



HUMBOLDT BAY MUNICIPAL WATER DISTRICT



Agenda for Special Meeting of Board of Directors

Location: Essex Control- 7270 West End Road, Arcata

May 24, 2017, 9:00 a.m.

A. ROLL CALL

B. ACCEPTANCE OF AGENDA

C. PUBLIC COMMENT

D. CONTINUING BUSINESS

1. FY 2017/18 Project Budget:

- a. Presentation and discussion of proposed Project Budget (summary and line-item detail)
- b. Status report re: Capital Improvement Projects and funding mechanisms
- c. Possible tour of project sites in Essex area

E. NEW BUSINESS

1. H.R. LaBounty Safety Award- Presentation to Employees

F. ADJOURNMENT

Employee BBQ Lunch will commence after adjournment of meeting.

(Posted and mailed May 19, 2017)

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.



YOUR BEST PROTECTION

May 8, 2017

ACWA JPIA

P. O. Box 619082
Roseville, CA 95661-9082

phone
916.786.5742
800.231.5742

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916.774.7050
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President

E.G. "Jerry" Gladbach

Vice President

Tom Cuquet

Chief Executive Officer

Walter "Andy" Sells

Executive Committee

Tom Cuquet

David Drake

E.G. "Jerry" Gladbach

Brent Hastey

David T. Hodgins

W.D. "Bill" Knutson

Melody A. McDonald

J. Bruce Rupp

The Maintenance Department
Humboldt Bay Municipal Water District
P.O. Box 95
Eureka, CA 95502-0095

Re: H.R. LaBounty Safety Awards Program

Dear Maintenance Department:

On behalf of the ACWA Joint Powers Insurance Authority, we would like to thank you for your recent safety award submission.

We greatly appreciate that you contributed your time and efforts to promote safe workplace behavior and improve existing operational practices. It is individuals like you who demonstrate safe behavior, take part in training, and participate in risk-reducing actions that foster a positive safety culture.

Enclosed is a certificate in honor of your achievement. The entire JPIA membership is successful because of individuals like you.

We encourage you to continue your risk management practices, and look forward to future safety award submissions.

Sincerely,

Walter "Andy" Sells
Chief Executive Officer

509:tl

Enc. Certificate

The H.R. LaBounty Safety Award

is presented to

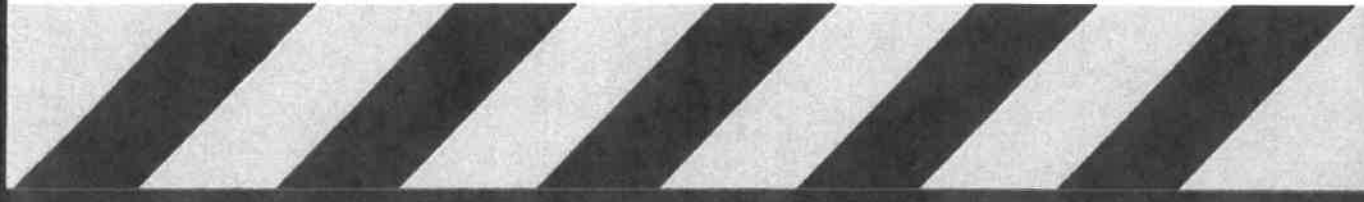
The Maintenance Department Humboldt Bay Municipal Water District

The Maintenance Department fabricated a trailer to hold all trenching and shoring equipment to be ready in case of emergency. The trailer makes the team more efficient in responding to emergencies and repairs.

May 2017

ACWA Joint Powers Insurance Authority

2100 Professional Drive
Roseville, CA 95661-9082
(800) 231-5742





H.R. LaBounty Safety Awards Program

Participation in the *H.R. LaBounty Safety Awards Program* is available to all JPIA members. This Program is designed to promote safe workplace behavior and operations practices; and reward those employees who demonstrate safe behavior, take part in recognizable proactive activities, or participate in risk-reducing actions. As such, the Program gives members another way to foster a safety culture that reduces the potential for workers' compensation, liability, and property losses.

The participating members will coordinate collection of the nominations verifying completeness, and forward them to the JPIA. The Program is intended to be on-going; therefore, employees are encouraged to submit nominations as they occur.

JPIA staff will receive the nominations from participating members and, twice a year, select nominees who have made contributions to their respective agencies through some significant action or behavior. Cash awards may be awarded to selected nominees.

The names of all award recipients are announced at the Spring and Fall Conferences and published in the *Perspective* and *Risk Control Bulletin*. Additionally, selected awarded nominations will be posted at www.acwajpia.com/SafetyAwards.aspx.

Employees may be nominated by their co-workers, supervisors, or managers. Nominations should be based on observable behavior, demonstrable activities, or participation in or development of safety related programs. Some examples follow:

- Using appropriate personal protective equipment as needed
- Correcting unsafe conditions that impact district personnel or the public
- Volunteering to conduct safety training
- Seeking information for ensuring compliance with safety programs
- Initiating safety or security suggestions
- Recommending enhancements to safety or security procedures
- Designing safe work practices or devices
- Writing safe work procedures or practices



Please submit Nomination Forms and supporting documentation to tlofin@acwajpia.com. Please include digital pictures with the nomination.

