HUMBOLDT COMMUNITY SERVICES DISTRICT
BOARD OF DIRECTORS
REGULAR SCHEDULED MEETING

AGENDA

DATE: **Tuesday, April 13, 2021**

TIME: **5:00 p.m.**

LOCATION: *In accordance with the Governor's Executive Orders N-25-20 and N-29-20 HCSD Board of Directors shall conduct the District's business via teleconference.*

The open session segment(s) of the meeting, including Public Participation, may be joined through the Zoom Website (https://zoom.us) by clicking on "Join A Meeting" and entering the following Meeting ID then follow the prompts for Passcode and audio. Access may also be achieved by telephone only by dialing 1-669-900-9128 followed by the Meeting ID and Passcode below:

Meeting ID: 883 3454 6041
Passcode: 875385

Participation protocol:

- *Please use the MUTE function when not speaking*
- *Please use the "RAISE HAND" feature when wishing to be acknowledged for participation. Raise Hand feature is located in the lower right portion of the screen via the "REACTIONS" icon.*
- *Please do not speak out of turn; wait for the Board President to call upon you to share.*

A. CALL TO ORDER AND ROLL CALL

B. CONSENT CALENDAR

1. Approval of April 13, 2021 Agenda — Pgs. 1-2
2. Approval of Minutes of the Regular Meeting of March 23, 2021 — Pgs. 3-6

C. REPORTS

1. General Manager
   a) Status Report — Pg. 7
2. Community Services
3. Superintendent
   a) March 2021 Construction Operations Report — Pg. 8
4. Finance Department
   a) February 2021 Check Register — Pgs. 11-18

5. Legal Counsel

6. Director Reports

7. Other

D. PUBLIC PARTICIPATION **

**Members of the public will be given the opportunity to comment on items not on the agenda by way of a Zoom meeting. Please use the information set forth above to participate. The Board requests that speakers please state their name and where they are from, be clear, concise and limit their communications to 3 to 5 minutes. At the conclusion of *all* oral communications, the Board or staff may choose to briefly respond with information in response to comments; however, the Brown Act prohibits discussion of matters not on the published agenda. Matters requiring discussion, or action, will be placed on a future agenda.

E. NON-AGENDA

F. NEW BUSINESS

1. Consideration of Ratepayer Petition for Exception to District Code 4.05.140 (Ordinance 2015-1) Cross Connection Control Program at 2603 Swanlund Lane Pgs. 19-49
2. Consideration of Supporting CSDA Sponsored AB 361 Modifying the Brown Act to Permit Remote Meetings During Emergencies Pgs. 51-53
3. Consideration of Entering into a Joint Request for Proposals for a Rate Study in Cooperation with the City of Eureka (COE) Pg. 55
4. Review of 2021-2022 City of Eureka Capital Improvement Plan and the Impacts to HCSD Pgs. 57-133

G. OLD BUSINESS

H. CLOSED SESSION

1. Pursuant to Government Code Section 54954.5(e) PUBLIC EMPLOYEE PERFORMANCE EVALUATION – General Manager

I. ADJOURNMENT

Next Res: 2021-03
Next Ord: 2021-01

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact Brenda Franklin at (707) 443-4558, ext. 210. Notification 48 hours prior to the meeting will enable the District to make reasonable arrangements to ensure accessibility to this meeting (28 CFR 35.102 – 35.104 ADA Title II).

Pursuant to §54957.5(a) of the California Government Code, any public record writings relating to an agenda item for an open session of a regular meeting of the Board of Directors, not otherwise exempt from public disclosure, are available for public inspection upon request at the District offices located at 5055 Walnut Drive, Monday through Friday (holidays excepted) during regular business hours.

DRAFT – MINUTES OF THE REGULAR MEETING
OF THE BOARD OF DIRECTORS OF THE
HUMBOLDT COMMUNITY SERVICES DISTRICT

The Board of Directors of the Humboldt Community Services District met in Regular Session at 5:00 p.m. on Tuesday, March 23, 2021, via tele/video conference in accordance with the Governor's Executive Orders N-25-20 and N-29-20.

A. CALL TO ORDER AND ROLL CALL

Present upon roll call were Directors Benzonelli, Bongio, Gardiner, Hansen, and Matteoli. Staff in attendance: General Manager Williams (GM), Legal Counsel Plotz, Superintendent Latham, Finance Manager Montag (FM), and Community Services Manager Hulstrom (CSM).

B. CONSENT CALENDAR

1. Approval of March 23, 2021 Agenda
2. Approval of Minutes of the Meeting of March 9, 2021

DIRECTOR HANSEN MOVED, DIRECTOR BENZONELLI SECONDED, TO ACCEPT AND APPROVE THE MARCH 23, 2021 CONSENT CALENDAR NOTING A CORRECTION FOR ITEM C.4.a) TO READ CHECK REGISTER IN LIEU OF BUDGET STATEMENT. MOTION CARRIED UPON THE FOLLOWING ROLL CALL VOTE:

AYES: BENZONELLI, BONGIO, GARDINER, HANSEN, MATTEOLI
NOES: NONE
ABSENT: NONE

C. REPORTS

1. General Manager

   a) Status Report

   GM reviewed his March 18, 2021 Memorandum advising the status of:
   - Engineer Employment Solicitation – an offer to the successful candidate has been accepted with a planned date to join HCSD of April 19.
   - COVID Vaccines – GM continues to pursue coordination with the County to make vaccines available to HCSD staff who desire to participate.
   - Pine Hill Bridge Project – Construction is scheduled to begin April 5

3. Superintendent

   a) February 2021 Construction Operations Report
   b) February 2021 Operations/Maintenance Report

   Superintendent reviewed the routine activities of both the Construction and Maintenance Departments during the month of February.

4. Finance Department

   a) January 2021 Budget Statement

   FM reviewed the report offering the observation that it is likely that the account Bad Debts & Minimum Balance Write-off will likely continue to increase due to COVID-19 regulations disallowing service shut-off, and advised the reflected budget surplus is misleading as planned CIP projects as well as City of Eureka CIP charges will come to fruition prior to the fiscal year end.

   Director Benzonelli commented that SB 91 contains provisions for rental assistance as well as delinquent utilities incurred due to the COVID-19 outbreak and that she will coordinate with the GM to determine how to approach such customers who are behind on their water/sewer bills.

6. Director Reports

   - Director Benzonelli advised that the letters submitted to the Department of Toxic Substances Control (DTSC) with regard to the contaminated McNamera and Peepe Mill site has resulted in the allocation of an additional $200,000 toward the clean-up.

D. PUBLIC PARTICIPATION

President Bongio invited the public to address the Board on any item not listed on the agenda or issues generally affecting District operations, which are within the jurisdiction of the Board.

Jerry Martien of Elk River thanked Director Benzonelli for finding out about assistance for people unable to pay their bills. Mr. Martien also expressed concern for the continuance of the City of Eureka CIP review from the March 9 meeting as many items affect the District and asked why the matter was tabled. Director Bongio responded that the matter was tabled due to a potential FPPC conflict of interest and is confident it will be heard at the April 13 meeting.

F. NEW BUSINESS

1. Correspondence (Email) J.A. Savage Suggesting Board Meeting Process Modifications

   GM reviewed the report responding to the four items of comment contained in Ms. Savage's email.

   PUBLIC COMMENT:

Ms. Savage explained the reason she submitted the email is to provide feed-back from the outside that she sees as hurdles toward public participation. Addressing item 3, Ms. Savage added that submitting information to the Board electronically would make life easier. Ms. Savage then announced she contacted Humboldt Bay Municipal Water District with regard to item 4 as they have key personnel email addresses listed on their website and learned they do not have excessive spam issues, thus feels the matter is not being taken seriously and concluding her idea is to move HCSD into the 21st century and make it easier for public participation.

Jerry Martien offered support to Ms. Savage's input as he has been an advocate of more public participation since the Indianola episode.

Director Gardiner assured the public that at no time during his five-years as a member of the Board of Directors has anyone tried to keep anything from the public or sneak something by. The District's processes have been deliberate, lengthy, procedurally to the letter, and this body does everything it can to make all District business as transparent as possible and to answer all ratepayer questions.

Director Hansen stated the District should explore options for the Boardroom in order to continue Zoom connectivity after the COVID-19 restrictions are lifted.

Director Matteoli questioned if there are more public participating with the Zoom meetings versus the live meetings held in the Boardroom to which Director Bongio advised it is about the same – one or two on occasion. GM advised that one of the biggest challenges within the Boardroom is acoustics.

At 5:49 p.m. IT WAS THEN MOVED BY DIRECTOR BENZONELLI, SECONDED BY DIRECTOR HANSEN, TO ENTER CLOSED SESSION. MOTION CARRIED UPON THE FOLLOWING ROLL CALL VOTE:

AYES: BENZONELLI, BONGIO, GARDINER, HANSEN, MATTEOLI
NOES: NONE
ABSENT: NONE

H. CLOSED SESSION

1. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION
   Significant exposure to litigation pursuant to paragraph (2) or (3) of subdivision (d) of Section 54956.9: (two cases)

   The Board returned to open session at 7:06 p.m. wherein the Board President stipulated no reportable action had been taken during closed session.

I. ADJOURNMENT

There being no further business, IT WAS MOVED BY DIRECTOR MATTEOLI, SECONDED BY DIRECTOR BENZONELLI, TO ADJOURN. MOTION CARRIED UPON THE FOLLOWING ROLL CALL VOTE:

AYES: BENZONELLI, BONGIO, GARDINER, HANSEN, MATTEOLI
NOES: NONE
ABSENT: NONE

THE BOARD ADJOURNED ITS REGULAR MEETING OF March 23, 2021 AT 7:09 P.M.

_____
Submitted, Board Secretary

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service for our customers

MEMORANDUM

TO: Board of Directors

FROM: Terrence Williams, General Manager

DATE: April 8, 2021

SUBJECT: General Manager Report for April 13, 2021 Board Meeting

---

Engineer: Our new hire, the Assistant Engineer, has passed the pre-employment health screening and background check (with flying colors). This makes it official; we will welcome our new Assistant Engineer to the team on April 19, 2021. I look forward to introducing all of you.

Pine Hill HDD: The directional boring at Pine Hill Bridge is currently underway. The contractor arrived with equipment on schedule April 5. If everything goes to schedule, the boring portion of the project will be complete by April 23. At that point, District forces will make the final tie in of the new segment to the existing system.

Ridgewood Tank: Work on the Ridgewood Temporary Tank system is progressing. The system is expected to be online for testing the week of April 23.

COVID: Governor Newsom signed into law additional employee benefits related to COVID-19 that went into effect March 29, 2021. The law requires all organizations with more than 25 employees to provide 80 hours of Supplemental Paid Sick Leave to all staff and is retroactive to January 1, 2021. This action is currently scheduled to sunset on September 30, 2021.

Jacob: At 4 am on April 6, the District's on-call operator, Jacob Mitchell, received a call from the SCADA system indicating a Data Fail at the Edgewood Road Sewer Lift Station. Jacob responded to the site to determine what the problem was. Within a few minutes, Jacob identified the problem to be a failed motor saver (this device cuts all control power in the event of poor power conditions to protect the electric motor from damage). Jacob had a replacement unit on the service truck. He made quick work of replacing the unit and solved the problem then and there. As one of the youngest and newest members of the team, this represents a major step in his progress toward being a master field technician. Jacob responded to the issue, trouble shot the problem, replaced the failed parts with confidence and didn't need to call on his supervisor or other field technicians for assistance. Good job Jacob.

Mailing: Post Office Box 158 • Cutten, CA 95534 • tel (707) 443-4558 • fax (707) 443-1490
Physical Address: 5055 Walnut Drive, Eureka, CA 95503

Intentionally Left Blank

Humboldt Community Services District

Post Office Box 158 Cutten, CA 95534 (707) 443-4558 Fax (707) 443-1490

To: H.C.S.D. Board of Directors

Date: April 8, 2021

From: Tim Latham, District Superintendent TL

Subject: March 2021 Construction Operations Report

General business for the month of March included water service line leak repairs on Pleasant Avenue, Lucia Street, two on Excelsior Road and two on Myrtle Avenue, water service line replacements on Viale Street and Moore Avenue due to leaks, water main line leak repairs on Spears Avenue and Walnut Drive, splitting an existing water service on Laurel Drive, the installation of a new sewer service on Walnut Drive and concrete repairs around valve cans on Hubbard Street.

Other business included continued construction of the temporary storage tank portion of the Ridgewood Tank Off-line Project in preparation of the complete rehabilitation of the Ridgewood water storage tank beginning May 2021, cleaning around various District sites, assisting the Customer Service Department with service orders as necessary, the completion of the annual respiratory fit testing and preparation for the upcoming Pine Hill Bridge Water Main Line Replacement Project.

Intentionally Left Blank

Accounts Payable

Checks by Date - Detail by Check Date

User: FM
Printed: 4/8/2021 10:01 AM

Humboldt Community Services District
5055 Walnut Drive – Eureka CA 95503
PO Box 158 – Cutten CA 95534 (707) 443-4558

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Check Amount
54285	UB*01864	ERIKA COOPER	03/10/2021	
		Refund Check		34.83
			Total for Check Number 54285:	34.83
54286	UB*01865	HAYTHEM NAFSO	03/10/2021	
		Refund Check		10.26
		Refund Check		3.72
		Refund Check		63.80
		Refund Check		74.30
		Refund Check		8.76
		Refund Check		39.16
			Total for Check Number 54286:	200.00
54287	UB*01866	JUSTIN ADAMS CONSTRUCTION	03/10/2021	
		Refund Check		0.43
		Refund Check		1.12
		Refund Check		4.50
			Total for Check Number 54287:	6.05
54288	C450	City of Eureka: Water Test	03/10/2021	
	INV00695	Microbiological Testing - February		425.00
			Total for Check Number 54288:	425.00
54289	C475	Coast Counties Peterbilt	03/10/2021	
	07144926P	VacCon/Threaded Plug		13.81
	07146066P	Unit #14/Antenna CB 2' Black		9.59
	07146091P	Unit #14/Spring CB Antenna Pro-S/Fitting CB A		26.38
	0780883S	Unit #1/90 Day Bit/Wet Service		471.50
	0780884S	Unit #8/90 Day Bit/Wet Service		491.87
	0780890S	Unit #18/90 Day Bit/Wet Service		1,542.78
	0780891S	Unit #10/90 Day Bit/Wet Service		530.03
	0780892S	Unit #LD722495/90 Day Bit/Wet Service		715.53
			Total for Check Number 54289:	3,801.49
54290	E485	Cooney Parris and Rieke Corp	03/10/2021	
	02282021	Discount Earned - February		-4.82
	093267/3	Break Room Repair/Silicone II Wht		16.79
	093300/3	Shop/Break Boot Conditioner		7.10
	093625/3	Bobcat Grinder repair/Hose barb mender/Bargn t		17.84
	094156/3	Unit #1/Tools/Mallet rubber 18oz		21.54
	094337/3	So Broadway/WeedGrass killer/Spry pnt primer		30.79
	094445/3	Nozzl		9.69
			Total for Check Number 54290:	98.93
54291	E558	NAPA Auto Parts of Eureka	03/10/2021	

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Check Amount
	171025	Shop/Gauges		14.65
	171497	Unit #16/Brake pads/Wiper blade		75.14
	171601	Unit #16/Brake caliper/Core deposit		113.98
	171678	Core deposit		-60.28
	171679	Unit #5/Air filter/Wiper blade		25.28
	171864	Unit #7/Air filter/Fuel filter/Btry brush		42.79
	172150	Unit #12/Air filter		13.26
	172914	Shop/SYN0W20		60.80
	173659	Unit #8/Antenna		15.18
	175395	2.5 Blue Def		46.31
	175508	Unit #1/Tools/Combination Wrench		27.11
	175598	Unit #15/Repel wiper blade 22		15.99
			Total for Check Number 54291:	390.21
54292	F010	Farmer Brothers Co	03/10/2021	
	81500609	Fr Rst DC 2.0/Creamer hazl		143.85
			Total for Check Number 54292:	143.85
54293	F075	FedEx	03/10/2021	
	940292735317	Ship CCTV Camera head		73.61
			Total for Check Number 54293:	73.61
54294	H010	Keenan Supply	03/10/2021	
	02282021	Discount Earned - February		-130.71
	S011708933.001	Cla-Val Disc guide/Cla-Val Disc retainer		515.40
	S011723599.002	Yard Stock/IMP Brass Cplg/Elbow/Street elbow/		982.25
	S011737624.001	Ridgewood WBS/FlgxFlgDI spool/6 FlngRWgat		2,376.09
	S011739790.001	Yard Stock/Christy B09-61D Water steel checkcı		1,461.50
	S011741254.001	Yard Stock/Clow Thrd rw gate vlv		628.13
	S011741664.001	New Water Harrison/Clow Thrd rw gate vlv		314.06
	S011741664.002	Credit/Return/Sewer saddles S011749365.001		-332.60
	S011749365.001	Sewer Saddles		332.60
	S011754008.001	4342 Walnut/New Sewer		221.92
	S011760859.001	Harrison PRV parts/IMP brass union/Brass nippl		234.98
	S011762786.001	Cla-Val Y-strainer		101.73
	S011762786.001	Cla-Val Y-strainer		101.72
	S011774146.001	New Sewers/Walnut/Harrison/Yard Stock		153.11
			Total for Check Number 54294:	6,960.18
54295	H180	HdL Coren and Cone	03/10/2021	
	SIN006945	Continuing Disclosure/CMFA Wastewater Rever		1,400.00
			Total for Check Number 54295:	1,400.00
54296	H410	Humboldt Bay Municipal Water D	03/10/2021	
	23011000	Water Purchased - February		89,333.13
			Total for Check Number 54296:	89,333.13
54297	I401	Industrial Electric Arcata Inc	03/10/2021	
	IN38843	Rebuild South Bay Well Motor		1,080.00
	IN38967	Motor Grease/Mobile Polyrex-em 14oz cart		22.52
			Total for Check Number 54297:	1,102.52
54298	I700	IBS Interstate Battery System	03/10/2021	
	5088821	Unit #4/MTP-65HD Btry		249.65

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Check Amount
			Total for Check Number 54298:	249.65
54299	J950	J. W. Wood Co. Inc.	03/10/2021	
	R703308	Suction line parts for the Ridgewood pump porti		1,961.60
	R705034	Parts for the Ridgewood Tank Off-line Project		706.02
			Total for Check Number 54299:	2,667.62
54300	L200	Les Schwab Tire Center of Calif Inc.	03/10/2021	
	60900596790	Unit #16/Tires		998.47
			Total for Check Number 54300:	998.47
54301	M450	Mission Linen	03/10/2021	
	514130380	Uniforms/Mats		368.68
	514171943	Uniforms/Mats		218.06
	514215302	Uniforms/Mats		370.66
	51456419	Uniforms/Mats		221.36
			Total for Check Number 54301:	1,178.76
54302	P190	Pacific Paper Co	03/10/2021	
	159982	Post-it lined notes/Scotch tape/Sharp calcs/BIC l		295.43
	159989	Avery view binder 1-1/2"		31.18
			Total for Check Number 54302:	326.61
54303	P430	Pierson Building Center	03/10/2021	
	02282021	Discount Earned - February		-11.01
	942224	Yard/Maingate Parts/Electrical Access		9.74
	942554	Bulk Fasteners		3.47
	943166	Stanley 1x30 tape/49Gal tote		50.21
	943193	Ridgewood WBS/Bosch jigsaw bld 5 pk		14.09
	944386	Ridgewood WBS/Lumbertite screw		43.39
	944390	Ridgewood WBS/4x6 #2 Btr df S4S		13.07
	944444	Ridgewood WBS/CDX Plywood		60.76
	945196	Shop material/Meter rod/Fny white paint marker		41.83
	946516	Donna Dr Building/Wet patch/Hex driller/Flt phi		67.54
	946565	Donna Dr Building/Corner brace galv 6"		19.51
	946731	So Broadway station/T hinge hvy galv		27.10
	947314	Construction Tools/American 2 Ton come-along		50.98
	947393	Teflon tape/PVC adapter		12.09
			Total for Check Number 54303:	402.77
54304	P557	Rexel USA Inc.	03/10/2021	
	1H58989	Lower Shop/Swivel		22.88
			Total for Check Number 54304:	22.88
54305	R750	R. J. Ricciardi Inc.	03/10/2021	
	12389	Progress billing through February		4,465.00
			Total for Check Number 54305:	4,465.00
54306	U410	United Way of Humboldt	03/10/2021	
		PR Batch 00001.03.2021 UNITED WAY	PR Batch 00001.03.2021 UNI	7.95
		PR Batch 00001.03.2021 UNITED WAY	PR Batch 00001.03.2021 UNI	0.16
		PR Batch 00001.03.2021 UNITED WAY	PR Batch 00001.03.2021 UNI	0.89

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Check Amount
			Total for Check Number 54306:	9.00
54307	V500	Verizon Wireless	03/10/2021	
	9873886190	Cellular Service - February		398.00
			Total for Check Number 54307:	398.00
54308	V700	Valley Pacific Petroleum Services Inc	03/10/2021	
	INV 21-378656	Fuel		2,987.41
			Total for Check Number 54308:	2,987.41
54309	W208	Watt's Cleaning Services	03/10/2021	
	1023	Quarterly cleaning for February		950.00
			Total for Check Number 54309:	950.00
			Total for 3/10/2021:	118,625.97
54310	A160	ACWA-JPIA	03/18/2021	
	0663800	aMedical Plan - Employees		52,422.26
	0663800	bDental Plan - Employees		1,702.84
	0663800	cVision Plan - Employees		328.23
	0663800	dLife/AD&D Plan - Employees		384.23
	0663800	eMedical Plan - Board Members		12,754.75
	0663800	fDental Plan - Board Members		448.76
	0663800	gVision Plan - Board Members		78.15
	0663800	hLife/AD&D Plan -Board Members		28.49
	0663800	iMedical Plan -Retired Members		21,317.53
	0663800	jDental Plan - Retired Members		1,052.16
	0663800	kVision Plan - Retired Members		312.60
	0663800	lCOBRA - Medical		1,170.14
	0663800	mCOBRA - Dental		33.72
	0663800	nCOBRA - Vision		15.63
			Total for Check Number 54310:	92,049.49
54311	A360	AFLAC	03/18/2021	
	587087	Supplemental Health Premium - February		265.74
			Total for Check Number 54311:	265.74
54312	B100	B and B Portable Toilets	03/18/2021	
	113109	Cleaning of District owned portable toilet		50.00
			Total for Check Number 54312:	50.00
54313	B282	Backflow Distributors Inc	03/18/2021	
	58551	Register for construction meter		72.81
			Total for Check Number 54313:	72.81
54314	C180	Canon Solutions America Inc.	03/18/2021	
	4035564413	Office/Color Copies WXD03492-01.31.21-02.27		101.82
	4035564413	Use Tax Recovery Fee/OfficeCop		4.93
	4035564413	Office/Black Copies WXD03492-01.31.21-02.27		25.42
			Total for Check Number 54314:	132.17
54315	C430	City of Eureka: WA	03/18/2021	

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Check Amount
	02282021	Water Purchased - February		49,621.00
			Total for Check Number 54315:	49,621.00
54316	C036	Corporate Payment Systems	03/18/2021	
	242029810610300	TK/CSDA - Director Benzonelli/Board Training		75.00
	242042910490063	TL/CrashPlan/Code 42 Back-Up System 3 Serve		29.97
	242753010500847	TK/CRWA - Eng Recruit Advg		50.00
	246921610411005	TK/Craigslist/Ad for surplus vehicles		5.00
	246921610421002	TK/Craigslist/Ad for surplus vehicles		5.00
	246921610631007	MM/Amazon/Ergotron Worfit HD S Sit-Stand st		602.32
	246921610631009	DT/AWWA/Let's Talk Safety/52 Talks on Comm		316.00
	249064110461142	TL/FY 20/21 Microsoft Online Email Exchange		84.00
			Total for Check Number 54316:	1,167.29
54317	H210	Hensell Materials	03/18/2021	
	0606879-IN	6' Posts/4x100 Orange safety fence		236.31
			Total for Check Number 54317:	236.31
54318	H810	Humboldt Waste Management Auth	03/18/2021	
	218225	Solid Waste		20.26
	218410	Solid Waste		1,039.32
	218490	Solid Waste		666.91
	223560	Ridgewood WBS/Solid Waste		21.81
			Total for Check Number 54318:	1,748.30
54319	I525	Infosend	03/18/2021	
	183791	UB/Process and Mail/Bills - December		3,329.53
	185167	UB/Process and Mail/Bills - January postal rate i		4,290.90
	185832	UB/Process and Mail/Bills - January postal rate i		1,229.97
	187122	UB/Process and Mail/Bills - February		4,383.94
			Total for Check Number 54319:	13,234.34
54320	J800	Johnson's Mobile Rentals LLC	03/18/2021	
	112751	Rental fencing for the Ridgewood Tank Off-line		245.62
			Total for Check Number 54320:	245.62
54321	M230	Mendes Supply Co	03/18/2021	
	M205071-01	Pink Lotion foaming hand soap		102.30
	M206192	CH Bacticide Gal		444.31
			Total for Check Number 54321:	546.61
54322	M340	Mercer Fraser Co	03/18/2021	
	103265	Ridgewood area/Hot paving		484.50
			Total for Check Number 54322:	484.50
54323	M780	Municipal Maintenance Equipmen	03/18/2021	
	0157233-IN	Vac Con/Hose		20.85
	0157265-IN	Vac Con/Hose		223.61
			Total for Check Number 54323:	244.46
54324	N570	North Coast Labs Ltd	03/18/2021	
	157293	Required Perchlorate analysis for the Spruce Poi		155.00

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Check Amount
			Total for Check Number 54324:	155.00
54325	O400	O and M Industrics	03/18/2021	
	546590	Equipment and labor to move and set the tempor		3,761.25
			Total for Check Number 54325:	3,761.25
54326	P785	Powell Landscape Materials	03/18/2021	
	12568	Higgins St Meter Box/Concrete		249.92
			Total for Check Number 54326:	249.92
54327	R250	Recology Humboldt County	03/18/2021	
	26403949	Garbage Service - March		477.88
			Total for Check Number 54327:	477.88
54328	S400	Sharp Auto Graphics and Signs	03/18/2021	
	9454	New signs on building		150.00
			Total for Check Number 54328:	150.00
54329	S808	Statewide Traffic Safety and Signs	03/18/2021	
	09006513	Aquaphalt		195.30
	09006524	Signs and barricades for the Pine Hill Bridge Wa		563.25
			Total for Check Number 54329:	758.55
54330	S860	Sunbelt Rentals	03/18/2021	
	110493760-0001	Track mini-skidsteer rental for the Ridgewood Ti		138.82
			Total for Check Number 54330:	138.82
54331	T165	Telemetry and Process Controls Inc.	03/18/2021	
	210312KR	Technical Support Agreement SCADA 03.12.21		4,600.00
			Total for Check Number 54331:	4,600.00
54332	M560	The Mitchell Law Firm LLP	03/18/2021	
	47360	Legal Services - February 2021		655.00
			Total for Check Number 54332:	655.00
54333	T510	Times-Standard	03/18/2021	
	0001284509	Legal Advg 2021 Surplus Sale 2011 Ranger, 200		418.12
			Total for Check Number 54333:	418.12
54334	U730	USA Bluebook	03/18/2021	
	495580	Ridgewood WBS/Bushing/Nipple/Elbow		104.88
	495581	Ridgewood WBS/Apollo Brass Ball		593.10
	495643	Ridgewood WBS/Flange/Gasket/Metrasphere 3'		1,504.57
	508183	Ridgewood WBS/Figure 19-11 adj cont bypass r		1,048.11
			Total for Check Number 54334:	3,250.66
54335	UB*01867	DIANA MICHELLE FREESE	03/18/2021	
		Refund Check		22.94
		Refund Check		1.31
		Refund Check		21.60
		Refund Check		1.57

