vendor. | | | | | | |
| 82 | | | Purchase Air Actuated Chemical Transfer Pump | 2,250 | | 2,250 | | | | | | | | | | | | | | | | 2,250 | | 0 | This project is to purchase a new air actuated chemical transfer pump. This pump would allow the transfer of a multitude of chemicals and is critical in daily operations and in emergency response situations. | | | | | | |
| 83 | Eureka Office | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 84 | | | Replace Administrative Computers | | 6,250 | 6,250 | | | | | | | | | | | | | | | | 6,250 | | 6,250 | Administrative computers are replaced on a 5-year cycle. This is for the replacement of the Business Manager (2013) and laptop (2015) computers. | | | | | | |
| 85 | | | File Cabinet Replacement | | 2,000 | 2,000 | | | | | | | | | | | | | | | | 2,000 | | 0 | This is for the disposal and replacement of three fire-proof filing cabinets. | | | | | | |
| 86 | | | Eureka Office ADA Upgrades | | 20,000 | 20,000 | | | | | | | | | | | | | | | | 20,000 | | 10,000 | An ADA consultation in FY19 revealed multiple areas that require attention for ADA compliance. The District has created an "ADA Compliance Plan" and will begin to address these issues in FY20. | | | | | | |
| 87 | Ruth Area Equipment/Fixed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 88 | | | Ruth SCADA Software Upgrade | | 4,750 | 4,750 | | | | | | | | | | | | | | | | 4,750 | | 0 | Ruth RSView32 project is run on a computer installed in 2003. The hardware and software are beyond end of life. Upgrading to the existing District SCADA will require PC replacement and software conversion. The conversion is planned to be completed in house. | | | | | | |
| 90 | Subtotal Equipment/Fixed Assets | | | 29,589 | 410,411 | 440,000 | 0 | 0 | 0 | 0 | 34,000 | 0 | | | | | | | | | 251,250 | | 67,750 | | | | | | | | |
| 91 | Professional and Consulting Services | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 92 | | | Crane Testing/Certification | | 10,000 | 10,000 | | | | | | | | | | | | | | | | 10,000 | | 7,500 | ANNUAL PROJECT: Every four years the District is required to test the crane load to comply with OSHA-safety requirements. Each crane must be certified by a licensed contractor in accordance with OSHA regulations. This will also dielectric test the Altec boom truck and certify boom truck operators. This year we will need to find a new crane inspection company as our former vendor retired. | | | | | | |
| 93 | | | Chlorine System Maintenance | 16,750 | | 16,750 | | | | | | | | | | | | | | | | 16,750 | | 16,100 | ANNUAL PROJECT: Although the chlorine system is well maintained by District staff, each year we contract for review/repair/replacement of the more complex elements of the system to assure proper operation and safety. | | | | | | |
| 94 | | | Backflow Tester Training | | 3,000 | 3,000 | | | | | | | | | | | | | | | | 3,000 | | 3,000 | ANNUAL PROJECT: Backflow recertification training for Assistant Operations Supervisor This will be far less expensive if we can get the trainer to return to Humboldt County. Otherwise, staff must go out of the area for the training. Regulatory Requirement. | | | | | | |
| 95 | | | Hydro Plant Annual Electrical and Maintenance Inspection (ReMat Contract) | | 2,050 | 2,050 | | | | | | | | | | | | | | | | 2,050 | | 2,050 | ANNUAL PROJECT: Hydro Plant electrical and maintenance inspection letter required annually for the Districts' ReMat Contract | | | | | | |

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2019/20 Project Budget**

| 6 | A | B | C | PROJECT EXPENDITURES THIS FY | | | PROCEEDS FOR PROJECTS | | | | ADDITIONAL CHARGES | | P | Q | | S |
|-----|---|---|--|------------------------------|---------------|--------|-----------------------------|--------|----------|-------|---------------------------|--------------|--------|----------------------------|---------|---|
| | | | | Treatment | Base Facility | Total | Advance Charges (Collected) | Grants | Reserves | Loans | Advance Charges (Cur. FY) | Debt Service | | Resulting Customer Charges | 2018/19 | |
