Date Posted: 12/30/2020

NORTH MARIN WATER DISTRICT

NORTH MARIN WATER DISTRICT
AGENDA - REGULAR MEETING
January 5, 2021 – 6:00 p.m.
Location: Virtual Meeting
Novato, California

Information about and copies of supporting materials on agenda items are available for public review at 999 Rush Creek Place, Novato, at the Reception Desk, or by calling the District Secretary at (415) 897-4133. A fee may be charged for copies. District facilities and meetings comply with the Americans with Disabilities Act. If special accommodations are needed, please contact the District Secretary as soon as possible, but at least two days prior to the meeting.

ATTENTION: This will be a virtual meeting of the Board of Directors pursuant to Executive Order N-29-20 issued by the Governor of the State of California.

There will not be a public location for participating in this meeting, but any interested member of the public can participate telephonically by utilizing the dial-in information printed on this agenda.

Video Zoom Method

CLICK ON LINK BELOW:		**SIGN IN TO ZOOM:**
Go to: https://us02web.zoom.us/j/8349174264	**OR**	Meeting ID: 8349174264
Password: 466521		Password: 466521

Call in Method:

Dial:
+1 669 900 9128
+1 253 215 8782
+1 346 248 7799
+1 301 715 8592
+1 312 626 6799
+1 646 558 8656

Meeting ID: 834 917 4264#

Participant ID: #

Password: 466521#

For clarity of discussion, the Public is requested to MUTE except:
1. During Open Time for public expression item.
2. Public comment period on agenda items.

Please note: In the event of technical difficulties during the meeting, the District Secretary will adjourn the meeting and the remainder of the agenda will be rescheduled for a future special meeting which shall be open to the public and noticed pursuant to the Brown Act.

All times are approximate and for reference only.
The Board of Directors may consider an item at a different time than set forth herein.

Est. Time	Item	Subject
6:00 p.m.		***CALL TO ORDER***
	1.	***APPROVE MINUTES FROM REGULAR MEETING***, December 15, 2020
	2.	***GENERAL MANAGER'S REPORT***
	3.	***STAFF/DIRECTORS REPORTS***
	4.	***OPEN TIME: (Please observe a three-minute time limit)***

This section of the agenda is provided so that the public may express comments on any issues not listed on the agenda that are of interest to the public and within the jurisdiction of the North Marin Water District. When comments are made about matters not on the agenda, Board members can ask questions for clarification, respond to statements or questions from members of the public, refer a matter to staff, or direct staff to place a matter of business on a future agenda. The public may also express comments on agenda items at the time of Board consideration.

CONSENT CALENDAR

The General Manager has reviewed the following items. To his knowledge, there is no opposition to the action. The items can be acted on in one consolidated motion as recommended or may be removed from the Consent Calendar and separately considered at the request of any person.

5. ***Consent –Approve:*** Consulting Services Agreement Amendment No.2 –Michael Baker International -2020 Emergency Action Plan Update

ACTION CALENDAR

6. ***Approve:*** Gallagher Well No. 2 Project CEQA Addendum Request Authorization to Conduct Courtesy CEQA 30-Day Review

7. ***Approve:*** Renew Declaration of Local Emergency Related to COVID-19 Pandemic

INFORMATION ITEMS

8. West Marin 2020 Dry Year Water Conditions Report – Initial Review

9. Technical Advisory Committee Meeting – December 7, 2020

10. ***MISCELLANEOUS***

Disbursements – Dated December 17, 2020
Disbursements – Dated December 31, 2020
Point Reyes Light - Salinity Notice – December 10, 2020
Point Reyes Light - Salinity Notice – December 17, 2020
NOAA Three-Month Outlook Temperature and Precipitation Probability
Marin County Fish and Wildlife Commission

News Articles:
Marin IJ – Cost for lawyers soars in rate war – MMWD
Marin IJ – Opinion- Marin towns targeted as agencies wage war on suburbs
Marin IJ – Editorial – Vaccine is a welcome sight, but we must stay vigilant

7:00 p.m. 11. ***ADJOURNMENT***

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DRAFT
NORTH MARIN WATER DISTRICT
MINUTES OF REGULAR MEETING
OF THE BOARD OF DIRECTORS
December 15, 2020

CALL TO ORDER

President Grossi announced that due to the Coronavirus outbreak and pursuant to Executive Order N-29-20 issued by the Governor of the State of California this was a virtual meeting. President Grossi called the regular meeting of the Board of Directors of North Marin Water District to order at 6:02 p.m. and the agenda was accepted as presented. President Grossi added that there was not a public location for participating in this meeting, but any interested members of the public could participate remotely by utilizing the video or phone conference dial-in method using information printed on the agenda.

President Grossi welcomed the public to participate in the remote meeting and asked that they mute themselves, except during open time and while making comments on the agenda items. President Grossi noted that due to the virtual nature of the meeting he will request a roll call of the Directors. A roll call was done, those in remote attendance established a quorum. Participating remotely were Directors Jack Baker, Rick Fraites, Jim Grossi, Michael Joly and Stephen Petterle.

President Grossi announced in the event of technical difficulties during the meeting, the District Secretary will adjourn the meeting and the remainder of the agenda will be rescheduled for a future special meeting which shall be open to the public and noticed pursuant to the Brown Act.

Mr. McIntyre performed a roll call of staff, participating remotely were Drew McIntyre (General Manager), Tony Williams (Assistant GM/Chief Engineer), Terrie Kehoe (District Secretary), Julie Blue (Auditor-Controller), Robert Clark (Operations/Maintenance Superintendent), and Monica Juarez (Receptionist/Customer Service Assistant).

President Grossi announced for those joining the virtual meeting from the public to identify themselves. District consultant Jim O'Toole from Environmental Science Associates attended remotely and was available for comments and questions pertaining to Agenda Item #12.

MINUTES

On motion of Director Petterle seconded by Director Baker the Board approved minutes from the December 1, 2020 meeting with a minor change by the following vote:

AYES: Director Baker, Fraites, Grossi, Joly and Petterle

NOES: None

ABSTAIN: None

ABSENT: None

GENERAL MANAGER'S REPORT

Marin County Ag Commissioner – Hydrant Meter

Mr. McIntyre apprised the Board that Stefan Parnay, Marin County Acting Agricultural Commissioner, made outreach to him in regards to the current dry year conditions. Mr. Parnay asked about getting a hydrant meter for the County of Marin to make available to ranchers on an as needed basis. Mr. McIntyre advised the Board that he told Mr. Parnay that the District could provide a hydrant meter in our Novato Zone 1 system similar to what NMWD did during dry year conditions in 2015.

TAC Finance Committee

Mr. McIntyre reported a TAC finance subcommittee is being formed to review the FY22 SCWA budget. He stated the first meeting will occur in January and Ms. Blue will again be part of the subcommittee.

West Marin Salinity Update

Mr. McIntyre announced the system salinity number for last week on December 8th was approximately 68 mg/L and while we don't have an exact value for today's sample it appears to be a little bit below last week's value. He added the conductivity numbers are trending lower and though he cannot guarantee future results, it is the start of a good trend.

Gallagher Well No. 2 Update – Coastal Permit and Water Rights

Mr. McIntyre reported staff and District consultant ESA had a Zoom meeting with a Marin County Coastal Permit planner on December 10th, to review the project before submitting a Local Coastal Permit application. He stated there were no surprises at the initial outreach meeting. Mr. McIntyre added he also had a meeting with legal counsel to discuss the next steps required to add Gallagher Well No. 2 to our water rights as a new point of diversion. Mr. McIntyre stated he hoped it will just be a minor change petition to the State Water Resources Control Board to add the second well.

OPEN TIME

President Grossi asked if anyone from the public wished to bring up an item not on the agenda and there was no response.

STAFF/DIRECTORS REPORTS

President Grossi asked if staff or Directors had anything to report and there was nothing to report.

MONTHLY PROGRESS REPORT

The Monthly Progress Report for November was reviewed. Mr. McIntyre reported that water production in Novato was down 11% from one year ago. In West Marin, water production was down 18% from one year ago. Recycled Water production was up 1% from one year ago. Stafford Treatment Plant year-to-date production was down 57% from one year ago. Mr. McIntyre apprised the Board that Stafford Lake was at 28% capacity, Lake Sonoma was at 67% and Lake Mendocino was at 55% capacity. He added that in Oceana Marin effluent volume was up 28% from one year ago and there was no irrigation field discharge compared to 0.466 MG one year ago.

Director Petterle noted rainfall has been low so far this year and there was an 11% decrease in Novato's consumption even though there are more people home due the shelter-in-place order. Mr. McIntyre replied that it can be difficult to draw meaningful conclusions on just one month of water use, but noted this is a similar trend of what other water contractors have experienced. Director Joly stated he had the same questions. Director Joly also asked if the water usage numbers ever came in for the Woodward Fire in West Marin. Mr. McIntyre replied that we will be unable to obtain actual water use amounts since much of the water used for firefighting was unmetered through the hydrants. However, Mr. Grisso will have more to report on this topic in January during presentation of the West Marin Dry Year Conditions Report.

Under Safety and Liability, Mr. McIntyre stated that we had 6 days without a lost time injury. On the Summary of Complaints and Service Orders, the Board was apprised that total numbers were down 31% from November one year ago.

Director Joly asked if the three employees injured were from one incident. Mr. McIntyre responded, two employees and two separate incidents. Ms. Blue added the third employee noted was a previous incident earlier in the fiscal year.

Ms. Blue reported on the November 2020 Investments, where the District's portfolio holds $27M earning a 0.88% average rate of return. Julie noted that during November the cash balance decreased by $856,650. She also noted the LAIF rate is 0.58.%.

Director Joly asked how Ms. Blue monitors the District's investment portfolio and if we diversify by investing in accounts other than LAIF. Ms. Blue replied that Accounting Supervisor, Ms. Holton, reviews our investment options on a monthly basis. Currently the interest rates on CDs are very low and the rate of return is not worth giving up our accessibility to cash.

CONSENT ITEMS

On the motion of Director Fraites, and seconded by Director Baker the Board approved the following items on the consent calendar by the following vote:

AYES: Director Baker, Fraites, Grossi, Joly and Petterle

NOES: None

ABSTAIN: None

ABSENT: None

NEW DUMP TRUCK PURCHASE

The bids for a new 5-yard dump trump were received and reviewed, three of the five bidders responded and two came in under the $135,000 budget. The low bid proposed by Peterson Truck met the majority of the desired baseline specifications and there was a maintenance representative in Santa Rosa. The bid was awarded to Peterson Trucks, Inc. for the amount of $117,808.71.

FINAL ANNUAL REPORT FISCAL YEAR 2019-20

The draft Annual Report for FY 2019-20 was presented to the Board at the December 1, 2020 meeting. The final report was provided tonight with the only change being the addition of the CVRA map showing each Director's division.

ACTION ITEMS

APPROVAL OF SALARY, TERMS AND CONDITIONS OF EMPLOYMENT – GENERAL MANAGER

Director Joly reported this agenda item was initially presented to the Board at its December 1, 2020 meeting for discussion. He added the proposed increase of 2% was consistent with the increases approved by the Board at the October 6, 2020 Board Meeting for all other District employees. He reported the Board expressed unanimously that Mr. McIntyre has done an exceptional job during an exceptional period.

President Grossi thanked Director Joly for spearheading the Conditions of Employment for the General Manager.

President Grossi, in accordance with Government Code section 54953 (c) (3), provided an oral summary of the recommended action. He stated: "The item before the Board tonight is to set the salary and terms and conditions of employment for the District's General Manger position, effective October 1, 2020. The recommended action is to grant a 2.0% COLA wage increase to the General Manager's base salary, effective October 1, 2020. The total annual salary increase is $4,700. In addition, payroll taxes will increase by $68 and retirement contributions will increase by $1,260 annually. After factoring in the above adjustments, the annual base compensation for the General Manage position will be $239,700, effective October 1, 2020." President Grossi announced that additional details regarding this item were set forth in the agenda and resolution associated with this item.

President Grossi asked if there were any questions from the Board or members of the public. No questions from the Board or members from the public were asked.

President Grossi thanked Mr. McIntyre and expressed his appreciation for everything he does for the District. Mr. McIntyre thanked the Board.

On the motion of Director Petterle, and seconded by Director Joly the Board authorized the approval of Resolution 20-26, North Marin Water District Conditions of Employment – General Manager by the following vote:

AYES: Director Baker, Fraites, Grossi, Joly and Petterle

NOES: None

ABSTAIN: None

ABSENT: None

WEST MARIN RATE STUDY – BOARD AD-HOC COMMITTEE WORKSHOP DATES/TIMES AND SCHEDULE UPDATE

Ms. Blue provided the dates and times for two West Marin Water Rate Study Board Ad-Hoc Committee meetings. She noted at the September 15th Board meeting the Board of Directors approved Hildebrand Consulting to work on a Water Rate Study for the West Marin water service area. Ms. Blue reported two Ad-Hoc Committee meetings are scheduled in January 2021.

Director Joly and Director Grossi agreed with the dates and times set for the West Marin Rate Study Ad-Hoc Committee meetings.

On the motion of Director Petterle, and seconded by Director Joly the Board approved setting the meeting dates/times for the Water Rate Study and Rate Design Ad Hoc Meetings with the rate consultant Mark Hildebrand, staff and the Board of Directors Ad-Hoc Committee for January 12 and January 26, 2021 from 10:00 am. to noon by the following vote.

AYES: Director Baker, Fraites, Grossi, Joly and Petterle

NOES: None

ABSTAIN: None

ABSENT: None

CONSUMER SERVICES DEPARTMENT CHANGES

Ms. Blue reported modifications were made to the current Consumer Services Department job descriptions including; Field Service Representative Lead, Field Service Representative I/II, Consumer Services Supervisor and the Receptionist/Customer Service Assistant. She stated the Account/Credit Clerk I-II- classifications will be placed in abeyance. Ms. Blue added the revised job descriptions have been vetted through the Employee Association and all employees were interviewed to help with the adjustment of duties. She noted a Lead Field Service Representative

position had been added and adding Field Service Representative levels I and II will allow more growth opportunities within this classification. Ms. Blue stated the Lead Field Service Representative position will be filled internally and no outside hires will be necessary.

Director Baker stated he had no issue with the proposed change. He realized meter reading was their main task, which included a lot of customer interaction. Director Baker added customers always seemed happy with our service. He expressed concern that we might miss having our eyes out in the field and helping customers answer their questions. Ms. Blue stated that customer interaction will actually be a larger part of their job now. With the new AMI program, a leak can be confirmed right away, a service technician can contact the customer and find the problem much faster than before. Ms. Blue stated the department is about interfacing with the public, adding the feedback she has received through phone calls and field checks has been positive. She stated the District will continue to focus on a higher level of customer service, noting we now have more time for leak alerts and assisting customers.

On the motion of Director Baker, and seconded by Director Joly the Board approved the job descriptions and updated salary ranges for the Field Service Representative Lead, Field Service Representative I/II, Consumer Services Supervisor, and Receptionist/Customer Service Assistant along with an immediate internal recruitment for the Lead Field Service Representative position by the following vote:

. AYES: Director Baker, Fraites, Grossi, Joly and Petterle

NOES: None

ABSTAIN: None

ABSENT: None

RENEW DECLARATION OF LOCAL EMERGENCY RELATED TO COVID-19 PANDEMIC

Mr. McIntyre requested the Board find that there still exists a need to continue the State of Emergency due to the COVID-19 pandemic as reflected by Resolution No. 20-07.

Mr. McIntyre reminded the Board that staff has been operating under partial Emergency Operations Center (EOC) activation. On December 3, 2020 Governor Newsom announced that all sectors other than retail and essential operations will be closed in regions of California when less than 15% of intensive care unit (ICU) beds are available under a new Regional Stay Home Order. While the Bay Area region had not yet reached this threshold, five local Bay Area counties (Alameda, Contra Costa, Marin, San Francisco, and Santa Clara) moved forward to implement the State's Regional Stay Home Order in advance of any State directive. Marin County implemented the State's Regional Stay Home Order at noon on December 8th and the Marin County Order will remain in effect until January 4, 2021. Mr. McIntyre added the Bay Region ICU

bed capacity was currently at 15.8% and active cases were up 47% from a week before. Additionally, Marin County reported the Pfizer vaccine was expected to arrive on December 16th. Mr. McIntyre noted he will be sending a letter to Dr. Matt Willis, the Marin County Public Health Officer, requesting that NMWD staff receive priority in Phase 1B distribution for essential workers as described in the CDC's playbook.

Mr. McIntyre added maximum workplace spacing continues and walk in services remain suspended. He added a summary of key emergency action items taken and resulting cost impacts were provided in Attachment 1.

On the motion of Director Petterle, and seconded by Director Joly the Board approved renewal of the Declaration of Local Emergency Related to COVID-19 Pandemic by the following vote:

AYES: Director Baker, Fraites, Grossi, Joly and Petterle

NOES: None

ABSTAIN: None

ABSENT: None

INFORMATION ITEMS

GALLAGHER WELL NO. 2 PROJECT – PROPOSED CEQA STRATEGY

Mr. McIntyre discussed the proposed CEQA strategy for permitting Gallagher Well No. 2. The project proposes to increase the reliability of the Point Reyes Water System by allowing production of the quantity of groundwater at the Gallagher Well site that was analyzed in the 2009 Initial Study/Mitigated Negative Declaration prepared to offset production at the Coast Guard Wells. He added although several components of the project have been implemented since the Initial Study/Mitigated Negative Declaration (IS/MND) was adopted for the Gallagher Wells and Pipeline Project in 2009, the new Gallagher Well No. 2 had not yet been constructed. Mr. McIntyre stated changes in the project and regulatory requirements, including the possible need for acquisition of a Local Coastal Permit, necessitates additional CEQA compliance in order to implement the project. He noted Environmental Science Associates (ESA) has reviewed the project and indicates that an addendum to the IS/MND is appropriate for the project. Mr. McIntyre added this approach was confirmed by District legal counsel. He stated the Addendum will be circulated to stakeholders, including regulatory agencies, for a thirty-day comment period as a courtesy notification regarding the project. Additionally, staff anticipates bringing the Addendum to the Board for consideration and project approval at its February 16, 2021 meeting. Mr. McIntyre announced Mr. O'Toole was also participating remotely and was also available to answer any questions.

Director Grossi asked what potential impacts or problems do they anticipate with the well. Mr. McIntyre replied that previous regulatory responses focused on impacts to Lagunitas Creek flows when CEQA was performed in 2009 for the Gallagher Wells and Pipeline project. He noted the recent hydrologic analysis for test well operation at the Well No. 2 site shows a di minimis impact in creek water surface elevation.

COMMENT LETTER TO CLAM RE: REUSE PROJECT AT FORMER POINT REYES U.S. COAST GUARD HOUSING SITE

Mr. McIntyre informed the Board about the comment letter to CLAM in reference to the reuse project at the former Point Reyes U.S. Coast Guard housing site. The purpose of the letter was to respond to a scope of services prepared by Questa and transmitted to NMWD. Mr. McIntyre stated the District had serious concerns related to the suitability of the proposed on-site wastewater disposal location as it relates to ensuring anti-degradation of the District's Coast Guard water supply wells used to serve the local community. He noted in April 2020 Marin County Selected CLAM and Eden Housing to serve as partners in converting the long vacant buildings into affordable housing units over the next several years.

Mr. McIntyre stated there are concerns that this project can have a negative impact on our wells and he notified both CLAM and Supervisor Rodoni that a letter was coming. He stated staff will continue to watch this closely, adding Mr. Ramudo, the District's Water Quality Supervisor, also reviewed the letter. Director Joly applauded Mr. McIntyre for his swift action in getting this letter out.

CITY OF NOVATO ANNUAL ENCROACHMENT PERMIT COST INCREASE

Mr. Williams reported on the City of Novato's Annual Encroachment Permit cost increase. The previous Utility Notice of Work (NOW) permit fee was $2,770, but starting January 2021, the new annual permit fee will be $6,000 for all utility companies and agencies. Mr. Williams added the City of Novato is also planning to conduct a formal rate study to review all of the various fees charged, so an adjustment to the NOW permit fee may occur in the future.

Director Grossi stated if the work value is less than $10,000 it sounds high to have a $6,000 fee. Mr. Williams responded that staff raised the same issue, however this is an annual fee related to any number of unplanned events, for instance we had 128 of them last year. He added all utilities will have the same increase. Mr. Williams added that he is also hoping to work on individual permit fees to see if we can get that cost down. Director Fraites stated he was uncomfortable with the increase. Mr. Williams stated that the $6,000 fee covers an infinite number of events as it is a blanket annual permit. Director Fraites responded that he had a better understanding now and feels more comfortable with the increase. Additional discussion regarding

paving restoration costs within the City ensued.

NBWA MEETING – DECEMBER 4, 2020

Director Fraites summarized the NBWA Meeting that was held on December 4th. He reported on the Bay Restoration Regulatory Integration Team (BRRIT) presentation. Director Fraites noted the team was formed to improve the permitting process for the multi-benefit wetland restoration in the San Francisco Bay and along the bay shoreline. He added, it brings people together and makes the process more efficient.

MISCELLANEOUS

The Board received the following miscellaneous items: Disbursements – Dated December 3, 2020, Disbursements – Dated December 10, 2020, 2021 TAC and WAC/TAC Meeting Schedule, Point Reyes Light - Salinity Notice – November 25, 2020, Point Reyes Light – Salinity Notice – December 3, 2020, ACWA et al Letter to Congress re COVID Impacts to Utilities, Letter to Vendors and Suppliers, Funding Received – Gallagher Ranch Streambank Stabilization Project, Annual Sick Leave Buy-Back, NMWD WP-309 Certificate of Excellence and NMWD WS-291 Certificate of Excellence

The Board received the following news articles: ENR- AGC Says 75% of Contractors Had Project Canceled or Postponed Due to Coronavirus; Capradio- Is California Heading for a Multi-Year Drought? The Odds Aren't In Our Favor, Experts Say; Novato Advance – Pages from the Past – December 1945; Point Reyes Light – Rains control Woodward Fire, do little for supply; Point Reyes Light – Salt in the water decreasing, but customers not yet out of the woods; Marin IJ – State allots $40 million for North Bay 'narrows' project – Highway 101 and Marin IJ – Novato adopts new plan for greener vehicle fleet – Leasing Strategy

The Board received the following social media posts: NMWD Web and Social Media Report – November 2020.

Mr. McIntyre brought to the Board's attention the summary of funding from the Gallagher Streambank job which was closed out. He reported we received all payments anticipated including funds from the National Resources Conservation Services, MALT, MMWD and the Gallagher Family contribution. Mr. McIntyre stated we were able to do a good job leveraging federal grant and local funds. He commended Ms. Blue and staff for the summary. Director Joly noted staff did a good job obtaining outside contributions.

Mr. McIntyre recognized Mr. Clark and the NMWD lab staff for the laboratory proficiency testing certificates of excellence. He gave kudos to laboratory staff working during this difficult COVID time with limited staffing.

Director Joly expressed that he found the social media report to be very good and he

especially enjoyed the history on the Stafford Lake construction in 1951.

Director Joly wish staff and the Board happy holidays.

ADJOURNMENT

President Grossi adjourned the meeting at 7:21 p.m.

Submitted by

Theresa Kehoe
District Secretary

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MEMORANDUM

To: Board of Directors December 30, 2020

From: Drew McIntyre, General Manager

Re: Consulting Engineering Services Agreement Amendment No. 2 – Michael Baker International for 2020 Emergency Action Plan Update

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RECOMMENDED ACTION: Authorize General Manager to Amend the Consulting Engineering Services Agreement with Michael Baker International

FINANCIAL IMPACT: $10,200 (No FY21 Ops Budget Augmentation is required)

The purpose of this memo is to request a second amendment to the Consulting Engineering Services Agreement with Michael Baker International (MBI) to prepare the 2020 Stafford Dam Emergency Action Plan (EAP) Update and submit to California Office of Emergency Services (CalOES) for approval. MBI is a nationwide civil engineering consulting firm specializing in dam safety with California offices in Oakland and Santa Ana. On March 3, 2015, the Board approved an Agreement with MBI and established an initial budget of $90,000, (plus a $9,000 contingency).

Primary work performed by MBI under the original Agreement included development of a 2015 Stafford Dam Emergency Action Plan with the following elements:

- Notification flowchart
- Emergency detection, evaluation and classification
- Responsibilities
- Preparedness
- Inundation maps, and
- Appendices

The Board accepted the Final 2015 EAP in October 2015 and it was subsequently submitted to both California Division of Safety of Dams (DSOD) and CalOES on October 22, 2015.

The original 2015 MBI contract was for $99,000 (including contingency) and final MBI costs totaled $90,000. An additional $21,000 (~$17,800 scope of work plus a contingency of $3,200) was requested In February 2019 to provide MBI with the funds necessary to prepare updated inundation maps requested by DSOD in their January 2019 correspondence.

This work has now been completed and approved by DSOD but additional work is needed to address CalOES comments to the updated 2020 EAP. Accordingly, an additional

Approved by GM _____ Date 12/30/20

$10,200 (not including the existing contingency of $3,200) is being requested per MBI's proposal provided in Attachment 1. The table below provides the breakdown:

Original MBI contract approved in 2015	Amount MBI expended in FY16 to complete 2015 EAP	Amendment No. 1 to update EAP per DSOD requirements in FY19	Costs expended since FY19	Amendment No. 2 FY21 budget required
$90,000 (1)	$90,000	$17,800 (2)	$17,329	$10,200

(1) Excluding $9,000 contingency
(2) Excluding $3,200 contingency

FINANCIAL IMPACT

The cost for this work will be funded by the FY21 Novato Operations Budget. No budget augmentation is required.

RECOMMENDATION

That the Board authorize the General Manager to execute the Consulting Engineering Services Agreement Amendment No. 2 between NMWD and Michael Baker International in the amount of $10,200.

Michael Baker
INTERNATIONAL

We Make a Difference

December 28, 2020

Mr. Drew McIntyre
General Manager
North Marin Water District
999 Rush Creek Pl,
Novato, CA 94945

Subject: Novato Creek Dam – Dam Inundation Mapping Analysis and EAP

Dear Mr. McIntyre:

Michael Baker International has prepared this contract proposal to address the review comments from CalOES. This proposal includes updating the Emergency Action Plan (EAP) to satisfy the required report template/format, and processing. These additional work efforts exceeded the initial budget (presented in January 2019) as the assumption was to update the EAP with new maps and minor text revisions. This scope augment includes public agencies/stakeholders for review of the EAP, revisions and multiple levels of CalOES review.

Attached are Exhibits "A "and "B" that define our proposed work efforts, fees and schedule associated with these tasks. Additional services, beyond those that are specified, can be completed as an amendment to this agreement.

We appreciate the opportunity to submit this proposal and look forward on continuing to provide professional services on this interesting and challenging project. Should you have any questions, please do not hesitate to contact me at (949) 855-7006.

Sincerely,

Mujahid Chandoo, PE
Sr. Associate

cc: Rebecca Kinney, Michael Baker International

5 Hutton Center Drive, Suite 500 | Santa Ana, CA 92707
Office: 949.472.3505 | Fax: 949.472.8373

"Exhibit A"
Scope of Services
Novato Creek Dam - Dam Inundation Mapping Analysis

December 28, 2020

Task 1: Emergency Action Plan (EAP) Preparation and Submittal to Cal OES

Michael Baker is in the process of updating the previously prepared Novato Creek Dam EAP (2015), in accordance with Government Code Section 8589.5, the Federal Guidelines for Dam Safety, Emergency Action Planning for Dams (2013), and the Emergency Operations Planning: Dam Incident Planning Guide: Dam Safety Collaborative Technical Assistance (2019). Michael Baker utilized the Cal OES EAP blank formatting template as guide, and tailored specifically to the needs of Novato Creek Dam. The EAP has been circulated to the appropriate plan holders and public agencies for a two week review and comment period.

Michael Baker will track all comments received in a matrix, for incorporation into the EAP appendix. After the two week period has closed, Michael Baker will incorporate the comments into the EAP where appropriate. An updated draft EAP will be submitted for screencheck review by the NMWD. It is assumed that one round of revisions will occur. NMWD will provide any comments or revisions to the updated EAP in track changes redline/strikeout.

Michael Baker will provide final formatting and document preparation for submittal to Cal OES. Michael Baker will submit one (1) electronic copy of the EAP to Cal OES via email.

Task 2: EAP Processing, Tracking and Response to Comments

Michael Baker will provide processing, tracking, and response to comments services during the EAP review process with Cal OES. The Cal OES approval process involves review at a minimum of three levels (plan check/working group, management group and executive group levels) before final approval is issued. Requests for revisions are sent electronically. Michael Baker will track and receive all Cal OES comments in a matrix for ease of reference. It is anticipated that three rounds of revisions will be necessary to achieve final approval. For the purposes of this scope, processing time has been estimated and this task will be billed on a time and materials basis. Should additional rounds of review be required, the client will be notified and work will continue on an approved contract of augmentation. It is also noted that Michael Baker has no control over the Cal OES review timeline, and plan review is dependent on the back log and staff availability. Typical review periods are 30-days.

"Exhibit B"

Compensation

Novato Creek Dam - Dam Inundation Mapping Analysis

December 28, 2020

Consultant agrees to perform the Scope of Services as described in Exhibit "A". Client agrees to compensate Consultant for such services as follows:

TASK	DESCRIPTION	Hours	FEE
1.0	Emergency Action Plan Preparation and Submittal to Cal OES	16	$2,742
2.0	EAP Processing, Tracking and Response to Comments	44	$6,900
	Total Professional Fee		$9,642
	Estimated Reimbursable Printing and		$500
	Total Fee		**$10,142**

Progress billings will be sent to Client on a Monthly Basis for the time and materials spent performing the work, in accordance with the attached Hourly Rate Schedule, plus reimbursable for the direct cost of printing, deliveries, fees, etc. advanced by Consultant. At such time that consultant reaches 75% of the initial budget, we will meet with you to identify if an additional budget will be required for future work efforts.

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MEMORANDUM

TO: Board of Directors

Date: December 30, 2020

FROM: Drew McIntyre, General Manager

SUBJECT: Gallagher Well No. 2 Project CEQA Addendum
Request Authorization to Conduct Courtesy CEQA 30-day Review
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RECOMMENDED ACTION: Staff requests authorization from the Board to initiate a 30-day courtesy review period for the Gallagher Well No. 2 project CEQA addendum, and to schedule action on this item for the February 16, 2021 Board meeting, at which time the Board will consider adoption of the Addendum to the 2009 Mitigated Negative Declaration.

FINANCIAL IMPACT: None at this time.

At the December 15, 2020 Board meeting, staff provided an update for the Gallagher Well No. 2 project and discussed the proposed CEQA strategy. As part of the update the Board was informed that while Well No. 2 has not yet been constructed, several major project components have been implemented (e.g., construction of new 12-inch transmission pipeline and connection/operation of Well No. 1 in 2015) since the Initial Study/Mitigated Negative Declaration (IS/MND) was adopted for the Gallagher Wells and Pipeline Project in 2009. Since that time, minor changes in the project and regulatory requirements, including the need for acquisition of a Local Coastal Permit, necessitate additional CEQA compliance in order to implement the project. Environmental Science Associates (ESA) has reviewed the project and indicates that an addendum to the IS/MND is appropriate for the project. This approach has also been confirmed by District legal counsel. The CEQA Guidelines, in subsection (b) of 14 California Code of Regulations (CCR) § 15164, Addendum to an EIR or Negative Declaration, state, "An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred."