Color Coding for Project Budget

Blue Print = Recurring Projects

Purple Print = Essex Driven Projects

Red Print = Regulatory Required Project

Green Print = Grant Funded or Main Office Driven Projects

Brown Print = CIP Project

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2017/18 Project Budget

A		B	C	D	E	F	G			H	I	J			K	L	M	N		O	P	Q	R		
CATEGORY, LOCATION, PROJECT NUMBER & TITLE			Essex Priority ranking	D=Dale M=Marlo R=Ryan B=Brian	Special Job #	Treatment	Base Facility	Total	Advance Charges (collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service	Resulting Customer Charges	2016/17 Prior Year Amount	PROJECT DESCRIPTION								
Maintenance																									
Essex Area																									
M1		Pipeline Maintenance			54-PM		13,500	13,500													13,500	12,330	ANNUAL PROJECT: Routine annual maintenance to include re-establishing access to the Right-of-Way, minor grading, sign replacement, and equipment maintenance.		
M2		12 kV Electric System Maintenance			54-KV		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.		
M3		Main Line Meter Flow Calibration			54-M		4,000	4,000													4,000	6,000	ANNUAL PROJECT: The District uses a five-year cycle for mainline meter maintenance. This year rather than completing maintenance on both the Arcata and HCSD meters, we have reduced the maintenance budget to reflect one meter (Arcata), and are proposing to replace the HCSD meter below. The Arcata meter will be removed for calibration during the winter months.		
M4		Technical Support and Software Updates to Include Control System			52-CSU		21,000	21,000													21,000	21,000	ANNUAL PROJECT: This is a yearly allocated 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; 4) Microsoft operating systems and auxiliary software; 5) Antivirus software; 6) Firewall software; 7) Phone system support. This project includes Eureka office support and software updates.		
M5		Generator Services			54-G		3,500	3,500													3,500	4,000	ANNUAL PROJECT: Routine service on 2MW and 35kw emergency generators.		
M6		TRF Generator Service			54-TRFG	500		500													500	500	ANNUAL PROJECT: Routine service on Korblex emergency generator.		
M7		Hazard & Diseased Tree Removal			54-TR		6,250	6,250													6,250	5,540	ANNUAL PROJECT: Required to remove hazardous trees in the Essex parks and the Ruth-area buffer strip.		
M8		Cathodic Protection			54-CP		6,500	6,500													6,500	5,740	ANNUAL PROJECT: To inspect and perform minor maintenance on cathodic protection system.		
M9		Maintenance Emergency Repairs			54-ER		50,000	50,000													50,000	40,000	ANNUAL PROJECT: Funding set aside for unforeseen maintenance or unplanned replacements do to failure as needed.		
M10		Fleet Paint Repairs			54-FM		5,000	5,000													5,000	5,000	Reoccurring Project: This project continues preventive maintenance to preserve our equipment to prolong asset useful life.		
		Lead Free Brass Inventory	1				7,500	7,500													7,500		This project proposes the purchase of lead free brass components used for service line repairs to replace the all non NSF-61 brass currently in inventory but not useable by regulatory standards. This would include brass for Unit 2, Unit 3, Unit 8 and the shop.		
		Picketts Peak Radio System Modifications	2				9,000	9,000													9,000		The purpose of this project will be to modify the existing radio system at Pickett's Peak to eliminate the background (RF) noise and additionally clean up the crossband audio noise. This will include the installation of a new UHF duplexer to the UHF link and a repeater controller between the VHF and the UHF repeater link. These modifications will help to further improve the communications quality for voice and alarms between Ruth and Essex. This project will also include the purchase of new antenna brackets and ice shields to better secure and protect the antennas on the new tower from ice damage. Our Pickett's Peak radio communications is critical to our emergency response system.		
		Replace HCSD Meter	3				8,250	8,250													8,250		This project proposes the replacement of the current 12" dual-directional propeller-type meter at HCSD. This meter is not common and because of the many moving gears in its design, it has been, and will continue to be, problematic for reliability. Our records indicate this meter has been in-service since 1992. Additionally, the costs for repairs in 2013 were almost 75% the cost of a replacement meter. This project would also include the necessary piping alterations and the replacement of an inoperable butterfly valve with a gate valve for isolation purposes and better flow characteristics for the meter.		

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2017/18 Project Budget**

6	A B C			D	E	F	G H I			J K L M			N O		P	Q	S	
	CATEGORY, LOCATION, PROJECT NUMBER & TITLE			Essex Priority ranking	D=Dale M=Marlo R=Ryan B=Brian	Special Job #	Treatment	Base Facility	Total	Advance Charges (collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service	Resulting Customer Charges		2016/17 Prior Year Amount
7			Collector 2 Meter Calibration	4				2,000	2,000							2,000		This project is needed to meet the requirements of NEW SB 555 Water Loss Regulations. One of the new SB 555 requirements is to have proof of meter calibration and meter maintenance data for the "supply side" of the water balance. Water balance is: water pumped (supply) vs. water sold (Munis and other) and water loss (Leaks, line flushing, theft, etc). This calibration for Collector 2 is not something we have been required to track in the past. Based on the new requirements of the Water Loss Tracking and SB 555 we will be required to document the calibration of all of our meters.
23			Fire Alarm System Upgrade at Essex	5				8,000	8,000							8,000		This project proposes the purchase and installation of updated wiring, smoke detectors, heat detectors, and a new pull station at the Winzler Control Center. The current equipment is becoming obsolete and needs to be replaced with new modern equipment and appropriate new wiring to ensure employee safety.
24			Replace Expansion Joints at SBPS	6				6,000	6,000							6,000		The project proposes the replacement of four existing expansion joints at Samoa Booster Pump Station that are used to connect the two booster pumps to the inlet and outlet piping manifolds. They are aged and have deep cracks in their rubber bodies which will lead to an unpredictable failure.
25			Construction Equipment Tire Replacement	7				3,750	3,750							3,750		The project proposes the replacement of the tires on both the JohnDeere 110 and the CAT 420. The tires on both of these machines are original (purchased in 2004 and 2001 respectively) and have had numerous plugs and repairs performed on them. The original tires are worn out. To insure these machines are ready for emergencies, the tires need to be replaced.
26			Asphalt Repair	8				7,000	7,000							7,000		This project will repair pavement where we have recently put in new sewer lines, eye wash station and yard drainage repairs.
27			Replace Single Pane Windows at Essex Office	9				2,750	2,750							2,750		This project is to remove the few remaining single pane windows in the Essex office and replace with more energy efficient dual pane vinyl windows.
28																		
29																		
30	TRF																	
31			TRF Limitorque Valve Retrofit Supplies, Phase 3 of 5	1		54-TRF-V		16,750	16,750							16,750	6,500	This project proposes the purchase of MXA retrofit kits and additionally required components to completely refurbish and retrofit three limitorque valve actuators thus sustaining our repair inventory for the TRF valving system. We are proposing the continued retrofit and refurbishment of the current valve actuators for another five years or until obsolescence requires a complete actuator replacement project. The current valve operators are original equipment with the plant and the electronic circuit boards are no longer supported by the manufacturer. When these boards fail they have to be replaced with a retrofit kit.
32			Removal of Sodium Hydroxide and waste Aluminum Sulfate	2				14,750	14,750							14,750		Sodium hydroxide was purchased and planned to be used at the treatment plant for pH control, however due to our water characteristics it has not been necessary in the nearly 15 years of plant operation is not likely ever to be used. The current stored solution is old and the associated piping system is developing leaks, which creates hazards. We have found a company who will take the solution free of charge other than transport fee's. Along with the sodium hydroxide we also have two 55 gallon drums of waste aluminum sulfate which are from tank cleanings and plant pilot project. Having these chemicals removed from the TRF would reduce our liability of a potentially costly and hazardous situation.
33	Ruth Area																	
34	RM1		Brush Abatement Ruth Hydro			51-BA		5,540	5,540							5,540	5,540	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 affect the impervious clay core. This is accomplished by controlling weeds and brush on both the upstream and downstream faces of Ruth Dam.
35			LTO Insurance					5,000	5,000							5,000		The California Department of Forestry (CDF) requires a Licensed Timber Operator (LTO) on the District's Dead, Dying, or Diseased Exemption from timber harvesting plan requirements. The LTO is required to be licensed with the CDF and maintain an appropriate level of insurance. Our LTO fee for this service is \$5K.
36			Repair PRV Discharge Pipe at Hydro Plant					7,500	7,500							7,500		This project is based on the discovery during annual maintenance at Ruth in May 2017, that the discharge pipes from the Pressure Reducing Valves (PRV's) are very pitted and worn from cavitation. This project will replace the piping from the PRV to the concrete wall with a new section of pipe and coupling, leaving the section of pipe in the wall and repairing it and the PRV discharge port with Belzona.
37	Eureka Office															0		
38																		
39	Subtotal Maintenance Projects							32,000	186,040	218,040	0	0	0	0	0	218,040	116,150	