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Check Amount
			Total for Check Number 54335:	47.42
54336	UB*01869	TAYLOR/CHRISTOPHER SLOPER/HAZ	03/18/2021	
		Refund Check		3.99
		Refund Check		25.81
		Refund Check		4.83
		Refund Check		14.07
			Total for Check Number 54336:	48.70
54337	UB*01868	STEVE SWANSON	03/18/2021	
		Refund Check		138.96
			Total for Check Number 54337:	138.96
			Total for 3/18/2021:	174,948.92
54338	UB*01871	MIRIAM/MICHAEL DEDINSKY/KUNT	03/25/2021	
		Refund Check		5.97
		Refund Check		34.53
		Refund Check		6.46
		Refund Check		23.54
			Total for Check Number 54338:	70.50
54339	UB*01870	ALEX FULTON	03/25/2021	
		Refund Check		11.67
		Refund Check		76.02
		Refund Check		1.11
		Refund Check		12.22
		Refund Check		88.54
		Refund Check		10.44
			Total for Check Number 54339:	200.00
54340	A413	Airgas USA LLC	03/25/2021	
	8107684249	Welder gas		87.68
			Total for Check Number 54340:	87.68
54341	P820	Douglas Kristian Andre	03/25/2021	
	BD47001044A	#1000 Salmon DH		552.48
	BD47001044A	#1000 Blue DH/#1000 Salmon DH		500.06
			Total for Check Number 54341:	1,052.54
54342	F049	Fastenal Company	03/25/2021	
	CAEUR111330	AAA Btry/D Btry/XL Orng Disp glv		98.85
	CAEUR111330	XL Split back driv glv/WD-40		31.24
	CAEUR111432	AA Btry/D Btry		4.26
	CAEUR111432	25' Powerlock tape/Duct tape/TPI Recip saw bla		99.05
			Total for Check Number 54342:	233.40
54343	F050	Fastenal Industrial	03/25/2021	
	CAEUR111394	Unit #4/60 Grit Rt Angl sm dia cutting wheel		14.71
	CAEUR111427	High vis safety vest		800.69
	CAEUR111518	Type 1 Ductile and Brute portable saw cut-off wl		135.04
	CAEUR111552	Multifold PTI/Ctr pull PT		82.22

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Check Amount
	CAEUR111553	First Aid Cabinet Refill/Ibuprof/Non-aspirinTab/		31.06
	CAEUR111658	Ridgewood WBS/4" Overflow tie downs		15.24
	CAEUR111711	20' Ladder fiberglass		368.90
	CAEUR114514	Bolts/Hex drive blk oxide sc screw/Mech zinc m		11.65
			Total for Check Number 54343:	1,459.51
54344	H060	Harvey M. Harper Co.	03/25/2021	
	5260868	Credit/Overpayment/Brake pads for Unit #4		-6.44
	5262553	Unit #s 11 & 12/Cab filters		66.77
			Total for Check Number 54344:	60.33
54345	P010	Pacific Gas and Electric-GN	03/25/2021	
	04012021	aWA Pump & District/Cummings		5,034.89
	04012021	bHH Water System		5,011.95
	04012021	cFW/MR Water System		647.91
	04012021	dGeneral Sewer System		4,614.70
	04012021	eKS/HH Sewer System		1,694.88
	04012021	fOffice/Yard		4,055.18
	04012021	gSpark energy Gas/LP Gas Chgs		335.94
			Total for Check Number 54345:	21,395.45
54346	P130	Pacific Gas and Electric-St	03/25/2021	
	04052021	Street Lighting - March		5,424.24
			Total for Check Number 54346:	5,424.24
54347	U410	United Way of Humboldt	03/25/2021	
		PR Batch 00002.03.2021 UNITED WAY	PR Batch 00002.03.2021 UNI	0.23
		PR Batch 00002.03.2021 UNITED WAY	PR Batch 00002.03.2021 UNI	2.81
		PR Batch 00002.03.2021 UNITED WAY	PR Batch 00002.03.2021 UNI	5.96
			Total for Check Number 54347:	9.00
			Total for 3/25/2021:	29,992.65
			Report Total (63 checks):	323,567.54

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service for our customers

AGENDA REPORT

For HCSD Board of Directors Regular Meeting of: April 13, 2021

AGENDA ITEM: F.1 (New Business)

TITLE: Consideration of Ratepayer Petition for Exception to District Code 4.05.140 (Ordinance 2015-1) Cross Connection Control Program at 2603 Swanlund Lane

PRESENTED BY: Mickey Hulstrom, Community Services Manager

Recommendation:

Discussion followed by a motion to enforce the District's Cross-Connection Control Policy to require a water backflow prevention device be installed at 2603 Swanlund Lane due to private onsite water storage tanks or removal of said tanks.

Summary:

District employee, Brian NcNeill (AWWA Certified Cross Connection Control Specialist) while on routine tasks for the District noticed three water tanks located on 2603 Swanlund Lane that he had not noticed before. Brian approached the owner, Mrs. Baker, to discuss the water tanks which led Brian to inform Mrs. Baker about the need to have a private water backflow prevention device installed to ensure that the public water supply would be protected due to the onsite water tanks (auxiliary water system) as well as the use of a water pump to increase water pressures on the private water system for irrigation purposes. At this time Mr. Baker joined the discussion. When Brian left, the issue was unresolved. I called Mr. Baker to discuss the situation. Mr. Baker informed me that the onsite tanks are set up to collect rain water and he uses the tank water for irrigation purposes and the water tank plumbing is not tied into the public water supply plumbing on his property and that we can come out and inspect.

After the discussion I followed up with a letter dated Feb 1, 2021 which was followed up by two more letters between the District and Mr. Baker. All three letters are attached. As can be seen in the letters, Mr. Baker is contesting the need for a backflow device.

Per HCSD Cross-Connection Control Program (adopted April 28, 2015) Section 1 Authority and Intent:

(a) This Program is adopted pursuant to Title 17, division 1, chapter V, sections 7583 through 7605, inclusive, of the California Code of Administrative Regulations, entitled "Regulations Relating to Cross-Connections," which sets forth rules and regulations governing cross-connections. In addition, this Program is adopted pursuant to Public Law 93-523 of the Safe Drinking Water Act of 1974, and H.C.S.D. Ordinance 4 section 146, amended by ordinance 88-1 Section 3 and Ordinance 2015-01.

(b) The H.C.S.D. Board of Directors declares that this Program is adopted for the following purposes:

(1) To protect the public potable water supply of Humboldt Community Services District (District) from the possibility of contamination or pollution by isolating within the water users internal distribution system or the water users private water system contaminants or pollutants which could backflow or back-siphon into the public water supply system;

(2) To promote the elimination or control of existing cross-connections, actual or potential, between a customer's potable water system and that customer's non-potable water system, plumbing fixtures and/or industrial piping systems; and

(3) To provide for a continuing program of cross-connection control which systematically and effectively prevents the contamination or pollution of all potable water systems

Following are definitions within the District's Cross-Connection Program:

"Auxiliary Water Supply" Any water supply on or available to the premises other than District's water system. These auxiliary waters may include water from another purveyor's potable water system or any natural source such as a well, spring, river, stream, ponds, etc., or "used water" or "industrial fluids."

"Cross-Connection" Any unprotected actual or potential connection or structural arrangement between District's water system and any other source or system through which it is possible to introduce into any part of the potable system any used water, industrial fluid, gas or substance other than the intended potable water with which the system is supplied. Bypass arrangements, jumper connections, removable sections, swivel or change over devices and other temporary or permanent devices through which or because of which "backflow" can or may occur are considered to be cross-connections.

Definition per Title 17 California Code of Regulations Division 1, Chapter 5, Subchapter 1, Group 4 Article 1 General, Section 7583 Definitions:

"Cross-Connection" is an unprotected actual or potential connection between a potable water system used to supply water for drinking purposes and any source or system containing unapproved water or a substance that is not or cannot be approved as safe, wholesome, and potable. By-pass arrangements, jumper connections, removable sections, swivel or changeover devices, or other devices through which backflow could occur, shall be considered to be cross-connections.

One of the tasks of District staff is to enforce the District's rules and regulations as adopted by the Board fairly and equally to all its customers. Per District Cross-Connection Control Policy Section 9 Backflow Protection Requirement, A. Where protection is required, No. 52: lists a water storage tank as requiring a water backflow prevention device.

Per the Cross-Connection Control Policy, if there is a private water tank(s) on a property that has a public water connection, a water backflow prevention device is required. The water tank signifies a private auxiliary water system that the District does not have control over. Private property owners and/or their tenants have the ability and right to use their property and onsite structures anyway they see fit. What we see today could be changed over the weekend without our knowledge. Installing a water backflow prevention device provides a level of certainty that there is no way that the private onsite water can enter the public water supply thus protecting the public water supply from any potential cross-connection. When the device is installed it does not concern the District what property owners do on their private property related to private or public water use, the public water supply is protected.

Attachments: Letter dated Feb 1, 2021
Letter dated Feb 23, 2021
Letter dated March 2, 2021
HCSD Cross-Connection Control Policy Section 8 & Section 9

Fiscal Impact:

none

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service for our customers

February 1, 2021

Mr. Doug Baker
2603 Swanlund Lane
Eureka, Ca 95503

Subject: Notice to Install a Water Backflow Prevention Device at 2603 Swanlund Lane, Eureka

Dear Mr. Baker:

Per our phone call conversation of January 29, 2021, it has come to the Humboldt Community Services District's (District) attention that you have multiple water storage tanks located on the above subject property of which Humboldt County Assessor records indicate you are the owner of.

Per the District's Cross-Connection Control Program, Section 9 Backflow Protection Requirement: if a parcel has a public water supply connection (which you do) and the property also has a private water storage tank onsite, a privately owned and maintained water backflow prevention device is required. You can find a copy of the District's Cross-Connection Control Program on the District's web site under Reports & Resources.

The requirement for the water backflow prevention device is based on the water storage tanks onsite are considered being an auxiliary water system of which, we do not know how it is utilized, we do not know how it is plumbed, we do not know quality of water in tanks, and we have no control over onsite conditions (property owners change, property owner's needs change, and onsite plumbing changes). As a public water supplier to the community, we have to protect the public water supply from any potential of a cross connection. The potential exists because you have water storage tanks onsite (an auxiliary water system).

We are in the position that we treat all of our customers the same. If a customer has an auxiliary water system and they inform us that there are no interties with the public water supply we cannot just trust that the system is in fact not intertied and that the person will not change how they use their auxiliary water system. People have misled the District on this very subject in the past.

Because of your onsite water storage tanks, you are required to either install a water backflow prevention device directly behind the water meter box or you may choose to remove the water storage tanks within 45 days. The minimum water backflow prevention device would be a Double Check Valve. I have enclosed a detail drawing of how the backflow device is to be installed.

Once installed the device needs to be tested by a trained certified tester (see enclosed list of certified testers that we are aware of in our area) to prove it is not a lemon and then the device is required to be tested on an annual basis to prove it is continually working correctly. The test results are required to be submitted to the District.

I know this has come as a surprise to you and you are not sure exactly what direction you will go now that this issue has been brought to your attention. But this is a concern of the District, we are required to protect the public water supply from any potential of a cross-connection, and we handle all situations like this, that we are aware of, in the same manner. We strive to apply our rules and regulations equally to our customers.

Please feel free to call me at 707-443-1340 x 225 should you have any questions.

Sincerely,

Mickey Hulstrom
Community Services Manager

cc: B. McNeill, HCSD Backflow Specialist

February 23, 2021

Mr. Mickey Hulstrom
Community Services Manager
P.O. Box 158
Cutten, CA 95534

Dear Mr. Hulstrom:

I am in receipt of your demand letter dated February 1, 2021. You mentioned that this information seemed to come as a surprise to me. Actually, I was flabbergasted. Never in my wildest dreams could I ever have imagined that owning a water tank is an indictment of quilt to potential contamination of the domestic water system. My intent was actually quite the opposite in that my system was designed to be of support and protection of the Humboldt County Service District (HCSD) system.

As you outlined, you are completely ignorant to the function of my water tanks. HCSD staff has only conducted a visual "drive by" observation of my tanks. You have not been on site to inspect my rain catchment system nor visually verified that it is not connected to your water distribution system. Let me provide you with information on how these tanks are used.

About a decade ago I set a 550-gallon tank just above a wooden out building. The tank was filled with a garden hose from my domestic water supply to be used to water a small garden area during summer months and for fire suppression/protection for my out building. The tank was filled during my reduced water use during the winter months to help take pressure off the district water demands during the summer months.

With the passage of Assembly Bill No. 1750, The Rainwater Capture Act of 2012, signed by the governor on September 25, 2012, I began to capture water from the downspout on the east side of my garage. This tank filled up so quickly that about 5 years ago I added another 500-gallon tank to my system. Even in the driest of years I Can fill both these tanks by mid-November.

Since this rainwater capture system with delayed release has contributed significantly to my personal reduction of domestic water use, increased infiltration, and recharging our ground water locally, I felt pretty good about my system. Knowing of the Statewide objective of a 20 percent reduction in per capita domestic water use by December 31, 2020 I decided to add 2 more tanks to my system. On January 22, 2021 I purchased two 660-gallon tanks that were delivered late that Friday afternoon. I set one tank Saturday and was plumbing it Monday morning, January 25, 2021, when one of your field employees knocked on my door to inform me of a violation of the District Policy.

Speaking of plumbing, my tanks are all fitted with a 2" reducer and a standard hose bibb. My tanks are all strictly gravity feed with the water distribution through a 5/8" garden hose. There

isn't enough pressure to effectively run a drip system in my pumpkin and berry patch so the garden hose is supplemented with a five-gallon plastic bucket and one-gallon metal dip can.

You took the time to look my parcel up on the Humboldt County Assessors records so you know I have 2.6 acres. My water tanks are all set on the northern boundary edge of my property. My domestic water line comes in the south property line along the road. Your meter and district connection are located at street level at the southwest corner of my parcel.

So, my rain capture, pollution reducing, ground water recharging system confined to my own property couldn't be more remote to the HCSD's domestic supply system than the physical separation it now has. There isn't any cross connection possible based on physical separation.

Now I understand your point that things and ownership change. However, you cannot legislate and impose requirements on my current system for what may or may not possibly happen in the future. Let's suppose for the sake of argument that somewhere down the road someone decided to connect these totally separate, distinct systems together. I don't know what the District PSI is at the street level here in our area, but I do know that my neighbor has installed a pressure reduction valve on his water line because the District water pressure was blowing his water pipes in his house apart. If these two systems were combined by cross connection, it still would be physically impossible for my rain water capture tanks to pollute the domestic system. The reverse would happen. My tanks would be spewing water out of their tops.

I hope you understand my reluctance to installing a backflow prevention device. If the only way to resolve this issue is an appeal to the Board I mentioned that I would be willing to do so, and kindly consider this letter my formal appeal to do so. Please provide me with a copy of your official appeal and procedure. I will need about a 20-minute spot on their agenda for my presentation which would leave time for any questions from the Board.

As previously mentioned I could use some additional information from the District to keep my presentation short, concise, and on point. You mentioned in your letter that the District had a disappointment with some bad actors that precipitated a change in the District Policy regarding tanks. The additional information needed is as follows:

1. What event triggered the change in District Policy?
2. Who wrote the new policy?
3. When did the Board approve the policy?
4. Who were the members of the Board at the time of the change?
5. How did the District notify the public of the change?
6. What is the number of backflow valves installed on people with water tanks under the new policy?
7. What is the number of double check valves that have failed since the new policy was in force?

You may consider the items listed above as a Public Record's Request. I would like you to also provide me with the state or federal water quality law that you are using to require a check valve be installed at my property when I have no cross connection between your public drinking water system and my California state encouraged and legal rain catchment system.

Sincerely,

Doug Baker

Doug Baker

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service for our customers

March 2, 2021

Mr. Doug Baker
2603 Swanlund Lane
Eureka, Ca 95503

Subject: Response to February 23, 2021 letter from Mr. Doug Baker

Dear Mr. Baker:

In response to your letter of February 23, 2021 you had asked various questions. I will attempt to respond to each of them.

1. *You have asked for a copy of our official appeal and procedure.* There is no 'official' procedure for appeal of a District decision. The written notice of appeal need not be in any particular form. It shall be sufficient if it is signed by the person appealing and there is sufficient information on the appeal to permit the General Manger to identify the decision being appealed.
2. *What event triggered the change in District Policy?* There was no event that triggered a change in District policy. Over time our policy(s) change and are updated based on learned situations, changes in procedures, changes in materials/equipment, or changes in State and/or Federal law. Enclosed is a copy of the District's original 1954 Code Ordinance 4, Article 8, Sections 146 & section 149 that describes the Districts ability to require backflow prevention devices. In 1988 the Board passed Ordinance No. 88-1 which amended parts of the District Code, specifically the Cross-Connection policy (copy enclosed). In 2015 the District's Board adopted the HCSD Cross-Connection Control Program of which you can find on our website.
3. *Who wrote the new policy?* The Cross-Connection Control Program was drafted by District staff. This team consisted of but was not limited to, a California State trained and certified Water Backflow Prevention Specialist (District employee), the District Planner, the District's General Manger, and was reviewed by an outside consultant. The Program was then reviewed and approved by the District Board of Directors at a public meeting.
4. *When did the Board approve the policy?* See #2 above
5. *Who were the members of the Board at the time of change?* In 1988 the Board consisted of Bob Bollman, Aldo Bongio, Eugene Brochard, Lee Hobbs, & Kevin McKenny. In 2015 the Board consisted of Allan Bongio, Greg Gardner, Dave Saunderson, Frank Scolari, & David Tyson.
6. *How did the District notify the public of the change?* All board meeting agendas are posted for public view at the District's outdoor kiosk, it is posted on the District's website, and distributed to people who have requested Board Agenda's. And again, it was presented at a District public meeting for discussion and approval. All ordinances, modifications to ordinances, or

Mailing: Post Office Box 158 • Cutten, CA 95534 • tel (707) 443-4558 • fax (707) 443-1490
Physical Address: 5055 Walnut Drive, Eureka, CA 95503

amendments to ordinances require public hearings/readings be conducted during two separate meetings of the Board of Directors a minimum of five days apart. Assuming adoption at the second public hearing/reading, the ordinance is published in the legal section of the Times-Standard newspaper. If the legal publication is published within 15 days of the ordinance adoption, the ordinance's effective date is 30 days after adoption. If publication does not occur within 15 days of adoption, the effective date is 30 days after the date of publication. Should the ordinance concern special taxes, fees, or assessments, the waiting period is extended to 45 days. All three policy changes pertaining to cross connection control (1954, 1988 and 2015) were adopted by ordinance.

7. *What is the number of backflow valves installed on people with water tanks under the new policy?* We do not track site specific reasons for specific properties over the many years for the requirement for a backflow device.
8. *What is the number of double check valves that have failed since the new policy was in force?* Attached you will find copies of a section out of an annual report to the state that lists the number of backflow devices that we are aware of that failed. These represent years 2019, 2018, 2017, 2016, & 2015.
9. *You have asked for the state or federal water quality law that we refer to for our Cross-Connection Control Program.* Our program is adopted pursuant to Title 17, Division 1, Chapter V, Sections 7583 through 7605, inclusive, of the California Code of Administrative Regulations, entitled "Regulations Relating to Cross-Connections," which sets forth rules and regulations governing cross-connections. In addition, the program is adopted pursuant to Public Law 93-523 of the Safe Drinking Water Act of 1974 and District Ordinance 4 Section 146, amended by Ordinance 88-1.

I hope I have addressed each of your inquiries adequately.

Please feel free to contact me should you have any more questions.

If you would like to be added to the agenda for the regularly scheduled meeting of the Board of Directors on March 23, 2021, please notify us before noon on Thursday March 18, 2021.

Sincerely,

Mickey Hulstrom
Community Services Manager

cc: HCSD General Manager

Section 8 Installation Requirements for Backflow Prevention Assemblies

A. Air-gap separation (AG)

1. An air-gap separation shall be located on the Owner and/or Operator's side of, and as close to, the service connection, as is practicable.
2. All piping from the service connection to the receiving tank shall be above grade and should be accessible for visual inspection, unless otherwise approved by the District.
3. Required air-gap is at least twice the diameter of the supply pipe measured vertically above the overflow rim of the receiving vessel; in no case less that 1 inch.

B. Reduced Pressure Principle Assembly (RP)

1. RP to be installed in an outdoors location, above ground, in a horizontal and level position, on the Owner and/or Operator's side of, and as close to, the service connection, as is practicable, unless otherwise approved by the District.
2. RP to be installed a minimum of 12 inches above finished grade and not more than 36 inches above finished grade as measured from the bottom of the assembly, and shall be readily accessible for maintenance and testing.
3. There shall be no outlet, tee, tap, take-off, or connection of any sort to or from the supply pipe line, between the service connection and the backflow prevention assembly.
4. RP shall be installed in such a way that no part of the assembly will be submerged during normal operating and weather conditions.

C. Double Check Valve Assembly (DC)

1. DC to be installed in an outdoors location, above ground in a horizontal and level position on the Owner and/or Operator's side of, and as close to the service connection as is practicable, unless otherwise approved by the District.
2. DC to be installed a minimum of 12 inches above finished grade and not more than 36 inches above finished grade as measured from the bottom of the assembly, and shall be readily accessible for maintenance and testing.
3. There shall be no outlet, tee, tap, take-off or connection of any sort to or from the supply pipe line, between the service connection and the backflow prevention assembly.

D. Pressure Vacuum Breaker (PVB)—Landscape installation only

1. PVB to be installed at least twelve inches above all downstream piping and outlets; it may be used under continuous pressure.
2. May only be used to prevent against backsiphonage.

E. Atmospheric Vacuum Breaker (AVB)—Landscape installation only

1. AVB to be installed at least six inches above all downstream piping and outlets; it may not be subjected to continuous pressure.
2. It may only be in use for twelve hours out of any twenty-four hour period and may have no shutoff valves or control valves downstream.
3. May only be used to prevent against backsiphonage.

Section 9 Backflow Protection Requirement

A. Where protection is required:

1. Protection shall be required at each service connection from a public water system that supplies water to premises having an auxiliary water system.

2. Protection shall be required at each service connection from a public water system that supplies water to premises on which any substance is or may be handled in such a manner as to permit entry into a public water system, including water originating from a public water system which is or may be subjected to deterioration in sanitary' quality.

3. Protection shall be required at each service connection to any premises that has cross-connections unless such cross-connections are abated to the satisfaction of the District.

The type of protection that shall be provided to prevent backflow into a public water system or a small water system shall be commensurate with the degree of hazard that exists on the Owner and/or Operator's premises. The types of backflow prevention devices that may be required (listed in an increasing level of protection) include: Atmospheric Vacuum Breaker (AVB), Pressure Vacuum Breaker (PVB), Double Check Valve Assembly (DC), Reduced Pressure Principle Assembly (RP), or an Air-Gap Separation (AG). The Owner and/or Operator may choose a higher level of protection than required by this Section. Premises or situations which are not listed in this Section

shall be evaluated on a case by case basis and the appropriate type of protection shall be determined by the General Manager or his/her designee.

The minimum level of required service connection protection at specific Owner and/or Operator's premises and facilities shall include the following, unless otherwise specified by a cross connection control hazard assessment performed by the District:

1. Aircraft and Missile Plants -- RP
2. Automotive Plants – RP

3. Autopsy Facilities — RP

4. Auxiliary Water Systems — Defined as any water supply on, or available to, an Owner and/or Operator's premises other than an approved public water system:

a. Auxiliary water systems with no known cross-connections - DC

b. Auxiliary water systems where cross-connections are known to exist – RP

5. Beauty Salons—RP

6. Beverage Bottling Plants — RP

7. Breweries — RP

8. Buildings.

a. Hotels, apartment houses, public and private buildings, or other structures where sewage pumps and/or sewage ejectors have been installed — RP

b. Any commercial structure in which the specific business activity cannot be ascertained — RP

c. - Multi-storied buildings that use booster pumps or elevated storage tanks to distribute potable water within the premises — DC

d. Any building that exceeds forty (40) feet in height, as measured from the service connection to the highest water outlet -- DC

9. Canneries, Packing Houses and Reduction Plants — RP

10. Chemical Plants —Any premises, served from a public water supply, where there is a facility requiring the use of water in the Industrial process of manufacturing, storing, compounding or processing chemicals. This will also

include facilities where chemicals are used as additives to the water supply or in the processing of products — RP

11. - Chemically Contaminated Water Systems — Any premises, served from a public water supply, where chemicals are used as additives to the water supply, or where the water supply is used for transmission or distribution of chemicals, or where chemicals are used with water in the compounding or processing of products — RP

12. Cold Storage Plants -- RP

13. Convalescent Homes — RP

14. Dairy Processing plants — RP

15. Dental Clinics -- RP

16. Dry Cleaning Facilities -- RP

17. Dye Works — RP

18. Film Processing Facilities or Film Manufacturing Plants - RP

19. Fire Protection Systems that are supplied from a public water system:

A. Low-Hazard Fire Protection Systems:

I. Fire protection system is directly supplied from a public water system and where there is an auxiliary water supply on or to the premises (not Interconnected.) — DC

II. Fire protection system is supplied from a public water system and where either elevated storage tanks or fire pumps which take suction from private reservoirs and tanks are used — DC

III. Fire protection system is directly supplied from a public water system and interconnected with another public water service — DC

IV. Fire protection system is directly supplied from a public water system. –DC

V. A residential fire sprinkler system that is not a multipurpose wet-pipe sprinkler system (fire sprinkler system is connected to two

domestic plumbing fixtures located in separate rooms). – No device needed

VI. Stand-alone sprinkler system; shall be separate and independent from the domestic potable water distribution system. – DC

B. High-Hazard Fire Protection Systems:

I. Fire protection system is directly supplied from a public water system and interconnected with an auxiliary water supply — RP

II. Fire protection system is supplied from a public water system and contains any hazardous substance — RP

20. Hazardous or potentially •hazardous treatment processes, handling and/or pumping equipment interconnected to a piping system that can be connected to the public water system - AG

21. Hospitals — RP

22. Ice Manufacturing Plants — RP

23. Irrigation Systems:

a. Premises or locations where facilities have been installed for pumping, injecting or spreading fertilizers, pesticides or other hazardous substances — RP

b. Premises or locations having a separate service connection for Irrigation purposes — RP

c. Premises or locations with no booster pumps or other conditions listed in part a. or b. of this section.—AVB, or PVB

24. Laboratories — Including, but not limited to, teaching institutions, biological and analytical facilities — RP

25. Laundries (Commercial) -- RP

26. Medical Buildings and Clinics — RP

27. Metal Manufacturing, Cleaning, Processing or Fabricating Plants — RP

28. Morgues — RP

29. Mortuaries -- RP

30. Multi-Storied Buildings (see "Buildings" above)

31. Multiple Services: Includes two or more interconnected services provided by one or more water suppliers to a single Owner and/or Operator complex - RP

32. Nursing Homes — RP

33. Oil/Gas Production, Storage or Transmission premises — RP

34. Paper and Paper Products Manufacturing Plants — RP

35. Plastic Manufacturing, Extruding and Injection Molding — RP (see "Chemical Plants" above)

36. Plating Plants — RP

37. Portable Spray or Cleaning Equipment which can be connected to a public water system — AG

38. Radioactive Materials or Substances — Plants or Facilities that process, handle or store radioactive materials or substances — RP

39. Recycled Water Distribution Systems:

    a. Premises where the public water system is used to supplement the recycled water system — AG

    b. Premises where recycled water is used and there is no interconnection with the potable water system — RP

40. Restricted, Classified or Other Closed Facilities — RP

41. Rubber Manufacturing Plants — Natural or Synthetic — RP

42. Sand and Gravel Plants — RP

43. Sanitariums — RP

44. Schools, Colleges and Universities — RP

45. Sewage treatment processes, handling and/or pumping equipment interconnected to a piping system that can be connected to the public water system - AG

46. Solar Heating Systems:

a. Solar collector system which contains any hazardous substance and where there is a direct makeup connection to the public water system — RP

b. Service connection protection is not required for "once through" solar heating systems including, but not limited to, domestic hot water systems.

