

# Humboldt Bay Municipal Water District

828 7<sup>th</sup> Street, Eureka



## Agenda for Special Meeting of the Board of Directors

May 24, 2023

Meeting Start Time: 9:00 am

**District Mission:** *Reliably deliver high quality drinking water to the communities and customers we serve in the greater Humboldt Bay Area at a reasonable cost. Reliably deliver untreated water to our wholesale industrial customer(s) at a reasonable cost. Protect the long-term water supply and water quality interests of the District in the Mad River watershed.*

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### COVID-19 Notice

The Board room at 828 7th street will be open to the public at reduced capacity to accommodate social distancing. Room capacity will be limited. An online option will also be available.

**Members of the public may join the meeting online at:**

<https://us02web.zoom.us/j/86710296323?pwd=MjZldGxRa08wZ0FWOHJrUjNhZnFLQT09>

**Or participate by phone: 1-669-900-9128 Enter meeting ID: 867 1029 6323 Enter password: 484138**

If you are participating via phone and would like to comment, please press \*9 to raise your hand.

**How to Submit Public Comment:** Members of the public may provide public comment via email until 5 pm the day before the Board Meeting by sending comments to [office@hbmwd.com](mailto:office@hbmwd.com). Email comments must identify the agenda item in the subject line of the email. Written comments may also be mailed to 828 7th Street, Eureka, CA 95501. Written comments should identify the agenda item number.

These comments will be read during the meeting. Comments received after the deadline will be included in the record but not read during the meeting. If participating in the meeting, public comment will also be received during the meeting.

### 1. ROLL CALL

### 2. FLAG SALUTE

### 3. ACCEPT AGENDA

### 4. PUBLIC COMMENT

Members of the public are invited to address the Board on items not listed on the agenda that are within the scope and jurisdiction of the District. At the discretion of the President, comments may be limited to three minutes per person. The public will be given the opportunity to address items that are on the agenda at the time the Board takes up that item. Pursuant to the Brown Act, the Board may not take action on any item that does not appear on the agenda.

### 5. FINANCIAL

#### FY2023/24 Project Budget

Presentation and discussion of proposed Project Budget (summary and line item detail)\* —discuss

### 6. MINUTES

April 13, 2023, Regular Board Meeting Minutes\* — discuss

### ADJOURNMENT

ADA compliance statement: In compliance with the Americans with Disability Act, if you need special assistance to participate in this meeting, please contact the District office at (707) 443-5018. Notification 48 hours prior to the meeting will enable the District to make reasonable arrangements to ensure accessibility to this meeting. (Posted and mailed May 19, 2023.)

**FINANCIAL**

## ***Color Coding for Project Budget***

### **Print Color Explanation - Column "D"**

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**Blue - Recurring Projects**

**Purple - Essex Driven Projects**





**Red - Regulatory Required Project**

**Green - Grant Funded or Main Office Driven Projects**

**Orange - CIP Project**

### **Column Color Explanation - Column "A" or "B"**

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	<b>Red = New Project this year</b>
	<b>Yellow = GHD Project</b>
	<b>Purple = Essex Project</b>
	<b>Green - Office Project</b>

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT**  
**FY2023/24 Project Budget**

