



Posting Date: 11-17-2020

AMENDED NOTICE OF REGULAR BI-MONTHLY MEETING BOARD OF DIRECTORS

MEETING DATE: 11-17-2020

TIME: 7:30 p.m. (following 6:30 p.m. Special Meeting)

LOCATION: This meeting will be held virtually, pursuant to the Governor's Executive Order N-29-20.

To participate online, go to <https://zoom.us/j/93550979704>. You can also participate by phone by calling 1-699-900-9128 and entering the webinar ID#: 935 5097 9704.

During the public comment periods, the public may comment by clicking the "raise hand" button on the bottom of the Zoom screen; if you are joining by phone and would like to comment, press *9 and we will call on you as appropriate.

You may also submit your comments in advance or during the meeting by emailing them to BoardComment@MarinWater.org. Emailed comments on informational items will be provided to the board and posted on our website. Emailed comments on approval items will be read aloud at the meeting prior to the board taking action on the item, and posted on our website. *(Please do not include personal information in your comment that you do not want published on our website such as phone numbers and home addresses.)*

Comments should be limited to three minutes or less, or as determined by the board president.

AGENDA ITEMS	RECOMMENDATIONS
Call to Order and Roll Call	
Closed Session Report from Special Meeting	
Adopt Agenda	

Public Comment

Members of the public may comment on any items not listed on the agenda during this time. Comments will be limited to three minutes per speaker, and time limits may be reduced by the board president to accommodate the number of speakers and ensure that the meeting is conducted in an efficient manner.

AGENDA ITEMS	RECOMMENDATIONS
Directors' and General Manager's Announcements	
Consent Calendar All matters listed on the consent calendar are considered to be routine and will be enacted by a single action of the Board, unless specific items are removed from the consent calendar by the Board during adoption of the agenda for separate discussion and action.	
1. Minutes of the Regular Bi-Monthly Board of Directors' Meeting of October 20, 2020	<i>Approve</i>
2. General Manager's Report for October 2020	<i>Approve</i>
Regular Calendar	
3. Further delay of scheduled rate increase from January 1, 2021 to April 1, 2021	<i>Approve</i>
4. Response to the Marin County Civil Grand Jury's Report Regarding Climate Change	<i>Approve</i>
5. Award of Contract No. 1935 for Fuel Reduction and Restoration to Hanford Applied Restoration	<i>Approve</i>
6. Fill Senior Engineer I Manager Position	<i>Approve</i>
7. October Water Supply Report	<i>Approve</i>
8. Change the Employer's Contribution Rate for Health Insurance to comply with the requirements of Government Code Section 22892(a) and 22892(b), and to comply with the requirements of Government Code Section 7507 in electing the benefits set forth below.	<i>Approve</i>
9. Awarding Contract for Construction of the San Geronimo Treatment Plant Emergency Generator Project (Additional attachments added to this item.)	<i>Approve</i>
10. Resolution Number 8606 - Invoking the District's Emergency Contracting Provisions and Authorizing Directing the General Manager to Execute a Contract with WR Forde for the Porteous Tunnel Emergency Pipeline Replacement Project Without Advertisement (Staff Report and attachments Resolution will be are now available. on 11/17/2020)	<i>Approve</i>

AGENDA ITEMS	RECOMMENDATIONS
11. Authorizing the General Manager to execute a professional services agreement for the preparation of the Local Hazard Mitigation Plan	<i>Approve</i>
12. Future Meeting Schedule and Agenda Items	<i>Information</i>
Adjournment	

ADA NOTICE AND HEARING IMPAIRED PROVISIONS:

In accordance with the Americans with Disabilities Act (ADA) and California Law, it is Marin Water's policy to offer its public programs, services, and meetings in a manner that is readily accessible to everyone, including those with disabilities. If you are disabled and require a copy of a public hearing notice, an agenda, and/or agenda packet in an appropriate alternative format, or if you require other accommodations, please contact Board Secretary Terrie Gillen at 415.945.1448, at least two days in advance of the meeting. Advance notification will enable the Marin Water to make reasonable arrangements to ensure accessibility.

INFORMATION PACKETS ARE AVAILABLE FOR REVIEW AT THE CIVIC CENTER LIBRARY, CORTE MADERA LIBRARY, FAIRFAX LIBRARY, MILL VALLEY LIBRARY, MARIN WATER OFFICE, AND ON THE MARIN WATER WEBSITE (MARINWATER.ORG)

FUTURE BOARD MEETINGS:

- ❖ Wednesday, November 18, 2020
Communications Committee/Board of Directors (Communications) Meeting
9:30 a.m.
- ❖ Friday, November 20, 2020
Operations Committee/Board of Directors (Operations) Meeting
9:30 a.m.
- ❖ Tuesday, December 1, 2020
Special Bi-Monthly Board of Directors' Meeting
7:30 p.m.

Board Secretary



Approval Item

TITLE

Minutes of the Board of Directors' Regular Bi-Monthly Meeting of October 20, 2020

RECOMMENDATION

Approve the adoption of the minutes.

SUMMARY

On October 20, 2020, the board held its regular bi-monthly meeting at 7:30 p.m. The minutes of that meeting are attached.

DISCUSSION

None

FISCAL IMPACT

None

ATTACHMENT(S)

1. Minutes of the Board of Directors' Regular Bi-Monthly Meeting of October 20, 2020

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Communications & Public Affairs Department	 Terrie Gillen Board Secretary	 Ben Horenstein General Manager

**MARIN MUNICIPAL WATER DISTRICT
BOARD OF DIRECTORS**

REGULAR BI-MONTHLY MEETING MINUTES

Tuesday, October 20, 2020

Via teleconference

(In accordance with Governor Gavin Newsom's Executive Order N-29-20)

DIRECTORS PRESENT: Larry Bragman, John C. Gibson, Cynthia Koehler, and Larry L. Russell

DIRECTORS ABSENT: None

CALL TO ORDER: Board President Gibson called the meeting to order at 7:32 p.m.

ADOPT AGENDA

There was no public comment received under this agenda item.

On motion made by Director Bragman and seconded by Director Koehler, the board adopted the agenda by the following roll call vote:

Ayes: Directors Bragman, Koehler, Russell, and Gibson

Noes: None

Abstain: None

PUBLIC COMMENT

Prior to the meeting, the board received one public comment via email and it was forwarded to the board. After the meeting, the comment was posted on the district's website.

DIRECTORS' AND GENERAL MANAGER'S ANNOUNCEMENTS

General Manager Ben Horenstein provided a report on an accident that took place at the Watershed.

CONSENT CALENDAR (ITEMS 1-3)

Item 1 Minutes of the Board of Directors' Special Meeting of September 25, 2020 and Regular Bi-Monthly Meeting of October 6, 2020

Item 2 General Manager's Report for September 2020

Item 3 Professional Services Agreement for Annual Northern Spotted Owl Monitoring

There were no public comments.

Prior to the board voting on the Consent Calendar, Director Bragman made a comment regarding Item 2.

On motion made by Director Bragman and seconded by Director Koehler, the Board approved the Consent Calendar by the following roll call vote:

Ayes: Directors Bragman, Koehler, Russell, and Gibson
Noes: None
Abstain: None

REGULAR CALENDAR (ITEMS 4-6)

Item 4 Water Supply Report for September 2020

Operations Division Manager Paul Sellier presented this item to the board. Discussion ensued.

There was no public comment.

The board took no formal action.

Item 5 Approval to Fill Intern and Watershed Aide Positions

Human Resources Manager Vikkie Garay requested that these positions. A couple of comments were made by the board.

There was no public comment.

On motion made by Director Russell and seconded by Director Bragman, the Board approved to fill the intern and Watershed aide positions by the following roll call vote:

Ayes: Directors Bragman, Koehler, Russell, and Gibson
Noes: None
Abstain: None

Item 6 Future Meeting Schedule and Agenda Items

The board secretary asked the board to modify the schedule to change a meeting date and add a meeting. The board agreed to the changes. There was no public comment.

CONVENE TO CLOSED SESSION

At 7:56 p.m., the board convened to Closed Session, after hearing no public comment.

Those present for the Closed Session were all board members, General Manager Ben Horenstein, General Counsel Molly MacLean, Human Resources Manager Vikkie Garay, and Staff Attorney Jerrad Mills.

CLOSED SESSION

Item 7. Conference with Legal Counsel – Workers’ Compensation Claim
(Government Code § 54956.95)

Claimant: Keith Newman
Agency Claimed Against: Marin Water

RECONVENE TO OPEN SESSION

At approximately 8:05 p.m., they reconvened the open session.

CLOSED SESSION REPORT

General Counsel Molly MacLean reported that the board and staff discussed Item 7, and that the board gave staff direction. There was no further action to report.

ADJOURNMENT

There being no further business, the regular bi-month meeting of October 20, 2020, adjourned at 8:08 p.m.

Board Secretary

Approval Item

TITLE

General Manager's Report for October 2020

RECOMMENDATION

Approve Report.

SUMMARY**A. HIGHLIGHTS:**

- Substantially completed construction of the Ross Reservoir Landslide Repair Project, to repair the landslide threatening to undermine the District's Ross Reservoir, on schedule prior to the rainy season.
- A PSPS event took place beginning Sunday October 25 and continued to affect District facilities until late Tuesday morning. Staff responded to the event implementing the developed procedures including providing towable generators for power. At its peak, the facilities without power included 20 tanks, 39 pump stations and 2 water treatment plants, all of which were operating under power provided by emergency generators. Staff provided advance notification and messaging out to our customers. The water system performed well under backup power throughout the event and no customers were out of water as a result of the PSPS.
- The Water Quality lab ensured that the water we supplied met or surpassed water quality regulations by collecting and analyzing 157 compliance samples.
- Installed a new PIT tag antenna in lower Lagunitas Creek at Gallagher Ranch to track juvenile and adult salmon migrating to and from the ocean. The new antenna was jointly funded by MMWD, the Golden Gate Chapter of Trout Unlimited, the Marin Agricultural Land Trust, and Marin County.
- Contracted with California Conservation Corps North Bay to assist with watershed litter abatement and started a new watershed volunteer litter abatement program, with 30 volunteers working on Fridays.
- Conducted tree pruning to elevate tree canopy along Crown Road where defensible space zones overlap neighboring properties and MMWD's lands.

DISCUSSION

B. SUMMARY:

AF = Acre Feet
Mg/L = milligrams per liter
MPN = most probable number
MPY = mils per year
MG = million gallons
NTU = nephelometric turbidity units

1. Water Production:

Item	FY 2020/21		FY 2019/20	
	(million gallons)	(acre-feet)	(million gallons)	(acre-feet)
Potable				
Total production this FY	3,681	11,298	3,636	11,159
Monthly production, October	868	2,664	833	2,557
Daily average, October	28.00	85.93	26.88	82.50
Recycled¹				
Total production this FY	0.00	0.00	0.00	0.00
Monthly production, October	0.00	0.00	0.00	0.00
Daily average, October	0.00	0.00	0.00	0.00
Raw Water				
Total production this FY	37.99	116.59	37.09	113.83
Monthly production, October	7.13	21.88	6.22	19.09
Daily average, October	0.23	0.71	0.20	0.62

¹ Recycled water was temporarily discontinued in February 2019 to accommodate construction of the Las Gallinas Valley Sanitary District's Secondary Treatment Plant Upgrade and Recycled Water Expansion Project. Production will resume upon completion of this project, which is anticipated to occur in late 2020.

Imported Water				
Total imported this FY	748	2,296	663	2,034
Monthly imported, October	172	527	130	400
Reservoir Storage				
Total storage, October	16,208	49,742	20,649	63,370
Storage change during October	-995	-3,053	-1,082	-3,320
Stream Releases				
Total releases this FY	698	2,142	894	2,743
Monthly releases, October	169	518	239	735

2. <u>Precipitation:</u>	<u>FY 2020/21 (in.)</u>	<u>FY 2019/20 (in.)</u>
Alpine	0.11	0.45
Bon Tempe	0.13	0.04
Kent	0.23	0.19
Lagunitas *	0.35	0.04
Nicasio	0.33	0.08
Phoenix	0.10	0.02
Soulajule	0.36	0.08
* Average to date = 3.62 inches		

3. Water Quality:

<u>Laboratory:</u>	<u>FY 2020/21</u>	<u>FY 2019/20</u>
Water Quality Complaints:		
Month of Record	12	65
Fiscal Year to Date	63	161
Water Quality Information Phone Calls:		
Month of Record	8	15
Fiscal Year to Date	65	62

The lab performed 1,727 analyses on lakes, treatment plants and distribution system samples.

Mild steel corrosion rates averaged 3.11(0.55–7.16) MPY. The AWWA has recommended an operating level of <5 MPY with a goal of <1 MPY.

Complaint Flushing: No flushing was performed for the month of record.

Tank Survey Program: 22 water storage tank sanitary surveys were performed during the month. 83.79 % of the planned survey program has been completed for calendar year 2020.

Disinfection Program: 560' of new pipeline was disinfected during the month. Performed chlorination's on 38 water storage tanks to ensure compliance with bacteriological water quality regulations.

Tank Water Quality Monitoring Program: Performed 25 water quality-monitoring events on storage tanks for various water quality parameters this month to help ensure compliance with bacteriological water quality regulations.

4. Water Treatment:

<u>Treatment Results</u>	<u>San Geronimo</u>		<u>Bon Tempe</u>		<u>Ignacio</u>	
	Average	Monthly Goal	Average	Monthly Goal	Average	Monthly Goal
Turbidity (NTU)	0.07	≤ 0.10	0.04	≤ 0.10	0.05	≤ 0.10
Chlorine residual (mg/L)	2.53	2.50 *	2.57	2.50 *	2.50	2.50 *
OCOLOR (units)	0.8	≤ 15	0.2	≤ 15	0.0	≤ 15
pH (units)	7.8	7.8*	7.8	7.8*	8.1	8.1**

* Set monthly by Water Quality Lab

** pH to Ignacio is controlled by SCWA

5. Capital Improvement:

a. Mesa Vista Tank Pipeline Replacement Project

Summary: This project involves the replacement of 590 feet of old, leak prone pipe within the Town of Ross and City of San Rafael.

- Project Budget: \$307,217
- Monthly Activities: Main line pipe has been installed and the contractor is completing minor punch list items to finish the project.

b. Ross Reservoir Landslide Repair Project

Summary: This project will repair a landslide next to Ross Reservoir and install new 24 and 12-inch transmission main outside of the slide area on MMWD Watershed.

- Project Budget: \$1,899,620
- Monthly Activities: Contractor has finished the main landslide repair and is finish grading the access road along with finishing off punch list items to finish the project. Project is on track to be completed ahead of the project completion date of November 30, 2020 and prior to the next rain season.

c. Sir Francis Drake Blvd Corridor Rehabilitation Project

Summary: This project involves the replacement of 8,500 feet of 100-year-old, leak prone pipe as a joint project with Marin County along Sir Francis Drake Blvd.

- Project Budget: \$4,647,762
- Monthly Activities: Ghilotti Brothers Inc. is still actively working during daytime hours. To date, approximately 2,800 feet of 12 and 8-inch water main has been installed. This month the contractor temporarily suspended work on the pipeline to complete other tasks. Work on the pipeline is anticipate to resume in November.

d. Piedmont Road Pipeline Replacement Project

Summary: This project involves the replacement of 2,190 feet of old, leak prone pipe

within the Town of Larkspur.

- Project Budget: \$744,610
- Monthly Activities: To date the contractor has installed approximately 1,200 feet of 6 and 4-inch water main.

e. 5th Ave FFIP Pipeline Replacement Project

Summary: This project involves the replacement of 3,990 feet of old, undersized fire flow deficient pipe in support of the Districts Fire Flow Improvement Program within the City of San Rafael.

- Project Budget: \$2,279,140
- Monthly Activities: This month the contractor pulled permits with San Rafael and started laying out the pipeline alignment.

f. San Geronimo Treatment Plant Permanent Emergency Generator Project

Summary: This project involves the installation of two 1.5 MW generators, electrical equipment, fuel storage tanks and site grading all within the community of Woodacre to provide emergency power for the District's San Geronimo Treatment Plant.

- Project Budget: \$5,375,600
- Monthly Activities: Bids for the project were received and opened on October 29, 2020. Award of the construction contract is scheduled for November.

g. Southern Marin Pipeline Replacement Project (D20022)

Summary: This project involves the replacement of 5,080 feet of old, leak prone and problematic pipe in Tiburon and Belvedere, in coordination with the City of Belvedere's earthquake resiliency program and Sanitary District No. 5's Cove Road Force Main Replacement Project and planned paving work to minimize public impacts.

- Project Budget: \$2,985,000
- Monthly Activities: The District received and opened bids on 10/20.

h. Porteous Tunnel Pipeline Emergency Replacement Project (F21001)

Summary: This project involves the emergency repair/replacement of the 100-year old pipeline inside Porteous Tunnel.

- Project Budget: \$1,400,000
- Monthly Activities: This month the District prepared plans and specifications on the project and issued a request for quotes to prospective contractors. Proposals are due in November. Work on the project is scheduled to begin in early December.

- i. Alpine/Bon Tempe Raw Water Transfer Pipeline Replacement Project (D20027)
Summary: This project involves the replacement of approximately 300-feet of the pipeline transferring raw water from Alpine to Bon Tempe.
- Project Budget: \$312,000
 - Monthly Activities: Advertised the project on October 27 with bids due November 17th.

6. Other:

<u>Pipeline Installation</u>	<u>FY2020/21</u>	<u>FY2019/20</u>
Pipe installed during October (feet)	1,583	2,515
Total pipe installed this fiscal year (feet)	6,713	14,072
Total miles of pipeline within the District	908*	908*
<i>* Reflects adjustment for abandoned pipelines</i>		

<u>Pipe Locates</u>	<u>FY2020/21</u>	<u>FY2019/20</u>
Month of October (feet)	40,588	55,927
Total this fiscal year (feet)	167,274	178,146

<u>Main Line Leaks Repaired:</u>	<u>FY2020/21</u>	<u>FY2019/20</u>
Month of October	15	13
Total this fiscal year	48	50

<u>Services:</u>	<u>FY2020/21</u>	<u>FY2019/20</u>
Service upgrades during October	21	13
Total service upgrades this FY	62	73
Service connections installed during October	1	0
Total active services as of November 1, 2020	60,525	60,557

7. Demand Management:

	Oct-20	FY 20/21 TOTAL	FY 19/20 TOTAL	FY 18/19 TOTAL
WATER-EFFICIENCY PROGRAMS				
Water-Use Site Surveys				
Conservation Assistance Program (CAP) Consultations				
Residential properties resi 1-2 (single-family)	2	11	127	109
Residential properties resi 3-5 (multi-family units)	1	1	30	2
Non-residential properties resi 6-7 (commercial)	0	0	3	6
Dedicated irrigation accounts resi 8-10 (large landscape)	0	0	-	2
Marin Master Gardeners' Marin-Friendly Garden Walks				
Residential garden walks	11	54	91	122
CYES Water/Energy Surveys				
Residential surveys	0	0	86	238
Public Outreach and Education, Customer Service				
Public outreach events (number of people attending)	0	0	1,150	13,691
Public education events (number of participants)	0	0	-	500
Laundry-to-Landscape Graywater webinars (participants)	10	61	-	-
Customer calls/emails admin staff	177	759	2,230	1,835
School Education				
School assemblies				
Number of activities	0	0	14	17
Number of students reached	0	0	4,815	5,915
Field trips				
Number of activities	0	0	10	6
Number of students reached	0	0	91	130
Classroom presentations				
Number of activities	0	0	10	21
Number of students reached	0	0	288	554
Other (e.g. booth events, school gardens)				
Number of activities	0	0	-	1
Number of students reached	0	0	-	250
Incentives				
Number of HECWs approved	7	24	53	61
Number of Rain Barrel/Cisterns approved	1	4	4	8
"Landscape Your Lawn" Turf Replacements approved	0	0		
Number of Laundry-to-Landscape Systems approved	0	0	-	-
Number of Smart Controllers rebates approved	10	27	12	-
Advanced Metering Infrastructure (AMI)				
AMI leak letters sent to customers (>200 GPD)	147	542	1,384	896
ORDINANCES				
Water Waste Prevention				
No. of properties reporting activity	3	35	147	148
Landscape Plan Review				
Plans submitted	5	29	89	113
Plans exempt	0	1	5	6
Plans completed	1	7	23	37
Plans in workflow (pass & fail)	8	51	145	173
Tier 4 Exemption				
Inspections that resulted in a pass	0	0	1	1
Graywater Compliance Form				
Applications Received (as of Dec 2019)	10	41	39	-
Systems installed	1	3	11	14

8. Watershed Protection:

Medical Aid and Trail Rescues

During the month of October the Rangers responded to 13 medical aid calls, two which included trail rescues. On the 10th the Rangers assisted with the rescue of a 70 year old hiker who fell and injured his back on Colier Trail. A lengthy carryout was performed by over 20 rescuers from the District, the Fire Dept., Marin Search and Rescue and the Sheriff's Office. Late in the month Rangers responded to an e-bicyclist who was found unconscious after an unwitnessed accident on a fire road. The patient was airlifted to a hospital due to a serious head injury.



Medical Aid and Trail Rescue on Colier Trail

During October there were five Red Flag Warnings which covered 12 days. During these warnings the Watershed was closed to private vehicles and access was limited for the recreating public.

Rangers also found evidence of "Dudleya Poaching." Dudleya is a native succulent that grows on the watershed. Over the past several years the illegal wholesale removal of these has become an issue on California's parks and public lands due to a growing overseas commercial market. Incidents of this type are not uncommon on the Watershed.



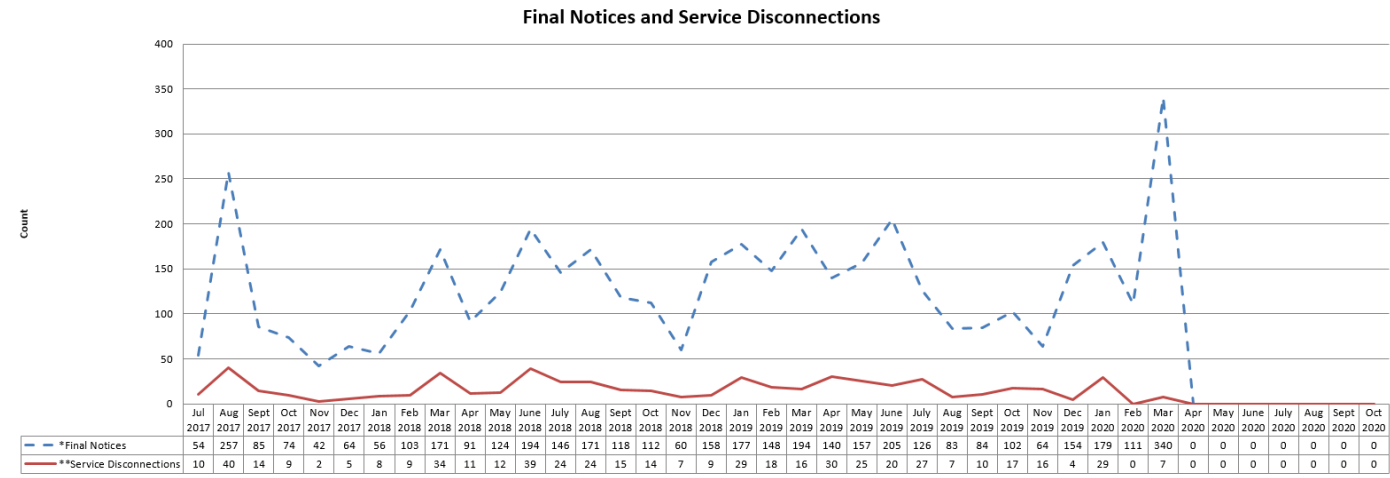
Watershed Protection

Incidents and Events	395
Warnings	154
Visitor Assists	66
Citations	64
Dam Check	24
Medical Aid	13
Vandalism	13
Search and Rescue	7
Assist Watershed Maintenance	6
Misc. Law Enforcement Calls	5
Suspicious Circumstance	5
Red Flag Warnings	5
Citizen Complaint: Illegal Bike Use	5
Theft	4
Humane/Animal Related Calls	3
Found Property	3
Citizen Complaint: Bike Speed	3
Parking at Capacity/Lots Closed	2
Preventative Search and Rescue	2
Illegal Trail Work	2
Assist Other MMWD Work Group	2
Assist Outside Law Enforcement	1
Court Appearance: Defendant Guilty	1
Misc. Call for Service	1
Smoke Check	1
Battery	1
Illegal Fire	1
Citizen Complaint: Dogs off Leash	1
Citations	64
Non-payment of parking fees	50
Parking After Sunset	8
Bike on Trail	3
Dog at Large	1
Parking within 6' of Center	1
Dog off Leash	1

9. Shutoff Notices and Disconnections:


October 2020
Final Notices: 0
Service Disconnections: 0

- * Includes 5 day, 10 day and final notices
- **3/13/20 Suspended termination of water service for non-payment due to COVID- 19
- *3/24/20 Suspended Late Fees and Final Notices



FISCAL IMPACT
None

ATTACHMENT(S)
None

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Office of the General Manager	<div></div> Ben Horenstein General Manager	<div></div> Ben Horenstein General Manager

Approval Item

TITLE

Further delay of scheduled rate increase from January 1, 2021 to April 1, 2021

RECOMMENDATION

Approve Resolution No. 8606 to further delay the rate increase scheduled for January 1, 2021 for an additional three months to April 1, 2021 in order to provide financial relief to District customers dealing with the ongoing economic impact of the COVID pandemic.

SUMMARY

In response to the economic consequences of the current pandemic, staff is proposing an additional three-month delay in the scheduled four percent increase scheduled for January 1, 2020. The rate increase was originally scheduled to take effect on July 1, 2020 but was deferred by the Board pursuant to Resolution No. 8569 as part of a package of measures to provide financial relief for customers.

DISCUSSION

On May 5, 2020, the Marin Municipal Water District (District) Board of Directors adopted Resolution No. 8569, which delayed an increase in water rates and fees scheduled for July 1, 2020, for a period of six months to January 1, 2021. The delay in the scheduled four percent rate increase was approved with other actions to provide financial relief to our customers. Other actions included adoption of a resolution that moved up summer water rates by one month and direction to staff to study the feasibility of extended repayment plans for customers in arrears on their water bills and suspend termination of water service for nonpayment.

The District has approximately 66,800 accounts for water service. Data collected in recent months indicates that there is a significant increase in the number of delinquencies customer accounts.

Pursuant to Prop. 218, District rates are carefully set to ensure that fees charged do not exceed the funds required to provide water service, and do not exceed the proportional cost of the service attributable to each parcel. The rates currently charged by the District, and the scheduled July 1, 2020 increase, are based on a Cost of Service Analysis (COSA) that adheres to the requirements of existing laws, including Prop. 218. Staff believes that the four percent rate increase scheduled for July 1, 2020 and deferred to January 1, 2021 could be deferred for an additional three-month period. That would result in an estimated additional \$1 million in lost revenues and the District taking in less revenue than is necessary to provide water service to our customers. In order to cover the revenue lost under this proposal, staff would pursue cost

cutting approaches, such as limiting hiring to only critical personnel, slowing the replacement of assets such as computers and fleet vehicles and deferring some projects.

FISCAL IMPACT

The fiscal impact to the District in deferring the scheduled rate increase for another three-month period is approximately \$1 million.

ATTACHMENT(S)

- 1. Resolution No. 8606

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Finance	 Chuck McBride Finance Director-Treasurer	 Ben Horenstein General Manager

MARIN MUNICIPAL WATER DISTRICT

RESOLUTION NO. 8606

**A RESOLUTION OF THE MARIN MUNICIPAL WATER DISTRICT BOARD OF DIRECTORS
APPROVING A FURTHER DEFERRAL OF WATER RATE INCREASES DUE TO THE COVID-19
PANDEMIC**

WHEREAS, On March 4, 2020, Governor Newsom declared a public health emergency in the State of California and on March 16, 2020, the Marin County Public Health Officer ordered residents of Marin County to shelter in place for three weeks beginning on March 17, 2020, which was extend consistent with the Governor's Orders; and

WHEREAS, the Board of Directors of the Marin Municipal Water District sought to reduce the financial burden on District customers during the shelter in place order and COVID-19 restrictions, and to do so in a manner that is consistent with uninterrupted reliable water service to all District customers; and

WHEREAS, on May 28, 2019, the Board of Directors of the Marin Municipal Water District adopted Ordinance No. 442 establishing water rates, fees and charges for District customers, which provided that various water rates, fees and charges set forth in Ordinance No. 442 would increase effective July 1, 2020; and

WHEREAS, on May 5, 2020, pursuant to Board Resolution 8569, the board acted to defer all increases in water rates, fees and charges set forth in Ordinance No. 442, which were scheduled to take effect on July 1, 2020, until such time the board chose to rescind the deferral Resolution or January 1, 2021, whichever came first; and

WHEREAS, the COVID-19 Pandemic continues to require significant restrictions on daily life, often with resultant financial impact on many due to the ongoing health emergency and the Board desires to provide some further relief to District Customers.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS, the board hereby further defers all increases in water rates, fees and charges set forth in Ordinance No. 442 which were scheduled to take effect on July 1, 2020, until April 1, 2021.

BE IT FURTHER RESOLVED, that the General Manager is hereby authorized and directed to pursue and take such cost-cutting approaches as he deems necessary and prudent to offset the revenue loss resulting from this action.

PASSED AND ADOPTED this 17th day of November 2020, by the following vote of the Board of Directors.

AYES:

NOES:

ABSENT:

President, Board of Directors

ATTEST:

Board Secretary

Approval Item

TITLE

Response to the Marin County Civil Grand Jury's Report Regarding Climate Change

RECOMMENDATION

Review and provide recommended revisions to the District's draft response to the Marin County Civil Grand Jury's report regarding Adaptation to Climate Change.

SUMMARY

On September 11, 2020, the Marin County Civil Grand Jury released its report entitled "Climate Change: How Will Marin Adapt?" The report examined the current status of climate change activities in Marin County, with the main conclusion being that while there is progress being made with mitigation initiatives, adaptation measures in the County need additional attention. The report further suggested a number of county-wide approaches to developing a regional approach to adaptation to climate change impacts.

DISCUSSION

Marin Municipal Water District has done considerable climate change mitigation work in terms of energy efficiency initiatives, water conservation activities, solar energy projects and the ongoing work to evaluate micro-turbines in areas of the distribution system to generate hydropower. In terms of adaptation, the growing fuel reduction program of the District is setting a regional and national model for addressing the threat of wildfires and the District is also very engaged on water resource planning and conservation as drought conditions from reduced precipitation could be an outcome of climate change. Unlike many (e.g. Cities, County, Flood Control Districts), the District does not have land-use authority and is not as directly involved in sea level rise adaptation measures. The Grand Jury requested the District to respond to below six Findings and two Recommendations.

Finding 1: *Climate change mitigation efforts by Marin governments have been notably effective in meeting their goals to reduce greenhouse gas emissions.*

Finding 2: *Adaptation planning is essential to protect local public utility and transportation infrastructure as well as private property interests, and to enable Marin's citizens to maintain their current standards of living.*

Finding 3: *With the BayWAVE and C-SMART initial vulnerability assessments completed, the county is now well-positioned to focus on adaption planning and policies related to sea level rise.*

Finding 4: *The existing adaption efforts across the county pay insufficient attention to the other potential effects of climate change, including impacts on public health, ecosystems, and social equity.*

Finding 5: *There are insufficient staff and financial resources devoted to climate change adaptation efforts across county government as well as in the cities, towns, and other agencies, and many of the existing efforts are highly dependent on grant funding.*

Finding 7: *Cross-jurisdictional collaboration and coordination will be required for successful adaptation efforts, but Marin lacks any overarching organizational or governance structure to facilitate this.*


Recommendation 1: *The board of supervisors, in collaboration with the municipalities and other agencies affected by climate change, should convene a multi-jurisdictional task force (referred to in this report as the Marin Climate Adaptation Task Force) charged with developing a single, comprehensive, multi-jurisdictional adaptation strategy for all of Marin.*

Recommendation 4: *Each member of the Marin Climate & Energy Partnership, should declare its support for broadening the partnership's mission and increasing its funding as necessary to enable it to support overall climate change planning efforts, including both mitigation and adaptation in cities, towns, and other member agencies throughout the country.*

Staff has prepared a draft response to the Grand Jury's findings and recommendations identified above. For the board's review, the draft response letter to the Grand Jury is attached.

ATTACHMENT(S)

- A. Draft Marin Municipal Water District Letter Responding to Marin County Civil Grand Jury Report titled "Climate Change: How Will Marin Adapt?"
- B. Marin County Civil Grand Jury Report titled "Climate Change: How Will Marin Adapt?"