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2017/18 Project Budget

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	CATEGORY, LOCATION, PROJECT NUMBER & TITLE			Essex Priority ranking	D=Dele M=Mario R=Ryan B=Brian	Special Job #	Treatment	Base Facility	Total	Advance Charges (collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service	Resulting Customer Charges		2016/17 Prior Year Amount
40	CAPITAL PROJECTS																	
41	Essex Area																	
42	C1	Ranney Collector 3 and Techite Pipeline Projects -Debt Service						0							162,200	162,200	162,200	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.
43	C5	Blue Lake/FGCSD River Crossing				54-EPC		3,573,000	3,573,000	100,000	3,379,750					93,250		CIP - Related: The purpose of this project is the replacement of the Blue Lake/FGCSD Mad River Pipeline Crossing. FEMA is conducting its NEPA review of the project. Once NEPA is completed, work for this project includes pre-construction: engineering design, surveying, environmental permitting and CEQA studies, and bid assistance. Construction is anticipated to occur in the 2017/18 fiscal year. Funding - It is likely that these costs would be mostly covered by a \$700,000 NCIRWMP Prop 84 grant from DWR. The District has secured a FEMA grant \$2.67M to cover the remaining cost of the project by using the Prop 84 grant funds for the 25% match for the FEMA funds.
44		Surge Tower Replacement, CEQA, Bidding and Construction Assistance				54-ST		710,000	710,000	0	562,500	147,500				0	50,000	A 2012 inspection of the surge tower on the Samoa Peninsula found that the aging and weathering of the anchor bolts was such that the tower may fail under seismic loading. A FEMA Hazard Mitigation Grant was approved for the demolition of the existing tower and replacement with another suitable piece of equipment. Phase I portion of the HMG was authorized. Phase 1 of the Hazard Mitigation Grant consists of the following tasks: • Environmental Special Studies required for FEMA to complete their NEPA review. These studies will consist of a Cultural Resource Study as well as Biological Studies. • Soil Contamination Assessment to determine whether there have been any impacts to the soil from the lead contained in the coating of the surge tower. • Design Plans & Specifications to develop the demo and replacement plans sufficiently to determine the impacts for the Environmental tasks. It is expected that all of these Phase 1 tasks will occur in the 2017/18 FY. Based on previous HMG experience, it is likely that the remainder of the project will likely not occur until the 2018/19 Fiscal Year. The remaining permitting and engineering tasks will consist of the final CEQA and other necessary permits, the final design, bidding, and Construction Management during the actual demolition of the tower. This project will be funded by new ReMat revenue.
46		1 Mg D/W Reservoir Roof and Painting		7		53-RR		618,110	618,110	546,707						71,403		The 1 Mg Domestic reservoir roof rafters are showing stress and corrosion. This project replaces the entire roof, and repaints the entire reservoir to extend its life 40-50 years. The project began in FY 16/17 and will carryover into FY 17/18. The carryover tasks will include construction observation services; responding to contract change orders; approving contractor requests for payment; and documenting the actual construction. It is assumed that no other permitting is required for the performance of this work and that the construction takes approximately 12 weeks.
47																		

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2017/18 Project Budget

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Treatment	Base Facility	Total	Advance Charges (collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service									
4	Replace Pump 1.1						184,000	184,000							184,000		CIP - Related: This project will replace pump 1.1 on Collector 1. As part of the Collector 1 rehabilitation project we will replace pump 1.1 with a 400 HP motor and pump set. (same as on Collector 3) Currently, Pump 1.1 is a 350 HP pump, 75% efficient as of last efficiency test and pumped 4500 GPM. The new proposed pump like this at Collector 3 is 400HP = 85% efficient and pumped 5350 GPM. This is the next step in our Ranney Collector Rehabilitation process under our CIP.
5	Replace Pump 1.4						160,000	160,000							160,000		CIP - Related: This project will replace pump 1.4 on Collector 1. As part of the Collector 1 rehabilitation project we will replace pump 1.4 with the same 250 HP motor and pump set as on Collector 3. Currently, Pump 1.4 is a 200 HP pump, 67% efficient as of last efficiency test and pumped 2250 GPM. The new pump like this at Collector 3 is 250 HP 85% efficient and pumped 2888 GPM. This is the next step in our Ranney Collector Rehabilitation process under our CIP.
	Collector 1, Pump 3 & 4 Isolation Valve and Expansion Joint Replacement		1				7,750	7,750							7,750		This project is to replace two gate-style isolation valves for pumps 1.3 and 1.4. The current valves do not close properly and leak continually when closed for maintenance work. Without fully functioning valves, there is not a way to isolate these pumps. The awkward, large gates will be replaced with new butterfly valves with resilient seats and rubber expansion joints. These new valves are narrower, easier to close, and offer a more flexible connection between pump and manifold for better pump alignment. These replacements will allow for the pumps to be isolated as needed and allow the maintenance to be more productive and less time consuming.
	Pressure Relief Valve Replacement on Collector 1		2				6,000	6,000							6,000		This project proposes the purchase and installation of a new pressure relief valve for Collector 1. At this time both existing relief valves have failed, with the most recent in January 2017. Pressure relief valves are a protective component against an unplanned or accidental over pressurization of the lines. A situation such as this would exceed the capability of the surge tanks, causing damage to the pump and/or pipeline. The cost to replace a pressure relief valve is significantly less than repairing this other potential damage. While there are currently two pressure relief valves, it is the opinion of the District Engineer that only one needs to be replaced since we no longer have two separate systems (industrial and domestic). With the replacement of the relief valve, an isolation valve would be added to allow for maintenance and testing.
	Replacement of Check Valves for Pumps 4.1 & 4.2		3				30,250	30,250							30,250		This project is the final phase of our programmatic approach to upgrading the current check valves since the manufacturer is no longer in business and parts are no longer available. This project will replace the check valves on collector 4. It will include the replacement of the two 14" existing gate valves on pumps 4.1 and 4.2 with new butterfly valves as well as the installation of a flexible expansion joint on both these pumps. This is a continuation of the check valve replacement projects from prior years for collectors 1, 2 & 3.
	Purchase 15,000 lb. Vehicle Lift		4				17,250	17,250							17,250		This project proposes the purchase and installation of a new symmetrical, two post, 15,000 lb. surface lift for the maintenance shop. This lift would be used on all fleet vehicles (except the F750 crane truck and the Kenworth dump truck). It will increase safety by reducing the necessity of the use of jack stands and jacks. It would be more efficient and allow for better ergonomic working conditions when performing maintenance and repairs to the underbody areas of the fleet vehicles.
	Ranney Collectors Communication Upgrade		5				3,250	3,250							3,250		This project will replace the existing switches to allow OSPF (open shortest path first) protocol and redundancy. Current setup requires a power recycle at a collector for any comm failure. The new hardware will provide failover capabilities, improving reliability in wireless communications, and reducing site visits, thus reducing operating costs.
	Superintendent Office Remodel		6				6,000	6,000							6,000		The Superintendent's office has not been updated in over 30 years. This project will replace the carpet, wainscoting, and the old traditional-style desk. An ergonomical adjustable height desk will be added along with two new and larger book shelves. Another filing cabinet and two chairs will also be added. This will increase the functionality and usability of the space to confer with staff and be a much more effective use of the limited space available.