A		B	D			H	I	J	K				L	M	N	O		P	Q	R		S	T	
CATEGORY, LOCATION, PROJECT NUMBER & TITLE			PROJECT EXPENDITURES THIS FY			PROCEEDS FOR PROJECTS				ADDITIONAL CHARGES		Resulting Customer Charges	2022/23		CIP	PROJECT DESCRIPTION								
			Treatment	Base Facility	Total	Advance Charges (Collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service		Prior Year Budget Amount											
<b>Maintenance</b>																								
<b>Essex Area Maintenance</b>																								
M1	FY24 Pipeline Maintenance			14,000	14,000													14,000	4,000		<b>ANNUAL PROJECT:</b> Routine annual maintenance to include re-establishing access to the right-of-way, minor grading, sign replacement, and equipment maintenance.			
M3	FY24 Main Line Meter Flow Calibration			28,000	28,000													28,000	28,000		<b>ANNUAL PROJECT:</b> The District uses a five-year cycle for mainline meter maintenance. This year, the Blue Lake and Manila meters are due for maintenance. The meters will be removed for calibration during the winter months.			
M4	FY24 Technical Support and Software Updates to Include Control System			26,750	26,750													26,750	31,500		<b>ANNUAL PROJECT:</b> This is a yearly expense for technical support and licensing: 1) Rockwell Automation 2) ESRI GIS 3) IMSI CAD 4)Microsoft Software 6) Firewall software 7) Phone system support 8) Antivirus software 9) Datto Backup service.			
M5	FY24 Generator Services			3,500	3,500													3,500	3,500		<b>ANNUAL PROJECT:</b> Routine service on 2MW and 35kw emergency generators.			
M7	FY24 Hazard & Diseased Tree Removal			8,000	8,000													8,000	8,000		<b>ANNUAL PROJECT:</b> Required to remove hazardous trees in the Essex parks.			
M8	FY24 Cathodic Protection			1,500	1,500													1,500	1,500		<b>ANNUAL PROJECT:</b> To inspect and perform minor maintenance on cathodic protection system.			
M9	FY24 Maintenance Emergency Repairs			50,000	50,000													50,000	50,000		<b>ANNUAL PROJECT:</b> Funding for unforeseen maintenance, unplanned replacements, and emergency repairs.			
M10	FY24 Fleet Paint Repairs			5,000	5,000													5,000	5,000		<b>ANNUAL PROJECT:</b> This project continues preventive maintenance to preserve our equipment to prolong assets useful life.			
1	Particle Counter Calibration		1,750		1,750													1,750		Y	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. Last calibrated 2022.			
2	EOC Emergency Backpack Supplies, Replenishment			1,750	1,750													1,750			This project will replenish of expired products (MRE's, water & glow sticks) located in staff emergency response backpacks located in the EOC at the TRF.			
3	Collector 1 Conductor Replacement			89,750	89,750													89,750			This project replaces the 12KV conductors to Collector 1. During the IPA project, when these cables were spliced the final test of the cable showed the cable insulation was breaking down due to age.			
4	FY24 Power Pole/Line Inspection/Maintenance			43,500	43,500													43,500	17,500	Y	<b>CIP:</b> This project is a multi year CIP project for a review of the entire 12 kV system. This project will provide funding to hire a contractor to perform pole coring inspections while also inspecting, cleaning, and maintaining the pole top equipment and wiring on the 12KV overhead electrical system, which powers our collectors. This year, the project will perform the necessary repairs as outlined in the inspection report performed by Wahlund Construction in July of 2022. One repair was made last fall from the 12KV maintenance budget and this project will perform the remaining repairs. It will include the inventory replacement of two new power poles which were utilized last year.			
5	SBPS Roll-Up Door			33,000	33,000													33,000			Replacement of roll up door at Samoa Booster Pump Station due to deterioration from weathering. This will be an upgraded door including stainless steel hinges to be more resistant to the conditions on the peninsula. This project was deferred from last year.			
6	Service Vehicle Utility Box Lighting			1,750	1,750													1,750			This project will be to purchase and install interior lighting on the tool boxes of three Units (2,4, and 8). This would increase worker efficiency and visibility into the tool/storage boxes when working in the dark. Currently it is difficult to find tools and supplies without a flashlight or other light source.			
7	Park #1 Gazebo Roof Replacement			3,500	3,500													3,500			This project will replace of the current 20-year old asphalt shingled roof on the Gazebo located in Park #1 with a metal roof.			
8	Pipeline R-O-W Maintenance			20,000	20,000													20,000			This project is major Right-of-Way maintenance to areas where there has been little to no vegetation management since the pipeline was installed. This project is for notification of property owners of our planned vegetation management and hiring a tree faller and equipment to move the trees off site. There may be some marketable trees that the District will need to purchase, but that will be determined on a site-by-site basis.			
<b>TRF Maintenance</b>																								
M6	FY24 TRF Generator Service		500		500													500	500		<b>ANNUAL PROJECT:</b> Routine service on Korblex emergency generator.			
	FY24 TRF Limatorque Valve Retrofit Supplies		14,500		14,500													14,500	14,500		This reoccurring budget item is for the purchase of additional Limatorque Valve Actuator Retrofit Kits and spare parts for the TRF valves. It is essential that we maintain sufficient inventory of spare parts and actuators while we are phasing out the Limatorque Actuators.			
	TRF Valve Network Upgrade (Phase 2)		125,000		125,000													125,000	121,000	Y	<b>CIP - Related:</b> This project will purchase, install and test a new type of valve actuator at the TRF. This trial is essential before proceeding with the complete network valve actuator replacement project. Our current actuators cost between \$10,000-\$15,000 annually to maintain and retrofit. Our current actuators are beginning the third generation of retrofitting for these valves. It is in the District's best financial interest to have fully vetted a prospective replacement for compatibility and reliability in order to ensure lower maintenance costs in the future.			

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT**  
**FY2023/24 Project Budget**