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Office of the General Manager	<hr/> Ben Horenstein General Manager	 <hr/> Ben Horenstein General Manager



November 18, 2020

The Honorable Judge Andrew E. Sweet
Marin County Superior Court
P.O. Box 4988
San Rafael, CA 94913-4988

Foreperson Lucy Dilworth
Marin County Civil Grand Jury
3501 Civic Center Drive, Suite 275
San Rafael, CA 94903

Subject: Marin County Grand Jury Follow-Up Report Entitled *Climate Change: How Will Marin Adapt?*

Dear Judge Sweet and Foreperson Dilworth:

This letter is in response to the Marin County Civil Grand Jury Report entitled *Climate Change: How Will Marin Adapt?* (Report) dated September 11, 2020. We appreciate the Grand Jury's recognition of this critical issue, and we remain committed to being a leader on this issue in the water sector, in Marin County.

The Grand Jury requested that the Marin Municipal Water District (MMWD) respond to 6 Findings and 2 Recommendations, please see our responses below:

Finding 1: *Climate change mitigation efforts by Marin governments have been notably effective in meeting their goals to reduce greenhouse gas emissions.*

Response: MMWD agrees with this finding.

Finding 2: *Adaptation planning is essential to protect local public utility and transportation infrastructure as well as private property interests, and to enable Marin's citizens to maintain their current standards of living.*

Response: MMWD agrees with this finding.

Finding 3: *With the BayWAVE and C-SMART initial vulnerability assessments completed, the county is now well-positioned to focus on adaption planning and policies related to sea level rise.*

Response: MMWD agrees with this finding.

Finding 4: *The existing adaption efforts across the county pay insufficient attention to the other potential effects of climate change, including impacts on public health, ecosystems, and social equity.*

Response: MMWD partially disagrees with this finding, until more information is obtained. The report had limited information on public health and social equity impacts of climate change in Marin County, and MMWD does not have the independent expertise to analyze these issues.

Finding 5: *There are insufficient staff and financial resources devoted to climate change adaptation efforts across county government as well as in the cities, towns, and other agencies, and many of the existing efforts are highly dependent on grant funding.*

Response: MMWD agrees with this finding.

Finding 7: *Cross-jurisdictional collaboration and coordination will be required for successful adaptation efforts, but Marin lacks any overarching organizational or governance structure to facilitate this.*

Response: MMWD agrees with this finding. However, MMWD does not have land use responsibility or authority. Therefore, it is not well positioned to weigh-in on a county-wide organizational or governance structure.

Recommendation 1: *The board of supervisors, in collaboration with the municipalities and other agencies affected by climate change, should convene a multi-jurisdictional task force (referred to in this report as the Marin Climate Adaptation Task Force) charged with developing a single, comprehensive, multi-jurisdictional adaptation strategy for all of Marin.*

Response: MMWD is supportive of this recommendation but believes that the recommendation requires further analysis. MMWD has specific responsibilities and related activities related to climate impacts, including the growing potential for prolonged drought, the intensifying threat of wildfires, and the potential decrease of watershed health and biodiversity due to shifting patterns of rainfall and temperature.

Recommendation 4: *Each member of the Marin Climate & Energy Partnership, should declare its support for broadening the partnership's mission and increasing its funding as necessary to enable it to support overall climate change planning efforts, including both mitigation and adaptation in cities, towns, and other member agencies throughout the country.*

Response: MMWD believes that this recommendation requires further analysis as to the best approach to design and develop a county-wide effort to address climate change mitigation and adaptation.

Please let me know if you have any questions.

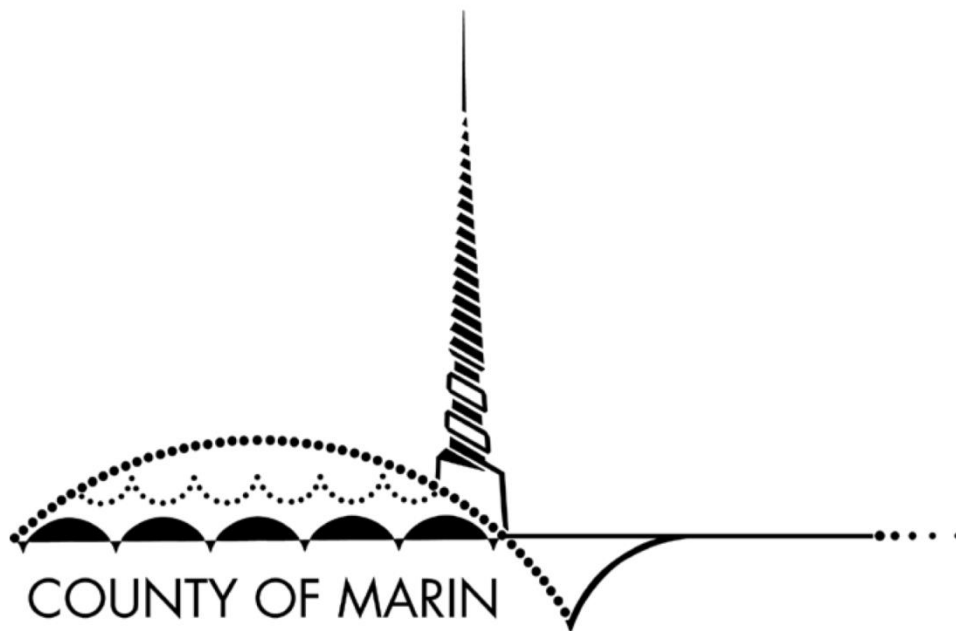
Sincerely,

Ben Horenstein, *General Manager*
MMWD

2019–2020 MARIN COUNTY CIVIL GRAND JURY

Climate Change: How Will Marin Adapt?

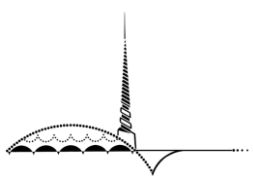
September 11, 2020



A Note about the Coronavirus Pandemic

The 2019–2020 Marin County Civil Grand Jury is issuing its reports during the unprecedented conditions of the COVID-19 pandemic. We are well aware that Marin County is in crisis and that critical public health concerns, operational difficulties, and financial challenges throughout the county have a greater claim to government attention right now than the important issues raised by this Grand Jury.

We are confident that, in due course, Marin will come through this crisis as strong as ever.



Climate Change: How Will Marin Adapt?

SUMMARY

Our planet is warming, glaciers and ice sheets are melting, sea levels are rising, we are witnessing more extreme weather events and wildfires, and ecosystems are being altered. The future pace of climate change is uncertain, but the trends are ominous. In Marin, a modest 10-inch sea level rise could reach 700 buildings and 8 miles of roads along the bay, and a 60-inch rise, combined with a 100-year storm surge, could inundate 12,000 buildings and 130 miles of roads.¹ According to one recent study, Marin County could lose as many as 10,000 homes to sea level rise by 2100.² In addition, public health will be threatened by more vector-borne disease, our environment will become less suitable for evergreen forests and more hospitable to highly flammable shrubs, and lower-income households will be disproportionately affected by heat waves and floods.

Efforts to address climate change fall into two categories: “Mitigation” measures reduce greenhouse gas emissions to slow climate change, while “adaptation” measures such as seawalls guard against the consequences of climate change.

Significant mitigation work has been done in Marin, but plans for adapting to climate change have taken a back seat and have focused almost exclusively on sea level rise. Are Marin’s county, city, and town governments doing enough to adapt to climate change? That is the question at the heart of this report.

This investigation was started in 2019, prior to the COVID-19 pandemic, and the financial strength of Marin’s public agencies will likely be significantly impaired in the short term. But the need for long-term planning and action is not diminished. The Grand Jury hopes that agencies addressed in this report will strongly consider implementing the jury’s recommendations as soon as they are able to do so.

The Grand Jury makes several interrelated, but not interdependent, recommendations to help Marin move forward in its climate change efforts, including the following:

- The county, in collaboration with the municipalities and other Marin agencies affected by climate change, should convene a multi-jurisdictional task force charged with developing a countywide adaptation strategy appropriate for adoption by each participant.
- The county government should consolidate all of its mitigation and adaptation programs in a new office that would coordinate and unify climate change efforts at the county level.

¹ BVB Consulting LLC, *Marin Shoreline Sea Level Rise Vulnerability Assessment*, Bay Waterfront Adaptation & Vulnerability Evaluation (Marin County Department of Public Works, June 2017), pp. 25, 43, 63, https://www.marincounty.org/-/media/files/departments/cd/planning/sea_level_rise/baywave/vulnerability-assessment-final/final_allpages_bvbconsulting_reduced.pdf?la=en.

² Climate Central and Zillow, *Ocean at the Door: New Homes and the Rising Sea*, research brief, July 31, 2019, downloadable supporting data, accessed October 8, 2019, <https://www.climatecentral.org/news/ocean-at-the-door-new-homes-in-harms-way-zillow-analysis-21953>.

- The Marin Climate & Energy Partnership should expand its mission beyond greenhouse gas reduction to include adaptation planning support for the cities, towns, and other members.
- The county should study the feasibility of reorganizing the Marin Flood Control and Water Conservation District into a new agency governed by the county and all 11 cities and towns, with an expanded mission that includes climate change adaptation projects.

APPROACH

The Marin County Civil Grand Jury investigated the actions taken by Marin’s county, city, and town governments to prepare for the potential consequences of climate change, assessed the adequacy of those efforts, and has recommended additional actions that would enhance the county’s ability to meet the climate challenge.

In carrying out this investigation, the Grand Jury—

- Interviewed elected officials, department heads, and staff in the Marin County government and in Marin’s city and town governments, as well as representatives from various climate-related organizations in Marin and the Bay Area.
- Reviewed reports, studies, plans, and California state guidance documents dealing directly or indirectly with climate change.
- Attended community meetings focused on various efforts throughout the county to reduce greenhouse gas emissions and plan for the potential effects of climate change.

The more the Grand Jury delved into climate change, the greater its appreciation for the complexity and evolving nature of the topic, as well as for the individuals throughout the county who are dedicated to confronting this global challenge at the local level. The Grand Jury was under no illusion that it could master all aspects of the subject or provide foolproof recommendations for the best path forward. But the Grand Jury hopes that the issues and suggestions raised in this report will increase awareness and prompt thoughtful discussion.

BACKGROUND: THE CHALLENGE OF CLIMATE CHANGE

There is broad scientific consensus that human actions over the past century or more—particularly the burning of fossil fuels and land-use practices such as deforestation and food

production—have been changing Earth’s climate. Both globally and locally, the signs of climate change are increasingly evident:

- Worldwide, the years 2015–2019 were the five warmest years on record,³ and May 2020 tied with May 2016 as the warmest May on record.⁴ From 1895 to 2018, the average temperature in Marin County increased by 2.3°F.⁵
- Over the past century, sea level in the Bay Area rose by about 8 inches, and the rate of sea level rise has accelerated significantly since 2011.⁶
- The 2012–2016 California drought resulted in the most severe moisture deficits in the last 1,200 years and a record-low Sierra snowpack.⁷
- Fueled by drought-parched trees and shrubs and driven by high winds, California’s 2017 and 2018 wildfires were the deadliest and costliest in state history.⁸ Marin was spared the flames, but not the smoke and soot. The threat of fires in 2019 led PG&E to shut off electric power to almost the entire county for multiple days.
- In March 2018, Marin County Public Health issued a warning that potentially lethal levels of shellfish toxins, probably caused by “an increasingly unpredictable climate,” were detected in the waters of Drakes Bay and north of Stinson Beach.⁹ Other climate-related county health advisories in recent years have included alerts about infectious diseases such as West Nile and Zika virus.¹⁰

According to California’s latest Climate Change Assessment, annual average temperatures in the Bay Area will likely increase by approximately 4.4°F by the middle of this century and 7.2°F by the end of the century—unless there are significant efforts throughout the world to limit or

³ National Oceanic and Atmospheric Administration, “2019 Was 2nd Hottest Year on Record for Earth Say NOAA, NASA,” news release, January 15, 2020, <https://www.noaa.gov/news/2019-was-2nd-hottest-year-on-record-for-earth-say-noaa-nasa>.

⁴ National Oceanic and Atmospheric Administration, National Centers for Environmental Information, “State of the Climate: Global Climate Report for May 2020,” June 2020, accessed June 17, 2020, <https://www.ncdc.noaa.gov/sotc/global/202005>.

⁵ Steven Mufson, Chris Mooney, Juliet Eilperin, and John Muyskens, “Extreme Climate Change Has Arrived in America,” *Washington Post*, August 13, 2019, <https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-america/>.

⁶ David Ackerly, Andrew Jones, Mark Stacey, and Bruce Riordan (University of California, Berkeley), *San Francisco Bay Area Summary Report*, California’s Fourth Climate Change Assessment, CCCA4-SUM-2018-005 (January 2019), p. 31, https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-005_SanFranciscoBayArea_ADA.pdf.

⁷ Ackerly et al., *San Francisco Bay Area Summary Report*, p. 17.

⁸ Mark Northcross, “Rebuild to Fail or Rebuild to Adapt: How CRA Lending Can Guide Climate Change Disaster Response,” *Strategies to Address Climate Change Risk in Low- and Moderate-Income Communities*, *Federal Reserve Bank of San Francisco Community Development Innovation Review*, 14, issue 1 (2019): p. 39, https://www.frbsf.org/community-development/files/CDIR_vol_14_issue_1.pdf; and Steve Gorman, “Year’s Most Destructive California Wildfire Declared Extinguished after Two Weeks,” *Reuters*, November 7, 2019, <https://www.reuters.com/article/us-california-wildfire/years-most-destructive-california-wildfire-declared-extinguished-after-two-weeks-idUSKBN1XIOBA>.

⁹ County of Marin, “Public Health Warning for Shellfish Toxins,” news release, March 7, 2018, <https://www.marincounty.org/main/county-press-releases/press-releases/2018/hhs-shellfishtoxins-030718>.

¹⁰ Richard Halsted, “Marin Supervisors Receive Harrowing Report on Climate Change, Sea Level Rise,” *Marin Independent Journal*, April 13, 2019, <https://www.marinij.com/2019/04/13/marin-supervisors-receive-harrowing-report-on-climate-change-sea-level-rise/>.

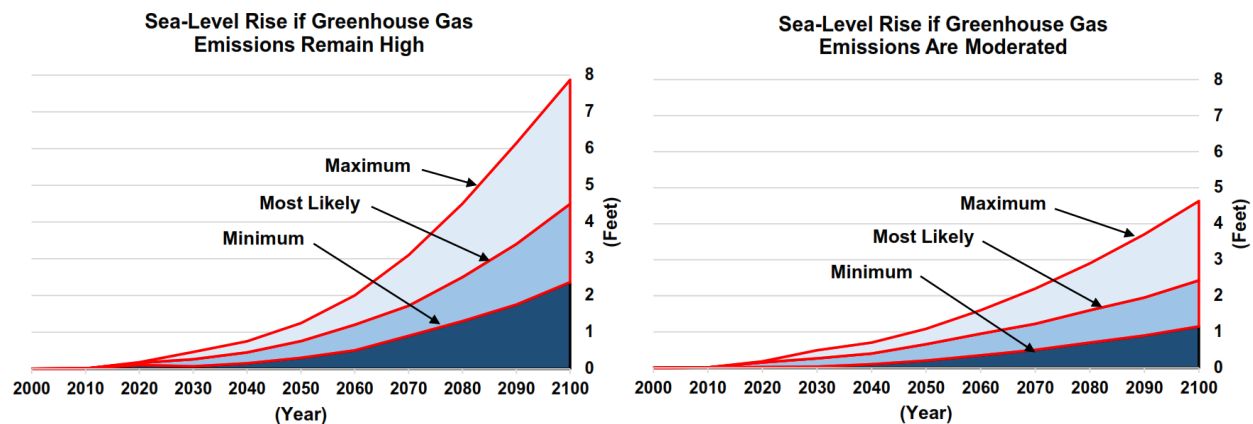
reduce greenhouse gas emissions. Even with significant reduction efforts, the temperature increase is projected to be approximately 3.3°F by mid-century and 4.2°F by century's end.¹¹

Ongoing global warming, in turn, will increase the volume of water in oceans through thermal expansion and the addition of meltwater from glaciers and ice sheets, resulting in rising seas throughout the world. In the Bay Area, assuming emissions worldwide are moderated, median sea level rise is projected to be about 8 inches by 2050 and 2.4 feet by the year 2100. But if emissions remain high, sea level rise by 2100 would likely be about 4.5 feet, and it could approach 8 feet. Figure 1 shows sea level rise projections for the Bay Area under the two scenarios: continued high emissions and moderate emissions.

As sea level rises, more and more land along the shoreline will flood and then remain permanently underwater. But that will just be the new baseline. On top of that baseline will be the periodic flooding caused by El Niño events, king tides, large waves, stream runoff, and storm surges. For example, storm surge in California can elevate sea level by as much as 3 feet, temporarily transforming a 1-foot sea level rise into a 4-foot sea level rise.¹²

Low-lying shoreline communities along the bay and in West Marin—including homes, businesses, utilities, ferry facilities, marinas, boat launches, and roads—will be directly affected by sea level rise. The severity of the impacts will be determined by the magnitude and timing of

Figure 1. Projections of Sea Level Rise in the San Francisco Bay Area, 2000–2100



Note: For each scenario, the minimum sea level rise levels will occur with near certainty, the most likely levels represent the statistical averages, and the maximum levels are statistically plausible but less likely. The high emissions scenario is commonly referred to as the business-as-usual scenario and technically called Representative Concentration Pathway (RCP) 8.5. The moderate emissions scenario is technically called RCP 4.5.

Source: Based on D. W. Pierce, J. F. Kalansky, and D. R. Cayan (Scripps Institution of Oceanography), *Climate, Drought, and Sea Level Rise Scenarios for the Fourth California Climate Assessment*, California's Fourth Climate Change Assessment, CCCA4-CEC-2018-006 (August 2018), Figure 43 and Table 5, https://www.energy.ca.gov/sites/default/files/2019-11/Projections_CCCA4-CEC-2018-006_ADA.pdf.

¹¹ Ackerly et al., *San Francisco Bay Area Summary Report*, p. 14.

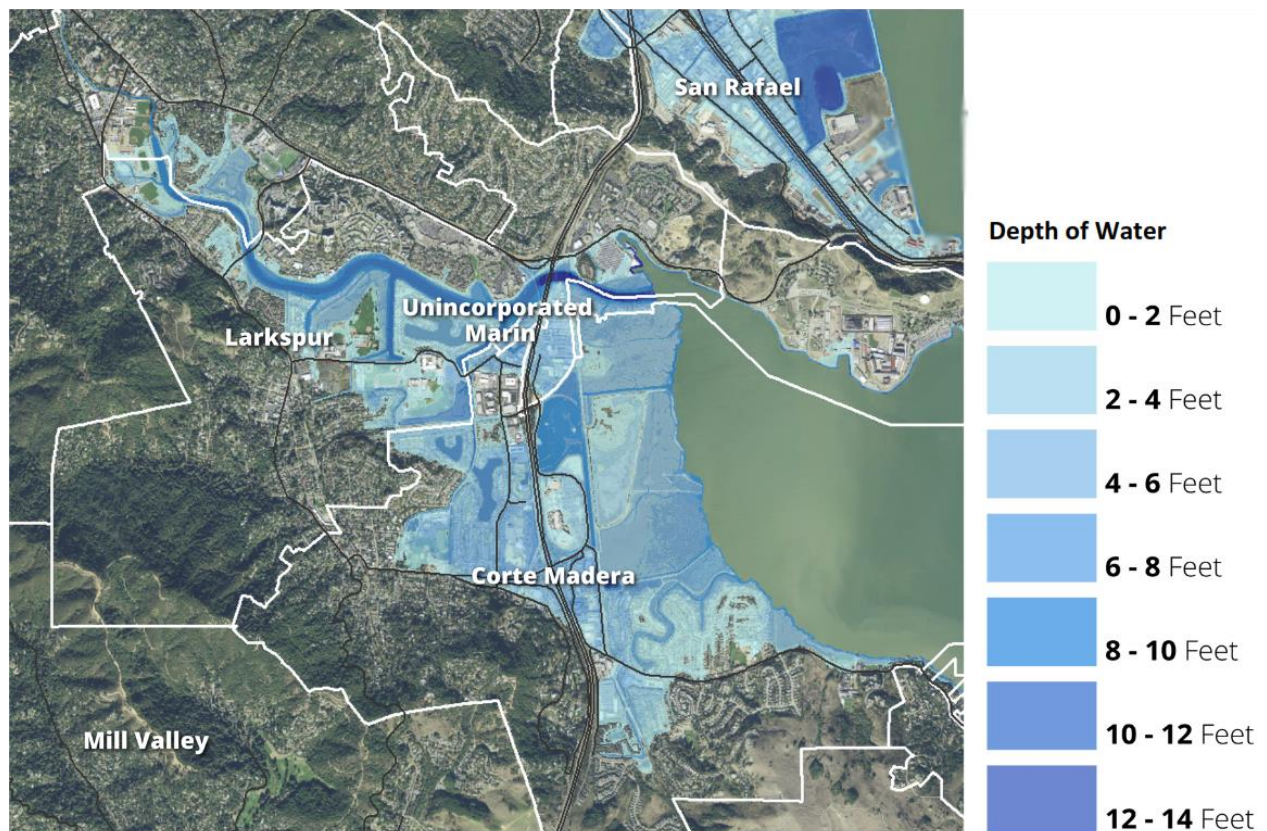
¹² G. Griggs, J. Árvai, D. Cayan, R. DeConto, J. Fox, H. A. Fricker, R. E. Kopp, C. Tebaldi, and E. A. Whiteman (California Ocean Protection Council Science Advisory Team Working Group), *Rising Seas in California: An Update on sea level Rise Science* (California Ocean Science Trust, April 2017), p. 17, <http://www.opc.ca.gov/webmaster/ftp/pdf/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf>.

the sea level rise. For example, a modest 10-inch sea level rise alone could reach 5,000 acres, 700 buildings, and 8 miles of roads along the bay. But a 60-inch sea level rise, combined with a 100-year storm surge, could inundate 18,000 acres, 12,000 buildings, and 130 miles of roads.¹³ According to a recent study by Climate Central and Zillow, as many as 10,000 Marin homes would be subject to annual flooding by 2100 under a high emissions scenario. The study also found that almost 50 homes built in the county between 2010 and 2016 are at risk of flooding by 2050 under almost any plausible scenario.¹⁴

As Figure 2 shows, a 4-foot rise in sea level will cause a large portion of the Larkspur and Corte Madera area—including a lengthy stretch of U.S. Highway 101—to be permanently flooded. Some low-lying areas will be flooded to a depth of 10 feet or more.

Adapting to higher sea levels will be costly no matter what measures, such as managed retreat or shoreline protection, are taken. One estimate for Marin County anticipates spending \$1.1 billion

Figure 2. Sections in the Larkspur-Corte Madera Area Vulnerable to 4-Foot Sea Level Rise



Source: Reproduced with slight modifications from Marin County, *Adaptation Land Use Planning*, February 2020, p. 12, <https://www.marincounty.org/-/media/files/departments/cd/slr/alup0228.pdf?la=en>.

¹³ BVB Consulting LLC, *Marin Shoreline Sea Level Rise Vulnerability Assessment*, pp. 25, 43, 63.

¹⁴ Climate Central and Zillow, *Ocean at the Door*.

by 2040 to construct 133 miles of seawalls to protect communities from the effects of sea level rise.¹⁵ This estimate is only for seawalls, and does not include other costs, such as necessary changes to infrastructure, relocation or protection of utilities and sanitation facilities, or modification of roads or structures. A proposed seawall for Belvedere, including relocation of utilities and related work, carries an estimate as high as \$27.4 million.¹⁶

More than any of the other expected consequences of climate change on Marin, sea level rise may be the easiest to visualize and has received the most detailed attention by planners. That is why this report, in discussing the effects of climate change on the county and programs to address them, discusses sea level rise in greater depth. But other projected impacts of climate change are also concerning. For example:

- **Health Impacts.** Public health will be threatened by more extreme heat events and wildland fires; increased air pollution, vector-borne disease, indoor mold, and pollen; longer and more frequent droughts; flooding and landslides from sea level rise and more intense winter storms; and release of contaminants from flooded hazardous waste sites. Potential disruption of the transportation network could hamper people's ability to move away from danger. It could also interfere with access to healthcare, as well as the ability of hospitals, clinics, and emergency responders to operate.
- **Ecosystem Impacts.** The quantity and quality of water in creeks will suffer from longer dry seasons, more frequent and severe droughts, and catastrophic wildfires, negatively affecting invertebrates, fish, amphibians, and other animals. The Bay Area environment will become less suitable for evergreen forests, including redwoods and Douglas fir, and more favorable for vegetation such as chamise chaparral, a shrub that is particularly flammable during hot, dry weather, further increasing the danger of wildland fires.
- **Socioeconomic Impacts.** Regional socioeconomic inequity will be exacerbated because lower-income and minority households, which disproportionately live in locations more vulnerable to climate and other environmental risks, will have greater difficulty preparing for and recovering from heat waves, floods, and wildfires.¹⁷

Although the timing and magnitude of climate change are uncertain, it is happening, and it will affect the quality of life of everyone who lives in, works in, or visits Marin. What are we doing as a community to meet this challenge, and what more should we be doing? These are the questions at the heart of this investigation.

DISCUSSION

Mitigation and Adaptation: Two Essential Pillars of a Climate Change Strategy

Actions to address climate change are generally divided into two categories:

Mitigation—These are actions to reduce greenhouse gases and other causes of climate change. They include reducing energy use, converting to low-carbon energy sources, and

¹⁵ Sverre LeRoy and Richard Wiles, *High Tide Tax: The Price to Protect Coastal Communities from Rising Seas*, Center for Climate Integrity, June 2019, www.climatecosts2040.org.

¹⁶ "Cost," Belvedere Sea Wall, accessed April 18, 2020, <https://belvedereseawall.org/cost/>.

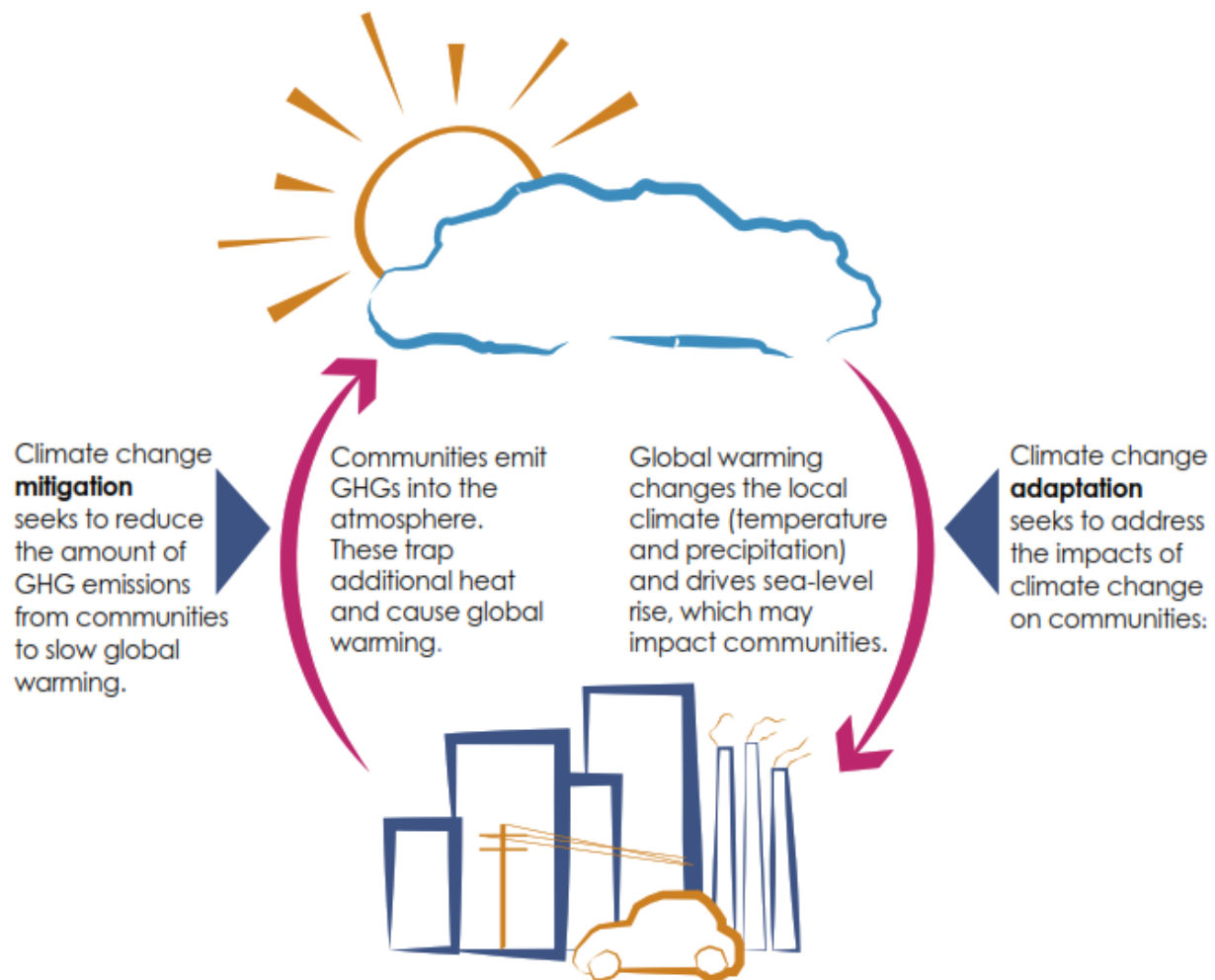
¹⁷ Ackerly et al., various pages.

expanding forests and other “sinks” that remove and sequester carbon dioxide from the atmosphere.

Adaptation—These are actions to protect people and places from the effects of climate change. They include building seawalls, restoring shoreline wetlands, relocating buildings and highways to higher ground, preparing for impacts on human health, preventing and preparing for wildfires, and diversifying crops.

Figure 3 depicts the relationship between mitigation and adaptation. In some cases, these approaches overlap. For example, the restoration of shoreland wetlands can both reduce tidal flooding and increase carbon sequestration.

Figure 3. Roles of Mitigation and Adaptation Efforts in Addressing Climate Change



Source: Reprinted with minor modifications from California Governor’s Office of Emergency Services, *California Adaptation Planning Guide*, final public review draft, March 2020, p. 16, <https://www.caloes.ca.gov/HazardMitigationSite/Documents/APG2-FINAL-PR-DRAFTAccessible.pdf>.

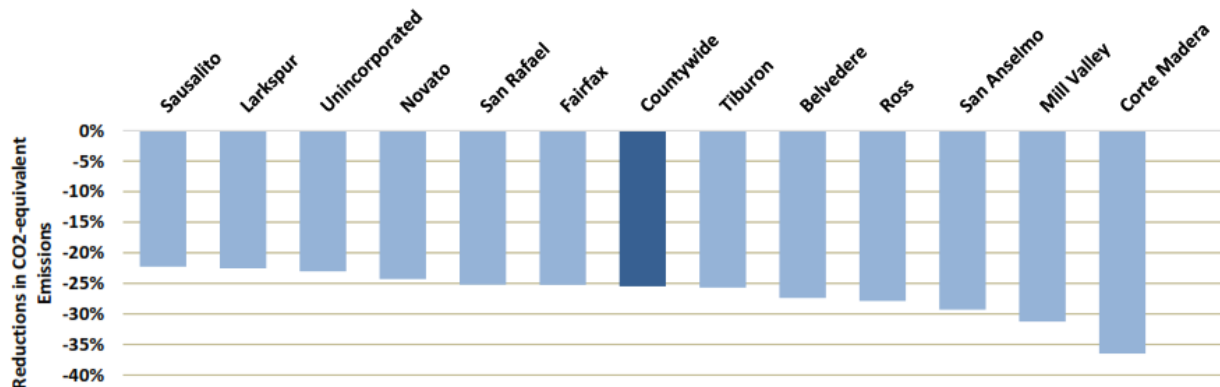
As the moderated emissions graph in Figure 1 shows, if net emissions of greenhouse gases can be reduced, future sea level rise (and, by implication, other negative effects of climate change) will be reduced. That is why mitigation efforts are so important.

Figure 1 also shows that reducing greenhouse gas emissions can only lessen, not eliminate, the effects of climate change. Even under the most optimistic scenarios, sea levels will continue to rise and our environment will be altered. As NASA states, “Carbon dioxide . . . lingers in the atmosphere for hundreds of years, and the planet (especially the oceans) takes a while to respond to warming. So even if we stopped emitting all greenhouse gases today, global warming and climate change will continue to affect future generations.”¹⁸ That is why adaptation efforts are just as crucial as mitigation efforts.

Mitigation Programs in Marin

Mitigation efforts started in Marin in 2002 when the county resolved to join the Cities for Climate Protection Campaign. Since then, Marin’s county, city, and town governments have all developed climate action plans focused on reducing greenhouse gas emissions. Innovative mitigation initiatives—such as Marin Clean Energy (now called MCE), Electrify Marin, the Marin Solar Project, the Marin Energy Watch Partnership, Resilient Neighborhoods, and Drawdown: Marin—all have had a positive impact or show promise for further progress. From 2005 to 2018, according to Marin Climate & Energy Partnership data, countywide greenhouse gas emissions decreased by 25 percent.¹⁹ Figure 4 provides a breakdown of the emissions reduction by jurisdiction.