| 96 | | | Crane Operator Re-Certification | | 3,000 | 3,000 | | | | | | | 3,000 | 0 | | This project would provide for the recertification process for one of the mechanics Crane Operator License which needs to be renewed by October of 2019. This recertification would be at an accredited testing site in Bakersfield, that provides a refresher course, written recertification exam, and the practical "hands on" tests. This is a required license for crane operation. |
| 97 | | | EAP Tabletop Exercise - PLANNING | | 12,000 | 12,000 | | | | | | | 12,000 | 5,000 | | There is a FERC regulatory requirement to conduct an EAP table-top exercise every 5 years. The next tabletop and functional exercise will be 9/19/19. This budget amount is for all expenses to conduct these exercises. |
| 98 | | | Essex Mad River Cross-Sectional Survey | | 10,000 | 10,000 | | | | | | | 10,000 | 10,000 | | ANNUAL PROJECT: This task will consist of a new field survey of the seven historic cross sections and update the AutoCAD figures comparing them to the historic cross sections. Two hard copies of the AutoCAD drawings showing the current elevations of the cross sections in comparison to the last few years and historic cross sections will be submitted along with a Technical Memo detailing the recent changes and highlighting any corrective measures that the District may need to implement. Copies of electronic files in AutoCAD format will also be provided. |
| 99 | | | GIS/FIS for Essex, Including Internship | | 0 | 0 | Budgeted in Salaries/Wages | | | | | | 0 | 12,000 | | Update certain feature classes and develop a set of core maps including all new features and layers. Field verification of information in the GIS program. Clean up of data in submitted CAD drawings. Assist in data management and help maintain and create data collection tools for database manipulation and population. |
| 100 | | | GIS / FIS Ruth | | 0 | 0 | Budgeted in Salaries/Wages | | | | | | 0 | 4,600 | | Develop and maintain data collection tools for Ruth's infrastructure. This will also cover time to verify and organize information in the GIS project for the Ruth area. |
| 101 | | | Technical Training | | 23,250 | 23,250 | | | | | | | 23,250 | 27,750 | | This project is to provide software training classes and the related travel expenses for District staff heavily involved in computer science and the related technology due to their job requirements. This includes: Computer Science, Computer/SCADA networking, Computer/SCADA programming, and all related software. Recurring funding enables staff to rotate through trainings on different budget cycles, minimizing the impact on scheduling. This budgeted amount includes training for five out of seven qualifying employees. |
| 102 | | | O & M Training | | 20,000 | 20,000 | | | | | | | 20,000 | 7,500 | | This budget is for funding training classes and associated travel expenses for District staff on a variety of specific topics related to their job responsibilities. It also includes some funding for other staff to attend other local training opportunities that may arise throughout the year on water treatment and distribution principles and practices and education for CEU's, and sending supervisors to AWWA conference as a component of succession training. |
| 103 | | | Essex Server Backup System (Monthly Service Fees) | | 4,250 | 4,250 | | | | | | | 4,250 | 0 | | This budget is for the server backup system monthly service fees. This annual cycle is from February to January each year. Since this is a new back up system, the installation contract included monthly fees until January 2020. This budget is for February through July 2020. |
| 104 | | | Public Education Funds | | 5,000 | 5,000 | | | | | | | 5,000 | 5,000 | | The Board has expressed interest in expanding public outreach for various topics such as water resource planning. This projects provides funding for communications to the public as directed by the Board. |
| 105 | | | Electrical Technical Training | | 13,250 | 13,250 | | | | | | | 13,250 | 0 | | This project is for the training for Electrical Staff to a "Substation Maintenance Technician" level certification through an accredited training program. This training would consist of three classes to be completed within 18 months and once successfully completed would certify them as to meeting the OSHA standards of 1910.269 (a) 2 "Training" requirements, 1910.332 "Electrical Training". Once certified they would be able to maintain the certification through a online refresher course and exam every three years for \$1000. This program provides a range of knowledge in both the safe operations and maintenance procedures for a variety of electrical equipment that we currently employ as well as prepare us for the future addition of the new 12KV switchgear. This budget would provide for two of the three required courses, followed in the next budget cycle by one additional course to complete certification. |