6	A B		D			H			I			J			K				L		M		N		O		P		Q		R		S		T	
	CATEGORY, LOCATION, PROJECT NUMBER & TITLE					Treatment	Base Facility	Total	Advance Charges (Collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service	Resulting Customer Charges	Prior Year Budget Amount	CIP	PROJECT DESCRIPTION																		
30	<b>Ruth Area Maintenance</b>																																			
31	RM1						21,000	21,000							21,000	6,500	MRAR	<b>ANNUAL PROJECT:</b> 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. <u>The price increase is due to a new vegetation management company completing the spray work.</u>																		
32							5,000	5,000							5,000	5,000		<b>ANNUAL PROJECT:</b> This project purchases insurance for our LTO for tree management on lease lots and general timber management.																		
33							10,000	10,000							10,000	10,000		<b>ANNUAL PROJECT:</b> This project funds maintenance and smaller repairs as needed.																		
34							1,000	1,000							1,000	1,000	MRAR	<b>ANNUAL PROJECT:</b> District staff inspect the Howell Bunger Valve to determine maintenance, repairs or replacement are required. This is an essential component to operate the Hydro Plant at Ruth Lake.																		
35							1,500	1,500							1,500	1,500		<b>ANNUAL PROJECT:</b> This project is materials and parts as needed to maintain the Worthington Log Boom at Ruth. This is an essential safety feature of the dam.																		
36		1					21,000	21,000							21,000	0		This project will be to test the current plant synchronizer for functionality, and to configure and test the two spare synchronizers that are surplus from the old Essex switchgear. These synchronizer's are the same manufacturer and type as used at the hydro plant and will be kept for emergency replacements for the hydro plant.																		
37		2					6,750	6,750							6,750	0		This project will replace the existing very old and heavy overhead doors on the Headquarters residence with roll up doors.																		
38	<b>Eureka Office Maintenance</b>																																			
39							500	500							500	0		<b>ANNUAL PROJECT:</b> Routine service on Eureka Office emergency generator.																		
40	<b>Subtotal Maintenance Projects</b>					<b>141,750</b>	<b>396,750</b>	<b>538,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>538,500</b>	<b>309,000</b>																				
41	<b>CAPITAL PROJECTS</b>																																			
42	<b>Essex Area Capital Proj.</b>																																			
43	C1						162,200	162,200	0					0	162,200	162,200		This project will provide for a financing consultant to begin exploring and pursue long term financing options for CalPERS UAL, OPEB Liability, and CIP Projects.																		
44							205,000	205,000	205,000					0	0	0		This project will provide a redundant pipeline to convey water from the District's collectors to the TRF. There is currently only one water line that conveys water from all of the District's collectors to the TRF for treatment, storage, and distribution to customers. Failure of this source water supply line would mean total failure of the HBMWD system. Repair of the collector mainline would be very difficult, as it travels along a steep and narrow road, and failure of the pipe would likely cause significant erosion of the hillside and roadway creating costly and time-consuming repairs. FEMA Hazard Mitigation Grant funded. Construction is anticipated in FY24/25. Project total is currently budgeted at \$3,100,000 with a District match of \$775,000.																		
45							2,310,000	2,310,000	1,000,000	1,310,000				0	0	0		This project will begin the rehabilitation of Collector 2. This will include the design/engineering/replacement of the laterals. Engineering is complete and construction began in FY23. The project is currently estimated at \$1,658,000 and has received two NCRP Prop. 1 grant funding of \$1,300,000, and Advanced Charges collected of \$1,000,000.																		
46							3,738,910	3,738,910	1,113,910	2,625,000				0	0	0		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 FY24. Project total is currently budgeted at \$3,500,000 with a District match of \$875,000.																		
47							125,000	125,000	125,000					0	0	0	Y	<b>CIP - Related:</b> Cathodic protection is a form of corrosion control commonly used to mitigate external corrosion on buried pipelines. Impressed Current Cathodic Protection (ICCP) is a type of cathodic protection relying on an external power source: AC power which is converted to DC by a rectifier. DC current is sourced through the soil via buried anodes to the project pipeline(s). There are typically several anodes associated with a single rectifier that may be buried in various configurations or arrays; including installation of multiple anodes in a vertical column as a part of a shallow anode well array or a deep anode well. HBMWD has an ICCP system dedicated to the DW pipelines; composed of five (5) rectifiers and associated anode beds. The CP system components are aging, and in some cases are estimated to have been in service for 30 or more years. The CP systems have been maintained by HBMWD staff and periodic system surveys have been conducted by a specialized Contractor retained by the District. Of the five District Rectifiers, two (the Jackson Ranch and Jane's Creek), were found to not be functioning at the time of assessment.																		

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT**  
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6	A	B	D	PROJECT EXPENDITURES THIS FY			PROCEEDS FOR PROJECTS				ADDITIONAL CHARGES		2022/23		S	T	
				Treatment	Base Facility	Total	Advance Charges (Collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service	Resulting Customer Charges	Prior Year Budget Amount			CIP
7																	