Figure 4. Greenhouse Gas Emissions Reductions in Marin County, by Jurisdiction, 2005–2018



Source: Based on June 19, 2020, data from Marin Climate & Energy Partnership, “Marin Tracker,” accessed June 29, 2020, <http://www.marintracker.org/>. Note that this chart is based on the raw Marin Tracker data and differs slightly from a similar chart on the Marin Climate & Energy Partnership website.

¹⁸ NASA, “Responding to Climate Change,” no date, accessed November 27, 2019, <https://climate.nasa.gov/solutions/adaptation-mitigation/>.

¹⁹ Marin Climate & Energy Partnership, “Marin Tracker,” accessed June 29, 2020, <http://www.marintracker.org/>.

As a community, we must continue our resolve to shrink our carbon footprint. A more detailed overview of Marin's mitigation efforts is set forth in Appendix A, and a list of the primary governmental organizations and programs in Marin involved with climate change is included in Appendix B.

Adaptation Planning Efforts in Marin

Formal planning for how Marin will need to adapt to climate change did not begin until mid-2014 when the county government formed the Collaboration: Sea-level Marin Adaptation Response Team (C-SMART) to research the potential impacts of sea level rise on West Marin and to work with coastal communities to plan for those impacts. By 2018, C-SMART had completed both a vulnerability assessment²⁰ and a report presenting possible options for accommodating, protecting against, or retreating from the threats of sea level rise.²¹ As of March 2020, C-SMART's priorities included working with the California Coastal Commission to finalize an updated Local Coastal Program that will enable C-SMART to create a comprehensive adaptation plan for the coastal shore.

A similar but separate county project was started in September 2015 to assess the potential impacts of sea level rise on Marin's eastern shoreline. This project was dubbed the Bay Waterfront Adaptation and Vulnerability Evaluation (BayWAVE). In 2017, BayWAVE completed an assessment of the potential impacts of sea level rise on Marin's bayside communities through the end of this century.²² Based in part on that assessment, in early 2020 the county published a guide detailing the land-use planning tools available to adapt to rising sea levels.²³

With vulnerability assessments completed for both the ocean and bay sides of Marin, we have a good understanding about which portions of the county's critical infrastructure will be affected by sea level rise and the extent to which private property is at risk under various scenarios. So, at least with respect to sea level rise, important groundwork has been laid for the development of adaptation strategies.

Marin Should Take a Fresh Approach to Adaptation Planning

Public servants in Marin's county government and local communities have generally done outstanding work on climate change, but the county lacks a comprehensive approach to climate change adaptation planning. Most of Marin's municipalities do not yet know how to approach this difficult task. The adaptation planning process needs a reboot.

²⁰ C-SMART, Marin County Community Development Agency, *Marin Ocean Coast Sea Level Rise Vulnerability Assessment*, May 2016, https://www.marincounty.org/-/media/files/departments/cd/planning/sea_level_rise/c-smart/2018/01_draft_title_pages_toc_va_sea_level_rise_18_02_05.pdf?

²¹ C-SMART, Marin County Community Development Agency, *Marin Ocean Coast sea level rise Adaptation Report*, February 2018, https://www.marincounty.org/-/media/files/departments/cd/planning/sea_level_rise/c-smart/2019/181211_csmart_adaptation_report_final_small.pdf?

²² BVB Consulting LLC, *Marin Shoreline Sea Level Rise Vulnerability Assessment*.

²³ Marin County, *Adaptation Land Use Planning*, February 2020, <https://www.marincounty.org/-/media/files/departments/cd/slr/alup0228.pdf?la=en>.

A Mandate for Adaptation Planning

Developing adaptation strategies is not an option; it is the law. California state law has long required each municipality and county to adopt a comprehensive, long-term general plan for the jurisdiction's physical development.²⁴ In October 2015, the governor signed into law Senate Bill 379, which added the requirement that jurisdictions update the so-called safety element of their general plans to “address climate adaptation and resiliency strategies.” This law states that these updates must include “a set of adaptation and resilience goals, policies, and objectives” and “a set of feasible implementation measures designed to carry out the goals, policies, and objectives.”²⁵ This requirement took effect January 1, 2017. If the required information is contained in another type of planning instrument—for example, a stand-alone adaptation plan, a climate action plan, a Local Coastal Program, land use codes, or zoning regulations—the other instrument may be incorporated into the general plan by reference.

In Marin, various planning instruments have been used, or are currently being developed, to address climate adaptation, but none of them yet meet this law's requirements. All of the climate action plans developed by Marin's municipalities and the county government focus on mitigation. Adaptation is addressed only in generalities. The county's general plan was adopted in 2007 and last amended in 2014,²⁶ and most of the general plans of Marin's 11 cities and towns are older. All of the general plans predate the C-SMART and BayWAVE assessments and do not present detailed adaptation measures. Several municipalities are in the process of updating their general plans, but in a survey regarding their updates, only San Rafael stated that it expects to comply with this law.²⁷ Under the most generous interpretation of the law, the county government must begin updating its general plan to incorporate climate adaptation strategies no later than January 1, 2022. These strategies need to cover more than just sea level rise, which means there is much more work to do.

A Commonsense Objective: A Multi-Jurisdictional Adaptation Plan

Marin's jurisdictional puzzle, geographical layout, transportation infrastructure, and other interdependencies call for comprehensive adaptation solutions. Climate change is a countywide issue, not one limited to waterfront or hillside communities. We breathe the same air, drive the same roads, benefit from common watersheds, and share central sanitation facilities, all without regard to the boundaries of our city or town or our neighborhood geography. When Highway 101 floods due to storm surge, all residents are affected, not just those living near the water. Effective planning will require countywide collaboration and coordination.

To date, however, the few forays into adaptation planning have been initiated by individual jurisdictions. These jurisdictions are not working toward a common solution, and they are taking different approaches. For example, Corte Madera has taken the initiative to develop a stand-

²⁴ California Government Code § 65300, accessed March 10, 2020, http://leginfo.ca.gov/faces/codes_displaySection.xhtml?sectionNum=65300.&lawCode=GOV.

²⁵ California Government Code § 65302(g)(4), accessed March 10, 2020, http://leginfo.ca.gov/faces/codes_displaySection.xhtml?sectionNum=65302.&lawCode=GOV.

²⁶ Marin County Community Development Agency, *Marin Countywide Plan*, November 6, 2007 (reprinted October 2014), p. 2.6–12, https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/country-wide-plan/cwp_2015_update_r.pdf?la=en.

²⁷ Marin County, *Adaptation Land Use Planning*, February 2020, p. 33.

alone adaptation plan. It has included representatives from the county and other local agencies, including the public works departments of San Rafael and Larkspur, on the project's advisory committee, but the town does not anticipate that the final plan (scheduled for release February 2021) will make recommendations beyond the scope of its own jurisdiction. As shown in Figure 2, Corte Madera, Larkspur, and unincorporated Marin share a common flood zone; it would be nearly impossible for Corte Madera to resolve its sea level rise flooding problems without joint action with Larkspur and the county, not to mention the Ross Valley. Corte Madera is well aware of this fact and is in ongoing conversation with the county and surrounding jurisdictions regarding the project and how to collaborate on adaptation strategies. That is constructive, but successful outcomes will require a formal commitment to joint action.

In addition to adaptation efforts in Corte Madera, there are also programs underway in Belvedere and San Rafael. The box on the next page describes these efforts.

One explanation for these individual approaches is that the process for adaptation planning is not yet well settled. As climate change concerns have grown, separate jurisdictions have grafted varying adaptation plans onto their preexisting planning instruments. Just as there was a time when climate action plans did not yet exist, such is the case today for climate change adaptation plans.

Fortunately, California's state government has been refining guidance to assist local governments and regional collaboratives in developing an effective planning process. In 2012, the state government issued its *California Adaptation Planning Guide*,²⁸ and a revised version was made available for final public comment in March 2020.²⁹ The March 2020 draft is a comprehensive document of more than 250 pages. The draft 2020 guide notes that "regional governments may also conduct adaptation work for all jurisdictions in their area, and multiple jurisdictions may collaborate on regional adaptation work."³⁰ The Grand Jury recommends restarting Marin's climate change adaptation planning process and believes that it should follow the roadmap set forth in the *California Adaptation Planning Guide*. The goal would be to create a single, comprehensive, multi-jurisdictional adaptation strategy for all of Marin.

There is precedent in Marin for collaboration on similar planning efforts. The county updated its local hazard mitigation plan in December 2018 and, unlike previous plans, this one is "multi-jurisdictional" and covers all of Marin.³¹ It was developed with input from Marin's towns and cities, and all of the municipalities formally adopted it in 2019. This could serve as a model for collaborating on a countywide multi-jurisdictional adaptation plan, which could be incorporated along with the local hazard mitigation plan into the general plans of the county, cities, and towns. That would bring coherence and efficiency to this difficult, but badly needed, effort.

²⁸ California Emergency Management Agency and California Natural Resources Agency, *California Adaptation Planning Guide*, July 2012,

https://www.caloes.ca.gov/HazardMitigationSite/Documents/001APG_Planning_for_Adaptive_Communities.pdf.

²⁹ California Governor's Office of Emergency Services, *California Adaptation Planning Guide*, final public review draft, March 2020, <https://www.caloes.ca.gov/HazardMitigationSite/Documents/APG2-FINAL-PR-DRAFTAccessible.pdf>.

³⁰ California Governor's Office of Emergency Services, *California Adaptation Planning Guide*, final public review draft, March 2020, p. 42.

³¹ Marin County, *Multi-Jurisdiction Local Hazard Mitigation Plan*, 2018, https://www.marinwatersheds.org/sites/default/files/2019-10/2018-MCM-LHMP_web.pdf.

Cities and Towns Proceed Independently

In 2019, Corte Madera launched a project to develop an adaptation plan addressing both sea level rise and wildfire risk. The town engaged an outside consulting firm to lead the effort, created a dedicated website, and, as of February 2020, had held at least two community engagement events. To help guide the project, a 16-member Resilience Advisory Committee was formed, consisting of planners and other representatives from the county and other local agencies. Corte Madera anticipates completing its adaptation plan in February 2021.³²

In 2019, Belvedere formed the Committee to Protect Belvedere's Seawalls, Levees, and Utilities to address seismic and flooding concerns, primarily along Beach Road and San Rafael Avenue. The city created a dedicated

website to track the effort and has been working with outside engineers and architects on design solutions.³³ The plan would raise the height of existing seawalls by 3½ feet.³⁴

San Rafael is in the process of updating its general plan and, as part of that, announced in early 2020 that it intends to include an adaptation report with that plan and to subsequently develop a comprehensive adaptation plan for the city. The city also announced its intention to adopt land use regulations, zoning overlays, and real estate disclosure requirements to address the growing risks of sea level rise. San Rafael is also working on several projects in East San Rafael to restore marshlands and possibly raise some levees in anticipation of sea level rise.



Architectural rendering of one proposed concept for a continuous seawall along Beach Road in Belvedere. The total project cost is estimated to be between \$11 million and \$27.4 million. (Rendering by One Architecture)

³² "Corte Madera: Adapting to Climate Change," accessed April 23, 2020, <https://cortemaderaadapts.org>.

³³ Belvedere Sea Wall Project, accessed April 18, 2020, <https://belvedereseawall.org>.

³⁴ Hannah Weikel, "City Unveils Refined Plans for Extensive Seawalls Work," *The ARK*, December 25, 2019.

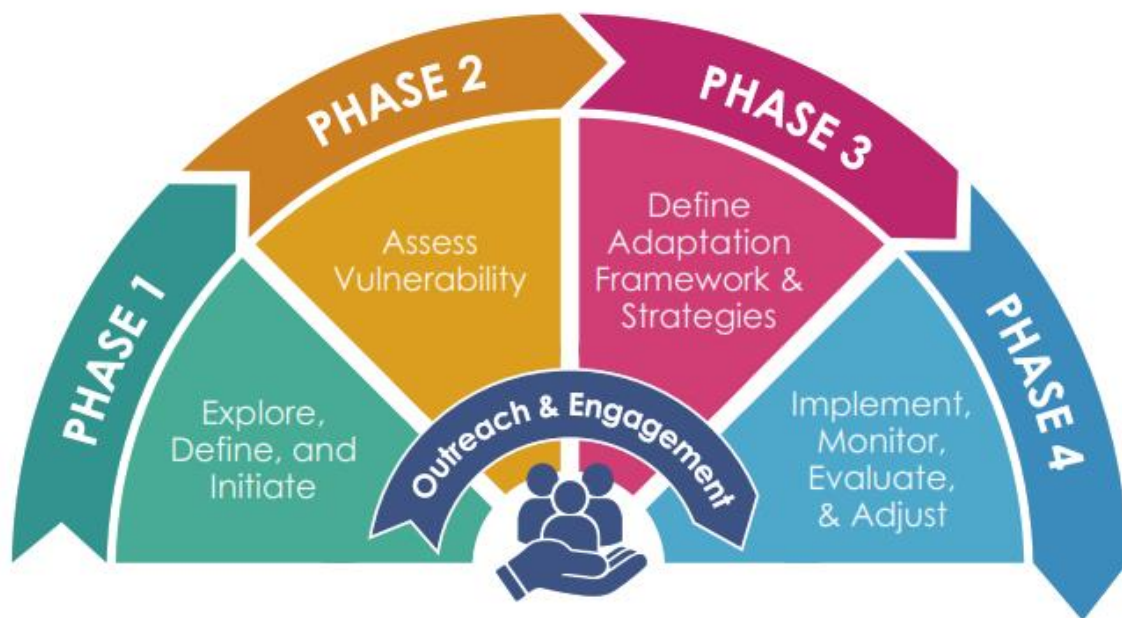
A Robust Framework for Moving Forward

As shown in Figure 5, the draft 2020 *California Adaptation Planning Guide* recommends a four-phase process for adaptation planning. Through the BayWAVE and C-SMART programs, Marin has tackled the second phase of the recommended planning process—assessing vulnerabilities—at least with respect to sea level rise. The third phase entails defining the adaptation framework and strategies.

But for any reboot of the planning process to be successful, it must start off on the right foot. The *first* phase outlined in the draft 2020 guide—explore, define, and initiate—has never been undertaken in Marin on a comprehensive countywide basis. Laying the groundwork in these areas will be critical to any planning effort.

As described in the guide, this first phase starts with the formation of an inclusive project task force responsible for the planning process. Consequently, the Grand Jury recommends the formation of the Marin Climate Adaptation Task Force which should be composed of representatives from county government, cities and towns, and other agencies affected by climate change. The task force should also include representatives of the public to ensure community support and representation of socioeconomically underserved areas. Ideally, the task force would have a combination of technical skills, planning skills, public engagement expertise, and financial know-how. As the initial stage of its work, the task force would define the vision for the planning project and the expected outcomes, with the primary objective being the creation of

Figure 5. Adaptation Planning Process Recommended in the Draft California Adaptation Planning Guide



Source: Reprinted from California Governor's Office of Emergency Services, *California Adaptation Planning Guide*, final public review draft, March 2020, p. 2.

<https://www.caloes.ca.gov/HazardMitigationSite/Documents/APG2-FINAL-PR-DRAFTAccessible.pdf>.

a countywide adaptation strategy. It could be supported by one or more working groups or advisory teams representing key stakeholders. As stated in the *California Adaptation Planning Guide*, the task force should have a leader “empowered to make recommendations and/or have direct access to decision-makers.”³⁵

A planning process that is inclusive, deliberate, and goal-oriented will surely give Marin a greater chance of success. By committing to a more collaborative approach, Marin will be better prepared for the difficult climate change challenges that lie ahead. The cost of addressing climate change could be enormous. The cost of doing it haphazardly could be even greater.

The County Government’s Organization of Climate Change Efforts Is Too Decentralized

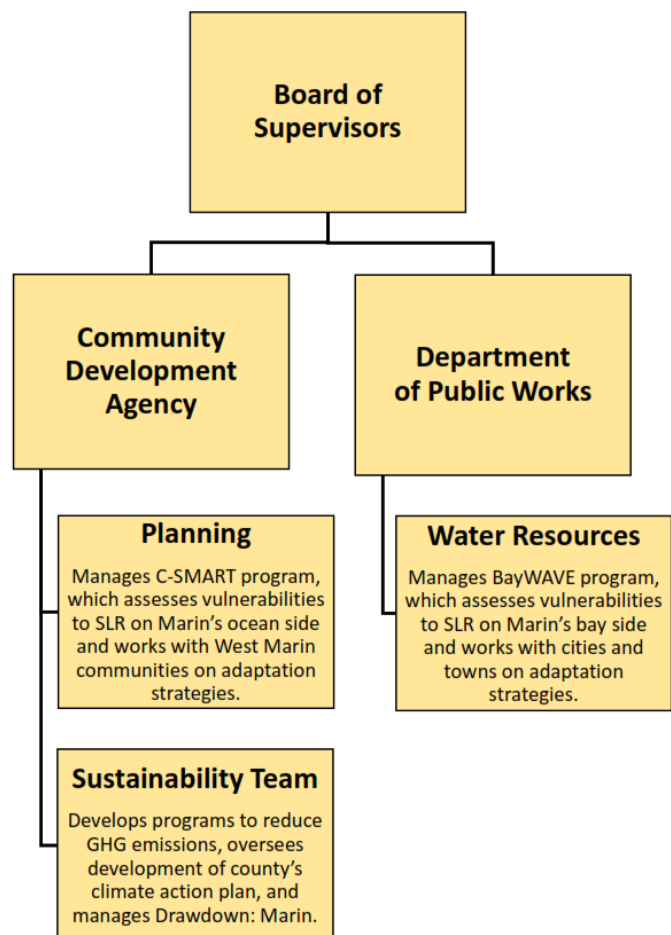
Whether or not Marin’s leaders agree on the benefits of a comprehensive, countywide plan and task force for addressing climate change, they should assess whether their current efforts could be made more efficient and effective.

The caliber of people throughout the county who are working on the climate problem is impressive, but their efforts may be hindered by organizational shortcomings. At the county level, the most active programs for addressing climate change reside in two departments: the Community Development Agency and the Department of Public Works, both of which report to the board of supervisors. As Figure 6 shows, the Community Development Agency’s Sustainability Team is responsible for mitigation planning, including development of the county’s climate action plan, but adaptation efforts are split between the two departments.

County Mitigation Programs

The Community Development Agency’s Sustainability Team works on the county’s climate action plan and programs to promote renewable energy, encourage green building, recognize green businesses, and implement energy efficiency projects. It also supports the Drawdown: Marin program, a

Figure 6. County Government Departments with Major Climate Change Roles



³⁵ California Governor’s Office of Emergency Services, *California Adaptation Planning Guide*, final public review draft, March 2020, p. 49.

collaborative effort in the county to develop policies and incentives that will help to further reduce, or “draw down,” countywide greenhouse gas emissions. (The county’s mitigation efforts are described in more detail in Appendix A.)

The Grand Jury identified several areas of concern in the current arrangement of the Sustainability Team:

- **Limited Authority.** Although the Sustainability Team coordinates with other county departments, it has no authority to direct their mitigation efforts.
- **Fragile Institutional Structure.** Members of the Sustainability Team have significant one-on-one contact with individual members of the board of supervisors, who may direct the team to address certain priorities over others. Climate change initiatives appear to have limited institutional durability.
- **Budgetary Uncertainty.** Of the seven people currently on the Sustainability Team, five are completely or partially dependent on grants for their paychecks; and four have limited-term employment, with their current terms expiring between September 2020 and August 2021. As a consequence of the COVID-19 pandemic, funding for these positions may have become even more precarious.

County Adaptation Efforts

The Community Development Agency’s planning division leads the C-SMART initiative, which is focused on the potential impacts of sea level rise on West Marin. Staff from the Department of Public Works’ water resources division, with support from Community Development Agency planners, lead BayWAVE, the project focused on Marin’s San Francisco Bay shoreline.

Although the C-SMART and BayWAVE projects reside in different departments and thus do not report to the same director, staff on both projects maintain that there is ongoing collaboration between the two groups. Indeed, they worked together to develop a guide that details the land-use planning tools available to adapt to rising sea levels. The county government published this guide in early 2020.³⁶ Nonetheless, the current arrangement has its drawbacks:

- **Reliance on Informal Collaboration.** Will C-SMART and BayWAVE complement each other or compete for resources? The collaboration that has occurred to date has been largely on an informal, peer-to-peer basis among staff members with common interests and goals. It is unclear how the adaptation efforts going forward will be coordinated or prioritized, if at all. For example, how will the relative priority of coastal and bayside needs be determined if these programs are not managed jointly? It is hard to see a benefit from keeping these efforts separate.
- **Different Analytical Approaches.** The scenarios of potential sea level rise and storm surges used in BayWAVE’s vulnerability assessment do not match the ones used in the C-SMART assessment. It is therefore quite difficult to determine the impact of any single

³⁶ Marin County, *Adaptation Land Use Planning*, February 2020.

Wetland Restoration Projects



The Marin County Parks project to restore subtidal and intertidal habitat at wetlands within McInnis Park aims to protect the park from sea level rise and maintain the San Francisco Bay Trail connection to Las Gallinas Valley Sanitary District. (Marin County Parks photo)

The county is currently exploring nature-based adaptation options, also called living shorelines, for protecting low-lying areas along the bay and ocean from sea level rise. These nature-based measures can not only reduce the vulnerability of communities to flood hazards but also provide fish and wildlife habitat, recreational opportunities, and carbon sequestration. In collaboration with the Golden Gate National Parks Conservancy, Marin

County Parks is developing conceptual plans for a nature-based sea level rise adaptation project at the Bothin Marsh Open Space Preserve in Mill Valley.³⁷ And in partnership with Las Gallinas Sanitary District and the Marin County Flood Control and Water Conservation District, the parks department is working on solutions to restore tidal wetlands in McInnis Park at the edge of San Pablo Bay in San Rafael.³⁸

scenario on the entire county. In the future, will the planning tools and frameworks adopted by C-SMART be compatible with those used by BayWAVE?

- **Limited Staffing.** The staff working on the C-SMART and BayWAVE adaptation programs—four or five employees—are not dedicated full time to keeping up with this dynamic field. They have many other responsibilities and limited time to get their jobs done.
- **Insufficient Attention to Health and Other Risks.** With the county’s focus being on sea level rise, other climate change risks, such as health risks caused by extreme weather events and rising temperatures, have received less attention in the county. The Health and Human Services department does not yet have a position focused full time on the health risks of climate change but the need for this will surely grow.

At least one other county department, Marin County Parks, is also involved with adaptation issues. Two of that department’s projects are described in the box above.

³⁷ Marin County Parks, “Creating a Shared Vision for Preservation and Recreation at Bothin Marsh,” accessed April 23, 2020, <https://www.marincountyparks.org/projectsplans/land-and-habitat-restoration/bothin-marsh-community-vision>.

³⁸ Marin County Parks, “Reclaiming Historic Tidelands and Protecting against Sea Level Rise at McInnis Park,” accessed April 23, 2020, <https://www.marincountyparks.org/projectsplans/land-and-habitat-restoration/marsh-restoration-mcinnis-park>.

A Model for Better Coordination

The Grand Jury is concerned that there is no single body in the county government, other than the board of supervisors, empowered to lead and coordinate the county's overall approach to climate change. In 2020, Marin's county administrator formed a climate change budget working group, but it is unclear how it might help climate change efforts to coalesce around a unified strategy.

What the Marin County government needs is an overarching leadership structure that would coordinate the climate-related efforts not only in the Department of Public Works and the Community Development Agency, but also in Health and Human Services, Parks, Agriculture, and all other departments affected by climate change.

This need could be met in various ways, but the Grand Jury urges the county government to take a close look at the approach taken by San Mateo County. In 2014, San Mateo formed an Office of Sustainability that focuses on climate change mitigation and adaptation, as well as energy and water, transportation and housing, and waste reduction. Reporting directly to the county manager, this office is well positioned to secure collaboration and cooperation from other county departments. San Mateo's effort started with a small full-time staff about the size of Marin's existing seven-person Sustainability Team and has since grown to more than 35. (San Mateo has about three times as many residents as Marin.)

Marin's county government should reorganize its climate change efforts to achieve greater focus by creating an office similar to San Mateo's. This new office should report either to the county administrator or directly to the board of supervisors. It should have a full-time senior leader and be staffed primarily, if not exclusively, by current county government personnel. The existing Sustainability Team, including Drawdown: Marin support, should be moved into (or be accountable to) the new office. Community development and public works employees engaged in climate change activities should either work full time in the new office or should have direct accountability to the new office's leadership for their climate change work. This new entity, which in this report will be referred to as the Office of Sustainability and Resilience, would be charged with the following responsibilities with respect to climate change:

- Managing and coordinating climate change mitigation and adaptation planning and programs across county departments
- Identifying and cultivating sources of funding for climate adaptation and mitigation efforts

This last point deserves elaboration. Funding is needed now for staffing, planning, policy development, and implementation of pilot projects. The county does not have a centralized grant application office, so grant applications are prepared by the department seeking the funding. The county should explore the creation of a dedicated resource within the new Office of Sustainability and Resilience where all grant applications related to climate change would be coordinated. Ideally, this position could be self-funded. Expertise in the grant application process, coupled with the expertise of the functional area requesting the grant, should result in more grants being obtained. In addition, this position could serve as a clearinghouse of grant-related information for Marin's municipalities and other agencies. Collaborative countywide climate proposals have a better chance of being funded.

It is critical to acknowledge that efforts to combat climate change—especially adaptation efforts—will require much more focus, investment, and coordination moving forward if we are to protect our communities and our standard of living. A dire need for funding has not confronted the county yet because Marin has yet to complete its adaptation planning or develop any timeline for implementation; but as it tackles the large public works projects that will be needed in the future, adequate staff resources and funding expertise will become critical.

Marin Needs Stronger Collaboration among the County, Cities, Towns, and Agencies

Collaboration does not come naturally to Marin’s 152 independent cities, towns, schools, special districts, and other governing entities. But the need to collaborate on climate change is recognized by many. For example, San Rafael’s *Climate Action Plan 2030* calls for the following action: “Work with local, county, state, regional, and federal agencies with bay and shoreline oversight and with owners of critical infrastructure and facilities in the preparation of a plan for responding to rising sea levels.”³⁹ The county’s 2015 climate action plan states that “effective adaptation requires coordination across many different stakeholders within a county”⁴⁰ and “cooperation with Marin County cities could help maximize efficiencies in implementing emissions reduction strategies.”⁴¹ San Anselmo’s plan states, “San Anselmo doesn’t exist in a vacuum. While we are leveraging or trying to combat regional, state-wide, national and even international actions and trends, we also have the ability and responsibility to collaborate with other efforts and campaigns.”⁴²

Planning and Policy Development

Although Marin’s municipalities often resist yielding local control, two countywide efforts could serve as building blocks for a more comprehensive approach to adaptation policy development and planning. The first is the working group of Marin’s county and municipal planners that helped develop the countywide, multi-jurisdictional local hazard mitigation plan recently adopted by the county’s board of supervisors and all the cities and towns.⁴³ The success of that effort is an encouraging sign that the planners could expand their collaboration to include a consistent, coordinated approach to adaptation planning for all of Marin.

The second model for collaboration, this one currently focused on mitigation, is the Marin Climate & Energy Partnership, which is funded by contributions by each of its members. Marin’s 11 municipalities and the county government formed this partnership in 2007 to help them work together on achieving their greenhouse gas emissions targets. The Transportation Authority of Marin, the Marin Municipal Water District, and MCE (formerly known as Marin Clean Energy) are also members. Almost all of the members are represented by staff-level planners, and a part-

³⁹ City of San Rafael, *Climate Action Plan 2030*, April 23, 2019, p. 31, <https://www.cityofsanrafael.org/documents/climate-change-action-plan-2030/>.

⁴⁰ ICF International, *Marin County Climate Action Plan (2015 Update)*, ICF 00464.13 (San Francisco, July 2015), p. ES-17, https://www.marincounty.org/-/media/files/departments/cd/planning/sustainability/climate-and-adaptation/execsummarymarincapupdate_final_20150731.pdf?la=en.

⁴¹ ICF International, *Marin County Climate Action Plan (2015 Update)*, pp. 7–9.

⁴² Town of San Anselmo, *Climate Action Plan 2030*, June 11, 2019, p. 47, <https://www.townofsananselmo.org/DocumentCenter/View/24823/San-Anselmo-Climate-Action-Plan-2030-pdf?bidId=>.

⁴³ Marin County, *Multi-Jurisdiction Local Hazard Mitigation Plan*, 2018.

time consultant coordinates their work. The partnership has developed greenhouse gas inventories for all of the cities, towns, and unincorporated areas in Marin, and it publishes this data on its website.⁴⁴ Because only two of Marin’s cities and towns have full-time employees devoted to climate change, the partnership fills a gap by assisting municipalities with their climate action plans.

Given the climate partnership’s success to date, the Grand Jury recommends that its mission be expanded to include comprehensive support for cities and towns on both mitigation and adaptation planning. It could also become the formal “home” for the less formal meetings currently held by the county and municipal planners. If the county forms the proposed Marin Climate Adaptation Task Force as recommended in this report, the partnership could play an important staff-level role supporting the work of the task force in developing a countywide adaptation plan. If the task force is not formed, the partnership could continue its role of supporting climate change policy efforts in the cities, towns, and other member agencies—but with an expanded scope that includes support for adaptation planning.

At this time, the climate partnership is staffed by just the one part-time consultant. The partnership should add the resources needed to support the cities, towns, and other members in developing their detailed adaptation measures, including formulating land use and zoning regulations. It is far more efficient to provide coordinated support for these efforts than having each city, town, or other agency find its own way. These expanded efforts could be funded through grants and a modest increase in the member contributions.

If formed, the new Office of Sustainability and Resilience recommended above should be the primary county liaison with the expanded climate partnership. The new office should work through the partnership to assist cities, towns, and other Marin agencies in building skills related to adaptation planning and in sourcing funding for planning and pilot projects.

Collective Action and Implementation

Beyond planning and policy development, there is currently no Marin organization on the horizon that will bring together the cities, towns, and other Marin agencies to collaborate on *implementing* climate change adaptation measures or, in the future, to finance and build the large multi-jurisdictional public works projects that will grow out of adaptation plans. There needs to be such an organization or forum.

Just as San Mateo County provides a model for coordinating climate-related functions within the county government, it also offers a possible model for countywide collaboration on implementation measures related to sea level rise. As described in the box on the next page, the new San Mateo County Flood and Sea Level Rise Resiliency District is a multi-jurisdictional agency designed to consolidate the work of the county’s Flood Control District and Flood Resilience Program and to initiate new countywide efforts to address and protect against the impacts of sea level rise.⁴⁵ With representation from all 20 San Mateo cities, it is a truly collaborative countywide body that will plan for and implement the public works projects

⁴⁴ Marin Climate & Energy Partnership, accessed April 21, 2020, <https://marinclimate.org/>.

⁴⁵ Flood and Sea Level Rise Resiliency District, accessed February 4, 2020, <https://resilientsanmateo.org/>.

The San Mateo Flood and Sea Level Rise Resiliency District: A Potential Model for Implementing Marin's Adaptation Program

Beginning in 1959, San Mateo County had a flood control district similar to Marin's Flood Control and Water Conservation District. The San Mateo district's board was the county's board of supervisors. The district had separate flood control zones for each flood-susceptible area, with residents in each zone paying extra property taxes to fund the flood control projects in that zone. San Mateo's cities had no representation on the district's board. This is how Marin's current flood control district is organized.

In 2018, San Mateo County completed a vulnerability assessment regarding sea level rise under a project similar to Marin's BayWAVE effort. It projected that in the event of a mid-level 2100 sea level rise scenario, property with an assessed value of \$34 billion would be flooded on the bay and coastal sides of the county.⁴⁶

Several cities in San Mateo had pursued independent planning efforts related to sea level rise. In addition, the San Mateo City/County Association of Governments (C/CAG) had a program to assist the cities with stormwater management. However, according to a 2019 City of Menlo Park staff report, "since 2013, San Mateo County and the 20 cities and towns have increasingly recognized their competitive disadvantage in pursuing grant funding to respond to flooding and sea level rise in comparison with neighboring counties that have countywide agencies working on those issues."⁴⁷

In 2017, C/CAG established a committee to study the best way to create a countywide effort to

address flooding, regional stormwater, and sea level rise issues in the county. The committee recommended reorganizing the county's existing flood control district, and that proposal was approved by the county in early 2019. The reorganization required the passage of special legislation at the state level, which was approved by the governor on September 12, 2019, and became effective on January 1, 2020.⁴⁸ There will be a three-year startup period, during which the district will seek permanent sources of funding for its sea level rise initiatives. The following are key attributes of the new organization:

- The old flood control zones and funding mechanism will continue.
- Countywide sea level rise and resiliency will be added to the organization's mission, including both the coastal and the bayside shoreline.
- The district will now represent the county and all 20 of its cities, with a representative governing board of seven, two of whom are county supervisors.
- Each city will contribute between \$25,000 and \$55,000 per year, depending on its size, to fund startup operations.
- The district will have a small staff of its own, including a chief executive officer, although it will continue to rely on services provided by the county's Department of Public Works for engineering and other project support.