47. Swimming Pools—RP or DC

48. Tank Trucks — AG (see "Portable Spray" and "Cleaning Equipment" above)

49. Vehicle Washing Facilities — RP

50. Veterinary Clinics — RP

51. Waterfront Facilities and Industries — including, but not limited to, docks, fisheries, fish hatcheries and marinas — RP

52. Water Storage Tanks – AG (at service connection), RP, or DC

53. Water Troughs—AG, or DC

Section 10 Notice of Violation

The General Manager or his/her designee may issue a Notice of Violation to any customer found to be in violation of a provision of this Program, including, but not limited to, any regulation, information request, order, variance, condition, or other requirement that the District is authorized to enforce or implement pursuant to this Program.

Section 11 Notice of Violation—Content

A. In addition to any other content, a Notice of Violation shall contain the following elements:

1. A statement of the District's findings that indicate a violation has occurred.
2. A citation of the provision of this policy including any regulation, permit, information request, order, variance, condition, or other requirement that has been violated.
3. A date by which any customer must be in compliance with this policy including any regulation, permit, information request, order, variance, condition, or other requirement, or a date by which an action plan must be submitted by the customer to propose a means and time frame by which to correct violations. The General

Manager or his/her designee may extend the compliance date when good cause exists for such an extension.

4. Notification that continued non-compliance may result in additional enforcement action being taken against the business, facility, or any responsible persons.

B. In addition to any other content, a Notice of Violation may establish required corrective actions, including but not limited to the following:
   1. Terms, conditions, and requirements reasonably related to the provisions of this policy, including the following:
      a. Cessation of prohibited actions
      b. Correction of prohibited conditions
      c. A requirement for submittal of a written action plan for achieving and maintaining compliance with this policy.
      d. Inspection and/or reporting requirements to demonstrate ongoing compliance.
   2. A requirement that the customer receiving same shall submit written certification to the District that the necessary corrective actions have been completed. As appropriate for the type of correction action taken, the Notice of Violation may require documentation that substantiates the certification including, but not limited to, receipts, inspection reports, contracts, or photographs.
   3. Any other terms or conditions reasonably calculated to prevent additional or on-going violations of this policy.

Section 12 District's Ability to Protect Water System

1. If the District has not received the required backflow prevention assembly test results within 30 days of the date of test notification, the District will perform the test on the device(s) and bill the owner for such service. The fee for testing will be $100 in addition to administrative costs.
2. The District has the right and responsibility to shut off water or disconnect service as a final corrective action.

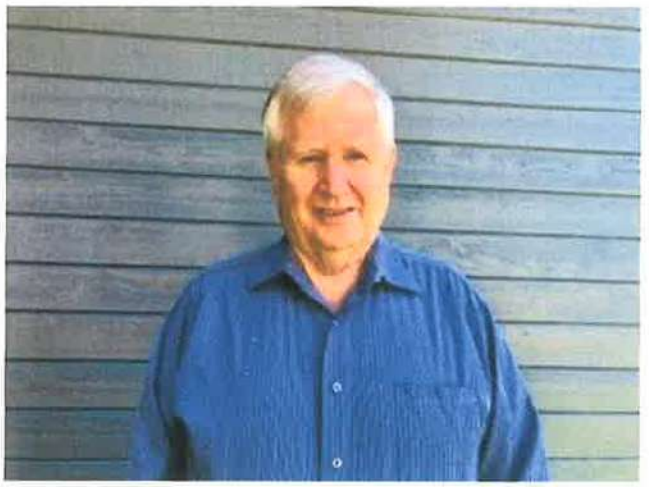
Section 13 Rules and Regulations

District is authorized to make all necessary and reasonable rules and regulations with respect to the enforcement of this Program. All such rules and regulations shall be consistent with the provisions of this Program and shall be effective 30 days after being adopted by the District's Board of Directors.

Presentation for HCSD

April 13th, 2021

Doug Baker



Abbreviated Bio

Born and raised in San Jose, California

Graduated from College in Utah with a BS Degree in Range Management/Forestry in 1972

Returned to California January 1973 to accept a position as a Claims Adjuster and Investigator in the insurance industry

Transferred to Eureka December 1975

Bought our first house at 1744 County Lane

Took a position in Sales and Safety January 1978

Bought a lot on Swanlund Lane in 1990

Built our home which was complete in 1991

Became a Loss Control Consultant in 1994

Worked in Humboldt Del Norte Counties

Retired September in 2010

Water Emancipation and Individual Conservation Empowerment Enactment

AB-1750 Rainwater Capture Act of 2012 Provides:

- Use of rainwater collected from rooftops doesn't require a permit.
- Rainwater capture system means a facility designed to capture, retain, and store rainwater for subsequent onsite use. **(10573, D)**
- Increase the volume of water allowed to infiltrate and recharge groundwater aquifers. **(10571, C)**
- Onsite rainwater capture systems can significantly reduce the demand on potable water. **(10571, C)**
- Reduce pollution flowing to the ocean and other surface water. **(10571, A)**
- Utilize water that has not been previously put to beneficial use. **(10573, C)**
- Rain barrel system is a type of rainwater capture system that does not use electricity or a water pump and is not connected to or reliant on a potable water system. **(10573, B)**
- Expanding opportunities for rainwater capture to augment nonpotable uses will significantly reduce demand for potable water, contributing to the statutory objective of a 20% reduction in urbn per capita water use in California by December 31, 2020. **(10571, C)**

Assimilation of Conservation, Science, and Art

AB-1750 Rainwater Capture Act of 2012 Excerpt

10573. Solely for the purposes of this part, and unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Developed or developing lands" means lands that have one or more of the characteristics described in subparagraphs (A) to (C), inclusive, of paragraph (4) of subdivision (b) of Section 56375.3 of the Government Code.

(b) "Rain barrel system" is a type of rainwater capture system that does not use electricity or a water pump and is not connected to or reliant on a potable water system.

(c) "Rainwater" means precipitation on any public or private parcel that has not entered an offsite storm drain system or channel, a flood control channel, or any other stream channel, and has not previously been put to beneficial use.

(d) "Rainwater capture system" means a facility designed to capture, retain, and store rainwater flowing off a building rooftop for subsequent onsite use.

(e) "Stormwater" means temporary surface water runoff and drainage generated by immediately preceding storms. This definition shall be interpreted consistent with the definition of "stormwater" in Section 122.26 of Title 40 of the Code of Federal Regulations.








N E
W S
2.6 Acres
(Aeroview)
Myrtle Avenue
Myrtle Avenue
Myrtle Avenue
Pigeon Point Rd
Pigeon Point Rd
Pigeon Point Rd
Swanland Ln
Swanland Ln
Swanland Ln
Swanland Ln
2603
2603
2605
2613

Water Catching Storage Vessels:

Gravity Feed Water Distribution System:

- ⅝" garden hose various lengths
- 5 gallon plastic bucket
- 1 gallon metal can
- Plastic bucket flow release distribution system

Cross Connection Potential?

Mission Impossible

Comparative Cost for a Rainwater Capture and Storage System

1 year

Free Water VS Domestic Water

1-550 gal vessel:	$525	**Gal Stored**	**Cost per Gal**	**Total Cost**
1-500 gal vessel:	$475			
2-610 gal vessel:	$1142.15			
Total:	**$2142.15**	2370	90 cents	**$2142.15**
Domestic Water from HCSD		2370	.002 cents	**$13.87**

10 years

2142.15	23700	$0.9	**$2142.15**
Domestic Water from HCSD	23700	$.002	**$138.70**

1 year with backflow valve installed

Installation Cost:	$250	**Gal Stored**	**Cost per Gal**	**Total Cost**
Valve Cost:	$237			
Check Cost:	$250			
Total:	**$737**	2370	$1.21	$2879.15

10 year with back flow valve installed

Installation Cost:	$250	**Gal Stored**	**Cost per Gal**	**Total Cost**
Valve Cost:	$237			
Check Cost:	$2,500			
Total:	**$2,987**	23700	$0.22	**$5,129.15**

Collecting rainwater is not about money, but about conservation, safety, and utilization of a precious resource.

Ordinance NO. 88-1

Amending Ordinance No. 4: Article 2, Section 28; Article 4, Section 51; Article 8, Sections 146, 149, 150; and Article 11, Section 194.

Be it ordained by the Board of Directors of the Humboldt Community Services District as follow:

Sections 28 of Article 2 of Ordinance No. 4 is amended to read as follows:

28. Cross Connection means any physical connection between the piping system from the District services and that of any other water supply that is not, or cannot be, approved as safe and potable for human consumption, whereby water from the unapproved source may be forced or drawn into the District distribution mains. This shall also include locations where the potential for cross-connections exists on premises where there is an unapproved auxiliary water supply and there are no interconnections with the public water system.

Section 51 of Articles 4 of Ordinance No. 4 is amended to read as follow:

51. Water Superintendent. The position of Water Superintendent is hereby created. The Water Superintendent or a designated representative shall regularly inspect all physical facilities related to the District water system, to see that they are in good repair and proper working order, and to note violations of any water regulations. The Water Superintendent is responsible for determining whether or not a cross-connection hazard exists and what type of backflow protection is required.

Sections 146, 149 and 150 of Article 8 of Ordinance No. 4 is amended to read as follows:

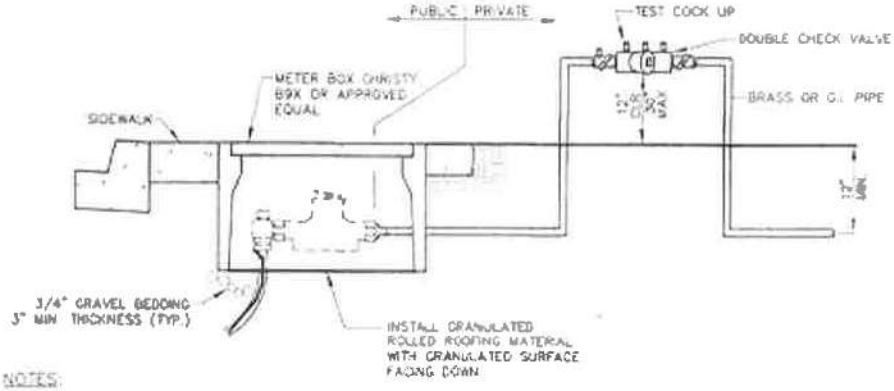
146. Cross-Connections. The customer must comply with State and Federal laws governing the separation of dual water systems or installations of backflow protective devices to protect the public water supply from the danger of cross-connections. Backflow protection devices must be installed as near the service as possible and shall be open to test and inspection by the Water Department. Plans for installation of backflow protective devices must be approved by the Water Department prior to installation, testing and maintenance of a backflow device shall be the responsibility of the water customer.

SPECS\STD DRAWINGS\WS

HUMBOLDT COMMUNITY SERVICES DISTRICT

DOUBLE CHECK VALVE TYPE BACKFLOW PREVENTER

APPROVED DATE 9/2016
STD. DWG.
WS-108



NOTES:

1. DOUBLE CHECK VALVE ASSEMBLIES ARE USED FOR DOMESTIC SERVICES TO PARCELS WITH A SECOND WATER SOURCE, WATER BOOSTER PUMP, OR WATER STORAGE TANK.
2. ALL DOUBLE-CHECK VALVE ASSEMBLIES SHALL BE PROVIDED WITH A MINIMUM OF FOUR (4) TEST COCKS W/ QUICK COUPLINGS
3. ABOVE GROUND INSTALLATION REQUIRES G.I. PIPE.
4. BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED ADJACENT TO AND ON THE PROPERTY SIDE OF THE SIDEWALK WHERE APPLICABLE. THE ASSEMBLY SHALL BE INSTALLED AS CLOSE TO THE WATER METER LOCATION AS PRACTICAL.
5. DOUBLE CHECK VALVE TYPE BACKFLOW PREVENTION DEVICES SHALL BE AS LISTED BY THE UNIVERSITY OF SOUTHERN CALIFORNIA STUDY, LATEST REVISION, AND APPROVED BY THE DISTRICT.
6. DEVICE TO BE SAME SIZE OR LARGER THAN SERVICE METER.
7. IT IS RECOMMENDED THAT ABOVE GROUND PIPING MAY BE INSULATED (WRAPPED) TO PREVENT FREEZING.
8. DEVICE IS PRIVATELY OWNED AND MAINTAINED BY PROPERTY OWNER.

DOUBLE CHECK VALVE
TYPE BACKFLOW PREVENTER

Page 62 of 100

Neighboring Water Meter

Our Property Water Meter

Intentionally Left Blank

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service for our customers

AGENDA REPORT

For HCSD Board of Directors Regular Meeting of: April 13, 2021

AGENDA ITEM: **F.2.** (New Business)

TITLE: Consideration of Supporting CSDA Sponsored AB 361 Modifying the Brown Act to Permit Remote Meetings During Emergencies

PRESENTED BY: Terrence Williams, General Manager

Recommendation:

Motion authorizing the General Manager to submit a letter in support of CSDA sponsored AB361 on behalf of the District. Roll-call vote.

Summary:

The Governor's executive orders N-25-20, N-29-20, and N-35-20 have allowed public agencies to meet remotely during the current pandemic. Public access is accommodated via telephone and video conferencing. These orders will be lifted when the current pandemic subsides. The proposed Assembly Bill, AB361 allows public agencies the flexibility to meet remotely during a proclaimed state of emergency or local emergency if and only if it is unsafe to meet in person.

A fact sheet and sample letter of support are included with this agenda report.

Analysis and full bill text can be found at the following website

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB361

Fiscal Impact:

None

Assemblymember Robert Rivas, 30th Assembly District

AB 361 – Brown Act: Remote Meetings During Emergencies

SUMMARY

As amended, Assembly Bill 361 will provide additional flexibility for local city councils, boards, commissions, and other agencies to meet remotely via video and teleconference during a local emergency that makes meeting in person unsafe, while still maintaining high levels of public access and transparency. This legislation will not allow local agencies to meet remotely during emergencies that would not prevent the local agency board from meeting in person, nor will this legislation create any new authorization for a local agency to declare a local emergency.

BACKGROUND

In 1953, the Ralph M. Brown Act, known simply as the "Brown Act" ever since, guaranteed the public's right to attend and participate in meetings of local legislative bodies. To meet this objective, the Brown Act drew up requirements regarding public notices of meetings, the posting of agendas, and physical access to those meetings.

In 1988, AB 3191 (Frazee) updated the Brown Act by authorizing local legislative bodies to use video teleconferencing in connection with any meeting or proceeding authorized by law, for the benefit of the public. However, AB 3191 also required that the public had to have physical access to each remote meeting location. Subsequently, in 1998, SB 138 (Kopp) expanded the allowable uses of teleconferencing even further.

When the COVID-19 pandemic started, local agency boards struggled to conduct their meetings in compliance with the Brown Act's public accessibility requirements while still abiding by stay-at-home orders. As a result, Governor Newsom signed Orders N-25-20, N-29-20, and N-35-20 to grant local agencies the flexibility to meet remotely during the COVID-19 pandemic.

PROBLEM

The Governor's executive orders allowed public agencies to meet remotely and did not require physical public access to those meeting locations. Unfortunately, those Executive Orders only apply to the current health pandemic and do not contemplate future health, fire, flood, or other unforeseen emergencies.

SOLUTION

AB 361 will provide additional flexibility for local agencies looking to meet remotely in order to continue providing the public with essential services during a proclaimed state of emergency or local emergency. In doing so, local agency boards will not have to rely on an Executive Order from the Governor.

While maintaining high standards of public transparency and access, AB 361 will allow public agencies to meet remotely to continue providing services to the public without jeopardizing the safety of the public, local agency personnel, or board members. Local agencies will accommodate both internet video conferencing platforms and phone lines to ensure that the public can access these meetings with or without an internet connection. This means that if a specified state or local emergency is declared, a local city council would be allowed to meet via a videoconferencing platform and/or phone. The public would be able to participate through such online and telephonic platforms, too.

Most importantly, if a meeting could still be held in-person without endangering local agency board members or personnel, then the local agency will not be entitled to meet remotely.

Local agencies looking to meet remotely pursuant to these provisions will have to do so in accordance with a locally declared emergency or an emergency declared by the Governor of California. A local emergency could include a toxic leak or wildfire evacuation that inhibits the local body from meeting in person. Together, these important provisions will provide local agencies with the flexibility necessary to meet remotely while preserving public access during a specified emergency.

SUPPORT

- California Special Districts Association (Sponsor)
- Rural County Representatives of California
- California Association of Joint Powers Authorities
- Association of California Healthcare Districts

FOR MORE INFORMATION

Julio Mendez Vargas, *Associate Consultant*
Email: Julio.MendezVargas@asm.ca.gov
Phone: (760) 848-8224

Last Revised 2/2/21

[*Your Organization's Letterhead/Logo*]

Assembly Member Robert Rivas [*Julio.MendezVargas@asm.ca.gov*]
California State Assembly
State Capitol, Room 5158
Sacramento, CA 95814

RE: Assembly Bill 361 (Rivas) – Support [As Introduced]

Dear Assembly Member Rivas:

The [*Your Organization Name*] is pleased to support your Assembly Bill 361, related to the Ralph M. Brown Act ("the Brown Act"). [*Write a brief description of your organization*]

In light of a stay-at-home order and the need to keep individuals physically distanced from one another, Governor Newsom issued a number of subsequent executive orders (N-25-20, N-29-20, N-35-20) modifying the requirements of the Brown Act. AB 361 seeks to codify several provisions from within the executive orders.

AB 361 would allow local agencies to safely meet remotely during an emergency. The changes to law included in AB 361 are what have allowed local agencies to continue to operate while also complying with important public health directives issued by officials during the COVID-19 pandemic; by enshrining these provisions in statute, this bill ensures that local agencies would continue to be able to remain safe in future emergencies that threaten public health.

AB 361 will include important safeguards that ensure public agency transparency and public access. For a public agency to utilize these provisions to meet remotely, a local agency must meet subsequent or concurrent to a proclaimed state of emergency or declared local emergency, and declare that the nature of the emergency would prevent them from safely meeting in-person. This bill would specifically prohibit local agencies from requiring members of the public to submit their comments in advance, guaranteeing that the public has the opportunity to observe and offer comment during the meeting.

[*In one paragraph, please explain how this impacts your district (optional)*]

For these reasons, [*Your Organization Name*] is pleased to support Assembly Bill 361 (Rivas). Please feel free to contact us if you have any questions.

[Your Signature]

CC: The Honorable [*Your State Assembly Member*]
The Honorable [*Your State Senator*]
California Special Districts Association [*advocacy@csda.net*]

Intentionally Left Blank

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service for our customers

AGENDA REPORT

For HCSD Board of Directors Regular Meeting of: April 13, 2021

AGENDA ITEM: F.3 (New Business)

TITLE: Consideration of Entering into a Joint Request for Proposals for a Rate Study in Cooperation with the City of Eureka (COE)

PRESENTED BY: Terrence Williams, General Manager

Recommendation:

By motion, authorize the General Manager to cooperate with COE in the development and implementation of joint request for proposals (RFP) for a water and sewer rate study. Roll call vote.

Summary:

The District collaborated with the City of Eureka to release a Request for Proposals (RFP) in 2016 for the most recent water and sewer rate study that was completed in March of 2017. Both agencies are gearing up for another rate study as is the District's legal obligation. The City's intended schedule follows:

July, 2021 – Final rate increase from 2016 study goes into effect
July, 2021 – Release RFP for rate setting services
August, 2021 – Select consultant, sign contracts
September, 2021-March 2022 – Perform rate Study
April-June, 2022 – Rate Study adopted
July 1, 2022 – Rate changes go into effect

This schedule is consistent with the District's based on the previous rate study and the schedule set forth therein. The advantage of collaborating with the City to identify a consultant is that using the same consultant will enable transparency of information and avoid redundant efforts. Additionally, the District's rate study depends on the City's and therefore cannot be completed until the City completes theirs. By collaborating with the City in 2016-2017, District staff estimates the cost savings at $50,000 verses selecting a separate consultant independently.

Fiscal Impact:

Potential savings of up to $50,000

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service for our customers

AGENDA REPORT

For HCSD Board of Directors Regular Meeting of: April 13, 2021

AGENDA ITEM: F.4 (New Business)

TITLE: Review of 2021-2022 City of Eureka Capital Improvement Plan and the Impacts to HCSD

PRESENTED BY: Terrence Williams, General Manager

Recommendation:

Review and discuss the City of Eureka 2021-2022 Capital Improvement Plan

Summary:

The City of Eureka (COE or City) has recently approved and released their five-year Capital Improvement Plan (CIP) for Fiscal Year 2021-2022. The City's decisions and financial planning directly impact the District because of the relationship between the two entities that is governed primarily by the Regional Wastewater Treatment Agreement (last updated in April, 2012) and the Water Purchase and Intertie Agreement (last updated in June, 2003).

The current COE CIP outlines capital expenditures throughout all of the City's programs including; Harbor & Waterfront, Information Technology, Land & Facilities, Parks & Recreation, Streets & Storm Drains, Water Supply, Wastewater and finally Long-Term Projects. In the five-year planning horizon, the only programs that impact the District financials are the Land & Facilities and Wastewater programs. For the purposes of this discussion, a truncated version of the COE CIP is included with this packet for reference. All sections not directly impacting District finances have been removed. The complete 122-page document is available for viewing at the following web address

https://www.ci.eureka.ca.gov/civicax/filebank/blobdload.aspx?BlobID=20273

or by navigating the City of Eureka webpage, then Departments, Public Works, Engineering, Capital Improvement.

The current document indicates that the District will be responsible for an average contribution to the City's capital projects in the amount of $1.38M per year. This average figure is a $287,000 increase over the annual average projections made in the 2020-2021 COE CIP. In fact, looking back over the last five years of COE CIPs, the District has seen an annual increase to the annual average contribution of $215,000.

Another way of looking at this is that in the 2017-2018 COE CIP, the City projected an average annual contribution to capital projects from the District of $530,000 and the current COE CIP indicates an annual average District contribution of $1.38M.

Per discussions with City Staff, there are two major contributors to these increases. First, the City is currently updating, upgrading and replacing a considerable amount of infrastructure that has been the recipient of deferred maintenance over the years. The second major contributor to these increases is stemming from the 2016 Regional Water Quality Control Board's (RWQCB) Cease-and-Desist Order (R1-2016-0012). Recovering from deferred maintenance is relatively self-explanatory; the Cease-and-Desist order is more complicated.

In 2016, the City was required to apply for renewal of the National Pollutant Discharge Elimination System (NPDES) Permit. This process required a re-analysis of the fate and transport of effluent being discharged into Humboldt Bay. The findings of that study indicated that some portion of the effluent is recirculated back into the Bay and does not necessarily flush to the ocean. This fact prompted the RWQCB to reclassify Humboldt Bay as an Enclosed Bay or Estuary. The water quality requirement of effluent discharged to enclosed bays and estuaries is significantly stricter than discharges to open bays or the ocean directly.

The provisions of the Cease-and-Desist indicate that the City will submit an Enclosed Bays and Estuaries Compliance Feasibility Study to the RWQCB for approval by July, 2020. The RWQCB is scheduled to release this Feasibility Study for Public Comment on Friday, March 5, 2021.

During the 2021-2022 Fiscal Year, the District contribution to the City's CIP is projected to be $1.344M. A project-by-project breakdown of the District's 2021-2022 contribution follows:

Elk River Estuary & Interpretive Center	$224,000
Cross Town Interceptor Maintenance Phase II	$40,000
Wastewater Pumpstation Upgrade Program	$384,000
Enclosed Bays & Estuaries Compliance	$688,000

During the 2022-2023 Fiscal Year, the District contribution to the City's CIP is projected to be $711,000. A project-by-project breakdown of the District's 2022-2023 contribution follows:

Wastewater Lift Station Upgrade Program	$18,000
Wastewater Pumpstation Upgrade Program	$448,000
Enclosed Bays and Estuaries Compliance	$128,000
WWTP Motor Control Center	$17,000

WWTP Outfall Maintenance	$16,000
Bio Solids Dewatering	$58,000
Secondary Clarifier Maintenance Phase II	$26,000

During the 2023-2024 Fiscal Year, the District contribution to the City's CIP is projected to be $1.503M. A project-by-project breakdown of the District's 2023-2024 contribution follows:

Wastewater Lift Station Upgrade Program	$14,000
Headworks Concrete Structure	$55,000
Enclosed Bays and Estuaries Compliance	$128,000
WWTP Motor Control Center	$346,000
WWTP Outfall Maintenance	$167,000
Bio Solids Dewatering	$457,000
Secondary Clarifier Maintenance	$336,000

During the 2024-2025 Fiscal Year, the District contribution to the City's CIP is projected to be $1.834M. A project-by-project breakdown of the District's 2024-2025 contribution follows:

Elk River Estuary and Interpretive Center	$1,120,000
Wastewater Lift Station Upgrade Program	$9,000
WWTP Biosolids Class "A"	$133,000
Headworks Concrete Structure	$444,000
Enclosed Bays and Estuaries Compliance	$128,000

During the 2025-2026 Fiscal Year, the District contribution to the City's CIP is projected to be $1.533M. A project-by-project breakdown of the District's 2025-2026 contribution follows:

Wastewater Lift Station Upgrade Program	$7,000
WWTP Biosolids Class "A"	$1,152,000
Enclosed Bays and Estuaries Compliance	$374,000

Elk River Estuary Interpretive Center: City staff has indicated that the Elk River Estuary Interpretive Center meets a requirement of environmental enhancement and beneficial uses set forth in the Cease-and-Desist order. This information is corroborated by the Feasibility Study that was made public by the RWQCB on March 23, 2021 with their proposed Resolution R1-2021-0017. That document and the notice of public hearing is included in this packet for your review. The RWQCB is accepting public comment until April 22, 2021 for inclusion with the public hearing at the June 16 or 17, 2021 RWQCB Meeting. You can also access the notice and document online at the following website.

https://www.waterboards.ca.gov/northcoast/board_decisions/tentative_orders/

Cross Town Interceptor Maintenance: The Cross-Town Interceptor Maintenance project has been ongoing and the District is contractually obligated to participate in the financing of Capital project pertaining to the Cross-Town Interceptor per the Regional Wastewater Treatment Agreement.