48			On-Site Generation of Chlorine, Phase 3 and Building Retro-Fit (\$1.3M - FY23/FY24)	1,311,950	0	1,311,950	1,180,000					0		131,950	250,000		To eliminate the high risk hazard of Chlorine Gas at Essex, this project replaces our current Chlorination system with a Chlorine gas generator. This is a much safer process than the District currently uses. Chlorine generation is a very low concentration process therefore, it is not considered a hazardous product with far less regulation. There will be no need for our SCBA PPE. The District has collected advanced funding as well as reallocation funding for this project. The scope of this project would be to retrofit the existing Chlorine Building with new exterior materials, since it will be housing new hypochlorite generation equipment. This project also includes the retrofit of the existing building: new siding, paint, exterior lighting and the installation of a new pedestrian door and metal rollup door for accessing equipment. Budgeted costs also include \$69,700 for engineering.
49			Essex Control Building Expansion		750,000	750,000								0		Y	<b>CIP - Related:</b> This project remodels and expands the current Essex breakroom, Supervisor, Assistant Supervisor and Customer Service offices, Training facility and ADA restrooms. <b>Staff is currently researching alternate funding sources for this project.</b>
50			Mainline Valve Replacement Program		170,000	170,000								170,000	60,000	Y	<b>CIP - Related:</b> Valves to be replaced TBD. The valves will be two Domestic water transmission line isolation valves in strategic locations.
51			Eureka Office Capital Proj.														
52			ADA Standard improvement-Office Parking Lot		11,000	11,000								11,000	0		This project will demo and repour the ADA parking area to bring into compliance and re-seal the asphalt parking areas and restripe parking spaces
53			Ruth Area Capital Proj.														
54			Storage Barn at Ruth Headquarters (Total \$190k, FY24/FY25)		90,000	90,000								90,000			To protect District equipment from the elements and extend equipment lives as long as possible, this project will build a metal storage barn for the work boat, backhoe and other equipment at Ruth Headquarters. This project will be funded over two budget-years, with design, planning and permitting potentially occurring in FY24 and construction/completion in FY25. The total cost of this project is estimated to the \$190,000 split over two budgets.
55			<b>Subtotal Capital Projects</b>	<b>1,311,950</b>	<b>7,562,110</b>	<b>8,874,060</b>	<b>3,623,910</b>	<b>3,935,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>565,150</b>	<b>472,200</b>		
56			<b>Equipment/Fixed Assets</b>														
57			<b>Essex Area Equipment/Fixed</b>														
58			FY24 Replace ESSEX Administrative Computers		6,500	6,500								6,500	7,000		This project annually replaces the two oldest workstations in the administration network with new computers including peripherals, printers and monitors. This project also maintains software security at the highest levels currently available.
59			FY24 Replace Control Computers		5,250	5,250								5,250	5,250		This project is for the annual replacement of two Control computers with new computers and monitors. These computer replacements average between 5-7 years since a critical computer may be replaced more often and repurposed to a less critical position. This project also maintains software security to the highest levels currently available.
60		1	Spare Collector Motor		108,250	108,250								108,250	0		This project replaces the spare 400HP motor that was installed on Collector 4 this past fall due to failure. The old motor was 350HP and was not rebuilt since that size motor is being phased out.
61		2	Portable Eye Wash & Shower		1,750	1,750								1,750			This project will purchase a new portable emergency eyewash/shower station, which would provide support in higher risk field operations if a chemical exposure were to occur. This project also includes the purchase of saline refill bags for eyewash stations located in the Essex Maintenance Shop and TRF Laboratory.
62		3	Humboldt Bay Radio Read Meters		9,500	9,500			9,500					0			This project will purchase more radio-read meters to install where safety is an issue. These meters will be placed along West End Road and Warren Creek Road, in customers backyards and cow fields, (etc.), where access is dangerous or limited. Radio read meters help District staff to be more efficient with their time. This purchase is funded using Retail Capital Reserves.
63		4	Pipeline Maintenance Equipment		5,750	5,750								5,750			This project will purchase the following: a Jackhammer, an electric concrete chainsaw, a walk behind kit for our concrete circular saw, and a new 2" compact gas power water pump for Unit 8. These items will benefit the District when performing maintenance and repair activities to our transmission, distribution systems in addition to other facilities.
64		5	John Deere 4052 Implements		6,500	6,500								6,500	0		This project will purchase the following implements for the John Deere 4052R Tractor: a box scrapper, a 3 point hydraulic auger, and pallet fork attachment. These implements will increase the use flexibility of the tractor and assist with numerous tasks that are well suited for this tractor, but are currently unable to be completed.
65		6	Replace Maintenance Shop High Bay Lights		3,250	3,250								3,250			This project is to purchase and install eight (8) new high-bay LED lights in the maintenance shop over the work and fabrication benches for focused lighting in these high use areas.
66		7	Cordless Tools and Equipment		5,250	5,250								5,250	0		This project will add additional cordless tools to the maintenance shop; add/replace six battery packs; and add a two battery simultaneous rapid charger.
67																	