| 106 | | | SCADA Programming License | 8,750 | 4,000 | 12,750 | | | | | | | 12,750 | 0 | | This project would purchase an additional programming license for the SCADA system. The new SCADA system has only one programming license and an additional license would allow the District to have the EWS software at both the TRF and Essex location. In emergency events the EWS software will allow access to the PLCs from either operational location. The extra license will allow two or more staff to program concurrently. An additional Client License will allow the Supervisor to monitor operations. |
| 107 | | | Underground 12Kv Power and Fiber Optic to Collector 2. | | 24,000 | 24,000 | | | | | | | 24,000 | 0 | | This project will provide engineering services to develop a project plan including necessary permitting for the construction and connection of an underground 12KV electrical feed and new fiber optic cable from Essex to Collector 2. The project would also include elements that would accommodate a future project to extend this underground power and communications to Park 4 for future connections to Collectors 3 & 4. The new electrical feed to Collector 2 would likely be fed from an existing spare breaker in the existing 12kV switch-gear. The goal of this project would be to eliminate the vulnerability of relying on overhead power transmission lines and would establish a separate breaker feed to Collector 2. A fiber optic link is also proposed as part of the project to further harden communications, and control reliability. A list of all necessary permits that will be required for the project will be provided, as will construction drawings identifying the proposed route, vaults and conduit and wire schedules for the project. The drawings and details will include the route and depth of bury and will detail necessary hardening where the conduit will cross the river bar to Collector 2 up to termination at transformer on upper deck. The budget assumes that the District will complete the construction work. |

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2019/20 Project Budget**

| 6 | A | B | C | PROJECT EXPENDITURES THIS FY | | | PROCEEDS FOR PROJECTS | | | | ADDITIONAL CHARGES | | P | Q | | S | |
|-----|---|---|--|------------------------------|---------------|---------|-----------------------------|--------|----------|-------|---------------------------|--------------|---------|----------------------------|--------------------------|---|--|
| | | | | Treatment | Base Facility | Total | Advance Charges (Collected) | Grants | Reserves | Loans | Advance Charges (Cur. FY) | Debt Service | | Resulting Customer Charges | Prior Year Budget Amount | | PROJECT DESCRIPTION |
| 7 | | | | | | | | | | | | | | | | | |
| 108 | | | Essex Control Building Expansion Plans & Specs | | 46,000 | 46,000 | | | | | | | 46,000 | | | | CIP PROJECT: The Essex Control Building Expansion is included in the CIP for the 2018/19 Fiscal Year, but was postponed. In 2006/07, Martha Jain Architect worked on concept level plans for the expansion of the Essex Operations Building. This scope would include finalizing the plans with the assumption that they would be developed to sufficient detail to allow the project to go out to competitive bid for construction. GHD would work with Martha Jain Architect to finalize the plan sheets and details as well as completing structural evaluation design and details for the building expansion. Plan sheets will also be developed for electrical and plumbing plans. Project specifications and bid forms will also be developed. This is part of the "Master Build-Out Plan" for the Essex facility. This will increase ADA compliance and will provide a new customer service office, a larger training/breakroom, and eventually connect the control room section to the maintenance shop area. |