Wastewater Pumpstation Upgrade Program: The District is responsible for a portion of maintenance and upgrades to three of the City's wastewater pump stations (Hill Street, Washington Street and McCullens Avenue). District staff is taking steps to verify that this project pertains to those lift stations.

Enclosed Bays & Estuaries Compliance: Information about Enclosed Bays and Estuaries Compliance will be forthcoming when the Feasibility Study is made available to the District.

Wastewater Lift Station Upgrade Program: The Wastewater Lift Station Upgrade Program is listed as a City-wide program. The District is responsible for 3% of operations and maintenance costs to all of the City's wastewater non-shared infrastructure per the current Regional Wastewater Treatment Agreement.

WWTP Motor Controller Center:
WWTP Outfall Maintenance:
Bio Solids Dewatering:
Secondary Clarifier Maintenance:
Headworks Concrete Structure:

The WWTP Motor Control Center, WWTP Outfall Maintenance project, Bio Solids Dewatering, Secondary Clarifier Maintenance and Headworks Concrete Structure are all necessary to operate the Regional Wastewater Treatment Plant. The District is responsible for a portion of capital expenses to maintain the Wastewater Treatment Plant.

WWTP Biosolids Class "A": WWTP Biosolids Class "A" is a program to convert treatment plant biosolids into a product that can be safely used as fertilizer. This program will reduce operation and maintenance costs at the treatment facility in the form of reduced storage, hauling and tipping fees for biosolids. The District is responsible for a portion of wastewater treatment plant upgrades.

Fiscal Impact:

$6,917,000 over the next five years.

CAPITAL IMPROVEMENT PROGRAM 2021

TABLE OF CONTENTS

CITY OF EUREKA CALIFORNIA

Capital Improvement Program 2021
FIVE-YEAR SUMMARY
Funding Sources by Category

2021 PLANNING YEAR	5 YEAR EXPENDITURE SUMMARY						
PROJECT CATEGORIES	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS	TOTAL EXPENDITURES FOR 2021 PLANNING YEAR
HARBOR & WATERFRONT PROJECTS	$0	$0	$0	$295,000	$0	$24,000	**$319,000**
INFORMATION TECHNOLOGY PROJECTS	$0	$106,000	$56,000	$261,000	$0	$0	**$423,000**
LAND & FACILITIES PROJECTS	$0	$776,000	$300,000	$435,000	$224,000	$7,000,000	**$8,735,000**
PARKS & RECREATION PROJECTS	$0	$0	$0	$286,000	$0	$6,865,000	**$7,151,000**
STREETS & STORMDRAIN PROJECTS	$4,000,000	$0	$0	$328,000	$0	$1,464,000	**$5,792,000**
WATER SUPPLY PROJECTS	$0	$1,900,000	$0	$0	$0	$0	**$1,900,000**
WASTEWATER PROJECTS	$0	$0	$3,963,000	$0	$1,112,000	$0	**$5,075,000**

2022 PLANNING YEAR	5 YEAR EXPENDITURE SUMMARY						
PROJECT CATEGORIES	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS	TOTAL EXPENDITURES FOR 2022 PLANNING YEAR
HARBOR & WATERFRONT PROJECTS	$0	$0	$0	$381,000	$0	$1,800,000	**$2,181,000**
INFORMATION TECHNOLOGY PROJECTS	$0	$105,000	$430,000	$978,000	$0	$0	**$1,513,000**
LAND & FACILITIES PROJECTS	$0	$400,000	$400,000	$1,678,000	$0	$0	**$2,478,000**
PARKS & RECREATION PROJECTS	$0	$0	$0	$0	$0	$4,332,000	**$4,332,000**
STREETS & STORMDRAIN PROJECTS	$4,079,000	$0	$0	$275,000	$0	$8,748,000	**$13,102,000**
WATER SUPPLY PROJECTS	$0	$3,190,000	$0	$0	$0	$3,480,000	**$6,670,000**
WASTEWATER PROJECTS	$0	$0	$2,261,000	$0	$711,000	$0	**$2,972,000**

Capital Improvement Program 2021
FIVE-YEAR SUMMARY
Funding Sources by Category

2023 PLANNING YEAR	5 YEAR EXPENDITURE SUMMARY						
PROJECT CATEGORIES	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS	TOTAL EXPENDITURES FOR 2023 PLANNING YEAR
HARBOR & WATERFRONT PROJECTS	$0	$0	$0	$534,000	$0	$600,000	**$1,134,000**
INFORMATION TECHNOLOGY PROJECTS	$0	$185,000	$57,000	$98,000	$0	$0	**$340,000**
LAND & FACILITIES PROJECTS	$0	$122,000	$122,000	$0	$0	$0	**$244,000**
PARKS & RECREATION PROJECTS	$0	$0	$0	$0	$0	$3,125,000	**$3,125,000**
STREETS & STORMDRAIN PROJECTS	$4,056,000	$0	$0	$296,000	$0	$3,471,000	**$7,823,000**
WATER SUPPLY PROJECTS	$0	$2,082,000	$0	$0	$0	$0	**$2,082,000**
WASTEWATER PROJECTS	$0	$0	$6,118,000	$0	$1,503,000	$0	**$7,621,000**

2024 PLANNING YEAR	5 YEAR EXPENDITURE SUMMARY						
PROJECT CATEGORIES	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS	TOTAL EXPENDITURES FOR 2024 PLANNING YEAR
HARBOR & WATERFRONT PROJECTS	$0	$0	$0	$304,000	$0	$0	**$304,000**
INFORMATION TECHNOLOGY PROJECTS	$0	$0	$0	$60,000	$0	$0	**$60,000**
LAND & FACILITIES PROJECTS	$0	$780,000	$3,160,000	$970,000	$1,120,000	$0	**$6,030,000**
PARKS & RECREATION PROJECTS	$0	$0	$0	$0	$0	$1,170,000	**$1,170,000**
STREETS & STORMDRAIN PROJECTS	$4,058,000	$0	$0	$234,000	$0	$8,116,000	**$12,408,000**
WATER SUPPLY PROJECTS	$0	$2,125,000	$0	$0	$0	$0	**$2,125,000**
WASTEWATER PROJECTS	$0	$0	$4,283,000	$0	$714,000	$0	**$4,997,000**

Capital Improvement Program 2021
FIVE-YEAR SUMMARY
Funding Sources by Category

2025 PLANNING YEAR	5 YEAR EXPENDITURE SUMMARY						
PROJECT CATEGORIES	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS	TOTAL EXPENDITURES FOR 2025 PLANNING YEAR
HARBOR & WATERFRONT PROJECTS	$0	$0	$0	$316,000	$0	$0	**$316,000**
INFORMATION TECHNOLOGY PROJECTS	$0	$0	$0	$140,000	$0	$0	**$140,000**
LAND & FACILITIES PROJECTS	$0	$0	$0	$0	$0	$0	**$0**
PARKS & RECREATION PROJECTS	$0	$0	$0	$0	$0	$1,217,000	**$1,217,000**
STREETS & STORMDRAIN PROJECTS	$4,060,000	$0	$0	$242,000	$0	$568,000	**$4,870,000**
WATER SUPPLY PROJECTS	$0	$2,170,000	$0	$0	$0	$0	**$2,170,000**
WASTEWATER PROJECTS	$0	$0	$5,962,000	$0	$1,574,000	$0	**$7,536,000**

CITY OF EUREKA CALIFORNIA

2021 EXPENDITURES

PROJECT EXPENDITURES PER FUND GROUP

HARBOR & WATERFRONT PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Samoa Boat Launch Improvements								$0
Dredging Marina and other City Properties				$270,000				$270,000
Eureka Public Marina Safety Improvements				$25,000				$25,000
Marina Fire Suppression System Repairs						$24,000		$24,000
Commercial Street Fuel Facility								$0
Fisherman's Terminal Fender Pile Maintenance								$0
TOTAL	$0	$0	$0	$295,000	$0	$24,000		$319,000

INFORMATION TECHNOLOGY PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Secondary Data Center								$0
Enterprise Resource Software								$0
City Hall Network Security				$149,000				$149,000
Fiber Optic Network Upgrade		$106,000	$56,000	$113,000				$274,000
TOTAL	$0	$106,000	$56,000	$262,000	$0	$0		$423,000

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Corporation Yard Improvements								$0
Municipal Auditorium Improvements				$310,000				$310,000
City Hall Improvements								$0
Eureka Emergency Operations Center								$0
EPD Parking Lot 6th Street Entrance								$0
Coast Guard Building Improvements								$0
Water Treatment Plant Settling Basins		$300,000	$300,000					$600,000
Energy Storage Systems						$7,000,000	1	$7,000,000
Eel River Estuary & Interpretive Center		$476,000			$224,000			$700,000
Facilities Master Plan				$125,000				$125,000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]

PARKS & RECREATION PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
City Parks Automated Irrigation				$270,000				$270,000
Park Improvements						$6,571,000	1	$6,571,000
Zoo Master Plan Improvements								$0
Zoo Improvements Aviary Mesh Replacement								$0
Softball Field Improvements								$0
Stream Restoration Fish Passage				$16,000		$294,000	1	$310,000
TOTAL	$0	$0	$0	$286,000	$0	$6,865,000		$7,151,000

STREETS & STORMDRAIN PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Street Reconstruction, Overlays, and Maintenance	$3,500,000							$3,500,000
Safety Improvement Projects	$500,000			$50,000				$550,000
Storm Drain Improvements						$838,000	2	$938,000
Bicycle Facilities						$100,000	2	$100,000
Sidewalk Repair Improvements				$125,000				$125,000
Parking Improvements				$36,000				$36,000
Street Configuration improvements								$0
Broadway Multimodal Transportation Corridor Study								$0
Stormwater Trash Capture								$0
Tide Gate Repair								$0
Bay to Zoo Trail				$50,000				$50,000
Halvorsen Trail Rehabilitation						$400,000	1	$400,000
Electric Vehicle Charging Stations				$67,000		$26,000	1	$93,000
C Street Bike Boulevard								$0
Cooper Gulch (First Slough) Trail								$0
Traffic Signals								$0
TOTAL	$4,000,000	$0	$0	$328,000	$0	$1,364,000		$5,792,000

WATER SUPPLY PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Water Distribution System Annual Maintenance & Repair		$1,200,000						$1,200,000
High Tank Pump Station Replacement		$700,000						$700,000
Automated Meter Read (AMR) Update								$0
Tank Recoating (Low Tank & Lundbar Hills Tank								$0
Lundbar Hills Backup Generator & Booster Fire Pump Replacement								$0
TOTAL	$0	$1,900,000	$0	$0	$0	$0		$1,900,000

WASTEWATER PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Wastewater Collection System Maintenance			$1,600,000		-			$1,600,000
Wastewater Lift Station Upgrade Program			-		-			$0
Cross Town Interceptor Maintenance Phase II			$85,000		$40,000			$125,000
Wastewater Pump Station Upgrade Program			$816,000		$384,000			$1,200,000
WWTP Biosolids Class "A"			-		-			$0
Headworks Concrete Structure			-		-			$0
Enclosed Bays & Est. Compliance Feasibility Study			$1,462,000		$688,000			$2,150,000
WWTP Motor Control Center			-		-			$0
WWTP Outfall Maintenance			-		-			$0
Bio Solids Dewatering			-		-			$0
Secondary Clarifier Maintenance Phase II			-		-			$0
TOTAL	$0	$0	$3,963,000	$0	$1,112,000	$0		$5,075,000

TOTAL FUND GROUP EXPENDITURES	$4,000,000	$2,782,000	$4,319,000	$1,605,000	$1,136,000	$15,153,000		$29,395,000

2022 EXPENDITURES

PROJECT EXPENDITURES PER FUND GROUP

HARBOR & WATERFRONT PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOVT	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Samoa Boat Launch Improvements						$1,500,000	2	$1,500,000
Dredging Marina and other City Properties				$281,000				$281,000
Eureka Public Marina Safety Improvements				$35,000				$35,000
Marina Fire Suppression System Repairs								$0
Commercial Street Fuel Facility				$65,000				$65,000
Fisherman's Terminal Fender Pile Maintenance						$300,000	2	$300,000
TOTAL	$0	$0	$0	$381,000	$0	$1,800,000		$2,181,000

INFORMATION TECHNOLOGY PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOVT	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Secondary Data Center				$227,000				$227,000
Enterprise Resource Software				$541,000				$541,000
City Hall Network Security								$0
Fiber Optic Network Upgrade		$105,000	$430,000	$210,000				$745,000
TOTAL	$0	$105,000	$430,000	$978,000	$0	$0		$1,513,000

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Corporation Yard Improvements		$400,000	$400,000	$240,000				$1,040,000
Municipal Auditorium Improvements				$386,000				$386,000
City Hall Improvements				$757,000				$757,000
Eureka Emergency Operations Center								$0
EPD Parking Lot 6th Street Entrance				$75,000				$75,000
Coast Guard Building Improvements				$220,000				$220,000
Water Treatment Plant Settling Basins								$0
Energy Storage Systems								$0
Eel River Estuary & Interpretive Center								$0
Facilities Master Plan								$0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]

PARKS & RECREATION PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOVT	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
City Parks Automated Irrigation								$0
Park Improvements								$0
Zoo Master Plan Improvements						$1,082,000	3	$1,082,000
Zoo Improvements Aviary Mesh Replacement						$250,000	3	$250,000
Softball Field Improvements						$3,000,000	3	$3,000,000
Stream Restoration Fish Passage								$0
TOTAL	$0	$0	$0	$0	$0	$4,332,000		$4,332,000

STREETS & STORMDRAIN PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOVT	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Street Reconstruction, Overlays, and Maintenance	$3,500,000							$3,500,000
Safety Improvement Projects	$500,000			$50,000				$550,000
Storm Drain Improvements						$4,957,000	2	$4,957,000
Bicycle Facilities						$100,000	2	$100,000
Sidewalk Repair Improvements				$130,000				$130,000
Parking Improvements				$39,000				$39,000
Street Configuration Improvements								$0
Broadway Multimodal Transportation Corridor Study								$0
Stormwater Trash Capture						$500,000	3	$500,000
Tide Gate Repair	$54,000							$54,000
Bay to Zoo Trail						$307,000	2	$307,000
Halvorsen Trail Rehabilitation								$0
Electric Vehicle Charging Stations						$15,000	2	$15,000
C Street Bike Boulevard				$56,000		$1,869,000	2	$1,925,000
Cooper Gulch (First Slough) Trail						$1,000,000	3	$1,000,000
Traffic Signals	$25,000							$25,000
TOTAL	$4,079,000	$0	$0	$275,000	$0	$8,748,000		$13,102,000

WATER SUPPLY PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOVT	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Water Distribution System Annual Maintenance & Repair		$2,040,000						$2,040,000
High Tank Pump Station Replacement								$0
Automated Meter Read (AMR) Update						$3,480,000	2	$3,480,000
Tank Recoating (Low Tank & Lundbar Hills Tank		$1,000,000						$1,000,000
Lundbar Hills Backup Generator & Booster Fire Pump Replacement		$150,000						$150,000
TOTAL	$0	$3,190,000	$0	$0	$0	$3,480,000		$6,670,000

WASTEWATER PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOVT	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Wastewater Collection System Maintenance			$200,000					$200,000
Wastewater Lift Station Upgrade Program			$592,000		$18,000			$610,000
Cross Town Interceptor Maintenance Phase II								$0
Wastewater Pump Station Upgrade Program			$952,000		$448,000			$1,400,000
WWTP Biosolids Class "A"								$0
Headworks Concrete Structure								$0
Enclosed Bays & Est. Compliance Feasibility Study			$272,000		$128,000			$400,000
WWTP Motor Control Center			$35,000		$17,000			$52,000
WWTP Outfall Maintenance			$34,000		$16,000			$50,000
Bio Solids Dewatering			$122,000		$58,000			$180,000
Secondary Clarifier Maintenance Phase II			$34,000		$26,000			$60,000
TOTAL	$0	$0	$2,241,000	$0	$731,000	$0		$2,972,000

TOTAL FUND GROUP EXPENDITURES	$4,079,000	$3,295,000	$3,091,000	$3,312,000	$731,000	$18,360,000		$33,248,000

2023 EXPENDITURES

PROJECT EXPENDITURES PER FUND GROUP

HARBOR & WATERFRONT PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Samoa Boat Launch Improvements								$0
Dredging Marina and other City Properties				$292,000				$292,000
Eureka Public Marina Safety Improvements				$40,000				$40,000
Marina Fire Suppression System Repairs								$0
Commercial Street Fuel Facility				$202,000		$400,000	3	$602,000
Fisherman's Terminal Fender Pile Maintenance						$200,000	3	$200,000
TOTAL	$0	$0	$0	$534,000	$0	$600,000		$1,134,000

INFORMATION TECHNOLOGY PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Secondary Data Center								$0
Enterprise Resource Software								$0
City Hall Network Security								$0
Fiber Optic Network Upgrade		$185,000	$57,000	$98,000				$340,000
TOTAL	$0	$185,000	$57,000	$98,000	$0	$0		$340,000

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Corporation Yard Improvements								$0
Municipal Auditorium Improvements								$0
City Hall Improvements								$0
Eureka Emergency Operations Center		$122,000	$122,000					$244,000
EPD Parking Lot 6th Street Entrance								$0
Coast Guard Building Improvements								$0
Water Treatment Plant Settling Basins								$0
Energy Storage Systems								$0
Eel River Estuary & Interpretive Center								$0
Facilities Master Plan								$0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]

PARKS & RECREATION PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
City Parks Automated Irrigation								$0
Park Improvements								$0
Zoo Master Plan Improvements						$1,125,000	3	$1,125,000
Zoo Improvements Aviary Mesh Replacement								$0
Softball Field Improvements								$0
Stream Restoration Fish Passage						$2,000,000	3	$2,000,000
TOTAL	$0	$0	$0	$0	$0	$3,125,000		$3,125,000

STREETS & STORMDRAIN PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Street Reconstruction, Overlays, and Maintenance	$3,500,000							$3,500,000
Safety Improvement Projects	$500,000			$50,000				$550,000
Storm Drain Improvements								$0
Bicycle Facilities						$100,000	2	$100,000
Sidewalk Repair Improvements				$135,000				$135,000
Parking Improvements				$41,000				$41,000
Street Configuration improvements						$50,000	3	$50,000
Broadway Multimodal Transportation Corridor Study						$50,000	3	$50,000
Stormwater Trash Capture						$1,004,000	3	$1,004,000
Tide Gate Repair	$56,000							$56,000
Bay to Zoo Trail						$382,000	2	$382,000
Halvorsen Trail Rehabilitation								$0
Electric Vehicle Charging Stations						$16,000	2	$16,000
C Street Bike Boulevard				$70,000		$1,869,000	3	$1,939,000
Cooper Gulch (First Slough) Trail								$0
Traffic Signals								$0
TOTAL	$4,056,000	$0	$0	$296,000	$0	$3,471,000		$7,823,000

WATER SUPPLY PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Water Distribution System Annual Maintenance & Repair		$2,082,000						$2,082,000
High Tank Pump Station Replacement								$0
Automated Meter Read (AMR) Update								$0
Tank Recoating (Low Tank & Lundbar Hills Tank								$0
Lundbar Hills Backup Generator & Booster Fire Pump Replacement								$0
TOTAL	$0	$2,082,000	$0	$0	$0	$0		$2,082,000

WASTEWATER PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Wastewater Collection System Maintenance			$2,500,000		-			$2,500,000
Wastewater Lift Station Upgrade Program			$454,000		$14,000			$468,000
Cross Town Interceptor Maintenance Phase II			-		-			$0
Wastewater Pump Station Upgrade Program			-		-			$0
WWTP Biosolids Class "A"			-		-			$0
Headworks Concrete Structure			$117,000		$55,000			$172,000
Enclosed Bays & Est. Compliance Feasibility Study			$272,000		$128,000			$400,000
WWTP Motor Control Center			$736,000		$346,000			$1,082,000
WWTP Outfall Maintenance			$355,000		$167,000			$522,000
Bio Solids Dewatering			$969,000		$457,000			$1,426,000
Secondary Clarifier Maintenance Phase II			$715,000		$336,000			$1,051,000
TOTAL	$0	$0	$6,118,000	$0	$1,503,000	$0		$7,621,000

TOTAL FUND GROUP EXPENDITURES	$4,056,000	$2,189,000	$6,297,000	$928,000	$1,503,000	$7,196,000		$22,369,000

2024 EXPENDITURES

PROJECT EXPENDITURES PER FUND GROUP

HARBOR & WATERFRONT PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Samoa Boat Launch Improvements								$0
Dredging Marina and other City Properties				$304,000				$304,000
Eureka Public Marina Safety Improvements								$0
Marina Fire Suppression System Repairs								$0
Commercial Street Fuel Facility								$0
Fisherman's Terminal Fender Pile Maintenance								$0
TOTAL	$0	$0	$0	$304,000	$0	$0		$304,000

INFORMATION TECHNOLOGY PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Secondary Data Center								$0
Enterprise Resource Software								$0
City Hall Network Security								$0
Fiber Optic Network Upgrade				$60,000				$60,000
TOTAL	$0	$0	$0	$60,000	$0	$0		$60,000

[illegible] PROJECTS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Corporation Yard Improvements								$0
Municipal Auditorium Improvements								$0
City Hall Improvements								$0
Eureka Emergency Operations Center		$780,000	$780,000	$970,000				$2,530,000
EPD Parking Lot 6th Street Entrance								$0
Coast Guard Building Improvements								$0
Water Treatment Plant Settling Basins								$0
Energy Storage Systems								$0
Eel River Estuary & Interpretive Center			$2,380,000		$1,120,000			$3,500,000
Facilities Master Plan								$0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]

PARKS & RECREATION PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
City Parks Automated Irrigation								$0
Park Improvements								$0
Zoo Master Plan Improvements						$1,170,000	3	$1,170,000
Zoo Improvements Aviary Mesh Replacement								$0
Softball Field Improvements								$0
Stream Restoration Fish Passage								$0
TOTAL	$0	$0	$0	$0	$0	$1,170,000		$1,170,000

STREETS & STORMDRAIN PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Street Reconstruction, Overlays, and Maintenance	$3,500,000							$3,500,000
Safety Improvement Projects	$500,000			$50,000				$550,000
Storm Drain Improvements								$0
Bicycle Facilities						$100,000	2	$100,000
Sidewalk Repair Improvements				$141,000				$141,000
Parking Improvements				$43,000				$43,000
Street Configuration improvements								$0
Broadway Multimodal Transportation Corridor Study								$0
Stormwater Trash Capture						$1,976,000	3	$1,976,000
Tide Gate Repair	$58,000							$58,000
Bay to Zoo Trail						$5,923,000	2	$5,923,000
Halvorsen Trail Rehabilitation								$0
Electric Vehicle Charging Stations						$17,000	2	$17,000
C Street Bike Boulevard								$0
Cooper Gulch (First Slough) Trail						$100,000	3	$100,000
Traffic Signals								$0
TOTAL	$4,058,000	$0	$0	$234,000	$0	$8,116,000		$12,408,000

WATER SUPPLY PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Water Distribution System Annual Maintenance & Repair		$2,125,000						$2,125,000
High Tank Pump Station Replacement								$0
Automated Meter Read (AMR) Update								$0
Tank Recoating (Low Tank & Lundbar Hills Tank								$0
Lundbar Hills Backup Generator & Booster Fire Pump Replacement								$0
TOTAL	$0	$2,125,000	$0	$0	$0	$0		$2,125,000

WASTEWATER PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Wastewater Collection System Maintenance			$1,500,000		-			$1,500,000
Wastewater Lift Station Upgrade Program			$285,000		$9,000			$294,000
Cross Town Interceptor Maintenance Phase II			-		-			$0
Wastewater Pump Station Upgrade Program			-		-			$0
WWTP Biosolids Class "A"			$282,000		$133,000			$415,000
Headworks Concrete Structure			$944,000		$444,000			$1,388,000
Enclosed Bays & Est. Compliance Feasibility Study			$272,000		$128,000			$400,000
WWTP Motor Control Center			-		-			$0
WWTP Outfall Maintenance			-		-			$0
Bio Solids Dewatering			-		-			$0
Secondary Clarifier Maintenance Phase II			-		-			$0
TOTAL	$0	$0	$3,283,000	$0	$714,000	$0		$3,997,000

TOTAL FUND GROUP EXPENDITURES	$4,058,000	$2,905,000	$7,443,000	$1,568,000	$1,834,000	$9,286,000		$27,094,000

2025 EXPENDITURES

PROJECT EXPENDITURES PER FUND GROUP

HARBOR & WATERFRONT PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Samoa Boat Launch Improvements								$0
Dredging Marina and other City Properties				$316,000				$316,000
Eureka Public Marina Safety Improvements								$0
Marina Fire Suppression System Repairs								$0
Commercial Street Fuel Facility								$0
Fisherman's Terminal Fender Pile Maintenance								$0
TOTAL	$0	$0	$0	$316,000	$0	$0		$316,000

INFORMATION TECHNOLOGY PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Secondary Data Center								$0
Enterprise Resource Software								$0
City Hall Network Security								$0
Fiber Optic Network Upgrade				$140,000				$140,000
TOTAL	$0	$0	$0	$140,000	$0	$0		$140,000

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Corporation Yard Improvements								$0
Municipal Auditorium Improvements								$0
City Hall Improvements								$0
Eureka Emergency Operations Center								$0
EPD Parking Lot 6th Street Entrance								$0
Coast Guard Building Improvements								$0
Water Treatment Plant Settling Basins								$0
Energy Storage Systems								$0
Ted River Estuary & Interpretive Center								$0
Facilities Master Plan								$0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]

PARKS & RECREATION PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
City Parks Automated Irrigation								$0
Park Improvements								$0
Zoo Master Plan Improvements						$1,217,000	3	$1,217,000
Zoo Improvements Aviary Mesh Replacement								$0
Softball Field Improvements								$0
Stream Restoration Fish Passage								$0
TOTAL	$0	$0	$0	$0	$0	$1,217,000		$1,217,000