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**FY2023/24 Project Budget**

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6	CATEGORY, LOCATION, PROJECT NUMBER & TITLE			PROJECT EXPENDITURES THIS FY			PROCEEDS FOR PROJECTS				ADDITIONAL CHARGES		Resulting Customer Charges	2022/23		PROJECT DESCRIPTION
7				Treatment	Base Facility	Total	Advance Charges (Collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service		Prior Year Budget Amount	CIP	
68	<b>TRF Equipment/Fixed Assets</b>															
69		1	TRF Security Fence		7,750	7,750							7,750			This project is to replace the rented, temporary fencing with a permanent fence surrounding the Tesla Battery project and future Emergency Generator installation.
70		2	TRF Spare Process Pumps		25,750	25,750							25,750			This project is for the purchase of an additional wash water return pump and rapid mix pump. These new pumps would serve as a new pump for each location and act as an emergency back-up if one was to fail.
71		3	Replace PH Probes		26,750	26,750							26,750			This project will purchase two new benchtop PH probes for the TRF and Essex.
72		4	Benchtop Turbidity Meter		6,750	6,750							6,750			This project will purchase a new Hach TU5200 Turbidimeter with a set of sample vials for Essex lab.
73	<b>Eureka Equipment/Fixed Assets</b>															
74			FY24 Replace EUREKA Administrative Computers		3,000	3,000							3,000	3,800		Administrative computers are replaced on a 5-year cycle. This is for the replacement of the General Manager (FY19). This project will also upgrade several other monitors of smaller (19") size to a more current standard. The District's computer replacement cycle improves cyber security and employee efficiency.
75	<b>Ruth Area Equipment/Fixed Assets</b>															
76		1	Ruth Hydro Power Monitor Replacement		13,500	13,500							13,500	0		This project replaces the existing Allen Bradley power monitors on both the generators and the outgoing buss panel at Ruth hydro plant. The current power monitors are obsolete and are beginning to show signs of failure. These units provide energy information from both generator units as well as the outgoing buss to the SCADA system and provide a display of this same information at each breaker and the buss panel.
77		2	Hydro Plant PRV Internal Belzona Repairs		4,750	4,750							4,750	0		This project will perform necessary rehabilitation of interior surfaces with a designed coating that protects and reduces cavitation damage on one of the two pressure reducing Cla-va's. The first valve was funded in the FY2023/24 budget.
78		3	Replace Ruth Hydro Incoming Power Feed Conductors		42,500	42,500							42,500			This project replaces the high voltage power feeds between the station transformer and the plant buss. This cabling was tested this last fall and it was found to be outside of acceptable tolerances and needs to be replaced.
79		4	Ruth Bunkhouse Picnic Table Replacement		2,000	2,000							2,000	0		This project is to purchase two new movable picnic tables for the Ruth Bunkhouse. These two tables will seat 8 people and be ADA compliant.
80			Automated Tiltmeters		50,000	50,000							50,000	0		This project will purchase and install automated Tiltmeters to monitor the spillway walls. The automated Tiltmeters will be connected to datalogger(s) that can read and store the data at sub-minute to daily intervals. Power will be supplied using a combination of batteries and solar power and will allow for collection of data at any desired time, including immediately should an event (earthquake) occur.
81	<b>Subtotal Equipment/Fixed Assets</b>			0	334,750	334,750	0	0	9,500	0	0	0	325,250	16,050		
82	<b>Professional and Consulting Services</b>															
83			FY24 Crane Testing/Certification		10,000	10,000							10,000	10,000		<b>ANNUAL PROJECT:</b> 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.
84			FY24 Chlorine System Maintenance	6,750		6,750							6,750	16,750		<b>ANNUAL PROJECT:</b> 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.
85			FY24 Hydro Plant Annual Electrical and Maintenance Inspection (ReMat Contract)		4,000	4,000							4,000	4,000		<b>ANNUAL PROJECT:</b> Hydro Plant electrical and maintenance inspection required annually for the Districts' ReMat Contract
86			FY24 Cyber Security Maintenance		5,000	5,000							5,000	0		<b>NEW ANNUAL PROJECT:</b> This project is to obtain a base line of our cybersecurity vulnerabilities at the Essex location. This project is to hire a third party to do a cybersecurity assessment of the administration and control networks. This will include assessments of our remote connections into our control networks. We will use the results of this assessment to develop a project for the corrective measures. The Eureka Office will also need a similar assessment, but is not funded here.
87			FY24 Essex Mad River Cross-Sectional Survey		12,000	12,000							12,000	12,000		<b>ANNUAL PROJECT:</b> This task consists of the annual field survey of the seven historic cross sections along the Mad River and an update of the AutoCAD figures comparing the new cross sections to the historic cross sections. Two hardcopies of the AutoCAD drawings showing the current elevations of the cross sections in comparison to the last few years 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 the electronic files in AutoCAD format will also be submitted.
88			FY24 Technical Training		27,000	27,000							27,000	27,000		<b>ANNUAL PROJECT:</b> This project funds software training classes and associated travel expenses for a number of District staff on technologies specific to their job responsibilities. This would include technical training for computer science, computer and SCADA networking programming and software. This recurring budget item enables staff to rotate through trainings that arise throughout the year for the constantly changing technology field. This budgeted amount will include training for approximately five out of seven qualifying employees.