| 109 | | | 299 Anode Bed Refurbishment | | 25,000 | 25,000 | | | | | | | 25,000 | 0 | | | The CIP has the replacement of the Highway 299 Anode Bed scheduled for the 2018/19 Fiscal Year but the work was not completed. This budget will include the preparation of bid documents detailing the anode bed replacement including the well construction details and the well abandonment details. It will also include the bidding and construction oversight of the bed replacement. It is anticipated that the existing bed design will largely be duplicated, but GHD's corrosion experts will review the existing design and recommend improvements if warranted. It is also anticipated that the construction work will entail approximately 3 weeks, with limited construction oversight observing the initial well construction and spot checking of the ongoing construction. |
| 110 | | | In-Stream Flow Grant | | 612,700 | 612,700 | | | | | | | 0 | | | | The In-Stream Flow Grant was began in FY2018/19, and work will continue through FY2019/20. This Project is fully grant funded (approved grant \$693,400). |
| 111 | | | Annual Section 115 Pension Trust Contribution | | 50,000 | 50,000 | | | | | | | 50,000 | 0 | | | As approved by the Board in March 2018, this is the annual contribution into the PARS Pension Trust for the Unfunded CalPERS Liability. This is contribution year two of five). |
| 112 | | | Grant Applications Assistance | | 20,000 | 20,000 | | | | | | | 20,000 | 30,000 | | | This budget is for potential grant application assistance that the District would require in the upcoming year. Examples of potential grant programs/applications that could be submitted include: Notice of Intent and/or Application for the FEMA Hazard Mitigation Grant (HMG) Program; various programs for the State Proposition 1 funding; as well as DFW, Coastal Conservancy, and the Safe Drinking Water State Revolving Fund programs. The level of effort between these programs is considerably different, and assistance with a detailed application may have to be further negotiated with the District prior to the performance of the work. |
| 113 | | | Gravel Bar Work and Survey (PS 6) | | 76,100 | 76,100 | | | | | | | 76,100 | 25,000 | | | The existing weir in the Mad River that is intended to prevent the Mad River from bypassing the Pump Station 6 intake has become less efficient over the last several years and the main channel in this reach has moved north. The District is in the process of discussing with California Dept. of Fish & Wildlife and NMFS ways to ensure the channel in front of Pump Station 6 remains the main channel. This would likely include additional grading and work on the gravel bar downstream of the Pump Station. GHD submitted a scope of work and budget for preparing design plans, updating the river model, and permitting the proposed river work with NMFS, California DFW, Army Corps of Engineers and the State Water Quality Control Board. |
| 114 | | | Water Resource Planning Assistance | | 5,000 | 5,000 | | | | | | | 5,000 | 5,000 | | | This budget is for additional minor tasks for providing assistance to the District in their Water Resource Planning Efforts. Work may include meeting with other water agencies to discuss their need for water and the availability of excess District water, meeting with the Water Resource Planning Committee or Workgroup to discuss options, developing additional technical support documents and other assistance as requested. |
| 115 | | | Climate Ready Grant | | 2,000 | 2,000 | | | | | | | 2,000 | 2,000 | | | This is the District's match under the Coastal Conservancy's Climate Ready Grant which will be collecting data regarding dune conditions near our pipeline on the Samoa Peninsula. The District match is \$2,000 per year for five years. This is the final year for this match. |
| 116 | | | Comprehensive DW Pipeline Fitness for Continued Service Evaluation | | 194,700 | 194,700 | | | | | | | 194,700 | | | | This budget is to complete a comprehensive engineering analysis to determine the overall condition of the District's D/W pipeline. The existing distribution pipelines for the District's potable water system were installed in the 1960's and 1970's and they are 50+ years old. Exposure of the pipe during other construction projects have found it to be generally in good shape with years of life left in it; however, several operational valves have reached the end of their life and have had to be replaced, and the underbay crossing from the Samoa Peninsula to the Humboldt Community Services District Truesdale Pump Station has never been inspected and it's condition is unknown, along with the condition of most of the other pipes in the system. |