As discussed with the Board at the last meeting, ESA has concluded that the project as currently proposed meets this standard, and the District has moved forward, in conjunction with ESA, on the preparation of an Addendum to the 2009 Mitigated Negative Declaration. Enclosed please find the Draft Addendum to the 2009 Mitigated Negative Declaration (MND) and Initial Study (IS) for the Gallagher Wells and Pipeline Project (Attachment 1). Jim O'Toole with ESA will be in attendance to present an overview of the document and address any questions on the Draft Addendum or the CEQA process itself.

Although not required by the CEQA Guidelines (subsection (c) of § 15164 states that "[a]n addendum need not be circulated for public review"), it is proposed that the Addendum be

circulated to regulatory agencies and other interested parties as identified by Supervisor Dennis Rodoni for a 30-day courtesy comment period and that formal adoption of the Addendum and approval of the project be publicly noticed on the agenda as part of a regularly scheduled NMWD Board meeting. As proposed, the 30-day courtesy review period would begin on or about January 6, 2021. The end of the courtesy review period will be on or about February 5, 2021. Then, at the February 16, 2021 meeting, the Board will be requested to consider adoption of Addendum and project approval. The CEQA documentation schedule is shown in Attachment 2.

RECOMMENDATION

Staff requests authorization from the Board to initiate a 30-day courtesy review period for the Gallagher Well No. 2 project CEQA addendum, and to schedule action on this item for the February 16, 2021 Board meeting, at which time the Board will consider adoption of the Addendum to the 2009 Mitigated Negative Declaration and approval of the Gallagher Well No. 2 Project.

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DRAFT

NORTH MARIN WATER DISTRICT GALLAGHER WELLS AND PIPELINE PROJECT

Gallagher Well No. 2 Installation: CEQA Addendum

Prepared for
North Marin Water District

December 2020

ESA

Attachment 1

NORTH MARIN WATER DISTRICT GALLAGHER WELLS AND PIPELINE PROJECT

Gallagher Well No. 2 Installation: CEQA Addendum

Prepared for
North Marin Water District

December 2020

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CHAPTER 1
Background and Purpose of the Addendum

1.1 Background

Water for the communities of Point Reyes Station, as well as Olema, Point Reyes National Seashore, Inverness Park, and Paradise Ranch Estates is supplied through one interconnected system, the Point Reyes Water System[1], by the North Marin Water District (NMWD), a publicly owned utility. The source of the water for the Point Reyes Water System consists of three wells at two sites adjacent to Lagunitas Creek. Two of those wells are currently located on the former U.S Coast Guard property in Point Reyes Station (Coast Guard Wells), and a third well is located on water district property approximately one mile upstream (Gallagher Well No. 1), see **Figure 1** for vicinity location. Historically, NMWD has relied primarily upon the Coast Guard Wells located at the Point Reyes Station Coast Guard Housing Facility to supply water for the entire Point Reyes Water System service area. However, due to the location of the Coast Guard Wells, they are under the influence of flows in the tidal reach of Lagunitas Creek and subject to periodic salinity intrusion and occasional flooding, whereas Gallagher Well No. 1 is located further upstream and is not subject to any flooding or tidal reach of Lagunitas Creek.

The NMWD existing West Marin service area is approximately 24 square miles and is shown on **Figure 2.** As of June 30, 2020, the Point Reyes Water System service area had approximately 782 active service connections serving a population of 1,800, using approximately 233 acre-feet per year (AF/Y).[2] The operating pumping capacity of the existing Gallagher Well No. 1 is approximately 150 gallons per minute [gpm])[3]. The Coast Guard Wells No. 2 and No. 4 have respective pumping capacities of 0.56 cfs (250 gpm) and 0.67 cfs (300 gpm), although when both pumps are running simultaneously, the combined capacity reduces to a total of 0.94 cfs (420 gpm).[4]

An Initial Study/Mitigated Negative Declaration (IS/MND) was completed for the proposed Gallagher Well No. 2 in March of 2009 and is provided as **Appendix A**[5]. Constructed in early 1990's the existing Gallagher Well No. 1 was already on the site at the time of analysis but was not then in use or connected to the NMWD water system. CEQA and permitting for Well No. 1 were completed in the early 1990's. The 2009 project proposed a second well near the first well, as shown on **Figure 3**. Other components described in the 2009 IS/MND for the project have

1 This is the name that is used in the LCP to refer to the water system, while NMWD planning documents, including the West Marin Water System Master Plan 2014, call it the "West Marin Water System."

2 NMWD, FY2019-20. Annual Report

3 NMWD, 2009

4 NMWD, 2014. West Marin Water System Master Plan, P.3-3

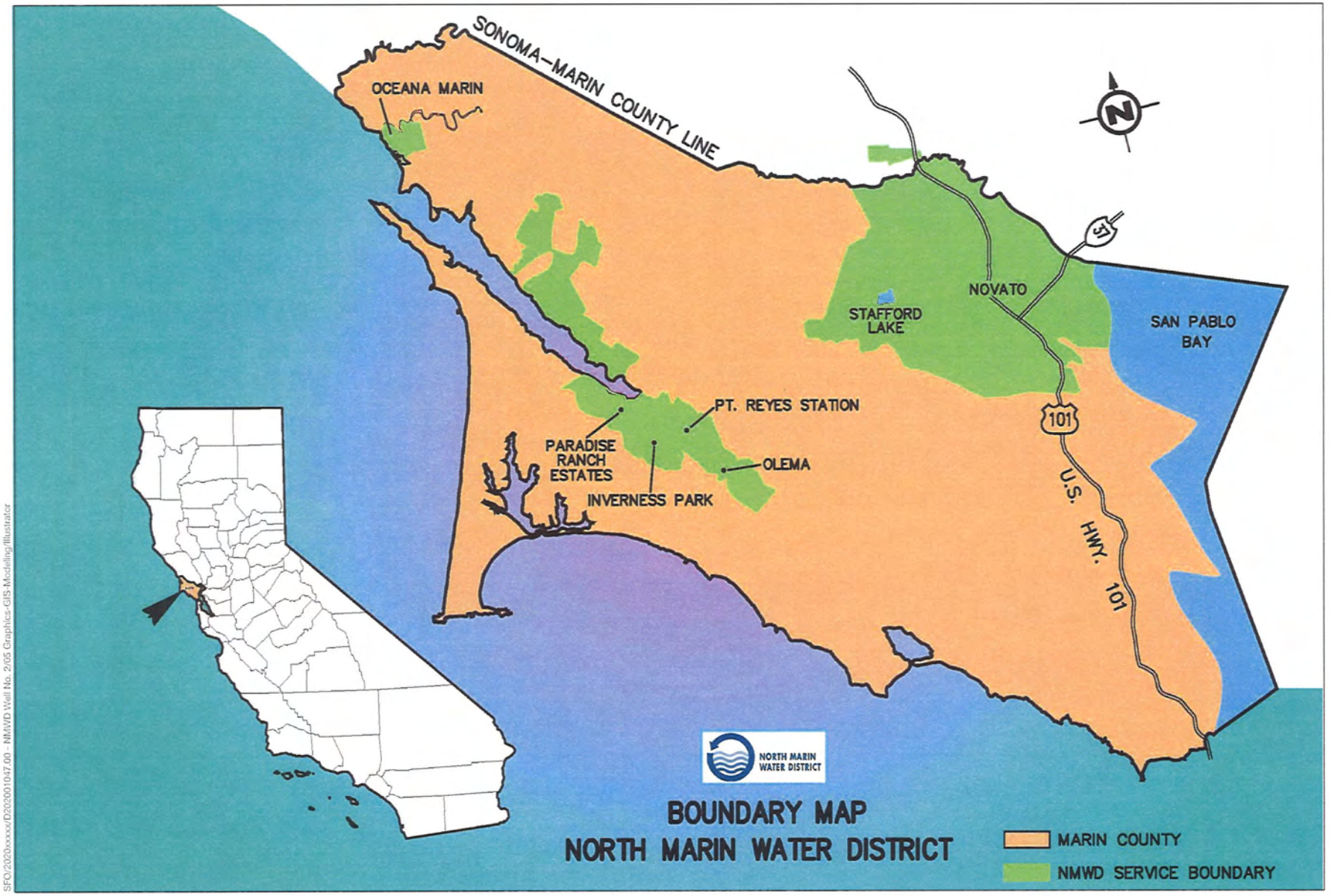
5 Leonard Charles and Associates, 2009. Initial Study - Gallagher Wells and Pipeline Project.

SOURCE: ESA, 2020; ESRI, 2020

Gallagher Well No. 2 Project

Figure 1
Vicinity Map

ESA



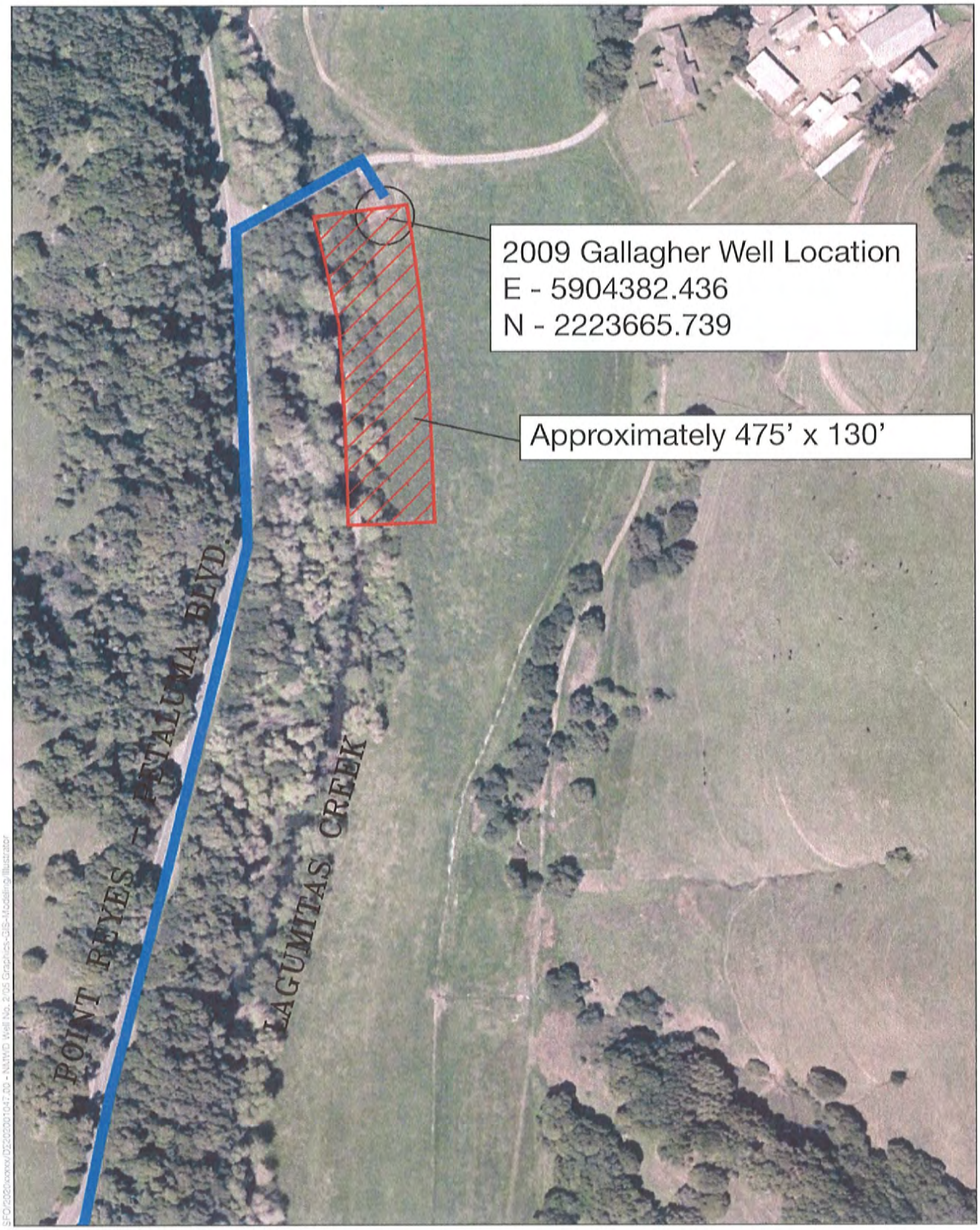
SFO:2020xxxx/D2020901047.00 - NMWD Well No. 2/05 Graphics-GIS-Modeling/Illustrator

SOURCE: ESA, 2020

Gallagher Well No. 2 Project

Figure 2
NMWD Service Area Boundaries

ESA



SOURCE: North Marin Water District, 2020

Gallagher Well No. 2 Project

Figure 3
2009 Gallagher Well Location

ESA

been implemented by NMWD; the point of diversion was finalized in 2012, Water Right Permit 19724 was permanently dedicated to instream uses, and the pipeline from the existing well to the existing water treatment plant was built in 2015. However, proposed Gallagher Well No. 2 has not been built yet and is analyzed further within this Addendum.

1.2 Purpose of This Addendum

CEQA Guidelines (Sections §15162 and §15164) allow a Lead Agency to prepare an addendum to an adopted negative declaration "if only minor technical changes or additions are necessary but none of the conditions described in §15162 calling for the preparation of a subsequent EIR or negative declaration have occurred (CEQA Guidelines §15164 (b))."

The conditions described in §15162 requiring preparation of a subsequent negative declaration include the following:

1. Substantial changes are proposed in the project which will require major revisions to the EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was adopted, shows any of the following:
    a. The project will have one or more significant effects not discussed in the EIR;
    b. Significant effects previously examined will be substantially more severe than shown;
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative (CEQA Guidelines §15162 (a)).

This Addendum documents that the project, as modified, does not trigger any of the conditions described above regarding the preparation of a subsequent negative declaration.

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CHAPTER 2
Project Description

2.1 Introduction

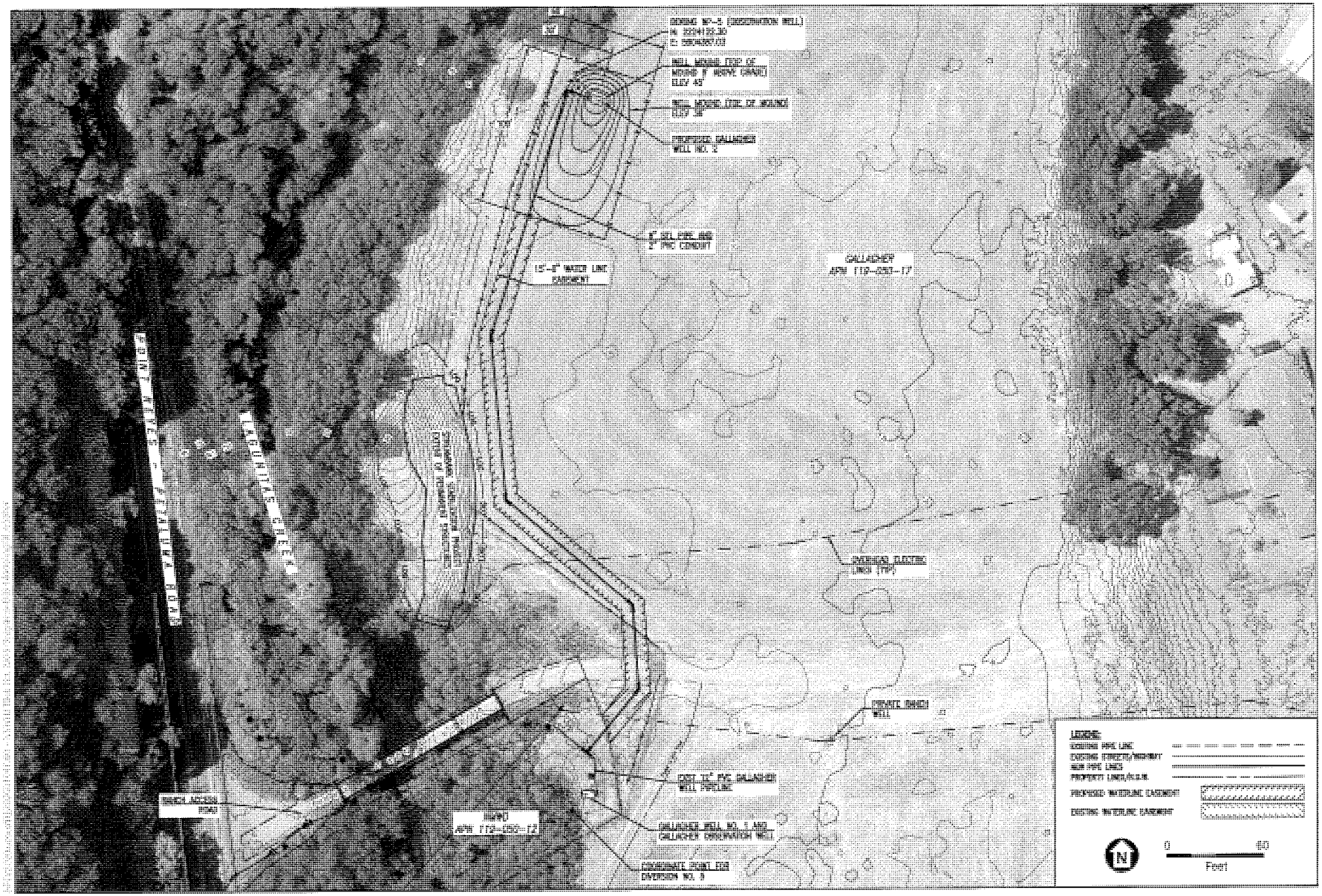
This addendum examines construction of the previously proposed Gallagher Well No. 2 at NMWD's Gallagher Well site, providing for a total of two wells with a combined capacity of 300 gallons per minute (gpm). The Gallagher Well No. 2 would tie in to the existing Gallagher Well No. 1 raw water transmission pipeline located south of the private Gallagher Ranch access road. Approximately 500 feet of new pipeline would be installed to connect Gallagher Well No. 2 to the existing transmission pipeline (see **Figure 4**).

Based upon geologic information collected at the Gallagher Well site, it is anticipated that Gallagher Well No. 2 will be completed to a depth of approximately 59 feet below ground surface. Activities related to the planning, permitting, construction, operation, and maintenance of Gallagher Well No. 2 will be managed by NMWD in a manner to mitigate any potential negative impacts.

Engineering drawings related to construction of Gallagher Well No. 2 will be prepared by a California registered professional engineer and will show the related infrastructure details including but not limited to well design, pump, piping, electrical/instrumentation and easement access. All contractors and their subcontractors engaged to perform for this work shall be licensed by the Contractors State License Board of the State of California and registered public work contractors.

2.2 Construction

Gallagher Well No. 2 would be drilled and developed approximately 500 feet north of NMWD's existing Gallagher Well No. 1. The contemplated working area is grass-covered pasture and nearly flat. The working area required by the equipment and materials would be approximately 50 feet by 100 feet. The equipment consists of a 30-foot truck-mounted cable tool drill rig and a flatbed support truck. Access for the drilling equipment would be along the east side of the existing pasture fencing as shown in **Figure 4**. Appropriate fire safety practices would be implemented during construction in accordance with fire protection standards. Setup to bring in equipment and supplies would require about 10 truck trips over a 2- to 3-day period. The drilling equipment would be used to construct a boring approximately two feet in diameter and sixty feet deep. Drilling can be done by many methods. The most common for shallow wells such as Gallagher Well No. 2 is the auger method.



SOURCE: North Marin Water District, 2020

Gallagher Well No. 2 Project

Figure 4
Project Site Plan

ESA

The auger method utilizes spiral augers, usually in 5- foot lengths. The auger stem is turned by a hydraulically-controlled rotary drive head. After drilling the length of an auger, the auger joint is broken and another 5-foot section is added. Cuttings spiral their way up to the surface where they appear around the borehole, making formation identification relatively simple.

If enough clay is present in the formation, the drill hole will remain open when augers are removed. The casing is then placed into the drill hole. After placement of the casing, it is then filled with water and the screen driven out through the plug and exposed to the water bearing formation. Keeping the casing filled with water prevents heaving of sand into the casing when the plug is knocked out. The well is then pumped to remove the fine material from around the screen.

Construction of the pipeline will require one excavator and one backhoe for earthwork and grading tasks; a loader for moving and placing backfill; and smaller equipment for finishing work. Once construction is completed, traffic to and from the site will be minimal. Construction truck traffic includes 10-wheeler trucks to dispose of excavated materials and flatbed semi-trucks for delivery of new pipe.

Construction would consist of two phases: (1) construction of a new well (2-3 weeks of work), and (2) installation of the pipeline and electrical/instrumentation infrastructure (3-5 weeks of work). At most, the construction would last approximately 2 months, but some of the work could be done conterminously.

2.3 Operation

Gallagher Well No. 1 was designed to provide pumping capacity of 300 gallons per minute (gpm); however, actual operating pumping performance is approximately 150 gpm. Similarly, Gallagher Well No. 2 would be designed to produce 300 gpm, but is anticipated to have a similar operational flow capacity of approximately 150 gpm. Regardless of operating well performance, NMWD's cumulative operations for both wells will conform to its water rights, which have specific dry year and seasonal limitations. These water rights allow a maximum diversion of 0.961 cubic feet per second (cfs) (292.5 acre-feet maximum) on a year-round basis from the Gallagher Wells and/or the Coast Guard (aka Point Reyes Station) Wells. As part of the 2013 original amended water rights, Water Right Permit 19724, which allowed diversion of 0.699 cfs (maximum of 212.7 acre-feet diverted) on a year-round basis, was dedicated to permanent instream use for fish and wildlife enhancement preservation. The amount of water pumped during project operation would be consistent with said water right authorization. Operations at the new point of diversion, as well as all existing points of diversion, would be controlled and monitored 24/7 via an automated Supervisory Control and Data Acquisition (SCADA) system. Pumping rates are recorded via SCADA and summarized on a daily, monthly and yearly basis. On an annual basis, NMWD submits water reports to the State Division of Water rights to ensure compliance with the District's water rights license and permit conditions.

Construction of Gallagher Well No. 2 would not increase the water supply available to NMWD. NMWD is allowed to take its maximum allowed diversion from multiple points of diversion including the Coast Guard Wells and the Gallagher Wells site. Water diverted from the Gallagher

Wells would replace water that would otherwise be diverted from the Coast Guard Wells. The Coast Guard Wells would continue to be in operation whenever water quality conditions allow. Water would continue to be treated at the existing NMWD treatment facility for manganese and iron removal. Expansion or other modification of the water treatment plant is not required.

To meet water demand in dry years when water cannot be diverted from Lagunitas Creek using Permit 19725, NMWD uses a water exchange with Marin Municipal Water District (MMWD) as established in the 2014 Intertie Agreement. Under the Intertie Agreement, stored water can be released by MMWD into Lagunitas Creek from Kent Lake in exchange for compensation by NMWD. The existing Intertie Agreement between the two districts runs through 2040 and provides for a maximum of 250 AF to be exchanged annually.

CHAPTER 3
Evaluation of Environmental Impacts

The analyses of environmental impacts presented in the Initial Study/Mitigated Negative Declaration (IS/MND) were revisited to determine whether any changes to the analyses were warranted based on refinements to the Gallagher Well No. 2 (identified in the following analysis as "project"). This chapter describes changes that have occurred in the existing environmental conditions within and near the project area as well as environmental impacts associated with the project. Chapter 5, *Mitigation Monitoring and Reporting Program,* contains the mitigation measures from the adopted MND that apply to Gallagher Well No. 2 with revisions incorporated as part of this addendum.

The topics listed below were sufficiently addressed in the 2009 IS/MND and required no additional analysis because either the nature, scale, and timing of the project has not changed in ways relevant to the topic or there has not been a substantial change in the circumstances involving the topic on the project site, nor in the local environment surrounding the site.

- **Aesthetics.** The environmental setting relevant to aesthetics for the project site has not changed since adoption of the MND.
- **Geology and Soils.** The environmental setting relevant to geology and soils for the project site has not changed since adoption of the MND. The project would be exempt from general county zoning and ordinance requirements and no Erosion and Sediment Control Plan (ESCP) would be required.
- **Hazards and Hazardous Materials.** The state and local land use plans, policies, and regulations applicable at the site have not changed since adoption of the MND, and the character of the project would remain agricultural.
- **Mineral Resources.** The nature, scale, and timing of the project have not changed in a manner that would impact mineral resources at the project site. There are no identified mineral resources within the project area.
- **Public Services.** The nature, scale, and timing of the project have not changed in a manner that would impact public services. The project would have no impact on public services.
- **Recreation.** The state and local land use and zoning designations with respect to recreational facilities have not changed for the site and surroundings.
- **Transportation/Traffic.** The state and local laws and regulations with respect to transportation and traffic have not changed for the site and surroundings.
- **Mandatory Findings of Significance.** The closest possible cumulative project not previously identified in the 2009 IS/MND and that could be constructed concurrently with the proposed project is a single family residence at 11815 Shoreline Highway located approximately 2

miles west of the Gallagher Ranch. This single family residential project and additional change in the cumulative projects list and scenario would not alter the cumulative impact conclusions of the IS/MND beyond the discussions included in this addendum.[1] The cumulative impact of pumping both wells is discussed in Section 3.4, Biological Resources. The effects of the Project on human beings are adequately addressed in the 2009 IS/MND except for Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, and Utilities and Service Systems, all of which are discussed in this addendum. In addition, Energy, Greenhouse Gas Emissions, and Tribal Cultural Resources were not checklist sections analyzed when the 2009 IS/MND was published, but all have been evaluated and included in this addendum.

Changes and additions to the 2009 IS/MND discussion of the remaining and new topics are included below, pursuant to CEQA *Guidelines* Section 15164. The following discussion describes the environmental impacts of the project as compared to the impacts of the approved project as addressed in the IS/MND adopted March 2009. The impact checklist headings for Energy, Greenhouse Gas Emissions, and Tribal Cultural Resources are the new checklist impact designations rather than comparisons to the original impacts like the other sections. These headings were used because these sections were not checklist sections when the 2009 IS/MND was published. These additions do not reflect involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; for these reasons, a subsequent Negative Declaration was not prepared.

1 https://www.marincounty.org/depts/cd/divisions/planning/projects/west-marin/crume_cp_dr_p2788_prs

3.1 Agriculture and Forestry Resources

Issues (and Supporting Information Sources):	*Potentially Significant Effects Not Identified in Prior IS/MND*	*Potentially Substantial Increase in Severity of Significant Impact Identified in Prior IS/MND*	*Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives*	*No New or More Severe Significant Effects*
AGRICULTURE AND FORESTRY RESOURCES — Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Setting

The environmental setting relevant to Agriculture and Forestry Resources for the Project has not changed relative to the setting in the IS/MND. The potential well site contains soils classified as Blucher-Cole complex (2 to 5% slope), which the State has mapped as Soils of Statewide Importance. Existing farmland designations, Williamson Act designations, and forest land designations have not changed since adoption of the MND. However, in 2014, the land was placed in a Marin Agricultural Land Trust (MALT) easement, providing additional protections for farmland and agricultural uses on the site. This is relevant to the agricultural resources discussion, but the project's consistency and impact related to the MALT easement are discussed in Section 3.8, Land Use and Planning.

With respect to Issues c) and d), the 2009 IS/MND did not evaluate forest land conversion or zoning conflicts, as these issues were not part of the original checklist. However, there is no forest land present on or near the project site.

Findings of Previously Adopted MND

The adopted MND determined that all project impacts related to agricultural resources would be less than significant.

Discussion

Since adoption of the MND, NMWD has continued to coordinate with the property owners to identify their preferred location for Gallagher Well No. 2 relative to agricultural operations, and has implemented well exploration of other locations with test wells and groundwater monitoring. As a result, NMWD has moved the Gallagher Well No. 2 location to the Gallagher north pasture. Additionally, forestry resources were not included in the original checklist section from the 2009 IS/MND.

The following discussion evaluates whether project changes would result in any new or more severe significant environmental effects than identified in the 2009 IS/MND.

Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

As described in the IS/MND, the area that would be converted to other use would be the wellhead, which would cover approximately 10 feet by 10 feet. This would be considered a less than significant conversion. Fencing would limit agricultural access to approximately 0.15 acres of the 4 acre north pasture, and facilities have been sited to maintain grazing in the north pasture. Therefore, impacts would be less than significant.

The construction of the 500-foot long pipeline would temporarily impact a 15-foot wide alignment, an area of approximately 7,500 square feet. This land could not be used for agricultural uses for the duration of construction, approximately 3 to 5 weeks. The project would restore this ground to match original conditions, using the existing soil to cover the pipeline and reseeding and/or replanting with native species. This impact would be reduced to less-than-significant levels, and the impact would not be more severe than that identified in the approved MND.

Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No land affected by the project site is zoned forest land, timberland, or timberland production. The project would have no impact and the impact would not be more severe than that identified in the approved MND.

As discussed above in *Setting*, the 2009 IS/MND did not evaluate this issue, as the issue was introduced as part of the December 2018 update to the current *CEQA Guidelines*, which occurred after the MND was adopted.

Result in the loss of forest land or conversion of forest land to non-forest use?

No land affected by the project site is zoned forest land, timberland, or timberland production. Therefore, the project would not result in the loss of forest land or conversion of forest land to non-forest use and the impact would not be more severe than that identified in the adopted MND.

As discussed above in *Setting*, the 2009 IS/MND did not evaluate this issue, as the issue was introduced as part of the December 2018 update to the current *CEQA Guidelines*, which occurred after the IS/MND was certified.

Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

As previously noted, construction of Gallagher Well No. 2 would result in a minor reduction in grazing area in the north pasture on the Gallagher property. However, its construction would not result in the conversion of the property to non-agricultural uses. The Gallagher property is under a Marin Agricultural Land Trust easement, which provides for conservation of agricultural uses into perpetuity. Consistency of proposed facilities with this easement is further discussed in Section 3.8, Land Use and Planning. Therefore, the project would not result in the conversion of farmland to non-agricultural use or forest land to non-forest use, and impacts would not be more severe than that identified in the adopted MND.

Conclusion

The proposed project would not impact agricultural resources more than those impacts identified in the 2009 IS/MND. The proposed project would also not have a significant impact on forestry resources.

3.2 Air Quality

Issues (and Supporting Information Sources):	*Potentially Significant Effects Not Identified in Prior IS/MND*	*Potentially Substantial Increase in Severity of Significant Impact Identified in Prior IS/MND*	*Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives*	*No New or More Severe Significant Effects*
AIR QUALITY — Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☒
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

Setting

The air quality setting relevant to the project site, including applicable regulations and air quality conditions, has not appreciably changed since the adoption of the MND. The Bay Area Air Quality Management District (BAAQMD) continues to be the regional authority for air quality management in the project area and the entire San Francisco Bay Area Air Basin (Bay Area).