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT**  
**FY2023/24 Project Budget**

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				CATEGORY, LOCATION, PROJECT NUMBER & TITLE	Treatment	Base Facility	Total	Advance Charges (Collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service	Resulting Customer Charges			Prior Year Budget Amount	CIP	PROJECT DESCRIPTION		
89				FY24 O & M Training		20,000	20,000							20,000	20,000		<b>ANNUAL PROJECT:</b> This budget funds 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.				
90				Backflow Tester Certification		5,750	5,750							5,750			Backflow recertification training for 3 Essex Staff. This will be far less expensive if we can get the trainer to return to Humboldt County, as happened last year. Otherwise, we must go out of the area to find the training.				
91				EAP Tabletop Planning		5,000	5,000							5,000			These funds are for the planning of the regulatory requirement to conduct an EAP Tabletop exercise every 5 years. The next event is due 9/30/24. This project is for any expenses incurred while in the planning & set-up process.				
92				CIP 10-year Financial Revision and Project Review		15,000	15,000							15,000			This project will hire a consultant to review and update the District's Capital Improvement Plan. The consultant will complete an analysis based on projects remaining in the CIP and the financing required, and will calculate the possible changes in Muni charges needed for the next 10-years. This task is essential for the completion of the District budget and charges to Municipal customers.				
93				FY24 Public Education Funds		5,000	5,000							5,000	5,000		<b>ANNUAL PROJECT:</b> The Board has expressed interest in expanding public outreach for various topics such as water resource planning. This project provides funding for communications to the public as directed by the Board.				
94				In-Stream Flow Grant		444,755	444,755		444,755					0	457,755		The In-Stream Flow Grant began in FY19, and work will continue through FY24. This Project is fully grant funded (approved grant \$693,400).				
95				FY24 Mad River Regulatory Compliance Assistance		50,000	50,000							50,000	50,000		This project is included to support regulatory work and possible enforcement activities related to the District's operation on the Mad River. There are four possible activities: 1) Compliance with the terms and conditions of the Long-Term Streambed Alteration Agreement (LTSAA). Section 10.2C requires that the District perform a hydrological and fish passage assessment. The assessment was completed in FY2014/15. Based on the results, Section 10.2D requires that the District and DFW determine and agree upon flow releases from Matthews Dam and bypass flows below Essex. The District may need consulting assistance to negotiate a successful outcome with DFW. (Range of \$10,000 - \$15,000 assumed)				
96																					2) Amending the District's HCP to include Eulachon, and supporting NMFS in updating their Biological Opinion (BO) associated with the HCP to address the Critical Habitat Designation (CDH) for Chinook and Steelhead. NMFS addressed CDH for all covered species, but was not able to include that in the BO because the final CHD was not approved at the federal level. A resource consultant will likely be needed to support this work to conduct research, gather available information, and prepare an Environmental Assessment. (Range of \$10,000 - \$15,000 assumed)
97																					
98				Spillway bridge inspection		7,500	7,500							7,500	0	MRAR	<b>CIP - Related:</b> This project is in the CIP as a 5-Year inspection cycle by a structural engineer.				
99		#7		FY24 GHD Review & Report of Essex Mad River Cross-Sectional Survey		5,000	5,000							5,000	5,000		This task will consist of a summary of the annual field survey of the seven historic cross sections along the Mad River (survey work to be completed by others) and an update of the AutoCAD figures comparing the new cross sections to the historic cross sections. Two hardcopies of the AutoCAD drawings showing the current elevations of the cross sections in comparison to the last few years 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 the electronic files in AutoCAD format will also be submitted. Note that it is assumed that the District will contract with a surveyor directly to perform the survey work, which will require additional budget.				
100		#8		FY24 Grant Applications Assistance		20,000	20,000							20,000	20,000		This project is for potential grant application assistance that the District may require in the upcoming year. The level of effort required for various grant programs can vary considerably, and assistance with a detailed application may need to be further negotiated with the District prior to the performance of the work.				
101		#10		Trinidad Rancheria Water Request		10,000	10,000		10,000					0	10,000		This would be funded by Trinidad Rancheria				
102		#11		Domestic Water for Nordic Aqua Farm		5,000	5,000							5,000	5,000		Nordic Aquafarms is currently taking steps to develop a fish farm on the Samoa Peninsula. In addition to the industrial water that they will require if the facility is built, they will also require domestic water service. Engineering support for this service connection and extension would include attendance at meetings to discuss and determine need, and an analysis of feasibility and/or upgrade requirements that would include a water model analysis. It is unclear at this time how much effort will be required in support of this in the upcoming fiscal year.				
103		#12		Samoa Peninsula Water Line ROW Maintenance Project		240,850	240,850							240,850			The District needs to go through the CEQA EIR process to maintain the waterline right-of-way (ROW) throughout the Coastal Zone on the Samoa Peninsula, which contains sand dunes hosting at least one endangered plant species, wetlands, and upland environmentally sensitive habitat area (ESHA). This line item includes Phase 2 special studies along portions of the pipeline right-of-way alignment (Phase 1 occurred in FY 22-23) that will be utilized in the EIR. The District also needs to obtain regulatory compliance permits (e.g., Coastal Development Permit, Army Corps 404 permit, and other permits and associated management plans). GHD has contracted with HBMWD to assist with these tasks.				