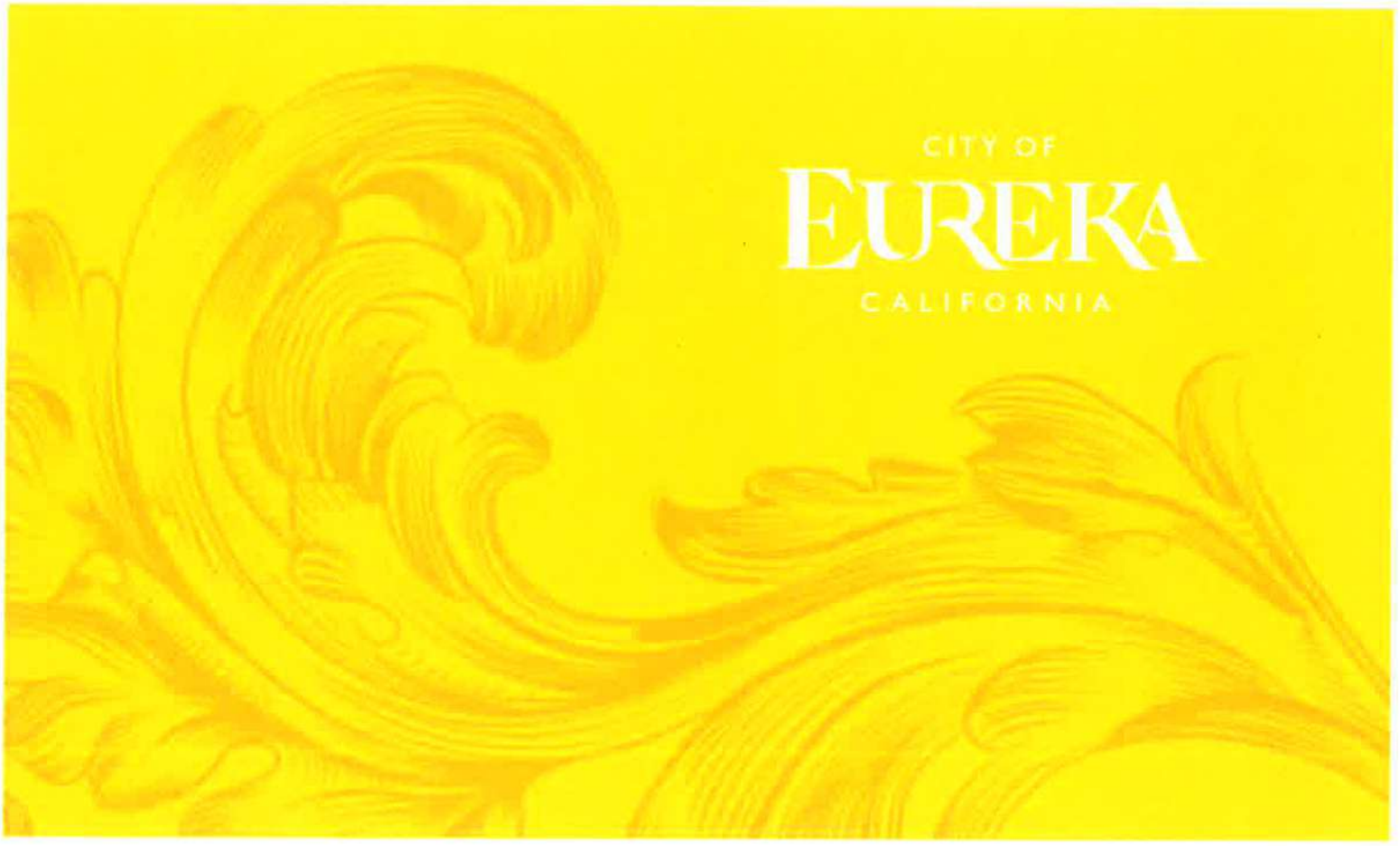
STREETS & STORMDRAIN PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Street Reconstruction, Overlays, and Maintenance	$3,500,000							$3,500,000
Safety Improvement Projects	$500,000			$50,000				$550,000
Storm Drain Improvements								$0
Bicycle Facilities						$100,000	2	$100,000
Sidewalk Repair Improvements				$146,000				$146,000
Parking Improvements				$46,000				$46,000
Street Configuration improvements								$0
Broadway Multimodal Transportation Corridor Study								$0
Stormwater Trash Capture								$0
Tide Gate Repair	$60,000							$60,000
Bay to Zoo Trail								$0
Halvorsen Trail Rehabilitation								$0
Electric Vehicle Charging Stations						$18,000	2	$18,000
C Street Bike Boulevard								$0
Cooper Gulch (First Slough) Trail						$450,000	3	$450,000
Traffic Signals								$0
TOTAL	$4,060,000	$0	$0	$242,000	$0	$568,000		$4,870,000

WATER SUPPLY PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Water Distribution System Annual Maintenance & Repair		$2,170,000						$2,170,000
High Tank Pump Station Replacement								$0
Automated Meter Read (AMR) Update								$0
Tank Recoating (Low Tank & Lundbar Hills Tank) Lundbar Hills Backup Generator & Booster Fire Pump Replacement								$0
TOTAL	$0	$2,170,000	$0	$0	$0	$0		$2,170,000

WASTEWATER PROJECTS	STREETS	WATER	WASTEWATER	GENERAL GOV'T	HCSD	GRANTS 1=AWARDED 2=APPLIED 3=SEEKING		TOTAL EXPENDITURES
Wastewater Collection System Maintenance			$2,500,000		-			$2,500,000
Wastewater Lift Station Upgrade Program			$218,000		$48,000			$266,000
Cross Town Interceptor Maintenance Phase II			-		-			$0
Wastewater Pump Station Upgrade Program			-		-			$0
WWTP Biosolids Class "A"			$2,448,000		$1,152,000			$3,600,000
Headworks Concrete Structure			-		-			$0
Enclosed Bays & Est. Compliance Feasibility Study			$796,000		$374,000			$1,170,000
WWTP Motor Control Center			-		-			$0
WWTP Outfall Maintenance			-		-			$0
Bio Solids Dewatering			-		-			$0
Secondary Clarifier Maintenance Phase II			-		-			$0
TOTAL	$0	$0	$5,962,000	$0	$1,574,000	$0		$7,536,000

TOTAL FUND GROUP EXPENDITURES	$4,060,000	$2,170,000	$5,962,000	$698,000	$1,574,000	$1,785,000		$16,249,000

LAND AND FACILITIES



FIVE YEAR SUMMARY

Page #	Project Name	(Thousands of Dollars) Total Project Cost 2021 Dollars	YEAR 1 21/22	YEAR 2 22/23	YEAR 3 23/24	YEAR 4 24/25	YEAR 5 25/26
3-5	Corporation Yard Improvements	**$1,040**	$0	$1,040	$0	$0	$0
3-6	Municipal Auditorium Improvements	**$696**	$310	$386	$0	$0	$0
3-7	City Hall Improvements	**$757**	$0	$757	$0	$0	$0
3-8	Eureka Emergency Operations Center	**$2,774**	$0	$0	$244	$2,530	$0
3-9	EPD Parking Lot 6th Street Entrance	**$75**	$0	$75	$0	$0	$0
3-10	Coast Guard Building Improvements	**$220**	$0	$220	$0	$0	$0
3-11	Water Treatment Plant Settling Basins	**$600**	$600	$0	$0	$0	$0
3-12	Energy Storage Systems	**$7,000**	$7,000	$0	$0	$0	$0
3-13	Elk River Interpretive Center	**$4,200**	$700	$0	$0	$3,500	$0
3-14	Facilities Master Plan	**$125**	$125	$0	$0	$0	$0
	TOTAL	**$17,487**	**$8,735**	**$2,478**	**$244**	**$6,030**	**$0**

PROJECT PRIORITIZATION

Projects	Importance	Redundancy	Remaining Useful Life	Final Score	Comments
Corporation Yard Improvements	3	3	4	10	
Municipal Auditorium Improvements	2	1	2	5	
City Hall Improvements	4	3	3	10	
Eureka Emergency Operations Center	3	2	3	8	
EPD Parking Lot 6th Street Entrance	3	1	2	6	
Coast Guard Building Improvements	4	2	1	7	
Water Treatment Plant Settling Basins	2	1	4	7	
Energy Storage Systems	3	2	4	9	
Elk River Interpretive Center	4	1	2	7	
Facilities Master Plan	4	4	4	12	

Scoring Criteria

Importance	Score	Redundancy	Score	Remaining Useful Life	Score
Existing threat to public health or safety	4	System cannot function without asset	4	< 2 years	4
Mandated regulatory requirement	4	System can have limited function without asset	3	< 5 years	3
Potential public health or safety concern	3	System requires asset for emergency operations	2	Asset operating below optimal	3
Increase reliability or capacity	3	System can function without asset	1	5-20 years	2
Improve system operations and/or maintenance	2			> 20 years	1
It would be nice to do	1				

ELK RIVER INTERPRETIVE CENTER

Project Manager: Jesse Willor

PROJECT DESCRIPTION

Project to build a new interpretive center for the Elk River Estuary, Elk River Treatment Plant and Pound Road area. The project includes removal of existing buildings and construction of an interpretive center building, parking area, access improvements, interpretive signage, trails, storm drainage improvements and restoration of adjacent habitat and wetland areas.

PROJECT LOCATION

End of Pound Road, adjacent to the Elk River Estuary and Waste Water Treatment Plant.

JUSTIFICATION

Regulatory requirement for Elk River Waste Water Treatment Plant Discharge Permit.

CITY COUNCIL PRIORITY AND GOALS

Meets Strategic Plan 2020 goals of a more livable Eureka community and providing effective services.

STUDIES AND REPORTS

None

PRIOR APPROPRIATIONS

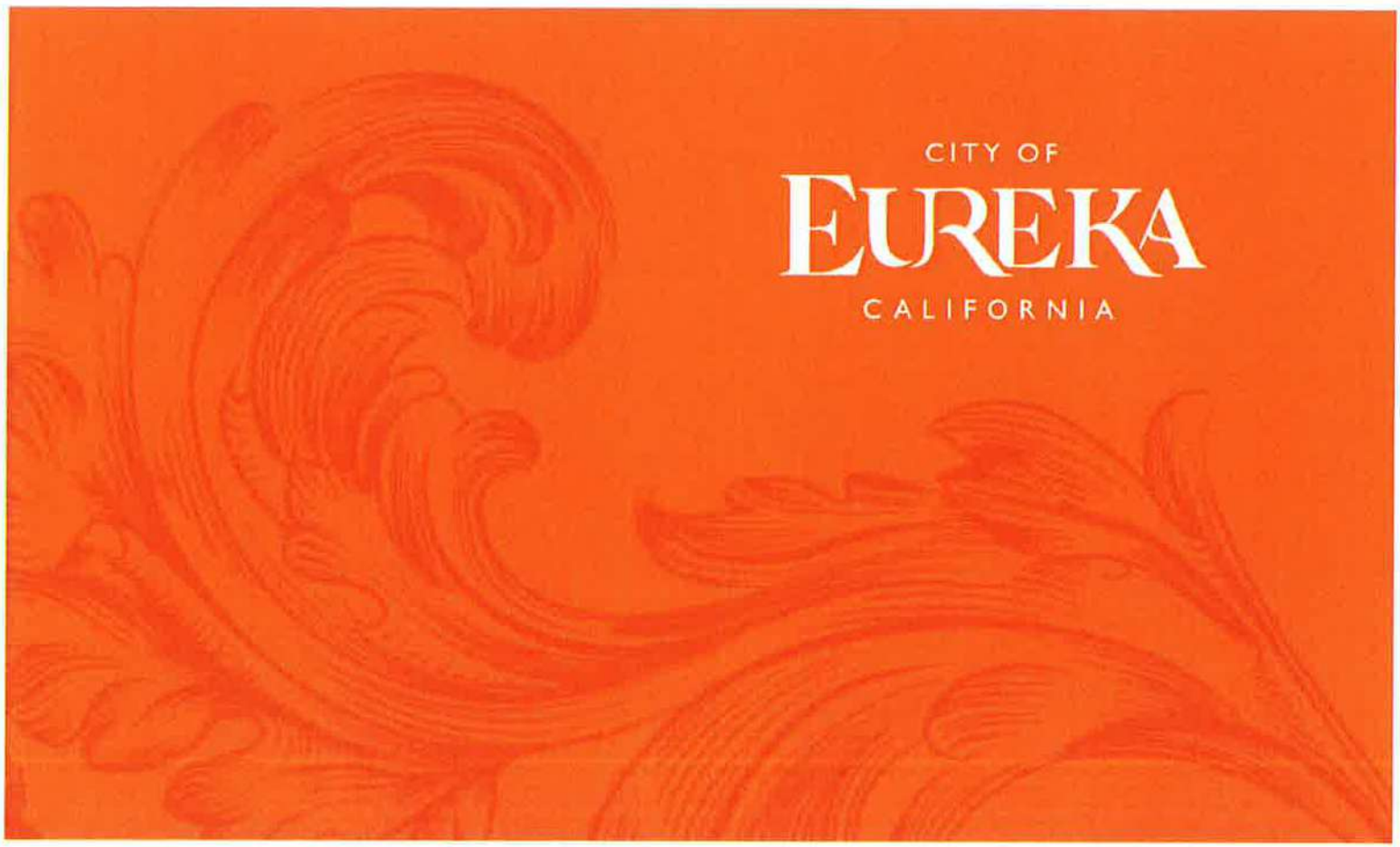
None

FISCAL IMPACT

Total project cost - $4,200,000

	(Thousands of Dollars)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Expenditure Category	21/22	22/23	23/24	24/25	25/26	Five Year
Property Acquisition						
Right-of-way	$400					$400
Design	$300					$300
Professional Services						$0
Construction				$3,500		$3,500
EXPENDITURE TOTALS	**$700**	**$0**	**$0**	**$3,500**	**$0**	**$4,200**
Wastewater Fund Group	$476			$2,380		$2,856
HCSD	$224			$1,120		$1,344

WASTEWATER



Capital Improvement Program 2021/22

WASTEWATER

FIVE YEAR SUMMARY

Page #	Project Name	(Thousands of Dollars) Total Project Cost 2021 Dollars	YEAR 1 21/22	YEAR 2 22/23	YEAR 3 23/24	YEAR 4 24/25	YEAR 5 25/26
7-5	Wastewater Collection System Maintenance	**$11,100**	$1,600	$2,000	$2,500	$2,500	$2,500
7-6	Wastewater Lift Station Upgrade Program	**$1,597**	$0	$610	$468	$294	$225
7-7	Cross Town Interceptor Maintenance Phase II	**$125**	$125	$0	$0	$0	$0
7-8	Wastewater Pump Station Upgrade Program	**$2,600**	$1,200	$1,400	$0	$0	$0
7-9	WWTP Biosolids Class "A"	**$4,015**	$0	$0	$0	$415	$3,600
7-10	Headworks Concrete Structure	**$1,560**	$0	$0	$172	$1,388	$0
7-11	Enclosed Bays & Est. Compliance Feasibility Study	**$4,520**	$2,150	$400	$400	$400	$1,170
7-12	WWTP Motor Control Center Replacement Project	**$1,134**	$0	$52	$1,082	$0	$0
7-13	WWTP Outfall Maintenance	**$572**	$0	$50	$522	$0	$0
7-14	Bio Solids Dewatering	**$1,606**	$0	$180	$1,426	$0	$0
7-15	Secondary Clarifier Maintenance Phase II	**$1,131**	$0	$80	$1,051	$0	$0
	TOTAL	$29,960	$5,075	$4,772	$7,621	$4,997	$7,495

PROJECT PRIORITIZATION

Projects	Importance	Redundancy	Remaining Useful Life	Final Score	Comments
Wastewater Collection System Maintenance	4	4	4	12	Requirement of CDO
Wastewater Lift Station Upgrade Program	3	4	4	11	Varies
Cross Town Interceptor Maintenance Phase II	3	4	1	8	Commissioned in 1984
Wastewater Pump Station Upgrade Program	3	4	4	11	Commissioned in 1983
WWTP Biosolids Class "A"	3	3	3	9	
Headworks Concrete Structure	3	4	3	10	
Enclosed Bays & Est. Compliance Feasibility Study	4	3	2	9	
WWTP Motor Control Center Replacement Project	3	4	3	10	
WWTP Outfall Maintenance	3	3	2	8	
Bio Solids Dewatering	4	3	1	8	
Secondary Clarifier Maintenance Phase II	2	2	1	5	

Scoring Criteria

Importance	Score	Redundancy	Score	Remaining Useful Life	Score
Existing threat to public health or safety	4	System cannot function without asset	4	< 2 years	4
Mandated regulatory requirement	4	System can have limited function without asset	3	< 5 years	3
Potential public health or safety concern	3	System requires asset for emergency operations	2	Asset operating below optimal	3
Increase reliability or capacity	3	System can function without asset	1	5-20 years	2
Improve system operations and/or maintenance	2			> 20 years	1
It would be nice to do	1				

WASTEWATER COLLECTION SYSTEM MAINTENANCE

Project Manager: Gabe Adame

PROJECT DESCRIPTION
A multi-phased, multi-year program to replace or rehabilitate deteriorated infrastructure as well as reduce rainfall derived inflow and infiltration (RDII) into the City's wastewater collection system.

PROJECT LOCATION
Various locations throughout the City

JUSTIFICATION
To reduce maintenance requirements, potential for sanitary sewer overflows and/or structural failure, and to reduce I/I in conformance with the City's NPDES permit requirements issued by the California Regional Water Quality Control Board (RWQCB).

CITY COUNCIL PRIORITY AND GOALS
Meets Strategic Plan 2020 goals of supporting a financially sound city providing effective services and is listed as a High Priority Project in the Strategic Plan.

STUDIES AND REPORTS
1980 Infiltration/Inflow Study (Oscar Larson and Assoc.)
2008 Wastewater Facilities Plan Phase 1 (Brown and Caldwell)
2016 Sanitary Sewer Evaluation Survey and Wet Weather Improvement Plan (SHN)
Operational inspections and/or reports of problems

PRIOR APPROPRIATIONS
FY 16/17 - Old Town Sewer Reconstruction Project ($1,120,000)
FY 17/18 - 3rd and Y Basin Pipe Lining ($1,500,000)
FY20/21 – Various Locations ($1,900,000)

FISCAL IMPACT
Budget an average of $3M (2020 dollars) plus 4% for inflation per year

2021 – Sewer Maintenance 2021 ($1,768,000)
2022 – Sewer Maintenance 2022 ($2,080,000)
2023 – Sewer Maintenance 2023 ($3,200,000)
2024 – Sewer Maintenance 2024 ($3,320,000)

	(Thousands of Dollars)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Expenditure Category	21/22	22/23	23/24	24/25	25/26	Five Year
Right-of-way						$0
Design						$0
Professional Services						$0
Construction	$1,600	$2,000	$2,500	$2,500	$2,500	$11,100
EXPENDITURE TOTALS	**$1,600**	**$2,000**	**$2,500**	**$2,500**	**$2,500**	**$11,100**
Wastewater Fund	$1,552	$1,940	$2,425	$2,425	$2,425	$10,767
HCSD Group Fund	$48	$60	$75	$75	$75	$333

WASTEWATER LIFT STATION UPGRADE PROGRAM

Project Manager: Gabe Adame

PROJECT DESCRIPTION
Repair, upgrade, replace or remove wastewater lift stations and/or components, including the addition of generators, as they age and become outdated and ineffective.

PROJECT LOCATION
Citywide

JUSTIFICATION
To maintain integrity of the City's wastewater conveyance facilities.

CITY COUNCIL PRIORITY AND GOALS
Meets Strategic Plan 2020 goal of supporting a financially sound city providing effective services.

STUDIES AND REPORTS
Not Available

PRIOR APPROPRIATIONS
FY 14/15 – Hilfiker LS Upgrade ($415,000)
FY 16/17 – 3rd & Y Backup Generator ($35,000)
FY 17/18 – Waterfront LS Reconstruction ($310,000)
FY 19/20 – Del North ($678,000)

FISCAL IMPACT
Program costs vary by type and scope of work (2020 dollars) plus 4% for inflation annually.

	(Thousands of Dollars)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Expenditure Category	21/22	22/23	23/24	24/25	25/26	Five Year
Right-of-way		$10				$10
Design			$52	$24		$76
Professional Services						$0
Construction		$600	$416	$270	$225	$1,511
EXPENDITURE TOTALS	**$0**	**$610**	**$468**	**$294**	**$225**	**$1,597**
Wastewater Fund Group		$592	$454	$285	$218	$1,549
HCSD Fund Group		$18	$14	$9	$7	$48

CROSS TOWN INTERCEPTOR MAINTENANCE PHASE II

Project Manager: Gabe Adame

PROJECT DESCRIPTION
Replacement of air release valves and associated components.

PROJECT LOCATION
Various locations throughout the City

JUSTIFICATION
Maintain structural integrity of City's wastewater transmission main, the Cross-Town Interceptor.

CITY COUNCIL PRIORITY AND GOALS
Meets Strategic Plan 2020 goal of supporting a financially sound city providing effective services.

STUDIES AND REPORTS
Survey reports by Corrpro Companies, Inc.
2012 Condition Assessment by GHD
2012 Preliminary Risk Assessment by GHD
2016 Cathodic Protection and Stray Current Assessment

COMMENTS
Past cathodic protection survey reports contain the following recommendations:
1. Restore electrical continuity on the pipeline between Del Norte and Truesdale Streets
2. Re-establish baseline survey data
3. Replace deep-well anode bed on Railroad Avenue, north of Del Norte Street.
4. Perform regular cathodic protection survey.

PRIOR APPROPRIATIONS
FY 16/17 – Project #433 ($80,400)
FY 19/20 – XTI Cathodic Protection ($362,000)

FISCAL IMPACT
Total estimated construction cost: $125,000 (2020 dollars) plus 4% for inflation annually.

	(Thousands of Dollars)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Expenditure Category	21/22	22/23	23/24	24/25	25/26	Five Year
Right-of-way						$0
Design						$0
Professional Services						$0
Construction	$125					$125
EXPENDITURE TOTALS	**$125**	**$0**	**$0**	**$0**	**$0**	**$125**
Wastewater Fund Group	$85					$85
HCSD Fund Group	$40					$40
FUNDING TOTALS	**$125**	**$0**	**$0**	**$0**	**$0**	**$125**

WASTEWATER PUMP STATION UPGRADE PROGRAM

Project Manager: Gabe Adame

PROJECT DESCRIPTION

Replace original pumps with submersible variable frequency drive (VFD) pumps and upgrade other critical support components as necessary.

PROJECT LOCATION

Hill Street, Washington Street, and McCullens Avenue Pump Stations

JUSTIFICATION

During current periods of wet weather, three of the the City's four pump stations pump, at full capacity, pump all of their flows to the Elk River Wastewater Treatment Plant (WWTP). This amount of flows can overwhelm the WWTP. VFD pumps will allow the pump stations to throttle flows and better meter them to the WWTP while at the same time reducing energy consumption. Pumps at the facilities were installed in 1983 and are at the end of their useful lives.

CITY COUNCIL PRIORITY AND GOALS

Meets Strategic Plan 2020 goal of supporting a financially sound city providing effective services.

STUDIES AND REPORTS

Pump Station evaluation is currently being performed.

PRIOR APPROPRIATIONS

FY 19/20 – Hill Street Pump Installation ($65,000)

FISCAL IMPACT

The estimated cost is $2,000,000 (2020 dollars) plus 4% inflation annually.

	(Thousands of Dollars)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Expenditure Category	21/22	22/23	23/24	24/25	25/26	Five Year
Right-of-way						$0
Design						$0
Professional Services						$0
Construction	$1,200	$1,400				$2,600
EXPENDITURE TOTALS	$1,200	$1,400	$0	$0	$0	$2,600
Wastewater Fund Group	$816	$952				$1,768
HCSD Fund Group	$384	$448				$832
FUNDING TOTALS	$1,200	$1,400	$0	$0	$0	$2,600

WWTP BIOSOLIDS CLASS "A"

Project Manager: Kelly Allen

PROJECT DESCRIPTION
Upgrade the biosolids dewatering process to meet Class A requirements.

PROJECT LOCATION
Elk River Waste Water Treatment Plant

JUSTIFICATION
Decrease volume and disposal restrictions for biosolids produced at the WWTP and stored in facultative sludge lagoons, providing reduced O&M costs and a useable product to the community.

CITY COUNCIL PRIORITY AND GOALS
Meets Strategic Plan 2020 goal of supporting a financially sound city providing effective services.

STUDIES AND REPORTS
2015 Investigation of Dredging and Loading Equipment, along with Biosolids Disposal Options including Land Application and Drying/Composting: COE Biosolids Disposal;

PRIOR APPROPRIATIONS
FY 06/07 - Design and construction of a centrifuge and associated facilities to dewater biosolids ($889,000)
FY 18/19 - Feasibility study by Brown & Caldwell (which includes Co-generation analysis) ($83,000)

FISCAL IMPACT
Total estimated cost: $3,403,000 (2020 dollars) plus 4% for inflation annually.

	(Thousands of Dollars)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Expenditure Category	21/22	22/23	23/24	24/25	25/26	Five Year
Right-of-way						$0
Design				$415		$415
Professional Services						$0
Construction					$3,600	$3,600
EXPENDITURE TOTALS	**$0**	**$0**	**$0**	**$415**	**$3,600**	**$4,015**
Wastewater Fund Group				$282	$2,448	$2,730
HCSD Fund Group				$133	$1,152	$1,285
FUNDING TOTALS	**$0**	**$0**	**$0**	**$415**	**$3,600**	**$4,015**

HEADWORKS CONCRETE STRUCTURE

Project Manager: David Caisse

PROJECT DESCRIPTION
Assess and repair areas of failed concrete at WWTP. Repair damaged gates and slides.

PROJECT LOCATION
Elk River Waste Water Treatment Plant

JUSTIFICATION
The headworks has experienced significant degradation in the concrete structures due to the corrosive nature of the wastewater that continuously passes through. In many locations the concrete degradation has reached depths approaching steel reinforcement that could cause accelerated damage to the structure. The gates that control flow from the headworks are also in need of replacement and will be replaced during headworks repair.

CITY COUNCIL PRIORITY AND GOALS
Meets Strategic Plan 2020 goal of supporting a financially sound city providing effective services.

STUDIES AND REPORTS
2019 Elk River Wastewater Treatment Plant Headworks Structural Condition Assessment

PRIOR APPROPRIATIONS
Assessment & Report (Brown and Caldwell) and Bypass Services (Munson Pump Services) ($70,000)

FISCAL IMPACT
Estimated cost for construction is $1,508,000 (2020 dollars) plus 4% inflation annually.

	(Thousands of Dollars)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Expenditure Category	21/22	22/23	23/24	24/25	25/26	Five Year
Right-of-way						$0
Design						$0
Professional Services			$172			$172
Construction				$1,388		$1,388
EXPENDITURE TOTALS	**$0**	**$0**	**$172**	**$1,388**	**$0**	**$1,560**
Wastewater Fund Group			$117	$944		$1,061
HCSD Fund Group			$55	$444		$499
FUNDING TOTALS	**$0**	**$0**	**$172**	**$1,388**	**$0**	**$1,560**

ENCLOSED BAYS & ESTUARIES COMPLIANCE FEASIBILITY STUDY

Project Manager: Jesse Willor

PROJECT DESCRIPTION

The City is required to have a comprehensive plan to address compliance with the Enclosed Bays and Estuaries Policy (EBEP). This project will prepare a feasibility study and assessments that will identify preferred alternatives for wastewater treatment and discharge. From the study, permitting, design and construction will follow.

PROJECT LOCATION

Elk River Waste Water Treatment Plant

JUSTIFICATION

The North Coast Regional Water Quality Control Board has found that the City's Elk River WWTP discharge must meet the EBEP requirements in order for the National Pollutant Discharge Elimination System Permit to remain valid. The Board also issued a Cease and Desist Order in order for the City to have time to meet this regulatory requirement. The feasibility study is the first step towards meeting these requirements.

CITY COUNCIL PRIORITY AND GOALS

Meets Strategic Plan 2020 goal of supporting a financially sound city providing effective services.