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2017/18 Project Budget

6	A	B	C	D	E	F	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			
7	CATEGORY, LOCATION, PROJECT NUMBER & TITLE			Essex Priority ranking	D=Dele M=Mario R=Ryan B=Brian	Special Job #												
56	TRF																	
57			TRF Video Surveillance System	1			23,000		23,000							23,000		This project was requested by the Board to upgrade our security video surveillance system at the TRF. We will upgrade both the video cameras and recording device. The new system be high resolution infrared for enhanced nighttime video with high quality. This project was quoted by ATS Communications.
58			TRF Work Area Phase 2	2			5,500		5,500						5,500		This project is part of the planned repurposing of this space. The space is not well used or functional as it currently exists. This proposes the purchase and installation of storage cabinets and rack, a portable work/tool bench combination, and a counter top area in the now remodeled building. The counter top work area will be used to review drawings, perform general paperwork and will be well suited as additional work space during an emergency event. The area will also be used as a storage area for some spare equipment and components used at the TRF and as a work area for performing some maintenance activities.	
59			TRF Storage Area Slab and Drainage System	3			7,500		7,500						7,500		This project proposes a new concrete slab and drainage system at the TRF, adjacent to the existing chemical storage area. This area floods every year and is not consistently usable. This problem will be permanently solved by changing the slope of the ground and adding a concrete slab with geotech material and crushed rock around the perimeter of the slab. The crushed rock will extend behind Line shed 5 and around the east side of the Rapid Mix Building, which will also assist with landscape maintenance. The installation of a drainage system will also eliminate the problem of standing water from gutter run off in this same area. This will create a reliable usable space that can serve as a storage area and will be designed to support a covered roof in the future.	
60	Eureka Office																	
61	Ruth																	
62			Ruth Hydro Protective Relay Replacement Phase 1 (Planning)	1				42,000	42,000						42,000		This project replaces 19 protective relays at the Ruth Hydroelectric Plant through a comprehensive and engineered plan. Phase 1 will include the engineering to determine what replacement equipment is necessary to be in compliance with PG&E contractual standards, including detailed drawings/schematics related to the proposed equipment installation wiring interconnections. Field investigations, data gathering and a Class Two cost estimate for the phase 2 implementation will be included. Phase 2 implementation will include equipment costs with installations and interconnections to be performed by the District's electrical staff (with support), PG&E liaison work, and required testing and quality assurance of installation supplied by qualified electrical engineering firm. Due to the scope and size of this project, the District would use a formal bid process.	
63			Ruth Dam Access Road Culvert System	2				4,750	4,750	0					4,750		This project proposes the installation of an additional section of culvert to extend the current system which drains the water from the west hillside above the hydro plant access road. The existing culvert carries a large quantity of water and material and has several times this winter overtaken the drainage system below. This caused the water and debris to travel overland, creating erosion issues. This overflow culvert would divert high volume flows across the road and down slope away eliminating the erosion issues and allowing for control of excess water and material.	
64	Subtotal Capital Projects						36,000	5,362,360	5,398,360	646,707	3,942,250	147,500	0	0	162,200	824,103	212,200	
65																		
66																		

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FY2017/18 Project Budget

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						Treatment	Base Facility	Total	Advance Charges (collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service			
Equipment/Fixed Assets																	
Essex Area																	
		Replace Administrative Computers	1		52-AC		6,250	6,250							6,250	4,250	ANNUAL PROJECT: Replace two old workstations in the administration network with new computers including peripherals, printers and monitors.
		Spare Bottles for Sperian SCBA's	1				1,500	1,500							1,500		This project would purchase 2 Spare bottles for our Sperian rescue kits. We currently have two separate units, this would allow for one spare bottle for each unit. These are used during a Chlorine decontamination process and rescue situations.
		Wall Mounted Secondary Eyewash Stations	2				2,250	2,250							2,250		The purpose of this project is to fulfill the needs of having an eyewash station in various locations that will deliver a suitable temperature of flushing solution to meet ANSI standards. It has come to our attention through the SB198 Safety Program that while we currently meet Cal/Osha standards, we fall short on the ANSI standard, which states that eyewash stations should deliver a solution that is tepid. Purchasing these stations will satisfy that standard. The locations for these stations would be: Essex laboratory, maintenance shop & TRF laboratory.
		New Fall Protection Equipment	3				4,000	4,000							4,000		The purpose of this project is to update existing fall protection equipment that has become out-dated and deficient. Also purchase of new additional fall restraint systems to add to inventory.
		Electrical Safety Equipment	4				3,000	3,000							3,000		The purpose of this project will be the purchase of electrical safety equipment both new and replacement for the electrical department. This includes the purchase of necessary electrical safety equipment for our new electrician, as well as a new tool saddle for use in the aerial bucket truck, a new cover for the aerial bucket, a new telescoping hot stick, and the attachment to be used with our existing tool ends for electrical operations requiring an extended reach. These funds would also provide for the required testing of our existing PPE for high voltage equipment.
		Control System Backup Devices	5				3,250	3,250							3,250		The purpose of the project is to provide a backup system for the control system including: 1 rackmount system to be installed at the TRF and 2 external hard drives for a 3-2-1 backup strategy (3 copies, 2 media, 1 off-site). This includes hardware, and software which will require annual support fees.
		Metal Detector for Customer Service	6				1,250	1,250							1,250		This project is for the replacement of aging metal detector for customer service. The new detector will have better control for reducing interference from objects such as power lines, transformers, cars, fences, etc.
		Replace Unit 7	7				43,000	43,000							43,000		This project proposes the replacement of Unit 7, a 2006 1/2 ton 4x4 truck. It has 104,000 miles and is scheduled in the CIP for replacement in this year. It is a 5.4L V8 gasoline engine truck. We are proposing to replace this truck with another 1/2 ton 4x4 truck, but with a 3.0L V6 diesel engine.
		Replacement of District Portable Radios	8				4,750	4,750							4,750		This project proposes the purchase of six new Motorola XPR3000e portable radios and a new six radio smart charging system. The smart charging system would allow for better battery diagnostics which will help to better determine battery health and charge capacity. The new radios would replace several failed radios and also begin to phase out the exiting radios with an even superior quality radio. We would continue to use and maintain three of our current (newest) radios that were purchased in 2012 and phase out the remaining radios purchased back in 2004. The new radios have a 28.5 hour battery life an a IP67 water proof rating, with improved receiver boost range. Five of these radios would remain at Essex for critical operations such as crane work and traffic control, and one would go to Ruth to be used by the Standby Operator. This will give us a total of eleven radios at Essex and one new portable radio for Ruth area operations.
		Customer Service, Dewatering Equipment	9				1,500	1,500							1,500		The purpose of this project would be the replacement of the 1" Honda pump that Customer Service keeps and uses on Unit 3. This pump was purchased in 2004 and is very difficult to operate reliably. Customer Service uses this pump extensively and it is critical that it functions reliably. This project would also include the purchase of a new electric, 2"NPT, .6HP, 115 Volt contractor style dewatering sump pump for use during leak investigations or repairs requiring a small to medium gpm of dewatering without the need for priming. This pump could be run from two of our portable generators as well as the welder on Unit 8.