The Federal Clean Air Act and the California Clean Air Act both require the establishment of standards for ambient concentrations of air pollutants, called Ambient Air Quality Standards. The state and federal non-attainment status of the Bay Area has not changed since adoption of the MND. The Bay Area continues to experience occasional violations of ozone and particulate matter (PM_{10} and $PM_{2.5}$) standards. Therefore, the project area currently is designated as a non-attainment area for violation of the state 1-hour and 8-hour ozone standards, the federal ozone 8-hour standard, the state respirable particulate matter (PM_{10}) 24-hour and annual average standards, the state fine particulate matter ($PM_{2.5}$) annual average standard, and the federal $PM_{2.5}$ 24-hour standard. The Project area is designated as an attainment area for all other state and federal standards.[2]

Air Quality Plans

Regional air quality planning in the Bay Area has proceeded since adoption of the MND. On April 19, 2017, the BAAQMD adopted the most recent revision to the Clean Air Plan – the *2017 Clean Air Plan: Spare the Air Cool the Climate.*[3] The primary goals of the *2017 CAP* are to

2 BAAQMD, 2017a, Air Quality Standards and Attainment Status, available at http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status, last updated January 5, 2017.

3 BAAQMD, 2017b. Spare the Air Cool the Climate, 2017 Clean Air Plan. Available: http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf. Accessed May 23, 2017.

protect public health and protect the climate. The *2017 CAP* includes a wide range of control measures to reduce emissions from combustion-related activities, reduce fossil fuel combustion, improve energy efficiency, and decrease emissions of potent greenhouse gases (GHGs). Some measures focus on reducing individual pollutants such as potent GHGs like methane and black carbon, or harmful fine particles that affect public health. Many of the measures, however, reduce multiple pollutants and serve both to protect public health and to protect the climate.

The *2017 CAP* updates the *2010 Clean Air Plan*, pursuant to air quality planning requirements defined in the California Health and Safety Code. It describes a multi-pollutant strategy to simultaneously reduce emissions and ambient concentrations of ozone, fine particulate matter, toxic air contaminants, as well as GHGs that contribute to climate change. To fulfill state ozone planning requirements, the *2017 CAP* includes all feasible measures to reduce emissions of ozone precursors—reactive organic gases (ROG) and nitrogen oxides (NOx)—and to reduce transport of ozone and its precursors to neighboring air basins. In addition, the 2017 Plan builds upon and enhances the BAAQMD's efforts to reduce emissions of fine particulate matter and toxic air contaminants. The *2017 CAP* includes the Bay Area's first-ever comprehensive Regional Climate Protection Strategy (RCPS), which will identify potential rules, control measures, and strategies that the BAAQMD can pursue to reduce GHGs in the Bay Area and lay the groundwork to attain the State's ambitious GHG reduction targets for 2030 and 2050.

BAAQMD Rules, Regulations, and CEQA Guidelines

Since adoption of the 2009 IS/MND, the BAAQMD CEQA Air Quality Guidelines, which were used to evaluate the potential effects of the project on air quality, faced legal challenge in the State Supreme Court. While the significance thresholds originally adopted by BAAQMD in 2011 are not currently recommended by the BAAQMD, the 2009 IS/MND did not use a quantitative method to estimate emissions and instead used an analytical approach and identified a set of feasible PM10 control measures to mitigate air quality impacts.

The original mitigation measure has been updated to reflect the best available information on control measures.

Sensitive Receptors

The Gallagher Ranch residence is located 450 feet from the proposed well location and would still be a sensitive receptor. The 2009 IS/MND analyzed the Gallagher Ranch residence within 400 to 800 feet from the new well location. Thus, the Gallagher Ranch residence as identified and discussed in the adopted 2009 IS/MND as a sensitive receptor has not changed and remains applicable to the project. No new residential buildings, schools, colleges or universities, daycare facilities, hospitals, or senior-care facilities have been constructed closer to the project site than the sensitive receptors identified in the 2009 IS/MND.

Findings of the Previously Adopted MND

The 2009 IS/MND identified impacts from construction that could be reduced to less than significant with mitigation related to the potential to conflict with the applicable air quality plan, the

potential to violate any air quality standard or contribute to an air quality violation, result in a cumulatively considerable net increase of any criteria pollutant, and exposure of sensitive receptors to substantial pollutants concentrations. The project would not have any operational air pollutants. The mitigation measure identified in the 2009 IS/MND and subsequently adopted by the NMWD (Mitigation Measure AQ-1) is reproduced in Chapter 5, *Mitigation Monitoring and Reporting Program*.

Discussion

Since adoption of the MND, more information has been developed regarding the precise location of the well. New information has also been developed by BAAQMD related to best control measures for pollutants. The following discussion evaluates whether project changes and changes in circumstances would result in any new or more severe significant environmental effects than identified in the 2009 IS/MND.

Consistency with Air Quality Plan

The BAAQMD recommends that a project's consistency with the current air quality plan be evaluated using the following three criteria:

a) the project supports the goals of the air quality plan,

b) the project includes applicable control measures from the air quality plan, and

c) the project does not disrupt or hinder implementation of any control measures from the air quality plan.

If it can be concluded with substantial evidence that a project would be consistent with the above three criteria, then the BAAQMD considers it to be consistent with air quality plans prepared for the Bay Area.[4]

As detailed earlier, since adoption of the MND, the air quality plan has been updated with the adoption of the *2017 CAP*. The primary goals of the *2017 CAP* are to protect public health and protect the climate. The BAAQMD-recommended method for determining if a project supports the goals of the current air quality plan is consistency with BAAQMD thresholds of significance. If project emissions would not exceed the thresholds of significance after the application of all feasible mitigation measures, the project would be consistent with the goals of the *2017 CAP*. Because the original project used the qualitative analysis, which is no longer an option for analysis, we do not know the original project emissions estimates.

The current 2017 BAAQMD Guidelines contain the following thresholds for construction (Table 3.2-1). There is only one option provided. Since the PM thresholds apply only to the exhaust portion of the emissions, in addition to showing that project construction emissions are below

4 BAAQMD, 2017c, BAAQMD CEQA Air Quality Guidelines, updated May 2017.

these thresholds, all projects are required to implement basic mitigation measures for fugitive dust control.

TABLE 3.2-1
THRESHOLD OF SIGNIFICANCE FOR CONSTRUCTION-RELATED CRITERIA AIR POLLUTANTS AND PRECURSORS

Pollutant/Precursor	Daily Average Emission (lb/day)
ROG	54
NOx	54
PM_{10}	82[a]
$PM_{2.5}$	54[a]

NOTES:

a Applies to construction exhaust emissions only.

Refer to Appendix D for support documentation

ABBREVIATIONS:

CO = carbon monoxide
Lb/day = pounds per day
NO_X = oxides of nitrogen
$PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less
PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
ROG = reactive organic gases
SO_2 = sulfur dioxide

SOURCE: BAAQMD 2017c.

In lieu of project emissions estimates, BAAQMD's screening level sizes were used to determine whether the project would be less than significant for operational and construction-related pollutants. As shown in Table 3.2-2, if projects meet certain screening level sizes based on the type of land use and square footage of the property for their category, the air quality and greenhouse gas impacts can be considered less than significant without quantification of emissions.

Though there is not a specific category that applies to well construction, the project is much smaller than the most applicable screening level size for the closest land use type – General light industry. As shown in the table, the construction-related screening size for general light industry is 259,000 square feet, while the project's area of disturbance is 17,640 square feet, well below the threshold.

As indicated in the following discussion for checklist question b) regarding cumulative increase in pollutants, the project would result in a less-than-significant impact related to construction emissions with the implementation of adopted **Mitigation Measure AQ-1** which includes BAAQMD's applicable recommended fugitive dust control measures. The project would also result in operational emissions less than the significance thresholds. Therefore, the project would be considered to support the primary goals of the *2017 CAP*.

In summary, the project would be consistent with all three criteria listed above to evaluate consistency with the *2017 CAP* and, therefore, would not conflict with or obstruct implementation of the *2017 CAP*.

TABLE 3.2-2
OPERATIONAL-RELATED CRITERIA AIR POLLUTANT AND PRECURSOR SCREENING LEVEL SIZES

Land Use Type	Opoerational Criteria Pollutant Screening Size	Operational GHG Screening Size	Construction-Related Screening Size
Office park	323 ksf (NOx)	50 ksf	277 ksf (ROG)
Government office building	61 ksf (NOx)	12 ksf	277 ksf (ROG)
Government (civic center)	149 ksf (NOx)	27 ksf	277 ksf (ROG)
Pharmacy/drugstore w/ drive through	49 ksf (NOx)	10 ksf	277 ksf (ROG)
Pharmacy/drugstore w/o drive through	48 ksf (NOx)	10 ksf	277 ksf (ROG)
Medical office building	117 ksf (NOx)	22 ksf	277 ksf (ROG)
Hospital	226 ksf (NOx)	39 ksf	277 ksf (ROG)
Hospital	334 beds (NOx)	84 ksf	337 beds (ROG)
Warehouse	864 ksf (NOx)	64 ksf	259 ksf (NOx)
General light industry	541 ksf (NOx)	121 ksf	259 ksf (NOx)
General light industry	72 acres (NOx)	-	11 acres (NOx)
General light industry	1249 employees (NOx)	-	540 employees (NOx)
General heavy industry	1899 ksf (NOx)	-	259 ksf (NOx)
General heavy industry	281 acres (NOx)	-	11 acres (NOx)
Industrial park	553 ksf (NOx)	65 ksf	259 ksf (NOx)
Industrial park	61 acres (NOx)	-	11 acres (NOx)
Industrial park	1154 employees (NOx)	-	577 employees (NOx)
Manufacturing	992 ksf (NOx)	89 ksf	259 ksf (NOx)

NOTES:

Screening levels include indirect and area source emissions. Emissions from engines (e.g., back-up generators) and industrial sources subject to Air District Rules and Regulations embedded in the land uses are not included in the screening estimates and must be added to the above land uses.

Refer to Appendix D for support documentation

ABBREVIATIONS:

du = dwelling units
ksf = thousand square feet
NO_x = oxides of nitrogen
ROG = reactive organic gases

SOURCE: Modelied by EDAW, 2009; BAAQMD, 2017c.

Cumulative Increase in Pollutants

According to the BAAQMD, no single project will, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The BAAQMD *CEQA Air Quality Guidelines* recommends using its quantitative thresholds of significance to determine if an individual project's emissions

would considerably contribute to cumulative air quality impacts in the region. If a project's emissions exceed the identified significance thresholds, its contribution to cumulative air quality would be considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions[5] Alternatively, if a project does not exceed the identified significance thresholds, then the project would not be considered cumulatively considerable and would result in less-than-significant air quality impacts.

As discussed above, the project's inclusion of BAAQMD-required control measures would reduce project impacts such that the project would not contribute a substantial amount of any criteria pollutant. Therefore, the project would not result in a cumulatively considerable net increase of any criteria pollutant.

Conclusion

Construction emissions associated with the project would be below BAAQMD thresholds with the implementation of updated Mitigation Measures AQ-1. There would be no operational emissions. In addition, the project would not conflict with or hinder implementation of any measures in the *2017 CAP*. Therefore, the project would be consistent with the *2017 CAP* and would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area under an applicable federal or state ambient air quality standard. These impacts would be less than significant.

The project would not result in additional exposure of sensitive receptors to substantial pollutant concentrations, or create additional objectionable odors affecting a substantial number of people and thus would not result in any new or more significant impacts than those identified in the previously adopted MND.

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5 BAAQMD, 2017c.

3.3 Biological Resources

Issues (and Supporting Information Sources):	*Potentially Significant Effects Not Identified in Prior IS/MND*	*Potentially Substantial Increase in Severity of Significant Impact Identified in Prior IS/MND*	*Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives*	*No New or More Severe Significant Effects*
BIOLOGICAL RESOURCES — Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Setting

Following adoption of the 2009 IS/MND, additional biological resource assessments including a habitat assessment, nesting bird survey report, wetland delineation report, and reconnaissance surveys were conducted in November and December of 2019 within the project area for the Gallagher Ranch Streambank Stabilization Project (Gallagher Ranch project). The adjacent Gallagher Ranch project supports similar biological conditions as the proposed project, as the two projects share some common areas. As a result, the Gallagher Ranch project analyses were partly used to characterize existing conditions for biological resources on the project site.

Updated database queries and data sources reviewed for this analysis include the following: California Natural Diversity Database (CNDDB) list of special-status species occurences, California Native Plant Society (CNPS) Rare and Endangered Plant Inventory, and the U.S. Fish and Wildlife (USFWS) Information for Planning and Consultation (IPac) list of Federal Endangered and Threatened species that may occur in the project area. As a result of these queries, no new sensitive biological resources were identified aside from those characterized previously.

Findings of Previously Adopted MND

The adopted 2009 IS/MND determined that all project impacts related to biological resources would be less than significant or less than significant with mitigation. Chapter 5, *Mitigation Monitoring and Reporting Program*, reproduces selected previously adopted mitigation measures applicable to biological resources, with revisions as discussed in this section. Mitigation Measures BR-1 and BR-2 were developed for the 2009 IS/MND; though BR-1 is not applicable, BR-2 has been revised and is described in Chapter 5.

Discussion

As noted in the project description, the well and pipeline would result in ground disturbance and vegetation removal within areas that were evaluated for these activities in the adopted IS/MND. However, the location of Gallagher Well No. 2 was not specified, and would now be located approximately 450 feet north of the existing Gallagher Well No.1. Both well locations designated for Gallagher Well No. 2 in the 2009 IS/MND and the proposed project are located within 120 feet of the center of Lagunitas Creek (See Figure 3).

Additionally, the connection between groundwater and streamflow related to pumping Gallagher Well No. 2 in combination with Gallagher Well No. 1 has been analyzed by Sutro Science and is provided as **Appendix B**. The analysis involved correlating drawdown data from a 7-day aquifer test with gage and streamflow discharge data recorded at a nearby USGS gaging station on Lagunitas Creek. The report noted that under low stream flow conditions, [6] well pumping is discernable in streamflow data at the USGS gaging station, although it concluded that the effect on water levels was negligible, and that the project would not result in substantial adverse effects on in-stream flows. [7] Additionally, if the minimum flows established by the State Water Resources Control Board (SWRCB) are not maintained, then NMWD will request (as part of its Intertie Agreement) that Marin Municipal Water District (MMWD) release sufficient water to Lagunitas Creek to reestablish at least the minimum flows. As described in the adopted IS/MND, the project would not result in substantial adverse effects on riparian habitat or protected wetlands, or conflict with provisions of an adopted Habitat Conservation Plan, Natural

6 The report notes that the constant-rate pump test was conducted during late summer when Lagunitas Creek was under Dry Year conditions and experiencing seasonal low flows, which can be considered a worst-case condition.

7 The report went on to note the magnitude of the observed reduction in streamflow was such that it could not reliably be measured with the current stream gage equipment because it would not exceed the accuracy (plus or minus 8 percent) of that equipment. The report continued to note that even if the observed reduction in streamflow could be reliably measured, the effect would be negligible, and would not substantially reduce stream flow or lower water surface to a degree that would adversely impact stream habitat.

Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Other resource topics are discussed below.

Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Several special-status species within the local project vicinity were discussed in the 2009 IS/MND. However, updated information and recent reconnaissance-level surveys reports found habitat for the additional following federal and/or state-listed species with a moderate or high potential to occur in or near the project vicinity: Stanford's arrowhead, Point Reyes checkerbloom, congested-headed hayfield tarplant, California giant salamander, foothill yellow-legged frog, northern spotted owl, yellow warbler, Tomales roach, Central California Coast Coho Salmon, and California freshwater shrimp (ESA, 2020). An assessment of the potential for each of these species to occur onsite is provided below. No on-site habitat for roosting bats was identified during the site assessment; hence, bats are not considerd further in this analysis.

Construction

Impacts related to special-status species during project construction are described below.

Special-Status Plants

The previous 2009 IS/MND did not include an analysis of special-status plants. The following three special-status plants were identified as having a moderate or high potential to occur in the project vicinity[8]: congested headed hayfield tarplant (*Hemizonia congesta ssp. congesta*), Stanford's arrowhead (*Sagittaria sanfordii*), and Point Reyes checkerbloom (*Sidalcea calycosa ssp. rhizomata*) (ESA, 2020). The congested headed hayfield tarplant, Stanford's arrowhead, and Point Reyes checkerbloom have a California Rare Plant Rank[9] of 1B.1, 1B.2 and 1B.2, respectively. The project vicinity has suitable marsh habitat for all three of these special-status plants along the edges of Lagunitas Creek and in the freshwater emergent wetland[10] at the toe of the slope (ESA, 2020). However, the project site strictly supports upland habitat and does not support these species. Additionally, these species were not identified in 2019 during preconstruction surveys for the Gallagher Ranch project. The project site, which includes the new location of the Gallagher Well No. 2 and connecting pipeline, consists of upland habitat that is subject to grazing and contains predominantly non-native grassland vegetation. Due to prior survey findings and inappropriate conditions on the project site for these species, the likelihood of encountering any special-status plant species is considered low and no impact is anticipated. Therefore, project implementation would not result in any new or more significant impacts than those identified in the previously adopted MND.

8 Includes a 5-mile buffer from the project site, which includes the footprint of the new Gallagher Well No. 2 location and the connecting pipeline

9 This rank is for plants that are rare through their range with the majority of them endemic to California.

10 The emergent wetland habitat occurs below the Ordinary High Water Mark of Lagunitas Creek within the seasonally flooded channel (ESA, 2020).

Special-Status Wildlife

Amphibians

Special-status amphibians with the potential to occur within the project vicinity and not previously evaluated in the 2009 IS/MND include California giant salamander and foothill yellow-legged frog.

California giant salamander (*Dicamptodon ensatus*) (CGS) is a California species of special concern. CGS has been observed within 2.5 miles of the project site and there are five occurrence records within 5 miles, although the most recent date is from 1955[11] (CDFW, 2020). Lagunitas Creek provides suitable habitat for egg-laying and juvenile rearing; and wooded uplands provide appropriate terrestrial habitat for adult salamanders. All project work during construction would occur within non-native grassland habitat and would not directly alter any suitable CGS habitat.

The foothill yellow-legged frog (*Rana boylii*) is a California species of special concern that has been observed within 2 miles of the project site (ESA, 2020). The CNDDB reports five occurrence records within 5 miles with the closest record 1.3 miles southeast of the project site in Nicasio Creek, a tributary to Lagunitas Creek.[12] Lagunitas Creek provides suitable habitat for foothill yellow-legged frog breeding and egg attachment. The foothill yellow-legged frog is strictly an aquatic species that is not expected within annual grassland on the project site. All project work during construction would occur within non-native grassland habitat outside of the riparian corridor, and would not directly alter any suitable foothill yellow-legged frog habitat.

The California red-legged frog (*Rana draytonii*; CRLF) is a semi-aquatic ranid species associated with pond and stream habitats in the regional project vicinity. It is a federally-listed threatened species and California species of special concern. No evidence of CRLF presence was identified during the habitat assessment for the Gallagher Ranch project, nor during preconstruction surveys or project construction. This species is not expected to breed in downstream portions of Lagunitas Creek near the Project site due to high stream flows and generally inappropriate conditions. Due to the absence of nearby aquatic breeding habitat, and presence of grassland habitat on the project site, CRLF are not expected in the Project site.

In the unlikely event that a California giant salamander or foothill yellow-legged frog is present at the time of construction, an individual adult may be injured, harassed, or killed due to proposed activities during the drilling of the well and pipeline installation. In addition, any salamanders or frogs moving away from any disturbance caused by construction may be driven into the open where they are more susceptible to injury or mortality due to predation, vehicular or foot traffic, or other activities. However, any potentially significant impacts to California giant salamander or foothill yellow-legged frog would be reduced to less than significant level with implementation of

[11] CDFW, 2020. California Natural Diversity Data Base (CNDDB: Tomales, Point Reyes North East, Petaluma, Drakes Bay, Inverness, San Geronimo, Bolinas U.S. Geological Survey (USGS) 7.5-minute series quadrangles)). Accessed November 25, 2020.

[12] CDFW, 2020. California Natural Diversity Data Base (CNDDB: Tomales, Point Reyes North East, Petaluma, Drakes Bay, Inverness, San Geronimo, Bolinas U.S. Geological Survey (USGS) 7.5-minute series quadrangles)). Accessed November 25, 2020.

Mitigation Measure BR-3: Wildlife Exclusion Fencing and Worker Education and Awareness Training.

Birds

Bird species, including special-status species, may nest in the riparian woodlands and surrounding trees and shrubs outside of the project site. Birds that may nest in the nearby riparian corridor include yellow warbler (*Setophaga petechial*), a California species of special concern, spotted towee (*Pipilo maculatus*), mourning dove (*Zenaida macroura*), California scrub jay (*Aphelocoma californica*), European starling (*Sturnus vulgaris*), Bewick's wren (*Thryomanes bewickii*), western bluebird (*Sialia mexicana*), and tree swallow (*Tachycineta bicolor*). Actively nesting migratory birds are protected under the Migratory Bird Treaty Act and California Fish and Game Code (FGC), and impacts to active nests would constitute as a significant impact. However, implementation of **Mitigation Measure BR-4: Pre-Construction Nesting Bird Surveys** would reduce potential construction impacts on nesting special-status and migratory birds to a less-than significant level.

Invertebrates and Fish

No potential direct impacts would occur to special-status fish or invertebrates as a result of project construction, as they occur within the main body of Lagunitas Creek, which is outside of the project area. Potential project impacts to listed salmonid species were considered and adequately addressed in the adopted IS/MND and are not repeated here. The discussion below provides an analysis of potential operational impacts to special-status invertebrates and fish that were not considered in the adopted IS/MND.

California freshwater shrimp

California freshwater shrimp (*Syncaris pacifica*) is listed as both state and federally endangered, and are native to low elevation (generally less than 380 feet [116 meters]), low gradient (generally less than 1 percent), freshwater, perennial streams in isolated locations within Marin, Napa, and Sonoma Counties, California (ESA, 2020). Existing populations are threatened by introduced fish, deterioration or loss of habitat resulting from water diversion, impoundments, livestock and dairy activities, agricultural activities and developments, flood control activities, gravel mining, timber harvesting, migration barriers, and water pollution (USFWS, 1998). Lagunitas Creek has one of the largest populations of California freshwater shrimp, and is the only shrimp stream that runs through protected lands (Serpa, 2013). There are two CNDDB records for this species within 5 miles of the Project Area. One occurrence record is located on Lagunitas Creek within the Project Area, dated 2010 (CDFW, 2020). The project site contains high to moderate quality California freshwater shrimp habitat, with consolidated mud substrate, willows, and vertical bank profiles in the permanently flooded channel of Lagunitas Creek (ESA, 2020). No project work during construction would directly alter or impact Lagunitas Creek or any suitable habitat for California freshwater shrimp. Therefore, no impact would occur to California freshwater shrimp during construction. Potential project impacts to California freshwater shrimp during operation are discussed below.

Tomales roach

Tomales roach (*Lavinia symmetricus*) is a California species of special concern. Tomales roach is a small, bronzy, stout-bodied minnow (cyprinids) with an adult size reaching up to 120 mm in length (CDFW, 2019c). This species is restricted to western Marin County drainages of Lagunitas Creek and Walker Creek (CDFW, 2019c). The headwater divide between Walker Creek (Tomales Bay tributary) and Lagunitas Creek consists of a high, marshy valley and during heavy rain events a surface water connection between the two drainages forms (Murphy, 1948). This connection provides a colonization route that could be used by fluvial fishes. Generally, roach are found in small streams and are particularly well adapted to life in intermittent watercourses, dense population are frequently observed in isolated pools (Fry, 1936; Moyle et al., 1982; Leidy, 2007).

Roach spawn in large groups in riffles over small rock substrates that are 3 to 5 cm in diameter. Females repeatedly deposit eggs a few at a time into the interstices between rocks, which are immediately fertilized by one or more attendant males. Eggs hatch in two to three days and the larvae remain in the gravel until larger enough to actively swim. Larval drift may be a significant form of dispersal for roach in some years, and White and Harvey (2003) suggest that the timing of spawning (late spring as flows recede) and apparent short period of drift for individual larvae are adaptation that may reduce the risk of roach drifting downstream into unsuitable habitats (ESA, 2020).

Roach are very resilient fish, but tend to decline or disappear is streams that are dewatered by diversion for residences, pastures, and vineyards; heavily altered by channelization; and invaded by alien predators such as green sunfish (*Lepomis cyanellus*). Tomales roach has been reported by the CNDDB in 2003 to occur within the project area in Lagunitas Creek. Lagunitas Creek provides suitable habitat for egg-deposit sites and the freshwater emergent wetland located at the toe of the slope may provide suitable habitat. Tomales roach was not seen during the reconnaissance-level surveys in 2019, conducted by ESA, but has high potential to occur within nearby Lagunitas Creek (ESA, 2020). All project work during construction would occur within the uplands habitat and no work would be conducted within Lagunitas Creek. Therefore, no impact would occur to this species during construction. Project impacts to Tomales Roach during operation are discussed below.

Operation

Operation of the project would include pumping of water from a well adjacent to Lagunitas Creek, which could result in adverse impacts to fish, invertebrates, and surrounding habitat described above, if not appropriately mitigated or regulated. All pumping conducted by the Gallagher Well No. 2 would be consistent and within the limits set in the NMWD's water rights license and permit conditions. Additionally, operations at all points of diversion would be continuously monitored by an automated SCADA system, which would record and summarize pumping rates on a daily, monthly, and yearly basis. As described in the 2009 IS/MND, impacts to Lagunitas Creek as a result of reduced streamflow during the dry years would be mitigated by a release of water from Kent Lake, located upstream, to ensure the minimum required flows would be maintained.

In order to understand the cumulative impact caused by operating both supply wells on streamflow conditions in Lagunitas Creek during the late summer/early fall, a technical memorandum and analysis was recently conducted by Sutro Science for the new Gallagher Well No. 2 location. The technical memorandum provides a summary of the project background, surface water and hydrogeologic setting, methodology, and results of data collected from a 7-day aquifer test and recorded gage and streamflow discharge data (Sutro Science, 2020). The results of the technical memorandum suggest that the groundwater aquifer is transmissive and could sustain a safe yield of the proposed new Gallagher Well No. 2, estimated to range between 150 – 175 gpm. Based on the review of the pumping test data and the output from the USGS Point Reyes stream gage, it appears that under low stream flow conditions, such as those present during the constant-rate test in September 2020, groundwater pumping from the proposed Gallagher Well No. 2 location could result in a reduction in creek discharge. However, the magnitude of this reduction would be negligible and would not substantially reduce stream flow or lower water surface to a degree that would adversely impact stream habitat. Based on the Sutro Science hydrologic analysis on the impact of project operation on instream flows, long-term operation of the proposed project may result in small changes to flows in Lagunitas Creek compared to baseline conditions; however, these changes are predicted to be negligible. As a result, any predicted changes in flows would result in negligible changes in habitat conditions in Lagunitas Creek. Therefore, operation of the project would not be expected to significantly alter existing habitat within the creek from the baseline condition.

Therefore, the location of Gallagher Well No. 2, as proposed under the current project, would not result in new or more severe impacts than those disclosed in the 2009 IS/MND, and Mitigation Measure BR-2, developed as part of the 2009 IS/MND, remains adequate to reduce impacts to stream flow in Lagunitas Creek (Sutro Science, 2020), and the text of the measure has been updated to reflect current project status (Chapter 5). Implementation of Mitigation Measure BR-2 would ensure that streamflow of Lagunitas Creek would be maintained and impacts related to stream habitat and associated species would be reduced to a less-than-significant level.

Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Project construction would be conducted within the non-native grassland habitat outside of the Lagunitas Creek riparian corridor. Therefore, project construction would not result in direct adverse effects to any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations by the CDFW or USFWS.

Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Following adoption of the 2009 IS/MND, impacts related to state wetlands have been added for additional consideration in the Biological Resources Appendix G criteria. On November 19, 2019, an aquatic resource delineation field survey was conducted by Environmental Science Associates

for the Gallagher Ranch project, located in the same project area as the currently proposed Gallagher Well, No. 2 project. Project construction would ocurr on the grassland and would not alter or disturb any federal or state jurisdictional wetlands or waters. Hydrologic interruption is not anticipated under the project based on hydrologic modeling to simulate operational effects to Lagunitas Creek surface water flows (Sutro Science, 2020). Additionally, NMWD, through its Intertie Agreement with MMWD, would ensure that water was released from Kent Lake upstream if necessary to maintain streamflows in Lagunitas Creek, which would prevent hydrological interruption. See discussion of operational streamflow impacts above. Therefore, this impact would be less than significant with mitigation and no new or more severe impacts would occur.

Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

As described in the 2009 IS/MND, the current project would also not cause any substantial barriers to animal or fish movement or migration. Construction of the project would not generate any permanent barriers that would restrict terrestial wildlife movement. Based on hydrologic modeling that has been conducted to conservatively simulate operational effects to Lagunitas Creek surface water flows, long-term operation of the proposed well is not anticipated to result in adversechanges to spring or winter migratory flows or associated aquatic habitat conditions for migrating fish in Lagunitas Creek compared to baseline conditions. No new or severe impacts would occur and the impact would be less than significant.

Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

As discussed in the previous 2009 IS/MND, no tree removal would take place during construction, operation, or maintenance. Therfore, the project would not conflict with any local policies or ordinances protecting biological resources. No new or severe impacts would occur.

Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

As discussed in the 2009 IS/MND, the project would not conflict with any Habitat Conservation Plans, Natural Conservation Community Plans, or any approved local, regional, or State habitat conservation plans. No new or severe impacts would occur.

Conclusion

With implementation of adopted Mitigation Measures BR-2, BR-3 and BR-4, the proposed project would not result in any new or more significant impacts on sensitive natural communities, riparian habitats, special-status wildlife and plants, movement of wildlife species or use of wildlife nursery sites, protected trees, or wetlands during construction and operation than those identified in the 2009 IS/MND.

3.4 Cultural Resources

Issues (and Supporting Information Sources):	*Potentially Significant Effects Not Identified in Prior IS/MND*	*Potentially Substantial Increase in Severity of Significant Impact Identified in Prior IS/MND*	*Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives*	*No New or More Severe Significant Effects*
CULTURAL RESOURCES — Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Setting

The environmental setting relevant to cultural resources for the project has not changed relative to the setting in the 2009 IS/MND. An additional survey for cultural resources was conducted in 2020 for the Gallagher Ranch project, which included the project area in its Area of Potential Effect (APE). Historic property identification efforts included a records search on August 1, 2019 and pedestrian survey of the APE on August 15, 2019. The pedestrian survey resulted in the recordation of one newly identified cultural resource within the APE: Gallagher Bridge, and one previously recorded historic property: Gallagher Ranch, a contributing element to the Olema Valley/Lagunitas Loop Ranches Historic District with a period of significance of 1856 to 1961. The National Resources Conservation Service (NRCS) determined that the Gallagher Bridge as an eligible historic and cultural resource. Although eligible, the bridge would not be affected by construction of Gallagher Well No. 2.

Findings of Previously Adopted MND

The adopted MND determined that all project impacts related to cultural resources would be less than significant with mitigation. The 2009 IS/MND conducted a Cultural Resources Survey, which found no cultural resources in the area that would be affected by project construction. However, there is always the chance that buried archaeological resources are present and could be discovered while constructing the project. Chapter 5, *Mitigation Monitoring and Reporting Program*, reproduces previously adopted mitigation measures applicable to cultural resources impacts from this project.