| 117 | | | Ruth Dam Safety Program | | | | | | | | | | | | | | |
| 118 | | 1 | FERC Dam Safety Surveillance and Monitoring Report | | 5,000 | 5,000 | | | | | | | 5,000 | 3,000 | | | ANNUAL PROJECT- This task consists of assisting the District with the preparation of the Annual DSSMR for the R. W. Matthews Dam. This report is submitted to the State Division of Safety of Dams (DSOD) and the Federal Energy Regulatory Commission (FERC). The intent is that the District will do the majority of the report preparation, while GHD will do a review of the active instrumentation, determine whether the monitoring systems in place are adequate, and will do a final review of the overall report after it is assembled by the District, and stamp and certify the Final Report. |
| 119 | | 2 | FERC Chief Dam Safety Engineer | | 10,000 | 10,000 | | | | | | | 10,000 | 10,000 | | | ANNUAL PROJECT - FERC requires the District have a Chief Dam Safety Engineer either on staff or engaged as a consultant. The individual must have substantial experience and knowledge about dam safety. The District has chosen to outsource this function/duty to Bill Rettberg of GEI, Engineering. This project provides for the continuation of these services. |

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2019/20 Project Budget**

| 6 | A | B | C | PROJECT EXPENDITURES THIS FY | | | PROCEEDS FOR PROJECTS | | | | ADDITIONAL CHARGES | | P | Q | | S | |
|-----|---|---|---|------------------------------|---------------|------------|-----------------------------|-----------|----------|-------|---------------------------|--------------|-----------|----------------------------|--------------------------|---|--|
| | | | | Treatment | Base Facility | Total | Advance Charges (Collected) | Grants | Reserves | Loans | Advance Charges (Cur. FY) | Debt Service | | Resulting Customer Charges | Prior Year Budget Amount | | PROJECT DESCRIPTION |
| 7 | CATEGORY, LOCATION, PROJECT NUMBER & TITLE | | | | | | | | | | | | | | | | |
| 120 | | | Dam Spillway Wall Monument Survey | | 14,000 | 14,000 | | | | | | | 14,000 | | | | RECURRING PROJECT (every 2 years in with Crest Monument Survey - next one FY21/22): This work not required by FERC, but initiated this work given FERC and DSOD questions Re: monitoring of spillway walls. Targets set and baseline established in FY2010/11. |
| 121 | | | Matthews Dam Monument Survey (Vertical Control Survey) | | 9,000 | 9,000 | | | | | | | 9,000 | | | | RECURRING PROJECT (every two years - next one FY21/22): This project involves surveying the elevation and horizontal positions of 16 historic monuments on the crest of the dam. The project also includes preparation of a letter report to the FERC which summarizes the results (in tabular and graphical form). The District previously conducted this work on an annual basis. In the District's Sixth Part 12 Independent Consultant inspection, the Independent Consultant recommended reducing the frequency to every five years, or after significant flood or earthquake, which recommendation the FERC accepted (April 9, 2007 letter). However, the District decided to conduct this survey every two years given the importance of "early warning" systems, coupled with the fact that surveying of slide area (next project) will be done every two years. |
| 122 | | | Left Abutment Slide Area Survey (Slide Monitoring Survey) | | 11,000 | 11,000 | | | | | | | 11,000 | | | | RECURRING PROJECT (every two years - next one FY21/22): This task consists of the bi-annual survey of the eight slide monitoring control points at Matthews Dam to determine whether there is any movement of the landslides. It is assumed that this task will be performed at the same time as the Dam Monument and spillway walls surveys. A summary drawing and letter report will be provided for submittal to FERC and DSOD. |