⁴⁶ County of San Mateo, *Sea Level Rise Vulnerability Assessment*, March 2018, p. 181, https://seachangesmc.org/wp-content/uploads/2018/03/2018-03-12_sea_level_rise_VA_Report_2.2018_WEB_FINAL.pdf.

⁴⁷ City of Menlo Park Department of Public Works, staff report, May 7, 2019, p. 1, <https://www.menlopark.org/DocumentCenter/View/20709/I2---Flood-and-sea-level-Rise---SR?bidId=>.

⁴⁸ California Assembly Bill 825, https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB825.

needed to protect San Mateo from the effects of sea level rise. This new agency, which commenced operations January 1, 2020, has three primary objectives:

- To create a collaborative forum bringing all the cities in the county together in their efforts to adapt to sea level rise
- To build expertise, and help San Mateo's cities build expertise, in planning for and executing public works projects for sea level rise adaptation
- To better position San Mateo to compete for funding by creating a cross-jurisdictional entity serving the entire county.

The Grand Jury's investigation found that there is a strong consensus among Bay Area government leaders that funding sources for climate change adaptation favor regional or multi-jurisdictional efforts compared to projects by individual cities, towns, and agencies. Marin currently lacks a multi-jurisdictional climate change initiative like this, leaving it disadvantaged in funding efforts.

Marin's current flood control district is similar to San Mateo's old one. While Marin's district covers the entire county, it operates only in eight designated "zones" where there are flooding risks. Each zone has funding from property taxes paid by homeowners in the zone, and those funds are used to pay for flood control projects in the zone.

Although Marin's district is not charged explicitly with combating sea level rise or other climate change effects, increased flooding is certainly one result of extreme rainfall and weather events. In that sense, the district is already aligned with climate change adaptation.

Indeed, much of the infrastructure of the district—stormwater pump stations, detention basins, bypass drains, levees—is situated in the low-lying areas that constitute the front lines of sea level rise adaptation, so it makes sense for the district to play a key role in climate change adaptation.

The Grand Jury recommends that the county explore the feasibility of reorganizing the Marin County Flood Control and Water Conservation District in a manner similar to San Mateo's, to achieve similar goals of creating a collaborative forum; building the expertise of Marin's cities, towns, and agencies; and creating a multi-jurisdictional agency that will be highly competitive in the fundraising arena. The Grand Jury believes that the purview of the reorganized agency should be countywide and should include climate change adaptation efforts on both the coastal and bay side.

If the Marin Climate Adaptation Task Force is formed as recommended in this report, the task force could commission the feasibility study at the appropriate stage of its planning process. If the task force is not formed, the Grand Jury recommends that the board of supervisors commission the study as soon as it is financially able to do so.

Marin needs to create institutions enabling climate change collaboration among the jurisdictions within the county. With the reorganized flood control district as the collaborative agency responsible for planning and implementing public works projects across the county, Marin would be well positioned to lead on climate change adaptation efforts and compete for funding with other regions. This effort would be even stronger if supported by a newly created Office of Sustainability and Resilience in the county government and backed by a countywide climate change adaptation plan.

CONCLUSION

Over the lifetime of a child born in 2020, Marin County will be profoundly affected by climate change. Today's heavily populated shoreline areas will either be inundated by rising sea levels or be shielded by large sea walls. Highways will be rerouted or reengineered. The vegetation on Mt. Tamalpais will be altered. Health systems will be stressed. Socioeconomic inequities will worsen. We can lessen the severity of those impacts through concerted efforts to reduce greenhouse gas emissions and to sequester carbon. But we cannot reverse the trend.

Property owners and government officials will be facing hard choices. What losses are we willing to accept? How much are we willing to pay? What options do we really have? Nobody has all the answers, but we as a community need to aggressively, deliberately, and cooperatively organize and plan to meet the climate threat.

As first steps, this report calls for several related but independent changes in Marin's approach to climate change. Our elected officials should establish a Marin Climate Adaptation Task Force to develop a comprehensive adaptation strategy for all of Marin. The county government should consolidate its climate efforts under a new Office of Sustainability and Resilience. The existing Marin Climate & Energy Partnership should expand its mission to support countywide adaptation planning. The county government should explore the feasibility of reorganizing Marin's Flood Control and Water Conservation District board into a countywide body with representatives from the county and all municipalities and the added responsibility of executing public works projects required to defend against sea level rise.

Each of these recommended measures would be a step in the right direction. Taken together, they would take Marin much closer to more effective management of the adaptation challenges that lie ahead. It's the least we can do for our children.

FINDINGS

- F1. Climate change mitigation efforts by Marin governments have been notably effective in meeting their goals to reduce greenhouse gas emissions.
- F2. Adaptation planning is essential to protect local public utility and transportation infrastructure as well as private property interests, and to enable Marin's citizens to maintain their current standards of living.
- F3. With the BayWAVE and C-SMART initial vulnerability assessments completed, the county is now well-positioned to focus on adaptation planning and policies related to sea level rise.
- F4. The existing adaptation efforts across the county pay insufficient attention to the other potential effects of climate change, including impacts on public health, ecosystems, and social equity.
- F5. There are insufficient staff and financial resources devoted to climate change adaptation efforts across county government as well as in the cities, towns, and other agencies, and many of the existing efforts are highly dependent on grant funding.

- F6. Within the county government, there is no single coordinating body focused on climate change, which could impede the ability to unify county efforts around a common strategy and plan.
- F7. Cross-jurisdictional collaboration and coordination will be required for successful adaptation efforts, but Marin lacks any overarching organizational or governance structure to facilitate this.

RECOMMENDATIONS

- R1. The board of supervisors, in collaboration with the municipalities and other agencies affected by climate change, should convene a multi-jurisdictional task force (referred to in this report as the Marin Climate Adaptation Task Force) charged with developing a single, comprehensive, multi-jurisdictional adaptation strategy for all of Marin.
- R2. The board of supervisors should form a new office within county government (referred to in this report as the Office of Sustainability and Resilience) devoted to climate change mitigation and adaptation and reporting to the county administrator's office or the board of supervisors.
- R3. The board of supervisors should direct the formation and staffing, preferably in the new Office of Sustainability and Resilience, of a centralized grant-seeking function related to climate change mitigation and adaptation efforts for county government.
- R4. Each member of the Marin Climate & Energy Partnership, should declare its support for broadening the partnership's mission and increasing its funding as necessary to enable it to support overall climate change planning efforts, including both mitigation and adaptation in cities, towns, and other member agencies throughout the county.
- R5. The board of supervisors should commission a feasibility study concerning the reorganization of Marin's Flood Control and Water Conservation District. This multi-jurisdictional study should analyze broadening the district's mission to include coastal and bayside sea level rise adaptation across the county as well as revising its governing membership to include representatives of the county and all Marin cities and towns. If the board of supervisors supports the formation of the Marin Climate Adaptation Task Force as recommended in this report, the responsibility for this study could be referred to the task force for consideration at the appropriate time.
- R6. Each city and town, if it does not have a full-time sustainability coordinator (or similar position), should appoint a committee or commission charged with monitoring and reporting on its climate change mitigation and adaptation efforts.

REQUEST FOR RESPONSES

According to the California Penal Code, agencies required to respond to Grand Jury reports generally have no more than 90 days to issue a response. It is not within the Grand Jury's power to waive or extend these deadlines, and to the Grand Jury's knowledge, the Judicial Council of California has not done so. But we recognize that the deadlines may be burdensome given current conditions caused by the COVID-19 pandemic.

Whether the deadlines are extended or not, it is our expectation that Marin’s public agencies will eventually be able to return to normal operations and will respond to this report. In the meantime, however, public health and safety issues are of paramount importance and other matters might need to wait.

Pursuant to Penal Code Section 933.05, the Grand Jury requests responses as shown below. Where a recommendation is addressed to multiple respondents, each respondent should respond solely on its own behalf without regard to how other respondents may respond.

From the following governing bodies:

- County of Marin (F1–F7, R1–R5)
- City of Belvedere (F1–F5, F7, R1, R4, R6)
- City of Larkspur (F1–F5, F7, R1, R4, R6)
- City of Mill Valley (F1–F5, F7, R1, R4, R6)
- City of Novato (F1–F5, F7, R1, R4, R6)
- City of San Rafael (F1–F5, F7, R1, R4, R6)
- City of Sausalito (F1–F5, F7, R1, R4, R6)
- Town of Corte Madera (F1–F5, F7, R1, R4, R6)
- Town of Fairfax (F1–F5, F7, R1, R4, R6)
- Town of Ross (F1–F5, F7, R1, R4, R6)
- Town of San Anselmo (F1–F5, F7, R1, R4, R6)
- Town of Tiburon (F1–F5, F7, R1, R4, R6)
- Marin Clean Energy (MCE) (F1–F4, F7, F8, R1, R4)
- Marin General Services Authority (R4)
- Marin Municipal Water District (F1–F5, F7, R1, R4)
- Transportation Authority of Marin (F1–F5, F7, R1, R4)

The governing bodies indicated above should be aware that the comment or response of the governing body must be conducted in accordance with Penal Code Section 933 (c) and subject to the notice, agenda and open meeting requirements of the Brown Act.

Note: At the time this report was prepared information was available at the websites listed.

Reports issued by the Civil Grand Jury do not identify individuals interviewed. Penal Code Section 929 requires that reports of the Grand Jury not contain the name of any person or facts leading to the identity of any person who provides information to the Civil Grand Jury. The California State Legislature has stated that it intends the provisions of Penal Code Section 929 prohibiting disclosure of witness identities to encourage full candor in testimony in Grand Jury investigations by protecting the privacy and confidentiality of those who participate in any Civil Grand Jury investigation.

APPENDIX A. MITIGATION EFFORTS IN MARIN

Marin County’s institutional response to climate change began in 2002, and the focus for most of the years since then has been on mitigation measures—on actions to reduce greenhouse gases and other causes of climate change.

Targets and Plans

In April 2002, the Marin County Board of Supervisors adopted a resolution to join the Cities for Climate Protection Campaign. The resolution pledged the county to take a leadership role in promoting public awareness of climate change and to undertake efforts to reduce greenhouse gas and other air pollution emissions.⁴⁹ In June 2003, as part of that commitment, the county government completed its first analysis of greenhouse gas emissions levels.⁵⁰ Three years later, the board adopted the *Marin County Greenhouse Gas Reduction Plan*, setting a greenhouse gas reduction target of 15 percent below 1990 levels by 2020 for both community and municipal emissions in unincorporated Marin. Crediting government and private sector investments in energy efficiency, renewable energy, alternative fuel vehicles, water conservation, and waste minimization, the county reported that it met its community emissions target in 2012—eight years ahead of schedule.⁵¹

The *Marin County Climate Action Plan (2015 Update)* built on the 2006 plan, doubled the 2020 reduction target for community emissions, and listed actions the county would take to achieve the reductions.⁵² Another update is scheduled to be completed before the end of 2020 and is expected to include forecasts, targets, and strategies to 2030.

Starting in 2009, all of Marin’s incorporated cities and towns also developed their own climate action plans. Almost all of these local plans were developed with assistance from the Marin Climate & Energy Partnership (MCEP), a group that includes staff-level planners from Marin’s county and municipal governments. MCEP has been instrumental in creating the greenhouse gas inventories needed for the climate action plans. Like the county’s climate action plan, the municipal plans focus primarily on efforts the local governments and communities can take to reduce greenhouse gas emissions. Collectively, the patchwork of county and municipal plans covers all of Marin County. From 2005 to 2018, according to the MCEP, countywide greenhouse gas emissions dropped by 25 percent.⁵³

A collaborative effort in the county to confront the challenge of climate change began in October 2017 when the board of supervisors adopted a resolution stating that “the County of Marin will work with County staff and community leaders to develop and implement policies and create incentives that will achieve dramatic greenhouse gas reductions, align climate action policies

⁴⁹ Marin County Board of Supervisors, Meeting Minutes, April 23, 2002, <https://pav.marincounty.org/publicaccessbosarchive/>.

⁵⁰ Marin County Community Development Agency, *Greenhouse Gas Emissions Analysis Report*, County of Marin Cities for Climate Protection Campaign (June 2003), https://www.marincounty.org/depts/cd/divisions/planning/sustainability/~/_media/Files/Departments/CD/Planning/Sustainability/Initiatives/CCP_FinalReport.pdf.

⁵¹ ICF International, *Marin County Climate Action Plan (2015 Update)*, p. ES-1.

⁵² ICF International, *Marin County Climate Action Plan (2015 Update)*, pp. ES-1–ES-2.

⁵³ Marin Climate & Energy Partnership, “Marin Tracker,” accessed June 29, 2020, <http://www.marintracker.org/>.

with the California Climate Adaptation Strategy, and adopt integrated strategies to achieve one “carbon free” goal.”⁵⁴

The initiative that sprouted from this resolution was named Drawdown: Marin, and it is managed by the county government’s Community Development Agency. Its current goals are to reduce, or “draw down,” net countywide greenhouse gas emissions by 60 percent by 2030, relative to 2005 levels, and to achieve net-zero emissions by 2045. To help meet these goals, it has formed working groups to develop solutions in six focus areas: renewable energy, transportation, buildings and infrastructure, carbon sequestration, local food and food waste, and climate resilient communities. These groups, called stakeholder collaboratives, consist of technical experts, community members, county and city staff, and others, many of whom are unpaid volunteers.

The original aim was for Drawdown: Marin’s steering committee to endorse 12 to 18 solutions that, once approved by the board of supervisors, would be integrated into the 2020 update of the *Marin County Climate Action Plan*.⁵⁵ In July 2020, Drawdown: Marin issued a draft strategic plan that summarized 29 climate change solutions proposed by the stakeholder collaboratives, including 7 solutions that were endorsed by the steering committee for immediate implementation.⁵⁶ Drawdown: Marin also has a Community Partnership Council to engage people throughout the county in its efforts.

Implementation of Mitigation Programs

A major step in moving beyond planning and actually implementing mitigation measures was the 2010 launch of Marin Clean Energy, a joint powers authority that was California’s first community choice aggregation (CCA) program. Authorized by the California legislature in 2002 under Assembly Bill 117, CCA programs allow communities to choose their electricity sources. Marin Clean Energy’s initial participants were unincorporated Marin County and seven Marin cities and towns. It was explicitly created to help reduce greenhouse gas emissions:

The purposes for the Initial Participants . . . entering into this Agreement include addressing climate change by reducing energy related greenhouse gas emissions and securing energy supply and price stability, energy efficiencies and local economic benefits. It is the intent of this Agreement to promote the development and use of a wide range of renewable energy sources and energy efficiency programs, including but not limited to solar and wind energy production.⁵⁷

The remaining four Marin municipalities joined in 2011. Now calling itself MCE, the program has since added 22 municipalities and unincorporated areas in Contra Costa, Napa, and Solano Counties. PG&E provides electric delivery services, and customers in MCE’s service areas are

⁵⁴ Marin County Board of Supervisors, Resolution No. 2017-104, October 3, 2017, https://marin.granicus.com/MetaViewer.php?view_id=36&clip_id=8757&meta_id=917217.

⁵⁵ “Drawdown: Marin Roadmap,” June 2019 update, https://www.marincounty.org/-/media/files/departments/cd/planning/sustainability/climate-and-adaptation/drawdown-marin/drawdown-roadmap_updated-june-2019.pdf?la=en.

⁵⁶ County of Marin Sustainability Team, *Drawdown: Marin Strategic Plan*, draft, July 2020, <https://www.marincounty.org/-/media/files/departments/cd/planning/sustainability/climate-and-adaptation/drawdown-marin/strategic-plan/draft-drawdown-marin-strategic-plan.pdf?la=en>.

⁵⁷ Marin Energy Authority, Joint Powers Agreement, as amended through April 21, 2016, https://www.mcecleanenergy.org/wp-content/uploads/2017/03/JPA-Agreement-24-Communities_Updated-3.21.17.pdf.

automatically enrolled in the CCA unless they opt out. According to MCE, 60 percent of the electricity obtained through its default “Light Green” option is generated from renewable sources including solar, wind, bioenergy, geothermal, and small hydro. It says that its “Deep Green” option, which costs residential customers about \$5 a month extra, provides “100 percent non-polluting wind and solar power produced in California.” Half of the Deep Green premium supports local renewable energy projects such as solar farms and electric vehicle charging installations.⁵⁸ Climate action plans frequently promote Deep Green as a greenhouse gas reduction strategy.

The county government has also implemented programs to encourage residents to reduce their carbon footprint. Among them: Electrify Marin, a countywide program that provides financial incentives for residents to replace fossil-fuel appliances with high-efficiency electric appliances; the Marin Solar Project, which helps homeowners and businesses evaluate options for solar systems; and the Marin Energy Watch Partnership, which provides resources and incentive funds to help residents, businesses, and public agencies become more energy efficient. County agencies and many cities and towns have partnered with Resilient Neighborhoods, which conducts workshops to educate and motivate community members to reduce their household greenhouse gas emissions. Other actions taken by the county government and municipalities include installation of charging stations for electric vehicles.

⁵⁸ “Residential,” MCE, accessed June 2, 2020, <https://www.mcecleanenergy.org/residential/#>.

APPENDIX B. CURRENT AND RECOMMENDED ENTITIES AND PROGRAMS REFERENCED IN THIS REPORT

The following is a brief description of the primary governmental organizations and programs in Marin involved in climate change mitigation and adaptation, or affected by climate change:

Name	Description
Marin County Community Development Agency	A department within county government responsible for planning, and land use and building regulation. The department also manages the C-SMART program.
Marin County Department of Public Works	A department within county government responsible for county roads and public works projects on county lands. The department also manages the BayWAVE program and provides all staff support to the Marin County Flood Control and Water Conservation District.
Marin County Department of Health and Human Services	A department within county government responsible for public health, behavioral health and recovery, and social services across the county.
Marin County Flood Control and Water Conservation District	The district manages flood control and water conservation efforts within eight geographical districts within the county funded by ad valorem taxes paid by property owners.
Marin County Parks Department	A department within county government responsible for managing public parks on county lands. The department also provides all staff support to the Marin Open Space District.
Drawdown: Marin	A program approved by the county in 2017 to work with community members to develop innovative climate change mitigation programs that can be implemented by Marin's governments.
BayWAVE	A program launched by the county in 2015 to assess the vulnerability of the county's eastern shore to sea level rise. The program is managed by the Marin County Department of Public Works.

Name	Description
C-SMART	A program launched by the county in 2014 to assess the vulnerability of the county's ocean shoreline to sea level rise. The program is managed by the Marin County Community Development Agency.
Marin Climate & Energy Partnership	A collaboration among Marin's cities and towns, MCE, Transportation Authority of Marin, and Marin Municipal Water District to assist members with their climate action plans and associated greenhouse gas inventories. The partnership was also involved in the formation of MCE and the development of associated energy efficiency programs. It is a program managed by the Marin General Services Authority.
Sustainability Team	A seven-person team within the Marin County Community Development Agency to manage climate change mitigation efforts within county government. It also provides support to Drawdown: Marin.

The following are new organizations to be formed as recommended by this report:

Name	Description
Marin Climate Adaptation Task Force	A task force to create a countywide adaptation plan that can be adopted by cities, towns and other agencies throughout the county.
Marin County Office of Sustainability and Resilience	An office reporting either to the County Administrator or the board of supervisors to unify mitigation and adaptation efforts within county government.

Approval Item

TITLE

Award of Contract No. 1935 for Fuel Reduction and Restoration to Hanford Applied Restoration

RECOMMENDATION

Approve Resolution No. 8610 awarding a two-year fuel reduction and restoration contract with Hanford Applied Restoration.

SUMMARY

On September 28, 2020, the Marin Municipal Water District (District) released a notice inviting bidders to submit proposals for a two-year fuel reduction and restoration contract. The District received three (3) bids on October 23rd and Hanford Applied Restoration was identified as the lowest qualified bidder. Staff is recommending that the Board approval Resolution No. 8610, which awards Contract No. 1935 to Hanford Applied Restoration in the amount of \$1,399,875 for a two-year Fuel Reduction and Restoration contract with a District option to extend services in one year increments for up to an additional two-years. Staff is also requesting that the Board authorize the General Manager to execute any and all future amendments to this contract, which he deems necessary, so long as they do not exceed 10% in total of the contract amount.

DISCUSSION

In October of 2019, the District adopted the Biodiversity, Fire, and Fuels Integrated Plan (BFFIP) which describes the actions the District will implement to reduce wildfire hazards and to maintain and enhance ecosystem function. Under the BFFIP there are 27 management actions that are being implemented to fulfill the goals and approach described in the plan. Vegetation management under the BFFIP aims to reduce fuel loads, maintain fuelbreak infrastructure, preserve defensible space, reduce invasive weed species and enhance biodiversity. Vegetation management is conducted continuously throughout the year with the chief goal of reducing fuel loads and maintaining the watershed's biological diversity. This contract will support the scaling up of fuel reduction work, fuelbreak maintenance, invasive plant management, and native plant restoration on the Mt. Tamalpais watershed, which is necessary to reduce wildfire fuel issues and enhance native plants. The District also completed the Lagunitas Creek Winter Habitat Restoration Project in 2019 and is responsible for native riparian revegetation within the construction areas and management of invasive plants for a minimum of three years per the project's environmental permits.

The District has used similar contractors over the years to support fuelbreak maintenance, invasive plant management, and forestry restoration work. Recently the District awarded a contract for forestry services which is necessary to scale up forestry restoration work using heavy equipment. The Fuel Reduction and Restoration contract will give the District contractor capacity to carry out hand work for vegetation management specifically for fuelbreak

maintenance and construction, removal of Douglas fir encroaching into sensitive habitats, manual removal of invasive plants, and support native plant restoration work. In accordance with Section 1000, Paragraph 1.5 of the contract "The district has the option to extend this contract in one (1) year increments for an additional two years". If the contractor is meeting the District's expectations, then the District may annually exercise the option to extend the contract to continue work in subsequent years for a total contract term of up to four-years.

Proposal Selection Process

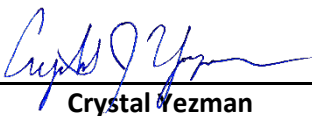

On September 28, 2020, the District released a notice inviting bidders to submit proposals for a two-year forestry contract. The notice was published in the local paper and posted on the District's external bid posting website to inform contractors of the opportunity. Sealed bids were received by the district on October 23rd and the lowest qualified bidder was identified.

FISCAL IMPACT

The total project costs is \$1,399,875 for a two year period. For vegetation management occurring under the BFFIP for FY 2021 there is currently \$615,050 budgeted and for FY 2022 there is \$784,825 budgeted in the District's Operational and Capital Budget for fuel load reduction, Douglas fir management, invasive plant management, fuelbreak maintenance and native plant restoration. Additionally, there is \$600,000 budgeted in the Capital Budget to support three years of native plant restoration and invasive management associated with the Lagunitas Creek Winter Habitat Project sites.

ATTACHMENT(S)

1. Resolution No. 8610

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Facilities & Watershed	 Crystal Yezman Director of System Maintenance and Natural Resources	 Ben Horenstein General Manager

MARIN MUNICIPAL WATER DISTRICT

RESOLUTION NO. 8610

**A RESOLUTION OF THE MARIN MUNICIPAL WATER DISTRICT BOARD OF DIRECTORS
APPROVING A FUEL REDUCTION AND RESTORATION SERVICES CONTRACT WITH
HANFORD APPLIED RESTORATION**

WHEREAS, the Marin Municipal Water District (District) advertised Contract No. 1935 for fuel reduction and restoration on September 28, 2020; and

WHEREAS, the District received and publicly opened three (3) bids on October 23, 2020.

NOW, THEREFORE, THE BOARD OF DIRECTORS RESOLVES that:

1. The bid of \$1,399,875 submitted by Hanford Applied Restoration for fuel reduction and restoration services under Contract No. 1935 ("Contract") was the lowest responsive and responsible bid submitted therefor, and said bid is hereby accepted.
2. A Contract for this project shall be awarded to said low bidder, and the General Manager is authorized and directed to execute said Contract on behalf of the District upon receipt of a performance bond, payment bond, proof of insurance, and the executed contract for the work from said bidder.
3. The General Manager is authorized to execute any and all future amendments to the Contract, which he deems necessary, without further Board approval, so long as those amendments to the Contract do not exceed \$139,988.
4. Upon complete execution of said Contract, the bonds and/or checks of the other bidders are to be returned to said other bidders, and all bids other than that of Hanford Applied Restoration are to be rejected.
5. The project falls within the scope of the Biodiversity Fire, and Fuels Integrated Plan Program Environmental Impact Report (EIR) dated October 2019 and certified by the Board on October 15, 2019, pursuant to Resolution No.8547 consistent with the California Environmental Quality Act (CEQA), as Public Resources Code section § 21000 *et seq.* and the Guidelines for Implementation of California Environmental Quality Act, California Code of Regulations Title 14, § 15000 *et seq.* and therefore no further analysis under CEQA is required. The work proposed under

this contract will incorporate and comply with any mitigation measures appropriate to the work as identified in the Mitigation Monitoring and Reporting Program, adopted in conjunction with the EIR.

PASSED AND ADOPTED this 17th day of November, 2020, by the following vote of the Board of Directors.

AYES:

NOES:

ABSENT:

President, Board of Directors

ATTEST:

Board Secretary

Approval Item

TITLE

Approval to Fill Senior Engineer 1 – Manager Position

RECOMMENDATION

Authorize the General Manager to recruit and hire one Senior Engineer 1 - Manager in the Engineering Division.

SUMMARY

Staff recommends filling the vacant Principal Engineer position in the Engineering Division at the Senior Engineer 1 – Manager level.

DISCUSSION

District staff request to fill the vacancy created by the retirement of a Principal Engineer in the Engineering Division at the Senior Engineer 1 – Manager level. This position will direct professional and technical work and staff in support of the construction management and inspection of District Capital Improvement Program and Fire Flow Improvement Program projects, and provide construction review, input and support in the design of District Capital Improvement and Fire Flow Improvement Program projects. This position will report to the Director of Engineering.

FISCAL IMPACT

The FYE 2021 budgeted amount of \$72,246 reflects the median annual salary with benefits based on filling the Senior Engineer 1 - Manager position on March 1, 2022. Salary and benefits for the Senior Engineer 1 - Manager position are budgeted in the Engineering Division's budget for FYE 2021. The total annual salary with benefits for the Senior Engineer 1 – Manager position ranges from \$197,112 to \$238,644. Filling this position will not increase the total number of FTEs in the Engineering Division.

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Engineering	 Michael Ban Director of Engineering	 Ben Horenstein General Manager

Informational Item

TO: Board of Directors

FROM: Paul Sellier, Operations Director



THROUGH: Ben Horenstein, General Manager



DIVISION NAME: Operations

ITEM: Water Supply Report for October 2020

SUMMARY

Overall, water supply and production are tracking with historical averages and are consistent with years past.

DISCUSSION

Highlights:

- In October, the District's total gross water production was 2,655 acre-feet, with 2,128 acre-feet from the District's reservoirs and 527 acre-feet of imported water.
- For the fiscal year through October, the District has imported 2,296 acre-feet of water from the Sonoma County Water Agency, which is 43% of the annual minimum of 5,300 acre-feet.
- The average rate of water production for October was 28 million gallons per day.
- As of October 31, 2020, the District had 49,742 acre-feet of reservoir water storage, which is 62% of capacity and 5% below average for this date.
- For habitat benefit, in October the District released a total of 530 acre-feet of water from Kent Reservoir into Lagunitas Creek and from Soulajule Reservoir into Walker Creek.
- In October, the District received 1 call regarding algal taste and odor complaints.
- The District conducted chlorine addition at 38 storage tanks with low chlorine residual in October to preserve water quality.

- In October, the water sources for the San Geronimo Treatment Plant (SGTP) were Nicasio and Kent Reservoirs, and for the Bon Tempe Treatment Plant the water sources were Bon Tempe and Alpine Reservoirs.

FISCAL IMPACT

None.

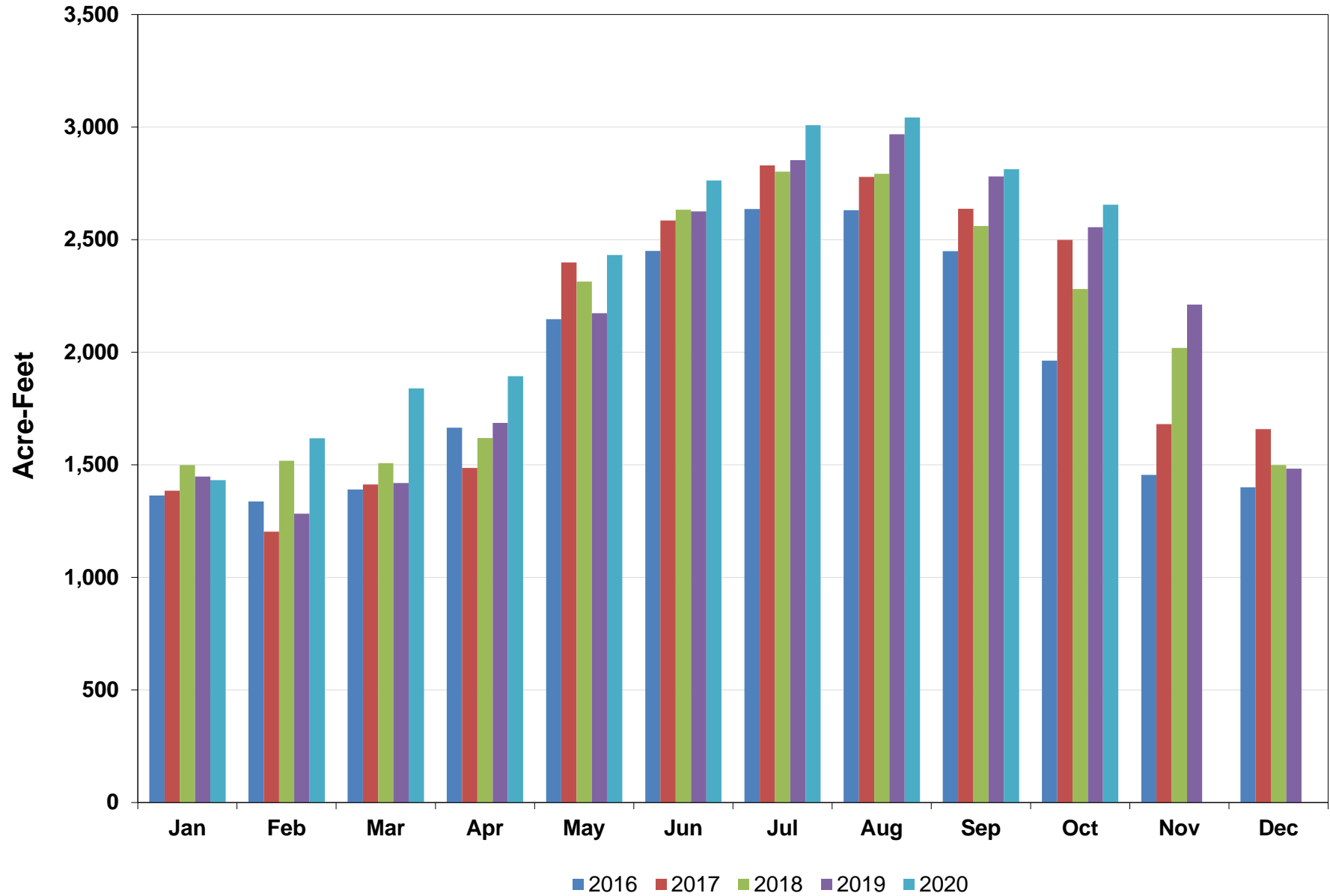
ATTACHMENT(S)