Discussion

As discussed in Chapter 2, Project Description, the project would include ground disturbance for the 0.15 acre well site and the 500-foot long pipeline which would be installed to connect Gallagher Well No. 2 to the existing transmission pipeline. The location of these two project components are shown on **Figure 2-3**. The following discussion evaluates whether project

changes would result in any new or more severe significant environmental effects than identified in the 2009 IS/MND.

Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5

As described in the 2009 IS/MND, the project would not be considered an historical resource as it does not meet the criteria for eligibility for listing in the National Register of Historic Places or California Register of Historical Resources. The Gallagher Bridge is outside the project area and so would not be affected by the project. Though the project is located on the Gallagher Ranch, it is limited to installation of well and pipeline facilities, which would not affect the character of the ranch or its operations, and the project would not cause a substantial adverse change in the significance of the Gallagher Ranch. As such, the project would have no impact on historical resources as defined by CEQA Section 15064.5.

Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5

As described in the IS/MND, no archaeological resources were identified in the project area through background research or field survey. While not expected, the unanticipated discovery of archaeological resources or human remains cannot be entirely discounted. Impacts to archaeological resources would be potentially significant. Implementation of adopted **Mitigation Measure CR-1** would reduce impacts to a less-than-significant level by ensuring appropriate treatment of inadvertently discovered archaeological resources. With implementation of this mitigation measure, the project would not result in any new or more significant impacts to previously unknown archaeological resources than those identified in the adopted MND.

Directly or indirectly destroy a unique paleontological resource or site

There are no known paleontological resources in the project site area, and it is not expected that project construction would affect such resources.

Disturb any human remains, including those interred outside of formal cemeteries

As described in the 2009 IS/MND, no human remains, including those interred outside of formal cemeteries, are in the project site or vicinity. Although unlikely, the discovery of human remains during construction that involves ground disturbance cannot be entirely discounted. Disturbance of human remains would be a potentially significant impact. Implementation of adopted **Mitigation Measure CR-2** would reduce impacts to a less-than-significant level by ensuring appropriate treatment of inadvertently discovered human remains. With implementation of this mitigation measure, the project would not result in any new or more significant impacts to previously unknown human remains than those identified in the adopted MND.

Cumulative Cultural Resources Impacts

The geographic scope for cumulative effects on cultural resources includes the immediate vicinity of locations where the project could cause disturbance to historical resources, unique archaeological resources, and/or human remains. As the project would not have an impact on historical resources there would be no cumulative impact. Similar to the proposed project, cumulative projects in the project vicinity could have a significant impact on previously undiscovered archaeological resources, including human remains interred outside of formal cemeteries, during ground-disturbing activities. The potential impacts of the project when considered together with similar impacts from other probable future projects in the vicinity could result in a significant cumulative impact on previously unknown archaeological resources or human remains. However, implementation of Mitigation Measures CR-1 and CR-2 would require that work halt in the vicinity of a find until it is evaluated by a Secretary of the Interior-qualified archaeologist, and in the case of human remains the County Coroner. In addition, cumulative projects undergoing CEQA review would have similar types of unanticipated discovery measures. Therefore, with implementation of Mitigation Measures CR-1 and CR-2, the proposed project's contribution to cumulative impacts would not be considerable.

Conclusion

Implementation of the adopted mitigation measures applicable to cultural resources would reduce possible impacts related to archaeological resources and human remains during construction of the project to a less than significant level, and the project would not result in any new or more significant impacts.

3.5 Energy

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. **ENERGY** — Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Discussion

Following the publication and approval of the 2009 IS/MND, several updates and amendments to the CEQA Guidelines have occurred, including guidelines outlining the addition of a new Energy impact category to Appendix G discussed in CEQA Guidelines Section 15126.2(b). Discussion of energy impacts and analysis are provided below as a new addition to this CEQA Addendum.

Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction of the project would result in fuel consumption from the use of construction tools and equipment (i.e. drill rig, excavator), haul truck trips, and vehicle trips generated from workers traveling to and from the project site. Construction is anticipated to occur, at most, for approximately 2 months and all construction activities and corresponding fuel energy consumption would be considered temporary and localized, as the use of diesel fuel for heavy-duty equipment would not be a typical condition of the project. Therefore, this impact would be considered less than significant.

Following project construction, operation and maintenance of the new Gallagher No. 2 well would require energy use by NMWD. According to the updated 2015 Marin County Climate Action Plan, NMWD accounted for approximately 0.02% of the countywide energy use.[13] Additionally, energy used during operation of the new Gallagher No. 2 well would replace energy use already accounted for from the Coast Guard Wells. No additional energy use would be required during operation of the project. Therefore, operation and maintenance would not result in the wasteful, inefficient, and/or unnecessary consumption of energy. This impact would be considered less than significant.

13 Marin County, 2015. *Marin County Climate Action Plan.* Available at: https://www.marincounty.org/~/media/files/departments/cd/planning/sustainability/climate-and-adaptation/execsummarymarincapupdate_final_20150731.pdf?la=en

Conflict with or obstruct a state or local plan or renewable energy or energy efficiency?

Energy goals outlined in the updated 2015 Marin Countywide Plan consist of the following:

- **Goal EN-1**: *Decrease Energy Use*. Reduce total and per-capita nonrenewable energy waste and peak electicty demand through energy efficiency and conservation
- **Goal EN-2**: *Increased Renewable Resource Use*. Utilize local renewable energy resources, and shift imported energy to renewable resources.
- **Goal EN-3**: *Adopt Green Building Standards*. Integrate green building requirements into the development review and building permit process.

As discussed above, the project would result in a negligible increase in use of diesel fuel and gasoline consumption during construction and would not result in any additional increase in energy use during operation or maintenance of the project. The project would not conflict with or obstruct the local Countywide energy goal plans because it would neither permanently increase energy use nor interfere with the adoption of renewable resources or green building standards. Therefore, no impact would occur.

Conclusion

A less than significant impact would occur for project impacts related to energy. Although, the project would result in a minimal to negligible increase in fuel consumption during construction, overall long term energy use during operation and maintenance of the project would not differ from existing conditions used by NMWD due to the offset in energy use from the Coast Guard Wells.

3.6 Greenhouse Gas Emissions

Issues (and Supporting Information Sources):	*Potentially Significant Effects Not Identified in Prior IS/MND*	*Potentially Substantial Increase in Severity of Significant Impact Identified in Prior IS/MND*	*Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives*	*No New or More Severe Significant Effects*
GREENHOUSE GAS EMISSIONS — Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Setting

Greenhouse Gases were analyzed under the Air Quality section of the 2009 IS/MND, under the discussion of whether the project would violate any air quality standard. Since adoption of the 2009 IS/MND, more greenhouse gas laws and air quality targets have gone into effect.

As a climate action leader, California has continued to demonstrate its commitment to early and aggressive action on climate change. The State Legislature and Governor have adopted ambitious targets to encourage bolder climate action, including statewide greenhouse gas (GHG) emissions reduction targets of reaching:

- 1990 levels by 2020 (Assembly Bill 32 in 2006)
- 40% below 1990 levels by 2030 (Senate Bill 32 in 2016)
- 80% below 1990 levels by 2050 (Executive Order S-3- 05 in 2005)

In September 2018, Governor Brown signed Senate Bill 100 into law, setting a state target of 100% carbon-free electricity by 2045. SB 100 also sets interim requirements for 50% renewable electricity by 2026 and 60% by 2030, superseding previously established targets. Also in September 2018, Governor Brown signed Executive Order B-55-18, which establishes a new statewide goal to "achieve carbon neutrality as soon as possible, no later than 2045, and achieve and maintain net negative emissions thereafter."

The state and county goals mentioned in the 2009 IS/MND - the State's target of reducing GHG emissions to 1990 levels by 2020, and the County's target of reducing the GHG emissions in the County by 15% by 2015 – have been updated since 2009 IS/MND adoption. As discussed above in Air Quality, the BAAQMD 2017 Clean Air Plan.[14] was released after approval of the 2009 IS/MND. The County of Marin Climate Action Plan was updated in November 2014 to include a goal of reducing emissions to 30% below 1990 levels by 2020.[15] CARB's Climate Change

[14] BAAQMD, 2017b

[15] Marin County, 2015.

Scoping Plan was most recently updated in 2017 to incorporate the 2030 target established by SB 32. The 2017 Scoping Plan Update[16] takes into account the key programs associated with implementation of the AB 32 Scoping Plan—such as GHG reduction programs for cars, trucks, fuels, industry, and electrical generation—and builds upon, in particular, existing programs related to the cap-and-trade regulation; the low carbon fuel standard; much cleaner cars, trucks, and freight movement; power generation for the state using cleaner renewable energy; and strategies to reduce methane emissions from agricultural and other waste by using it to meet the state's energy needs.

Findings of the Previously Adopted IS/MND

The 2009 IS/MND identified less than significant impacts with mitigation incorporated associated with the project related to violation of any air quality standards regarding GHG emissions and generation of GHG emissions, noting that the GHG emissions associated with the project would be limited to the construction phase and would not be a significant increment of the cumulative effect on global climate change.

Discussion

The analysis of the 2009 IS/MND was based on emissions from all project components, including heavy equipment used when installing the well, pipeline, and gauging station and demolishing the Downey Well. Because this addendum only analyzes the installation of the well and the portion of the pipeline connecting the well to the existing pipeline to the treatment plant, the emissions would be less than those previously analyzed. Though greenhouse gas reduction goals have grown since the adoption of the 2009 IS/MND, the project impact would still be limited to the construction phase and would not be a significant increment of the cumulative impact on global climate change.

Conclusion

The project would not result in any new or more severe environmental effects related to GHG emissions, or conflicts with plans, policies, and regulations adopted regarding GHG emissions, than those identified in the previously adopted 2009 IS/MND.

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16 CARB, 2017. California's 2017 Climate Change Scoping Plan, November 2017. Available at https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf.

3.7 Hydrology and Water Quality

Issues (and Supporting Information Sources):	*Potentially Significant Effects Not Identified in Prior IS/MND*	*Potentially Substantial Increase in Severity of Significant Impact Identified in Prior IS/MND*	*Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives*	*No New or More Severe Significant Effects*
HYDROLOGY AND WATER QUALITY — Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☐	☒
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through addition of impervious surfaces, in a manner which would:	☐	☐	☐	☒
i) Result in substantial erosion or siltation on- or off-site;	☐	☐	☐	☒
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
iv) Impede or redirect flood flow?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Setting

The environmental setting relevant to hydrology and water quality for the project site has not changed since adoption of the 2009 IS/MND. Since adoption of the 2009 IS/MND, the hydrologic design report required as part of Mitigation Measure BR-2 has been completed, and an additional report on the impacts to instream flows from groundwater pumping has been completed as well. These reports provide more detail to the description of impacts on surface and ground water. The project would use the same pumping rates described and analyzed in the 2009 IS/MND. Regardless of operating well performance, NMWD's cumulative operations for both wells will conform to its water rights, which have specific dry year and seasonal limitations.

Findings of Previously Adopted IS/MND

The adopted IS/MND determined that all project impacts related to hydrology and water quality would be less than significant or less than significant with mitigation. Chapter 5, *Mitigation Monitoring and Reporting Program*, reproduces previously adopted mitigation measures applicable to hydrology and water quality impacts from this project.

Discussion

The project would enable the District to pump the amount of water evaluated in the 2009 IS/MND, as described previously. However, this would not change the impact designations identified in the 2009 IS/MND. The amount of water pumped during project operation would be consistent with water right and license authorization. If the minimum flows established by the SWRCB are not maintained, then NMWD will request (as part of its Intertie Agreement) that Marin Municipal Water District (MMWD) release sufficient water to Lagunitas Creek to reestablish at least the minimum flows.

Surface Water Quality

As described in the 2009 IS/MND (Appendix A), and as further specified in the Sutro Science Report (Appendix B), groundwater pumping as part of the project would have the potential to affect the amount of water in the creek during seasonal low flow conditions. [17] As previously noted, flow impacts during dry season pump tests indicate discernable, but de minimus alterations in flows during combined pumping of the two wells. If this flow reduction occurs at all during well operations, it is not of a scale that would would alter water temperature. [18] Additionally, NMWD has the ability to request that MMWD release sufficient water from Kent Lake into Lagunitas Creek to avoid negative impacts to water quality and supply in Lagunitas Creek.

Groundwater Quality

As described in the 2009 IS/MND and in the Sutro Science Report (Appendix B), use of the NMWD wells would have the potential to lower groundwater levels in the area. Groundwater quality would not be anticipated to be affected by well operations and thus would not adversely affect groundwater quality in the existing private Gallagher Ranch well through increased pumping. However, the purchase agreement with the owners of Gallagher Ranch provides that NMWD will provide reimbursement for the cost of added power costs for additional pumping or make-up water to a level of beneficial use prior to installation of the District's well. A similar

[17] As noted above, the report notes that the constant-rate pump test was conducted during late summer when Lagunitas Creek was under Dry Year conditions and experiencing seasonal low flows, which can be considered a worst-case condition.

[18] As noted above, the report states that the magnitude of the observed reduction in streamflow was such that it could not reliably be measured with the current stream gage equipment because it would not exceed the accuracy (plus or minus 8 percent) of that equipment. The report also stated that even if the observed reduction in streamflow could be reliably measured, the effect would be negligible, and would not substantially reduce stream flow or lower water surface to a degree that would adversely impact stream habitat

contingency would be added to purchase of the site for the additional well. Thus, this impact would be mitigated by the purchase agreement, and no mitigation is required.

Conclusion

The project would not substantially reduce stream flow or lower water surface to a degree that would adversely impact surface water quality. Thus, the location of Gallagher Well No.2, as proposed under the current project, would not result in new or more severe impacts than those disclosed in the 2009 IS/MND, and Mitigation Measure BR-2, developed as part of the 2009 IS/MND, remains adequate to reduce impacts to stream flow in Lagunitas Creek. Further, the project would comply with existing instream flow requirements through NMWD's Intertie agreement with MMWD and thus would not degrade surface water quality. The project would mitigate groundwater quality impacts through its purchase agreement with the owners of the Gallagher Ranch. Thus, there would be no change in impacts from those identified in the 2009 IS/MND.

3.8 Land Use and Planning

Issues (and Supporting Information Sources):	*Potentially Significant Effects Not Identified in Prior IS/MND*	*Potentially Substantial Increase in Severity of Significant Impact Identified in Prior IS/MND*	*Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives*	*No New or More Severe Significant Effects*
XI.LAND USE AND PLANNING — Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Setting

The environmental setting relevant to land use and planning has changed since adoption of the IS/MND. In 2016, the Gallagher Ranch property was placed into an agricultural conservation easement with Marin Agricultural Land Trust (MALT). The MALT easement anticipated NMWD's need to construct a second well at Gallagher Ranch and included specific additional steps to ensure project consistency with the MALT easement, specifically the required preparation of a Water Development Plan.

The land use and zoning for the site has not changed since 2009.

Findings of Previously Adopted IS/MND

The adopted IS/MND determined that the project would have no impacts related to land use and planning.

Discussion

Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

As described above, the project property is now under a MALT easement. As part of that agreement, NMWD prepared and submitted a draft Water Development Plan (WDP) to MALT for review and approval.. The draft WDP did not identify any areas of conflict or inconsistency between the project and the MALT easement; as described above, the MALT easement anticipated NMWD's need to construct a second well at Gallagher Ranch.

Because the project is located in the Coastal Zone, a Coastal Permit will be required for the project, as described in the 2009 IS/MND. The County will need to review the project and confirm this conclusion prior to deciding whether to approve a Coastal Permit and use permit for the well.

Conclusion

The project would not conflict with existing land use plans, policies, or regulations adopted for the purpose of avoiding or mitigant environmental effects, and the project would still have no impact.

3.9 Noise

Issues (and Supporting Information Sources):	*Potentially Significant Effects Not Identified in Prior IS/MND*	*Potentially Substantial Increase in Severity of Significant Impact Identified in Prior IS/MND*	*Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives*	*No New or More Severe Significant Effects*
POPULATION AND HOUSING — Would the project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐

Setting

The environmental setting relevant to noise has changed somewhat since adoption of the 2009 IS/MND. The proposed project location is now approximately 450 feet north of the existing Well No. 1. This new location is approximately 450 feet from the Gallagher residence, while the previous location would have been between 400 and 800 feet from the Gallagher residence.

The Marin county noise ordinance is the relevant code regulating noise in the area. It has not changed since the adoption of the 2009 IS/MND.

Findings of Previously Adopted IS/MND

The adopted 2009 IS/MND found that the project would have a less than significant impact with mitigation incorporated related to noise. Construction of the project would generate noise due to the use of heavy construction, but it would be temporary in nature. Drilling the well would require use of a well rig plus other heavy equipment. Noise levels at the Gallagher residence would be expected to be between 50 to 65 decibels during well drilling. This noise would only occur for a few days. Nevertheless, the 2009 IS/MND placed limits on the hours of operation as part of Mitigation Measure N-1.

Discussion

The project's location 450 feet from the Gallagher residence is within the distance analyzed and found to be less than significant with mitigation the 2009 IS/MND.

Mitigation Measure N-1 has been updated to be consistent with the Marin County Noise Ordinance, which is shown in the mitigation measures in Chapter 5.

Conclusion

No new or more significant impacts related to noise would occur because of the proposed project. The proposed new location is within the distance analyzed and found to be less than significant with mitigation in the 2009 IS/MND.

Mitigation Measure N-1 has been updated to be consistent with the Marin County Noise Ordinance, which is shown in the mitigation measures in Chapter 5.

3.10 Population and Housing

Issues (and Supporting Information Sources):	*Potentially Significant Effects Not Identified in Prior IS/MND*	*Potentially Substantial Increase in Severity of Significant Impact Identified in Prior IS/MND*	*Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives*	*No New or More Severe Significant Effects*
POPULATION AND HOUSING — Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Setting

The environmental setting relevant to population and housing has changed since adoption of the 2009 IS/MND. The growth projections from the Countywide Plan EIR used in the 2009 IS/MND are still relevant and were used in NMWD's most recent planning document, the 2014 West Marin Water System Master Plan. Though the growth projections used are similar, the demand projections are more up to date in the 2014 Master Plan, and are described below.

Findings of Previously Adopted IS/MND

The adopted 2009 IS/MND found that the project would have a less than significant impact related to growth inducement. NMWD has sufficient water rights and supplies from the existing Coast Guard Wells to serve the projected buildout of the West Marin Service Area, as that buildout is described in the EIR prepared for the new Marin Countywide Plan. The 2009 IS/MND noted that if the new well was not developed, then NMWD might not be able to reliably meet the water demand of existing and projected customers, and lacking system reliability, the County might not be able to approve new development. The document discussed this scenario, but argued that this scenario was speculative, particularly because NMWD may be able to supply needed water from alternative supplies.

The 2009 IS/MND concludes that, "the existing rights and supplies, as supplemented by the Gallagher Wells, help NMWD to reliably meet the projected buildout of the service area. The wells would not provide[] water that would induce additional development beyond what is allowed and projected for in the Marin Countywide Plan."[19]

[19] Leonard Charles, 2009. P. 48

Discussion

Since publication of the 2009 IS/MND, the West Marin Water System Master Plan (2014 Master Plan) has been published, which provides the most recent demand and supply projections for the relevant service area.

The purpose of 2014 Master Plan is to guide immediate and planned future system improvements based on both current operations and future water demands. The 2014 Master Plan uses the same demand projections as the orginal 2009 IS/MND, which are based on the 2007 Countywide Plan update.[20] Because the projections for demand are the same and there is no change in the supply from Gallagher Well No. 2, potential impact related to growth inducement would remain less than significant. The following discussion describes the demand and supply projections from the 2014 Master Plan and their relationship to growth inducement.

Projected Demand

The District continually monitors planned development within its distribution system and periodically updates projected buildout water demands. The last update was in November 2013. Buildout demand is estimated at 380 acre feet per year (AF/Y) and maximum day demand is 715,122 gallons per day (gpd).

Additional Supply to Meet Buildout Demand

The 2014 Master Plan identified a pumping deficit for Point Reyes Station of 445 gpm at buildout and a storage deficit of 38,200 gallons at buildout. However, this deficit was anticipated to be reduced but not completely addressed by the addition of the existing Gallagher Well No. 1 and the proposed project's additional well proposed at the Gallagher Ranch site.[21] It is important to note that the need for increased pumping capacity is not the same as an increased total amount of water needed; NMWD can meet buildout average water demand with its existing facility, but not peak usage. The Master Plan's only recommended additional change was to repair/replace the pump at Coast Guard Well No.2. Because the proposed project would not add additional water supply beyond that necessary to meet demand at buildout, the project is consistent with the most recent growth projections and would not induce growth.

Conclusion

No new or more significant impacts related to growth inducement would occur because of the proposed project.

Since publication of the 2009 IS/MND, NMWD has updated its demand and supply projections through its 2014 Master Plan. However, the demand projections have not changed because they are based on the same demand projections as the 2009 IS/MND. The proposed project is consistent and described in the supply projections of the 2014 Master Plan.

[20] NMWD, 2014. *West Marin Water System Master Plan 2014.* P. 4-6

[21] NMWD, 2014. P. 5-11

Because the project would not provide more water supply than is needed for planned buildout demand, the project would not induce substantial unplanned growth, and its impacts on growth would be less than significant.

3.11 Tribal Cultural Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Tribal Cultural Resources — Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Since the adoption of the 2009 IS/MND, Assembly Bill 52 (AB 52) was passed, which added provisions to the Public Resources Code to evaluate under CEQA impacts to tribal cultural resources, as well as consultation requirements with California Native American tribes (PRC Section 21080.3.1, 21080.3.2, 21082.3). AB 52 applies to projects for which a lead agency has issued a Notice of Preparation (NOP) of an environmental impact report or notice of intent to adopt a negative declaration on or after July 1, 2015. These notices are not required to implement Gallagher Well No. 2. A discussion of tribal cultural resources is provided below.

Setting

Tribal cultural resources are: 1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing in the California Register, or local register of historical resources, as defined in PRC Section 5020.1(k); or, 2) a resource determined by the lead CEQA agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c).

As described in Section 3.4, Cultural Resources, an additional survey for cultural resources was conducted in 2020 for the Gallagher Ranch project, which included the project area in its Area of Potential Effect (APE). The cultural survey report revealed the recordation of one newly identified cultural resource within the project area: Gallagher Bridge, and one previously recorded historic property: Gallagher Ranch, a contributing element of the Olema Valley/Lagunitas Loop Ranches Historic District with a period of significance of 1856 to 1961. The National Resources Conservation Service (NRCS) determined that the Gallagher Bridge as an eligible historic and cultural resource.

On August 8, 2019, the NRCS initiated Native American consultation to listed tribes, in which they received a response form the Federated Indians of Graton Rancheria (FIGR) on October 21,

2019. The FIGR did not express any concerns regarding the APE in the designated area and requested to be notified if anything was discovered during construction.

Regulatory Setting

State

In September 2014, the California Legislature passed AB 52, which added provisions to the Public Resources Code to evaluate under CEQA impacts to tribal cultural resources, as well as consultation requirements with California Native American tribes (PRC Section 21080.3.1, 21080.3.2, 21082.3). Lead agencies are required to analyze project impacts to tribal cultural resources separately from archaeological resources (PRC Section 21074; 21083.09). A tribal cultural resource is defined in Public Resources Code section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Regarding impacts to tribal cultural resources, PRC Section 21084.3 states:

a) Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.

b) If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process provided in Section 21080.3.2, the following are examples of mitigation measures that, if feasible, may be considered to avoid or minimize the significant adverse impacts:

    1) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

    2) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

        (A) Protecting the cultural character and integrity of the resource.

        (B) Protecting the traditional use of the resource.

        (C) Protecting the confidentiality of the resource.

    3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

    4) Protecting the resource.

Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)

According to the January 28, 2020 cultural survey report, no known tribal cultural resources listed or determined eligible for listing in the California Register, or included in a local register of historical resources as defined in PRC Section 5020.1(k), pursuant to PRC Section 21074(a)(1), would be impacted by the project. Additionally, Native American consultation initiated on August 8, 2020 determined that the Federated Indians of Graton Racheria on October 21, 2019 did not identify or express any concerns related to tribal cultural resources within the APE.

However, while unlikely, if any previously unrecorded archaeological resource were identified during ground-disturbing construction activities and were found to qualify as a tribal cultural resource pursuant to PRC Section 21074(a)(1) (determined to be eligible for listing in the California Register or in a local register of historical resources), any impacts to the resource resulting from the project could be potentially significant. Any such potential significant impacts would be reduced to a less than significant level by implementing adopted **Mitigation Measure CR-1** and **Mitigation Measure CR-2** (refer to Section 3.4 for details). With implementation of these mitigation measures, the project would not result in any new impacts to tribal cultural resources.

A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

NMWD did not determine any resource that could potentially be affected by the project to be a tribal cultural resource significant pursuant to criteria set forth in PRC Section 5024.1(c). If any previously unrecorded archeological resource were identified during ground-distrubing construction activities and were found to qualify as a tribal cultural resource pursuant to PRC Section 2107(a)(1) (determined to be eligible for listing in the California Register or in a local register of historical resources), any impacts to the resource resulting from the project could be potentially significant. Any such potential signficiant imapcts would be reduced to a less-than-significant level by implementing Mitigation Measure CR-1. This mitigation measure would

ensure that no further damage to the materials and/or resource area would occur until a qualified archaeologist has evaluated the situation and reported the incident to the Northwest Information Center and the California State Historic Preservation Officer. With implementation of this mitigation measure, the project would not result in any impacts to tribal cultural resources.

Conclusion

Implementation of the adopted mitigation measures applicable to cultural resources would reduce possible impacts related to tribal cultural resources during construction of the project to a less than significant level, and the project would not result in any new significant impacts.

3.12 Utilities and Service Systems

Issues (and Supporting Information Sources):	*Potentially Significant Effects Not Identified in Prior IS/MND*	*Potentially Substantial Increase in Severity of Significant Impact Identified in Prior IS/MND*	*Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives*	*No New or More Severe Significant Effects*
Utilities and Service Systems — Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Setting

The environmental setting relevant to Utilities and Service Systems for the Project site has not changed since adoption of the 2009 IS/MND. Checklist question b) has changed to include discussion of whether there would be sufficient water supplies to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

Findings of Previously Adopted IS/MND

The adopted 2009 IS/MND found that the project would have less than significant or less than significant with mitigation incorporated impacts for utilities and service systems. Impacts related to the construction of new or expanded water facilities are assessed and discussed throughout the document, in particular in Biological Resources, Cultural Resources, Geology, Noise, and Utilities.

Discussion

As discussed above, the first part of Question b) in the above excerpt from the IS checklist now asks whether NMWD has adequate water to serve the project. Because the project would create additional water supply instead of consuming more water, the project would still have no impact, despite the change in the wording of the question.

Discussion of the second part of Question b), whether NMWD has enough water to serve reasonably foreseeable development in addition to the project is described in Section 3.10 Population and Housing. Because the project would not cumulatively contribute to water demand, there is still no impact.

Conclusion

No new or more significant impacts related to utilities and service systems would occur compared to the impacts identified in the previously adopted IS/MND.

Though the checklist questions have changed slightly, the project has not, such that no new impacts would occur.

3.13 Wildfire

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
WILDFIRE — — If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: **Would the project:**				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Following the publication and approval of the 2009 IS/MND and Pipeline Project, several updates and amendments to the CEQA Guidelines have occurred, including guidleines outlining the addition of a new Wildfire impact category to Appendix G CEQA Guidelines. Discussion of wildfire impacts and analysis are provided below as a new addition to this CEQA Addendum.

Setting

The project site is designated as a Moderate Fire Hazard Severity Zone (FHSZ)[22] [23] and is under a Federal Responsbility Area[24] [25].

Substantially impair an adopted emergency response plan or emergency evacuation plan?

According to the Marin Countywide Plan, the County maintains policies and programs intended to minimize harm to people and property due to environmental hazards such as fire. Marin

[22] The Fire Hazard Severity Zone are developed using a science-based and field tested computer model that assings a hazard score based on the factors that influence fire likelihood and fire behavior. Many factors are considered such as fire history, existing and potential fuel (natural vegetation), flame length, blowing embers, terrain, and typical weather for the area. There are three hazard zones in state responsibility areas: moderate, high, and very high.

[23] CAL FIRE, 2007. Fact Sheet: California's Fire Hazard Severity Zones, Califonria Department of Forestry and Fire Protection Office of the State Fire Marshal. May 2007. Available online: https://www.sccgov.org/sites/dpd/DocsForms/Documents/Fire_Hazard_Zone_Fact_Sheet.pdf.

[24] Federal Responsbility Area is a legal term defining the area where the federal government has financial responsibility for wildland fire protection.

[25] Marin Geohub, 2020. Fire Hazard Severity Zone. Available online: https://gisopendata.marincounty.org/datasets/0683285b35354c18a93de194a8e3b70d_70?geometry=-122.928%2C38.043%2C-122.602%2C38.090.

County has also prepared an Emergency Operations Plan in order to guide agency and pubic natural disaster preparedness and response. Although the project would involve several truck trips during construction, no potential lane closures or impacts to evacuation routes is anticipated to occur that would alter the use of any existing roads within the project area. Additionally, operation and maintenance of the project would not include any additional impact to evacuation routes further from existing traffic conditions. Therefore, no designated emergency response plans or evacuation routes would be impaired during project construction, operation, or maintenance. Therefore, this impact would be less than significant.

Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The project would not include any housing or supply occupancy for any residents. Therefore, the project would not expose any occupants to any pollutant concentration from a potential wildfire. The project is designated as a Moderate Fire Hazard Severity Zone and contains relatively flat terrain and predominantly agricultural grazed land with minimal tree cover along Lagunitas Creek. Wind events are typically fastest over mountains and ridge tops such as Mt. Tamalpais, Loma Alta, and Mt. Burdell compared to low-lying areas.[26] Given the lack of slope, prevailing winds, and surrounding vegetation, the project would have a low to moderate wildfire risk. However, surrounding residents within Gallagher Ranch could be exposed to pollutant concentrations if a fire were to occur as a result of project ignitions. Implementation of fire protection measures as described in the project description would minimize the risk of ignition during construction and reduce the risk of a wildland fire to a less than significant level.

Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The project would involve the installation of a new water source and associated pipeline infrastructure and would serve as a replacement to the Coast Guard Wells, as described in Chapter 1, Background. No installation or maintenance of any roads, fuel breaks, power lines, or additional utilities would be required by the project. Constuction of the new Gallagher No. 2 well would provide higher quality water for the residents of the Point Reyes Station and surrounding area. The project would not limit or restrict any current access to emergency water sources needed for wildfire management. Therefore, the project would not affect or exacerbate fire risk or deplete any emergency water resources. This impact would be less than significant.

26 Marin County Fire Department, 2016. Community Wildfire Protection Plan. Marin County Fire Department in collaboration with Fire Safe Marin. July 2016. Available online: https://drive.google.com/file/d/0Bx15py v0JoJZWXE2WXIwMWtENUE/view.

Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project does not include any housing or structures, and therefore would not expose people or structrues to increased risk associated with flooding, landslides, or post-fire slope instability as a result of locating them near such existing risks. Under this criterion, there would be no impact.

Conclusion

Implementation of fire protection measures during construction of the project would reduce the possible impacts related to wildfire risk and resident exposure to pollutant concentrations to a less than significant level. No additional significant impacts would occur.