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2017/18 Project Budget**

		A	B	C	D	E	F	G			H	I	J	K	L	M	N	O	P	Q	S	
		CATEGORY, LOCATION, PROJECT NUMBER & TITLE			Essex Priority ranking	D=Dale M=Marlo R=Ryan B=Brian	Special Job #	Treatment	Base Facility	Total	Advance Charges (collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service	Resulting Customer Charges	2016/17 Prior Year Amount	PROJECT DESCRIPTION			
				Non-Toxic, Environmentally Safe Parts Cleaner	10				2,000	2,000									2,000		This project proposes the purchase of a new non-toxic, environmentally safe parts washer system. It will reduce the hazardous waste stream created by the solvent based system and is also a non-toxic product for the end user. This new system is a non-flammable bio remediating system. We have been using a sample unit onsite which does a great job at grease and oil removal.	
				Purchase Drone	11				3,000	3,000									3,000		This project is for the purchase of a drone to capture images of district right-of-ways, pipelines, river channel, and other hard to inspect and access areas. It will provide video documentation for archives and analysis. The JPIA will be consulted for proper operation and best practices for liability issues.	
				Replace Unit 9	12				70,500	70,500									70,500		This project proposes the purchase of a new 2017 one-ton, quad/super cab, 4x4, diesel engine truck with an aluminum flat bed (to be installed by the District). This truck will replace another one-ton truck that is 22 years old and currently the oldest truck in the fleet.	
				Chlorine System PLC	13				6,000	6,000									6,000		This project proposes the installation of a new Programmable Logic Controller (PLC) to be installed in a new NEMA 4X enclosure with a 6" HMI display. This would replace the older and limited multiple wire system that currently provides information from the chlorine building equipment. This will allow for increased alarming and process instrumentation feedback and control for the chlorine delivery and safety systems. It would also allow for future equipment expansions like a chlorine scrubber system. The needed ethernet managed switch and cabling will already be in place for this PLC addition.	
				TRF																		
				TRF Spare Parts	1		54-TRF-PI		4,500	4,500									4,500		This project proposes the purchase of a spare Rosemount turbidimeter sensor for the TRF. Over the past several years we have had issues with the sensor heads and have had warranty replacements available. Now the warranty time is past and may not be available. We have twelve Rosemount online turbidimeters at the TRF and have two spare sensor units for replacements. Lamp life is approximately two years, so spare lamps will need to be installed in 2017. This project will also include the purchase of a spare pH probe for the chlorine analyzers.	
				Replace Lutz Chemical Transfer Pump	2				1,500	1,500									1,500		This project is to purchase a replacement chemical transfer pump and motor for the TRF. The old pump is worn and has become less efficient. We will use the new pump for chemical transfers at the TRF and reserve the old pump for specific chemical transfers that are more aggressive on the pump body. We will also keep the old pump and motor as backup to the new pump and motor.	
				Eureka Office																		
				Replace Administrative computer					3,000	3,000									3,000	11,600	This project is for the 5-year systematic computer replacement within the Eureka office. One computer is scheduled for replacement next year. The Accounting/HR Assistant's computer was purchased in FY11-12 and is running on Windows 7. The current Microsoft operating system is Windows 10.	
				Replace Business Manager Desk					3,000	3,000									3,000		This project is for a new desk in the Business Managers office. Several years ago we began replacing the older traditional-style desks with ergonomic desks that allow for staff to have the flexibility to work from a seated or standing position. This is one of the two remaining desks yet to be replaced. The current desk is more than 30 years old and its dated design is not well suited for use with the computers of today. Currently the center drawer has been removed so that it can be functional without raising it on blocks.	
				Ruth Area																		
				AED for Hydro Plant	1				1,500	1,500									1,500		This project is for the purchase of a defibrillator to be located onsite at our Ruth Hydroelectric Plant. On a regular basis we send staff to Ruth to perform routine maintenance along with unplanned maintenance. During these trips crews have the potential to be exposed to a wide variety of hazards, that could trigger a cardiac arrest situation. Due the rural location of the plant and the long response time for medical aid to arrive on scene, a defibrillator could stabilize a patient until arrival of paramedics..	
				Subtotal Equipment/Fixed Assets						6,000	159,750	165,750	0	0	0	0	0	0	165,750			