1. Water Supply tables and charts

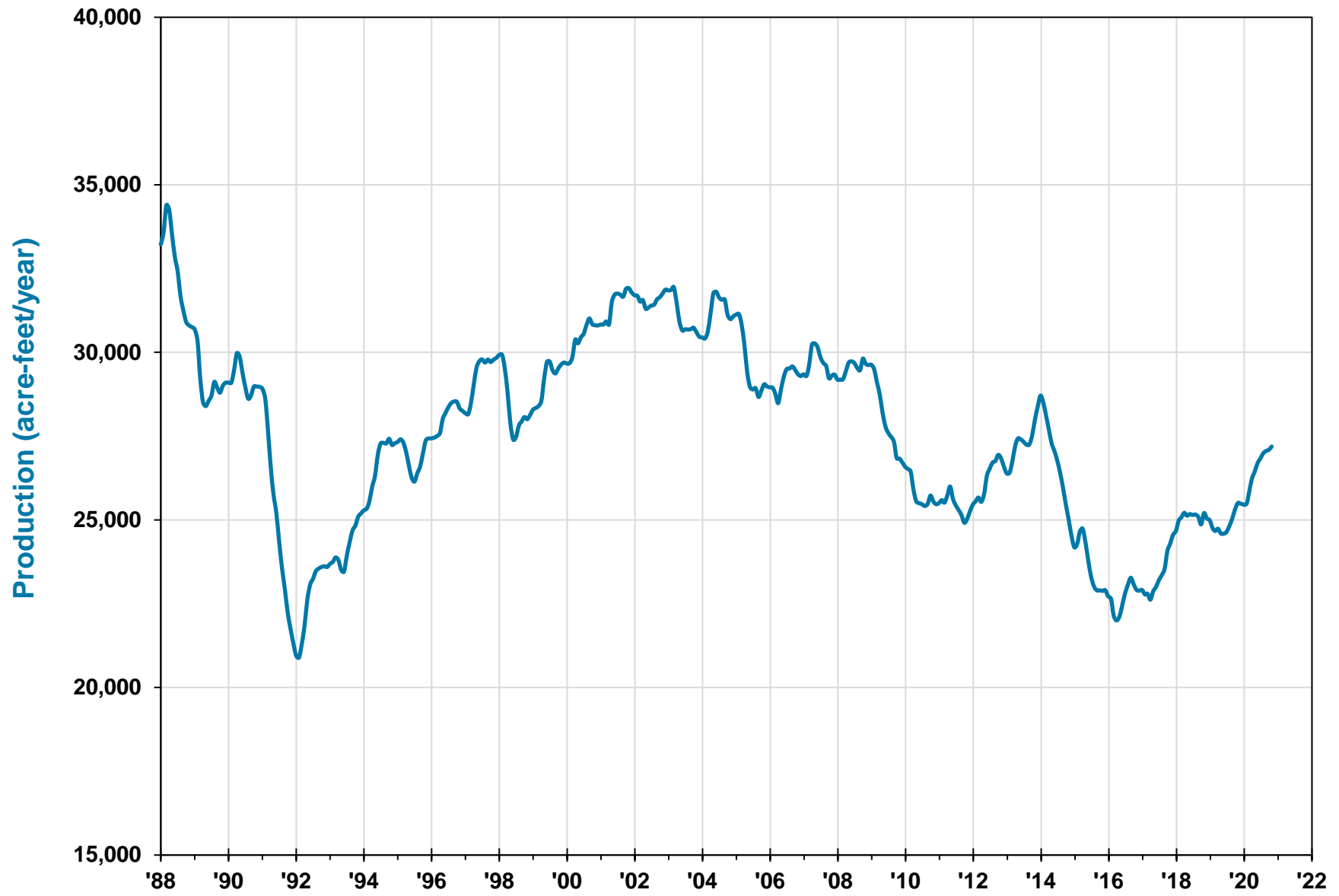
Total Potable Water Production						
Month	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Jul	2,287	2,636	2,830	2,802	2,853	3,008
Aug	2,369	2,630	2,778	2,792	2,968	3,043
Sep	2,239	2,449	2,637	2,561	2,781	2,813
Oct	2,148	1,963	2,499	2,281	2,555	2,655
Total YTD	9,043	9,679	10,744	10,436	11,157	11,520

Imported Water Production						
Month	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Jul	364	390	364	374	545	663
Aug	355	378	532	382	543	600
Sep	378	360	543	366	548	505
Oct	380	361	457	371	400	527
Total YTD	1,477	1,489	1,896	1,493	2,035	2,296

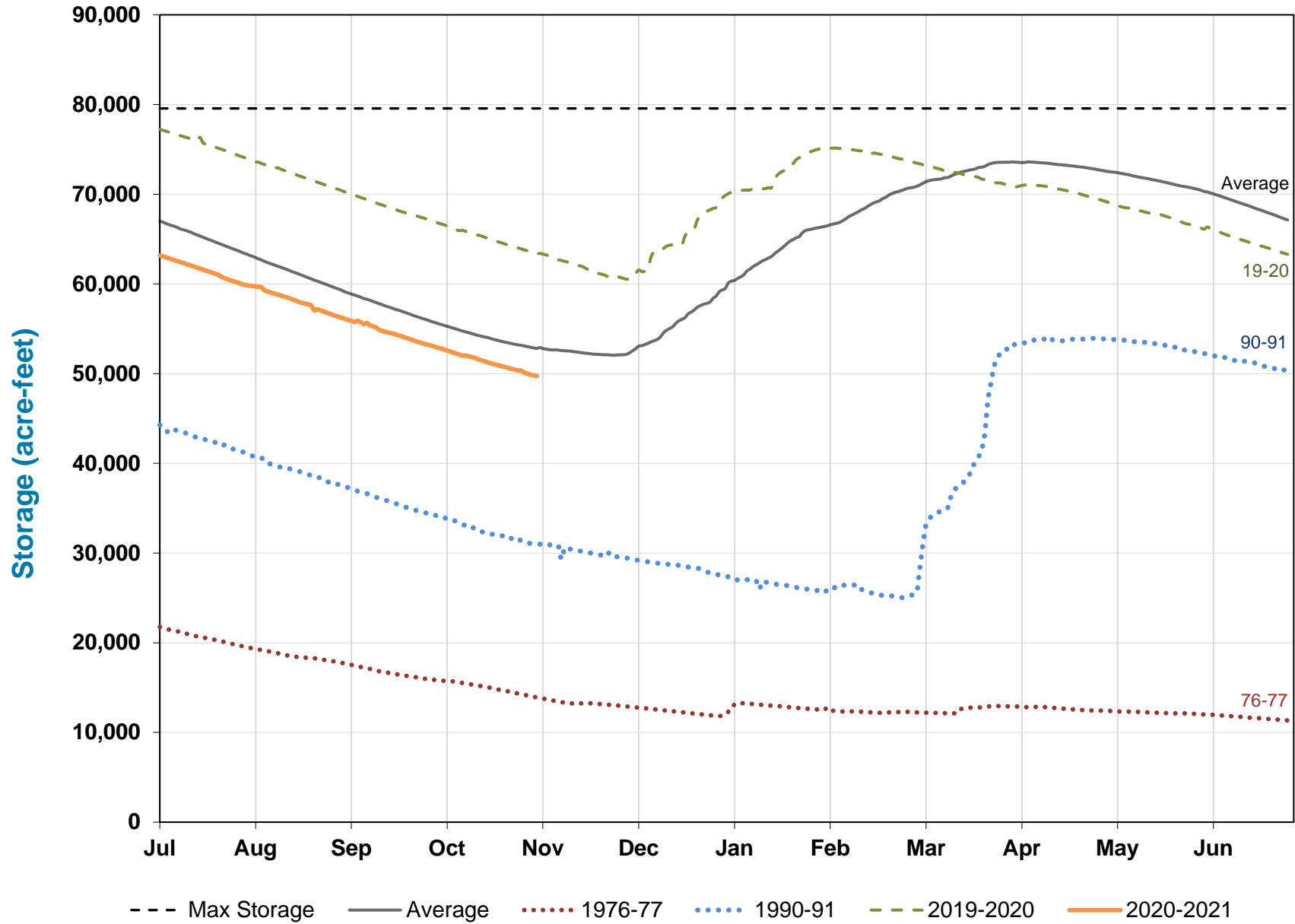
Monthly Potable Water Production



Running 12-month Potable Water Production (AF)

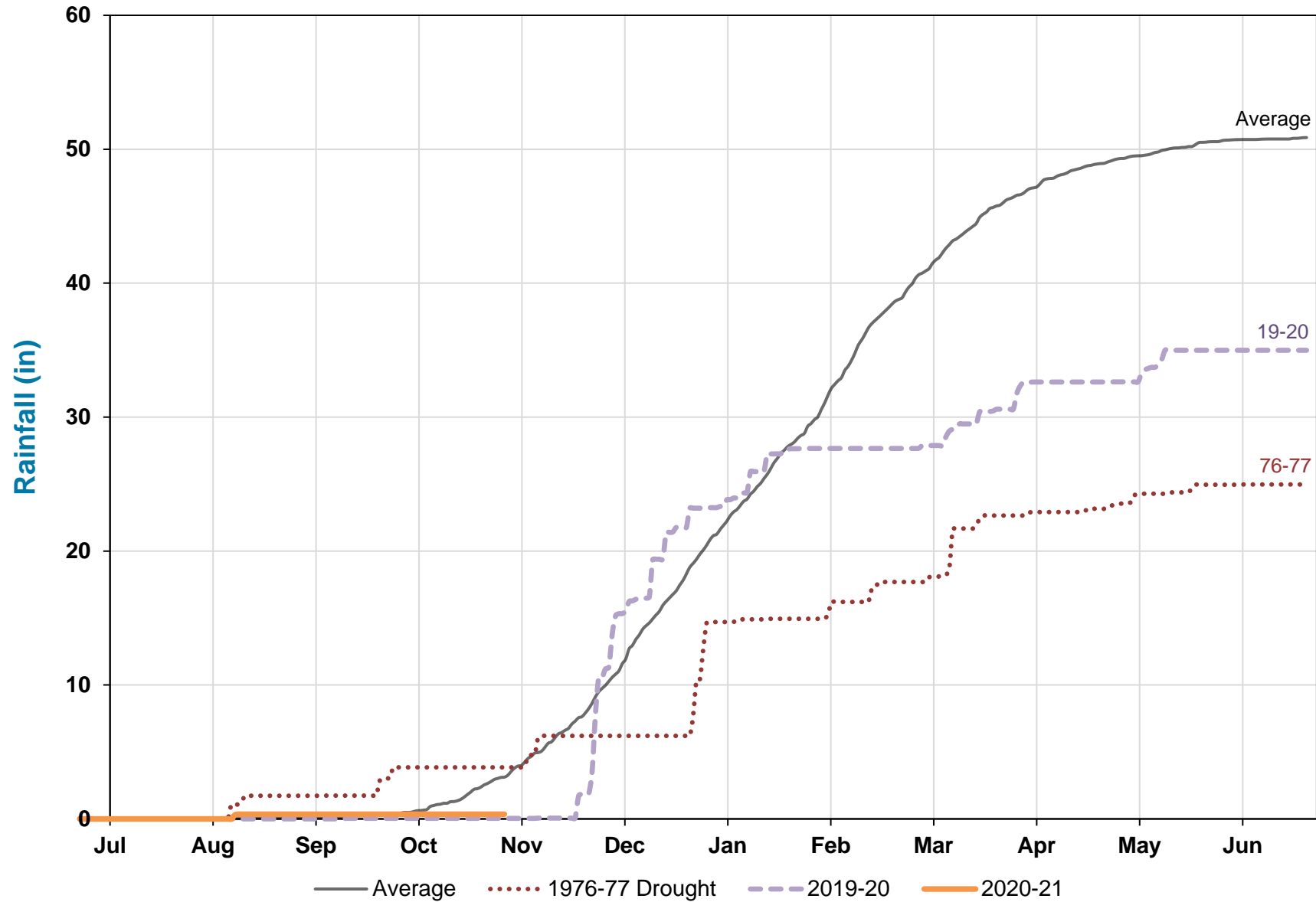


Total Reservoir Storage

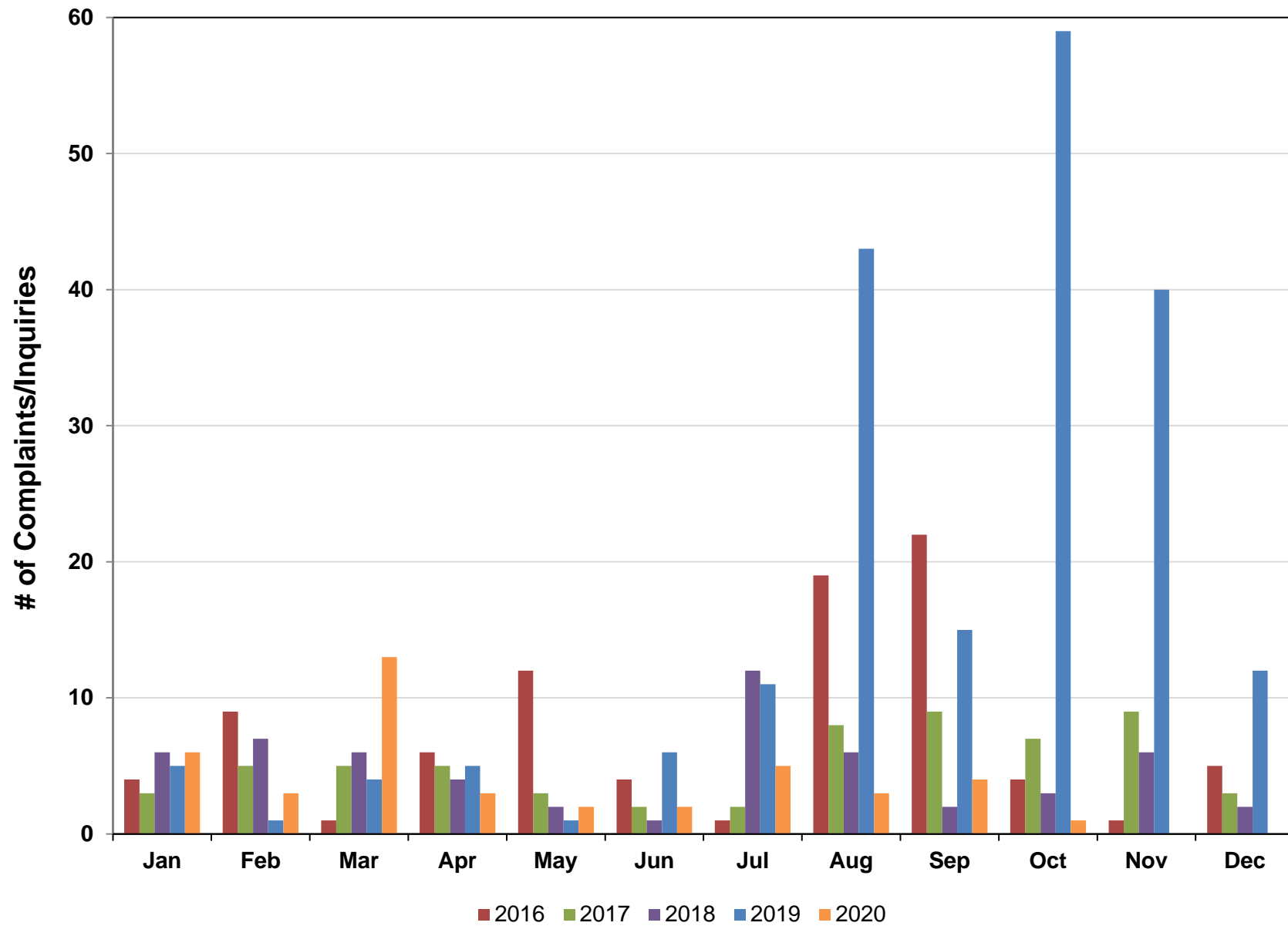


Cumulative Precipitation

Lake Lagunitas Rain Gauge



MMWD Customer Complaints/Inquiries for Taste and Odor



Approval Item

TITLE

Change the Employer's Contribution Rate for Health Insurance to comply with the requirements of Government Code Section 22892(a) and 22892(b), and to comply with the requirements of Government Code Section 7507 in electing the benefits set forth below

RECOMMENDATION

Adopt Resolutions No. 8591 and 8592, which will change the District's contribution rate paid for health insurance premiums based on increases to the rates.

SUMMARY

Health insurance costs change annually based on the premiums of insurance providers that are provided to CalPERS, the District's source of health insurance. The attached resolutions, required by CalPERS, will document the employer's contribution by the District to the cost of health coverage.

DISCUSSION

PERS requires that an employer contracting for health coverage under the Public Employees' Medical and Hospital Care Act (PEMHCA) shall fix the employer's contribution by resolution (Government Code Section 22892(a) (b)). Marin Municipal Water District has fully complied with Government Code Section 7507 in electing the benefits set forth below.

Under the existing agreement with SEIU and the Board resolution covering unrepresented employees, the District sets the employer's contribution at the cost of the health plan that falls in the middle of plans offered by PERS (which for 2021 is PERS Choice).

All affected parties were notified of the new health insurance rates in late August/early September, 2020.

The attached resolutions will fix the contribution rate to be paid by MMWD to meet the requirements of the agreements between MMWD and employee groups for calendar year 2021.

FISCAL IMPACT

There is no fiscal impact to the adopted budget. The budget for health insurance is included in each department's operating budget under employee benefits. The total amount budgeted for health insurance premiums in 2020/21 is \$4 million. The health insurance premium rates are effective January 1, 2021.

ATTACHMENT(S)

- 1. Resolution 8591
- 2. Resolution 8592
- 3. CalPERS Circular
- 4. Code 22892
- 5. 2021 Rates
- 6. Chart of Percentage Increases

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Human Resources	 Vikkie Garay Human Resources Director	 Ben Horenstein General Manager

RESOLUTION NO. 8591**FIXING THE EMPLOYER CONTRIBUTION AT AN EQUAL AMOUNT FOR EMPLOYEES AND ANNUITANTS
UNDER THE PUBLIC EMPLOYEES' MEDICAL AND HOSPITAL CARE ACT**

- WHEREAS, (1) Marin Municipal Water District is a contracting agency under Government Code Section 22920 and subject to the Public Employees' Medical and Hospital Care Act (the "Act"); and
- WHEREAS, (2) Government Code Section 22892(a) provides that a contracting agency subject to Act shall fix the amount of the employer contribution by resolution; and
- WHEREAS, (3) Government Code Section 22892(b) provides that the employer contribution shall be an equal amount for both employees and annuitants, but may not be less than the amount prescribed by Section 22892(b) of the Act; and
- RESOLVED, (a) That the employer contribution for each employee or annuitant {000 All Employees} shall be the amount necessary to pay the full cost of his/her enrollment, including the enrollment of family members in a health benefits plan up to a maximum of \$935.84 per month with respect to employee or annuitant enrolled for self alone, \$1,871.68 per month for employee or annuitant enrolled for self and one family member, and \$1,871.68 per month for employee or annuitant enrolled for self and two or more family members, plus administrative fees and Contingency Reserve Fund assessments; and be it further
- RESOLVED, (b) Marin Municipal Water District has fully complied with any and all applicable provisions of Government Code Section 7507 in electing the benefits set forth above; and be it further
- RESOLVED, (c) That the participation of the employees and annuitants of Marin Municipal Water District shall be subject to determination of its status as an "agency or instrumentality of the state or political subdivision of a State" that is eligible to participate in a governmental plan within the meaning of Section 414(d) of the Internal Revenue Code, upon publication of final Regulations pursuant to such Section. If it is determined that Marin Municipal Water District would not qualify as an agency or instrumentality of the state or political subdivision of a State under such final Regulations, CalPERS may be obligated, and reserves the right to terminate the health coverage of all participants of the employer.
- RESOLVED, (d) That the executive body appoint and direct, and it does hereby appoint and direct, The Human Resources Manager to file with the Board a verified copy of this resolution and to perform on behalf of Marin Municipal Water District all functions required of it under the Act.

Adopted at a regular meeting of the Board of Directors at Corte Madera, CA, this 17th day of November, 2020.

Signed: _____
President, Board of Directors

Attest: _____
Secretary to the Board

RESOLUTION NO. 8592**FIXING THE EMPLOYER CONTRIBUTION AT AN EQUAL AMOUNT FOR BOARD MEMBERS UNDER THE
PUBLIC EMPLOYEES' MEDICAL AND HOSPITAL CARE ACT**

- WHEREAS, (1) Marin Municipal Water District is a contracting agency under Government Code Section 22920 and subject to the Public Employees' Medical and Hospital Care Act (the "Act"); and
- WHEREAS, (2) Government Code Section 22892(a) provides that a contracting agency subject to Act shall fix the amount of the employer contribution by resolution; and
- WHEREAS, (3) Government Code Section 22892(b) provides that the employer contribution shall be an equal amount for board members, but may not be less than the amount prescribed by Section 22892(b) of the Act; and
- RESOLVED, (a) That the employer contribution for each board member {700 Non-PERS Board of Directors) shall be the amount necessary to pay the full cost of his/her enrollment, including the enrollment of family members in a health benefits plan up to a maximum of \$935.84 per month with respect to board member enrolled for self alone, \$1,871.68 per month for board member enrolled for self and one family member, and \$1,871.68 per month for board member enrolled for self and two or more family members, plus administrative fees and Contingency Reserve Fund assessments; and be it further
- RESOLVED, (b) Marin Municipal Water District has fully complied with any and all applicable provisions of Government Code Section 7507 in electing the benefits set forth above; and be it further
- RESOLVED, (c) That the participation of the employees and annuitants of Marin Municipal Water District shall be subject to determination of its status as an "agency or instrumentality of the state or political subdivision of a State" that is eligible to participate in a governmental plan within the meaning of Section 414(d) of the Internal Revenue Code, upon publication of final Regulations pursuant to such Section. If it is determined that Marin Municipal Water District would not qualify as an agency or instrumentality of the state or political subdivision of a State under such final Regulations, CalPERS may be obligated, and reserves the right to terminate the health coverage of all participants of the employer.
- RESOLVED, (d) That the executive body appoint and direct, and it does hereby appoint and direct, The Human Resources Manager to file with the Board a verified copy of this resolution and to perform on behalf of Marin Municipal Water District all functions required of it under the Act.

Adopted at a regular meeting of the Board of Directors at Corte Madera, CA, this 17th day of November, 2020.

Signed: _____

President, Board of Directors

Attest: _____

Secretary to the Board



California Public Employees' Retirement System
P.O. Box 942715 | Sacramento, CA 94229-2715
(888) CalPERS (or 888-225-7377) | TTY: (877) 249-7442
www.calpers.ca.gov

Health Benefits

Circular Letter

July 2, 2020

Circular Letter: 600-026-20

Distribution: Special

To: Contracting Agency Health Benefits Officers and Assistant Health Benefits Officers

Subject: Contracting Agency Administrative Fee for Fiscal Year 2020-21, Contribution Change and Termination Processes, and Health Billing Dates

Purpose

The purpose of this Circular Letter is to inform you of the contracting agency administrative fee for fiscal year 2020-21 and the contribution change and termination processes. Additionally, this letter provides health billing cutoff dates and other information about your health bill.

Administrative Fee

The CalPERS Board of Administration has decreased the Public Employees' Medical and Hospital Care Act (PEMHCA) administrative fee from 0.27 percent to 0.24 percent for the fiscal year of July 1, 2020 – June 30, 2021. The administrative fee is calculated on the total active and retired gross health premiums and billed to contracting agencies monthly.

Note: The new administrative fee becomes law upon passage of the State of California budget for the fiscal year 2020-21. If the budget is not passed until after the release of this Circular Letter, the new administrative fee will be reflected on a future health premium statement and on a prospective basis only. No retroactive adjustment will occur.

Contribution Change Process

Contracting agencies wishing to revise their monthly employer health contribution must submit a change resolution. Change resolutions are effective the first day of the second month following receipt by CalPERS. For example, resolutions must be filed with CalPERS by November 30, 2020 to become effective on January 1, 2021.

Termination Process

Contracting agencies may elect to terminate their participation in PEMHCA by filing a termination resolution passed by a majority vote of their governing body. Termination resolutions must be filed with CalPERS no later than 60 days after the CalPERS Board approves the health premiums for the new contract year. This year the Board will approve 2021 health premiums on July 15, 2020.

Termination resolutions must be received by CalPERS no later than September 14, 2020, at 5:00 p.m. to be effective on January 1, 2021. Termination resolutions are irrevocable once filed. Terminated agencies may not re-enter PEMHCA for five years from the termination date.

Contact the CalPERS Customer Contact Center at **888 CalPERS** (or **888-225-7377**) to request a change or termination resolution template from our Health Resolutions and Compliance Unit.

2020 Health Billing Cutoff Dates

The current billing cutoff dates for the remainder of calendar year 2020 are provided below. A full year of billing cutoff dates are provided to contracted agencies every January.

All employers must key and submit transactions by 11:59 p.m. on the cutoff date for each billing month. If a contracting agency keys and submits a transaction after the cutoff date, the transaction will appear on the subsequent month's statement. Employers must verify all transactions in myCalPERS to ensure they have been accurately uploaded.

2020 Health Billing Cutoff Dates

Contracting School Districts & Public Agencies

Coverage Month	STRS Employees and Annuitants	PERS and OTHER (Non-PERS) Employees and Annuitants	Statement Available	Payment Due
07/2020	06/02/2020	06/10/2020	06/16/2020	07/10/2020
08/2020	06/30/2020	07/08/2020	07/15/2020	08/10/2020
09/2020	08/04/2020	08/12/2020	08/17/2020	09/10/2020
10/2020	09/01/2020	09/09/2020	09/15/2020	10/09/2020
11/2020	10/06/2020	10/07/2020	10/15/2020	11/10/2020
12/2020	11/03/2020	11/04/2020	11/17/2020	12/10/2020
01/2021	12/01/2020	12/09/2020	12/15/2020	01/08/2021

How Payments Are Applied

All payments are mandated to Electronic Funds Transfer (EFT) only. Agencies may submit their EFT payment by logging in to myCalPERS at **my.calpers.ca.gov** and following the prompts on the **Payment Summary** page.

Underpayments:

The Total Payment Due includes the current Receivable ID, any past due Receivable ID(s), and assessed interest from any prior delinquent month(s).

If you do not pay the full amount provided under Total Payment Due of your billing statement, CalPERS will apply the payment we receive to the current period only, not to any past due amounts.

If you want to have your payment applied to a prior delinquency, you must specify each Receivable ID to which your payment should apply. Unless you specify the Receivable ID to which your payment should apply, we will continue to assess interest on the delinquent receivable.

If you provide documentation that confirms a payment was received on time and in full, the interest will be reversed.

Overpayments:

If you overpay the Total Payment Due amount when there is not a past due Receivable ID, the current Receivable ID will be paid and closed. The credit will be applied to a future Receivable ID.

Interest on Late Payments

Payment must be received by the 10th day of each month. If the 10th day falls on a weekend or holiday, payment must be received by the preceding business day. Interest is assessed on the unpaid receivable balance beginning on the 11th day of the month at an annual rate of 10% until paid in full. Refer to Circular Letter #[600-026-15 \(PDF\)](#) at **www.calpers.ca.gov** for additional information regarding interest and delinquency.

Key Points in Reconciling

We strongly encourage contracting agencies to reconcile their monthly statements to ensure all enrollments are accurately reflected for active and retired members. Reconciliation ensures that employers are accurately billed, and only eligible members are receiving benefits. Below are helpful reminders for a successful reconciliation:

- Submit approved resolutions for contract changes in a timely manner.

- Report health enrollment transactions accurately and timely to ensure transactions will be reflected on the statement (refer to Circular Letter #[600-002-18 \(PDF\)](#) at www.calpers.ca.gov).
- Confirm health enrollment changes by utilizing the Monthly Employer Billing Roster in myCalPERS.
- Reconcile the monthly statement to the Monthly Employer Billing Roster to ensure coverage of eligible members only and the accuracy of their retirement system and medical group enrollment.
- Key permanent separation dates of members or deletion of dependents in myCalPERS in a timely manner to receive the allowed maximum refund (six months) of health premiums (refer to Circular Letter #[600-215-05 \(PDF\)](#) at www.calpers.ca.gov).
- Pay each statement on time and as billed, including assessed interest and penalties; any adjustments will reflect on a future statement.
- There are now two PA Billing contacts. Ensure there is a Health PA Billing–PERS and/or Health PA Billing–Non-PERS contact listed for your agency. If you need to add one, select “Primary Contact” to ensure proper delivery of the monthly statement.

Questions

We look forward to continuing our relationship with you in 2021. If you have any questions regarding the information provided in this Circular Letter, contact the CalPERS Customer Contact Center at **888 CalPERS** (or **888-225-7377**).

Rob Jarzombek, Chief
Health Account Management Division

California Government Code

§ 22892

- (a) The employer contribution of a contracting agency shall begin on the effective date of enrollment and shall be the amount fixed from time to time by resolution of the governing body of the agency. The resolution shall be filed with the board and the contribution amount shall be effective on the first day of the second month following the month in which the resolution is received by the system.
- (b) (1) The employer contribution shall be an equal amount for both employees and annuitants, but may not be less than the following:
- (A) Prior to January 1, 2004, sixteen dollars (\$16) per month.
 - (B) During calendar year 2004, thirty-two dollars and twenty cents (\$32.20) per month.
 - (C) During calendar year 2005, forty-eight dollars and forty cents (\$48.40) per month.
 - (D) During calendar year 2006, sixty-four dollars and sixty cents (\$64.60) per month.
 - (E) During calendar year 2007, eighty dollars and eighty cents (\$80.80) per month.
 - (F) During calendar year 2008, ninety-seven dollars (\$97) per month.
- (2) Commencing January 1, 2009, the employer contribution shall be adjusted annually by the board to reflect any change in the medical care component of the Consumer Price Index and shall be rounded to the nearest dollar.
- (c) A contracting agency may, notwithstanding the equal contribution requirement of subdivision (b), establish a lesser monthly employer contribution for annuitants than for employees, provided that the monthly contribution for annuitants is annually increased to equal an amount not less than the number of years that the contracting agency has been subject to this subdivision multiplied by 5 percent of the current monthly employer contribution for employees, until the time that the employer contribution for annuitants equals the employer contribution paid for employees. This annual adjustment to the minimum monthly employer contribution for an annuitant as authorized by this subdivision shall not exceed one hundred dollars (\$100). This subdivision shall only apply to agencies that first become subject to this part on or after January 1, 1986.

Location: https://california.public.law/codes/ca_gov't_code_section_22892.

Original Source: § 22892, https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV§ionNum=22892. (last accessed Jun. 6, 2016).



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Health Benefits

Circular Letter

May 1, 2018

Circular Letter: 600-022-18

Distribution: Special

To: Contracting Agency Health Benefits Officers and Assistant Health Benefits Officers
Subject: Contracting Agency Minimum Employer Contribution Calculation for 2019

Purpose

This Circular Letter informs contracting Public Agencies and Schools of the new minimum employer health contribution for 2019.

Background

The Minimum Employer Contribution amount is prescribed by California Government Code (Gov. Code) section 22892 of the Public Employees' Medical and Hospital Care Act (PEMHCA)¹.

The Minimum Employer Contribution was originally established as a specific dollar value with specified increases from calendar years 2004 through 2008. As of calendar year 2009, the calculated adjustments are based upon the medical care component of the Consumer Price Index-Urban (CPI-U).

Gov. Code section 22892 of the PEMHCA establishes the contracting agencies' minimum health premium contribution for their participating active membership. In addition, this section provides that "commencing January 1, 2009, the employer contribution shall be adjusted annually by the board to reflect any changes in the medical care component of the CPI-U and shall be rounded to the nearest dollar."

¹ California Government Code § 20000, et seq.

Inflation Rate Changes

In January 2018, the U.S. Bureau of Labor Statistics determined the annual percentage change in the medical care component of the CPI-U for 2017 was 2.5 percent.

The table below provides an inflation comparison of medical care rates.

Medical Care Inflation		
Year	Index	Percent
2013	425.134	2.5
2014	435.292	2.4
2015	446.752	2.6
2016	463.675	3.8
2017	475.322	2.5

Calculation of the Minimum Employer Contribution

Using the 2.5 percent increase in the medical care component of the CPI-U, the minimum employer contribution for Calendar Year 2019 is \$136.00. See calculation below.

$$\$133.00 \times 2.5\% = \$3.33$$

$$\$133.00 + \$3.33 = \$136.33, \text{ rounded to } \$136.00$$

Minimum Employer Contribution

The table below displays the annual amounts of the Minimum Employer Contribution for active members.

Minimum Employer Contribution by Calendar Year	
Year	Employer Contribution
2015	\$122.00
2016	\$125.00
2017	\$128.00
2018	\$133.00
2019	\$136.00

Contribution Change Process

Contracting agencies that have designated the PEMHCA Minimum as their monthly employer health contribution will have their employer billing automatically updated to reflect the new amount effective January 1, 2019.

Contracting agencies do not need to take action unless they wish to make a change to their current contribution method. To do so, employers must submit a change resolution. Change resolutions are effective the first day of the second month following receipt by CalPERS.

Questions

Please call our CalPERS Customer Contact Center at **888 CalPERS** (or **888-225-7377**) and request a response from our Health Resolution and Compliance Unit to obtain the necessary change resolution template.