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CHAPTER 4
Conclusion

As is evident from the analyses and discussion in Chapter 3, the Gallagher Well No. 2 project would not result in new or more severe significant impacts than those attributable to the project described in the 2009 Gallagher Wells and Pipeline Project Initial Study/Mitigated Negative Declaration (IS/MND).

Further, the analyses and discussion in Chapter 3 do not reflect involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. There have been no changes in circumstances under which the project is undertaken that would result in new significant environmental impacts or substantially more severe impacts, and no new information has become available that would indicate the potential for new significant impacts or substantially more severe impacts than were discussed in the IS/MND. Therefore, no further evaluation is required, and no Subsequent MND is needed pursuant to CEQA Guidelines Section 15162.

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CHAPTER 5
Mitigation Monitoring and Reporting Program

This section describes previously adopted resource protection measures for the project. Where necessary, these mitigation measures have been amended, shown in hardline strikethrough and underline to demonstrate changes from the 2009 IS/MND. Certain mitigation measures are not included because they are no longer relevant to the project. These include:

- **Mitigation Measure BR-1.** No work would be conducted within the stream channel or Downey Well.
- **Mitigation Measure GS-2**. As a water infrastructure project, the proposed project is exempt from general county zoning and ordinance requirements. Therefore, no Erosion and Sediment Control Plan is required for the project.
- **Mitigation Measure HWQ-1.** This mitigation measure relates to the abandonment of Downey Well, which is not part of this project.
- **Mitigation Measure T-1.** No traffic control plan is required because no construction will occur within the Point-Reyes-Petaluma Road right-of-way.
- **Mitigation Measure U-1.** No utility mitigation will be required because no work will be conducted along Point Reyes-Petaluma Road and no pipelines will cross drainage culverts.

Mitigation Measure BR-2

NMWD shall not divert water from the Gallagher Wells in a manner that adversely affects fish and wildlife residing between the Gallagher Wells and the Coast Guard Wells. To meet this standard, prior to constructing any proposed project improvements, NMWD prepared a final hydrologic design plan describing how and where stream flows will be monitored and how NMWD will maintain flow levels downstream of the Gallagher Well site. This plan addressed the following:

- The location and operation of the relocated gauging station;
- The party responsible for monitoring the Gallagher gauging station;
- Final arrangements with MMWD regarding water releases when necessary;
- Details of how the water release will be initiated and terminated; and
- Prediction process for initiating and terminating water releases.

This plan, as described above, ~~shall be~~ was reviewed ~~and approved~~ by the California Department of Fish and Game (now the California Department of Fish and Wildlife); no comments were provided by the Department within the 60-day review period provided under California Fish and Game Code Section 1602 (a) (4), and in reliance thereon, NMWD connected Gallagher Well No. 1 into the newly constructed transmission pipeline and began delivery of water from the Gallagher Ranch site in 2015. The State Water Resources Control Board made the requested changes to NMWD's Water Rights License and Permit as described in the 2009 IS/MND; now that the location of Gallagher Well No. 2 has been determined in consultation with the property owner, NMWD will submit an administrative update to include the site of Gallagher Well No. 2 as an additional point of diversion under the Water Rights License and Permit. ~~Once approved by this agency, NMWD will apply to the State Water Resources Control Board to make the requested changes to its Water Rights License and Permit.~~

Mitigation Monitoring and Reporting

The hydrologic design plan was reviewed by the Department prior to connection of Gallagher Well No. 1 to the newly constructed transmission pipeline in 2015. Monitoring and maintaining stream flows will occur throughout the time that the Gallagher Wells are in use. NMWD is responsible for implementing the mitigation and for compliance. The California Department of Fish and ~~Game~~Wildlife will also monitor for compliance and may alter the required conditions for releases after reviewing the monitoring of streamflow data.

Mitigation Measure BR-3

NMWD shall implement measures to avoid and minimize potential adverse effects on amphibians within the project area. Prior to conducting work and during work, the following measures shall be implemented:

- Prior to the start of earthwork, the construction work area boundary shall be fenced with a temporary exclusion silt fence to prevent special-status wildlife from entering the site during construction. The fencing shall be three feet high and buried to a depth of at least three inches. Any needed repairs to the fence shall be performed immediately. Final fence design and location shall be determined by the Lead Biologist. Exclusionary fencing shall be removed once construction activities are complete.

- A biological resource education program shall be provided for construction crews and contractors before construction activities begin. The program shall describe the life history and identification of the California giant salamander, foothill yellow-legged frog, and California red-legged frog, protective measures to be implemented if sensitive species are identified or suspected to be in the work area (i.e., immediate notification of the biological monitor, and temporary protective buffers), and penalties for handling or harming these species.

- If any California giant salamander, foothill yellow-legged frog, and/or California red-legged frog is located on-site, work shall be ceased in the immediate area and the U.S. Fish and Wildlife Service or California Department of Fish and Wildlife shall be notified before work is reinitiated.

- During work, all trash that may attract predators shall be properly contained, removed from the work area, and disposed of regularly. NMWD or its contractor shall remove all trash and construction debris from work area on a daily basis.

Mitigation Measure BR-4

If construction or vegetation removal must be performed during the nesting period (February 1 through August 31), a qualified biologist shall survey the work area to verify the presence or absence of nests no more than 7 days prior to the start of construction activities, including the clearance of vegetation. If no nests are found and the site is cleared of vegetation, no further survey will be required. If active nests are observed, the construction contractor, in consultation with a qualified biologist, shall establish buffer zones around nest areas. Typical nest buffers are 100 feet for passerine birds, depending upon the nature of proposed activities and the sensitivity of the identified bird to disturbance, and 150 to 250 feet for raptors. Construction activities shall be avoided or modified within the buffer area until young birds have fledged, which shall be confirmed by the qualified biologist. Buffer sizes may be reduced from the initially established distances following review by the qualified biologist and/or coordination with California Department of Fish and Wildlife.

Mitigation Measure CR-1

- If cultural resources are encountered during project construction, avoid altering the materials and their context until a cultural resources consultant has evaluated the situation.

- If applicable, a qualified archaeologist shall monitor subsequent excavations and spoils in the vicinity of the find for additional archaeological resources.

- If the archaeologist determines the discoveries are of importance, the resources shall be properly recovered and curated. The archaeologist shall prepare a summary outlining the methods followed and summarizing the results of the mitigation program. The report shall outline the methods followed, list and describe the resources recovered, map their exact

locations and depths, and include other pertinent information. Identified cultural resources shall be recorded on DPR 523(AJ) historic recordation forms. NMWD shall submit the report to the Northwest Information Center and the California State Historic Preservation Officer.

Mitigation Monitoring and Reporting

The mitigation will be implemented whenever warranted throughout the construction phase. The contractor will be responsible for determining the presence of the initial cultural resource find. NMWD will be responsible for engaging the cultural resource specialist. The cultural resource specialist shall be responsible for properly reporting and recording the find(s).

Mitigation Measure CR-2

This mitigation incorporates the requirement established in Mitigation Measure CR-1 and adds the requirements that in the event that human remains are encountered, the contractor shall stop work in the area and NMWD shall contact the Marin County Coroner in accordance with Section 7050.5 of the State Health and Safety Code.

Mitigation Monitoring and Reporting

The mitigation will be implemented whenever warranted throughout the construction phase. The contractor will be responsible for determining the presence of human remains. NMWD will be responsible for contacting the County Coroner.

Mitigation Measure GS-1

The project shall be constructed to withstand the maximum probable earthquake and to withstand other geologic and soil constraints or hazards, including unstable slopes, differential compaction, liquefaction, and lateral spreading, and it shall avoid creating additional instabilities in areas where slopes may already be unstable. Prior to final design, a design-level geotechnical investigation and report shall be prepared by a qualified geotechnical consultant to specifically identify the extent of geologic constraints and slope instabilities along the pipeline route. The geotechnical investigation shall include site-specific evaluation of the slope stability subsurface conditions, through drilling, logging and sampling of representative borings along the collection system route. This design level investigation and report shall also identify expansive soils and seismic hazards from landsliding, liquefaction, and dynamic densification. Specific measures to be employed to reduce the potential for damaging slope instabilities and failures include design, construction and monitoring measures such as:

- Re-routing of the pipeline to avoid unstable areas;
- Construction of retaining walls and structures in areas of slope and bank instabilities that threaten the stability of the pipeline routes;
- De-watering of areas of slope instabilities to reduce potential for failure;
- Excavation and reconstruction of areas of slope instability, including the installation of subsurface drainage to reduce the potential for future failure;

- Incorporation of isolation (i.e., shutoff) valves at areas of potential problems; and
- Installation of flexible piping/couplings in areas of known instabilities. The project shall be constructed consistent with the criteria as specified in the design recommendations set forth in the geotechnical report. The project shall reduce the potential for damage to the collection/transmission line due to liquefaction and/or dynamic densification during a strong earthquake. The required design-level geotechnical investigation and report shall identify specific areas with liquefiable soils and determine appropriate specific design and construction measures to mitigate the potential hazard. The geotechnical investigation shall include drilling, logging, and sampling in areas of moderate and deep alluvial deposits to evaluate the potential for liquefaction, dynamic densification, lateral spreading and lurch cracking.

Mitigation Monitoring and Reporting

The recommended design study will be prepared during final design and recommendations in that study included in the final construction drawings for the project. A qualified geotechnical expert shall review the plans and specifications to ensure compliance. A qualified geotechnical expert shall observe and test site trenching, compaction of fill material, and slide repair to confirm that subsurface conditions are as expected and to adjust elements of the design, if warranted. The contractor will be responsible for implementing the actions. NMWD will determine final compliance.

Mitigation Measure GS-3

The required design-level geotechnical investigation and report shall identify potential areas of expansive soils and appropriate construction specifications. At a minimum, the following measures for pipeline construction shall be included:

- Trenches shall be backfilled with imported non-expansive fill soils beneath and around pipelines;
- Native soil backfill shall be confined to zones a minimum of one foot above the tops of pipes in non-paved areas; and
- Pavement areas shall be backfilled with an appropriate non-expansive pavement section. If expansive clay soils occur in the construction areas, the required geotechnical report shall develop appropriate design and construction specifications. These would include, for example, over-excavation of expansive soils and replacement with non-expansive engineered fill. The geotechnical investigation shall include the drilling, logging and sampling of boreholes and laboratory testing of physical properties of soil.

Mitigation Monitoring and Reporting

The recommended design study will be prepared during final design and recommendations in that study included in the final construction drawings for the project. A qualified geotechnical expert shall review the plans and specifications to ensure compliance. The contractor will be responsible for implementing the actions. NMWD will determine compliance.

Mitigation Measure H-1

The project construction documents shall include provisions that alert the contractor to the possibility of encountering buried hazardous materials during excavation work and require that, if such materials are encountered, the work in that area shall cease and immediate notification be given to the project engineer/inspector(s) and appropriate regulatory authorities.

Mitigation Monitoring and Reporting

NMWD shall include these conditions in the construction contract. The contractor shall be responsible for compliance with these conditions. NMWD shall be responsible for determining final compliance.

Mitigation Measure N-1

Construction of the well shall be limited to the hours of 7:00 a.m. to 6~~5~~:00 p.m. on weekdays and 9:00 a.m. to 5:00 p.m. on Saturdays. No work shall be allowed on ~~Saturdays,~~ Sundays, or holidays.

Mitigation Monitoring and Reporting

The construction hours will be included in the final construction specifications for the project. NMWD will periodically monitor start and stop work times to ensure compliance.

Appendix A
2009 Initial Study Gallagher Wells and Pipeline Project

ESA

INITIAL STUDY

GALLAGHER WELLS AND PIPELINE PROJECT

March 2009

Prepared for: North Marin Water District
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Prepared by: Leonard Charles and Associates
7 Roble Court
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1.0 INTRODUCTION AND BACKGROUND

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code 21000 *et seq.* and the *State CEQA Guidelines*, California Code of Regulations Section 15000 *et seq.*

The proposed project includes drilling one additional well at North Marin Water District's (NMWD) Gallagher Wells site and constructing a pipeline to connect the existing and new well at this well site to NMWD's water treatment plant. There is one existing well at this well site, but the well is not connected to the NMWD treatment and delivery system, and it has not been used since it was developed. The water from these wells would be used to supplement the existing Coast Guard Wells, which are the primary water source for the Point Reyes Water Treatment Plant. The proposed project also includes construction of a new stream gauging station, demolition and abandonment of an existing NMWD well (Downey Well), and the transfer of an existing NMWD water right for instream uses. A project site map is shown on Figure 1

2.0 PROJECT LOCATION AND SETTING

As shown on Figure 2, the Gallagher Well site is located on a small parcel of land (130 feet by 85 feet; located at 38°04"47"N and 122°47'66"W) owned by NMWD on property commonly called the Gallagher Ranch (14500 Point Reyes-Petaluma Road), which is located 1.3 miles northeast of Highway 1 at Point Reyes Station. Access is provided by Point Reyes-Petaluma Road. The well site is on the south bank of Lagunitas Creek, across the creek from Point Reyes-Petaluma Road near the east end of the private Gallagher Ranch bridge. The proposed pipeline would be installed within the right of way of Point Reyes-Petaluma Road for about a mile where it would connect to an existing pipeline that delivers water from the existing Downey Well site to NMWD's treatment plant, which is located about 500 feet north of the end of Commodore Webster Drive in Point Reyes Station.

The only residence near the well site is the residence on the Gallagher Ranch, which is located about 300+ feet east of the existing well site and 400 to 800 feet from the proposed well site. There are no residences located along the section of Point Reyes-Petaluma Road where the new pipeline would be constructed.

The Downey Well (located at 38°04"35"N and 122°47'38"W) is located within the stream channel of Lagunitas Creek approximately 2,900 feet northeast of the treatment plant. NMWD proposes to abandon this well.

Existing Water Rights

NMWD diverts water from Lagunitas Creek through a Water License and two Water Right Permits. Water License 4324B allows NMWD to divert water between May 1 and November 1 of each year at a rate not exceeding 0.67 cubic feet per second (cfs) for a maximum diversion of 148.8 acre-feet per year. The authorized points of diversion under this License include the Coast Guard Wells, the Downey Well, and the Giacomini Ranch site. The License contains a

number of stipulations that limit or prohibit diversion when streamflow in Lagunitas Creek falls below levels needed to protect fish and wildlife.

The Water Right Permit 19724 allows diversion of 0.699 cfs (maximum of 212.7 acre-feet diverted) on a year-round basis. Water Right Permit 19725 allows a maximum diversion of 0.961 cfs (292.5 acre-feet maximum) on a year-round basis. The water rights under these two Permits are junior rights that are not available during the summer months (July through October) of dry years. A dry year is defined as a year in which the total precipitation that occurs from October 1 through April 1 is less than 28 inches as measured at the Marin Municipal Water District's Kent precipitation gauge. The Permits authorize diversion from the Coast Guard Wells, Gallagher Well site, Downey Well, and a point upstream from the Green Bridge.

To meet water demand in dry years when water cannot be diverted from Lagunitas Creek due to the restrictions described above, NMWD has an Intertie Agreement with the Marin Municipal Water District (MMWD) to release up to 250 acre-feet of water from Kent Lake. To date, no water has needed to be released under this Intertie Agreement since a dry year has not occurred.

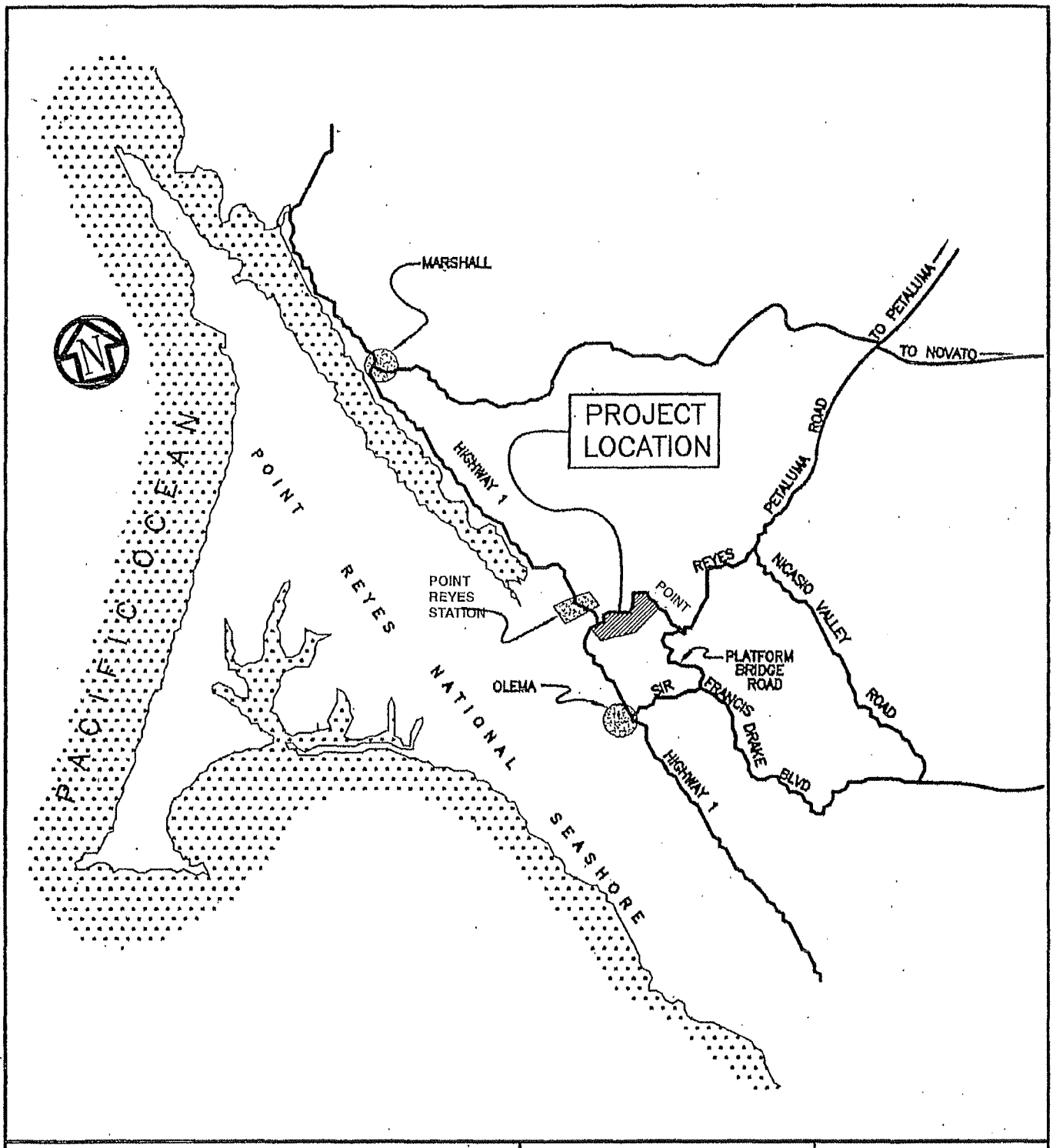
3.0 PROPOSED PROJECT DESCRIPTION

1. Project Objectives and Benefits

NMWD historically has relied on the two Coast Guard Wells (located to the south of its treatment plant, which is located approximately 500 feet from the end of Commodore Webster Drive at the Point Reyes Station Coast Guard Housing Facility) to supply water for the West Marin service area. Due to the wells' location in the upper tidal reach of Lagunitas Creek, they are under the influence of flows in the tidal reach of Lagunitas Creek and subject to periodic salinity intrusion and occasional flooding. The Gallagher Ranch site is upstream of any flooding and tidal reaches of Lagunitas Creek. However, the existing NMWD Gallagher supply well has a limited flow capacity (170 gallons per minute) and is not connected to the West Marin distribution system. This project would increase the Gallagher Well site's capacity and integrate those wells into the District distribution system. Because the Coast Guard Wells largely have good water quality, are reliable during most months, and have ample recharge, the Coast Guard Wells will continue to be the primary supply.

This historic salinity intrusion problem may be exacerbated by the National Park Service's conversion of the Giacomini Ranch to tidal wetland, which will increase salinity in upstream portions of Lagunitas Creek. According to the Final EIS/EIR for the Giacomini Wetland Restoration Project, the Park Service will not implement the Olema Marsh portion of the restoration project until either further studies are done to determine whether that part of the restoration would increase salinity; new information is received showing that the project would not adversely pose a threat to NMWD water quality; or NMWD constructs the pipeline connecting the Gallagher Wells to the treatment plant.[1] The proposed project would satisfy the third criterion, thereby allowing the Park Service to conduct the proposed Olema Marsh restoration.

[1] National Park Service, Giacomini Wetland Restoration Project: Final EIS/EIR, Response C-20, Volume 2, page 8, 2007.



CSW [St]²
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GALLAGHER POINT REYES PIPELINE

Figure 1: VICINITY MAP

MARIN COUNTY CALIFORNIA

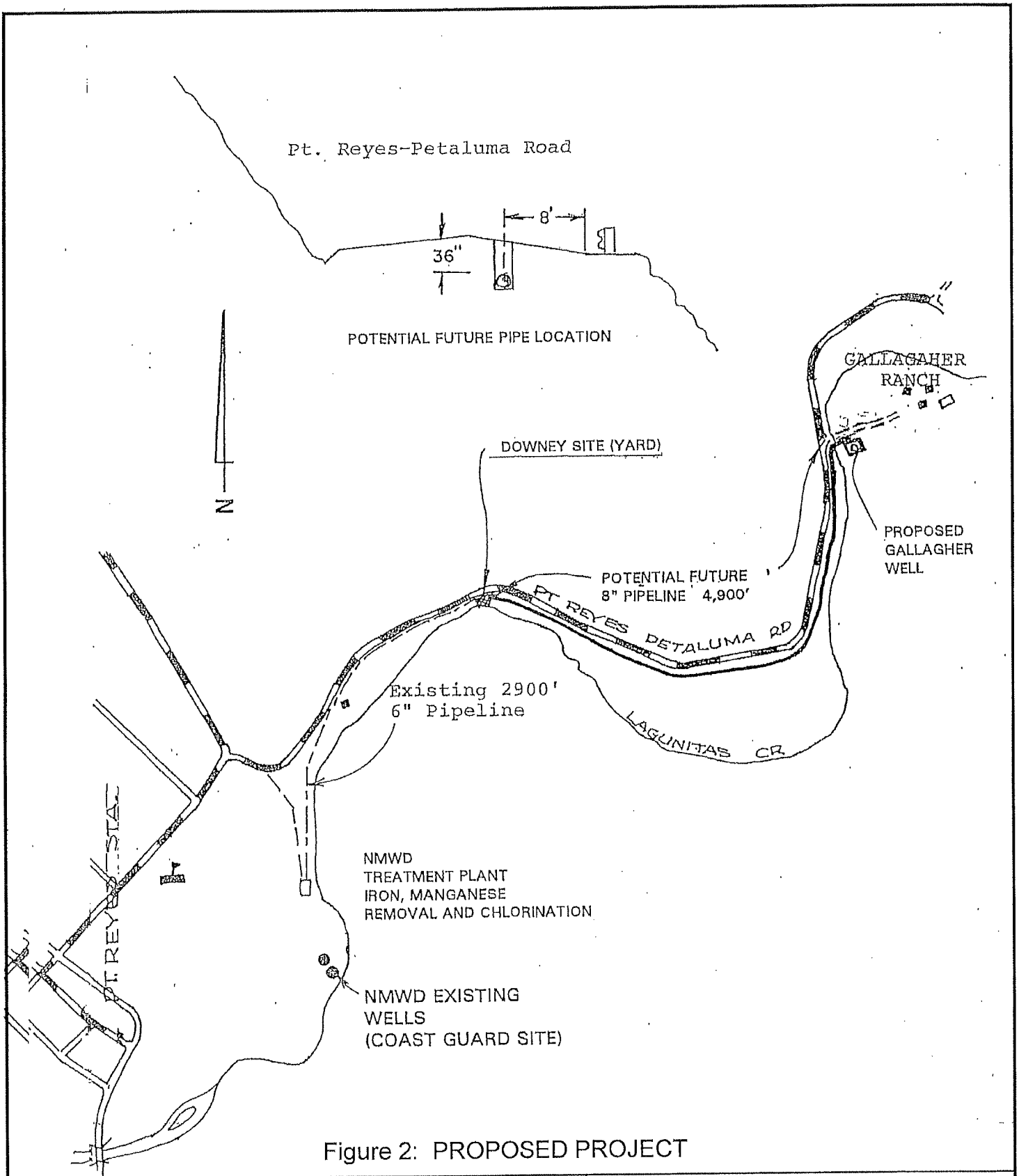

Figure 2: PROPOSED PROJECT

NORTH MARIN COUNTY WATER DISTRICT NOVATO, CALIFORNIA	GALLAGHER RANCH WELL	DES	DR	CH	REC
		APPROVED:			
		RE 11695			

SCALE
DATE 6-26-92
SHEET NO. OF SHEET
NO. Figure 2

FIGURE 3
PROPOSED GALLAGHER
WELL SITE

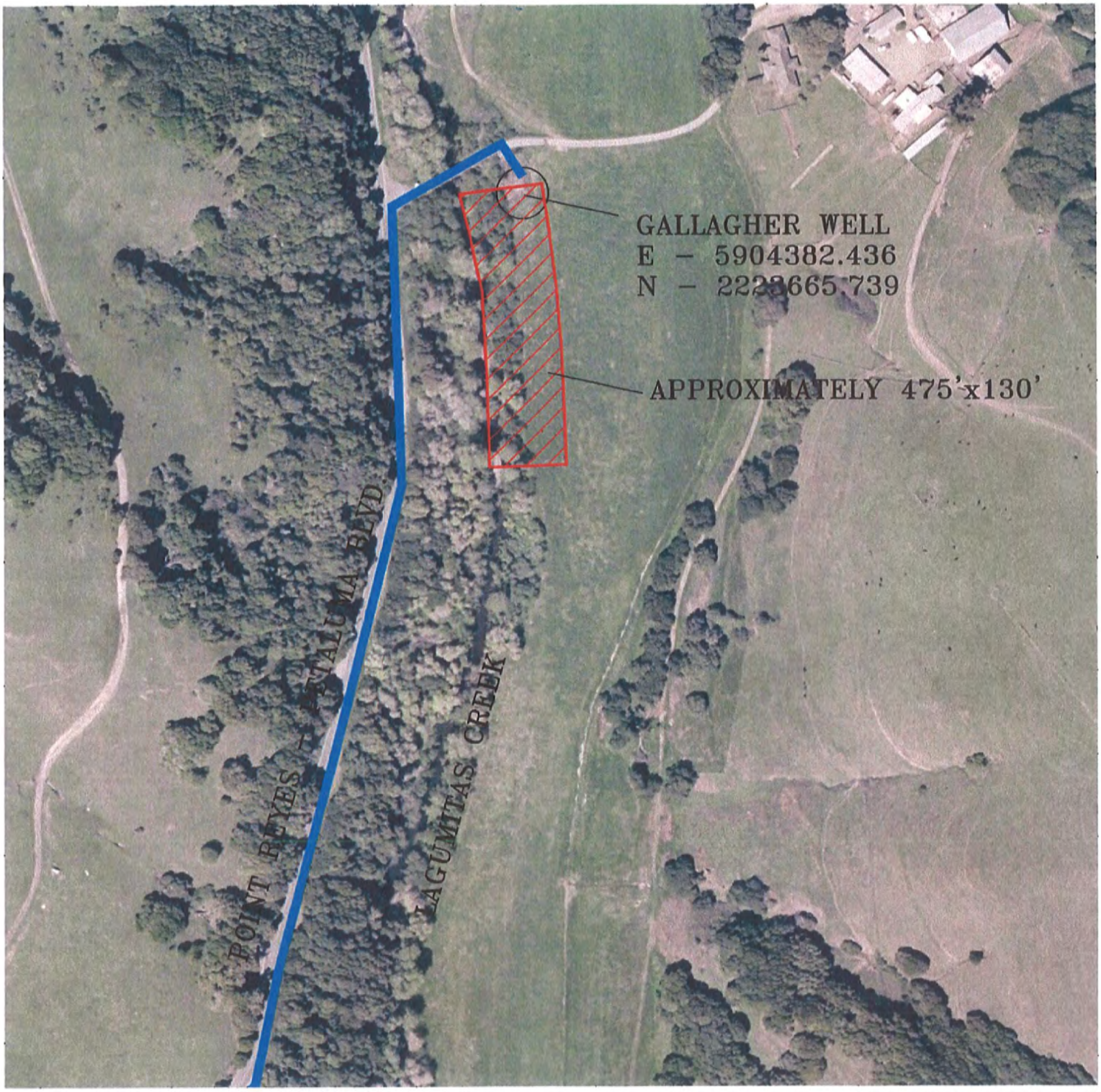

FIGURE 3

Given this background, NMWD's stated project goals and objectives include:

- **Provide Local Water Security**. This new water source would be used during periods of high tides, avoiding saltwater intrusion into the existing primary supply wells (Coast Guard Wells). By establishing a reliable emergency backup source of water upstream of the high tide water influences of Tomales Bay, water service reliability will increase. The new well will serve West Marin communities of Point Reyes Station (including the Coast Guard housing area), Inverness Park, Paradise Ranch Estates, Bear Valley (including the Point Reyes National Seashore) and Olema. The North Marin Water District has an agreement to assist the Inverness Public Utilities District during emergency water shortages. Development of this supplementary supply therefore stands to benefit that community.

- **Protect NMWD Communities' Water Supply From Flooding**. This will be accomplished by providing a reliable and secure source of water during flood events. During such events, the existing primary supply wells (Coast Guard Wells) may be inundated under Lagunitas Creek floodwaters and cannot be used as a source of water until the floodwaters recede.

- **Protect NMWD Communities' Water Supply From Drought**. Lower instream flows in Lagunitas Creek during dry or drought years increases salt-water intrusion at the existing primary supply wells. This project will reduce off-tide pumping at the primary supply wells during dry years. The present off-tide pumping practice is to pump at higher rates before and after high tide events to recapture distribution system storage.

NMWD believes that the project would have the following benefits:

- **Water Supply and Reliability**. The project insures reliable, high quality water supplies during high tide and flood events on Lagunitas Creek. In addition to communities of Point Reyes Station, Olema, Bear Valley, Paradise Ranch Estates and Inverness Park, the Town of Inverness may also benefit because it has an emergency water supply connection to the NMWD West Marin distribution system.

- **Flood Management.** The project provides a dependable means of avoiding effects of flooding in Lagunitas Creek on District's West Marin water supply.

- **Protect Groundwater Quality.** The project insures protection for Coast Guard Wells and the aquifer from saltwater intrusion by avoiding pumping at Coast Guard Wells during periods of high tide and low flows in Lagunitas Creek.

- **Habitat Protection.** The project will reduce North Marin Water District's water supply impacts on Lagunitas Creek for fish habitat.

- **Reduce Conflict Between Water Users** – The project is a preferred alternative to off-tide pumping at higher rates at the existing Coast Guard Wells. The North Marin Water District would provide collaborative support to National Park Service (NPS) on the

Giacomini Wetlands restoration project by working on this new source of water away from the restoration. Off-tide pumping may become increasingly unreliable in future years as salinity intrusion at the Coast Guard Wells near Lagunitas Creek could increase due to the recent restoration of natural hydrologic conditions at the Giacomini Wetlands.