| 123 | | | Spillway Repair, Dam Inspection & Reporting Assistance | | 10,000 | 10,000 | | | | | | | 10,000 | | | | This task consists of assisting the District with the repairs and reporting of the necessary spillway repairs at Matthews Dam as well as other inspections and reporting assistance. The 2017 inspection of the spillway found several areas where there appeared to be delamination of the concrete on the spillway floor. Two of these areas were repaired in 2017 and three additional areas were repaired in 2018. GHD will assist the District in the assessment of those repairs after this year's winter, and assist in the reporting and discussions with the State Division of Safety of Dams and the Federal Energy Regulatory Commission |
| 124 | | | GHD - Log Boom Inspection | | 4,000 | 4,000 | | | | | | | 4,000 | | | | RECURRING PROJECT (every five years - Last one FY14/15; next one FY19/20): The District's engineer completes an inspection of the log boom and anchorages every 5 years. |
| 125 | Subtotal Professional & Consulting Services | | | 25,500 | 1,228,300 | 1,253,800 | 0 | 612,700 | 0 | 0 | 0 | 0 | 641,100 | 175,500 | | | |
| 126 | Carryover Projects | | | | | | | | | | | | | | | | |
| 127 | | | Harden Collector 5 (Vandalism & Security) | | 7,500 | 7,500 | | | | | | | 7,500 | 0 | | | CIP PROJECT: This project will add security measures to Collector 5. This project includes securing the collector doors, ladder access and replacing the plywood cover of the pump ports. This will add a layer of security to the Collector and will replace the rotting plywood with steel. |
| 128 | | | Mainline Valve replacement (Year 2 of 10 per CIP) | | 50,000 | 50,000 | | | | | | | 50,000 | 130,000 | | | CIP PROJECT: This is the completion of a multi-valve replacement project (four valves total) that was originally scheduled in the CIP for FY2017/18. While this project was initially planned for completion in FY2017/18, based on construction at the 1MG reservoir, replacement of some of the valves was not feasible. The valve replacements were started in FY2018/19, this carryover budget is for final construction supplies and completion of the project. |
| 129 | | 3 | Install Power Pole at Headquarters | | 3,750 | 3,750 | | | | | | | 3,750 | 0 | | | Currently, the power line to headquarters is attached to a fir tree. The fir tree needs to be removed because it is dying. This project would install a new pole and move the wires from the tree to the pole. |
| 130 | | | Ruth Hydro Protective Relay Replacement (Phase 2) | | 120,000 | 120,000 | | | | | | | 120,000 | 42,000 | | | This is Phase 2 of the Ruth Relay Replacement project. This phase of the project includes the actual equipment costs with installations and interconnections to be performed by the District's electrical staff. District staff will have support from outside contractors and PG&E. The required testing and quality assurance of installation will be supplied by qualified electrical engineering firm. |
| 131 | Subtotal Carryover Projects | | | 0 | 181,250 | 181,250 | 0 | 0 | 0 | 0 | 0 | 0 | 181,250 | 172,000 | | | |
| 132 | Subtotal Project Budget | | | 3,739,339 | 8,215,834 | 11,955,173 | 1,023,258 | 7,592,950 | 0 | 0 | 599,000 | 162,200 | 2,107,660 | 748,310 | | | |

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2019/20 Project Budget**

| 6 | A | B | C | PROJECT EXPENDITURES THIS FY | | | PROCEEDS FOR PROJECTS | | | | ADDITIONAL CHARGES | | P | 2018/19 | | S | |
|-----|--|-----|---|------------------------------|------------------|-------------------|-----------------------------|------------------|------------------|------------------|---------------------------|----------------|------------------|----------------------------|--------------------------|---|---|
| | | | | Treatment | Base Facility | Total | Advance Charges (Collected) | Grants | Reserves | Loans | Advance Charges (Cur. FY) | Debt Service | | Resulting Customer Charges | Prior Year Budget Amount | | PROJECT DESCRIPTION |
| 7 | Industrial System Projects | | | | | | | | | | | | | | | | |
| 133 | | | | | | | | | | | | | | | | | |