Rob Jarzombek, Chief
Health Account Management Division

2021 Health Plan Premiums

The District contributes up to \$935.84 for employee only and \$1,871.68 for employee + 1 or more

	Kaiser	Blue Shield Access +	Blue Shield Trio	Anthem HMO Select	Anthem HMO Traditional	United Healthcare	Health Net SmartCare	Western Health Advantage	PERS Choice	PERS Care	PERS Select
Employee Only	813.64	1170.08	880.50	925.60	1307.86	941.17	1120.21	757.02	935.84	1294.69	566.67
District Cost	813.64	935.84	880.50	925.60	935.84	935.84	935.84	757.02	935.84	935.84	566.67
Employee Cost	0.00	234.24	0.00	0.00	372.02	5.33	184.37	0.00	0.00	358.85	0.00
Employee + 1	1627.28	2340.16	1761.00	1851.20	2615.72	1882.34	2240.42	1514.04	1871.68	2589.38	1133.34
District Cost	1627.28	1871.68	1761.00	1851.20	1871.68	1871.68	1871.68	1514.04	1871.68	1871.68	1133.34
Employee Cost	0.00	468.48	0.00	0.00	744.04	10.66	368.74	0.00	0.00	717.70	0.00
Employee & 2+	2115.46	3042.21	2289.30	2406.56	3400.44	2447.04	2912.55	1968.25	2433.18	3366.19	1473.34
District Cost	1871.68	1871.68	1871.68	1871.68	1871.68	1871.68	1871.68	1871.68	1871.68	1871.68	1473.34
Employee Cost	243.78	1170.53	417.62	534.88	1528.76	575.36	1040.87	96.57	561.50	1494.51	0.00

*Blue Shield Trio (In Region 1) only available in the following counties: Sacramento, Yolo, Placer, El Dorado and Nevada

*Blue Shield Access + (In Region 1) only available in the following counties: Sacramento, Yolo, Placer, El Dorado, Nevada, Butte, Humboldt, Glenn, Santa Cruz, Mariposa, Merced and Stanislaus

*United Healthcare (In Region 1) only available in the following counties: Sacramento, Yolo and Placer

REGION 1: Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Glenn, Humboldt, Lake, Lassen, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, San Mateo, San Francisco, San Joaquin, Sutter, Tehama, Trinity, Tuolumne, Yolo and Yuba

	2020	2021											
	Ee only	Ee only	difference	% difference	Ee & 1	Ee & 1	difference	% difference	Ee & 2+	Ee & 2+	difference	% difference	
PERS Select	520.29	566.67	\$ 46.38	9%	1040.58	1,133.34	\$ 92.76	9%	1352.75	1,473.34	120.59	8%	
Western Health Advantage	731.96	757.02	\$ 25.06	3%	1463.92	1,514.04	\$ 50.12	3%	1903.1	1,968.25	65.15	3%	
Kaiser Permanente	768.49	813.64	\$ 45.15	6%	1536.98	1,627.28	\$ 90.30	6%	1998.07	2,115.46	117.39	6%	
Blue Shield Trio	833	880.50	\$ 47.50	6%	1666	1,761.00	\$ 95.00	6%	2165.8	2,289.30	123.50	5%	
PERS Choice	861.18	925.60	\$ 64.42	7%	1722.36	1,851.20	\$ 128.84	7%	2239.07	2,406.56	167.49	7%	
Anthem HMO Select	868.98	935.84	\$ 66.86	8%	1737.96	1,871.68	\$ 133.72	8%	2259.35	2,433.18	173.83	7%	
United Healthcare	899.94	941.17	\$ 41.23	5%	1799.88	1,882.34	\$ 82.46	5%	2339.84	2,447.04	107.20	4%	
HealthNet SmartCare	1000.52	1,120.21	\$ 119.69	12%	2001.04	2,240.42	\$ 239.38	12%	2601.35	2,912.55	311.20	11%	
BSC Access+	1127.77	1,170.08	\$ 42.31	4%	2255.54	2,340.16	\$ 84.62	4%	2932.2	3,042.21	110.01	4%	
PERS Care	1133.14	1,294.69	\$ 161.55	14%	2266.28	2,589.38	\$ 323.10	14%	2946.16	3,366.19	420.03	12%	
Anthem HMO Traditional	1184.84	1,307.86	\$ 123.02	10%	2369.68	2,615.72	\$ 246.04	10%	3080.58	3,400.44	319.86	9%	

Percentage change 2020 to 2021

7.69%

AMENDED Approval Item

TITLE

Award of Contract No. 1905, San Geronimo Treatment Plant Emergency Generator Project, to Haskell Corporation, For Construction of a 3 MW Emergency Generator Power Plant at the San Geronimo Treatment Plant, in San Geronimo

RECOMMENDATION

Approve Resolution No. 8611 awarding Contract No. 1905, San Geronimo Treatment Plant Emergency Generator Project (D19027), to Haskell Construction.

SUMMARY

The Operations Committee reviewed this item on August 21, 2020, and referred it to a future Regular Bi-Monthly Meeting of the Board of Directors with the Operations Committee's recommendation to proceed with the project.

The San Geronimo Treatment Plant Emergency Generator Project (Project) includes the installation of a permanent 3 megawatt (MW) emergency generator plant at the San Geronimo Treatment Plant to provide emergency power for the San Geronimo Treatment Plant and to ensure the District's continued ability to produce and supply water to its customers despite losing electrical service when Pacific Gas and Electric (PG&E) shuts off power during a Public Safety Power Shut-off (PSPS) event and during any other unforeseen PG&E power outages.

On October 29, 2020 the District opened four (4) bids for the Project. Haskell Corporation submitted the lowest responsive and responsible bid in the amount of \$5,129,000. District staff recommends the Board approve Resolution No. 8611 awarding Contract No. 1905 to Haskell Corporation in the amount of \$5,129,000, and authorizing the General Manager to execute any necessary amendments to Contract No. 1905 which do not exceed \$433,000 (8%) of the contract amount for a total authorized amount of \$5,562,440.

DISCUSSION

The San Geronimo Treatment Plant (SGTP) is the source of approximately 50% of the District's water supply, with daily production ranging from 6 to 17 million gallons per day. Originally constructed in 1961, SGTP has been expanded since then to meet increasing water demands and upgraded to improve treatment capability and seismic reliability.

Electric power to run SGTP is provided by Marin Clean Energy's (MCE) Deep Green 100% Renewable energy program, and is delivered to SGTP by Pacific Gas and Electric (PG&E)¹. There

¹ Natural gas service is not available in the San Geronimo Valley.

is no permanent backup power available at the SGTP to run the plant and produce water. If SGTP were to lose power, the plant would shut-down and would immediately stop producing water. If this were to occur during summer months, when SGTP is providing up to 17 million gallons per day of water, some customers receiving water produced by SGTP could be without water in less than 24-hours. This exact scenario occurred on July 17, 2006 when a PG&E power outage throughout the San Geronimo Valley shut-down power to SGTP at 10:00 PM. Storage in the District's Smith Saddle Tanks, which provide 10 million gallons of transmission system storage, and the District's Conifer Way Tank, which provides 500,000 gallons of storage for the San Geronimo Valley, began dropping. The Smith Saddle Tanks were on track to be empty by approximately 7:00 PM on July 18, 2006, and the Conifer Way Tank was on track to be empty by approximately 7:30 PM on July 18, less than 24 hours after the power outage began. Fortunately PG&E restored power by 1:30 PM on July 18, 2006. Both tanks came very close to going empty, which would have resulted in District customers losing water service.

The potential for electric power outages to affect SGTP increased substantially in 2019 when PG&E initiated its Public Safety Power Shut-off (PSPS) program. During a PSPS event, PG&E preemptively shuts off electric power lines when extreme fire danger conditions are forecasted to reduce the likelihood of wildfire ignition. However PG&E PSPS events are not the only threat to SGTP's power system. Wildfires, earthquakes and even heat events can result in power outages. This past summer, an unplanned PG&E power shut-off, starting at 7:00 PM on August 14, 2020, cut off power to ten District storage tanks, fifteen pump stations and the Bon Tempe Treatment Plant.

In response to threats to SGTP's energy system, the District initiated a two-phased approach to provide emergency power for SGTP. Phase 1 included the rental of a 2 MW portable emergency generator for use in summer/fall 2019 and 2020. In 2019, PG&E shut-off electric service to MMWD facilities during two PSPS events. The first occurred from October 9 – 12, and the second from October 26 – 31. During the second PSPS event, PG&E shut-off electric service to SGTP for 113 hours. In order to continue providing water service to its customers during this event, the District used the rented 2 MW portable emergency generator to provide electric power to SGTP. The cost to rent and use the 2 MW portable emergency generator in 2019 was \$240,000², and the cost for 2020 is estimated at \$260,000. Phase 2 is the design and construction of a permanent diesel powered, stationary emergency generator power plant under the San Geronimo Treatment Plant Emergency Generator Project (Project).

The Project includes the installation of a 3 MW emergency power plant consisting of two (2) 2,400-volt 1.5 MW package generators, two (2) 10,000 gallon above ground fuel tanks, which will provide up to 5-days of emergency power, an automatic transfer switch, and other

² This cost is for generator rental and usage only, and does not include fuel charges, District labor to connect and run the generator or contingency.

improvements to support maintenance and operation of the emergency generator, to be located at the northeast section of the SGTP site. When completed, the Project will ensure that a safe supply of drinking water continues to be provided to the District's customers during power outages. Installation of the emergency generator will be completed and ready for operation in July 2021. Installation of the automatic transfer switch will begin in late 2021, when water demands are low, and will be completed in February 2022.

The District issued the Notice Inviting Bids on September 15th and received four bids on October 29th. Bid results are provided in Table 1.

Table 1
Bid Results
San Geronimo Treatment Plant Emergency Generator Project

Bid Rank	Contractor Name	Bid Amount
1.	Thompson Builders, Corporation Novato, CA	\$4,643,000
2.	CWS Construction Group, Inc. Novato, CA	\$4,662,600
3.	Haskell Corporation Concord, CA	\$5,129,440
4.	Team Ghilotti, Inc. Petaluma, CA	\$5,700,441

Contract No: 1905

Project No: D19027

Engineer's Estimate: \$4,338,000

The design of the Project was based on a Caterpillar Model 3512C 1.5 MW generator ("basis-of-design"). The District preliminarily determined that non basis-of-design generators manufactured by Generac and Kohler may qualify as an alternate system with additional design and materials cost considerations. Given the technical complexity of the Project, the District required bidders that submit a Bid that varied from the basis-of-design, such as a Generac or Kohler generator system, to include with their Bid Documents complete information demonstrating compliance with the requirements for the equipment as set forth in the technical specifications to "...demonstrate to the District, in its opinion, that the proposed substitute is equal in quality and utility to the equipment specified and will result in a fully operable system."

The apparent low bid of \$4,643,000 was submitted by Thompson Builders, Corporation (TBC). TBC's bid is based on the Kohler generator system, a non basis-of-design system. TBC's bid did

not include complete information demonstrating compliance with the requirements for the equipment as set forth in the technical specifications. As a result, staff determined TBC's bid to be non-responsive and prohibited award of the contract to TBC. Further, TBC's bid did not include the specified experience required by SPECIAL PROVISIONS SECTION 01000, PART 1.3 QUALIFICATIONS, which states "The Bid submitted by the Contractor doing this project shall demonstrate successful experience on three (3) permanent emergency generator projects of similar or larger magnitude within the past ten (10) years. One (1) of the projects must have been completed within the last five (5) years." The letter informing TBC of the District's determination that their bid was non-responsive is provided in Attachment A.

The next apparent low bid of \$4,662,600 was submitted by CWS Construction Group, Inc. (CWS). CWS's bid is based on the Generac generator system, a non basis-of-design system. CWS's bid did not include complete information demonstrating compliance with the requirements for the equipment as set forth in the technical specifications. As a result, staff determined CWS's bid to be non-responsive and prohibited award of the contract to CWS. Further, CWS's bid did not include the specified experience required by SPECIAL PROVISIONS SECTION 01000, PART 1.3 QUALIFICATIONS, which states "The Bid submitted by the Contractor doing this project shall demonstrate successful experience on three (3) permanent emergency generator projects of similar or larger magnitude within the past ten (10) years. One (1) of the projects must have been completed within the last five (5) years." The letter informing CWS of the District's determination that their bid was non-responsive is provided in Attachment B.

The next apparent low bid of \$5,129,440 was submitted by Haskell Corporation (Haskell). Haskell's bid is based on the Kohler generator system, a non basis-of-design system. Haskell's bid included complete information demonstrating compliance with the requirements for the equipment as set forth in the technical specifications. Further, Haskell's bid included projects which clearly demonstrated compliance with the experience required by SPECIAL PROVISIONS SECTION 01000, PART 1.3 QUALIFICATIONS, which states "The Bid submitted by the Contractor doing this project shall demonstrate successful experience on three (3) permanent emergency generator projects of similar or larger magnitude within the past ten (10) years. One (1) of the projects must have been completed within the last five (5) years." Haskell's experience is shown in Table 2.

Table 2
Haskell Corporation
Experience and Qualifications

Year	Size of Generator (MW)	No. of Units	Client
2010	163	10	Wartsila North America, Eureka, CA (PG&E)
2011	50	6	Modesto Irrigation District, Modesto, CA
2015	170	10	Matanuska Electric Association, Eklutna, AK
2018	17	1	University of Alaska, Fairbanks, AK

Haskell Corporation submitted the lowest responsive/responsible bid in the amount of \$5,129,000. Haskell holds a Class A – General Engineering License, License No. 540106 which is current and active and expires on 8/31/2022. As required by State Law, Haskell is registered with the California Department of Industrial Relations under PWCR Number 1000052747 which expires 6/30/2022. Following contract award District staff will register the Project with the California Department of Industrial Relations.

The District's bidding sheet schedule requires bidders to include their cost for site mobilization and demobilization, and states the cost is "not to exceed 5% of the total bid." Haskell's site mobilization and demobilization cost of \$279,826 is 5.5% of their total bid of \$5,129,440. District staff and legal counsel have conducted a further review of Haskell's bid submission and determined that the inconsequential irregularity in Haskell's bid should be waived for the reasons discussed below.

First, the "Notice Inviting Bids" and Section 4 of the "Instructions and Information to Bidders" entitled "General Conditions of Bidding" both indicate that the District reserves the right to reject any and all bids and to waive any irregularities in said bids. Additionally, the ability to waive such inconsequential irregularities in bids is supported by case law. A public agency may waive an inconsequential irregularity and find a bid in substantial compliance with bid requirements provided the waiver would not give the successful bidder an unfair competitive advantage over other bidders. Factors to consider include whether the irregularity was a mistake that would have allowed the successful bidder to withdraw its bid or whether the irregularity would affect the agency's ability to make bid comparisons or whether award would indicate a vehicle for potential favoritism or influence potential bidders to refrain from bidding. (See *Ghilotti Construction Co. v. City of Richmond* (1996) 45 Cal. App. 4th 897, 906, citing *Konica Business Machines U.S.A., Inc., v. Regents of University of California* (1988) 206 Cal. App. 3d 449, 454-455, other citations omitted). None of these factors are implicated in the current case.

Submitting a bid with site mobilization and demobilization costs equal to 5.5% of their total bid impacted Haskell's bid by approximately \$21,900. The District requires that mobilization costs not exceed a total of 5% of the contract price. There was no indication that this number was a mistake such that Haskell would be allowed to seek relief from its bid. Further, waiving this 5% mobilization percentage requirement is not an indication of favoritism or competitive advantage. Rather, staff find that the .5% in excess of the 5% cap is immaterial to Haskell's bid, which otherwise complies with all District requirements. By waiving this inconsequential irregularity and awarding the Project to Haskell the intent of the Public Contract Code will be fulfilled because this action protects the public from misuse of public funds by stimulating competition in a manner conducive to sound fiscal practice and ensures that no favoritism exists in the awarding of public contracts. For these reasons, District staff recommend that the irregularity in Haskell's bid be waived as an inconsequential, minor irregularity, and further recommend that the Board approve Resolution No. 8611 awarding Contract No. 1905 to Haskell.

Summaries of the estimated Project costs and schedule are provided below.

Budget:

Contract Award:	\$5,129,440
Contingency (8%):	\$433,000
Subtotal Construction:	\$5,562,440
Professional Fees:	\$294,600
District Labor/Inspection:	\$310,000
BAAQMD Permit:	\$6,772
PROJECT TOTAL:	\$6,173,812

Project Implementation:

Project Advertisement:	September 15, 2020
Bid Opening:	October 29, 2020
Project Award:	November 17, 2020
Project Start Date:	December 15, 2020
Estimated Completion Date Phase 1 Emergency Generator:	June 30, 2021
Duration Phase 1 Emergency Generator:	225 days
Estimated Completion Date Phase 2 Automatic Transfer Switch:	February 15, 2022
Duration Phase 2 Automatic Transfer Switch:	230 days
Total Project Duration:	455 days

Environmental Review

The District determined the Project is categorically exempt pursuant to CEQA Guidelines Sections 15301 and 15303 and filed the Notice of Exemption on August 22, 2020.

FISCAL IMPACT

The Project is included in the FY 2019/20 and 2020/21 budget. The total project budget is \$6,173,812. The return on investment (ROI) of \$6,173,812 is fifteen years, relative to the cost of the District renting a 2 MW generator for six months each year. Installing a permanent generator provides year-round protection against power failures, whereas renting a generator leaves SGTP vulnerable to power outages six months per year.

The engineer's construction contract estimate of \$2,890,000 presented at the August 21, 2020 Operations Committee was a preliminary estimate based on an incomplete set of project plans. Subsequent to this meeting, the District's design engineer Stanton Engineering, prepared a detailed construction contract estimate of \$4,338,000, as noted in this agenda report. The four bids submitted for the Project ranged in price from \$4,643,000 to \$5,700,441, with the lowest responsive and responsible bid at \$5,129,440. The difference between the engineer's estimate and the contractors' bids likely reflects a higher premium to carry the risk for having to provide a standby generator and some changes made subsequent to preparation of the engineer's estimate including providing complete automatic functionality for the automatic transfer switch and changing from a conventional diesel particulate filter to an active diesel particulate filter.

The District has applied for a grant in the amount of \$300,000 for this Project through CalOES's 2021-2020 Community Power Resiliency Allocation to Special Districts program. This program provides funding to Special Districts to prepare for power outage events.

ATTACHMENT(S) (ADDED 4 and 5)

1. Resolution No. 8611
2. Attachment A – Letter to Thompson Builders Corporation (TBC)
3. Attachment B – Letter to CWS Construction Group, Inc.
4. Attachment C – TBC Appeal Letter
5. Attachment D – Response to TBC Appeal Letter

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Engineering	 Michael Ban Director of Engineering	 Ben Horenstein General Manager

RESOLUTION NO. 8611

**RESOLUTION TO AWARD THE CONSTRUCTION CONTRACT FOR THE SAN GERONIMO
TREATMENT PLANT EMERGENCY GENERATOR PROJECT TO HASKELL CORPORATION,
CONCORD, CA**

WHEREAS, the San Geronimo Treatment Plant Emergency Generator Project CN 1905/D19027 ("Project") includes installation of a permanent 3 megawatt (MW) emergency generator power plant at the San Geronimo Treatment Plant to provide emergency power for the San Geronimo Treatment Plant and ensure the District's ability to produce and supply water to its customers despite losing electrical service when Pacific Gas and Electric (PG&E) shuts off power during a Public Safety Power Shut-off (PSPS) event and during any other unforeseen PG&E power outages; and

WHEREAS, installing a permanent generator greatly improves the resiliency of the San Geronimo Treatment Plant by providing year-round protection against power failures; and

WHEREAS, the District received four bids to construct the Project on October 29, 2020; and

WHEREAS, the apparent low bid of \$4,643,000 submitted by Thompson Builders, Corporation (TBC) was based on non basis-of-design generator system and failed to include complete information demonstrating compliance with the requirements for the equipment as required in the technical specifications and failed to submit the required past project experience and was therefore determined to be non-responsive; and

WHEREAS, the next apparent low bid of \$4,662,600 submitted by CWS Construction Group, Inc. (CWS) was based on a non basis-of-design generator system and failed to include complete information demonstrating compliance with the requirements for the equipment as required in the technical specifications and failed to submit the required past project experience and was therefore determined to be non-responsive; and

WHEREAS, Haskell Corporation of Concord, California ("Haskell"), was the lowest responsive and responsible bidder with a bid of \$5,129,440; and

WHEREAS, the District's bidding sheet schedule requires bidders to include their cost for site mobilization and demobilization, and states the cost is "not to exceed 5% of the total bid"; and

WHEREAS, Haskell's site mobilization and demobilization cost of \$279,826 is 5.5% of their total bid of \$5,129,440; and

WHEREAS, both the “Notice Inviting Bids” and Section 4 of the “Instructions and Information to Bidders” entitled “General Conditions of Bidding” both indicate that the District reserves the right to reject any and all bids and to waive any irregularities in said bids; and

WHEREAS, District staff and legal counsel have conducted a further review of Haskell’s bid submission and based on this review and a review of the applicable law, find that the site mobilization and demobilization costs equal to 5.5% of their total bid impacted Haskell’s bid by approximately \$21,900, but further find that this irregularity is inconsequential because the exceedance did not give Haskell an unfair competitive advantage over the other bidders; and

WHEREAS, California law provides that the rule of strict compliance with bidding requirements does not preclude a public entity from waiving inconsequential deviations, so long as the successful bidder is not given an unfair competitive advantage (*See Ghilotti Construction Co. v. City of Richmond (1996) 45 Cal. App. 4th 897, 908*); and

WHEREAS, awarding the Project to Haskell fulfills the intent of the Public Contract Code by protecting the public from misuse of public funds by stimulating competition in a manner conducive to sound fiscal practice and ensuring that no favoritism exists in the awarding of public contracts.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Marin Municipal Water District, after duly considering the record before it, makes the following findings and determinations based on the reports, testimony and other materials before it including, but not limited to, the information listed in the above recitals, which are found to be true and accurate and incorporated herein by reference as findings and determinations of the Board of Directors.

BE IT FURTHER RESOLVED that the Board of Directors of the Marin Municipal Water District does hereby:

1. Waive Haskell’s failure to limit their cost for site mobilization and demobilization to 5% of their total bid by 0.5% as an inconsequential, minor irregularity;
2. Find that Haskell is the lowest responsive, responsible bidder whose bid complies with the Project bidding requirements;
3. Award the construction contract for the Project to Haskell; and
4. Authorize the General Manager to execute said contract in the amount of \$5,129,440 and further authorize the General Manager or his designee to execute any necessary amendments to Contract No. 1905 which do not exceed \$433,000 (8%) for a total authorized amount of \$5,562,440.

PASSED AND ADOPTED this 17th day of November, 2020 by the following vote of the Board:

AYES:

NOES:

ABSENT:

PRESIDENT, BOARD OF DIRECTORS

ATTEST:

BOARD SECRETARY



November 6, 2020

File D19027

Via Federal Express and email: pault@tbcorp.com

Paul Thompson, President
Thompson Builders Corporation (TBC)
5400 Hanna Ranch Road
Novato, CA 94945

RE: CONTRACT 1905 – SAN GERONIMO TREATMENT PLANT EMERGENCY GENERATOR PROJECT; NON-RESPONSIVE BID

Dear Mr. Thompson:

The Marin Municipal Water District (District) has reviewed TBC's bid documents for the subject project submitted to the District on October 29, 2020 and have determined that TBC's bid does not conform to the requirements of the Contract Specifications SECTION 1000 SPECIAL PROVISIONS, and is therefore deemed non-responsive. Please see below for the details of non-compliance.

The District issued Addendum No. 2 on October 1, 2020 and Addendum No.4 on October 23, 2020, including the revised requirements in SECTION 1000 Section 1.4 Standby Engine Generator Power Plant. TBC received both Addendum No.2 and Addendum No.4, signed and dated both addendums on October 29, 2020. These Addenda specifically required additional information be submitted by Bidders seeking to use equipment that varied from the basis-of-design. The basis-of-design for this project as identified in SECTION 26 32 00 STANDBY ENGINE GENERATOR POWER PLANT, Section 2.1 Diesel Fired Parallel Engine Generator Standby Power Plant, N.1 was a Caterpillar 3512C generator.

Addendum No. 4, within Section 1.4 Standby Engine Generator Power Plant, states "Bidders that wish to use equipment that varies from the basis-of-design shall submit data substantiating its request for a substitution of such equipment as specified below," and "Bidders that submit a Bid that varies from the basis-of-design shall include with their Bid Documents all the items required pursuant to this Section. Bidders must ensure the information required by Section 1.4 of these specifications is obtained in order to submit it with the Bidder's Bid Documents."

After the bid opening on October 29, 2020, District staff reviewed all bids for compliance with the contract documents and specifications. Upon examination of the Bid Documents submitted by TBC, staff confirmed that TBC had identified the Kohler generator system as its generator system, which varied from the basis-of-design. TBC failed to submit as part of its bid the required Kohler generator system design or supporting documentation.

The San Geronimo Treatment Plant Permanent Emergency Generator contract is to furnish labor, equipment and materials for the installation of two 1.5-megawatt generators (3 megawatts total). As described in SECTION 1000 SPECIAL PROVISIONS Section 1.3 Qualifications, "The Bid submitted by the Contractor doing this project shall demonstrate successful experience on three (3) permanent

Paul Thompson, President
Thompson Builders Corporation (TBC)
5400 Hanna Ranch Road
Novato, CA 94945
Page 2

emergency generator projects of similar or larger magnitude within the past ten (10) years." Contractors were directed to provide this information in the EXPERIENCE AND QUALIFICATIONS Section V of the specifications.

District staff reviewed the EXPERIENCE AND QUALIFICATIONS Section V and identified that TBC had provided references to three projects within the past 5 years. Upon verification from the provided references that were available, the references were not of similar or larger magnitude as this project requires. Two of the three references (UCSC and WETA) had generators of 100 kilowatts and 600 kilowatts respectively and the third reference (SF Townsend) could not be reached for verification because they had since retired and no one presently at the company had knowledge of the project to provide the District. As identified in Section 1.3 Qualifications, "Any Bid failing to fully meet this successful experience requirements shall be deemed non-responsive."

In summary, following the District's review of TBC's bid documents, the District has determined that TBC's bid is non-responsive for failing to provide the supporting documents for a generator that varied from the basis-of-design as requested in Section 1.4 and failing to provide the experience and qualifications on a generator project of similar or larger magnitude.

The District will review the bid documents of the next apparent low bidder. Staff will recommend that the contract be awarded to the bidder with the lowest responsive and responsible bid for this project.

Should you wish to file an appeal, you may submit an appeal in writing to the Board of Directors. The appeal shall name the General Manager as the recipient and be sent to the following address:

General Manager
Marin Municipal Water District
220 Nellen Avenue
Corte Madera, CA 94925

Such an appeal shall set forth the grounds for the appeal and shall be received by the District no later than 5 working days after the receipt of this letter by TBC. Documents submitted by facsimile transmission or electronic mail will not be considered. TBC shall ensure sufficient time for postal transit to ensure that all mailings are received by the District within the specified time limit. The District may dismiss the appeal if TBC fails to submit the appeal within the specified time.

Sincerely,



Alex Anaya, P.E.
Senior Engineer



MARIN WATER

220 Nellen Avenue, Corte Madera, CA 94925

415.945.1455

MarinWater.org



November 6, 2020

File D19027

Via Federal Express and email: charliejr.cws@gmail.com

Charlie Slack, President
CWS Construction Group Inc. (CWS)
94 San Benito Way
Novato, CA 94945

RE: CONTRACT 1905 – SAN GERONIMO TREATMENT PLANT EMERGENCY GENERATOR PROJECT; NON-RESPONSIVE Bid

Dear Mr. Slack:

The Marin Municipal Water District (District) has reviewed CWS's bid documents for the subject project submitted to the District on October 29, 2020 and have determined that CWS's bid does not conform to the requirements of the Contract Specifications SECTION 1000 SPECIAL PROVISIONS, and is therefore deemed non-responsive. Please see below for the details of non-compliance.

The District issued Addendum No. 2 on October 1, 2020 and Addendum No.4 on October 23, 2020, including the revised requirements in SECTION 1000 Section 1.4 Standby Engine Generator Power Plant. CWS received both Addendum No.2 and Addendum No.4, signed and dated both addendums on October 29, 2020. These Addenda specifically required additional information be submitted by Bidders seeking to use equipment that varied from the basis-of-design. The basis-of-design for this project as identified in SECTION 26 32 00 STANDBY ENGINE GENERATOR POWER PLANT, Section 2.1 Diesel Fired Parallel Engine Generator Standby Power Plant, N.1 was a Caterpillar 3512C generator.

Addendum No. 4, within Section 1.4 Standby Engine Generator Power Plant, states "Bidders that wish to use equipment that varies from the basis-of-design shall submit data substantiating its request for a substitution of such equipment as specified below," and "Bidders that submit a Bid that varies from the basis-of-design shall include with their Bid Documents all the items required pursuant to this Section. Bidders must ensure the information required by Section 1.4 of these specifications is obtained in order to submit it with the Bidder's Bid Documents."

After the bid opening on October 29, 2020, District staff reviewed all bids for compliance with the contract documents and specifications. Upon examination of the Bid Documents submitted by CWS, staff confirmed that CWS had identified the Generac generator system as its generator system, which varied from the basis-of-design. CWS failed to submit as part of its bid the required Generac generator system design or supporting documentation.

The San Geronimo Treatment Plant Permanent Emergency Generator contract is to furnish labor, equipment and materials for the installation of two 1.5-megawatt generators (3 megawatts total). As described in SECTION 1000 SPECIAL PROVISIONS Section 1.3 Qualifications, "The Bid submitted by the Contractor doing this project shall demonstrate successful experience on three (3) permanent

Charlie Slack, President

CWS Construction Group Inc.
94 San Benito Way
Novato, CA 94945
Page 2

emergency generator projects of similar or larger magnitude within the past ten (10) years." Contractors were directed to provide this information in the EXPERIENCE AND QUALIFICATIONS Section V of the specifications.

District staff reviewed the EXPERIENCE AND QUALIFICATIONS Section V and identified that CWS had provided an excel spreadsheet with 53 projects that varied in scope. Several projects listed were identified by CWS as projects that were "Ongoing" and were not complete. District staff checked references, including the Morgan School District Modernization, South SF USD Modernization and Central Contra Costa Sanitary Seismic Upgrade. None of these projects had generators of similar or larger magnitude. As identified in Section 1.3 Qualifications, "Any Bid failing to fully meet this successful experience requirements shall be deemed non-responsive."

In summary, following the District's review of CWS bid documents, the District has determined that CWS's bid is non-responsive for failing to provide the supporting documents for a generator that varied from the basis-of-design as requested in Section 1.4 and failing to provide the experience and qualifications on a generator project of similar or larger magnitude.

The District will review the bid documents of the next apparent low bidder. Staff will recommend that the contract be awarded to the bidder with the lowest responsive and responsible bid for this project.

Should you wish to file an appeal, you may submit an appeal in writing to the General Manager. The appeal shall name the General Manager as the recipient and be sent to the following address:

General Manager
Marin Municipal Water District
220 Nellen Avenue
Corte Madera, CA 94925

Such an appeal shall set forth the grounds for the appeal and shall be received by the District no later than 5 working days after the receipt of this letter by CWS. Documents submitted by facsimile transmission or electronic mail will not be considered. CWS shall ensure sufficient time for postal transit to ensure that all mailings are received by the District within the specified time limit. The District may dismiss the appeal if CWS fails to submit the appeal within the specified time.

Sincerely,



Alex Amaya, P.E.
Senior Engineer





Attachment C

November 9, 2020

Marin Municipal Water District

General Manager
220 Nellen Ave.
Corte Madera, CA 94925

SUBJECT: San Geronimo Treatment Plant Emergency Generator Project – Response to MMWD Non-Responsive Bid Letter Dated 11/06/20

Dear General Manager,

Thompson Builders Corporation (TBC) is in receipt of Marin Municipal Water District's (District) letter titled "Non-Responsive Bid" for the San Geronimo Treatment Plant Emergency Generator Project dated 11/06/20. TBC protests the District's position that TBC's bid was Non-Responsive and the District's intent to award the project to another bidder.

The District's 1st position is that TBC failed to submit additional information in with our bid proposal for equipment that **"deviated"** from the basis of design in accordance to Addendum #2 and Addendum #4.

Addendum #2 was issued on 10/1/20. Part 1.4 of Document 01000 of Addendum #2 stated "The engine-generator set shall be model 3512C manufactured Caterpillar (CAT) with diesel particulate filters and sound attenuating enclosure or an approved equal" Addendum #2 also notes in Section 1.4, that bidders that wish to use equipment that deviates from the basis of design, shall submit substantiating data by 12 noon on October 7th.

Addendum #4 was issued on 10/23/20. Part 1.4 of Document 01000 included the same information as Addendum #2 and added both Generac and Kohler engine-generator manufactures as alternate approved manufactures. Document 01000 also stated *"Bidders that submit a Bid that varies from the basis-of-design shall include with their Bid Documents all the items required pursuant to this Section. Bidders must ensure the information required by Section 1.4 of these specifications is obtained in order to submit it with the Bidder's Bid Documents."... "Failure to provide the required information with the Bid Documents **may** render the bid non responsive."*

TBC bid listed Kohler as the manufacture for the engine-generator set. Kohler was approved as an alternate manufacture by the District on 10/23/20 and noted as an alternate manufacture in Addendum #4. The Kohler engine-generator set does not deviate from the basis of design since Kohler is an approved alternate. Bay City Electric Works who is the Kohler manufacture representative did not submit any additional documentation

with their bid for submission with our bid. Bay City Electric Work's bid for the engine-generator sets met the requirements of the specifications and incorporated the District comments of the Kohler submittal review dated 10/15/20.