- **Wetland Restoration** – The project allows the National Park Service to implement its planned Olema Marsh restoration, which will allow full implementation of the beneficial Giacomini Wetland Restoration Project.

- **Benefits to Lagunitas Creek** – The project will permanently dedicate 212.7 acre feet (0.699 cfs) of Lagunitas Creek water that the District can currently divert (by transfer of Water Right Permit 19724) to instream uses (i.e., for the benefit of plants, fish, and wildlife using the creek). Reduction in off-tide pumping at higher rates would also benefit the Lagunitas Creek fishery by keeping more water in the stream.

2. Wells and Pipeline

The proposed project includes an additional well and a pipeline to supplement a periodically unreliable water source. The existing Gallagher Well was drilled to a depth of 54 feet and has a sustained yield of about 170 gallons per minute. NMWD proposes to construct one additional well at the Gallagher Wells site to increase the water available from this site to a maximum of 300 gallons per minute. The new well may be installed in an area outside the land currently owned by NMWD. Figures 2 and 3 shows the area where the new well might be drilled. If the proposed new well is outside the land currently owned by NMWD, then NMWD will need to purchase that land from the current owner.

Water from the wells will be piped through grassland to the existing Gallagher Ranch private road/driveway and then along that road to the private bridge. The pipe will be hung from the bridge, so no work would take place within Lagunitas Creek. Water will then be transported by about 4,900 feet of new 12-inch pipeline to be installed along Point Reyes-Petaluma Road to the existing Downey Well site where it would connect to the existing 6-inch pipeline that connects the Downey Well to the District's Point Reyes Treatment Plant. The pipeline proposed along Point Reyes-Petaluma Road would be within the pavement or shoulder of that road.

3. Abandonment of the Downey Well and Change the Point of Diversion

NMWD will abandon the existing Downey Well that lies within the Lagunitas Creek stream channel. This well is a hazard, causes adverse impacts to the stream and produces water with poor water quality. The well was originally constructed on the bank of the stream, but the creek has migrated and captured the wellhead, so that currently it is located in the middle of the creek. Since 1994, this well has been used to deliver raw water to the Giacomini Ranch for irrigation. The existing well head will be removed in the following way:

- The entire 12-inch well casing will be filled with bentonite (clay) chips.

- An excavator will be driven to the edge of the streambank (no equipment will enter the stream channel). Using a hoe ram attachment, the concrete surrounding the well head will

be broken into 3-5 large pieces. Using a clam shell attachment to the excavator, the pieces of concrete will be removed from the stream bed.

- The well pipe will be cut off to be below the water level (about 2-4 feet would be cut off).

There is an existing access road to the well site. NMWD annually uses this road to conduct maintenance of the well. To get near the well head, NMWD places 3-foot concrete blocks over the portion of this road nearest the streambank to allow access by heavy equipment. The concrete blocks are removed each year following completion of well maintenance. This same procedure would be used to allow access by the excavator, though because the excavator has a longer reach than the equipment used to maintain the well, fewer concrete blocks would need to be installed for well removal.

NMWD proposes to amend its Water Right 4324B and Permit 19725 to add the Gallagher Well site as a point of diversion. NMWD will petition the State Water Resources Control Board (SWRCB) to change the approved points of diversion for License 4324B from the Giacomini Ranch, Coast Guard Wells, and Downey Well to the Coast Guard Wells, Downey Well site, and the Gallagher Wells.

4. Gauging Station

An existing stream gauging station is located between Point Reyes-Petaluma Road and Lagunitas Creek immediately north of the Gallagher Ranch driveway. In order to gauge the streamflow downstream of the area where the existing and the new Gallagher Well would be located, the stream gauge will be relocated to a point about 1,200 feet south of the existing Gallagher Well. This site was identified as an appropriate site by NMWD and U.S. Geological Survey (USGS) staff during a March 17, 2008 site visit. The stream gauge station meets USGS standards; it would be a very small installation measuring approximately 3 feet by 3 feet by 4 feet; it would be elevated to be above the 100-year flood elevation. It would be constructed on the east side of the creek with access from the Gallagher Ranch pasture that borders this section of the creek. It would be powered by either an electrical line from a nearby power pole or a solar cell. It would contain a telephone or cell phone connection to send data.

5. Dedication of Water for In-Stream Uses

As allowed under California Water Code Section 1707, NMWD proposes to dedicate the water that the District can now divert under its Water Right Permit 19724 to permanent instream use. The Permit allows diversion of 212.7 acre feet of water per year (at a maximum rate of 0.699 cubic feet per second). NMWD will petition the State Water Resources Control Board (SWRCB) to change the place of use and purpose of use for 0.699 cubic feet per second (cfs) of water diverted from Lagunitas Creek under Water Right Permit 19724 for municipal uses in the NMWD West Marin Service Area for the purpose of preserving and enhancing wetland habitat, and fish and wildlife resources in Lagunitas Creek pursuant to Water Code Section 1707. The new place of use is defined as instream flows for the protection, preservation, restoration and recovery of aquatic organisms, including but not limited to coho salmon and steelhead trout pursuant to Recovery Planning measures to be developed under the Memorandum of Understanding Among National Marine Fishery Service, California Department of Fish and

Game, Army Corps of Engineers, Fish Net4C, counties of Mendocino, Sonoma, Marin, San Mateo, Santa Cruz and Monterey and the County of Humboldt as executed on May 16, 2002.

6. Construction Process and Phasing

Construction of the pipeline will require one excavator and one backhoe for earthwork and grading tasks; a loader for moving and placing backfill; and smaller equipment for finishing work. Once construction is completed, traffic to and from the site will be minimal. Construction truck traffic includes 10-wheeler trucks to dispose of excavated materials and flatbed semi trucks for delivery of new pipe.

Removal of the Downey wellhead will require the use of an excavator a dump truck to remove the broken concrete, and hand power tools. It is estimated that this process can be completed in two days.

Installation of the gauging station would require a small truck to haul the equipment and hand tools to install.

Construction of the project would consist of four phases: (1) drilling of a new well (three weeks of work), (2) installation of the pipeline along Point Reyes-Petaluma Road (two months of work), (3) demolition of the Downey Well (two days), and 4) installation of the relocated gauging station (two days). At most, the construction would last 4 months, but some of the work could be done conterminously.

4.0 LEAD AGENCY

1. Project Title

Gallagher Wells and Pipeline Project

2. Lead Agency Name and Address

North Marin Water District
P.O. Box 146
Novato, CA 94948

3. Contact Person and Phone Number

Mr. Drew McIntyre
Chief Engineer
North Marin Water District
P.O. Box 146
Novato, CA 94948
415.897.4133

5.0 OTHER PERMITS AND REGULATORY OVERSIGHT

The North Marin Water District is the public agency responsible for approving and carrying out the proposed project and is considered the Lead Agency under CEQA. NMWD is responsible for preparing this Initial Study. NMWD will approve the Mitigated Negative Declaration prepared for the proposed project and either approve or reject the project after the Mitigated Negative Declaration has been circulated for public review and comment.

The California State Water Resources Control Board, Division of Water Rights would need to approve the proposed changes to Water License 4324B and Water Right Permits 19724 and 19725.

The California Department of Fish and Game will need to approve a Streambed Alteration Agreement to allow the instream work needed to abandon the Downey Well and possibly to install pipes for the relocated gauging station.

The California Department of Fish and Game will review the proposed project and Water License amendment to ensure that the project will not significantly affect fish or other wildlife. It is expected that Point Reyes National Seashore will also review the proposed project since much of the section of creek that might be affected downstream of Gallagher Wells is within the Golden Gate National Recreation Area (GGNRA) (and Point Reyes National Seashore administers this portion of GGNRA), plus the project would allow the Park Service to implement the Olema Marsh Restoration project.

The County of Marin will need to issue an Encroachment Permit for installing the pipeline and a Well Abandonment Permit for abandoning Downey Well. Because the project is within the Coastal Zone, the County is a Responsible Agency that would need to approve a Coastal Development Permit for the project. The new well site is on property classified and zoned as Coastal Agricultural Production Zone. A well is a conditional use in this zone, and it requires the County to approve a Use Permit.

6.0 RELATED PROJECTS

A review of the Marin County Community Development Agency's most recent inventory of proposed development projects as of September 2008 (*PROPDEV44,* published in October 2008), shows that there are two other proposed projects in the Point Reyes Station area; they are:

- Reuse of the existing Grandi Building at 11101 Highway One in Point Reyes Station for 3 residential units, 22 hotel rooms, and 17,361 square feet of retail use. This project has been approved.

- The Bar-Or Subdivision/Lot Line Adjustment would allow a 5-lot subdivision of 21.3-acre property off Viento Way in Point Reyes Station. This subdivision has been already approved, but no development is proposed at this time.

The proposed project will not increase the water supply available to NMWD. NMWD is allowed to take its maximum allowed diversion from its existing Coast Guard Wells. The District has adequate capacity from these wells to serve projected buildout in the area as described in the 2007 Marin Countywide Plan.

7.0 INITIAL STUDY CHECKLIST

This section documents the anticipated environmental effects of the proposed project using an Initial Study Checklist and providing a brief explanation supporting the findings of each checklist item.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Less Than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

Agriculture Resources ☐	Aesthetics ☐	Air Quality ☒
Biological Resources ☒	Cultural Resources ☒	Geology & Soils ☒
Hazards & Hazardous Materials ☒	Hydrology/Water Quality ☒	Land Use & Planning ☐
Mineral Resources ☐	Population & Housing ☐	Noise ☒
Public Services ☐	Recreation ☐	Transportation & Traffic ☒
Utilities & Service Systems ☒	Mandatory Findings of Significance ☒	

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project **could not** have a significant effect on the environment and a **Negative Declaration** will be prepared. _____

I find that although the proposed project **could** have a significant effect on the environment, there **will not** be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A **Mitigated Negative Declaration** will be prepared. __x__

I find that the proposed project **may** have a significant effect on the environment, and an **Environmental Impact Report** is required. _____

I find that the proposed project **may** have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, however it must analyze only the effects that remain to be addressed. _____

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards and (b) have been avoided or mitigated pursuant to an earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. _____

_____ _____

Signature Date

Mr. Drew McIntyre, Chief Engineer
North Marin Water District

EVALUATION OF ENVIRONMENTAL IMPACTS

This Initial Study is based on CEQA's Environmental Checklist Form. Each item on the checklist is answered as either "potentially significant impact," "less than significant with mitigation incorporated," "less than significant," or "no impact" depending on the anticipated level of impact. The checklist is followed by explanatory comments corresponding to each checklist item.

A "no impact" response indicates that it is clear that the project will not have any impact. In some cases, the explanation to this response may include reference to an adopted plan or map. A "less than significant impact" response indicates that there will be some impact but that the level of impact is insufficiently substantial to be deemed significant. The text explains the rationale for this conclusion. A "less than significant impact with mitigation incorporated" response indicates that there will be a potentially significant impact, but the Initial Study determines there are adequate mitigations, which are described and have been included in the project, to reduce the level of impact to an insignificant level. Finally, a "potentially significant impact" response would indicate that the Initial Study cannot identify mitigation measures to adequately reduce the impact to a level that is less than significant. In the latter case, an EIR would be required, but no "potentially significant impacts" have been identified for this proposed project.

DISCUSSION OF ENVIRONMENTAL IMPACTS

The proposed project will have potentially significant impacts in the areas of air quality, biological resources, cultural resources, geology and soils, hazardous materials, hydrology and water quality, noise, transportation and traffic, and utilities and service systems. All potentially significant impacts identified in this Initial Study can be reduced to a level that is less than significant if mitigation measures recommended in this Initial Study are incorporated into the project.

I. Aesthetics

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Have a substantial adverse effect on a scenic vista?*			X	
b. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*			X	
c. *Substantially degrade the existing visual character or quality of the site and its surroundings?*			X	
d. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*				X

a. *Have a substantial adverse effect on a scenic vista?* **Less than significant impact.**

Once the construction phase is finished, project improvements would not be visible from public vantage points. The small gauging station enclosure would be screened by vegetation between Point Reyes-Petaluma Road and the creek. The well head vault would be almost flush with the ground surface. Piping would be underground, except where it attached to the underside of the Gallagher Ranch bridge. The pump control steel cabinet would be aboveground but screened for public view by roadside vegetation from Point Reyes/Petaluma Road. The project would not alter existing open space views in the area.

b. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?* **Less than significant impact.**

See the discussion above under Item I(a).

c. *Substantially degrade the existing visual character or quality of the site and its surroundings?* **Less than significant impact.**

See the discussion above under Item I(a).

d. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?* **No impact.**

The project will not include lights nor improvements that generate any substantial amount of glare.

II. Agricultural Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*			x	
b. *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*			x	
c. *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?*				x

a. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?* **Less than significant impact.**

The potential well site contains soils classified as Blucher-Cole complex (2 to 5% slope). The State has mapped this area as Farmland of Statewide Importance. However, the area that would be converted to other use would be the wellhead, which would cover approximately 10 square feet. This would be considered a less than significant conversion. While NMWD would fence off an area of about 0.25 acre surrounding the new well to limit access by grazing animals, this would not be a conversion of the prime soils; since they would remain available for possible future agricultural use. Even if excluding livestock from the one-quarter acre well site is considered as "conversion," this is still such a small amount of land (about 10,000 square feet) that the impact is considered less than significant.

b. *Conflict with existing zoning for agricultural use, or a Williamson Act contract?* **Less than significant impact.**

The new well would not interfere with adjacent grazing uses. A small area surrounding the new well would be purchased and fenced off, but the loss of as much as 0.25 acre would not adversely impact grazing operations of the Gallagher Ranch. The owners of the Gallagher Ranch property filed their intention to not renew a Williamson Act contract on the property on July 1, 2005. The proposed project would not affect this non-renewal process.

c. *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?* **No impact.**

See the discussion in the previous item. The project will not significantly affect agricultural operations in the area. If future use of the proposed Gallagher Wells in some fashion adversely affects the production of the private well on the Gallagher Ranch, the loss of water from this well will be offset by NMWD providing make-up water for the ranch.

III. Air Quality

Where available, the significance criteria by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Conflict with or obstruct implementation of the applicable air quality plan?*		x		
b. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*		x		
c. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*		x		
d. *Expose sensitive receptors to substantial pollutant concentrations?*		x		
e. *Create objectionable odors affecting a substantial number of people?*				x

a. *Conflict with or obstruct implementation of the applicable air quality plan?* **Less than significant with mitigation incorporated.**

Once construction of the project is completed, the project will not result in any emissions of air pollutants. Construction emissions will include emissions from gas and diesel powered equipment and small particulates (i.e., dust) generated during pipeline construction.

Heavy equipment used for well drilling, pipeline excavation and placement, well demolition, and hauling equipment and supplies could create fugitive dust and emit nitrogen oxides (NO), carbon monoxide (CO), sulfur dioxide (SO2) hydrocarbons (HC), and particulate matter with a diameter of less than 10 microns (PM10). The construction emissions and movement of soil would be short term and temporary, but could still cause adverse effects on local air quality.

The Bay Area Air Quality Management District (BAAQMD) includes construction emissions in the emission inventory that is the basis for regional air quality plans. Construction emissions are not expected to impede attainment or maintenance of air quality standards in the Bay Area.

The BAAQMD, in its CEQA Guidelines, has developed an analytical approach that obviates the need to quantitatively estimate those emissions. Instead, BAAQMD has identified a set of feasible PM10 control measures for construction activities. The project includes those controls as Mitigation Measure AQ-1 described below, to reduce the effects of construction activities.

Mitigation Measure AQ-1

In accordance with the BAAQMD CEQA Guidelines (BAAQMD, 1999), the project shall implement the following actions (that are pertinent to this project) to control dust from escaping from the site:

- Water all active construction areas at least twice daily;
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard;
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites;
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets;
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more);
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.);
- Limit traffic speeds on unpaved roads to 15 miles per hour (mph) in construction areas;
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph;
- Minimize idling time; and
- Maintain properly tuned equipment.

In addition to the measures identified above, construction activities are also required to comply with all applicable BAAQMD rules and regulations, specifically Rule 8-15 regarding asphalt paving and Regulation 6 regarding particulate matter and visible emissions.

Mitigation Monitoring and Reporting

The mitigation measures shall be implemented throughout the construction phase. NMWD shall include the requirements in the construction contract. The contractor shall be responsible for implementation.

Impact Significance After Mitigation

Implementation of these standard dust control measures will reduce dust to levels that the BAAQMD recognizes as being acceptable. The impact would be reduced to a level that is less than significant.

b. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?* **Less than significant with mitigation incorporated.**

As noted above, the project will include the BAAQMD-required control measures so that the project is not expected to violate any air quality standard.

Construction of the project will require the use of energy that will result in the emission of greenhouse gases (GHG) to the environment that would adversely affect the earth's climate and aggravate global climate change (GCC). The project itself is too small to have a significant impact on GCC. Though the project itself would not measurably affect GCC, it is an increment, albeit a very small one, in the cumulative development of the area and statewide that would adversely affect GCC. The State has adopted a target of reducing GHG emissions to 1990 levels by 2020, and the County has adopted a target of reducing the GHG emissions in the County by 15% by 2015. The Gallagher Wells site would require the use of a 15-horsepower pump to pump water to the treatment facility. However, when this pump is in use, the existing pump at the Coast Guard Wells site would not be in use. So, there would not be an increase in electrical demand. The project's contribution to GCC would be limited to emissions from heavy equipment used when installing the well, pipeline, and gauging station and demolishing the Downey Well. This small amount of GHG emissions would be further offset by the fact that developing this alternate well allows the National Park Service to implement its planned Olema Marsh restoration, which will allow full implementation of the Giacomini Wetland Restoration Project (see further discussion of this beneficial impact of the project under Checklist Item IV(a) below. This restoration would have substantial benefits as described in the EIS/EIR prepared for that project. Benefits would include establishing more vegetation and woody vegetation, which would sequester carbon. The project's GHG emissions would be limited to the construction phase and would not be a significant increment of the cumulative impact on GCC. In fact, the restoration made possible by the project might result in sufficient carbon sequestration to at least offset these short-term emissions.

c. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors?* **Less than significant with mitigation incorporated.**

As noted above, the project will include the BAAQMD-required control measures so that the project is not expected to contribute a substantial amount of any criteria pollutant.

d. *Expose sensitive receptors to substantial pollutant concentrations?* **Less than significant with mitigation incorporated.**

There are no residences near the gauging station or the Downey well site. There are no residences located along the section of Point Reyes-Petaluma Road where the new pipeline would be constructed. The residence at the Gallagher Ranch is 400 to 800 feet from where the new well would be drilled (depending on the final well location). As noted above, the project will include the BAAQMD-required control measures so that the project is not expected to contribute a substantial amount of any criteria pollutant. It is not expected that even during the relatively brief construction phase that the project would expose nearby residents or other sensitive receptors to substantial pollution concentrations.

e. *Create objectionable odors affecting a substantial number of people?* **No impact.**

The project would not have the potential to generate objectionable odors.

IV. Biological Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?*		x		
b. *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?*		x		
c. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*		x		
d. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*			x	
e. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*				x
f. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*				x

a. *Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?* **Less than significant with mitigation incorporated.**

Lagunitas Creek originates on the north slope of Mt. Tamalpais and flows in a northwesterly direction for 25 miles to where it discharges in Tomales Bay. It is an important stream that supports approximately 10% of the remaining coho salmon run in Northern California. Marin Municipal Water District (MMWD) maintains four dams in the upper part of the watershed as well as Nicasio Reservoir on a tributary of Lagunitas Creek with the water behind these dams supplying much of the potable water demand of Southern Marin County. Preservation and restoration of this stream has been a major focus of environmental groups and governmental agencies since at least the 1980s.

In assessing the impacts of the proposed change in diversion point to add the Gallagher Wells and the new pumping from the Gallagher Wells on biological resources as well as hydrologic resources, the analysis in this Initial Study focuses on the adverse changes to the environment between the new point of diversion at the Gallagher Wells site and the existing points of diversion at the Coast Guard Wells. The State has previously accepted potential impacts that might occur from NMWD's diversion of Lagunitas Creek water when approving NMWD's existing Water Right License and its two Water Right Permits and determined that the impacts have been appropriately mitigated when establishing the conditions for the license and the two permits. The license and permits allow diversion from the Downey Well site. Therefore, the State has approved NMWD to divert all its water rights from that point, though historically the District has only used the Downey Well for limited times and on a periodic basis. To ensure a worst case assessment, this Initial Study assesses impacts to biological resources between Gallagher Wells and the Coast Guard Wells.

Lagunitas Creek from the Gallagher Wells site to the Coast Guard Wells supports several special status species, including:

- southwestern river otter (*Lontra canadensis sonorae* – a California Species of Concern)
- northwestern pond turtle (*Clemmys marmorata marmorata* – a California Species of Concern)
- California freshwater shrimp (*Syncaris pacifica* - federally endangered species)
- California red-legged frog (*Rana aurora draytonii* - federally threatened species and a California Species of Concern)
- Central California coast coho salmon (*Oncorhynchus kisutch* - federally endangered species)
- Central Coast steelhead trout (*Oncorhynchus mykiss irideus* - federally threatened species)
- Southern Oregon/California coastal chinook salmon (*Oncorhynchus tshawytscha* - federally threatened species)

According to the EIS/EIR prepared for the Giacomini Wetland Restoration Project, the riparian corridor along the creek likely supports a number of other special status species, including sharp-shinned hawk (*Accipiter striatus* – a California Species of Concern), Cooper's hawk (*Accipiter cooperi* – a California Species of Concern), yellow warbler (*Dendroica petechia brewsteri* – a California Species of Concern), willow flycatcher (*Empidonax traillii brewsteri* – nesting sites are State Endangered), yellow-breasted chat (*Icteria virens* – a California Species of Concern), and Least Bell's vireo (*Vireo bellii pusillus* – federally and state endangered species).[2]

Lagunitas Creek is designated as Critical Habitat for central Coast Coho Salmon (federally endangered) and Central Coast Steelhead Trout (*Oncorhynchus mykiss*) (federally threatened)

The reach from the Gallagher Wells site to the Coast Guard Well site is not optimal habitat for salmonid spawning nor winter rearing due to the low slope and high incidence of sand and fine particle deposition.[3] However, occasional spawning could occur in this stretch.

The existing and new Gallagher Wells will pump water from surrounding gravels and indirectly from Lagunitas Creek through the permeable gravel strata in which the wells are located and which is contiguous to the streambed. This pumping would occur at the times that NMWD cannot use the Coast Guard Wells due to flooding or the potential risk of salt-water intrusion. Because this pumping will draw from subsurface water storage which is replenished by the stream surface flow (and to a lesser extent by local occurring infiltration of surface water) over a wide area, it is possible that pumping could reduce subsurface storage to the degree that surface flows would be affected. This would likely occur during the dry season when surface flows are already low. A reduction in the flow of Lagunitas Creek could have a significant impact on aquatic wildlife and fish in the stream between the Gallagher Wells site and the Coast Guard Wells site. There would be no impact downstream of the Coast Guard Wells site since NMWD currently pumps the same amount of water from wells at this site as it proposes to pump from the Gallagher Wells site. Therefore, as a worst case, impacts to streamflow would be limited to the approximately 1.7 mile-section of Lagunitas Creek between the two well sites. Much of this section of the creek is within the GGNRA.

The State has established minimum instream flows needed to support fish and wildlife in Lagunitas Creek. NMWD is prohibited from diverting water from Lagunitas Creek when:

- From May 1 through June 15 of any year wetter than a "dry year" (which is defined as any year in which total precipitation that occurs from the previous October 1 through April 1 does not exceed 28 inches as measured at MMWD's Kent Lake Precipitation Gauge), whenever there is less than 12 cfs in the creek as measured at the USGS Park Gauge (located in Samuel P. Taylor State Park);

[2] Data on special status species were taken from the *Draft Giacomini Wetland Restoration Project EIS/EIR*, November 2006.
[3] J. Nelson and W. Wilson, 1993, citing studies done by B. Hecht, D. Kelley, and Entrix, Inc.

- From May 1 through June 15 of any dry year whenever there is less than 10 cfs in the creek as measured at the USGS Park Gauge;

- From June 16 through November 1 of any year wetter than a dry year whenever there is less than 8 cfs in the creek as measured at the USGS Park Gauge; and

- From June 16 through November 1 of any dry year whenever there is less than 6 cfs in the creek as measured at the USGS Park Gauge.

Water License 4324B requires NMWD to file a Dry Year Water Shortage Report following each dry year. That report must describe flow conditions in the creek as compared at the Park Gauge and the Gallagher Gauge and all NMWD diversions. A public workshop to receive public comment is required prior to adoption of the final report.

Under Water Right Order 95-17 MMWD is required to release water from Kent Lake to meet minimum flows at the USGS Park Gauge. These minimum flow requirements are the same as listed above. Some additional streamflow enters Lagunitas Creek downstream of the USGS Park Gauge, notably from Devil's Gulch, Cheda Creek, and Nicasio Creek, so streamflows past the Gallagher Wells site are higher than the flows required at the USGS Park Gauge. On April 21, 2008, the flows at the Park Gauge were about 16 cfs while they were about 18 cfs at the Gallagher Gauge. MMWD reports that their monitoring of fish populations indicates that their summer water releases have been beneficial for juvenile salmonids.

These same minimum flows would be required in the section between the Gallagher Wells and the Coast Guard Wells to ensure that pumping from the Gallagher Wells does not reduce the minimum required flows to a level that adversely affects fish and aquatic wildlife. Unless flows are maintained at these required levels, there could be an increase in water temperature and a loss of habitat, and this would be a potentially significant impact on biological resources. Recognizing this potential impact, NMWD proposes to relocate the existing gauging station downstream of the Gallagher Wells site. By monitoring the relocated Gallagher Gauge, NMWD will be able to tell whether pumping affects the streamflow and whether the minimum required flows are sustained. If the minimum flows are not maintained, then NMWD will request (as part of its Intertie Agreement) that MMWD release sufficient water to Lagunitas Creek to reestablish at least the minimum flows.

Alternatively, after reviewing the streamflow monitoring, the California Department of Fish and Game may conclude that the reduction in streamflow below the Gallagher Wells is so small that it does not significantly reduce habitat available to fish, and that additional releases from Kent Lake are not warranted, or at least not warranted at certain times of the year.

MMWD states that it takes about 12 hours for water released from Peter's Dam at Kent Lake to reach the Gallagher Wells site.[4] Therefore, there could be a portion of a day

[4] Dana Roxon, MMWD, personal communication, 4/25/08.

when flows might be reduced below the Gallagher Wells diversion before the make-up water reaches the site. If this flow reduction occurs at all, it would not be expected to significantly affect water temperature. There could be small decrease in habitat available (due to areas that are shallowly inundated being dewatered to have insufficient depth to support resident fish) for that portion of the day until the make-up water arrived.

Any reduction in streamflow between Gallagher Wells and the Coast Guard Wells would occur for about 12 hours after the start of any diversion period. These diversions would occur infrequently. The reduction in habitat, if any, would be minimal. This impact could be further reduced by monitoring the effects that diversion from Gallagher Wells has on streamflow during different times of the year and dry years compared to non dry years. Based on this monitoring plus predicting periods of high tides or when saltwater intrusion could be expected, NMWD can request that MMWD release water before the diversion begins to allow time for the make-up water to reach the Gallagher Wells site.

Downey Well

An excavator will be driven to the edge of the streambank (no equipment will enter the stream channel). There is an existing access road to the well site. NMWD annually uses this road to conduct maintenance of the well. To get near the well head, NMWD places 3-foot concrete blocks over the portion of this road nearest the streambank to allow access by heavy equipment. The concrete blocks are removed each year following completion of well maintenance. This same procedure would be used to allow access by the excavator, though because the excavator has a longer reach than the equipment used to maintain the well, fewer concrete blocks would need to be installed for well removal.

The entire 12-inch well casing will be filled with bentonite (clay) chips. The existing corrugated metal protection around the wellhead would be removed. Using a hoe ram attachment, the concrete surrounding the well head will be broken into 3-5 large pieces. Using a clam shell attachment to the excavator, the pieces of concrete will be removed from the stream bed. The well pipe will be cut off to be below the water level (about 2-4 feet would be cut off) and removed.

Because the wellhead is in the stream, it will be necessary to dewater the area immediately surrounding the wellhead. A final plan for well removal has not been completed. Discussions with a contractor contacted by NMWD indicate that the well will be isolated by installing of sandbags around the wellhead and pumping the water within the sandbags back to Lagunitas Creek. Once the area within the sandbags is dewatered, the wellhead and top 2 to 4 feet of pipe will be removed and the remaining pipe filled with gravel. The sandbags would then be removed.[5]

The disturbance of the area immediately surrounding the wellhead could result in some downstream siltation once the creek is returned to its normal course, but the amount of siltation would be expected to be insubstantial. Nevertheless, any increase in siltation of Lagunitas Creek due to well demolition would be a potentially significant impact. See

[5] Mike Clementino, Maggiora Ghillotti, personal communication, 4/19/08.

the discussion under Checklist Item VIII(f) for a more detailed discussion of how well demolition might adversely affect groundwater quality, and the mitigation for that impact. That mitigation (Mitigation HWQ-1) also applies to the potential siltation impact discussed above.

Dedication of Water Rights

The proposed dedication of 212.7 acre feet (0.699 cfs) of Lagunitas Creek water that the District can currently divert to instream uses for the benefit of plants, fish, and wildlife using the creek is a beneficial impact of the project. This component of the project would not require any mitigation.

Other Beneficial Impacts

The project would reduce the need to pump at the Coast Guard Wells during high tides or other conditions where pumping could cause salt-water intrusion and contamination of the aquifer. The project would reduce the need for increased off-tide pumping (which is currently done to compensate for the times when high tides prohibit pumping). This would benefit fish downstream of the Coast Guard Wells by keeping more water in the stream. Finally, this additional diversion point removes the potential impact of increased periods of salt-water intrusion on NMWD's water supply. As such, NMWD would then have implemented one of the alternatives agreed to by NMWD and the National Park Service. This would permit the National Park Service to implement its planned Olema Marsh restoration, which will allow full implementation of the Giacomini Wetland Restoration Project. This restoration would have substantial benefits as described in the EIS/EIR prepared for that project.

Summary

The principal potential adverse impacts would be a short-term reduction of aquatic habitat for fish and aquatic wildlife in the approximately 1.8-mile reach of Lagunitas Creek between the Gallagher Wells site and the Coast Guard Wells site as a result of reduced streamflow, particularly during the summer months of dry years. However, this impact would be reduced by NMWD's proposed plan of additional releases of water to the creek from Kent Lake to ensure that the minimum required flows are maintained. The program of stream monitoring and water releases must be finalized and approved by the California Department of Fish and Game and the State Water Resources Control Board.

There are also potentially significant impacts resulting from demolition of the Downey Well. There are beneficial impacts resulting from dedication of water under one of the two Water Right Permits to instream uses.

Mitigation Measure BR-1

NMWD shall not cause substantial damage to the streambed or streambanks when conducting work within the stream channel. To meet this standard, NMWD shall obtain a Streambed Alteration Agreement (SAA) from the California Department of Fish and

Game to address all components of removing the Downey Well (including dewatering methods) and for installing piping for the relocated gauging station. NMWD shall abide by all conditions set forth in the SAA.