STUDIES AND REPORTS

Wet Weather Improvement Plan, Outfall Inspection Report, Sewer System Evaluation Survey
Enclosed Bays and Estuaries Compliance Feasibility Study (currently underway)

COMMENTS

None

PRIOR APPROPRIATIONS

Enclosed Bays and Estuaries Compliance Feasibility Study Phase I ($219,000)
Enclosed Bays and Estuaries Compliance Feasibility Study Phase II ($397,000)
Enclosed Bays and Estuaries Compliance Feasibility Study Phase III ($220,000)

FISCAL IMPACT

Costs estimated to be $2,370,000 (2020 dollars) plus 4% for inflation annually.

	(Thousands of Dollars)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Expenditure Category	21/22	22/23	23/24	24/25	25/26	Five Year
Right-of-way						$0
Design		$200	$200	$200	$1,170	$1,770
Professional Services	$400	$200	$200	$200		$1,000
Construction	$1,750					$1,750
EXPENDITURE TOTALS	**$2,150**	**$400**	**$400**	**$400**	**$1,170**	**$4,520**
Wastewater Fund Group	$1,462	$272	$272	$272	$796	$3,074
HCSD Fund Group	$688	$128	$128	$128	$374	$1,446
FUNDING TOTALS	**$2,150**	**$400**	**$400**	**$400**	**$1,170**	**$4,520**

WWTP MOTOR CONTROL CENTER (MCC) REPLACEMENT PROJECT

Project Manager: Gabe Adame

PROJECT DESCRIPTION
Replace existing motor control centers with modern and energy-efficient units.

PROJECT LOCATION
Elk River Waste Water Treatment Plant

JUSTIFICATION
The existing motor control centers (MCCs) are over 30 years old and nearing the end of their useful service life. Spare parts are becoming extremely scarce and available parts are excessively expensive.

CITY COUNCIL PRIORITY AND GOALS
Meets Strategic Plan 2020 goal of supporting a financially sound city providing effective services.

STUDIES AND REPORTS
MCC evaluation has been performed by Sierra Controls, Inc. to determine replacement necessity

PRIOR APPROPRIATIONS
MCC evaluations performed by Sierra Controls, Inc. ($15,000)

FISCAL IMPACT
Costs estimated to be $1,000,000 for construction and installation (2020 dollars) plus 4% for inflation annually

	(Thousands of Dollars)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Expenditure Category	21/22	22/23	23/24	24/25	25/26	Five Year
Right-of-way						$0
Design		$52				$52
Professional Services						$0
Construction			$1,082			$1,082
EXPENDITURE TOTALS	**$0**	**$52**	**$1,082**	**$0**	**$0**	**$1,134**
Wastewater Fund Group		$35	$736			$771
HCSD Fund Group		$17	$346			$363
FUNDING TOTALS	**$0**	**$52**	**$1,082**	**$0**	**$0**	**$1,134**

ELK RIVER WASTEWATER TREATMENT PLANT (ERWWTP) OUTFALL MAINTENANCE

Project Manager: David Caisse

PROJECT DESCRIPTION
Maintenance of outfall pipe and associated scour protection including; diffuser flap gate replacement, failed hardware replacement, cleaning and scour protection maintenance.

PROJECT LOCATION
Humboldt Bay

JUSTIFICATION
Evaluation and Inspection of the outfall took place in November 2017 and the ensuing report determined necessary maintenance., repairs, &/or improvements for continued long-term operation of the outfall. This project addresses recommendations from the inspection report.

CITY COUNCIL PRIORITY AND GOALS
Meets Strategic Plan 2020 goal of supporting a financially sound city providing effective services.

STUDIES AND REPORTS
Elk River Wastewater Treatment Plant Outfall Inspection Report (November 2017)

COMMENTS
Not Available

PRIOR APPROPRIATIONS
Elk River Wastewater Treatment Plant Outfall Inspection Report - $98,000

FISCAL IMPACT
Costs estimated to be $572,000 for construction maintenance (2020 dollars).

	(Thousands of Dollars)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Expenditure Category	21/22	22/23	23/24	24/25	25/26	Five Year
Right-of-way						$0
Design/Evaluation						$0
Professional Services						$0
Construction		$50	$522			$572
EXPENDITURE TOTALS	**$0**	**$50**	**$522**	**$0**	**$0**	**$572**
Wastewater Fund Group		$34	$355			$389
HCSD Fund Group		$16	$167			$183
FUNDING TOTALS	**$0**	**$50**	**$522**	**$0**	**$0**	**$572**

BIOSOLIDS DEWATERING 2020

Project Manager: Kelly Allen

PROJECT DESCRIPTION
Install a second dewatering device for the biosolids produced at the WWTP

PROJECT LOCATION
Elk River Waste Water Treatment Plant

JUSTIFICATION
The two facultative sludge lagoons are full and must have continual dewatering of biosolids to maintain capacity. A second dewatering device will allow for redundancy and larger capacity at a critical stage of the wastewater treatment process.

CITY COUNCIL PRIORITY AND GOALS
Meets Strategic Plan 2020 goal of supporting a financially sound city providing effective services.

STUDIES AND REPORTS
None

COMMENTS
None

PRIOR APPROPRIATIONS
None

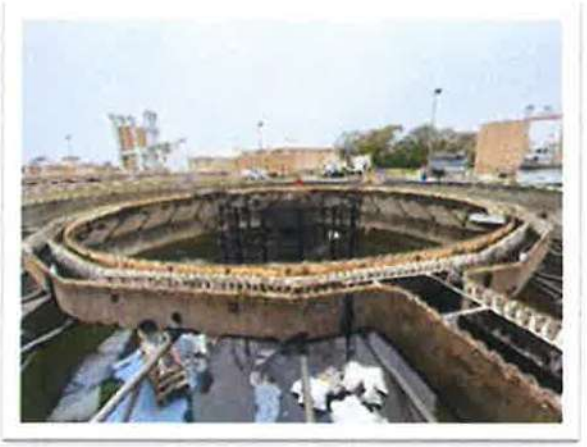
FISCAL IMPACT
Total project cost - $1,370,000 (2020 dollars) plus 4% for inflation annually.

	(Thousands of Dollars)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Expenditure Category	21/22	22/23	23/24	24/25	25/26	Five Year
Right-of-way						$0
Design/Evaluation		$90				$90
Professional Services		$90				$90
Construction			$1,426			$1,426
EXPENDITURE TOTALS	**$0**	**$180**	**$1,426**	**$0**	**$0**	**$1,606**
Wastewater Fund Group		$122	$969			$1,091
HCSD Fund Group		$58	$457			$515
FUNDING TOTALS	**$0**	**$180**	**$1,426**	**$0**	**$0**	**$1,606**

SECONDARY CLARIFIER MAINTENANCE PHASE II

Project Manager: Kelly Allen

PROJECT DESCRIPTION
Remove and replace the launders, launders support arms and scum baffle that attaches to the inside of the launders.



PROJECT LOCATION
Elk River Waste Water Treatment Plant

JUSTIFICATION
While in construction of replacing the drive and bridge we found that the launders support arms are deteriorating from the inside out.

CITY COUNCIL PRIORITY AND GOALS
Meets Strategic Plan 2020 goal of supporting a financially sound city providing effective services.

STUDIES AND REPORTS
GHD Technical Memo

COMMENTS
None

PRIOR APPROPRIATIONS
None

FISCAL IMPACT
Total project cost - $1,095,000.00 (2020 dollars) plus 4% for inflation annually.

	(Thousands of Dollars)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Expenditure Category	21/22	22/23	23/24	24/25	25/26	Five Year
Right-of-way						$0
Design/Evaluation		$80				$80
Professional Services			$70			$70
Construction			$981			$981
EXPENDITURE TOTALS	**$0**	**$80**	**$1,051**	**$0**	**$0**	**$1,131**
Wastewater Fund		$54	$715			$769
HCSD		$26	$336			$362
FUNDING TOTALS	**$0**	**$80**	**$1,051**	**$0**	**$0**	**$1,131**

CAPITAL IMPROVEMENT PROGRAM 2021

LONG TERM PROJECTS

HARBOR & WATERFRONT

Dock B Repairs

Repair or rebuild approximately 500 linear feet of dock and 350 linear feet of approach ramp.

PARKS & RECREATION

Old Town Square & Gazebo Reconstruction

Reconstruct the Old Town Square and Gazebo to enhance usability and create a town center.

LAND & FACILITIES

Eureka Municipal Airport Improvements

Construct improvements such as runway lights, resurfacing, new hangars, and security fencing at airport.

First Street Parking, Bayfront Parking

Provide additional parking, pedestrian access area, and open space and recreational area in Old Town.

Myrtle Grove Cemetery Project

Raise and level grave markers at Myrtle Grove Cemetery. Pave gravel drives through property.

Fire Facility

Demolition and construction of a new main fire station and CPR Training Center.

Firestation #3 Replacement

Purchase land in preparation for the future relocation and replacement of Fire Station #3 at 2905 Ocean.

Firestation #4 Replacement

Replacement of Fire Station #4 located at 1016 Myrtle Avenue.

Firestation 6 Museum

Provide structural repairs to the foundation, apply new paint, and continue maintenance to Museum.

LONG TERM PROJECTS – Cont'd

STREETS & STORMDRAINS

Harrison Avenue Multimodal Improvements
Increase roadway capacity with coordination from County of Humboldt.

North Eureka Gateway Improvements
Construction of gateway improvements along 4th and 5th Streets (US 101) from V Street to Airport Road.

South Eureka Gateway Improvements
Construction of gateway improvements along Broadway at and north of Herrick Avenue.

WATER & WASTEWATER

California Redwood Company Annexation
Annex the industrial site of the California Redwood Company and extend water/sewer utilities

California North Coast Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403
(707) 576-2220

Notice of Public Hearing

of

Resolution Order No R1-2021-0017

for

The Elk River Restoration Project as an Exemption to the Enclosed Bays and Estuaries Policy Prohibiting Waste Discharges to Humboldt Bay

On the basis of preliminary staff review and application of lawful standards and regulations, the California North Coast Regional Water Quality Control Board (Regional Water Board) proposes to adopt Resolution Order No. R1-2021-0017 (Resolution) approving the Elk River Restoration Project as an Exemption to the Enclosed Bays and Estuaries Policy Prohibiting Waste Discharges to Humboldt Bay.

This item will be open for public comment between **March 23, 2021 and April 22, 2021.**

Public Hearing Procedures

A public hearing to consider comments and objections to the proposed Resolution is scheduled for the Regional Water Board's **June 17 or 18, 2021** Board Meeting, or as announced in the Regional Water Board's agenda. Due to the COVID-19 emergency and the Governor's Executive Orders (Order Nos. N-29-20 and N-33-20) to protect public health by limiting public gatherings and requiring social distancing, this meeting is scheduled to occur solely via remote participation. Please follow the North Coast Regional Water Quality Control Board website for information on how to participate in the meeting and any updates regarding this agenda item.

Live video and audio broadcasts of the public hearing will be available via the internet and can be accessed at the CalEPA Public Meeting Live Webcasts page. The public hearing will be recorded.

Please be aware that dates and venues may change. You can access the current agenda for changes in dates and locations at the North Coast Regional Water Quality Control Board website. At the public hearing, the Regional Water Board will consider whether to affirm, reject, or modify the proposed permit.

In order for the Regional Water Board to consider any evidentiary material concerning this hearing, any documents, including written comments, technical reports and other evidentiary material, must be submitted to the Regional Water Board email no later than

5:00 p.m., on **April 22, 2021**. All documents that are received timely will be distributed to the Regional Water Board members and interested persons. These records will also become a permanent part of the administrative record for this public hearing.

Except at the discretion of the Regional Water Board Chair, written material received after the above date will not be accepted. If the Chair chooses to accept late written material, that material will not be incorporated into the administrative record if doing so would prejudice the Permittee or the Regional Water Board staff. The Chair may choose to modify this rule upon a showing of severe hardship (California Code of Regulations, Title 23, sections 648.1 and 648.4).

The Regional Water Board will accept written and oral comments and evidence regarding this item. Written comments and evidence must be submitted to the Regional Water Board no later than **April 22, 2021**. Oral comments or testimony at the above-scheduled hearing may summarize or explain timely submitted or late- accepted written evidence but shall not add new evidence. The time constraints for oral testimony or comments will be set by the Regional Water Board Chair and usually will allow no more than 10 minutes for the Regional Water Board staff and District staff and three minutes for other interested persons. A timer may be used, and speakers are expected to honor the time limits. Where speakers can be grouped by affiliation or interest, such groups will be expected to select a spokesperson and not be repetitive.

Document Review

The Proposed Resolution and related documents are available at the Regional Water Board's website for tentative orders for Board decisions. Additionally, the Proposed Resolution be inspected or copied at the Regional Water Board office, 5550 Skylane Boulevard, Suite A, Santa Rosa, California. During the COVID-19 emergency and pursuant to the Governor's Executive Order N-22-30, appointments are required for document review and can be made by calling (707) 576-2220.

Matthias St. John
Executive Officer
March 23, 2021

California Regional Water Quality Control Board
North Coast Region
Resolution No. R1-2021-0017
Approving
The Elk River Restoration Project as an Exemption to the Enclosed Bays and Estuaries Policy Prohibiting Waste Discharges to Humboldt Bay
Humboldt County

WHEREAS the California Regional Water Quality Control Board, North Coast Region, (hereinafter "Regional Water Board") finds that:

1. The City of Eureka (Permittee) owns and operates the Elk River Wastewater Treatment Plant (Facility) that was commissioned in June of 1984. The Facility discharges secondary treated effluent via a 48-inch diameter pipe, 4,100 feet in length, and equipped with a multiple port diffuser to Humboldt Bay, an enclosed bay, and a water of the United States.

2. The State Water Resources Control Board adopted Resolution No. 74-43, the *Water Quality Control Policy for the Enclosed Bays and Estuaries of California* (Policy), on May 16, 1974. The Policy established, "that the discharge of municipal wastewaters and industrial process waters to enclosed bays and estuaries (other than the San Francisco Bay-Delta system) should only be allowed when a discharge enhances the quality of the receiving water above that which would occur in the absence of the discharge."

3. Per State Water Resources Control Board Resolution 79-20 (Relating to Humboldt Bay), "as specifically applied to Humboldt Bay, the Board interprets the enhancement provision of the Bays and Estuaries Policy to require: (1) full secondary treatment, with disinfection and dechlorination, of sewage discharges; (2) compliance with any additional MPDES permit requirements issued by the Regional Board to protect beneficial uses; and (3) the fuller realization of existing beneficial uses or the creation of new beneficial uses either by or in conjunction with a wastewater treatment project."

4. Historically, the Facility has discharged on the ebb tide to ensure that wastewater was conveyed to the Pacific Ocean. Regional Water Board Resolution No. 80-10 concluded that the discharge to Humboldt Bay during ebb tide effectively classifies the discharge as an ocean discharge, rather than a discharge to an enclosed bay. On November 20, 1980, The State Water Board adopted Resolution No. 80-87 approving the ebb tide discharge concept as consistent with the requirements of the Policy.

5. National Pollutant Discharge Elimination System (NPDES) Order No. R1-2009-0033 required the Permittee to perform an effluent discharge study to assess the transport and fate of pollutants discharged from the Facility as well as the potential impacts to beneficial uses associated with the ebb-tide discharge. In compliance with Order No. R1-2009-0033, on January 8, 2014, the Permittee submitted the Effluent Discharge Study for the Elk River Wastewater Treatment Plant (2014 Effluent Discharge Study). The study utilized two models to simulate effluent transport:

   Advanced circulation (ADCIRC) as the primary model to predict currents within the Humboldt Bay that are the dominant mechanism of conveying effluent out to the ocean; and

   Particle tracking model (PTM) as a secondary model to track particles of effluent released by the Facility (utilizing currents predicted by ADCIRC).

   For baseline simulations, discharges began at slack tide and continued through the designated discharge window. Simulations were then conducted to determine the fate of effluent discharged under various tidal and Facility flow conditions. The 2014 Effluent Discharge Study modeling analysis shows that under all simulations the effluent is never completely conveyed to the ocean, and under certain conditions up to 90% of the effluent remains in the Humboldt Bay.

   Thus, the findings of the original studies used to support Resolution No. 80-87 that concluded the Facility's discharge was effectively an ocean discharge are contradicted by the 2014 Effluent Discharge Study results. Based on the conclusions of the 2014 Effluent Discharge Study, the discharge is not consistent with the findings of Resolutions 80-10 and 80-87 since a significant portion of the Facility's effluent remains in the Humboldt Bay.

   Regional Water Board staff determined that the 2014 Effluent Discharge Study was representative of current conditions and more accurately describes the discharge as compared to the original studies. Consequently, the Regional Water Board determined that the discharge does not qualify as an ocean discharge subject to the Ocean Plan but rather a bay discharge subject to the Enclosed Bays and Estuaries Policy.

6. Cease and Desist Order No. R1-2016-0012 (CDO) was adopted by the North Coast Regional Water Board (Regional Water Board) on June 20, 2016. The CDO requires, in part, the Permittee to submit for Executive Officer review and approval a Feasibility Study that considers the Outfall Inspection Report, Updated Sewer Use Ordinance Evaluation Report, Climate Change Readiness Study Plan, and Biological Survey Report required in accordance with NPDES Order No. R1-2016-0001 (NPDES Permit), and evaluates and recommends alternatives to achieve compliance with the Enclosed Bays and Estuaries Discharge Prohibition.

   The NPDES Permit includes Discharge Prohibition III.A that states, "The discharge of waste to Humboldt Bay is prohibited unless it complies with the State Water Board, Water Quality Control Policy for the Enclosed Bays and Estuaries of California (1974, 1995)." When the NPDES Permit is renewed, Prohibition III.A. will be retained.

7. Task 2B of the CDO requires the Permittee to, "submit written verification and an electronic copy of preliminary design plans and specifications for construction of the Executive Officer approved Preferred Alternative(s)." The project presented as an attachment to this Order is the first step in completing Task 2B of the CDO.

8. Regional Water Board staff and Permittee staff have meet regularly since adoption of the CDO and NPDES Permit to collaborate on a plan to chart the best path forward. On August 12, 2019, Regional Water Board Staff (Staff) sent a letter to the Permittee laying out staff's interpretation of the Enclosed Bays and Estuaries Policy, summarizing the outcomes of various discussions between the Permittee and Staff, and outlining the criteria by which enhancement will be evaluated. The Permittee must meet the following minimum criteria to be considered of an exemption to the Enclosed Bays and Estuaries Policy:

8.1. Provide enhancement that would not occur in the absence of the discharge.

8.2. Create additional marshlands or wetlands or other enhancing features.

8.3. Provide full protection of beneficial uses which the receiving water is capable of in the absence of the discharge.

8.4. Demonstrate that the project will yield a positive water quality benefit.

8.5. Provide full secondary treatment, including disinfection and dechlorination to all discharge flows to Humboldt Bay.

8.6. Eliminate blending within the treatment facility.

8.7. Comply with applicable water quality objectives for ammonia.

9. On September 26, 2019, the Permittee submitted a letter to Staff that indicated the Permittee's interest in pursuing the Elk River Tidal Marsh Enhancement Project by providing a benefit that "enhances the quality of the receiving water above that which would occur in the absence of the discharge." As its preferred project, the Permittee proposes to provide funding to implement the Elk River Tidal Marsh Enhancement Project (Project). The Project when implemented would meet criteria 8.1, 8.2, 8.3 and 8.4. The Permittee is currently evaluating alternatives to comply with criteria 8.5, 8.6 and 8.7. Ammonia modeling is currently being performed to determine if a mixing zone is applicable. These criteria will be met through compliance with the new NPDES permit scheduled for adoption in Spring of 2022. The Project proposes to include:

9.1. Restoration and enhancement of 114 acres of estuarine and intertidal habitats on City-owned property on both sides of the Elk River and adjacent to the Elk River Wastewater Treatment Facility. Restoration and enhancement will include regrading to create low flow habitat areas, removal of invasive plant species, planting of native plants and grasses, and the removal of structural constraints such as tide gates to allow hydraulic conductivity. The Project includes two areas, referred to as Area 1 and Area 2. Attachment A includes the Permittee's Project Proposal and details the restoration and enhancement for Area's 1 and 2 specifically.

Area 1 is located North of the Elk River and South of the Facility. Area 1 is approximately 25 acres of degraded inter-tidal wetland that will be restored by removing the riverfront levee and tide gate infrastructure, and excavating slough channels, integrating salt marsh plains, and public access via extension of the City's Waterfront Trail. A map of Area 1 can be found in the Permittee's Project Proposal in Attachment A.

Area 2 is approximately 89 acres located south of the Elk River. It is comprised of agricultural ditches, pasture, and degraded seasonal wetlands. The area is separated from the Elk River on the north side by a natural windblown sand formation, parallel to Elk River Slough. Construction of a rock seawall and the railroad infrastructure on the west side has isolated Area 2 from Humboldt Bay. Most of Area 2 is drained by a network of linear agricultural ditches and there is no freshwater inflow. Area 2 will be converted to an inter-tidal wetland with a network of tidal slough channels. The channel area will be contained by tidal ridges (living shorelines) that will host riparian habitat as well as public access trails.

9.2. Creation of public access via land and water through the development of a 0.2-mile Coastal Access Trail on the western edge and a kayak launch on the northern side of Area 1.

9.3. Creation of an interpretive center that could support increased public access and provide information on protection and restoration of Humboldt Bay, information about native and restored habitats, and information about local aquatic and wildlife species.

9.4. Removal of the existing tide gates, excavation of tidal channels to increase the tidal prism and eelgrass habitat, removal of invasive Spartina, and enhancement of native salt and freshwater marsh and riparian habitat through active and passive revegetation.

9.5. Funding up to $3.3 million toward completion of project construction.

10. On November 2, 2020, Staff responded to the Permittee's project proposal with a Staff level concurrence letter (Letter). The Letter acknowledges that the proposed project is, "is in satisfactory compliance with the exception eligibility criteria for water quality enhancement projects set forth in Staff's August 12, 2019 letter to the Permittee" discussed in Finding 6 above. The project meets the criteria listed in 8.1 through 8.4 under item 8 identified above.

11. An additional requirement stipulated in the Letter is that the Permittee develop and implement a long-term plan to identify and address critical infrastructure and significant pollutant sources that are currently impacting Humboldt Bay, or at risk of impacting due to sea level rise. The Permittee shall develop this plan in coordination with and taking into consideration the input and advice from key stakeholder and partner agencies, such as the Coastal Commission, City of Arcata, the Harbor District, and environmental groups who will form part of a Technical Advisory Committee (TAC). The Permittee shall be required to conduct the following as it relates to the TAC:

11.1. Develop a Governance Structure/Memorandum of Understanding in coordination with the Regional Water Board for the oversight and management of the TAC and development of deliverables.

11.2. Hold and host regular meetings to make progress on the objective(s) of the project.

11.3. Develop and submit annual progress reports

11.4. Prepare assessment reports and maps of Permittee owned and operated critical infrastructure and significant pollutants sources.

11.5. Develop an Action Plan for all City owned, operated, or maintained sources, facilities, or infrastructure.

To comply with the California Environmental Quality Act (CEQA, Pub. Res. Code § 21000 et seq), the potential environmental effects associated with the project were analyzed in the Initial Study/Mitigated Negative Declaration (SCH#2017082048) prepared by the City of Eureka, the lead agency for the project. The Regional Water Board, as a responsible agency under CEQA, has reviewed and considered the environmental documentation prepared by the City of Eureka for those aspects of the project that are within the Regional Water Board's jurisdiction.

The Regional Water Board finds that none of the conditions described in California Code of Regulations, title 14, section 15162 have occurred such that preparation of additional environmental documents pursuant to CEQA is required.

RESOLUTION

THEREFORE it is hereby resolved that:

The Regional Water Board determines the Elk River Tidal Enhancement Project (Project), attached hereto as Attachment 1 as set forth in the above Resolution, is consistent with the exception to the Enclosed Bays and Estuaries Discharge Prohibition, and is available to the City of Eureka as a method for complying with Discharge Prohibition III.A. in NPDES permit Order No. R1-2016-0001.

CERTIFICATION

I, Matthias St. John, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, North Coast Region, on June 17, 2021.

_____

Matthias St. John

Executive Officer

21_0017_Eureka_Elk_River_Restoration Draft

ATTACHMENT A - ELK RIVER ESTUARY TIDAL ENHANCEMENT PROJECT PROPOSAL

1. Introduction

The North Coast Regional Water Quality Control Board (Regional Water Board) has indicated that the City of Eureka may continue to pursue effluent discharge from the Elk River Wastewater Treatment Plant (ERWWTP) to the entrance of Humboldt Bay under an exception to the Enclosed Bays and Estuaries Policy (EBEP). The EBEP requires "A demonstration by the applicant that the discharge, through the creation of new beneficial area or a fuller realization, enhances water quality for those beneficial uses which could be made of the receiving water in the absence of all point source discharges." The definition of enhancement was further defined by the Regional Board in a letter dated August 12, 2019, which includes minimum performance criteria, project evaluation metrics, and other considerations.

The City of Eureka is proposing to develop and construct the Elk River Estuary Tidal Enhancement Project (the Project) to meet the enhancement requirements of the EBEP. The Project addresses minimum performance criteria, and also rates highly in the project metrics, including longevity, climate resilience, and water quality improvement, among other metrics.

The Elk River is the largest and most ecologically significant river entering Humboldt Bay. Ecological values of the Elk River include Old Growth Redwoods, Marbled Murrelet, Bald Eagle, Coho and Chinook Salmon, and Steelhead, all of which utilize estuarine habitat for rearing and foraging. This watershed is heavily impacted by upstream land use including grazing, farming, and timber harvesting, which have significantly impacted water quality, hydrology, and sediment transport. Figure 3 is included showing the scale of Elk River Watershed. Structures such as roadways, dikes and tide gates restrict natural hydrology and sediment accretion, create barriers to fish passage, and degrade wildlife habitat. The City of Eureka seeks to improve these issues through the development of the Elk River Tidal Enhancement Project.

Figure 1: South Bank of the Elk River Looking East from Existing Bridge

2. **Project Summary**

The Project will restore and enhance estuary and inter-tidal wetland habitats on approximately 114 acres adjacent to Elk River, create approximately 2.8 miles of navigable tidal slough channels connecting to the Elk River Estuary, as well as provide public access amenities to Elk River and Humboldt Bay with a one mile extension of Class 1 ADA-compliant Waterfront Trail , the construction of a non-motorized boat access point, a trailhead parking area off Tooby Road and, in a later phase, an Elk River Interpretive Center.