The District's second position that TBC bid should be deemed "Non-Responsive" is related to our previous work experience. Part 1.3 of Documents 01000 states "*The Bid submitted by the Contractor doing this project shall demonstrate successful experience on three (3) permanent emergency generator projects of **similar** or larger magnitude within the past ten (10) years.*"

TBC provided three projects that were "similar" in nature. All three projects listed included a permanent emergency generator installations. All three projects were completed within 10 years and one of the projects was completed within 5 years. TBC listed Mike Brown Electric as our designated Electrical Subcontractor. Mike Brown Electric has extensive knowledge and experience installing numerous emergency generators. In January 2016, Mike Brown Electric completed the San Geronimo Electrical Service Upgrade Project as a Prime Contractor at this facility in which they installed a New Main Switchgear, MCC and Generator.

In response, the District stated that the projects listed were "not of similar or larger magnitude". The District noted the capacity of the generators of the projects listed as grounds for its conclusion. However, the Section 1.3 Qualifications, did not state that the generator capacity was the determining factor. The District only required to list 3 "*permanent emergency generator projects of **similar** or larger magnitude*". The experience qualification was vague and ambiguous as to the nature of "*similar*" – similar to contract amount, cost of the generator, value of the electrical work, capacity of the generator or type of end user.

The failure to specify the nature of the similarity required by the District leaves open the ability to subjectively decide the outcome of the award. The Public Contract Code section 100 prohibits the District from contracting in such a manner. Section 100 expressly prohibits bidding that would be open to "favoritism, fraud and corruption". The Code requires all public bidding "*to give all qualified bidders a fair opportunity to enter the bidding process.*" Here, the failure to define with specificity the "similarity" required of the other projects, opens the entire process up to potential favoritism.

Accordingly, TBC would like the District to reconsider their current position and find TBC's bid to be responsive and award the project to TBC who submitted the lowest and responsive bid.

Sincerely,



Leland Jones
Vice President – Estimating

Cc. Alex Anaya, P.E. - MMWD
PT, JH, PP - TBC

November 16, 2020

File D19027

Via Federal Express and email: pault@tbcorp.com

Paul Thompson, President
Thompson Builders Corporation (TBC)
5400 Hanna Ranch Road
Novato, CA 94945

**RE: CONTRACT 1905 – SAN GERONIMO TREATMENT PLANT EMERGENCY GENERATOR PROJECT; NON-RESPONSIVE
BID – RESPONSE TO THOMPSON BUILDERS BID LETTER DATED 11/09/2020**

Dear Mr. Thompson:

The Marin Municipal Water District (District) has reviewed Thompson Builders Corporation's (TBC) appeal letter dated November 9, 2020. After careful consideration of the points raised in your appeal and review of the documents, the District has determined that there is no basis for revising the District's original decision. The District continues to deem TBC's bid non-responsive.

The District's Addendum #4 was issued for the specific and express purpose of identifying Generac and Kohler as possible alternatives that **would require deviations from the basis-of-design**, and expressly required that bidders submit documentation of these deviations from the basis-of-design along with their bids to ensure that each bidder understood and was accounting for these deviations as part of their bid. The District went so far as expressly providing that these deviations would be made available by the District to any bidder seeking this information.

Upon Request, District staff will provide potential bidders the information included in the Energy Systems and Bay City Electric Works submittals to the District, and the District's response, to assist potential bidders in fulfilling the requirements of this Section 1.4. Failure to provide the required information with the Bid Documents may render the bid non-responsive.

The District would have made these deviations available to TBC had they been requested from the District as explained in Addendum #4 (excerpt above). At no time between the issuance of Addendum #4 on October 23, 2020 and 10:00 a.m. on October 29, 2020 did any District staff receive a request from TBC for this additional information.

TBC represents that Bay City Electric Works (BCEW) representative did not submit any additional documentation with their bid submission. Regardless of whether BCEW submitted deviations to TBC, BCEW did submit deviations for Kohler to the District in response to District's Addendum #2. Such information was required for the purpose of evaluating whether Kohler was a possible alternative. As part of the District's evaluation of the information provided by BCEW on October 7, the District requested additional information from BCEW on October 13, 2020 in order to determine the Kohler generator as an alternate system. On October 14, 2020 Robert Formicola, Senior Industrial Sales

Executive from BCEW, responded to the District with additional information on the change in switchgear
Paul Thompson, President
Thompson Builders Corporation (TBC)
5400 Hanna Ranch Road
Novato, CA 94945
Page 2

along with the supplier, sound attenuating structure, fuel consumption rates and CAD PDF file with dimension modification that are all required from their original submittal drawings in order to consider the Kohler generator system an alternate. Without these design modifications, the Kohler generator system **could not** be considered an alternate system.

The District formally responded to BCEW on October 23, 2020 informing BCEW that the Kohler system with the design modifications and material cost considerations may be considered an alternative system. In this formal response to BCEW, the District noticed BCEW, *"In addition to the submittals already submitted by you and reviewed by the District, a bidder that submits a Bid that varies from the basis of design shall include with their Bid drawings showing any necessary modifications along with a detailed itemized list that identifies the variations from the plans and specifications as described in the Contract Specifications SECTION 1000 SPECIAL PROVISIONS Section 1.4. All of this information shall be submitted with the Bidder's Bid Documents in order to be considered a responsive Bid. Upon request, District staff will provide potential bidders the information included in Bay City Electric Works submittal to assist them in fulfilling the requirements of Section 1.4. Bay City Electric Works should collaborate with potential bidders to ensure the information required by Section 1.4 is included in Bidder's bid as a failure to provide the required information may render the bid non-responsive."*

Despite the explicit requirements communicated to BCEW and to all prospective bidders, TBC failed to submit the information required for a bid that varies from the basis-of-design (deviations) and based on this, the District has no assurance that TBC was aware of the necessary modifications when it submitted its bid with equipment that varies from the basis-of-design (Kohler) where such work would be required.

TBC further asserts that its bid should not be found non-responsive even though TBC failed to submit the required work experience. The San Geronimo Treatment Plant Permanent Emergency Generator contract is to furnish labor, equipment and materials for the installation of two 1.5-megawatt generators (3 megawatts total). The generator is the primary component of this contract. The electrical work, contract dollar amount and end user are only ancillary and cannot appropriately be considered when evaluating similar generator projects where the focus of the work was specific to the generator electrical output capacity. The prime reason for this project is to install a 3-megawatt generator system for the District's water treatment plant. In fact, the TBC bid demonstrates this as it identifies the generator itself represents 40% of the contract cost and is the primary item that was evaluated to determine similarity for comparison purposes. The remaining contract bid items are all appurtenances to the 3-megawatt generator set. Comparing generator projects of **similar or larger magnitude** by evaluating project cost, electrical work or type of end user would not provide the District with the validation of experience necessary to the primary project component. In this case, only the generator size would sufficiently provide such comparison and the assurances of competency with all the appurtenant improvements that flow from the generator electrical capacity and are necessary to make the generator set function properly. Therefore, the District's reference check and evaluation confirmed the 100 and 600-kilowatt generator sets installed by TBC are not similar in magnitude to the 3-megawatt generator required for this project.

Paul Thompson, President
Thompson Builders Corporation (TBC)
5400 Hanna Ranch Road
Novato, CA 94945
Page 3

As identified in Section 1.3 Qualifications, "Any Bid failing to fully meet this successful experience requirements shall be deemed non-responsive."

In summary, the District maintains its determination that TBC's bid is non-responsive for failing to provide the supporting documents for a generator that varied from the basis-of-design as requested in Section 1.4 and failing to provide the experience and qualifications on a generator project of similar or larger magnitude.

District staff will recommend awarding the contract to the lowest responsive bidder at the November 17, 2020 meeting of the Board of Directors, which convenes at 7:00 p.m. If you continue to be in disagreement with this decision, you have the right to address the Board of Directors at that meeting.

Sincerely,



Ben Horenstein
General Manager

C: Molly MacLean, General Counsel
Michael Ban, Environmental & Engineering Services Division Manager
Alex Anaya, Senior Engineer

Approval Item

TITLE

Resolution No. 8608 Invoking the District's Emergency Contracting Provisions and Directing the General Manager to Execute a Contract with W. R. Forde Associates for the Porteous Tunnel Emergency Pipeline Replacement Project Without Advertisement

RECOMMENDATION

Approve Resolution No. 8608 Invoking the District's Emergency Contracting Provisions, directing the General Manager execute Contract No. 1935 with W. R. Forde Associates for the Porteous Tunnel Emergency Pipeline Replacement Project.

SUMMARY

As reported at the September 15th Board meeting, the District unexpectedly discovered that the critical 26-inch welded steel transmission pipeline inside Porteous Tunnel has broken and is leaking. Because the pipeline must be replaced on an emergency basis, District staff are pursuing this project under "District Code Section 2.90.055 – Emergencies permitting contracts to be awarded without advertising." On November 6, 2020, the District received four informal quotations to replace the pipeline in support of the Porteous Tunnel Emergency Pipeline Replacement Project (Project), which includes slip-lining the two existing pipelines in the Porteous Tunnel with new pipes. District staff recommends the Board approve Resolution No. 8608 invoking the District's emergency contracting provisions, directing the General Manager to execute Contract No. 1935 with W. R. Forde Associates for the Porteous Tunnel Emergency Pipeline Replacement Project.

DISCUSSION

In approximately 1919, the District constructed a concrete pipeline, estimated at 30-inch outside diameter (OD) and 23-inch inside diameter (ID), to convey water from Alpine Reservoir to Pine Mountain Tunnel (PMT), and from PMT to Phoenix Lake, including construction of the 230-foot long Porteous Tunnel, which contained the 30-inch concrete pipe. Leakage from the 1919 pipeline caused the District to replace it in 1926 with a 26-inch (OD) welded steel pipe.

District staff unexpectedly discovered that water flowing at Five Corners on the watershed is coming from a break in the critical 26-inch transmission pipeline inside Porteous Tunnel. This pipeline is part of the District's Concrete Road Pipeline network that provides water to the Ross Valley, which constitutes approximately 23% of the District's customers, and is the only section of 1926 pipeline still in service.

Porteous Tunnel is located on the watershed and travels under the intersection of Five Corners, where Concrete Pipe Road, Deer Park Fire Road, Bald Hill Road and Shaver Grade all meet (see Attachment 1). The pipeline inside the tunnel is 45-feet below grade and is over 250-feet long. The tunnel has caved in and is inaccessible, which prohibits the District from simply repairing this critical pipeline. Replacement of the Porteous Tunnel pipeline is necessary and will require the services of a licensed contractor with specialized construction equipment and experienced personnel to be accomplished.

Replacement of the Porteous Tunnel pipeline must occur on an emergency basis because:

1. Repairing the break is not feasible because the pipe is located 45-feet below grade and access to the tunnel is not possible due to the tunnel collapsing.
2. The pipeline is currently leaking at an estimated rate of 40 gallons per minute (gpm) and the leak has the potential to increase in size. If the leak increases in size, this could substantially impair the District's ability to provide reliable water service to approximately 23% of the District's customers in the Ross Valley. The current leak may also lead to erosion, which could possibly undermine the road at Five Corners. In order to not interrupt water service to customers in the Ross Valley area, it will be necessary to allow the pipeline to continue leaking until it is replaced and a new pipeline is placed in service. Shutting down the pipeline is not a viable solution due to the large number of customers served by this critical transmission pipeline.
3. The Porteous Tunnel pipeline is nearly 100-years old and is therefore subject to further deterioration and damage, which could increase the size of the leak and make replacement of the pipeline even more difficult. An increased size of the leak would also negatively impact the District's ability to provide water service to customers served by this critical transmission pipeline. Staff are also concerned that if the leak increases in size, it could undermine a portion of the roadway located at Five Corners.
4. An immediate replacement of this critical pipeline is necessary to prevent the loss or impairment of health, property and essential public services.
5. Due to the critical nature of this major transmission line in providing water service to customers and the potential damage that may result to a major roadway if the leak increases in size, staff believe immediate replacement of this critical pipeline is necessary and that the approximate 3 to 4 month delay that would result from the competitive solicitation process cannot be permitted.

District Code Section 2.90.055 (a) allows construction contracts to be awarded upon obtaining informal quotations without advertisement in significant emergencies or when repairs or replacements are necessary to permit continued operation or services by the District upon the approval of a four-fifths vote of the Board of Directors based on a finding that the emergency

will not permit the delay which would result from a competitive solicitation for bids and that the action is necessary to respond to the emergency.

Pursuant to Section 2.090.055, following award of the emergency contract, the Board shall determine by a four-fifths vote at every regularly scheduled meeting thereafter until the need for the emergency contract is terminated, whether there is a need to continue the action. The Board shall terminate the action at the earliest possible date that permits the remainder of the emergency work to be completed pursuant to a contract awarded after competitive bidding.

The District will replace the leaking 1926 pipeline by slip-lining both the 1926 and the 1919 pipelines with 22-inch outside diameter (OD) and 20-inch OD pipes, respectively. This approach requires no entrance into the tunnel, is cost effective, and maintains the existing hydraulic capacity of the 1926 pipeline. District staff conducted closed circuit television inspection of both pipelines and determined they are in sufficient condition to be used as host pipes for the replacement pipes.

On November 6, 2020, the District received four informal quotations to replace the pipeline in support of the Porteous Tunnel Emergency Pipeline Replacement Project (Project) under Contract No. 1935. The quotations ranged from \$364,990 to \$1,026,089.97. The engineer's estimate was \$529,895.

District staff recommends awarding Contract No. 1935 to W.R. Forde Associates at their quote amount of \$364,990. They hold a Class A – General Engineering License, License No. 1025853 which is current and active and expires on 4/30/2021. As required by State Law, W.R. Forde Associates is registered with the California Department of Industrial Relations under PWCR Number 1000048412. Following contract award District staff will register the Project with the California Department of Industrial Relations.

Summaries of the estimated Project costs and schedule are provided below.

Budget:

Contract Award:	\$364,990
Contingency:	\$36,500
Materials and Professional Fees:	\$72,000
District Labor/Inspection:	\$65,000
Total Budget:	\$538,490
Budget Category:	A2A
Project No.:	F21001
Contract No.:	1935

Project Implementation:

Receipt of Quotations: November 6, 2020
Award Authorization: November 17, 2020
Estimated Completion Date: December 31, 2020
Duration: 7 weeks

In summary, District staff recommend the Board approve Resolution No. 8608 invoking the District’s Emergency Contracting Provisions, directing the General Manager to execute Contract No. 1935 with W. R. Forde Associates for the Porteous Tunnel Emergency Pipeline Replacement Project. Resolution No. 8608 also lays out the nature of the emergency and the necessary findings under District Code Section 2.90.055(a).

Environmental Review


The emergency replacement of the Porteous Tunnel Pipeline (“Project”) is Categorically Exempt pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15301 (b) “Existing Facilities”, CEQA Guidelines Section 15302 (c) “Replacement or Reconstruction”, and CEQA Guidelines Section 15269(b) “Emergency Projects”. The District filed the Notice of Exemption for the Project with the County on September 18, 2020.

FISCAL IMPACT

The total cost to complete the Porteous Tunnel Emergency Pipeline Replacement Project is estimated at \$538,490.

ATTACHMENT(S)

- 1. Resolution No. 8608
- 2. Site Map

DEPARTMENT OR DIVISION	DEPARTMENT OR DIVISION	APPROVED
Engineering	 Michael Ban Engineering	 Ben Horenstein General Manager

MARIN MUNICIPAL WATER DISTRICT

RESOLUTION NO. 8608

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE MARIN MUNICIPAL WATER DISTRICT INVOKING EMERGENCY CONTRACTING PROCEDURES AND DIRECTING THE GENERAL MANAGER TO EXECUTE A CONTRACT FOR EMERGENCY REPAIR OF THE PORTEOUS PIPELINE TUNNEL

WHEREAS, the District determined the source of water flowing near Five Corners on the watershed was a break in the critical 26-inch diameter transmission pipeline inside Porteous Tunnel installed in 1926; and

WHEREAS, the Porteous Tunnel is located on the watershed and travels under the intersection of Five Corners, where Concrete Pipe Road, Deer Park Fire Road, Bald Hill Road and Shaver Grade all meet; and

WHEREAS, the pipeline inside Porteous Tunnel is 45-feet below grade and over 250-feet long; and

WHEREAS, the pipeline in Porteous Tunnel is part of the District's Concrete Road Pipeline network that provides water to the Ross Valley, which constitutes approximately 23% of the District's entire customer base; and

WHEREAS, the leak on the pipeline in Porteous Tunnel is a significant emergency in that it presents a risk to the District's ability to provide water to customers in the Ross Valley and if not promptly repaired, could cause substantial erosion that may undermine the public roadway at the Five Corners intersection; and

WHEREAS, the District proposes to replace the Porteous Tunnel pipeline facilities to ensure continued supply of safe drinking water to Ross Valley in support of the Porteous Tunnel Emergency Pipeline Replacement Project (Project), under Contract No. 1935 and Project Number F21001; and

WHEREAS, the delay resulting from a competitive solicitation of bids for the Project will significantly impair the District's ability to protect life, health, and property and to provide essential public services; and

WHEREAS, the Marin Municipal Water District, a special purpose municipal corporation, is authorized by District Code Section 2.90.055 to award construction contracts after waiving competitive bidding requirements in certain limited emergency situations; and

WHEREAS, the District obtained informal quotations for the Project pursuant to District Code Section 2.90.055 and under Contract No. 1935.

NOW, THEREFORE, THE BOARD OF DIRECTORS RESOLVES AS FOLLOWS:

A. The Board of Directors find as follows:

1. The above recitals are true and accurate and are incorporated herein by this reference.
2. A significant emergency exists with a break in the critical Porteous Tunnel transmission pipeline.
3. Replacement of the Porteous Tunnel pipeline, which will ensure continued reliable water service to approximately 23% of the District's customers in the Ross Valley area, is critical to the health and safety of the District's customers and community at large, especially during the current COVID-19 public health crisis and increased fire risks, and the preservation of water which is being lost through the leak.
4. If formal bidding procedures were used to solicit bids for replacement of the Porteous Tunnel pipeline, this process would take approximately 3 to 4 months, which would substantially impair the District's ability to immediately stop the leakage of water, which could potentially cause erosion which could undermine a public roadway, and ensure safe and reliable delivery of water to customers served by the Porteous Tunnel pipeline.
5. Failure to be able to expedite the solicitation process, by obtaining informal quotations without advertisement as permitted by District Code Section 2.90.055, for potential contractors and enter into a contract for replacement of the Porteous Tunnel pipeline will impair the District's ability to prevent and mitigate the potential impairment of health, property and essential water service.
6. The emergency created by the failure of the Porteous Tunnel pipeline will not permit the delay which would result from a competitive solicitation for bids for replacement of the Porteous Tunnel pipeline, and this action is necessary to respond to the emergency situation. Implementation of the emergency contract award procedure of District Code Section 2.90.055(a) is required in this situation to preserve public health and safety and allow the District to continue providing water service to its customers and the public at large.

B. Competitive bidding requirements are waived for replacement of the Porteous Tunnel pipeline pursuant to District Code Section 2.90.055(a).

- C. The Board of Directors directs the General Manager to execute Contract No. 1935 with W.R. Forde Associates for the Project in the amount of \$364,990.

PASSED AND ADOPTED this 17th day of November, 2020, by the following vote of the Board.

AYES:

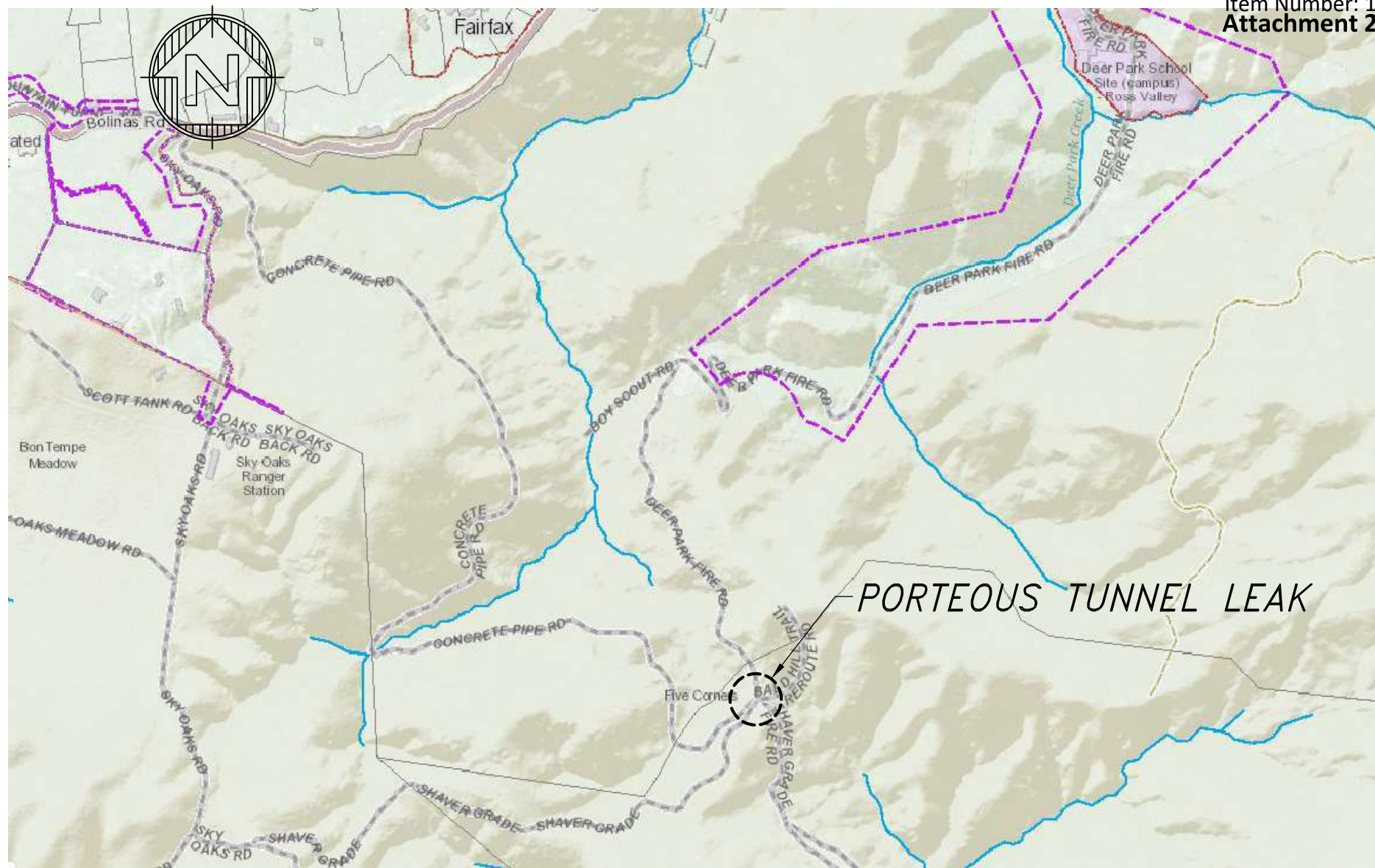
NOES:

ABSENT:

President, Board of Directors

ATTEST:

Board Secretary



SITE MAP

MARIN MUNICIPAL WATER DISTRICT
220 NELLEN AVE., CORTE MADERA, CA 94925 (415) 924-4600

DATE: SEPT '20 JOB NO: _____ SHEET: 1 OF 1
PREPARED BY: DAW DESIGN BY: _____

WATERSHED
PORTEOUS TUNNEL LEAK

Approval Item

TITLE

Authorize a Professional Services Agreement with Tetra Tech, Inc. for Preparation of a Local Hazard Mitigation Plan

RECOMMENDATION

Approve Resolution No. 8612 Authorizing the General Manager to Execute a Professional Services Agreement, in the Amount of \$150,000, to Prepare the Local Hazard Mitigation Plan.

SUMMARY

The Federal Emergency Management Agency (FEMA) awarded the District a grant in the amount of \$150,000 for development of the District's Local Hazard Mitigation Plan (LHMP). Staff issued a Request for Proposals to professional firms to prepare the LHMP for the District in August. After reviewing the proposals and interviewing three qualified firms, staff recommends the Board approve Resolution No. 8612 authorizing the General Manager to execute a Professional Services Agreement with Tetra Tech, Inc. in an amount of \$150,000 for development of the LHMP. Completion of the LHMP is scheduled for June 2022.

DISCUSSION

Background

As discussed with the Board at the September 18, 2020 Operations Committee meeting, a Local Hazard Mitigation Plan (LHMP) is a document that identifies natural hazard vulnerabilities and outlines strategies to reduce those risks. Natural disasters, such as wildfires, earthquakes, and flooding, can cause loss of life, damage buildings and infrastructure, and have devastating economic and environmental consequences. Hazard Mitigation planning is the process through which hazards that threaten communities are identified, likely impacts of those hazards are determined, mitigation goals are set, and appropriate strategies to lessen impacts are determined, prioritized, and implemented.

In April of 2020, the District secured a \$150,000 grant to fund a LHMP. This important project, funded largely by FEMA, will identify actions for risk reduction, increase the District's awareness of hazards, risk, and vulnerabilities, and make the District eligible for a range of hazard mitigation funding programs. Adoption of a LHMP is required for the District to be eligible to

receive mitigation grant funding awarded through State and Federal grant programs, and to be eligible to receive and maximize post-disaster recovery funding.

Selection of Professional Engineering Firm

In August, District staff publically advertised a Request for Proposals (RFP). Seven firms submitted proposals on September 23, 2020. After reviewing the proposals thoroughly, Staff interviewed the three most qualified firms on October 12th and 13th and contacted their references.

District staff recommends Tetra Tech be selected to prepare the LHMP for several reasons:

- Tetra Tech's team has extensive experience preparing LHMPs all over California and the United States;
- They have a very experienced team and project manager to guide the project, with the Project manager having over 30 years of experience working with FEMA; and
- Tetra Tech's proposal included an organized approach to preparing the District's LHMP, which includes benefit-cost analyses for mitigation actions.

Tetra Tech's project team has extensive experience conducting hazard mitigation plans for water districts in California and has demonstrated a thorough understanding of FEMA's requirements. Additionally, they will conduct benefit-cost analyses of mitigation actions, which will be critical to applying for future grant funding.

Scope of Services

The scope of services includes preparing a FEMA approved LHMP that identifies natural hazard vulnerabilities and outlines strategies and mitigation actions to reduce the District's risk and improve resiliency. The plan also includes public outreach strategies and planning for monitoring and updating the plan. The scope of work is shown in Attachment 2 and includes numerous workshops, public meetings, and assistance with California Office of Emergency Services (CalOES) and FEMA.

Tetra Tech has developed a customized scope of services for preparing the District's LHMP, based on Tetra Tech's extensively used standard scope that has resulted in numerous FEMA approved LHMPs. A brief overview of the scope of services is below and is divided into the following seven phases:

Phase1: Project kickoff, organizes a core planning team and an oversight committee, and reviews existing plans, programs, and studies.

Phase 2: Identifies hazards, gathers and reviews existing data, conducts risk and vulnerability mapping, and a climate change analysis.

Phase 3: Develops a public outreach strategy

Phase 4: Includes a District capabilities assessment for completing mitigation actions and developing goals, objectives, and a mitigation action plan.

Phase 5: Develops a plan for monitoring, annual evaluations, updating the LHMP every five years.

Phase 6: Develops benefit-cost analysis for mitigation actions, assembling the draft LHMP, and releasing the draft LHMP for public comment

Phase 7: Finalizes the LHMP, submitting to CalOES and FEMA for approval, and Board adoption.

The project is planned to start in November 2020 and be completed by June 2022. The LHMP will be largely completed by January 2022, and CalOES and FEMA approval could take until June 2022. A summary of the estimated schedule is as follows:

- Project kickoff and review of existing reports: November 2020 – February 2020
- Hazard and risk assessment: November 2020 – April 2021
- Developing mitigation actions and implementation priorities: February 2021 – September 2021
- Draft LHMP and public review: October 2021 – December 2021
- Plan review and adoption: January 2022 – June 2022

The contract amount for this project is \$150,000. A summary of the fee schedule is provided in Attachment 3. The District was awarded a grant for up to \$150,000. The grant is reimbursable, so the District will need to pay for the contract costs of \$150,000 as the project progresses and will be reimbursed by FEMA at the end of the project.

In summary, District staff requests that the Board of Directors approve Resolution No. 8612 Authorizing the General Manager to Execute a Professional Services Agreement in the amount of \$150,000 to prepare the LHMP.

FISCAL IMPACT

The total cost for preparation of the LHMP is estimated at \$200,000 as follows:

- Professional Services: \$150,000
- District staff in-kind labor: \$50,000
- Total: \$200,000

FEMA awarded the District a grant for preparation of the LHMP up to \$150,000 or 75% of the project, so the District is responsible for 25% of the project with in-kind labor. This makes the District’s contribution \$50,000 for in-kind labor. This is a grant reimbursable project, so the District will need to pay for the contract costs of \$150,000 as the project progresses and will be reimbursed by FEMA at the end of the project for this expenditure.

ATTACHMENT(S)

- 1. Resolution No. 8611
- 2. Scope of Work
- 3. Fee Estimate and Schedule

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Engineering	 Mike Ban Director of Engineering	 Ben Horenstein General Manager

MARIN MUNICIPAL WATER DISTRICT

RESOLUTION NO. 8612

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE MARIN MUNICIPAL WATER DISTRICT
AUTHORIZING THE GENERAL MANAGER TO EXECUTE MISCELLANEOUS AGREEMENT 5899
WITH TETRA TECH IN SUPPORT OF
THE LOCAL HAZARD MITIGATION PLAN (D21016)**

WHEREAS, the District is committed to its mission of providing its customers with reliable, high quality water at a reasonable price; and

WHEREAS, a reliable, efficient, and operational water system to capture, treat, convey, store and deliver water to its customers is fundamental to that mission; and

WHEREAS, the Federal Disaster Mitigation Act of 2000 requires all cities, counties and special Districts to adopt a Local Hazard Mitigation Plan (LHMP) to receive disaster mitigation funding from Federal Emergency Management Agency (FEMA); and

WHEREAS, to be eligible for FEMA funding for disaster mitigation and emergency funding, the District must have an approved Local Hazard Mitigation Plan; and

WHEREAS, the District applied for a Pre-Disaster Mitigation Competitive Grant and was awarded \$150,000 to assist with the costs associated with preparing the LHMP; and

WHEREAS, the District seeks to maintain and enhance both a disaster –resistant service area by reducing the potential loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters; and

WHEREAS, the project requires the services of a quality professional firm familiar with LHMP; and

WHEREAS, in August and September of 2020, District staff publically advertised requests for proposals (RFP), evaluated submittals, and conducted interviews; and

WHEREAS, Tetra Tech is recommended for the team’s extensive experience preparing LHMPs similar in complexity, an excellent understanding of the project as demonstrated by their approach to completing the work, and the firm’s personnel and technical expertise guiding similar projects; and

WHEREAS, District staff have negotiated the final scope and fee for the professional services; and

WHEREAS, the cost for Miscellaneous Agreement 5899 is \$150,000 (“Contract”).

NOW, THEREFORE, THE BOARD OF DIRECTORS RESOLVES that:

1. The General Manager is authorized to execute a Professional Services Agreement with Tetra Tech in an amount of \$150,000.

PASSED AND ADOPTED this 17th day of November, 2020, by the following vote of the Board.

AYES:

NOES:

ABSENT:

President, Board of Directors

ATTEST:

Secretary

ATTACHMENT 2

CONTRACT SCOPE OF WORK For Marin Municipal Water District Local Hazard Mitigation Plan

This is a proposed scope of services from Tetra Tech, Inc (CONSULTANT) to Marin Municipal Water District (MMWD or District) for the development of a single jurisdiction Local Hazard Mitigation Plan pursuant to 44CFR, section 201.6 with enhanced components to support overall continuity of operations for the District (PLAN). The work tasks identified in this scope of services are anticipated to take up to 20 months (see attached schedule) to complete from a project initiation date contingent upon grant award and authorization. The principle objective for the scope of services below are to prepare a Federal Emergency Management Agency (FEMA) approved plan.

SCOPE AND DELIVERY OF WORK: The work to be completed and provided by the CONSULTANT is described in the following paragraphs. Deliverables must be presented to and approved by the MMWD Project Manager:

Phase 1: Organize and Review (Grant Application Milestone 1.1)

Under this phase, the CONSULTANT will identify appropriate resources both internal and external to organize the key components for this planning process. This will include the formation of a Core Planning Team (CPT) and the designation of an oversight Hazard Mitigation Planning Committee (HMPC) to oversee the facilitation of the scope of work. Coordination with other agencies to determine their potential impact and or support of the mitigation plan will also occur under this phase. Also, a review of existing studies, reports, and technical information will be performed to assimilate sources of information into the decision-making process. All tasks under this phase correlate to the “Milestone tasks” 1.1 for the MMWD Hazard Mitigation Planning grant that is funding this project. The tasks to be completed under this phase include:

Task 1A: Organize a Core Planning Team (CPT)- Under this task, a Core Planning Team (CPT) that will consist of designated discipline leads from the CONSULTANT team and appropriate technical staff from the District (i.e. GIS point of Contact, Public Information Officer, District Project Manager) will be organized. The CPT will coordinate all elements of this scope of work and will hold biweekly coordination conference calls through the project’s completion. The CPT will be responsible for identifying planning milestones and project deliverables that will be presented to the Hazard Mitigation Planning Committee (HMPC) discussed below. The CPT will be responsible for the facilitation of all HMPC meetings and documenting that process.