Mitigation Monitoring and Reporting

The conditions set forth in the SAA will be implemented whenever warranted throughout the construction phase. The contractor will be responsible for implementing the requirements. NMWD will ensure compliance.

Impact Significance After Mitigation

Conducting the work in the stream channel per the conditions of an approved SAA would reduce the impact to a less than significant level.

Mitigation Measure BR-2

NMWD shall not divert water from the Gallagher Wells to adversely affect fish and wildlife residing between the Gallagher Wells and the Coast Guard Wells. To meet this standard, prior to constructing any proposed project improvements, NMWD will prepare a final hydrologic design plan describing how and where streamflows will be monitored and how NMWD will maintain flow levels downstream of the Gallagher Wells site. This plan shall address at least the following:

- The location and operation of the relocated gauging station;
- The party responsible for monitoring the Gallagher gauging station;
- Final arrangements with MMWD regarding water releases when necessary;
- Details of how the water release will be initiated and terminated; and
- Prediction process for initiating and terminating water releases.

This plan shall be reviewed and approved by the California Department of Fish and Game. Once approved by this agency, NMWD will apply to the State Water Resources Control Board to make the requested changes to its Water Rights License and Permit.

Mitigation Monitoring and Reporting

The hydrologic design plan will be approved prior to any construction. Monitoring and maintaining streamflows will occur throughout the time that the Gallagher Wells are in use. NMWD is responsible for implementing the mitigation and for compliance. The California Department of Fish and Game will also monitor for compliance and may alter the required conditions for releases after reviewing the monitoring of streamflow data.

Impact Significance After Mitigation

Implementing this mitigation will ensure that changing the point of diversion would not adversely affect fish and aquatic wildlife. The impact would be reduced to a less than significant level.

b. *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?* **Less than significant with mitigation incorporated.**

Two components of the proposed project would require work within the stream channel of Lagunitas Creek. Removing the existing well head of the Downey Well will require that an excavator, working from the top of the bank, pull the existing wellhead, as was described above. No riparian vegetation would be removed to abandon the well. The relocated gauging station would be constructed on the edge of the Gallagher Ranch pasture and would not require removal of riparian or vegetation other than annual grasses. The piping that would be installed in the creek to measure the flows would not require removal of any riparian vegetation.

During the periods when water was pumped from the Gallagher Wells it is possible that the pumping could reduce the groundwater aquifer to a level where riparian vegetation would be affected. However, the riparian vegetation at the well site area is almost entirely confined to the stream channel and adjacent banks. The stream channel is bounded on the west by Petaluma–Point Reyes Road and on the east by the pastureland on Gallagher Ranch. This riparian zone would be watered by the streamflow and underflow of the creek, and this streamflow and underflow is replenished by flows from upstream. The surface water flows will be maintained at the levels required by Water Right Order 95-17 and, if necessary, by NMWD requesting MMWD to release water to maintain the required minimum flows. These surface flows recharge the stream underflow so that underflow should continue to be available to provide necessary water for riparian vegetation in the area near the well site. Mitigation Measure BR-2 would apply to this impact. Given this mitigation, it is not expected that periodic pumping from the Gallagher Wells would adversely affect riparian vegetation between the Gallagher Wells site and the Coast Guard Wells site.

The project would have substantial benefits for Lagunitas Creek habitat, including: 1) reducing the potential salt-water contamination of the aquifer beneath the creek up to the Coast Guard Wells diversion point and reducing peak diversions from the creek during off-tide pumping episodes; 2) allowing the National Park Service to implement its planned Olema Marsh restoration project that would enhance wetland habitat; and 3) providing water under Water Right Permit 19724 for instream uses that would benefit fish and riparian habitat. These benefits are substantial and would outweigh what are expected to be minimal, if any, impacts on riparian habitat between the Gallagher Wells site and the Downey Well site or the Coast Guard Wells site.

c. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?* **Less than significant with mitigation incorporated.**

The only wetlands that would be potentially affected are the streambed of Lagunitas Creek. Mitigation measures recommended for Checklist Item IV(a) apply to this impact. As described in the discussion of Checklist Items IV(a and b) above, the project would not adversely affect the streambed habitat. The project would benefit wetland habitat by allowing the National Park Service to implement its planned Olema Marsh restoration, which will allow full implementation of the beneficial Giacomini Wetland Restoration Project.

d. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?* **Less than significant impact.**

The project components would not cause any barrier to animal or fish movement or migration. Potential impacts to streamflows needed for fish and aquatic wildlife were discussed above under Checklist Item IV(a), and the mitigations recommended under that Checklist Item also apply to this impact.

e. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?* **No impact.**

The project would not require cutting trees or removing other sensitive plants, and it would not conflict with local policies or ordinances protecting biological resources.

f. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?* **No impact.**

The project construction activities would not conflict with any Habitat Conservation Plans, Natural Conservation Community Plans, or any approved local, regional, or State habitat conservation plans. The proposed dedication of certain water rights for instream flows for the protection, preservation, restoration and recovery of aquatic organisms, including but not limited to coho salmon and steelhead trout, is consistent with the Recovery Planning measures to be developed under the Memorandum of Understanding Among National Marine Fishery Service, California Department of Fish and Game, Army Corps of Engineers, Fish Net4C, the Counties of Mendocino, Sonoma, Marin, San Mateo, Santa Cruz and Monterey, and the County of Humboldt.

V. Cultural Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?*		x		
b. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?*		x		
c. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*				x
d. *Disturb any human remains, including those interred outside of formal cemeteries?*		x		

a. *Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?* **Less than significant with mitigation incorporated.**

A Cultural Resources Survey was conducted for the project and is included in Appendix A of this Initial Study. That survey found no cultural resources in the area that would be affected by project construction. However, there is always the chance that buried archaeological resources are present and could be discovered while constructing the project. These resources could be damaged by project construction, and that would be a potentially significant impact.

Mitigation Measure CR-1

- If cultural resources are encountered during project construction, avoid altering the materials and their context until a cultural resources consultant has evaluated the situation.

- If applicable, a qualified archaeologist shall monitor subsequent excavations and spoils in the vicinity of the find for additional archaeological resources.

- If the archaeologist determines the discoveries are of importance, the resources shall be properly recovered and curated. The archaeologist shall prepare a summary outlining the methods followed and summarizing the results of the mitigation program. The report shall outline the methods followed, list and describe the resources recovered, map their exact locations and depths, and include other pertinent information. Identified cultural resources shall be recorded on DPR 523(A-J) historic recordation forms. NMWD shall submit the report to the Northwest Information Center and the California State Historic Preservation Officer.

Mitigation Monitoring and Reporting

The mitigation will be implemented whenever warranted throughout the construction phase. The contractor will be responsible for determining the presence of the initial cultural resource find. NMWD will be responsible for engaging the cultural resource specialist. The cultural resource specialist shall be responsible for properly reporting and recording the find(s).

Impact Significance After Mitigation

Assessing and curating any archaeological resources found during construction per Mitigation Measure CR-1 will reduce the impacts to potential archaeological resources to a less than significant level.

b. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?* **Less than significant with mitigation incorporated.**

As described above, it is not expected that archaeological resources occur on the project site. However, it is always possible that archaeological or historical resources could be unearthed during project construction. Damaging such resources would constitute a significant adverse impact. Mitigation Measure CR-1 applies also to this impact, and this mitigation measure would reduce the impact to a less than significant level.

c. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature/?* **No impact.**

There are no known paleontological resources in the project site area, and it is not expected that project construction would affect such resources.

d. *Disturb any human remains, including those interred outside of formal cemeteries?* **Less than significant with mitigation incorporated.**

See the discussion under Impact V(a). While there is no reason to suspect the presence of human remains on the project site, it is possible that currently unknown remains may occur.

Mitigation Measure CR-2

This mitigation incorporates the requirement established in Mitigation Measure CR-1 and adds the requirements that in the event that human remains are encountered, the contractor shall stop work in the area and NMWD shall contact the Marin County Coroner in accordance with Section 7050.5 of the State Health and Safety Code.

Mitigation Monitoring and Reporting

The mitigation will be implemented whenever warranted throughout the construction phase. The contractor will be responsible for determining the presence of human remains. NMWD will be responsible for contacting the County Coroner.

Impact Significance After Mitigation

The recommended mitigation will ensure that any unknown human remains found on the site will be accorded appropriate reburial or disposition. The impact will be reduced to a less than significant level.

VI. Geology and Soils

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:		x		
i. Rupture of known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
ii. Strong seismic ground shaking?				
iii. Seismic-related ground failure, including liquefaction?				
iv. Landslides?				
b. Result in substantial soil erosion or the loss of topsoil?		x		
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		x		
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		x		
e. Have soils incapable of adequately supporting the use of septic tanks or alternative water disposal systems where sewers are not available for the disposal of waste water?				x

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. **Less than significant impact.**

ii. *Strong seismic ground shaking?* **Less than significant with mitigation incorporated.**

iii. *Seismic-related ground failure, including liquefaction?* **Less than significant with mitigation incorporated.**

iv. *Landslides?* **Less than significant with mitigation incorporated.**

A geotechnical investigation of the proposed pipeline was conducted for NMWD by Geomatrix. Their complete report (*Phase I Geologic/Geotechnical Study for the Gallagher Well Pipeline, Point Reyes Station*) is included in Appendix B of this Initial Study. The following discussion under this criterion and the other criteria under Geology and Soils summarizes the more detailed discussion in the appended geotechnical study. The reader who requires a more thorough understanding of the geological setting and project impacts is directed to that study.

Geomatrix found that site conditions would pose a less than significant impact as regards surface rupture and landslides. Because the project site is within one to two miles of the San Andreas Fault, strong ground shaking can be expected from earthquakes on that fault. Such ground shaking could lead to liquefaction; lateral spreading, and ground failure, and this would be a potentially significant impact.

It is possible that a major earthquake could damage the well or cause liquefiable soils to clog the well. Finally, the gauging station could be damaged during an earthquake.

Mitigation Measure GS-1

The project shall be constructed to withstand the maximum probable earthquake and to withstand other geologic and soil constraints or hazards, including unstable slopes, differential compaction, liquefaction, and lateral spreading, and it shall avoid creating additional instabilities in areas where slopes may already be unstable. Prior to final design, a design-level geotechnical investigation and report shall be prepared by a qualified geotechnical consultant to specifically identify the extent of geologic constraints and slope instabilities along the pipeline route. The geotechnical investigation shall include site-specific evaluation of the slope stability subsurface conditions, through drilling, logging and sampling of representative borings along the collection system route. This design level investigation and report shall also identify expansive soils and seismic hazards from landsliding, liquefaction, and dynamic densification. Specific measures to be employed to reduce the potential for damaging slope instabilities and failures include design, construction and monitoring measures such as:

- Re-routing of the pipeline to avoid unstable areas;
- Construction of retaining walls and structures in areas of slope and bank instabilities that threaten the stability of the pipeline routes;
- De-watering of areas of slope instabilities to reduce potential for failure;

- Excavation and reconstruction of areas of slope instability, including the installation of subsurface drainage to reduce the potential for future failure;

- Incorporation of isolation (i.e., shutoff) valves at areas of potential problems; and

- Installation of flexible piping/couplings in areas of known instabilities.

The project shall be constructed consistent with the criteria as specified in the design recommendations set forth in the geotechnical report.

The project shall reduce the potential for damage to the collection/transmission line due to liquefaction and/or dynamic densification during a strong earthquake. The required design-level geotechnical investigation and report shall identify specific areas with liquefiable soils and determine appropriate specific design and construction measures to mitigate the potential hazard. The geotechnical investigation shall include drilling, logging, and sampling in areas of moderate and deep alluvial deposits to evaluate the potential for liquefaction, dynamic densification, lateral spreading and lurch cracking.

Mitigation Monitoring and Reporting

The recommended design study will be prepared during final design and recommendations in that study included in the final construction drawings for the project. A qualified geotechnical expert shall review the plans and specifications to ensure compliance. A qualified geotechnical expert shall observe and test site trenching, compaction of fill material, and slide repair to confirm that subsurface conditions are as expected and to adjust elements of the design, if warranted. The contractor will be responsible for implementing the actions. NMWD will determine final compliance.

Impact Significance After Mitigation

It is expected that compliance with the final design factors would allow the pipeline, well, and gauging station to withstand expected seismic activity. The impact would be reduced to a less than significant level.

b. *Result in substantial soil erosion or the loss of topsoil?* **Less than significant with mitigation incorporated.**

Soil erosion can cause a variety of environmental impacts. Eroded soil contains nitrogen, phosphorus, and other nutrients. When carried into water bodies, these nutrients can trigger algal blooms that reduce water clarity, deplete oxygen, and create odors. Excessive deposition of sediments in streams may blanket fauna. The increased turbidity from the erosion may also reduce photosynthesis that produces food supply and natural aquatic habitats. Eroded soil could also be deposited in local drainageways, possibly interfering with the natural flow of storm waters, causing flooding where it would not otherwise occur, or accelerating channel erosion.

The pipeline would be completed in the Point Reyes-Petaluma Road right-of-way in areas with relatively level terrain, but in reasonably close proximity to Lagunitas Creek. The trenches for the pipeline would be excavated and the excavated dirt trucked away. The trench would be backfilled with imported aggregate, re-paved, and otherwise restored to match original conditions to avoid or minimize the potential for soil erosion to occur. The potential for erosion is relatively small, but considered potentially significant.

Excess material from the well drilling would be hauled away and would not be a significant source of erodible material. Installation of the pipes for the gauging station would require minimal work in the stream channel and would not include trenching. This project component would not be expected to cause erosion.

Mitigation Measure GS-2

The project shall avoid causing soil erosion. As a condition of County approval of the encroachment permit and approval for well closure, NMWD shall prepare and obtain County approval of an Erosion and Sediment Control Plan, including measures to minimize the impacts from erosion and sedimentation during construction of the pipeline and closure of the Downey Well. Plans for work within the County right-of-way (ROW) shall conform to all applicable County standards for control of erosion and sedimentation. The Erosion and Sediment Control Plan shall include application of erosion control measures including, but not limited to, the following:

- Require site construction best management practices, including restricting trenching and well demolition to the dry season, winterization, traffic control, and dust control; and

- Protect receiving drainage channels from sedimentation and retain sediment in the project area by using silt fencing, fiber roll sediment barriers, diversion dikes and swales, sediment basins, and sediment traps.

Mitigation Monitoring and Reporting

NMWD shall include these conditions in the construction contract. The contractor shall be responsible for compliance with these conditions. NMWD shall be responsible for determining final compliance.

Impact Significance After Mitigation

Implementation of these standard mitigation measures would reduce the chance of soil erosion to a less than significant level.

c. *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?* **Less than significant with mitigation incorporated.**

The Geomatrix report identified several geologic and soil constraints, including:

- Potential slope failure hazards due to Lagunitas Creek impinging on the fillslope that contains portions of Point Reyes-Petaluma Road;
- Potential lateral spreading could occur during a seismic event;
- A potentially unstable slope above Point Reyes-Petaluma Road approximately 500 feet south of the Gallagher Ranch bridge;
- Potentially unstable slopes where the road crosses alluvium and colluvium-filled tributary valleys; and
- Differential compaction in the fills beneath Point Reyes-Petaluma Road.

These are all significant constraints. Unless the pipeline is properly designed and constructed, these constraints could cause pipeline rupture or damage, and that would be a potentially significant impact. This potential impact is addressed by Mitigation Measure GS-1, which would reduce the impact to a less than significant level.

d. *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1974), creating substantial risks to life or property?* **Less than significant with mitigation incorporated.**

There is potential of expansive soils on the pipeline route. The required geotechnical report will make a final determination of the presence of such soils and design the project accordingly.

Mitigation Measure GS-3

The required design-level geotechnical investigation and report shall identify potential areas of expansive soils and appropriate construction specifications. At a minimum, the following measures for pipeline construction shall be included:

- Trenches shall be backfilled with imported non-expansive fill soils beneath and around pipelines;
- Native soil backfill shall be confined to zones a minimum of one foot above the tops of pipes in non-paved areas; and
- Pavement areas shall be backfilled with an appropriate non-expansive pavement section.

If expansive clay soils occur in the construction areas, the required geotechnical report shall develop appropriate design and construction specifications. These would include, for example, over-excavation of expansive soils and replacement with non-expansive engineered fill. The geotechnical investigation shall include the drilling, logging and sampling of boreholes and laboratory testing of physical properties of soil.

Mitigation Monitoring and Reporting

The recommended design study will be prepared during final design and recommendations in that study included in the final construction drawings for the project. A qualified geotechnical expert shall review the plans and specifications to ensure compliance. The contractor will be responsible for implementing the actions. NMWD will determine compliance.

Impact Significance After Mitigation

It is expected that compliance with the final design factors would allow the pipeline, well, and gauging station to withstand expected seismic activity. The impact would be reduced to a less than significant level.

e. *Have soils incapable of adequately supporting the use of septic tanks or alternative water disposal systems where sewers are not available for the disposal of waste water?* **No impact.**

The project does not require construction of waste disposal systems.

VII. Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*		X		
b. *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*			X	
c. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*				X
d. *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*				X
e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport, would the project result in a safety hazard for people residing or working in the project area.*				X
f. *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*				X
g. *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*		X		
h. *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*				X

a. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?* **Less than significant with mitigation incorporated.**

Construction of project facilities would involve well drilling, pipeline trenching, and removal of an existing wellhead. Trenching excavations would typically range in depth from about 3 to 5 feet. Although there are no known hazardous waste sites in locations planned for excavation work, there is always the possibility that such wastes might be discovered during trenching. If hazardous materials are encountered and exposed during construction, this could pose a public health or safety threat to workers and/or residents, or create the possibility of discharge and water quality impacts on Lagunitas Creek and Tomales Bay. This is a potentially significant impact.

Mitigation Measure H-1

The project construction documents shall include provisions that alert the contractor to the possibility of encountering buried hazardous materials during excavation work and require that, if such materials are encountered, the work in that area shall cease and immediate notification be given to the project engineer/inspector(s) and appropriate regulatory authorities.

Mitigation Monitoring and Reporting

NMWD shall include these conditions in the construction contract. The contractor shall be responsible for compliance with these conditions. NMWD shall be responsible for determining final compliance.

Impact Significance After Mitigation

Implementation of the recommended mitigation measures above would reduce the potential impacts associated with the uncovering of buried hazardous materials to a less than significant level.

b. *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?* **Less than significant impact.**

The project includes construction of a well, pipeline, and gauging station and does not propose any transport, use, or disposal of hazardous materials. No hazardous materials will be stored on the site. During construction of the project, construction vehicles will use gasoline and diesel. These activities would be typical of any construction project and would not create any unusual hazardous conditions.

c. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?* **No impact.**

The project includes construction of a well, pipeline, and gauging station and does not propose any transport, use, or disposal of hazardous materials. No hazardous materials will be stored on the site, and there would be no potential for exposure of hazardous materials at nearby schools. In addition, the site is not within one-quarter mile of a school.

d. *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?* **No impact.**

There are no known hazardous material sites on or near the project site.

e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport, would the project result in a safety hazard for people residing or working in the project area.* **No impact.**

The site is not within the area of any airport land use plan. The County Airport at Gnoss Field is the only civilian airport facility in the county. Gnoss Field is located over thirteen miles to the east of the project site. Use of Gnoss Field would not pose a hazard to workers constructing the project.

f. *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?* **No impact.**

The project is not within the vicinity of a private airstrip.

g. *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?* **Less than significant with mitigation incorporated.**

Approximately 4,900 lineal feet of pipeline would be installed in the Point Reyes-Petaluma Road right-of-way. It is expected that it would take about two months to install this pipeline. Because the work would be done within or immediately adjacent to the road, construction would require lane closure(s). These lane closures could interfere with emergency response. See the more detailed discussion of lane closures under Checklist Item XV(a). Mitigation Measure T-1 applies to this impact and would reduce it to a less than significant level.

h. *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?* **No impact.**

The project will not include the construction of residences or a business where people will work.

VIII. Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Violate any water quality standards or waste discharge requirements?*		X		
b. *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*			X	
c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*		X		
d. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*				X
e. *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*				X
f. *Otherwise substantially degrade water quality?*		X		
g. *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*				X
h. *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*			X	
i. *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*				X
j. *Inundation by seiche, tsunami, or mudflow?*				X

a. Violate any water quality standards or waste discharge requirements? **Less than significant with mitigation incorporated.**

Water quality within the area is under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB) which sets forth water quality objectives for the area in the *San Francisco Bay Region Water Quality Control Plan* (Basin Plan). The RWQCB is the local agency that issues wastewater discharge permits under the National Pollutant Discharge Elimination System (NPDES). The RWQCB requires construction stormwater permits for projects that disturb one acre or more. The project would disturb less than 0.5 acre and would not need to obtain a construction stormwater permit.

As discussed previously under Impact VI(b), the project could result in soil erosion and sedimentation of Lagunitas Creek. Mitigation Measure GS-2 will reduce soil erosion impacts to a level that is less than significant thereby reducing impacts to water quality to a less than significant level.

The project would further the Basin Plan objective of providing water for plants, fish, and wildlife by permanently dedicating 212.7 acre feet (0.699 cfs) of Lagunitas Creek water that the District can currently divert to instream uses (i.e., for the benefit of plants, fish, and wildlife using the creek). Reduction in off-tide pumping at higher rates would also benefit the Lagunitas Creek fishery by keeping more water in the stream.

b. *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?* **Less than significant impact.**

During the times when the Gallagher Wells are used, there would be a withdrawal of water from the local aquifer or gravel basin. The only other user of the local aquifer is the Gallagher Ranch. The next nearest residential use is about one mile downstream of the well site. The existing Gallagher Well is about 150 feet from the private well serving the Gallagher Ranch. Use of the NMWD wells could deplete the groundwater in the area and adversely affect this private well. This is a potentially significant impact. However, the purchase agreement for the existing well with the owners of Gallagher Ranch provides that NMWD will provide reimbursement for the cost of added power costs for additional pumping or make-up water to a level of beneficial use prior to installation of the District's well. A similar contingency would be added to purchase of the site for the additional well. Thus, this impact would be mitigated by the purchase agreement, and no mitigation is required.

c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?* **Less than significant with mitigation incorporated.**

The project would not alter the drainage pattern of the area. The pipeline would be constructed in the road right-of-way and would not change area drainage patterns. Removal of the Downey Well would slightly change how water flows across the well site (because the 6-foot diameter metal pipe that protects the top of the well would be removed). However, this would be considered a beneficial impact since it would return streamflow conditions to a more natural state. This change would not cause erosion or siltation. The small piping used to gauge streamflows would not significantly alter streamflow past the gauging station.

Removal of the Downey Well could result in siltation. A final plan for well removal has not been completed. Discussions with a contractor contacted by NMWD indicate that the well will be isolated by installation of sandbags around the wellhead and pumping the water within the sandbags back to Lagunitas Creek. Once the area within the sandbags is dewatered, the entire 12-inch well casing would be filled with bentonite (clay) chips, and the wellhead and top 2 to 4 feet of pipe will be removed. The sandbags would then be removed. The disturbance of the area immediately surrounding the wellhead could result in some downstream siltation once the creek is returned to its normal course, but the amount of siltation would be expected to be insubstantial. Any siltation impacts or other impacts to streamflow would be mitigated by the conditions set forth in the required Streambed Alteration Agreement; see Mitigation Measure BR-1.

d. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?* **No impact.**

The project would not alter the existing drainage pattern of the area as described above under Impact VIII(c). The only increase in impervious surface will be the footprint of the very small gauging station, and this would not measurably increase runoff.

e. *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?* **No impact.**

As discussed in Checklist Item VIII(d), the project would not increase impervious surface in the watershed. As such, there would be no project-generated pollution from future runoff.

f. *Otherwise substantially degrade water quality?* **Less than significant with mitigation incorporated.**

Unless the Downey Well is carefully demolished and abandoned, there is the potential for surface water from Lagunitas Creek traveling through the abandoned well shaft and entering groundwater below the creek. This assumes that the well is tapping a groundwater aquifer that is separated by an impermeable layer from Lagunitas Creek underflow. However the well casing will be filled with bentonite (clay) chips), which should prevent surface water entering a groundwater basin and potentially contaminating that aquifer.

Other than this potential contamination impact and the potential impacts from soil erosion, as discussed previously under Impact VI(b), the project will not include features that will affect water quality. The project would benefit water quality in Lagunitas Creek by permanently dedicating 212.7 acre feet (0.699 cfs) of Lagunitas Creek water that the District can currently divert to instream uses.

Mitigation Measure HWQ-1

NMWD shall not allow pollution of a groundwater aquifer beneath the Downey Well Site. To accomplish this requirement, NMWD shall develop a final well demolition and abandonment plan under the guidance of a C57 licensed well driller. The well-driller shall examine the surface and subsurface conditions of Lagunitas Creek and the aquifer beneath the creek and identify the demolition and abandonment procedures necessary to protect water quality in the creek and the gravel basin or aquifer. The driller shall determine the need to divert the stream during demolition; the need to pump before or during construction; the choice of materials to fill the well; the need to cap the well to prevent movement of surface water to a groundwater aquifer; and any other requirements established by the County of Marin Department of Environmental Health Services.

The plan shall be reviewed and approved by the California Department of Fish and Game, California Department of Water Resources, and the Marin County Environmental Health Services Division of the Community Development Agency.

Mitigation Monitoring and Reporting

NMWD shall have the plan prepared and approved prior to obtaining the Well Abandonment Permit. The C57 well driller shall be responsible for compliance with these conditions. NMWD and Marin County Environmental Health Services Division of the Community Development Agency shall be responsible for determining final compliance.

Impact Significance After Mitigation

The mitigation measure was developed with input from the Marin County Environmental Health Services Division.[6] Implementation of the recommended mitigation measures above would reduce the potential impacts associated with groundwater contamination to a less-than-significant level.

[6] Scott Callow, Environmental Health Services Division, personal communication, 4/18/08.

g. *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?* **No impact.**

The project does not include the construction of housing.

h. *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?* **Less than significant impact.**

The project would remove an existing obstacle in the stream channel (the Downey Well). The small gauging station would be elevated above the 100-year elevation. The small footprint of this gauging station would not affect flood flows, plus its size would be approximately the same as the wellhead that is being removed.

i. *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?* **No impact.**

The project does not include the construction of residences or businesses and would not subject people to the risk of flooding.

j. *Inundation by seiche, tsunami, or mudflow?* **No impact.**

The project area would not be affected by tsunami, seiche, or substantive mudflows.

IX. Land Use and Planning

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Physically divide an established community?*				x
b. *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*				x
c. *Conflict with any applicable habitat conservation plan or natural community conservation plan?*				x

a. *Physically divide an established community?* **No impact.**

The project is distant from the community of Point Reyes Station, plus the facilities are primarily belowground. The project would not physically divide a community.

b. *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?* **No impact.**

The project site is within the Coastal Zone of Marin County. The Marin County Unit II Local Coastal Plan (LCP classifies the site as C-APZ-60 Coastal – Agricultural Production Zone, 60 acre minimum parcel size). Water facilities like wells are an allowed conditional use in this land use classification. As noted in the discussion of Agricultural Resources, the proposed well would not significantly affect agricultural production on the Gallagher Ranch or in the Coastal Zone of the County. Allowing the well would appear consistent with the LCP and the County Code. The County will need to review the project and confirm this conclusion prior to deciding whether to approve a Coastal Permit and use permit for the well.

c. *Conflict with any applicable habitat conservation plan or natural community conservation plan?* **No impact.**

There is no adopted habitat conservation plan or natural community conservation plan for the area that would be affected by the project.

X. Mineral Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*				X
b. *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*				X

a. *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?* **No impact.**

There are no identified mineral resources within the project area. The project will not directly or indirectly affect any known mineral resources.

b. *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?* **No impact.**

The *Marin Countywide Plan* does not identify a mineral resource recovery site near the project site.

XI. Noise

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*		x		
b. *Exposure of persons to or generation of excessive groundborne vibration of groundborne noise levels?*				x
c. *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*				x
d. *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*		x		
e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*				x
f. *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*				x

a. *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?* **Less than significant with mitigation incorporated.**

The project will not generate noise once construction is completed. The project does not include construction of residences or places of employment. As such, it will not place people in locations where they would be exposed to excessive noise levels. Construction of the project will generate noise due to the use of heavy construction equipment. Construction of the entire project will take about 26 weeks.

The principal equipment required for pipeline construction work along the Point Reyes-Petaluma Road right-of-way is anticipated to include (a) backhoe/excavator, (b) front-end loader, (c) dump truck(s), (d) water truck, (e) hand-held mechanical compaction equipment, and (f) paving equipment. This construction work, which would install about 4,900 lineal feet of pipeline, is expected to take up to three months. Peak noise would

be expected to be in the 80 to 88 decibels (dBA) range at a distance of 50 feet from the noise source. There are no residences located along the pipeline route, so residents or other sensitive receptors would not be affected.

Demolition of the Downey Well will take 2 days. The nearest residence is several hundred feet distant. It is possible that the demolition might be audible, but the noise generated would not be substantial and would only last for portions of 2 days.

Drilling the well would require use of a well rig plus other heavy equipment. Maximum noise levels during construction are expected to be about 75 to 85 decibels (dBA) at 50 feet (these are noise levels generated by this type of heavy equipment). Noise levels decrease by about 6 dBA for each doubling of the distance between the noise source and the receptor. The residence on the Gallagher Ranch is located about 400 to 800 feet from the potential well site. Noise levels would be expected to be between 50 to 65 decibels during well drilling. This noise would only occur for a few days, nevertheless, limits on the hours of operation is an appropriate mitigation.

The *Marin Countywide Plan* specifies that "during all phases of construction, measures should be taken to minimize the exposure of neighboring properties to excessive noise levels from construction-related activity." In addition, Marin County reserves the right to set hours for construction-related activities involving the use of machinery, power tools or hammering. The hours of construction would be determined by the type of construction, site location and noise sensitivity of nearby land uses and would be specified in the conditions of approval for the project.

Mitigation Measure N-1

Construction of the well shall be limited to the hours of 7:00 a.m. to 5:00 p.m. on weekdays. No work shall be allowed on Saturdays, Sundays, or holidays.

Mitigation Monitoring and Reporting

The construction hours will be included in the final construction specifications for the project. NMWD will periodically monitor start and stop work times to ensure compliance.

Impact Significance After Mitigation

The mitigation measure ensures that construction noise would not bother the residences near the well site outside of normal working hours nor on weekends and holidays. This would reduce the impact to a less than significant level.

b. *Exposure of persons to or generation of excessive groundborne vibration of groundborne noise levels?* **No impact.**

Project construction is not expected to generate substantial groundborne noise or vibrations, especially since the nearest residence is 400 to 800 feet from where the well will be drilled.

c. *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?* **No impact.**

Once project construction is completed, the project will not generate noise.

d. *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?* **Less than significant with mitigation incorporated.**

As described above under Impact XI(a), project construction will generate short-term noise. However, as described under that impact, it is expected that the impact will be less than significant with the incorporation of limits on when construction can occur.

e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?* **No impact.**

The project site is thirteen miles from the nearest public airport.

f. *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?* **No impact.**

The project is not near a private airstrip, and the project does not include housing or employment where people would be susceptible to noise.