| 134 | | | Rebuild River Weir | | 75,000 | 75,000 | | | | | | | | 75,000 | 75,000 | | This Project is to rebuild and strengthen the river weir that was originally constructed in the 1991 to combat additional scouring created by excessive gravel mining. This weir has done well, but its need of repair and upgrade in order to maintain the river flows to Pump Station 6. This project would also help to reduce the need to dredge in the river channel each year to maintain flows to PS 6. Funding is proposed from the ReMat revenue/reserves. |
| 135 | | | Refurbish PS-6 (Phase 1) | | | TO BE DETERMINED | | TO BE DETERMINED | TO BE DETERMINED | TO BE DETERMINED | | | | 0 | 0 | | Two viable industrial customers have approached the District requesting I/W. This project encompasses the rehabilitation of Station #6 (PS6). The extent of rehabilitation and funding source(s) are yet to be determined. Once the project and associated costs are known, staff will present them to the Board for consideration and approval. |
| 136 | | IW1 | Maintain Water Supply to Industrial Pump Station 6 During Low-Flow Months | | 13,250 | 13,250 | | | | | | | | 13,250 | 13,250 | | ANNUAL PROJECT: From 1976 to 1991, channel conditions in Mad River allowed operation of Pump Station 6 without any water stage control. Since then, the river bed has degraded and in the late 1980's it approached an elevation at which pumps would not operate. In 1991, District installed two rock structures to control water surface elevation (rock jetty and grade-control weir). The jetty projects from north bank and downstream weir maintains the water surface elevation to PS6 at 21.5 feet msl. When runoff declines, for many years, the District constructed a gravel berm connecting jetty to the weir. Per the District's HCP, a study was completed to explore options. The current "base case" is creation of a channel along the south bank connecting the thalweg to PS6. The District reserves the right and has permit authority to construct the berm if the channel is not successful. This project covers activities necessary to complete this work: 1) construction of channel 2) biological survey per HCP and 3) protection of aquatic species during construction. If the District decides to do a cross-sectional gravel bar survey (pre and post) cost is \$10,000 (not included in current budget). |
| 137 | | | I/W System Evaluation Memo | | 26,000 | 26,000 | | | 26,000 | | | | | 0 | 0 | | Currently the District is keeping the Industrial pipeline charged with water, which helps provide support to the pipe and ensure a continuous electrical conductance to make sure the cathodic protection operates as designed. The District also occasionally operates the pumps at Collector 6 to keep the motors dry and operational and confirm the electrical system is functional. The District is not spending money to perform extensive maintenance, painting, etc. on any of the system components since there is not a customer to pay for these costs. At some point the District needs to make a decision on whether they will perform these deferred maintenance tasks and continue to keep the pipe charged or just let the system gradually fail. This Budget item will entail an overview of the Industrial System, including: general assessment of the assets; level of needed deferred maintenance needed; expected lifetime of the assets without continued maintenance; suggestions for potential alternative use for the asset; and suggestions for procedures to lengthen the lifetime of the assets at minimum expense. The memo will provide a framework for decisions that the District should be making in the next few years concerning the Industrial System components, assuming a new customer is not identified. This task does not include any physical assessment or sampling of the industrial system components. |
| 138 | | | Industrial and Domestic System Intertie | | 11,000 | 11,000 | | | 11,000 | | | | | 0 | 11,000 | | In the event the Harbor District has a client that needs enough water to warrant re-establishing the Industrial / Domestic inter-connection but not enough to warrant using PS 6. This project would be for planning to upgrade the inter-connection. |
| 140 | Subtotal Industrial System Projects | | | 0 | 125,250 | 125,250 | 0 | 0 | 37,000 | 0 | 0 | 0 | 0 | 88,250 | 99,250 | | |
| 141 | TOTAL PROJECT BUDGET | | | 3,739,339 | 8,341,084 | 12,080,423 | 1,023,258 | 7,592,950 | 37,000 | 0 | 599,000 | 162,200 | 2,195,910 | 847,560 | | | |