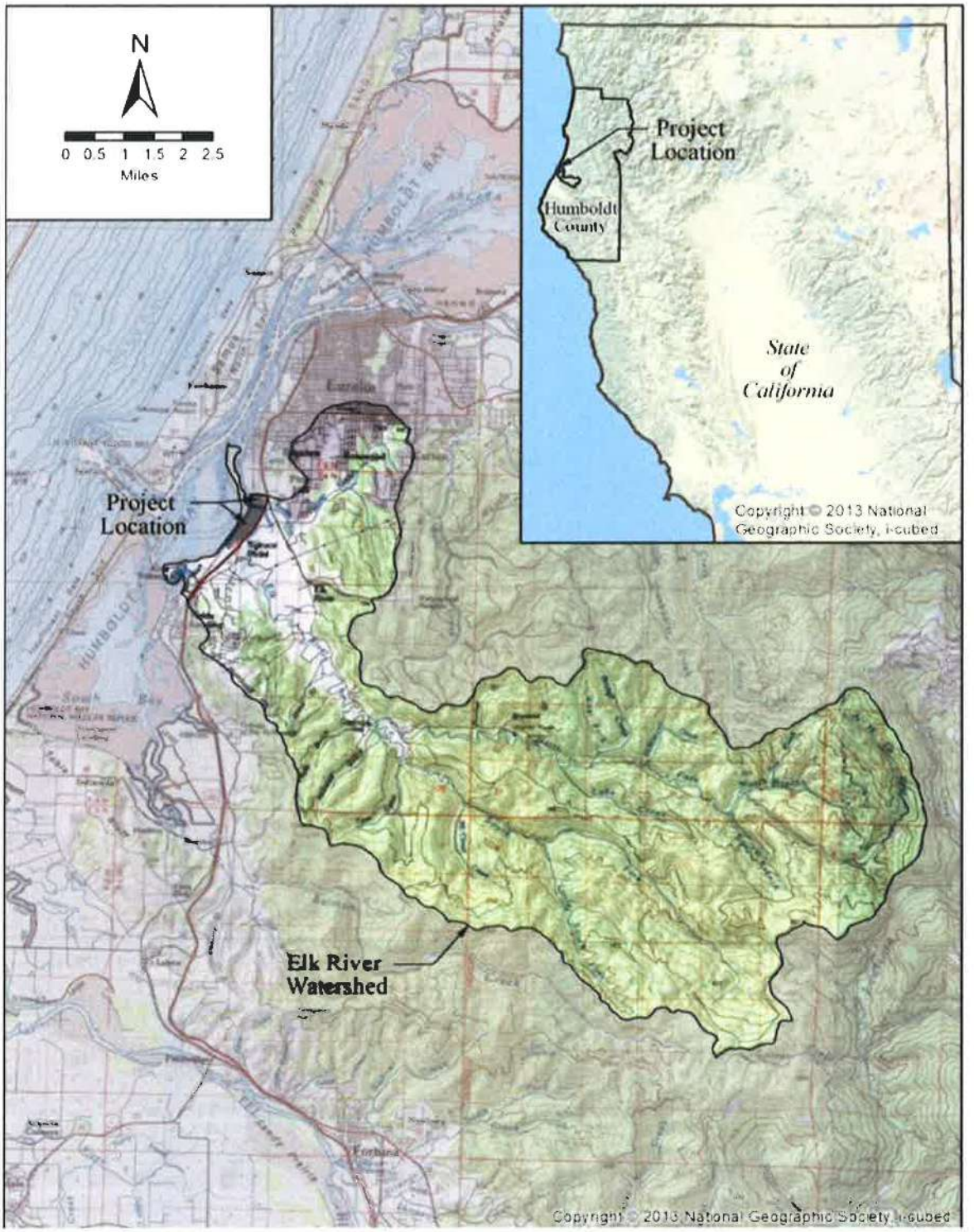
The Project area currently consists of pasture, coastal scrub, degraded seasonal wetlands dominated by pasture grasses, and salt marsh dominated by invasive Spartina (Spartina densiflora), lacking key ecosystem processes such as tidal exchange. The Project will restore a functioning tidal marsh complex with native vegetation and a network of tidal channels to allow for full tidal exchange with Elk River Slough. This will require the conversion of some degraded seasonal freshwater and brackish wetlands, currently used for livestock grazing, to inter-tidal wetlands (salt marsh) and tidal channels (open water, Eelgrass habitat, and mud flat).

Figure 2: Proposed Site Plan of the Elk River Tidal Enhancement Project

2.1. Location

The Project is bound by U.S. Highway 101 and Humboldt County's Tooby Road on the east and the North Coast Railroad Authority (NCRA) right of way on the west. The City's Waterfront Trail, wastewater treatment facility, and private properties border the project on the north. The southern project boundary is bordered by private property. The entire site is owned by the City of Eureka.

Figure 3: Map of the Elk River Watershed



2.2. Estuary Function

The Elk River Estuary provides a critical opportunity to rebuild a portion of the lost tidal marsh systems around Humboldt Bay. Between the years 1870 and 1910, Humboldt Bay lost an estimated 90% of its salt marsh and wetland habitat due to diking and draining for agricultural and railroad purposes (Shapiro and Associates, 1980). The estuary is currently very limited in area and habitat diversity. It has generally become a three-mile long, linear, diked slough channel with very few tidal marsh areas.

Healthy tidal marsh systems provide invaluable nutrients within an estuary ecosystem. An estuary is an enclosed body of brackish water formed by part saline water from ocean tides, along with freshwater flows from steams or rivers. The combination of seawater and freshwater produce high level of nutrients in the water column. A tidal marsh is a unique feature within an estuary where the area floods and drains based upon the tidal influence. The proposed project will create a functioning tidal marsh system across more than 100 acres to provide these unique habitat and water quality benefits.

2.3. Exception Criteria

The project was specifically selected as it poses the ability to restore these coastal landscape processes to both former tidelands and historic floodplain, and fulfill the minimum exception criteria identified by the Regional Water Board (exception criteria). Project outcomes include restoring lost hydrologic function, establishing estuary habitat, creating habitat for special status species, improving water quality, and providing public access. Four of the exception criteria are addressed with the Project, and described in greater detail in this document. Those are:

- Provide enhancement that would not occur in the absence of the discharge.
- Create additional marshlands or wetlands or other enhancing features.
- Provide full protection of beneficial uses which the receiving water is capable of in the absence of the discharge.
- Demonstrate that the project will yield a positive water quality benefit.

The project has been evaluated based upon a series of metrics (evaluation metrics). These include:

- Longevity of Enhancement: The components of the Project are enduring and provide intended benefits for a minimum time frame equivalent to the infrastructure life of 30 years.
- Adaptive Capacity/ Natural Resilience: The project has the ability to adapt to changing conditions in the natural environment over time, as well as the

opportunity to restore and enhance habitat by planting native plants and improving biological diversity.

- Climate Change Resilience: The project has the ability to continue to provide benefits to address climate change over time for at minimum the life of the infrastructure.

- Consistent with Regional Planning Efforts: The project supports existing regional planning efforts to support Humboldt Bay.

- City Amenability to Long-Term Maintenance: The project components can be maintained for their useful life and the City can address long term maintenance costs and responsibilities.

3. **Summary of Proposed Actions**

The Project site is organized as Area 1 to the north of Elk River and Area 2 to the south of Elk River. Area 1 is approximately 25 acres of degraded inter-tidal wetland that will be restored by removing the riverfront levee and tide gate infrastructure, and excavating slough channels, integrating salt marsh plains, and public access via extension of the City's Waterfront Trail. A simplified list of the proposed actions and sequence for Area 1:

- Re-contour the entire site and expand existing channel: Excavate and enlarge (widen and deepen) inter-tidal channels. Excavate approximately 3,385 ft of existing and 2,394 ft of new inter-tidal channels and excavate and intersperse tidal ponds or depressions in channels.

- Repurpose the excavated soil material to create sloped channel edges and marsh plains. Fill artificial depressions and levee borrow ditches, and create tidal mounds/hummocks (islands). Provide cover for wildlife and create habitat diversity by placing wood debris on site.

- Remove non-native vegetation, specifically eradicate 20 acres of invasive Spartina, and revegetate the site over multiple years.

- Excavate and remove interior, exterior dikes and Elk River tide gates allowing river currents and tidal slough currents to travel into the project Area.

- Construct public access amenities: Install non-motorized boat access near the terminus of Pound Road. Extend the Waterfront Trail 1,000 feet from its existing terminus at Pound Road, southward parallel to the railroad grade to Elk River. Design and construct the future Interpretive Center facility north of Pound Road.

Figure 4: Elk River Estuary Tidal Enhancement Project, Areas 1 and 2

Figure 5: Looking West at High Tide in Area 1 at Spartina Dominated Salt Marsh.

Area 2 is approximately 89 acres located south of the Elk River. It is comprised of agricultural ditches, pasture, and degraded seasonal wetlands. The area is separated from the Elk River on the north side by a natural windblown sand formation, parallel to Elk River Slough. Construction of a rock seawall and the railroad infrastructure on the west side has isolated Area 2 from Humboldt Bay.

Most of Area 2 is drained by a network of linear agricultural ditches and there is no freshwater inflow. Area 2 will be converted to an inter-tidal wetland with a network of tidal slough channels. The channel area will be contained by tidal ridges (living shorelines) that will host riparian habitat as well as public access trails.

Generalized list of proposed actions and sequence for Area 2:

- Re-contour the area by excavating approximately 125,200 cubic yards to create a network of new inter-tidal channels. Use excavated material to fill agricultural ditches, and construct the design features such as sloped tidal ridge(s), marsh plains, and create depressions and mounds (tidal islands).
- Remove invasive vegetation, including Spartina, and install a variety of native vegetation types and create habitat features by placing woody debris.
- Construct public access amenities including new gravel parking area at the southern end of Tooby Road, and the Waterfront Trail Extension trail from the new parking lot northward to the Elk River.

Figure 6: Area 2 Existing Pastureland

3.1. Reclaim Historic Tidelands and Restore Elk River Floodplain

The lower portion of the Elk River watershed, has been impacted by urban development and human activities that encroach upon the floodplains and have affected the distribution and timing of drainage during rainfall and storm events.

The lower Elk River drains through fragmented floodplains, diked from floodplain overflow which means that the rain fall, and storm water is restricted and constrained between the dikes, roadways, culverts, pasture, degraded marsh, and man-made levees. Highway 101 bisects the Elk River floodplains controlling the drainage along its length. During extreme storm events the highway acts as a weir with water traveling through under-sized culverts and remaining water sheet-flowing across paved surfaces, pasture, and surrounding areas. Water on the east side of Highway 101 becomes trapped in upslope drainage ponds and contributes to localized flooding.

The Project area contains historical tidal wetlands that were diked off from the Elk River for agricultural and railroad purposes in the early 1900's. The Project site is situated between the railroad levee to the west and Highway 101 infrastructure to the east. These man-made structures trap storm water from draining. Additionally, the dikes, levees, and resulting sand deposits create a barrier to tidal activity within the project. As part of an effort to not increase flood levels on adjacent properties and critical infrastructure (Highway 101) this Project has gone through an iterative design process with design alteration based on hydraulic analysis. This led to the proposed project design that not only avoids increasing flood levels, it reduces them.

The Project will remove the riverfront dikes along the Elk River frontage to allow high-flowing turbid stormwater in the river channel to enter a newly constructed tidal channel flowing into and onto marsh plain surfaces. Stormwater will flow from the Elk River into project wetlands that serve as tidal marshes and stormwater flood basins. The proposed design allows for drainage into the Elk River though the newly constructed tidal channel mouth when river levels recede downstream as tides drop and when upstream floodwaters cease.

Not only will the Project result in a reduction of flooding for various adjacent areas, it will also reduce flooding in distant areas. During a large storm event, river flows will move down river, enter the Project site, and then be captured and detained within the Project. When the river levels then recede or the tide levels recede through a natural tidal cycle, water will naturally exit the Project area through the mouth of the channel and back into Elk River Estuary.

Figure 7:In Area 2 the Existing Degraded Pasture

The project team has analyzed the extreme (estimated 100-year recurrence interval) coastal and fluvial events in the Lower Elk River. The project has been designed to either pose no adverse impacts, or to lower adverse impacts to infrastructure such as Highway 101 and adjacent properties.

The design of elements to restore the floodplain directly addresses the exception criteria and evaluation metrics. As climate change causes larger and more extreme storm events, the new Project areas will provide capacity for stormwater, reduce localized flooding to adjacent properties, as well as reduce flooding upstream. As noted above, current stormwater often travels across paved surfaces, through man-made culverts and other infrastructure, carrying pollutants directly into the Elk River and Humboldt Bay. The Project provides a new mechanism to direct stormwater into a natural biologic system to filter pollutants and sediments before water is returned to the Elk River Slough, thereby improving water quality in Humboldt Bay.

Similarly, the Project will restore historic tidelands and provide an enhancement that is adaptive to Sea Level Rise (SLR). The hydrological design will provide longevity of the enhancement for a minimum of 30 years, is adaptable to SLR, is consistent with regional planning efforts toward SLR, and will ensure that the City can maintain the enhancement for its' useful life of 30 years.

Without these improvements to the historic tideland and floodplain, the storm flows and high tide events will continue to carry pollutants into Humboldt Bay. Without the Project, the beneficial uses of Humboldt Bay as well as water quality benefits cannot be achieved.

This demonstrates that the enhancement Project will create benefits that would not be present in the absence of the discharge, and the Project is a creation of unique benefits and enhancement to the receiving waters of Humboldt Bay. By approving the Project as an exception to the discharge permit, the Regional Water Board plays a role in protecting protect beneficial uses and yielding significant water quality improvements.

3.2. **Create Tidal Marsh Systems and Improve Water Quality**

Use of design features: Channels, Marsh Plains, Tidal Ridge

While an estuary may be viewed as one large flat space when filled with water, it should be viewed as a unique set of elevations that are under water. Each elevation has a function to perform within the wetland system. The project design features result in various elevations including deep channels, shallow channels, sloped edges, marsh plains, wetland depressions and hummocks, riparian upland areas, as well as higher sloped tidal ridges. These features integrated across the 114 acre site provide a vast system to perform water quality enhancement through settling of solids and sediments, filtration of pollutants in the water column, and chemical detoxification by adding oxygen and biologic elements into the water through wetland vegetation.

The restoration components of the Project include re-connecting the historic floodplain property to the lower Elk River. The Lower Elk River is listed as an impaired water body under Section 303(d) of the Clean Water Act due to the sedimentation and siltation as well as indicator bacteria. By connecting the river's lower floodplains through a series of new tidal channels the fine sediments will be metered and stored. The proposed network of tidal slough channels will capture and receive the twice-daily tidal cycle as well as receive stormwater making the entire project perform as a tidal marsh system with deep channels, low wet-lands, and upper marsh plains. Vegetating the marsh plains with native tidal, brackish, and freshwater marsh plant species will filter and trap sediment on the marsh plains, while improving the richness of the habitat and building soils. By reducing the accumulation of fine sediments within the water column, and providing for natural sediment deposits along marsh plains, the project will improve water quality.

Figure 8: Site Images Showing Existing Channel North of the Elk River in 25 Acres of Area 1, and Existing Pasture South of Elk River in 89 acres of Area 2. Proposed Channel Network in Blue and Tidal Ridge in Yellow.

The proposed tidal slough channel shape and geometry is designed to transport a full tidal regime into the restoration areas, during each tide cycle. The proposed marsh plains are designed at target elevations to accommodate existing high-tide events as well as predicted sea level rise to promote a natural colonization of native salt marsh species and sedimentation to enhance water quality. As a result, rising tide levels will naturally deposit native seed material as well as sediment onto the marsh plains and thereby establish grasses and native plant species so the site can evolve and perform related water quality enhancement that is enduring and longstanding after the project.

The Project will create a tidal ridge on the west, south, and east edge of the project to establish a high-point around the lower channel and marsh systems. A tidal ridge is often called a living shoreline, and includes constructing a gradually sloping berm with vegetation along its slopes. Living shorelines often have water travel through a berm or levee structure creating water filtration. While the proposed tidal ridge is permeable and provides some filtration, the design is intended to hold water within the project and support the hydrologic connection between the River and the project features. For the purpose of this project a tidal ridge is defined as a berm rising from the intertidal zone to an elevation above the tidal zone. This elongated linear berm feature will provide immense water quality benefits due to the exchange of water with tides and storm events.

The gradual slope design allows the project to establish native vegetation at the site, and the tidal influence will carry sediment to the tidal ridge. When sediment is deposited this is called sediment accretion. This helps the biologic diversity at the site and encourages native plant establishment.

Wetlands function as natural water cleansing systems by spreading low velocity, shallow water through densely vegetated surfaces filtering pollution from the water column. Stormwater and tidal water will drain into and from the project site through tidal channel networks and flow into connected side-channels and marsh systems. During storm events the channel network will provide detention area and hold water until storm flows and tide levels recede. This constant movement of water in-and-out of the channel network, reaching across the site, provides an expansive marsh filtration system with tremendous enhancement to water quality. As water enters the site, caring pollutants and bacteria in the water column, the water will spread through the channels and across the marsh plains, filtering pollutants, and depositing sediments, before the tides pull water back through the site returning to the Elk River and into Humboldt Bay.

The noted Project design features along with the hydrologic modeling and use of varied elevations create a true enhancement project to meet the exception criteria. Similarly, the Project features explicitly create marshlands, wetlands, and other enhancing features. The tidal channels provide open waters, and navigational waters, for both human uses and aquatic species providing beneficial uses noted for Humboldt Bay. (Beneficial uses are explored further and later in this document). The design elements will self-perform and adapt over time, as well as provide climate resilience and adaptation to Sea Level Rise providing longevity.

Figure 9: Area 1 Proposed Elevations Based Upon Hydrologic Modeling.

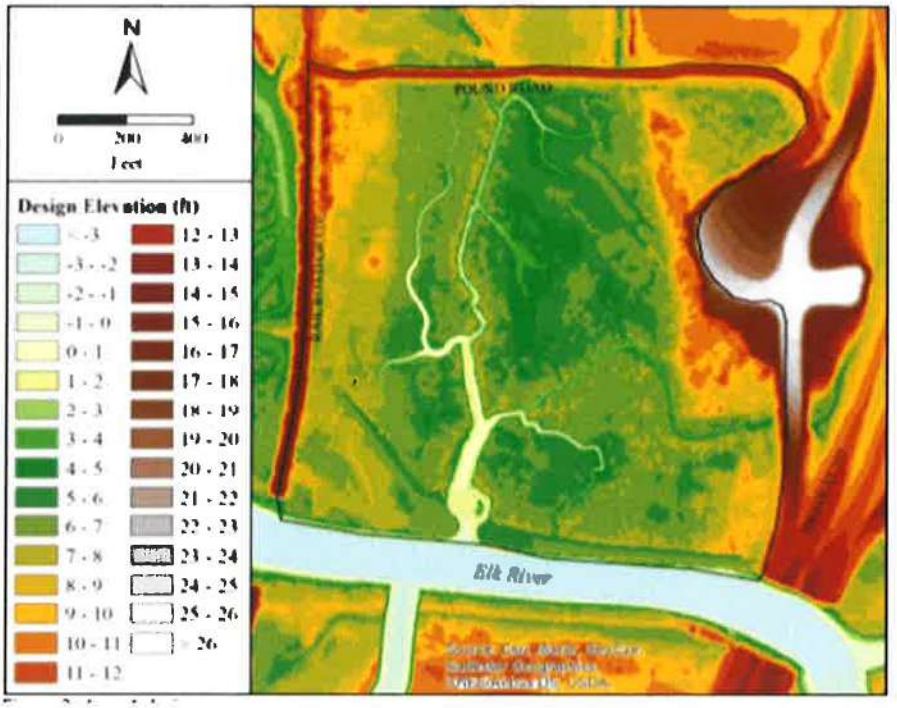
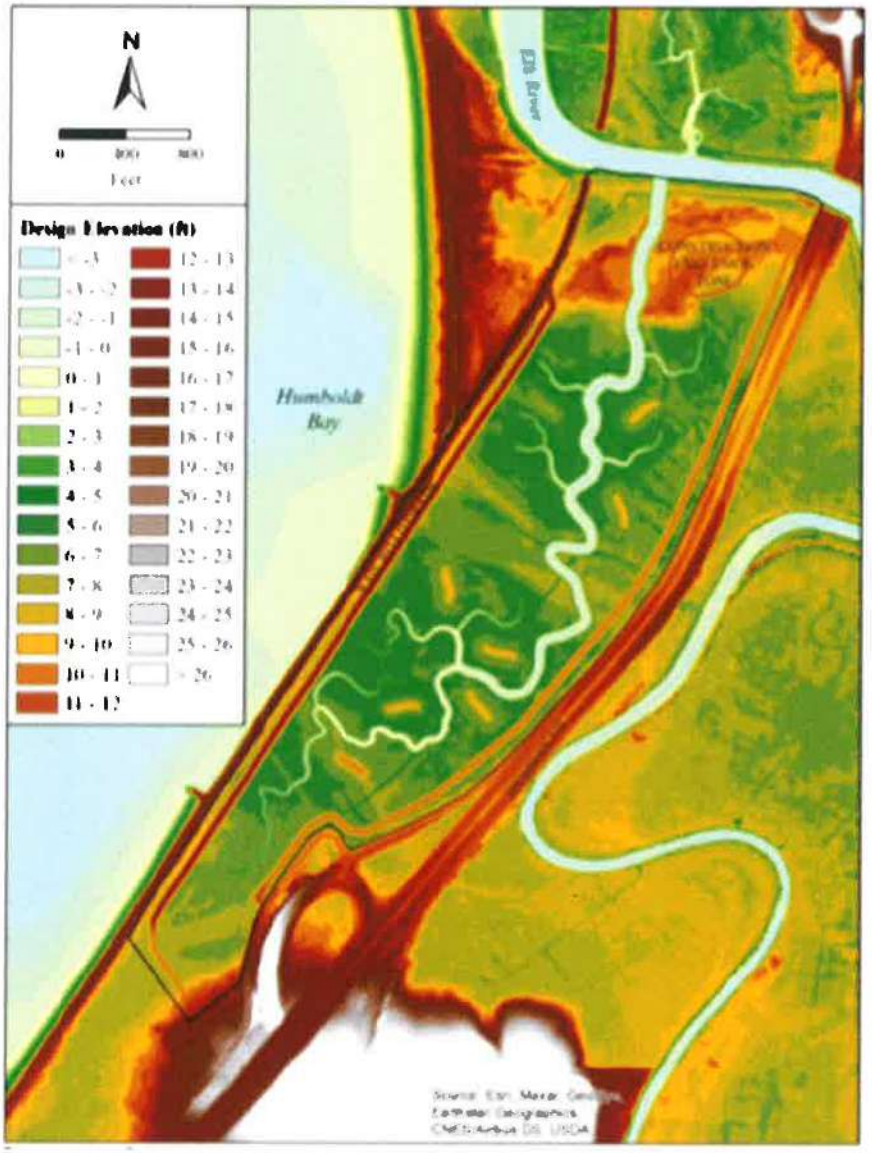


Figure 10: Area 2 Proposed Elevations Based Upon Hydrologic Modeling.



3.3. Establish Habitat

Tidal marshes filter out pollutants; buffer adjacent lands from flood tides and storms; contribute invaluable nutrients to the estuarine ecosystem; and provide important habitat for fish, invertebrates, many shorebirds, and other waterfowl. The project will establish habitat over 114 acres with the development of salt marsh, freshwater wetlands, brackish marsh, open waters, riparian areas, and upland areas. The Project will provide much needed habitat types for a variety of endangered, threatened, and special status species along with migratory birds.

- By removing dikes and tides gates the Project will create new fish habitat and fish refuge to support listed salmonid species including Chinook Salmon (Oncorhynchus tshawytscha), Coho Salmon (Oncorhynchus kisutch), and Steelhead Trout (Oncorhynchus mykiss).

- The new channel network and marsh plains will increase inter-tidal, brackish, and freshwater habitats for important aquatic species including but not limited to Eelgrass, Olympia Oyster (Ostrea lurida), Dungeness Crab (Metacarcinus magister), Longfin Smelt (Spirinus thaleichthys), Tidewater Goby (Eucyclogbius newberryi), Humboldt Bay owl's clover (Castilleja ambigua ssp. humboldtiensis), Lyngbye's sedge (Carex lyngbyei), and Point Reyes bird's-beak (Chloropyron maritimum ssp. palustre).

- Removal of invasive dense-flowered cordgrass (Spartina densiflora) vegetation from the site, and creation of healthy salt marsh with a range of surface elevations to support low and high salt marsh vegetation, including protection and re-introduction of special status plant species Lyngbye's sedge and Humboldt Bay Owl's Clover.

- By re-establishing riparian and upland habitat with native vegetation, this will provide needed shelter and vegetation for resident and migratory bird species.

Table 1: Existing and Projected Acreages of Habitats, Agricultural lands, Roads and Trails Area 1 and 2 Combined.

Land Type	Existing Acreage[1]	Proposed Acreage	Net Change in Acreage
Eelgrass (on mudflats within tidal channels)	0	6.0	+ 6.0
Open Waters	1.2	3.0	+ 1.8
Brackish Marsh 1	1.3	0	-1.3
Agricultural Wetlands (Pastureland)	68.9	0	- 68.9
Agricultural Uplands (Pastureland)	13.8	0	- 13.8
Freshwater (Vegetated Drainage Ditches)	0.7	0	- 0.7
Freshwater Marsh	0	0.7	+ 0.7
Salt Marsh	20.8	77.8	+ 57
Riparian	0.2	11.3	+ 11.1
Uplands	5.8	0	- 5.8
Road/Trail	1.2	9.3	+ 8.1

[1] All acreages are approximate

The Project will provide necessary habitat types for a variety of species, which touches on the integration of the Project to address regional planning efforts. The Project design functions to support fish habitat are consistent with the goals of the California Department of Fish and Game Recovery Strategy for California Coho Salmon, as well as the US Fish and Wildlife Service Recovery Plan for the Tidewater Goby.

While the rearing habitat and refuge in the estuary is currently scarce, Coho and other anadromous fish are still spawning in the upper reaches of Elk River. With climate change, the lower reaches of the river could warm and become too shallow to support fish during the drier months. Similar barrier removal projects have been completed in other estuaries on Humboldt Bay and report success in providing critical rearing habitat and estuarine refuge.

Figure 11:One of the Main Restoration Components in Area 1 is the Removal of Existing Tides Gates to Allow Tidal Inundation of the New Channel System. Removal of Barriers Such as this Will Increase Habitat for Fish and Aquatic Species

Restoration of vegetation types at the Project includes the removal of more than 20 acres of dense-flowered cordgrass (Spartina densiflora). Spartina can grow year-round in varied salt-marsh environments and naturally out-competes the native vegetation which will generally go dormant in the winter. Spartina is so invasive it can actually reshape the landscape by the physical structure, large stem, and root density, and impacts to sediment retention.

The Project will remove Spartina over multiple years, to encourage native vegetation. These efforts are consistent with the Humboldt Bay Regional Spartina Eradication Plan.

Existing plants species documented at the project site, and listed as threatened or endangered include Lyngbye's Sedge and Humboldt Bay Owl's Clover. Both of these plants will be protected as they exist in small quantities, and re-introduced throughout the project site. The US Fish and Wildlife Service facilitates a monitoring program for the Owl's Clover at the Humboldt Bay Wildlife Refuge.

Establishment of tidal marsh vegetation along with the tidal marsh plains will provide direct benefits to many resident and migratory bird species. Humboldt Bay is located within the Pacific Flyway, which is the north-south travel route for migratory birds extending from Alaska to Patagonia. The Project will provide a location to rest and forage. Numerous species utilize coastal landscapes and marsh plains including small species; swallow, wrens, and sparrows, as well as waterfowl; ducks and geese. Larger bird families are also present including heron, egret and even raptors, like red-tailed and red-shouldered hawks. But the bay is most famous for the vast species of shorebirds such as plovers, sandpipers, and godwits. The number of shorebirds utilizing the bay and surrounding seasonally wet pasture and wetlands are higher than any other bay or estuary in California, except San Francisco Bay. Eighteen State-listed bird species ("endangered" of "species of concern") utilize similar habitats along Humboldt Bay.