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2017/18 Project Budget**

CATEGORY, LOCATION, PROJECT NUMBER & TITLE			Essex Priority ranking	D=Dele M=Mario R=Ryan B=Brian	Special Job #	PROJECT EXPENDITURES THIS FY			PROCEEDS FOR PROJECTS				ADDITIONAL CHARGES		Resulting Customer Charges	2016/17 Prior Year Amount	PROJECT DESCRIPTION	
						Treatment	Base Facility	Total	Advance Charges (collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service				
Professional and consulting Services																		
		Crane Testing/ Certification					7,500	7,500							7,500	6,500	ANNUAL PROJECT: Required Quadrennial (every four years) crane load testing 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.	
		Chlorine System Maintenance				16,100		16,100							16,100	16,100	ANNUAL PROJECT: Required for chlorine system services. The system is well maintained by staff. Each year, however, we contract for review/repair/replacement of the more complex elements of the system to assure proper operation and safety.	
		Backflow Tester Training					2,000	2,000							2,000	3,000	This project is to cover the required backflow recertification training for Mario. This will be far less expensive if we can get the trainer to return to Humboldt County. Otherwise, he must go out of the area to obtain the required training.	
		Transformer Oil Testing					4,500	4,500							4,500		The project proposes the 5 year reoccurring, transformer oil testing program to insure the integrity of all District Transformers.	
		Protective Relay Testing Essex					12,000	12,000							12,000		This project proposes the 5 year reoccurring testing of the electrical protective relays at Essex	
		Protective Relay Testing Ruth					12,000	12,000							12,000		The project proposes the 5 year reoccurring testing of the electrical protective relays at Ruth Hydro.	
		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 submitted.	
		GIS/FIS for Essex, Including Internship					12,000	12,000							12,000	9,500	This project is for an engineering or computer science intern to work within the GIS program. The District's GIS program is 15 years old and has become an increasingly large and essential database. As with any database, the information must be managed, reviewed and verified. This work within the GIS program is very tedious and time consuming, and difficult for other staff to do while managing their regular duties. Interns in the past have assisted with the creation of in-house programming such as the Spillway Monitoring program within GIS. This year, the intern will focus on complete quality assurance and quality checks on the existing data points within our GIS database and clean up data in previously submitted CAD drawings. Field verifications as needed will be completed and feature classes and layers will be updated. This individual will also add new data points and develop a set of core maps. Having an intern dedicated to the GIS database will allow one person to focus solely on these tasks without being interrupted to ensure high quality in the District's system.	
		GIS / FIS Ruth					4,750	4,750							4,750	3,500	This project is to 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.	
		SCADA / Control Software Training					30,250	30,250							30,250	15,000	This project proposes the funding of software training classes and associated travel expenses for a number of District staff on software specific to their job responsibilities. This would include new software technologies that will be a part of the current SCADA upgrade project.	
		Technical Training					7,500	7,500							7,500	5,750	This project proposes the funding of technical training classes and associated travel expenses for District staff on a variety of specific topics related to their job responsibilities. This would include safety and technical training for the new Electrician/Instrument Technician, and newer Supervisor's. It also includes some funding for additional local training opportunities that may arise throughout the year on water treatment and distribution principles and practices.	
		40 Hr Hazmat Training					5,500	5,500							5,500		This project will cover the training required for hazardous spills for employees. According to our training records none of our current employee's are in compliance to respond to any hazardous materials spill. To become certified in responding to a hazmat situation employee's need to go through a 40 hour training per Cal/Osha regulations.	

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2017/18 Project Budget

6	A	B	C	D	E	F	PROJECT EXPENDITURES THIS FY			PROCEEDS FOR PROJECTS				ADDITIONAL CHARGES		P	2016/17		S	
							Treatment	Base Facility	Total	Advance Charges (collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service		Resulting Customer Charges	Prior Year Amount		PROJECT DESCRIPTION
7	CATEGORY, LOCATION, PROJECT NUMBER & TITLE			Essex Priority ranking	D=Dele M=Marie R=Ryan B=Brian	Special Job #														
9			Grant Applications Assistance					20,000	20,000							20,000	30,000		This budget line item is intended as a placeholder 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, DFW, Coastal Conservancy, and the Safe Drinking Water State Revolving Fund program. 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. This following budget assumes 40-hours of senior engineer and 40-hours of staff level of engineering for grant application completion.	
10			Collector 2 Underground Power and Fiber Optic Line					24,000	24,000							24,000			This project consists of providing 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 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. GHD would research and prepare a list of all necessary permits that will be required for the project, and will begin the permitting process. We will then prepare 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 riverbar to Collector 2 up to termination at transformer on upper deck. The cost assumes the District will do the construction work. Plans will be prepared with sufficient detail to facilitate construction by the District.	
10			Collector 1 Transformer and Electrical Evaluation					5,000	5,000							5,000			This project would continue to fund the systematical upgrade of the Districts' transformers on the Pump Stations/Collectors to replace the aging existing transformers. Many of the design/performance questions for these upgrades have been answered during the Collector 2 & 3 transformer upgrades; however additional structural or electrical engineering questions may arise in the near future. It is unknown what the exact scope of this task may be, so the following is a placeholder budget.	
10			Collector 1 Pump and Motor Upgrades					6,000	6,000							6,000			This project is to support the District systematically upgrading the pumps and motors as part of the CIP Collector Rehabilitation. More efficient motors handle the increased flow capacity of the Collectors upgraded with additional laterals. Additional analysis should be performed after the new performance of Collector 1 is known after the lateral installation project to specify the third pump replacement for Collector 1. GHD will assess the pumping characteristic of the Collector and compare it to the available pump and motor configurations from Flowserve. GHD will then review Flowserve pump & motor performance and pump testing submittals and provide comments to the District and Manufacturer.	
11			Essex Control Building Expansion Plans and Specs					44,000	44,000							44,000			This project would finalize the concept level plans started in 2006/07 by Martha Jain Architect for the expansion of the Essex Operations Building and is part of the CIP. The plans will be developed to sufficient detail such that the project may go out for 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.	
11			Public Education Funds			56-PE		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.	
11			Water Resource Planning Assistance			54-WRP		5,000	5,000							5,000	75,000		This project would consist of additional minor tasks for providing assistance by GHD 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. The exact scope of this task is unknown at this time so the following is a placeholder budget.	

**HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2017/18 Project Budget**

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
CATEGORY, LOCATION, PROJECT NUMBER & TITLE			Essex Priority ranking	D=Dele M=Marlo R=Ryan B=Brian	Special Job #	PROJECT EXPENDITURES THIS FY			PROCEEDS FOR PROJECTS				ADDITIONAL CHARGES		Resulting Customer Charges	2016/17 Prior Year Amount	PROJECT DESCRIPTION
						Treatment	Base Facility	Total	Advance Charges (collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service			
113		Mad River Regulatory - Compliance Assistance			54-MR-HCP		50,000	50,000							50,000	50,000	<p>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)</p> <p>2) Amending the District's HCP to include Eulechon, 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)</p> <p>3) Enforcement support to the NC Regional Water Quality Control Board, the California Dept of Fish and Wildlife, the County of Humboldt, or other enforcement agencies to address the adverse environmental effects of unpermitted or illegal marijuana grows in the Mad River watershed. The District has pitched the concept of a pilot project in the watershed to curtail activities which are adversely affecting water quality and quantity and causing significant environmental harm. (Range of \$20,000 - \$30,000 assumed)</p>
114		Climate Ready Grant			54-CC		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. FY 17/18 is year three of this match.
115		Quagga Grant - RLCS			51-QE		9,150	9,150		9,150					0		This grant application covers ongoing costs of the Ruth Lake Community Services District implementation of the HBMWD's Quagga Prevention program. An application for cost reimbursement was submitted to and approved by the California Dept. of Boating and Waterways. HBMWD was the grant applicant and RLCS is the implementing agency. There is no fiscal impact to HBMWD. Our District serves as a conduit for the grant reimbursement of funds expended by RLCS.
116		I/W System Single Line Mad River Slough Assessment					24,000	24,000			24,000				0		This is a task that has been included on the draft budget list for the last few years, but has not been performed due to the uncertainty of the operation of the industrial line. The Single Line Slough Crossing was last inspected in the mid-1990's and was found to be OK, and no work was performed on the piers like was performed on the Double Line Slough crossing which had several piers replaced back in the early 2000's. This task would consist of a site visit made by a structural and civil engineer to inspect the single line pipe crossing and structures supporting the pipeline to assess their current condition and whether work will be required on the crossing components in the near future. A boat is expected to be required for the inspection and a cost for the boat is included in the cost below. Non-destructive borings will be made to inspect the internal integrity of selected wooden members to determine condition. An assessment will be completed including a hydraulic study of flow capacity of the industrial water system to determine capacity for delivery of industrial water to the peninsula with only one pipeline crossing. A search of previous work will be completed and utilized for determination of hydraulic capacity and previous evaluation of condition and maintenance activities. The assessment will include a preliminary assessment and recommendations for repair and/or demolition based on the condition, the costs to maintain the pipeline crossing, and potential for continued use. This project will be funded by new ReMat revenue.
117		Industrial and Domestic System Intertie					11,000	11,000			11,000				0	70,000	Since the closure of the pulp mills on the Samoa peninsula, the Industrial System which delivered water to these facilities has remained idle. There has been discussion with the Harbor District and other potential industrial developers on the peninsula about the availability of excess water and their water needs. Future industrial development on the peninsula may need water, but may need it to be treated water, as opposed to the untreated surface water available in the existing Industrial System. The current Domestic System that runs through the peninsula is limited to the quantity of water it can convey, and may not be able to physically support a large additional industrial demand and still provide water to the municipal customers at the necessary rates. An old intertie exists between the Industrial and Domestic Systems, in a vault adjacent to Collector 1 at the Essex Control Center. The valves and appurtenances in this existing intertie have been tested and have found to be functional. Additional upgrades may need to be made, such as adding additional control, and the following is a placeholder budget to provide additional assistance on these upgrades. This project will be funded by new ReMat revenue.

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2017/18 Project Budget

6	A	B	C	D	E	F	PROJECT EXPENDITURES THIS FY			PROCEEDS FOR PROJECTS				ADDITIONAL CHARGES		P	2016/17		S
							Treatment	Base Facility	Total	Advance Charges (collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service		Resulting Customer Charges	Prior Year Amount	
7	CATEGORY, LOCATION, PROJECT NUMBER & TITLE			Essex Priority ranking	D=Dale M=Marlo R=Ryan B=Brian	Special Job #													
12	Ruth Dam Safety Program:																		
		1	FERC Dam Safety Surveillance and Monitoring Report			58-DSP		3,000	3,000								3,000	25,000	ANNUAL PROJECT: This task consists of assisting the District with the preparation of the Annual DSSM Report for Matthews Dam for submittal to the State Division of Safety of Dams and the Federal Energy Regulatory Commission. It is assumed that the District will do the majority of the report preparation, and GHD will do a review of the active instrumentation and 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.
121		2	FERC Chief Dam Safety Engineer			58-FCNSE		10,000	10,000								10,000		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.
122			Matthews Dam: Monument Survey					9,000	9,000								9,000		This task consists of the bi-annual 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 wall and landslide surveys. A summary drawing and letter report will be provided for submittal to FERC and DSSOD. Please note that the cost for this and the other dam survey costs have increased slightly to include prevailing wage rates for the surveyors. This task is required under District's DSSMP.
123			Matthews Dam: Spillwater Wall Survey					11,000	11,000								11,000		This task consists of the bi-annual 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. It is assumed that this task will be performed at the same time as the Dam Monument and landslide surveys. A summary drawing and letter report will be provided for submittal to FERC and DSSOD. This task is required under District's DSSMP.
124			Matthews Dam: Left Abutment Monitoring Survey					11,000	11,000								11,000		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 landslide at the left abutment. 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 DSSOD. This task is required under District's DSSMP.
125			Matthews Dam: River Cross-Sectional Survey					5,000	5,000								5,000		This task will consist of a new field survey measuring two cross-sections of the river below the dam and hydroelectric plant. Having these baseline measurements will allow us to monitor the depth and changes in the channel in-fill in the future. This is related to the emergency disaster dredging that was required below the dam.
126	Subtotal Professional and Consulting Services:						16,100	362,150	378,250	0	9,150	35,000	0	0	0		334,100	324,350	