**HUMBOLDT BAY MUNICIPAL WATER DISTRICT**  
**FY2023/24 Project Budget**

A		B	D			H	I	J	K	L	M	N	O	P	Q	R	S	T
CATEGORY, LOCATION, PROJECT NUMBER & TITLE			PROJECT EXPENDITURES THIS FY			PROCEEDS FOR PROJECTS				ADDITIONAL CHARGES		Resulting Customer Charges	2022/23		CIP	PROJECT DESCRIPTION		
			Treatment	Base Facility	Total	Advance Charges (Collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service		Prior Year Budget Amount					
104	#14	Domestic Water System Cathodic Protection Upgrades		48,000	48,000	48,000								0	65,000		The District's CIP has the replacement of the Highway 299 Anode Bed scheduled for the 2018/19 Fiscal Year. However, in 2019 GHD performed a comprehensive assessment of the entire cathodic protection system to determine whether the 299 Anode Bed actually requires replacement and what other issues may or may not need to be addressed. The Cathodic Protection Assessment Report was submitted to the District in January 2020 and recommended the replacement of the four existing anode beds with four new deep anode wells, and replacement of two rectifiers. The District is currently reviewing alternatives to determine whether the District would like to move forward with the recommended upgrades of the existing impressed current cathodic protection (ICCP) system, or pursue localized galvanic systems to protect targeted valves and appurtenances within the domestic water system. If the District decides to move forward with the ICCP system upgrades, this task would consist of the preparation of a CEQA Notice of Exemption, well and anode bed specifications, design drawings, and bid documents. It does not include bid phase services or support during construction, as construction for the ICCP upgrades would not occur in FY 23/24. <b>This project will be funded using previously collected Advanced Charges.</b>	
105	#15	Essex Control Building Expansion Plans/Specs		46,000	46,000		46,000							0			The Essex Control Building Expansion is included in the CIP for the 2018/19 Fiscal Year. In 2006/07, Martha Jain Architect prepared 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. The budget below assumes that minimal (8 hrs.) of electrical engineering is required to re-design the electrical feed from Pump Station 6 that comes into the west side of the existing control building.	
106	#16	Water Quality Monitoring Plan Assistance		20,000	20,000									20,000			The SWRCB is requiring the District to prepare a Water Quality Monitoring Plan (WQMP) in accordance with California Code of Regulations, Title 22, Section 64416. District staff is currently researching as to the exact extent of the required breadth of the sections required. GHD will assist with the first section of the WQMP in FY24, limited to providing an overview of the hydrological and geological data of the Mad River watershed as it pertains to water quality. This task will include the research, analysis, and documentation required to write this section of the WQMP.	
107	#17	Water Model Update & Samoa Peninsula Domestic Capacity Analysis		30,000	30,000									30,000			The District's hydraulic model no longer reflects real-world operating conditions on the Samoa Peninsula. The model was originally developed and calibrated prior to the 18-inch Techite pipeline being replaced. The hydraulic behavior of the system is significantly different since that pipeline has been replaced with a larger pipeline and the operating parameters of the Samoa Booster Station have changed since the piping system can now handle higher pressures than it could when the Techite line was in services. The question of capacity on the Samoa Peninsula is significant, particularly given the current potential for future development and that the District's domestic water transmission line reduces from a 27-inch pipe to a 15-inch pipe for several miles along the peninsula. GHD proposes to coordinate with District staff to perform the necessary field work to calibrate the existing water model to current operating conditions. GHD will use data from the field work to update the model. The updated model will be used to perform a capacity analysis for the system and determine what the future additional capacity of the system is, if any. GHD will prepare a technical memorandum that summarizes the model updates and the model calibration/verification process; provides a description of the capacity analysis methodology and results; and identifies conceptual system upgrades that may be required to provide for future domestic water demands.	
108	#18	Engineering Study - Replacement of 15-inch Peninsula Domestic Water Line Preliminary Design & ROW Deficiency Analysis		25,000	25,000									25,000	38,000		GHD is currently performing a conceptual analysis for upgrading the District's 15-inch domestic water pipeline on the Samoa Peninsula, which is believed to be a limiting factor in providing for future domestic water on the peninsula. Two alternatives are being analyzed including an upgrade alignment that follows Highway 255 and New Navy Base Road and an upgrade alignment that parallels the existing alignment in the dunes. Based on currently available data, it appears that the dunes alignment is the most cost effective and preferred alternative. GHD will use existing LiDAR data to develop a conceptual design alignment in the dunes. GHD would then overlay the conceptual alignment with the District's existing ROW data to determine locations where the District may want to obtain additional ROW to allow for construction of a cost effective and environmentally superior pipeline alignment in the dunes.	
109	<b>Ruth Dam Safety Program</b>																	
110		Dam Crest Monument Survey (vertical control survey)		20,000	20,000									20,000			<b>ANNUAL PROJECT - (Crest Monument Survey):</b> This work is required by FERC biennially. The District initiated this work to be done annually given FERC and DSOD questions regarding monitoring of spillway walls. Targets set and baseline established in FY2010/11. New baseline was set in 2021 (See Point West, R.W.Matthews Dam - Settlement, Slide, and Wingwall Monitoring Survey - Nov 30-Dec1, 2021) Due to recent elevation fluctuations in survey data, this survey changing from biennial to annual in FY22/23 to obtain more timely data to analyze fluctuations.	
111	#2	Matthews Dam Vertical Monument Survey report analysis (Review data from Points West survey above)		5,000	5,000									5,000	5,000		This task consists of the annual (formerly biennial) survey of the 16 vertical survey points to determine whether there is any settlement of the dam crest. It is assumed that this task will be performed at the same time as the spillway and landslide surveys. It is assumed that the District will contract with a surveyor directly to perform the survey work, which will require additional budget. GHD will process the data from the surveyor and prepare a summary letter report that will be provided for submittal to FERC and DSOD.	
112		FY24 Dam Spillway Wall Monument Survey		17,500	17,500									17,500	0		<b>ANNUAL PROJECT - (Spillway Wall and Floor Survey):</b> This work is required by FERC biennially. The District has initiated this work to be completed annually given FERC and DSOD questions regarding monitoring of spillway walls. The monitoring surveys consist of four projects: Dam West Abutment Horizontal Movement; Dam Vertical Settlement; Spillway Wingwall Horizontal Movement; and Spillway Vertical Settlement. Targets set and baseline established in FY2010/11. New baseline was set in 2021 (See Point West, R.W.Matthews Dam - Settlement, Slide, and Wingwall Monitoring Survey - Nov 30-Dec1, 2021).	
113	#3	Matthews Dam Spillway Wingwall and Floor Survey letter - (Review of data from Points West survey above)		6,500	6,500									6,500			This task consists of reviewing the data from the annual (formerly biennial) survey of the existing monuments at the top and bottom of the spillway walls at Matthews Dam to determine whether there is any movement of the walls and/or floor. A drawing and letter report summarizing the analysis and any recommendations will be provided for submittal to FERC and DSOD. Note that it is assumed that the District will contract with a surveyor directly to perform the survey work, which will require additional budget.	

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT**  
**FY2023/24 Project Budget**