The exception criteria stress that the Project must provide full protection of beneficial uses which the receiving water is capable of in the absence of the discharge. The Project has been analyzed against the beneficial uses attributed to Humboldt Bay in the North Coast Region Basin Plan. The creation of habitat touches on a minimum of six of the beneficial uses; Estuarine Habitat, Marine Habitat, Wildlife Habitat, Preservation of Rare, Threatened or Endangered Species, Migration of Aquatic Organisms, and Spawning, Reproduction, and Early Development.

Many of the noted endangered, threatened, and concern-status species are vulnerable to the impacts of climate change. The project provides climate adaptation and resilience for wildlife in the form of habitat connectivity, improvement of habitat quality for climate vulnerable species, sea level rise adaptability, and invasive species removal. The project will decrease the climate change vulnerability of ecosystems and species important to Humboldt Bay by providing marsh habitat types and their related benefits.

Incorporating passive public use with trails, non-motorized boat launch, signage and the future Elk River Interpretive Center also creates a method to reach and teach the public about the importance of habitat. The public access amenities provide a way to engage with the surroundings and develop an appreciation and respect for these impressive habitat systems.

The trails and site features are designed to encourage passive use, while also creating a wide buffer to protect vegetation and waterways from being trampled or negative impacts of human uses.

3.4. **Provide Public Access Amenities**

Design Features: trail, parking, boat launch, future Interpretive Center

The Project includes an approximately one-mile-long Class I, ADA-accessible, non-motorized multiuse trail along Humboldt Bay that will serve as part of the California Coastal Trail. As designed to meet Caltrans Class I multi-use trail design standards (Caltrans Highway Design Manual, Chapter 1000) and Americans with Disabilities Act (ADA) design standards, the proposed trail will expand shoreline access for a variety of users including bicyclists, walkers, hikers, runners, skaters, wildlife viewers, nature educators, persons in wheelchairs, and other non-motorized outdoor users. The trail will promote access to the Bay, the Elk River estuary, and surrounding marshlands for wildlife viewing and recreation. As part of the California Coastal Trail, it will attract users regionally and state-wide.

The one mile-long trail extension, which terminates at the southern boundary of Eureka, will essentially complete the California Coastal Trail through the length of the City's waterfront, approximately six miles of which the City has constructed over the past seven years. In addition, the City's trail system is being developed as part of a collaborative regional trail effort with the County of Humboldt, the City of Arcata, the Humboldt County Association of Governments, the State Coastal Conservancy, the North Coast Railroad Authority, and other partners to develop a continuous coastal trail network along the eastern shoreline of Humboldt Bay for a total length of over 13 miles.

Not only does the trail provide an access point to nature and a larger trail network, it has been designed as a regional transportation facility. This has multiple benefits for health and wellness, reduction of emissions by encouraging bike and walk options, as well as improved safety for bike and pedestrians. The south trail entrance at Tooby Road provides a critical access point for bike and pedestrian travel approaching Eureka from the south, specifically from the isolated residential area of Humboldt Hill. There are no sidewalks, access trails, or other non-motorized facilities available between Humboldt Hill and Eureka City limits. As a result, bikes and pedestrians utilize the narrow shoulder of Highway 101, increasing conflicts between vehicles and non-motorized vehicles and resulting in fatalities. The trail will provide an off-highway alternative for users traveling between Humboldt Hill and Eureka proper.

The City will provide a coastal access parking area in an existing upland adjacent to Tooby Road at the south end of the Project. The parking area will be graveled and will support approximately 10 vehicles. In addition, parking at the north end of Area 1 is available along Pound Road.

Preliminary signage concepts include installing access welcome signs at Pound Road (north end) and Tooby Road (south end).

The new non-motorized boat launch will be installed on the north side of the project, with access from Pound Road where an existing park and ride parking lot provides parking. This boating amenity will offer the ideal setting for a kayak, canoe, or stand-up paddle board, to access the new channel network on the north side of Elk River. At high-tide users can paddle through the channel and continue upriver into the Elk River watershed, or down river into the Elk River Slough, and then into Humboldt Bay.

Adjacent to the location of the new boat-launch, the City has identified a property for the future Elk River Interpretive Center. The planning for this facility is still in the early stages, but the current property owner is interested in selling to the City. The parcel is approximately three acres and is positioned between the Project and the City's Elk River Wastewater Treatment Plant. The property will accommodate the future Interpretive Center facility to include a building with gathering areas both interior and exterior, restrooms, and interpretive displays. Adjacent to the Interpretive Center, the Project may be further expanded to provide for nature viewing opportunities on trails in and adjacent to the Center and the neighboring Elk River Wastewater Treatment Plant.

The amenities provide for protection of beneficial uses of Humboldt Bay including:

- Improvements to navigation with new non-motorized boat launch and a new expanded navigable channel extending 2.8 miles;
- Improvement in water contact recreation, for boating, paddling, and fishing;
- Improvement in water quality related to non-contact water recreation for activities such as nature viewing and bird watching, with the project attracting resident and migratory bird species; and
- Improvements in the recreational and sport fishery by helping to enhance fish health and diversity of species.

Figure 12:Existing Waterfront Trail Connection on Pound Road Looking West Near Boat Launch Location

Figure 13:Existing Waterfront Trail Along Pound Road, Looking South at Boat Launch Location

Figure 14:Looking South from Proposed Boat Launch Location at Low Tide. Viewing the Existing Slough Channel in Area 1 that will be Widened and Deepened Through the Enhancement Project.

3.5. **Project Longevity**

The project will be self-sustaining over the long-term and adaptable to Sea Level Rise (SLR). The fully functioning tidal marsh complex includes various channel depths, variable marsh plains, wetland depressions, upland riparian areas, and sloped tidal ridges. The high projections for sea level rise on Humboldt Bay are: 2030 at 0.9 feet, 2050 at 1.9 feet, 2070 at 3.2 feet, and 2100 at 5.4 feet. The design of the salt marsh plains range in elevation from 5.8 to 8.8. Mean high water (MHW) currently is 5.8 feet NAVD 88 as measured at the North Spit tide gage. By 2050, MHW may be as high as 7.7 feet and by 2070 at 9.0 feet. With increasing high tides, the project elevations will shift over time. The gradually sloping marsh plains and tidal ridges will allow wetlands to migrate upslope and remain viable for a longer period. Using an average accretion rate of 2.5mm/year and a projected rate of sea level rise, along with the project design, it is estimated the tidal marsh will be supported through at least 2050, with the upland riparian areas and tidal ridges are expected to support marsh habitat long past 2100 since they will be construction at elevations ranging from 9 to 12 feet. Habitat distribution for eelgrass and mudflat will also expand through 2100.

The new trail extension and similar public access amenities will become part of the City's larger trail network and will be scheduled for routine maintenance and upgrades as the system ages. Similarly, parking areas, the non-motorized boat access point, and signage or other amenities within the Project will be part of a scheduled assessment for upgrades or replacement as they age through the City's Capital Improvement Program (CIP). The City will be actively managing and maintaining this facility to provide for long-term planning and upgrades as necessary.

Per the evaluation metrics, the Project will be enduring and provide intended benefits for a minimum time frame equivalent to the infrastructure life of 30 years. The design will adapt to changing conditions in the natural environment over time. The project will continue to provide benefits that address climate change over time. The project components can be maintained for their useful life and the City can address long term maintenance costs and responsibilities.

4. **Water Quality Benefit from Enhancement Project**

The City of Eureka has worked closely with Regional Water Board staff over the past two years regarding the viability of the Project as an enhancement component of the continued discharge permit. There were 16 pollutants identified as of concern by the Regional Water Board: TCDD Equivalents (i.e., dioxins), PCBs, Total Suspended Solids, Arsenic, Chromium, Copper, Lead, Nickel, Zinc, BOD, Ammonia, Nitrogen, Phosphorus, Bacteria, Trace Organics, and Hydrocarbons (e.g., Creosote). The City identified potential constituents and metrics to be used in the analysis, and then completed a review of research and literature. The analysis showed that projects similar to the proposed Elk River Estuary project can reduce pollutants of concern entering the Bay.

The analysis looked at multiple project options for comparison, and this Project scored the highest in reducing pollutants in the water column and providing water quality benefits. Table 2 shows a comparison across eight unique projects that were considered, with Option 1 representing the Project. Table 3 explains the categories.

Table 2: From Analysis of Eight Unique Projects: The Water Quality Improvement Potential for each Option

Pollutant	ERWWTP Average 5-year load (lb/ year)	Option 1 Tidal Marsh*	Option 2 Horizontal Levee*	Option 3 Drainage	Option 4 Storm-water	Option 5 Impervious Surfaces	Option 6 Piling Removal	Option 7 Parcel 4	Option 8 Dune & Spartina
TCDD Equivalents (i.e., dioxins)[1]	Non-Detect	★★	★★	★★	★★	○○	○○	★★	○○
PCBs[1]	-	★★	★★	★★	★★	○○	○○	★★	○○
TSS[1]	151,780	★★	★★	○○	★★	□□	○○	□□	○○
Arsenic	33	□	□	○	★	□	○	□	○
Chromium	23	★	★	○	□	□	○	□	○
Copper	399	★	★	○	★	□	○	★	○
Lead	Non-Detect	★	★	○	□	□	○	□	○
Nickel	72	★	★	○	□	□	○	□	○
Zinc	689	★	★	○	★	□	○	★	○
BOD	158,160	★	★	○	★	□	○	□	○
Ammonia (total as N)	55,860	★	★	○	□	□	○	□	○
Nitrogen	-	★	★	○	★	□	□	★	○

Pollutant	ERWWTP Average 5-year load (lb/ year)	Option 1 Tidal Marsh*	Option 2 Horizontal Levee*	Option 3 Drainage	Option 4 Storm-water	Option 5 Impervious Surfaces	Option 6 Piling Removal	Option 7 Parcel 4	Option 8 Dune & Spartina
Phosphorus	-	★	★	○	★	□	○	★	○
Bacteria	-	★	★	○	★	□	○	★	○
Trace Organics (TrOCs)	-	★	★	○	□	□	○	★	○
Hydrocarbons (e.g, Creosote)	Non-Detect	□	□	○	□	★	★	★	○
Nexus between the WWTP impacts & Enhancement Option	-	★	★	★	★	★	□	★	□
TOTAL WATER QUALITY ENHANCEMENTS		★ = 18 □ = 2 ○ = 0	★ = 18 □ = 2 ○ = 0	★ = 5 □ = 0 ○ = 15	★ = 13 □ = 7 ○ = 0	★ = 2 □ = 14 ○ = 4	★ = 1 □ = 2 ○ = 17	★ = 12 □ = 8 ○ = 0	★ = 0 □ = 1 ○ = 19

Each of the eight different enhancement options were evaluated to determine potential water quality improvements that may result from the project by removing pollutants from the water column. For each enhancement option, a set of contaminants were considered and were placed into one of three categories:

★ Pollutants likely reduced by enhancement option: Reduction of pollutant is possible based on (1) it has been documented in the literature and/or (2) it is a pollutant that is present in the vicinity of the proposed project.

▢ Pollutants potentially reduced by enhancement option: Reduction of pollutant is possible, as similar project concepts often result in reduction of these types of pollutants, but without further project specifics it is only a possibility.

○ Pollutants unlikely to be reduced by enhancement option: Reduction not likely or no literature found to support the removal of the pollutant by similar projects.

Similar projects have demonstrated improvements to water quality through the removal of hydrologic barriers. This enhancement project includes the removal of man-made dikes, tide-gates, agricultural ditches, as well as removal of more than 20 acres of Spartina (Spartina densiflora). These measures alone will contribute to the ability of the tidal slough channel systems to increase sediment loads to the marsh plains, increase nutrient load throughout the Project site, and provide contaminant filtration.

While the water quality analysis reviewed similar projects, it is important to note the specific attributes of an estuary environment that contribute improvements to water quality with factors such as nutrients and dissolved oxygen. Nutrients can be limited in a freshwater river, such as Elk River. However, the estuary environment brings together the freshwater and tidal saline water delivering carbon, nitrogen, and phosphates and creating a nutrient rich environment. As the tidal cycle carries water and vegetation particles through the slough channel network, the organic matter settles with sediments, adding to nutrient values for vegetation but also adding to water quality. Micro-organisms depend upon these smaller particles as their food source. Those micro-organisms feed fish and other aquatic species, that in-turn feed larger species building the vast estuary food-web.

Similarly, the success of various species involved in an estuary food-web hinge on the presence of dissolved oxygen in the water. Dissolved oxygen (DO) is the measured or saturation content of oxygen in the water column. Oxygen is carried from the surface, through currents, or wave wind and turbulence into the water column. Vegetation can also deliver oxygen to the water column. The ability of the water to hold oxygen is an indicator of water quality.

Without the Project, the river currents will travel past the project location, continue toward the Elk River Estuary and into Humboldt Bay, providing no improvement to

water quality. However, with the implementation of the project design features, the new channel network, and marsh system, tidal waters and river currents will travel into the Project area during the twice-daily tide cycle. Through this the Project will provide water quality enhancement through settling of solids and sediments, filtration of pollutants in the water column, and chemical detoxification by adding oxygen and biologic elements into the water.

4.1. **Bay Enhancement: Project will Provide Full Protection of Beneficial Uses**

The exception criteria clearly indicate that the proposed project must provide full protection of existing beneficial uses of Humboldt Bay. An analysis of beneficial uses showed that the Project features will continue to support and protect beneficial uses, either enhancing or having no effect on Humboldt Bay designated uses. These have been evaluated and listed here:

- Navigation (NAV): The enhancement will result in improvements to navigation. The project includes a new non-motorized boat launch and a new expanded navigable channel extending 2.8 miles throughout.

- Water Contact Recreation (REC-1): Project will result in an enhancement to water quality and thus an improvement in water quality related to water contact recreation, for boating, paddling, and fishing.

- Non-Contact Water Recreation (REC-2): Project will result in an enhancement to water quality and thus an improvement in water quality related to non-contact water recreation for activities such as nature viewing and bird watching, with the project attracting resident and migratory bird species.

- Commercial and Sport Fishing (COMM): Anticipated improvements in water quality would result in improvements in the recreational and sport fishery by helping to enhance fish health and diversity of species.

- Estuarine Habitat (EST): Project will create new estuarine habitat or improve existing estuarine habitat. The expansion of estuarine habitat will benefit anadromous salmonids, Longfin Smelt, and other marine species. Restored tidal channels will result in new habitat for Eelgrass.

- Marine Habitat (MAR): Project will create new marine habitat or improve existing estuarine habitat. Seabirds, marine mammals, migratory waterfowl, and other marine species utilize habitats in and near the Elk River estuary. Enhanced and created wetlands will also be important nursery habitat for marine fishes.

- Wildlife Habitat (WILD): Project will enhance or create new wildlife habitat or uses of water that would support wildlife habitat beyond existing conditions. In providing higher marsh habitat the Project will specifically support expanded bird habitat.

- Preservation of Rare, Threatened, or Endangered Species (RARE): As noted for Estuarine Habitat (EST), the Project would result in direct habitat and water quality improvements for special status anadromous species and Longfin Smelt. Within the Project, habitat benefits for Tidewater Goby area are also expected in Area 1. Special status migratory waterfowl would also benefit from enhancements resulting from these habitats.

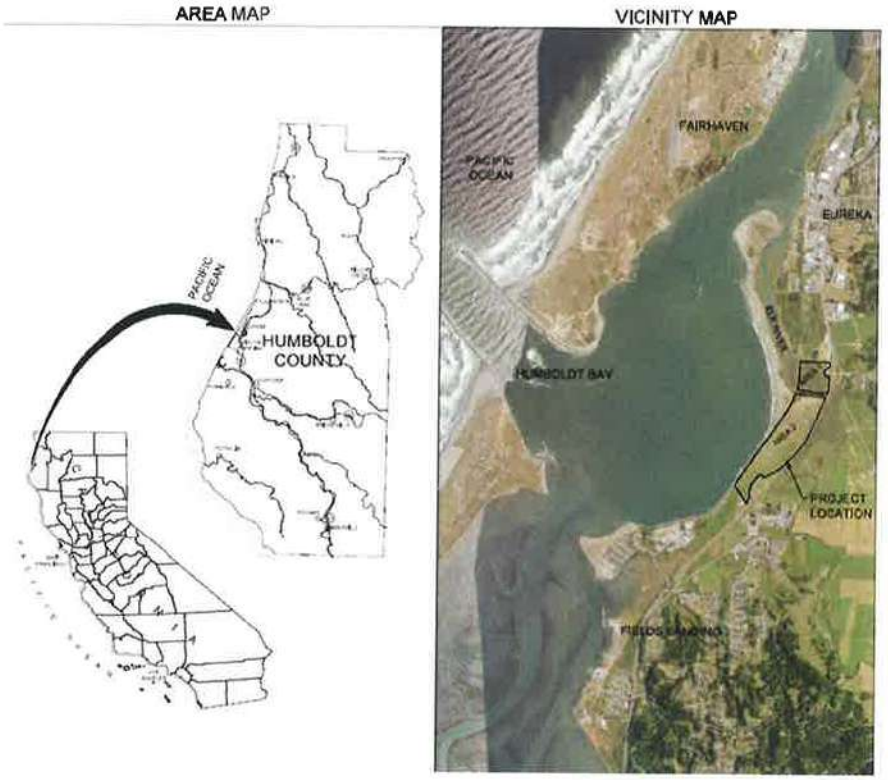
- Migration of Aquatic Organisms (MIGR): Within the Project, removal of the large tide gate along the Elk River would result in removal of a fish passage barrier and allow passage of fish into restored aquatic habitats throughout.

- Spawning, Reproduction, and/or Early Development (SPWN): Adult Longfin Smelt migrate into low salinity or freshwater reaches of coastal rivers and tributary streams to spawn. These types of habitats will be provided with the Project.

- Shellfish Harvesting (SHELL): The project will provide improvements in water quality would result in improvements in shellfish harvesting by helping to enhance water quality throughout Humboldt Bay as a whole.

- Aquaculture (AQUA): As with shellfish harvesting, the Project will provide improvements in water quality which will result in improvements in aquaculture by helping to enhance water quality throughout Humboldt Bay as a whole.

Figure 15: Project Vicinity Map and Relationship of the Project to the Entrance of Humboldt Bay. The Project Area Position Within Humboldt Bay is Significant as it Relates to Tidal Inundation and Sea Level Rise.



5. **Natural Resilience & Climate Change Resilience**

Through the restoration Project, the Elk River Estuary will have greater natural resilience and adaptability to climate change. The riparian areas and tidal ridges are expected to support restored habitat into 2100 due to their design elevations and the gradual upslopes that will allow wetland transgression. Persistence of the Project's wetland habitats through time will ensure the continued reduction of Sea Level Rise impacts to adjacent property, and related infrastructure such as Highway 101, protecting them from climate change coastal hazards. Similarly, with new connection to historic floodplain, the Project will protect adjacent property, as well as upstream areas, from large storms events resulting from climate change.

The restored wetlands will also sequester carbon, reducing the magnitude of climate change. The Project will sequester carbon at rates that are higher than existing marsh and pasture habitat, which emits methane at higher rates than salt marsh. The transition of land back to tidally influenced wetlands will sequester much more carbon than the existing dryland.

Without the Project, the lower reaches of the river could warm and become too shallow to support fish during the drier months. The Project will increase the adaptive capacity of Elk River to support fish by removing tide gates and berms and creating multiple acres of fish habitat, including climate refugia. These features will add to the climate change adaptation by providing refuge as temperatures rise.

6. **Consistent with Regional Planning Efforts**

The project builds on restoration efforts already identified or underway in the Elk River Watershed and around Humboldt Bay, including the Martin Slough Restoration upstream of the estuary, White Slough Restoration, South Jacoby Creek Restoration, the Wood Creek Restoration Project, and the Ryan Creek Wetlands Acquisition Project. These projects work at a landscape scale toward protecting threatened salmonids, restoring tidal marshes and watershed processes such as sediment transport, and protecting water quality and supply.

The Project is located in the Lower Elk River, a recognized part of the Eureka Area Watersheds Storm Water Resource Plan (EAWSWRP, GHD, 2018). The Elk River is one of two main surface waters within the EAWSWRP watershed that flow into Humboldt Bay. It is listed as a Clean Water Act 303(d) impaired water body due to sedimentation, siltation, and indicator bacteria. According to the EAWSWRP this is due to historic and current harvesting practices, road construction, and non-point source runoff. The Upper Elk River has a completed TMDL implementation plan; Total Maximum Daily Load. The Project design features provide natural watershed processes as part of the integrated approach to improve water quality.

The project design is also consistent with a number of regional planning efforts, including by not limited to:

- Support regional trail planning, and connectivity, by coordination with regional and state offices such as Cal Trans, North Coast Railroad Authority, County of Humboldt and others.
- Restore floodplain to reduce localized flooding, and integrate regional efforts toward adaptation to climate change, and large storm events.
- Support regional Sea Level Rise goals by implementing a project that includes science-based hydrologic modeling, and addresses increase in tide-levels over multiple decades.
- Include design features such as tidal channel and marsh features that are consistent with the goals of the CDFG Recovery Strategy for California Coho Salmon.
- Create habitat via design of channel systems and marsh to support the US Fish and Wildlife Service Recovery Plan for the Tidewater Goby.

- Implement removal of invasive Spartina consistent with the Humboldt Bay Regional Spartina Eradication Plan.

7. **Maintenance**

The project will be maintained as estuary tidal marsh with public access in perpetuity. A Monitoring and Reporting Plan (MRP) has been developed and will be used to measure the Project's success. The City will be responsible for implementing the MRP and employing adaptive management strategies, as necessary, for five years following construction. In this effort, the City will retain specialized professional services to implement the MRP and the integrated framework of the Wetland and Riparian Monitoring Program (WRAMP), namely, to provide inventories and assessments, report data using California Rapid Assessment Method (CRAM) and data collection and sampling of vegetation coverage.

The initial five years of monitoring are largely funded by grant sources and will involve professional services and support to the City in these efforts. Multiple years of Spartina eradication as well as seasonal planting and revegetation will occur during the five-year monitoring period.

The project will be managed and maintained by the City. Because the restoration will restore ecosystem processes such as tidal exchange and sediment transport, and will restore conditions that support tidal marsh, eelgrass, and riparian habitats, the site is expected to be largely self-maintaining. Maintenance activities necessary to sustain beneficial outcomes will include the ongoing maintenance of Spartina throughout the two project areas. After primary removal and follow-up treatment, ongoing maintenance treatments will be necessary.

Funding for ongoing maintenance will be available via the City's Community Services and Public Works budgets and staff from those departments will oversee the daily and seasonal maintenance activities, including staffing of the future Elk River Interpretive Center (for educational and programming purposes). The City may also contract with or develop partnerships with work programs, or specialized professionals for maintenance services.

8. **Project Status – Permits/Timeline**

The City of Eureka began working through the project design concepts and project planning in 2016. Portions of the project received early planning grants toward advancing the design and environmental documents. Following concept planning and environmental, the City pursued the necessary permits. The table below includes permits that have been applied-to or secured for the Enhancement Project (these permits do not include the future Interpretive Center). While the City was successful through the planning and design stages, there has been a challenge to assemble funding and move the project forward to final design and construction.

8.1. **Permits**

Table 3: Permit Agency and Status of Application

Name of permit	Permit Title/Description	Permit Status
City of Eureka	CEQA Lead Agency – IS/MND-Conditional Use Permit SCH#2017082048	Complete
Humboldt Bay Harbor Recreation Conservation District	Development Permit	Complete
California Coastal Commission	Coastal Development Permit	Complete
California Department of Fish and Wildlife	Streambed Alteration Agreement Incidental Take Permit - Consistency Determination	Complete
North Coast Regional Water Quality Control Board	Section 401 Water Quality Certification	Complete
United States Army Corps of Engineers	Section 10 RHA Permit Section 404 CWA Permit	Complete
National Marine Fisheries Service	Section 7 ESA Biological Opinion Incidental Take Statement	Complete
United States Fish and Wildlife Service	No Effect Determination	Complete

Figure 16: Looking East from Existing Bridge Crossing Elk River at Low Tide.

8.2. Implementation Timeline

Construction for estuary enhancement features must occur during the dry-season (July 1 – Oct 15) due to the conditions at the site. Construction could begin as early as the summer of 2021 if funding is approved. The construction will likely occur over two seasons, 2021 and 2022, with ongoing adaptive management, and monitoring for an additional five years through 2027.

The City is working with a design team to finalize the construction documents and prepare for bidding and award. The bidding process will likely be underway by May 2021, then award, then construction over two years, with revegetation, adaptive management, and monitoring continuing for multiple years.

For the development and implementation of the Elk River Interpretive Center, the City has engaged architectural services and initiated property negotiations. The larger work plan for the future Elk River Interpretive Center includes acquisition of property, property remediation as necessary, site design, professional services toward construction documents, permitting, and construction. This process would occur over a five-year period beginning in 2021 and continuing into 2026.

9. Project Status – Funding

While the City began early planning phases in 2016, and was successful is securing grants, there is a large funding gap and work that still remains. By planning this project in tandem with the Enclosed Bays and Estuaries Policy as an exception project, the City can reach the next stage of design and construction for the Project.

9.1. Source of Funds

Total grant funds available to the Project toward construction and monitoring of the estuary enhancement and trail is $4.25 million. Grant sources are State Coastal Conservancy, US Fish and Wildlife Service National Coastal Wetlands Conservation, National Fish and Wildlife Foundation Coastal Resilience, and CA Resources Agency Ocean Protection Council.

Construction estimates for the estuary enhancement and trail are six million dollars. A funding gap remains in the amount of $1.75 million and the City is proposing to fund this portion with existing Wastewater Enterprise funds toward the estuary enhancement. The future Elk River Interpretive Center is estimated at $4.2 million, which the City proposes to fund, as well. With approval from Regional Water Board, the City will secure budget authority from Eureka City Council for the use of funds from the Wastewater Enterprise to allocate toward the enhancement components so those features may be constructed beginning as early as 2021.

9.2. Funding Constraints

The existing grant funding toward the Project will not allow a phased project, and instead requires the City to have 100% of project dollars identified and "in-hand" before construction or phases of construction may commence. Similarly, the funding and grant awards that were secured to the project have grant performance - expiration dates, meaning that those dollars will not be available after the summer of 2021. Therefore, it is critical that the City is able to advance the approvals for the exception project and meet target dates to implement the project in phases.

10. Closing

This multi-benefit project balances human and ecological needs by reconnecting historic floodplains and historic tidelands, to create wetlands and the natural services they provide including filtering out pollutants, providing critical habitat, and buffering adjacent lands from flood tides and storms. The Project contributes to the overall health of the Elk River watershed and the people and wildlife that depend on it. The Project directly addresses the exception criteria and the performance metrics to deliver an enhancement project that creates new wetland, provides protection of beneficial uses in Humboldt Bay, and delivers a positive water quality benefit, that would not occur in the absence of the discharge.