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2017/18 Project Budget

CATEGORY, LOCATION, PROJECT NUMBER & TITLE			Essex Priority ranking	D=Dale M=Mario R=Ryan B=Brian	Special Job #	Treatment	Base Facility	Total	Advance Charges (collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service	Resulting Customer Charges	2016/17 Prior Year Amount	PROJECT DESCRIPTION	
Carryover Projects																		
		Repairs and upgrade Line Shed 6			54-LS6		15,000	15,000	9,000						6,000	28,250	This project proposes modifications and repairs to Line shed 6. This project would include the replacement of the existing roof, replacement of the front access doors with roll-up doors, and the addition of 42' x 12' concrete slab at front of building to facilitate the moving of items in and out of the building. Additionally the passage door would be replaced. The portion of the front of the building around new doors will be sided and trimmed and the interior lighting will be upgraded. This line shed serves as an additional inventory storage area as well as a staging area for work on collector 3. The roof is about 18 years old and needs to be replaced. The large doors are very heavy swinging doors and catch a lot of wind when open. We will replace them with modern roll up doors which are much more secure and functional. The concrete slab will make moving supplies and equipment in and out of the building more efficient and maneuverable with the forklift.	
		Mainline Valve replacement (Year 2 of 10 per CIP)					100,000	100,000	0						100,000	100,000	Based on the number and age of the many valves in our system, we have developed a ten-year valve replacement program within the CIP. This project is to replace 3 valves, two at the 1 Mg reservoir and one on the effluent line from the TRF. Due to proximity, this project will be completed once the 1Mg Reservoir project is finished this summer.	
		SCADA System Upgrade - Phase 2			52-SCADA Phase 2		369,100	369,100	369,100						0	381,100	This Project is the remainder of the second phase of two phases. Phase 1 (FY15/16) was to do design for upgrading the system, Phase 2 (started in FY 16/17) is to purchase equipment and install the new SCADA system while keeping the old system fully functional until the new system is completely installed and integrated. We are currently under construction on this project and this year will fund the remainder of the project. The current system is 16 years old. Many of the components are either no longer supported by the manufacture or are getting very hard to find and repair. This system is the heart of our operations and control center for controlling and monitoring the Pump stations, reservoirs and TRF and data logging information. Although the project initiated in FY 16/17, it will continue into FY 17/18.	
		SCADA System Upgrade - TRF Phase 2			54-TRF-SCADA	100,000		100,000	100,000						0	100,000	This Project is the remainder of the second phase of two phases. Phase 1 (FY15/16) was to do design for upgrading the system, Phase 2 (started in FY 16/17) is to purchase equipment and install the new SCADA system while keeping the old system fully functional until the new system is completely installed and integrated. We are currently under construction on this project and this year will fund the remainder of the project. The current system is 16 years old. Many of the components are either no longer supported by the manufacture or are getting very hard to find and repair. This system is the heart of our operations and control center for controlling and monitoring the Pump stations, reservoirs and TRF and data logging information. Although the project initiated in FY 16/17, it will continue into FY 17/18.	
		Replace District Bunkhouse at Ruth			51-CR Phase 2		390,500	390,500	390,500						0	208,500	This project will replace the main cabin and remodel the bunk wing, meeting all Trinity County building codes, ADA requirements and provide a better living space for the employees when they are required to work at Ruth. This facility is critical for District Maintenance staff not only for the annual major maintenance of the hydro plant, but also for many other projects that require overnight stays by staff. This project has been carried over due to delays with permitting, planning, and bidding. At this time all plans have been established and have been approved and permitted by Trinity County. The bid spec details will be finalized and ready for bid in June/July 2017.	
		Diagnostic equipment for Kenworth dump truck and other heavy fleet vehicles					5,000	5,000							5,000		This tool was approved for purchase in FY16/17 but the manufacturer will not have the programming complete for our vehicles until December 2018. The project proposes the purchase of a diagnostics program, connection tool kit and license fee (\$1,000 annually) for system troubleshooting on the Districts heavy-duty fleet. The tool will allow for diagnostics code information, fault clearing, functional testing, and troubleshooting flowcharts and location diagrams for components for truck, engine, brake system, emissions systems, and transmissions on the heavy-duty trucks. Given the sophistication of the systems employed on these vehicles this diagnostic tool will allow us to troubleshoot and repair problems potentially saving on diagnostic time, critical use downtime and ongoing shop and onsite repair costs. The emissions systems on these newer vehicles are complex with many additional components and are difficult to troubleshoot without diagnostic equipment. As part of the annual license fee we get a software update for the diagnostic tool. Currently we have 4 heavy fleet vehicles that this tool can run diagnostics on.	
Subtotal Carryover Projects							100,000	879,600	979,600	868,600	0	0	0	0	111,000	817,850		
Subtotal Project Budget							190,100	6,949,900	7,140,000	1,515,307	3,951,400	182,500	0	0	162,200	1,652,993	1,470,550	

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
FY2017/18 Project Budget

8	A	B	C	D	E	F	PROJECT EXPENDITURES THIS FY			PROCEEDS FOR PROJECTS				ADDITIONAL CHARGES		P	2016/17		S
							G	H	I	J	K	L	M	N	O		Q	R	
7	CATEGORY, LOCATION, PROJECT NUMBER & TITLE			Essex Priority ranking	D=Date M=Mario R=Ryan B=Brian	Special Job #	Treatment	Base Facility	Total	Advance Charges (collected)	Grants	Reserves	Loans	Advance Charges (Cur. FY)	Debt Service	Resulting Customer Charges	Prior Year Amount	PROJECT DESCRIPTION	
133	Industrial System Projects																		
134			I/W Reservoir painting Specs, Bidding, Const Oversight	7				64,000	64,000			64,000				0			<p>This task would consist of preparing specifications and contract documents for the painting of the Industrial Reservoir tank. It is assumed that the tank only needs to be painted and no other structural design/repairs are required. GHD will prepare plans and specifications for sandblasting and painting the interior and exterior of the tank. The interior and exterior paint will also be sampled and analyzed to see if it contains lead and needs to be abated per applicable regulations prior to painting. GHD will also prepare a Negative Declaration to comply with CEQA requirements. GHD will prepare a complete contract document and bid package, assist in releasing the work for bid to the newspaper as well as the Builder's Exchanges, the notification of contractors of the availability of the bid documents, distributing bid documents to contractors and other interested parties, maintaining plan holders list, responding to contractor's questions and issuing bid addendum, presiding over the bid opening and assisting the District in the issuing the Notice of Award and Notice to Proceed documents. This task would also include construction observation services and well as responding to contract change orders, approving contractor requests for payment, and documenting the actual construction. It is assumed that no other permitting is required for the performance of this work and that the painting takes approximately three weeks. The recent inspection of the existing 1-MG Domestic Reservoir located at the Turbidity Reduction Facility indicated that there was sever corrosion of the beams, center column and roof vents for the tank. The Industrial Water Reservoir was last painted around the same time as the Domestic Reservoir and is likely in similar shape. The outside of the tank is obviously in need of painting, and the inside should be inspected and at a minimum it likely needs painting as well. Since this is on the industrial system, funding for this task would have to be discussed and approved by the Municipal Customers and our Board. The industrial water reservoir is a resource that should not be allowed to fall into general disrepair as it will take much more money to repair or replace than to maintain, and it could be replumbed for use in the Domestic system if the Industrial system remains idle. This project will be funded by new ReMat revenue.</p>
143	IW1		Maintain Water Supply to Industrial Pump Station (Station 6) During Low-Flow Months			52-CH		13,250	13,250							13,250	13,250	<p>ANNUAL PROJECT: From '76 to '91, channel conditions in Mad River allowed operation of Pump Station 6 without any water stage control, but river bed has degraded. In late 80's it approached an elevation at which pumps would not operate. In '91, 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, the District, for many years, constructed a gravel berm connecting jetty to the weir. Per 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, 3) protection of aquatic species during construction, and 4) cross-section survey (of gravel bar if necessary). Costs reduced compared to past years given current situation with the mill. (If we want to do the gravel bar survey (pre and post) cost is \$10,000: which is not included in current budget costs.</p>	
145	Subtotal Industrial System Projects						0	77,250	77,250	0	0	64,000	0	0	0	13,250	13,250		
147	TOTAL PROJECT BUDGET						190,100	7,027,150	7,217,250	1,515,307	3,951,400	246,500	0	0	162,200	1,666,243	1,483,800		