Task 1B: Organize an Oversight Hazard Mitigation Planning Committee (HMPC)- Under this task, a Hazard Mitigation Planning Committee (HMPC) made up of key Stakeholders identified by the CPT will be organized. The makeup of this committee will strive for a “whole community” composition with a vested interest in the capabilities identified in this plan. The HMPC will be an “advisory” body to MMWD and not be empowered to direct MMWD on the content for the final plan. The role of the HMPC is to aid MMWD in vetting and validating key components for the HMP. The HMPC will meet periodically (a minimum of 5 times over the performance period) based upon a schedule they will confirm, during the plan update process to review and approve various planning milestones developed by the planning team. The CPT will facilitate each of these meetings according

to the ground rules established at the initial HMPC meeting. The CPT will create all agendas and prepare meeting summaries for all meetings. All HMPC meetings will be open to the public as defined by this planning process and will be advertised as such.

Task 1C: Agency Coordination- Under this task, the CPT on behalf of MMWD will coordinate with other agencies involved in, or that can impact hazard mitigation actions identified in the plan. These agencies will be those identified by the CPT during the HMPC formation process described under task 1B, that were not able to participate on the HMPC. These will include but are not limited to:

- Incorporated Cities within the District's service area
- Neighboring Water Service Agencies
- Marin County Office of Emergency Services
- AWIA coordination agencies
- CA Department of Water Resources
- CAOES, and
- FEMA Region IX.

These agencies will be coordinated with throughout the project primarily via e-mail and have an opportunity to comment during the public review period discussed below. This coordination will be for their information and will advise each agency on the planning status and plan development milestones. Additionally, The CPT will strive to coordinate with any con-current planning effort to promote Regional consistency in hazard mitigation.

Task 1D: Review of Existing Plans, Programs and Studies- Under this task, the CPT will identify existing studies, reports, and technical information that can support or enhance the outcomes of this plan and perform a review to assimilate sources of information into the decision-making process. This will include at a minimum, a comprehensive review of the following documents: general plans in effect within the District's service area, capital improvement plans, continuity of operations plans, emergency operations plan, AWIA (America's Water Infrastructure Act) Plan (if applicable) and any other relevant documents identified by the CPT. Additionally, the planning team will perform a comprehensive review of the current California State Hazard Mitigation Plan to assure consistency of this plan with the goals, objectives and actions of that plan. This is a required step for local hazard mitigation plans under section 201.6 44CFR. The CPT will document and record the elements of this phase for incorporation into the plan document.

MMWD responsibilities for Phase 1:

- Identify appropriate personnel for the CPT.
- Participate in CPT coordination.
- Identify appropriate agencies for the agency coordination and provide names and contact information to CONSULTANT
- Post all meeting notices and materials to the District webpage.
- Provide a single point of contact for the general public, interested parties, and HMPC members
- Secure venues for all public meetings scheduled during this process

Key CONSULTANT deliverables: The key deliverables to be completed by the CONSULTANT for this phase include:

- Facilitation of bi-weekly CPT calls
- Facilitate all HMPC meetings

- Produce all HMPC meeting agendas and meeting summaries
- Keep informed all planning members on plan development milestones
- Document findings of plan review

Phase 2: Identify Hazards/Perform a Risk Assessment (Milestones 2.1 to 2.3)

Under this phase, the CONSULTANT team will assist MMWD in identifying the characteristics and potential consequences of the hazards that may impact or have historically affected the planning area. A thorough assessment of each hazard, as well as the vulnerability of the MMWD Service Area to each hazard identified, will be accomplished using tools such as GIS/ Hazus-MH, readily available detailed studies, benefit-cost analysis tools, and historical/local knowledge of past occurrences. At a minimum, a map delineating each hazard area, a description of each hazard (including potential depths, velocities, magnitudes, frequencies, etc.), and a discussion of past events will be prepared. Plans and studies identified under Phase 1 (Task 1D) of this scope of work and well as the CA State Hazard mitigation Plan will be the principal tools used to identify the hazards of concern to be addressed by this plan.

For each identified hazard, there will be a vulnerability analysis that will: (1) include an inventory of the number and type of District assets at risk; (2) assess the impact on life, safety, and health; (3) evaluate the need and procedures for warning and evacuation; (4) identify District critical facilities and infrastructure and the impact of the hazard on those facilities; and (5) review the development/redevelopment trends that may impact District services, projected for the future in each identified hazard area.

Hazard profiles will be created that provide the following information:

- Utilize best available information from local, state, or federal sources
- Geographic Areas of Impact – Maps showing areas of impact
- Previous Occurrences – History of events to date
- Severity – Magnitude or potential intensity and duration, including speed of onset
- Impact – How will, or has, each hazard impacted the District's service area
- Probably of Future Occurrence – What is the likelihood that we will be impacted by the hazard of concern in the future?
- Probable impacts of climate change on the hazard
- Future trends in Development within the District's Service Area

The risk assessment will identify which natural hazards pose the greatest threat to the MMWD by looking at the hazard frequency of occurrence, the severity of the occurrence, and the likelihood that an event will occur. Using an updated asset inventory from the Hazus-MH, Comprehensive Data Management System (CDMS), outputs from our risk assessment process include the following:

- **Vulnerability Analysis** –Based on data input, developed data tabulations and maps that demonstrate vulnerable assets and populations at risk.
- **Functionality or Down Time** – When an incident occurs, how long will critical facilities be impacted?

All tasks under this phase correlate to the “Milestone tasks” 2.1, 2.2 and 2.3 for the MMWD Hazard Mitigation Planning grant that is funding this project. The tasks to be completed under this phase are described as follows:

Task 2A: Data acquisition, inventory and Format (Milestone Task 2.1)- Under this task, the CPT will utilize data identified under Phase 1 of this scope of work in conjunction with local knowledge, to identify the best available data to support the development of this risk assessment and identify gaps that may limit the options for completing this assessment. The key deliverable for this task will be a detailed inventory of all district assets that includes key data attributes needed to assess the risk and vulnerabilities of District assets. It is important to note that any identified gap in data, could be identified as an action in this plan. The Consultant will document all meta-data following standard meta-data documentation protocol.

Task 2B: Risk and Vulnerability Mapping (Milestone Task 2.2)- Under this task, the Consultant will utilize data mined under Task 2A to prepare maps that show the risk and vulnerability of District assets by mapping their location in relation to the extent and location of the hazards of concern addressed by this plan. These maps will be produced and formatted for inclusion in the final plan.

Task 2C: Hazus-MH Analysis (Milestone Task 2.3): Under this task, the Consultant will develop HAZUS-MH runs for the entire planning area using the currently available version of the Hazus-MH model (Hazus-MH version 4.2 or newer). Level 2, user-defined analyses of the dam failure, earthquake, and flood hazards will be conducted. The flood analysis will incorporate the current digital flood insurance rate map (DFIRM) for Marin County as well as any available Light Detection and Ranging (LiDAR) data. For the earthquake analysis, both earthquake soils and liquefaction data will be combined with available earthquake scenario data from USGS and/or CA Geological Survey. The HAZUS-MH model will be populated with updated GIS data provided by the District and mined by the Consultant under Task 2A of this scope of work. The outputs from this task will be concentrated looking at the estimated functional downtime for District facilities following hazard events to support the continuity of operation components of this project.

Task 2D: Prepare Risk Assessment for non-Hazus-MH Hazards (Milestone Task 2.3): Under this task, the Consultant will update the risk assessment for the non-HAZUS-MH hazards (drought, landslide, severe weather, power outage, and wildfire). This will include a GIS exercise designed to analyze District facility exposure and potential impact utilizing damage functions based on national models. This task will include use of relevant information identified under Tasks 1D and 2A of this scope of work. The outputs from this task will be concentrated looking at the estimated functional downtime for district assets following hazard events to support the continuity of operation components of this project.

Task 2E: Climate Change Analysis and Profile (Milestone Task 2.1): Under this task, the Consultant will prepare a qualitative vulnerability assessment of the potential future impacts to the identified hazards of concern pursuant to the requirements of CA-SB379. A climate change profile will be prepared as a stand-alone chapter for the plan so that the District can support full compliance with California Senate Bill (SB-379).

MMWD responsibilities for phase 2: This scope of services has assumed that some of the key elements of this phase will be performed by MMWD personnel. Under this phase, MMWD will:

- ✓ Provide the best available information on District infrastructure in GIS format
- ✓ Provide the best available digital elevation model for MMWD in GIS format
- ✓ Provide the best available data on extent and location of hazards of concern in GIS format
- ✓ Provide the best available data for supporting analyses, including the demographic analyses, land use scenarios, and any forward-looking modeling to be utilized (e.g. climate change studies and assessments).

Key CONSULTANT deliverables: The key deliverables to be completed by the CONSULTANT for this phase include:

- ✓ Data Gap Analysis report
- ✓ GIS data and maps that illustrate the extent and location of hazard areas.
- ✓ Review of past occurrences since the completion of the prior Plan.
- ✓ The types and numbers of MMWD assets located in the identified hazard areas for each scenario event.
- ✓ Loss estimates for each scenario event for all District assets by hazard.
- ✓ An analysis of vulnerable populations within each hazard area.
- ✓ Completed Hazard profiles
- ✓ Data handoff and training

Phase 3: The Public Involvement Strategy (Milestone Task # 1.2)

Section 201.6.b of 44 CFR states that “the planning process will include: an opportunity for the public to comment on the plan during the drafting stage and prior to adoption.” It does not stipulate how this public involvement must occur. FEMA guidance documents suggest using multiple media outlets such as the Internet, brochures, fliers, questionnaires, and public meetings. Any or all of these approaches qualify as “public involvement” according to the Disaster Mitigation Act of 2000 (DMA).

Under this task, the CPT will identify and deploy a public engagement strategy for MMWD that will utilize existing public outreach capabilities of the district and/or stakeholders engaged with the process. The CPT will perform a public outreach capability assessment which will be presented to MMWD’s senior management who will in turn recommend and approve the outreach strategy. The following tasks have been identified as placeholders for strategies that the HMPC may consider based on the opportunities and capacities available to MMWD. All tasks under this phase correlate to the “Milestone tasks” 1.2 for the MMWD Hazard Mitigation Planning grant that is funding this project. The tasks to be completed under this phase are proposed as follows:

Task 3A: Public Meetings: Public meetings (if determined feasible by the CPT) will be held at times and places to be determined by the CPT. The first public meeting will be held to share the findings of the risk assessment with the public. At these meetings, maps and damage assessments will be shared with the public and their opinions in possible actions will be solicited. The additional public meetings will present the final draft plan to the public for their review and comment during a noticed and advertised public comment period. The CPT will facilitate all public meetings conducted under this task.

Please note, that some or all the above proposed strategies for public engagement may have to be altered based on the City’s and the State of California’s ongoing response to the COVID-19 pandemic. CONSULTANT has developed alternative strategies following direction from FEMA, should alternatives be needed when this project is deployed.

Task 3B: Hazard Mitigation Survey: Under this task, the CPT will develop and deploy a web-based, hazard mitigation survey that can be distributed to District rate payers to gauge their perception of risk and identify their concerns with regards to MMWD continuity of operations following hazard events. The results of this survey will be used to inform the CPT on key issues to be addressed by the plan in such as goal setting and action plan development. Survey results will be quantified and summarized for inclusion in the final plan.

Task 3C: Webpage: As a way to meet the FEMA planning requirement for “continuing public involvement” in the plan’s implementation after it has been approved and adopted, a webpage that provides access to the plan and its implementation status is considered a best-management-practice for meeting this FEMA requirement. Under this task, access to information of the plan, and plan development status will be posted to a dedicated webpage on the MMWD website. This webpage will become the principle means for public interaction with this planning process from start to finish. The CPT will produce materials to support the webpage such as “Frequently asked questions” (FAQ’s), power point presentation from the kickoff meeting, and public meeting minutes. Additionally, CONSULTANT will prepare an ESRI “Story-Map” that will evolve with new content as the planning process progresses to provide the public interactive access to plan development milestones. Access to the Story-Map will be through this webpage. This webpage will remain active following the planning process and will house the final plan. This site will be an integral component of the strategy for continuing public involvement as required for plan maintenance, addressed under phase 5 of this scope of work. District personnel will be responsible for maintenance of the webpage and assuring continued public access to pertinent information.

MMWD Personnel responsibilities: This scope of services has assumed that some of the key elements of this phase will be performed by MMWD personnel. Under this phase, MMWD will:

- ✓ Provide venues for all public meetings (if necessary)
- ✓ Provide virtual platform for public meeting (if necessary)
- ✓ Advertise all public meetings on the District webpage and in emails to all interested parties
- ✓ Disseminate press releases on planning process and public meetings (if necessary)

Key CONSULTANT deliverables: The key deliverables to be completed by the CONSULTANT for this phase include:

- ✓ A public involvement strategy developed with the CPT
- ✓ Implementation of the Part 1 Public Involvement Strategy
- ✓ Implementation of the Part 2 Public Involvement Strategy
- ✓ All support materials for part 1 and 2 strategies
- ✓ Development of the ESRI “Story-Map”

Phase 4- Identify Goals, Objectives, Capabilities and Actions (Milestones 2.4 and 3.1 to 3.3)

After the hazard identification and risk assessment documentation have been completed, the CPT will work with the HMPC to identify a vision, goals and objectives for the plan. This will be preceded by a core capability assessment of the District’s existing capabilities to implement a mitigation action plan with the key objective of the identification of gaps in capability that may need to be addressed by the mitigation actions identified in the plan. Once goals and objectives have been identified, a range of mitigation alternatives and actions on a hazard-by-hazard basis will be prepared by looking at the strengths, weaknesses, obstacles and opportunities for the District. Preference will be given to those mitigation actions that provide multi-objective risk reduction. The CPT will coordinate with the agencies to establish priorities to make clear which types of strategies and activities are true mitigation measures and which should be closed out or removed from the list.

Information obtained during the update of the risk assessment and during the public involvement strategy will be used to guide this discussion. All tasks under this phase correlate to the “Milestone tasks” 2.4, 3.1, 3.2 and 3.3 for the MMWD Hazard Mitigation Planning grant that is funding this project. The tasks to be completed under this phase are as follows:

Task 4A: Core Capability Assessment (Milestone Task 2.4)- Under this task, the CPT will perform a core capability assessment of MMWD capabilities to implement mitigations strategies of the Plan. This assessment will focus on the following core capabilities:

- Planning Capability
- Technical Capability
- Financial Capability
- Public Education and Outreach Capability
- The District’s capability to maintain continuity of operations
- Adaptive capacity to deal with future conditions associated with Climate Change

The key objective for this task is to identify any gap in the District’s core capability that should be considered in identifying goals, objectives and actions for the plan.

Task 4B: Vision, Goals and Objectives (Milestone task 3.1): Under this task, the CPT will facilitate the confirmation of a vision, goals, and objectives for the plan. These will be linear planning components in that each component will be independent, and not a sub-set of there. Each component will be selected based on its ability to meet multiple aspects of the higher-tier component. For example, goals will be selected based on their ability to support the vision. Objectives will be selected that meet multiple goals. And, actions will be prioritized based on their ability to meet multiple objectives.

Task 4C: Strengths, Weaknesses, Obstacles and Opportunities (SWOO): Under this task, the CPT will facilitate the identification of a comprehensive range of mitigation alternatives through a facilitated look at strengths, weaknesses, obstacles and opportunities within the District’s Service area. This “SWOO” session will be conducted with other agencies as appropriate. The opportunities identified under this session will be the basis for the mitigation catalog discussions under task 4D.

Task 4D: Catalog of Mitigation Best-Management-Practices Appropriate for the District: Under this task, the CPT will assemble a catalog of MMWD appropriate mitigation best-management-practices, based on the opportunities identified under Task 4C, and the core capabilities identified under Task 4A. This mitigation catalog will represent the comprehensive range of alternatives considered by the District, as required under section which is a statutory requirement under the DMA.

Task 4E: Mitigation Action Plan (Milestone tasks 3.2 and 3.3): Utilizing the results of all tasks above, the CPT will facilitate the identification and prioritization of a mitigation action plan for MMWD. This action plan will be identified with the following objectives:

- Must be implementable within MMWD core capabilities
- Must be able to quantify how each action will reduce risk
- Must be able to identify how MMWD will measure success

An action plan will be developed that identifies hazards addressed, objectives met, how it will be paid for, and an estimated timeline for completion. Following the identification of the action plan, each action will be

prioritized based on a methodology that emphasizes multiple objective actions and the cost-effectiveness of each action.

MMWD Personnel responsibilities: This scope of services has assumed that some of the key elements of this phase will be performed by MMWD personnel. Under this phase, MMWD will:

- ✓ Provide CONSULTANT access to resources for the core capability assessment
- ✓ Participate in the SWOO session
- ✓ Participate in the identification and prioritization of the action plan

Key CONSULTANT deliverables: The key deliverables to be completed by the CONSULTANT for this phase include:

- ✓ Facilitation of the confirmation of a guiding principle (mission statement), goals and objectives.
- ✓ Applicable results from phases 2 and 4 to support goal/objective setting exercises
- ✓ Completion of the core capability assessment
- ✓ SWOO
- ✓ Mitigation catalog
- ✓ Action Plan
- ✓ Provide methodology for action plan prioritization

Phase 5: Develop Plan for Monitoring, Evaluating and Updating the Plan (Milestone 4.1)

This is a singular task phase that correlates to the “Milestone tasks” 4.1 for the MMWD Hazard Mitigation Planning grant that is funding this project. Under this phase, the CPT will work to confirm a plan maintenance strategy for the plan. This strategy will include:

- Recommendations for outside agency involvement
- Monitoring, Evaluating, and Updating the Plan
- Monitoring Progress of Mitigation Activities
- Incorporation into Existing Planning Mechanisms
- Continued Public Involvement

MMWD Personnel responsibilities: This scope of services has assumed that some of the key elements of this phase will be performed by MMWD personnel. Under this phase, MMWD will:

- ✓ Support the CPT in the development of the Plan maintenance strategy.

Key CONSULTANT deliverables: The key deliverables to be completed by the CONSULTANT for this phase include:

- ✓ The method and schedule of monitoring, evaluating, and updating the mitigation Plan on a five-year cycle.

- ✓ Establish a protocol (template) for a progress report to be completed annually on the Plan's accomplishments.
- ✓ The process for incorporating the requirements of the mitigation Plan into other planning mechanisms, such as comprehensive or capital improvement plans, zoning changes, or general Plan development when appropriate.
- ✓ How the community will continue public participation in the mitigation Plan maintenance process.

Phase 6: Assemble the Plan (Milestones 4.2 and 4.3)

Under this phase, the CPT will assemble the plan. The assembly will utilize all updated or enhanced data generated in Phases 1 through 5. The plan will be assembled in full compliance with FEMA's Plan Review Tool for FEMA Region IX which crosswalks the Plan's content to the requirements of section 201.6, 44CFR. All tasks under this phase correlate to the "Milestone tasks" 4.2 and 4.3 for the MMWD Hazard Mitigation Planning grant that is funding this project. The tasks to be completed under this phase are as follows:

Task 6A: Author the updated plan text: Under this task, the draft updated plan will be authored and assembled by the Consultant. The CPT will format the plan layout to meet the objectives established for the planning process. The key elements to be delivered under this task include:

- The CPT will format the plan layout to meet the objectives established for the update process and for ease in use by District personnel in development of any additional planning efforts which occur after this planning process.
- Brief introduction, including context for and description of the need for the mitigation plan. This will include a description of the planning process followed in the development of the mitigation plan and document all public involvement.
- Description of the District's mission, goals, programs, and policies, and an analysis of its capabilities to carry them out.
- Brief description of the history, physical setting, land-use patterns, and development trends of the area to be covered by the mitigation plan.
- A profile chapter on Climate Change and the possible impacts of climate change on the identified hazards of concern addressed by the plan.
- List and assessment of the hazards and risks to which the District is vulnerable.
- Summary of current federal, state, and local programs and policies that address the identified risks. The plan will also include a prioritized list of recommended strategies, programs, policies, and actions to address identified hazards and risks. The review of mitigation activity alternatives will be conducted for each hazard. Additionally, the plan will identify those persons responsible for implementing recommendations, approximate cost of and potential funding sources for implementing recommendations, cost effectiveness of recommendations, and suggested timeline for implementing recommendations.
- Strategy for evaluating, adopting, and implementing the mitigation plan. The draft Action Plan will identify agencies and departments responsible for implementation, targeted timeframe for implementation, and possible funding mechanisms.
- Other descriptions, documentation, and mitigation plan elements as required for FEMA approval.
- Summary of how the District will monitor progress of the mitigation plan and activities and an established timeline for future updates, including an Annual Evaluation Report.

Task 6B: Technical Edit/Format: Once the initial draft has been developed, the draft plan will be submitted for a technical/format edit to prepare the final draft plan that will be presented to the District's service area for public review and comment and provided to FEMA for pre-adoption review and approval.

Task 6C- Develop Project BCA's: Under this task, CONSULTANT will prepare up to 3, fully documented, grant ready BCA's for projects identified in the MMWD action plan that MMWD has prioritized for grant funding under the suite of FEMA Hazard Mitigation Assistance (HMA) grant programs.

Task 6D- BCA Training: Under this task, CONSULTANT will perform a ½ day training on the use and application of FEMA's Benefit-Cost analysis tool (BCAR). This training will be made available to District staff identified by the CPT as appropriate for this training.

MMWD Personnel responsibilities: This scope of services has assumed that some of the key elements of this phase will be performed by MMWD personnel. Under this phase, MMWD will:

- ✓ Provide review and comment on drafts of Plan
- ✓ Assume responsibility for hard copy production of review drafts and final drafts of the Plan
- ✓ Provide information requested by the CONSULTANT in support of the development of project BCA's (under task 6C)
- ✓ Provide venue and list of attendees for BCA training

Key CONSULTANT deliverables: The key deliverables to be completed by the CONSULTANT for this phase include:

- ✓ Assemble a DMA complaint draft Plan
- ✓ Review and final drafts of the updated Plan
- ✓ Technical/format edit of all drafts of the Plan
- ✓ Up to 3, fully documented, grant-ready BCA's
- ✓ BCA training

Phase 7 - Complete Plan Review and Adoption (Milestones 4.4 and 4.5)

Under this phase, the CPT will facilitate the review and adoption of the plan. This will include presentation of draft versions of the plan to the HMPC, preparation of a "Service Area Public Review Draft", completion of the plan review crosswalk, support of the adoption process and submittal of final plan package to CAOES and FEMA for review and approval. All tasks under this phase correlate to the "Milestone tasks" 4.4 and 4.5 for the MMWD Hazard Mitigation Planning grant that is funding this project. The tasks to be completed under this phase are as follows:

Task 7A: Complete Local Plan Review Crosswalk: Once the final draft plan has been prepared, and all public, stakeholder and HMPC comments have been incorporated into the final draft, the CPT will complete a FEMA plan review crosswalk to illustrate the plan's compliance with 44 CFR Section 201.6. A draft plan will then be forwarded along with the completed crosswalk to FEMA with a request for "pre-adoption" review and approval.

Task 7B: Plan Adoption Support: Once "Approval pending Adoption" has been granted by FEMA region IX, the adoption phase of the planning process will begin. The District will invoke its standard political process for

adoption of documents and provide adoption documentation to FEMA. Under this task, the Consultant will support the District as needed through the adoption process. This support includes:

- Preparation of an executive summary of the plan for presentation to the District Board
- Preparation of presentation materials
- Preparation of a Board resolution adopting the plan
- A physical presentation to the Board
- Processing of adoption documentation to CAOES and FEMA Region IX

MMWD Personnel responsibilities: This scope of services has assumed that some of the key elements of this phase will be performed by MMWD personnel. Under this phase, MMWD will:

- ✓ Adopt the Plan

Key CONSULTANT deliverables: The key deliverables to be completed by the CONSULTANT for this phase include:

- ✓ Completion of the Plan Review Tool
- ✓ Transmittal of the draft Plan to CalOES
- ✓ Plan adoption package
- ✓ Production of a standardized power point presentation to be used by the MMWD during their adoption processes
- ✓ Preparation of final Plan

PHASE 8- PROJECT MANAGEMENT

This phase will be dedicated to billing and invoicing and overall project management through completion of all phases of the project. Also, under this task, CONSULTANT will support the Planning Team in tracking the progress of the Plan's development through bi-weekly coordination with MMWD project management staff.

Task 8A: Billing and Invoicing: this task will be dedicated to administrative duties such as tracking and preparing invoices.

Task 8B: Progress Reporting: To monitor this project's performance to assure completion of specified deliverables and to maintain the project timeline for completion, the CONSULTANT project manager will complete monthly progress reports to be provided with the monthly invoice. These progress reports will show the percent of the project completed to date.

FIXED PRICE COST PROPOSAL

Marin Municipal Water District
Hazard Mitigation Plan

October 19, 2020

			Phase 1: Organice Resources		Phase 2: Update the Risk Assessment		Phase 3: Public Engagement		Phase 4: Confirm Mission, Goals, Objectives, Capabilities and Actions		Phase 5: Plan Maintenance Strategy		Phase 6: Assemble the Updated Plan		Phase 7: Plan review and Adoption		Phase 8: Project Management			
Staff Name	Labor Classification	Labor Rate	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost			Project Total	
Rob Flaner	Project Manager	\$175.00	40	\$7,000.00	8	\$1,400.00	8	\$1,400.00	8	\$1,400.00	8	\$1,400.00	55	\$9,625.00	16	\$2,800.00	16	\$2,800.00	159	\$27,825.00
Cynthia Bianco	QA/QC	\$185.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	8	\$1,480.00		\$0.00	8	\$1,480.00
Bart Spencer	Senior Planner	\$140.00	32	\$4,480.00		\$0.00	20	\$2,800.00	40	\$5,600.00	20	\$2,800.00	20	\$2,800.00	16	\$2,240.00		\$0.00	148	\$20,720.00
Jeana Wiser	Senior Planner	\$140.00	16	\$2,240.00		\$0.00	8	\$1,120.00	8	\$1,120.00	8	\$1,120.00	16	\$2,240.00		\$0.00		\$0.00	56	\$7,840.00
Cindy Rolli	Planner III	\$110.00	16	\$1,760.00		\$0.00	8	\$880.00	8	\$880.00	8	\$880.00	16	\$1,760.00		\$0.00		\$0.00	56	\$6,160.00
Desmian Alexander	Planner II	\$90.00	40	\$3,600.00		\$0.00	40	\$3,600.00	40	\$3,600.00	20	\$1,800.00	80	\$7,200.00		\$0.00		\$0.00	220	\$19,800.00
Megan Brotherton	Planner I	\$70.00	7	\$490.00		\$0.00		\$0.00		\$0.00		\$0.00	62	\$4,340.00		\$0.00		\$0.00	69	\$4,830.00
Carolyn Hunter	Public Outreach Lead	\$145.00	16	\$2,320.00		\$0.00	40	\$5,800.00		\$0.00		\$0.00	8	\$1,160.00		\$0.00		\$0.00	64	\$9,280.00
Carol Baumann	Risk Assessment lead	\$130.00	8	\$1,040.00	100	\$13,000.00		\$0.00		\$0.00		\$0.00	8	\$1,040.00		\$0.00		\$0.00	116	\$15,080.00
Magda UsarekWitek	Gis Analyst II	\$115.00		\$0.00	40	\$4,600.00	40	\$4,600.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	80	\$9,200.00
Jenn Lenart	GIS Analyst I	\$95.00		\$0.00	40	\$3,800.00		\$0.00		\$0.00		\$0.00	40	\$3,800.00		\$0.00		\$0.00	80	\$7,600.00
Liz Mamer-Barrett	GIS Analyst I	\$95.00		\$0.00	40	\$3,800.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	40	\$3,800.00
Dan Portman	Technical/Format Editor	\$125.00	8	\$1,000.00		\$0.00		\$0.00		\$0.00		\$0.00	90	\$11,250.00		\$0.00		\$0.00	98	\$12,250.00
Maricar Cabrera	Financial Manager	\$145.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	12	\$1,740.00	12	\$1,740.00
Labor Total			183	\$23,930.00	228	\$26,600.00	164	\$20,200.00	104	\$12,600.00	64	\$8,000.00	395	\$45,215.00	44	\$7,228.0	28	\$4,540.00	1210	\$148,313.00
Travel		Rate	Units	Cost	Units	Cost	Units	Cost	Units	Cost	Units	Cost	Units	Cost	Units	Cost	Units	Cost	Units	Cost
Airfare		\$209.75	2	\$419.50		\$0.00		\$0.00	2	\$419.50		\$0.00		\$0.00		\$0.00		\$0.00	4	\$839.00
Per Diem		\$66.00	2	\$132.00		\$0.00		\$0.00	2	\$132.00		\$0.00		\$0.00		\$0.00		\$0.00	4	\$264.00
Gas		\$40.00	2	\$80.00		\$0.00		\$0.00	2	\$80.00		\$0.00		\$0.00		\$0.00		\$0.00	4	\$160.00
Parking		\$20.00	2	\$40.00		\$0.00		\$0.00	2	\$40.00		\$0.00		\$0.00		\$0.00		\$0.00	4	\$80.00
Lodging		\$140.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
Car Rental		\$66.00	2	\$132.00		\$0.00		\$0.00	2	\$132.00		\$0.00		\$0.00		\$0.00		\$0.00	4	\$264.00
Fee (5%)				\$40.18		\$0.00		\$0.00		\$40.18		\$0.00		\$0.00		\$0.00		\$0.00		\$80.35
Travel Total				\$843.68		\$0.00		\$0.00		\$843.68		\$0.00		\$0.00		\$0.00		\$0.00		\$1,687.35
Project Total by Phase			\$24,773.68		\$26,600.00		\$20,200.00		\$13,443.68		\$8,000.00		\$45,215.00		\$7,228.00		\$4,540.00		Project Total	\$150,000



HAZARD MITIGATION PLAN TIMELINE

Task	2020						2021												2022																																									
	NOV			DEC			JAN			FEB			MAR			APR			MAY			JUN			JUL			AUG			SEP			OCT			NOV			DEC			JAN			FEB			MAR			APR			MAY			JUN		
	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E												
Phase 1: Organize Resources																																																												
Task 1A: Organize a Core Planning team																																																												
Task 1B: Organize the Hazard Mitigation Planning Committee (HMPC)																																																												
Task 1C: Agency Coordination																																																												
Task 1D: Review of Existing Plans, Programs and Studies																																																												
Phase 2: Identify Hazards/Perform a Risk Assessment:																																																												
Task 2A: Data acquisition, inventory and Format																																																												
Task 2B: Risk and Vulnerability Mapping																																																												
Task 2C: Hazus-MH-MH Analysis																																																												
Task 2D- Prepare Risk Assessment for non-Hazus-MH Hazards																																																												
Task 2E- Climate Change Analysis and Profile																																																												
Phase 3: Public Involvement Strategy																																																												
Task 3A-Public Meetings																																																												
Task 3B- Hazard Mitigation Survey																																																												
Task 3C-Webpage																																																												
Phase 4: Identify Goals, Objectives, Capabilities and Actions																																																												
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Propose methodology for annual progress reporting.																																																												
Create triggers for future comprehensive plan updates.																																																												
Develop strategy of integration of plan into existing planning mechanisms.																																																												
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Task 6D- BCA Training																																																												
Phase 7: Plan Review and Adoption																																																												
Task 7A-CPT to complete Plan review Tool																																																												
Plan Submital to CAOES by January 15, 2022																																																												
Anticipated APA from FEMA (estimated 90 days post submittal)																																																												
Task 7B- BoardAdoption following APA (estimated 30 days post APA from FEMA)																																																												
Final Approval by FEMA																																																												

Notes:

* Schedule assumes that website will continue to host the final plan after process completion

** Contingent on FEMA approval time frame

Steering Committee Meeting Public Meeting Plan Submittal to CAOES 

Internal Review Draft


Public Review Draft


Agency Submittal Draft

Final Plan/Board Adoption 

Informational Item

TO: Board of Directors

FROM: Terrie Gillen, Board Secretary 

THROUGH: Ben Horenstein, General Manager 

DIVISION NAME: Communications & Public Affairs Department

ITEM: Future Meeting Schedule and Agenda Items

SUMMARY

Review of the upcoming Board of Directors and Committee meetings.

DISCUSSION

Below are the upcoming meetings of the Board of Directors and/or Committees:

- Wednesday, November 18
Communications Committee/Board of Directors (Communications) Meeting
9:30 a.m.
- Friday, November 20
Operations Committee/Board of Directors (Operations) Meeting
9:30 a.m.
- Tuesday, December 1
Board of Directors' Special Meeting
7:30 p.m.
- Thursday, December 10
Watershed Committee/Board of Directors (Watershed) Meeting
1:30 p.m.

FISCAL IMPACT

None

ATTACHMENT(S)

None