	A	B	D	H	I	J	K	L	M	N	O	P	Q	R	S	T
6	CATEGORY, LOCATION, PROJECT NUMBER & TITLE			PROJECT EXPENDITURES THIS FY			PROCEEDS FOR PROJECTS				ADDITIONAL CHARGES		Resulting Customer Charges	2022/23		PROJECT DESCRIPTION
7				Treatment	Base Facility	Total	Advance Charges (Collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service		Prior Year Budget Amount	CIP	
114			Matthews Dam Left Abutment Slide Area Monitoring Survey		10,000	10,000							10,000			RECURRING PROJECT (every two years - next one FY25/26): 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.
115	#4		Matthews Dam Left Abutment Monitoring Survey (Review of data from Points West survey above)		3,000	3,000							3,000			This task consists of the biennial survey of the eight slide monitoring control points at Matthews Dam to determine whether there is any movement of the landslide at the left abutment. It is assumed that this task will be performed at the same time as the dam monument and spillway surveys. It is assumed that the District will contract with a surveyor directly to perform the survey work, which will require additional budget. GHD will prepare a summary letter report to be provided for submittal to FERC and DSOD.
116	#5		FY24 FERC Dam Safety Surveillance and Monitoring Report (DSSMR)		5,000	5,000							5,000	5,000		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.
117	#6		FY24 Spillway Repair, Dam Inspection & Reporting Assistance		5,000	5,000							5,000	5,000		ANNUAL PROJECT: This task is for assisting the District with recommendations for spillway 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. Areas of the spillway have been repaired since the initial discovery. GHD or GEI assists the District in the assessment of those repairs, and assist in the reporting and discussions with the State Division of Safety of Dams and the Federal Energy Regulatory Commission.
118			FY24 FERC Chief Dam Safety Engineer		12,000	12,000							12,000	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. As a consequence of the Oroville Dam spillway failure, both FERC and DSOD have intensified their required dam safety program compliance.
119			Adv. Assistance Spillway Seismic Grant (Project \$1.9M - FY25)		0	0					0		0	25,000		This Advanced Assistance Grant will be used to facilitate feasibility studies and engineering designs that will be used to characterize conditions at the dam and spillway at R.W. Matthews Dam and determine appropriate actions to make the dam and spillway more resilient to natural disasters and mitigate the risk of spillway failure that would subsequently lead to failure of R.W. Matthews dam in its entirety. A 2016 study found that the controlling ground motion for the dam is a M9.2 event on the Cascadia Subduction Zone, resulting in an 84th percentile peak ground acceleration (PGA) of 0.70g. The stability of the dam in response to this seismic event has not yet been analyzed. The engineering studies will be designed to meet current dam safety and seismic standards, and any proposed retrofit designs would be closely reviewed by the State of California Division of Safety of Dams (DSOD) and the Federal Energy Regulatory Commission (FERC). The grant request totaled \$1.9M with a District match of \$475,000
120	Subtotal Professional & Consulting Services			6,750	1,144,855	1,151,605	48,000	490,755	10,000	0	0	0	602,850	795,505		
121	Carryover Projects															
122																
123	Subtotal Carryover Projects			0	0	0	0	0	0	0	0	0	0	0		
124	Subtotal Project Budget			1,460,450	9,438,465	10,898,915	3,671,910	4,425,755	19,500	0	0	0	2,031,750	1,592,755		
125	Industrial System Projects															
126			Refurbish Pump Station 6 (Phase 1)		3,500,000	3,500,000		2,800,000	700,000				0	0		Two viable industrial customers have approached the District requesting I/W. This project rehabilitates Station #6 (PS6). The District is seeking grant funds for this project. Grant match will be from zero to 20%. Exact amount will not be known until grant application is approved. Match will ultimately be reimbursed to District from I/W customers.
127			Two Pumps, Motors, and VFD's for Pump Station 6		400,000	400,000			400,000				0			This project is the purchase of two 250HP pumps, motors, and VFD's for Industrial water (Pump Station 6).
128	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.

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT**  
**FY2023/24 Project Budget**

6	A	B	D	H			I			J			K				L		M		N		O		P		Q	R		S	T
7	CATEGORY, LOCATION, PROJECT NUMBER & TITLE			PROJECT EXPENDITURES THIS FY			PROCEEDS FOR PROJECTS				ADDITIONAL CHARGES		Resulting Customer Charges	2022/23		CIP	PROJECT DESCRIPTION														
129				Treatment	Base Facility	Total	Advance Charges (Collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service		Prior Year Budget Amount																	
#9			Industrial System Assistance		10,000	10,000			10,000				0	10,000		This task will consist of assisting the District with the refurbishment of the Industrial System to provide water to Nordic Aquafarms and other potential users on the Samoa Peninsula. The District has developed a budget and preliminary design to refurbish the Industrial System including the Pump Station 6 building and intake screens and pumps to provide continued service and correct deferred maintenance on the system. The District will be able to perform most of this work themselves and should not need much assistance. However, there are some outstanding questions, such as whether to install new transformers that step the voltage down to 480V instead of the current 2300V. There is also the outstanding issue of turbidity removal including whether to install a clarifier or some other sediment removal system on District property. This task will consist of assisting the District with these and other engineering design issues that may arise this year associated with the Industrial Water system refurbishment. It is difficult to estimate the exact amount of effort required for this task, and the figure below is simply for budgetary purposes.															
#13			Crossover Vault Modifications (Needed for Nordic, Funded by ReMat)		32,000	32,000			32,000				0	32,000		It is possible that an engineering analysis may be required for upgrading the domestic/industrial crossover vault at Essex to conform to SWRCB requirements. It is our understanding that staff from the State Water Resources Control Board expressed concern about the configuration of the vault that connects the pipeline from Collector 1 to the industrial waterline and that the District may need GHD to analyze options for reconfiguring the vault to address their concerns. This line item includes the work detailed in the February 11, 2020 scope letter. District staff continues to discuss this issue internally and with Scott Gilbreath, the SWRCB rep, prior to making decisions on how to move forward.															
#20			Pump Station 6 Gravel Bar Work and Permitting		76,100	76,100			76,100				0	50,000		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, away from the Pump Station 6 intake. The District is in the process of discussing with California Dept. of Fish & Wildlife ways to help 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 in August 2018 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. This line item includes the work detailed in the August 23, 2018 scope letter. This work will likely not move forward until the District has a major industrial customer under contract. <b>This project will be funded using ReMat funds if necessary.</b>															
<b>Subtotal Industrial System Projects</b>				<b>0</b>	<b>3,955,250</b>	<b>3,955,250</b>	<b>0</b>	<b>2,800,000</b>	<b>1,142,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13,250</b>	<b>55,250</b>																	
<b>TOTAL PROJECT BUDGET</b>				<b>1,460,450</b>	<b>13,393,715</b>	<b>14,854,165</b>	<b>3,671,910</b>	<b>7,225,755</b>	<b>1,161,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,045,000</b>	<b>1,648,005</b>																	

# MINUTES

The minutes of the April 13, 2023 meeting were not completed in time for the May 24, 2023 Special Board Meeting packet. The April minutes will be available for review and possible approval at the June 8, 2023 Regular Board Meeting.