XII. Population and Housing

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*			x	
b. *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*				x
c. *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*				x

a. *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?* **Less than significant impact.**

NMWD has sufficient water rights and supplies from the existing Coast Guard Wells to serve the projected buildout of the West Marin Service Area, as that buildout is described in the EIR prepared for the new Marin Countywide Plan.[7] The Gallagher Wells will be used to supply water during high tide and drought conditions where pumping of the Coast Guard Wells increases the risk of saltwater intrusion, or in flood conditions where the Coast Guard Wells are inundated. As such, the Gallagher Wells increase the reliability of the water system.

It could be argued that if this new well was not developed and the existing and new Gallagher Wells were not connected to the water system that NMWD might not be able to reliably meet water demand of existing as well as new customers, and that lacking system reliability, the County might not approve new development. However, it is speculative that NMWD would be unable to supply needed water from existing wells (perhaps conducting additional off-tide pumping and/or using additional storage to allow pumping under conditions when saltwater intrusion might occur). In addition, the existing rights and supplies, as supplemented by the Gallagher Wells, help NMWD to reliably meet the projected buildout of the service area. The wells would not provided water that would induce additional development beyond what is allowed and projected for in the Marin Countywide Plan. The Countywide Plan EIR states that water connections would increase from 776 connections in 2005 to a maximum buildout of 1,075 connections in 2030. The plan estimates that there would be the addition of as many as 292 new dwelling units. At 2.5 persons per unit, this would equal 730 additional people, or less than 30 people per year. This would not be considered substantial population growth, and it is consistent with the Countywide Plan. The project would not induce growth beyond that allowed under the Countywide Plan. The impact is less than significant.

b. *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?* **No impact.**

The project sites do not contain housing, and the project will not require that residences be demolished or removed.

c. *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?* **No impact.**

The project sites do not contain housing, and no people will be displaced during project construction or operation.

[7] Chris DeGabriele, North Marin Water District, personal communication, 1/11/08.

XIII. Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Fire protection?				x
Police protection?				x
Schools?				x
Parks?				x
Other public facilities?				x

a. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

Fire protection? **No impact.**

The project components are not susceptible to fire. They will not require response from the Marin County Fire Department.

Police protection? **No impact.**

Pipelines, wells, and gauging stations are not projects requiring police response. The project will not substantially increase the demand for police protection.

Schools? **No impact.**

The project does not include the construction of housing or new employment opportunities. There will be no direct impact on schools.

Parks? **No impact.**

The project will not require new or physically altered parks.

Other public facilities? **No impact.**

The project will not create a demand for improvements to other public facilities.

XIV. Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*				X
b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*				X

a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?* **No impact.**

The project does not include the construction of new housing nor employment opportunities. The project will not create any direct demand for recreational facilities.

b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?* **No impact.**

The project does not include recreational facilities nor require the construction or expansion of such facilities.

XV. Transportation/Traffic

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections?*		X		
b. *Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?*			X	
c. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*				X
d. *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*				X
e. *Result in inadequate emergency access?*				X
f. *Result in inadequate parking capacity?*				X
g. *Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?*				X

a. *Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections?* **Less than significant with mitigation incorporated.**

Construction of the project would consist of four phases: (1) drilling of a new well (three weeks of work), (2) installation of the pipeline along Point Reyes-Petaluma Road (two months of work), (3) demolition of the Downey Well (two days), and 4) installation of the relocated gauging station (two days). The pipeline installation would require traffic control on Point Reyes-Petaluma Road, typically limiting vehicle passage to a single lane over a distance of about 0.1 mile during construction hours. The pipeline installation may also require traffic in both directions to stop for a short time (e.g., 5 to 10 minutes). Construction of the new well and gauging station, and demolition of the Downey Well, would not require closure of Point Reyes-Petaluma Road.

The project would generate traffic during these construction phases, including heavy trucks transporting construction equipment, pipe, and other supplies. The project would also generate trips by workers and agency overseers. It is projected that over the approximately 3-month construction period, the project would generate approximately 5 to 10 worker trips per day and 3 to 6 heavy truck trips per day. It is expected that most of these trips would be via Point Reyes-Petaluma Road connecting with other County roads to Highway 101 via Petaluma, Novato, or Sir Francis Drake Boulevard. However, aggregate or other supplies might be supplied via Nicasio Valley Road to Point Reyes-Petaluma Road.

The impact would be less than significant because the number of trips would not cause a permanent decrease in the level of service on any State highway or County road or at any intersections along those highways or roads. In addition all intersections along Point Reyes-Petaluma Road that might be affected by project construction traffic operate at LOS B or better.

As noted above, the pipeline that would connect the Gallagher Wells to the existing Downey Well pipeline would be constructed within or on the shoulder of Point Reyes-Petaluma Road. Approximately 4,900 lineal feet of pipeline would be installed along this road. It is expected that it would take two months to install this pipeline. Because the work would be done within or immediately adjacent to the road, construction would require lane closure(s), as described above. These lane closures would cause an inconvenience to local residents, workers, and recreational travelers. The closures would disrupt bicycle use of the road and could interfere with emergency response.

NMWD would be required to replace disturbed pavement in Point Reyes-Petaluma Road to the County's satisfaction. This requirement would be established in the required Encroachment Permit. This would ensure that the impact of construction-caused pavement damage was reduced to a less than significant level.

The short-term impact of lane closures would be a potentially significant impact.

Mitigation Measure T-1

NMWD shall develop and implement a traffic control plan for construction operations. A traffic control plan will be required by the County of Marin prior to construction in order to obtain approval for an encroachment permit for work within the Point Reyes-Petaluma right-of-way. The traffic control plan shall also be provided to the Marin County Office of Emergency Services and the Marin County Fire Department for review and approval. Requirements of the plan relative to minimizing impacts on emergency access and evacuation plans include the following:

- Contact information and protocol to halt work and temporarily allow through traffic in the case of an emergency; and

- Inventory and procedures for placing steel plates over trenches to allow the temporary safe passage of traffic.

Mitigation Monitoring and Reporting

The plan will be developed as part of the application for an Encroachment Permit. The plan shall be implemented by the contractor during pipeline construction. NMWD will periodically monitor to ensure compliance.

Impact Significance After Mitigation

These mitigation measures would reduce the impact from disruption or interference of an emergency plan or evacuation plan to a less-than-significant level.

b. *Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?* **Less than significant impact.**

See the discussion under Impact XV(a) above. Construction-generated traffic will consist of an average of about 8-16 two-way trips per day for about 60 days. This would not result in any permanent change in the level of service on Point Reyes-Petaluma Road or any other public streets.

c. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?* **No impact.**

The project is over thirteen miles from the nearest public airport and will not cause any change in air traffic patterns.

d. *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?* **No impact.**

Once construction is completed, the project would not affect local roadways or intersections. See the discussion under Checklist Item XV(a) about traffic disruptions during pipeline construction.

e. *Result in inadequate emergency access?* **No impact.**

The project does not require emergency access, and, thus, would not affect emergency access.

f. *Result in inadequate parking capacity?* **No impact.**

The project does not require parking.

g. *Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?* **No impact.**

The project would not conflict with any plans or policies adopted by the County of Marin to encourage alternative means of transportation such as bicycles. See the discussion under Checklist Item XV(a) about short-term traffic disruptions that would potentially affect bicycle use during pipeline construction.

XVI. Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*				x
b. *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*		x		
c. *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*		x		
d. *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*				x
e. *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*				x
f. *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*			x	
g. *Comply with federal, state, and local statutes and regulations related to solid waste?*			x	

a. *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?* **No impact.**

The project will not generate wastewater and thus not exceed wastewater treatment requirements of the Regional Water Quality Control Board.

b. *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?* **Less than significant with mitigation incorporated.**

Water diverted from the Gallagher Wells would replace water diverted from the Coast Guard Wells during times of high tides, drought conditions, or flooding. Water would be treated at the existing NMWD treatment facility for manganese and iron removal. Expansion of the water treatment plant is not required. The specific effects of this water project are assessed and mitigated in this document, and mitigations are identified where warranted.

c. *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?* **Less than significant with mitigation incorporated.**

There are 17 highway drainage culverts crossing Point Reyes-Petaluma Road in the section where the new pipeline would be constructed. These drainage culverts receive runoff flows from the hills and tributary streams originating in the hills on the north side of the road. The contributing watershed areas are small. The culverts range in size from 15 to 30 inches in diameter. Some of these culverts may have deteriorated and may need to be replaced during pipeline installation. Depending upon their condition and proximity to the pipeline, the culverts could be cut or crushed by excavating or compaction equipment, and this could impede drainage flow unless properly repaired. This is a potentially significant impact. The actual crossings of culverts that do not need to be replaced can be accomplished by using a steel offset or lowering the pipeline trench to clear the culvert by at least 12 inches.

Mitigation Measure U-1

The project shall avoid disturbing or impeding the flow of water in drainage culverts. Potential impacts on the flow conditions in existing road drainage culverts from the construction of the proposed pipeline along Point Reyes-Petaluma Road can be mitigated by developing specific plans for each pipeline crossing that include the following measures, as applicable:

- Locate and survey each drainage crossing for use in preparation of plans and specifications;
- Provide a protective sleeve around the pipeline where the pipeline crosses over the top of the drainage culvert;

- Provide a minimum vertical separation distance of at least 0.5 feet between the pipeline and drainage culvert or as otherwise required by the County of Marin;

- Consult with the County of Marin and develop plans that conform with all County of Marin requirements regarding pipeline placement and design in the vicinity of drainage culvert crossings;

- Provide for replacement or repair of any drainage culverts damaged as a result of project construction; and/or

- Allow for the use of horizontal directional drilling methods.

The plans and specifications shall be submitted for review and approval by the County of Marin.

Mitigation Monitoring and Reporting

Plans for each culvert crossing will be developed as part of the final design plan. Implementation will be the responsibility of the contractor. NMWD and the County of Marin will be responsible for final monitoring.

Impact Significance After Mitigation

Implementation of the above mitigation measure would reduce the potential impact on existing drainage facilities from pipeline construction to a less-than-significant level.

d. *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?* **No impact.**

The project is a water delivery facility. It does not increase the demand for water.

e. *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?* **No impact.**

The project does not generate wastewater and thus does not use any capacity in any wastewater treatment and disposal facility.

f. *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?* **Less than significant impact.**

All excess material removed from the well and pipeline trench would be disposed of at an approved location for receiving clean fill. The small amount of waste material from demolishing the Downey Well (about one pickup load) would be transported to the

County landfill. The NMWD contractor will be required to dispose of any waste material per County and State requirements at an acceptable disposal site. The small amount of waste that might end up in a landfill would not be expected to significantly reduce the capacity of that landfill.

g. *Comply with federal, state, and local statutes and regulations related to solid waste?* **Less than significant impact.**

Excess excavated materials and any other waste will be disposed of in compliance with applicable regulations related to solid waste.

XVII. Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*		x		
b. *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*		x		
c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*		x		

a. *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?* **Less than significant with mitigation incorporated.**

The project would not significantly affect vegetation, terrestrial wildlife, or cultural resources at any of the sites. Potential sedimentation of Lagunitas Creek can be reduced to a less than significant level by mitigation measures recommended in this report. With implementation of recommended mitigation measures, the project would not reduce streamflows in Lagunitas Creek, and therefore would not adversely affect fish or aquatic wildlife living downstream of the Gallagher Wells. The abandonment of the Downey Well would be done in a manner that would avoid groundwater contamination.

The project would have beneficial impacts on fish and other biological resources by permanently dedicating a water right to divert water to instream uses. It would further benefit biological resources by removing the constraint on the National Park Service to implement its planned Olema Marsh restoration, which will allow full implementation of the beneficial Giacomini Wetland Restoration Project. The project also protects the groundwater from salt-water intrusion in the Coast Guard Wells area by avoiding pumping at Coast Guard Wells during periods of high tide and low flows in Lagunitas Creek

Other project components that could be expected to cause some degradation of the environment include short-term air quality and noise impacts. All these impacts can be reduced to a less than significant level by implementing the mitigation measures recommended in this report. It is concluded that by implementing the mitigation measures recommended in this Initial Study, the project would not significantly degrade the environment and would have substantive beneficial impacts for biological resources.

b. *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?* **Less than significant with mitigation incorporated.**

As described in Section 6.0 of this Initial Study, there are two projects in the Point Reyes Station area that have been approved but not constructed. One is a 5-lot subdivision and the other is reuse of a historic building in downtown Point Reyes Station. Neither of those projects would contribute any impact to the section of Lagunitas Creek or the proposed well site affected by the proposed project. The proposed project would not have any impact on the resources in Point Reyes Station that might be affected by construction of these two other projects except that they would use water provided by NMWD. However, NMWD would provide them with water whether or not the proposed project was approved and constructed. The proposed project does not contribute to any increased demand for water. There would be some potential for cumulative air quality and traffic impacts during the construction phase of the proposed project. However, the project's increment, after mitigation, would not be cumulatively considerable. Inclusion of recommended mitigations reduces the project's contribution to any possible cumulative impacts to a less than significant level.

The proposed project will not increase the water supply available to NMWD. NMWD is allowed to take its maximum allowed diversion from its existing Coast Guard Wells (in

addition to two other permitted diversion points). The District has adequate capacity from these wells to serve projected buildout in the area as described in the 2007 Marin Countywide Plan. Therefore, the project would not induce any development in the service area. Allowed development under the new Countywide Plan could occur with or without the project.

c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?* **Less than significant with mitigation incorporated.**

As discussed in previous sections of this Initial Study, project construction could generate air pollution and noise which could adversely affect workers and nearby residents. The mitigation measures recommended to control dust and noise would reduce these impacts to a less than significant level. The project, including recommended mitigation measures, would not have an adverse effect on human beings. The project would have the beneficial effect of ensuring water reliability during periods of high tides, flooding, and salt-water intrusion allowing NMWD to serve customers in its service area.

8.0 DETERMINATION OF SIGNIFICANT EFFECT

On the basis of this Initial Study, I find that the proposed project would not have a significant effect on the environment. A Mitigated Negative Declaration will be prepared.

_____ _____

Drew McIntyre Date
North Marin Water District

9.0 BIBLIOGRAPHY AND PERSONS CONTACTED

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10.0 REPORT PREPARATION

Leonard Charles and Associates

- Leonard Charles, Ph.D., Project Manager and Environmental Analyst
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Appendix B

Groundwater and Streamflow Response Analysis at North Marin Water District Gallagher Well Site, Lagunitas Creek, Marin County, CA

ESA

SUTRO SCIENCE

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Technical Memorandum

Date: December 21, 2020

To Jim O'Toole, Senior Vice President, Environmental Science Associates
Ari Frink, Senior Associate, Environmental Science Associates

From Pete Hudson, P.G #6730, CEG #2348, Senior Geologist, Sutro Science, LLC
Justin Taplin, MA, Senior Environmental Scientist, Sutro Science, LLC

Subject: Groundwater and Streamflow Response Analysis at North Marin Water District (NMWD) Gallagher Well Site, Lagunitas Creek, Marin County, California.

Sutro Science, LLC (Sutro) has prepared this Technical Memorandum (TM) to present results of a groundwater and streamflow response analysis at the North Marin Water District's (NMWD) Gallagher Ranch Well Site (Gallagher well site) located at 14500 Point Reyes-Petaluma Road in Marin County **(Figure 1)**. The analysis involved correlating drawdown data from a 7-day aquifer test with gage and stream discharge (streamflow) data recorded at a nearby USGS gaging station to determine if groundwater pumping from the test well on the Gallagher well site influenced streamflow on Lagunitas Creek. This study is intended to present additional analyses required for CEQA review and to support permitting of a proposed second groundwater supply well at the Gallagher well site. This TM discusses the project background, describes the surface water and hydrogeologic setting, presents the assessment methodology, and provides our findings and conclusions.

Background

NMWD constructed Well No.1 on the Gallagher Well site in 1993, which remained unused until a pipeline connecting it to the NMWD treatment plant was constructed in 2015. CEQA documentation for the pipeline and a second groundwater supply well was completed in 2009 but the second well was not constructed. Currently, in response to the need for a supplemental domestic supply, NMWD is preparing environmental documentation to install the second well (Well No. 2) but in a location that differs from that proposed in the 2009 Initial Study/Mitigated Negative Declaration (IS/MND). The new location of Well No. 2 is in the pasture about 450 feet north of Well No. 1. Well No. 1 and Well No. 2 would operate simultaneously. Although the 2009 CEQA documentation analyzed the impacts of diverting 300 gallons per minute (gpm), the second well had not yet been constructed. The second well would allow NMWD to effectively double the current groundwater withdrawal from the Gallagher Ranch site. Therefore, it was determined that it was appropriate to analyze the potential effect of the combined pumping on instream flows in Lagunitas Creek to comply with the requirements of CEQA and other regulations including the Local Coastal Program.

Since 2014, PES Environmental, Inc. (PES) has performed various groundwater characterization studies at the Gallagher Well site on behalf of NMWD. Most recently (October 28, 2020) PES submitted a report documenting

the results of a step drawdown test and a 7-day constant-rate aquifer test it conducted on a test well (NP-5) located at the proposed location of Well No. 2 **(Figure 1)**. The aquifer tests were conducted while Well No. 1 was actively pumping and thus provided an opportunity to ascertain the potential effects of operating two active supply wells on the stream flows in Lagunitas Creek during the late summer/early fall, low stream flow seasonal period.

Surface Water and Hydrogeologic Setting.

Lagunitas Creek drains a watershed area of about 103 square miles and flows about 22 miles from its headwaters on Mount Tamalpais to Tomales Bay. The upper 8 miles of Lagunitas Creek is controlled by four dams (Lagunitas, Alpine, Bon Tempe and Peters). Gallagher Ranch is approximately 8 miles downstream from Kent Lake (Peters Dam) and 2 miles from Point Reyes Station and the Tomales Bay estuary. Gallagher Ranch and the proposed well site are situated on alluvial deposits within an inside bend of Lagunitas Creek.

The gage height of Lagunitas Creek is measured and the streamflow is then calculated from two U.S. Geological Survey (USGS) gaging stations: one at Samuel P. Taylor State Park (USGS 11460400 aka "Park gage"), located about 3 miles downstream of Peters Dam (far outside of the zone of influence of the Gallagher Well site) and one adjacent to and within the zone of influence of the Gallagher Well site (USGS 11460600 – Point Reyes).[1] Discharge fluctuations identified in the Park gage are often identified after a time delay in a muted response at the Point Reyes gage. During a sample period between September 1, 2020 and October 31, 2020, the gage height at the Point Reyes gage fluctuated between a low of 0.89 feet and 1.04 feet and streamflow was calculated to be between 4.29 and 6.92 cubic feet per second (cfs). During the same period, the gage height at the Park gage fluctuated between 5.5 cfs and the flow was calculated to be 7 cfs. The Park gage and the Point Reyes gage are both monitored and maintained by USGS staff, who also occasionally obtain field measurements to inform releases or flow reductions from the Peters Dam. The data obtained from the Point Reyes gage is considered fair with accuracy within plus or minus 8 percent.[2]

Subsurface exploration completed by PES since 2014 found that Gallagher Ranch is underlain by unconsolidated alluvial deposits extending from the ground surface to the underlying bedrock surface at a depth of about 55 to 60 feet. These sediments consist of clays and silt mixtures, sandy silts, and coarse-grained sands and gravel. The bedrock underlying the unconsolidated sediments has been described by PES as belonging to the Franciscan Complex.[3] Groundwater occurs in the unconsolidated alluvial sediments under unconfined and semi-confined conditions. The saturated thickness of the unconfined alluvial aquifer ranges from approximately 38 feet to 41 feet below ground surface (bgs). The saturated alluvium in the vicinity of NP-5 consists of predominantly well-graded sands with gravels and occurrences of gravel lenses and cobbles at depths greater than 27 feet (bgs). An 11-foot thick layer of gravel and sand was observed in boring NP-4. PES concluded that the alluvial aquifer at depths greater than 27 feet represents a sequence of alluvial deposits considered to be moderately transmissive.[4] Lithologic logs completed during drilling of soil borings record first encountered groundwater ranging from 14- to 16-feet bgs

[1] Calculating streamflow involves recording continuous water level measurements and then applying a mathematical relationship between stage (water level) and discharge to compute streamflow.

[2] Watson, Andy. USGS. Personal Communication.

[3] PES Environmental Inc. (PES) Results of Aquifer Testing Program, Gallagher Well Site, Gallagher Wells and Pipeline Project, Northeast of Point Reyes Station, California. Prepared for the North Marin Water District. February 14, 2014

[4] PES 2020. Supplemental Exploration for Potential Groundwater Supply Well. Gallagher Ranch Property – North Pasture Area, Gallagher Well Project, Point Reyes Station, California. October 28, 2020

(October 2019)[5] and 17 to 20 feet bgs (October 2020)[6]. Static water levels in the completed test well (NP-5), and observations wells (NP-2 and NP-3) ranged from approximately 17 feet bgs (NP-5) to 18 feet bgs (NP-2, NP-3). Groundwater flow direction or gradient could not be determined due to the absence of vertical elevation control but for the purposes of this analysis, it is inferred that groundwater flows to the west and possibly southwest beneath the Gallagher Ranch site.

Methodology

The methodology used to determine whether groundwater pumping affected creek water level and streamflow relied on two primary data sources: 1) the USGS measured gage height and calculated streamflow data from the Point Reyes gage, as provided through the USGS National Water Information System Web-Interface[7] and 2) results of the 72-hour pump test as described and graphically represented in PES, 2020b[8]. The calculated stream flow data from the Park gage was also reviewed for comparison purposes and to assess diurnal and extended period flow and gage fluctuation. The focus period of the analysis was that of the pump test that operated from September 22 to September 29, 2020. The gage and streamflow data available from the USGS Web Interface data was refined using a 24-hour daily average to remove the diurnal and extended period fluctuations and capture trends that may indicate subtle responses in flow and gage height due to groundwater pumping.

Findings

The following section discusses the findings of the groundwater and streamflow response analysis. Several figures have been provided for illustration purposes. **Figure 2** is a reprint of Plate 6 from the October 28, 2020 PES report[9] that graphically represents the groundwater aquifer response during the 7-day constant-rate pumping test. **Figure 3** shows the raw gage data obtained from the USGS Web-Interface from the period of July 1 to October 31, 2020. This figure displays the degree of streamflow fluctuation, including that from diurnal variation, throughout the summer of 2020. **Figure 4** compares streamflow data from the Samuel P Taylor and Point Reyes gaging stations shown as 24-hour daily average flows, with an orange arrow added to indicate the duration of the pump test. **Figure 5** is an expanded view of the calculated raw streamflow data obtained from the Point Reyes gaging station, showing the duration of the constant-rate pump test. **Figure 6** provides another representation of Lagunitas Creek streamflow response during the constant rate pump test, comparing average flow from September 1 to October 1 and average flow during the pump test. **Figure 7** is a graph of the gage height data obtained from the Point Reyes gage with an overlay of the constant rate pump test period.

Groundwater Response to 72-Hour Constant Rate Pump Test

The 72-hour constant-rate pump test commenced in the afternoon of September 22 and ended at 22:00 on September 29. Groundwater was pumped at a constant rate of 140 gallons per minute (gpm) or about 0.3 cfs. The pump operated continuously, except for a 3-hour interruption in pumping on September 24, 2020, which was caused by depleted

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[5] PES Environmental Inc. (PES), 2020a Report of Exploration for Potential Groundwater Supply Location, Gallagher Ranch Property - North Pasture Area Gallagher Wells Project Point Reyes Station, California. August 18 2020

[6] PES Environmental Inc. (PES), 2020b Supplemental Exploration for Potential Groundwater Supply Well, Gallagher Ranch Property – North Pasture Area, Gallagher Wells Project, Point Reyes Station, California.

[7] https://waterdata.usgs.gov/nwis/uv?cb_00060=on&cb_00065=on&format=gif_stats&site_no=11460600

[8] PES Environmental Inc. (PES), 2020b. Supplemental Exploration for Potential Groundwater Supply Well, Gallagher Ranch Property – North Pasture Area, Gallagher Well Project, Point Reyes Station, California. October 28, 2020

[9] Ibid. Plate 6

fuel in the electric generator. As shown in **Figure 2**, maximum groundwater drawdown in the test well (NP-5) was 5.6 feet, 0.3 feet in NP-2 (located 95 feet northeast of NP-5) and 0.6 feet in NP-3 (located 79 feet east of NP-5) (see **Figure 1**). The groundwater levels were stable throughout the duration of the pump test suggesting that the pumping cone (aka cone of depression) created by the groundwater extraction at the test well reached steady state conditions 12 hours after the start of the pump test.[10] PES stated that, given the distance from NP-5 to the Lagunitas Creek (approximately 130 feet), it is likely that the pumping cone extended out to Lagunitas Creek.[11] Data represented on **Figure 2** also suggests that groundwater levels recovered relatively quickly after the pump test ended. PES reports that groundwater levels recovered to 94 percent within one minute after pumping stopped, 97 percent after 60 minutes and 99 percent after 140 minutes. This rate of recovery is indicative of a transmissive aquifer.[12]

Fluctuation in Measured Streamflow

As shown in **Figures 3 and 4**, Lagunitas Creek discharge rates fluctuated between 4 cfs to a high of 8 cfs between July 1 and October 31, 2020. Extended fluctuations in computed stream flow (such as those recorded between August 17 and October 6, 2020) can be the result of several factors including releases or flow reductions at Peters Dam on Kent Lake, human interactions between the Park gage and the Point Reyes gage, including groundwater pumping from private domestic or irrigation supply wells, increased runoff, leachfield flows, stream diversions, or operational anomalies at the gage itself, which could be precipitated by debris accumulation or changes in the stream bed (i.e. introduced or dislodged woody debris). Diurnal fluctuations can sometimes be attributed to evapotranspiration and irrigation runoff and alone can account for cyclic daily variations of 0.2 to 0.3 cfs. Larger fluctuations in flow throughout the reach of Lagunitas Creek between Kent Lake and Gallagher Ranch are typically attributed to releases or flow reductions at Kent Lake.

Changes in Lagunitas Creek Streamflow Due to Groundwater Pumping at Well No. 2 Site

Figures 5 provides an expanded view of the streamflow data shown in Figure 3 for the period of September 18 and October 2. **Figure 6** is Lagunitas Creek streamflow data through the month of September expressed as mean daily discharges showing average summer flow and average flow during the constant head pump test. Changes in the streamflow and gage height data that were recorded at the Point Reyes gage during the period of the constant-rate pump test are subtle to the degree that they could be construed as mere responses to diurnal or anomalous fluctuations in the flow. This is especially the case considering the degree of fluctuation observed over extended periods of time in this reach of Lagunitas Creek. However, upon closer inspection and by graphing the data using a 24-hour moving average, what appears to be a slight decreasing trend occurs during the latter days of the pump test. This can be seen graphically in **Figure 5**. The most revealing observation from the gage station data may be the (increasing) streamflow response following the cessation of the pump test on September 29. While this response may have been a coincidental increase in flow due to other factors, the correlation with the cessation of pumping is too close to completely disregard. In general, based on the review of the streamflow data, there appears to be some response in the streamflow and gage height, albeit slight, from the groundwater pumping at the Well No. 2 site. The magnitude of the streamflow decreases supposedly caused by the groundwater pumping is on the order of 0.2 to 0.3 cfs, which is below the accuracy (plus or minus 8 percent) of the stream gaging equipment.

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[10] Ibid, Page 7
[11] Ibid, Page 7
[12] Ibid, Page 7

It should be noted that there has been no obvious interaction between the ongoing groundwater pumping at Well No. 1 and pumping at the Well No. 2 site. The 450-foot separation and the transmissive characteristics of the aquifer may maintain an adequate distance between the pumping cones produced by these two wells.

Changes in Lagunitas Creek Gage Height Due to Groundwater Pumping

Figure 7 shows the gage height measurements recorded at the Point Reyes gage from September 20 to September 30. The graph shows some minor oscillations through the constant-rate pump test period; however, it is important to note the magnitude of these fluctuations. Throughout the constant-rate pump test, the gage height fluctuations were generally between 0.97 feet and 0.99 feet (0.02 feet) or a difference of about one-quarter of an inch. The lowest gage height reading measured was 0.95 feet recorded September 28 between 22:30 and 22:45 and the highest measurement was 1-foot measured between 07:45 and 09:15 on September 27. The difference between the maximum high and maximum low was 0.05 feet or slightly over one-half of an inch. While subtle, the data also suggests that, during the latter stages of the constant rate pump test (September 27 to September 29), gage height of Lagunitas Creek at the Point Reyes gaging station fluctuated between 0.96 and 0.98, a slight decrease which appears to be attributable to groundwater pumping during the constant rate test. Soon after the pump test ended, the measured gage height indicated recovery ranging between 0.98 and 0.99 feet with a temporary maximum of 1-foot height midday on September 30.

Conclusions

The results of the 7-day constant rate groundwater pumping test conducted at test well NP-5 on the Gallagher well site indicates that the groundwater aquifer is transmissive and, as PES concluded, could sustain a safe well yield estimated to range between 150 and 175 gpm. PES based this estimate on projected pumping rates and associated drawdowns, the sustained pumping rate of 140 gpm during the constant rate pump test, the amount of available draw down at the end of the pump test and the steady state condition achieved and maintained during the pump test.[13] While the water levels in the observation wells and pumping level in NP-5 during the pump test indicated that steady state conditions were achieved, it appears the zone of influence of the pumping cone extended toward the Lagunitas Creek in either a west or southwest direction, leading to a de minimis reduction in measured gage height and calculated discharge, especially during the latter stages of the pump test. The slight increase in measured gage height and calculated discharge that coincided with the cessation of pumping is notable as it provides additional evidence that the groundwater pumping depressed groundwater levels adjacent to the creek to a small degree. Had the pump test been allowed to continue beyond September 29 at 22:00, because the aquifer is transmissive, it is likely that the slight decrease in gage height and the decrease in calculated streamflow of 0.2 – 0.3 cfs would have equilibrated without decreasing further. It is important to note that the constant-rate pump test was conducted during late summer when Lagunitas Creek was under Dry Year conditions and experiencing seasonal low flows, which can be considered a worst-case condition. It is likely that in periods of higher creek flows and more elevated groundwater levels, continued pumping at the site of NP-5 would not even register a response in the creek as the influence of the pumping cone may not extend to the creek under higher flow conditions.

Based on the review of the pumping test data and the output from the USGS Point Reyes gage, it appears that under low streamflow conditions, such as those present during the constant-rate test in September 2020, groundwater pumping from the proposed Well No. 2 location could result in a small but discernable reduction in creek discharge.

[13] Ibid. Page 8

However, the magnitude of this reduction is such that it could not reliably be measured with the current stream gage equipment because it would not exceed the accuracy (plus or minus 8 percent) of that equipment. In any event, even if it could be reliably measured, the effect would be negligible, for it would not substantially reduce stream flow or lower water surface to a degree that would adversely impact stream habitat. Thus, the location of Well No.2, as proposed under the current project, would not result in new or more severe impacts than those disclosed in the 2009 IS/MND, and Mitigation Measure BR-2, developed as part of the 2009 IS/MND, remains adequate to reduce impacts to streamflow in Lagunitas Creek.

Prepared by:

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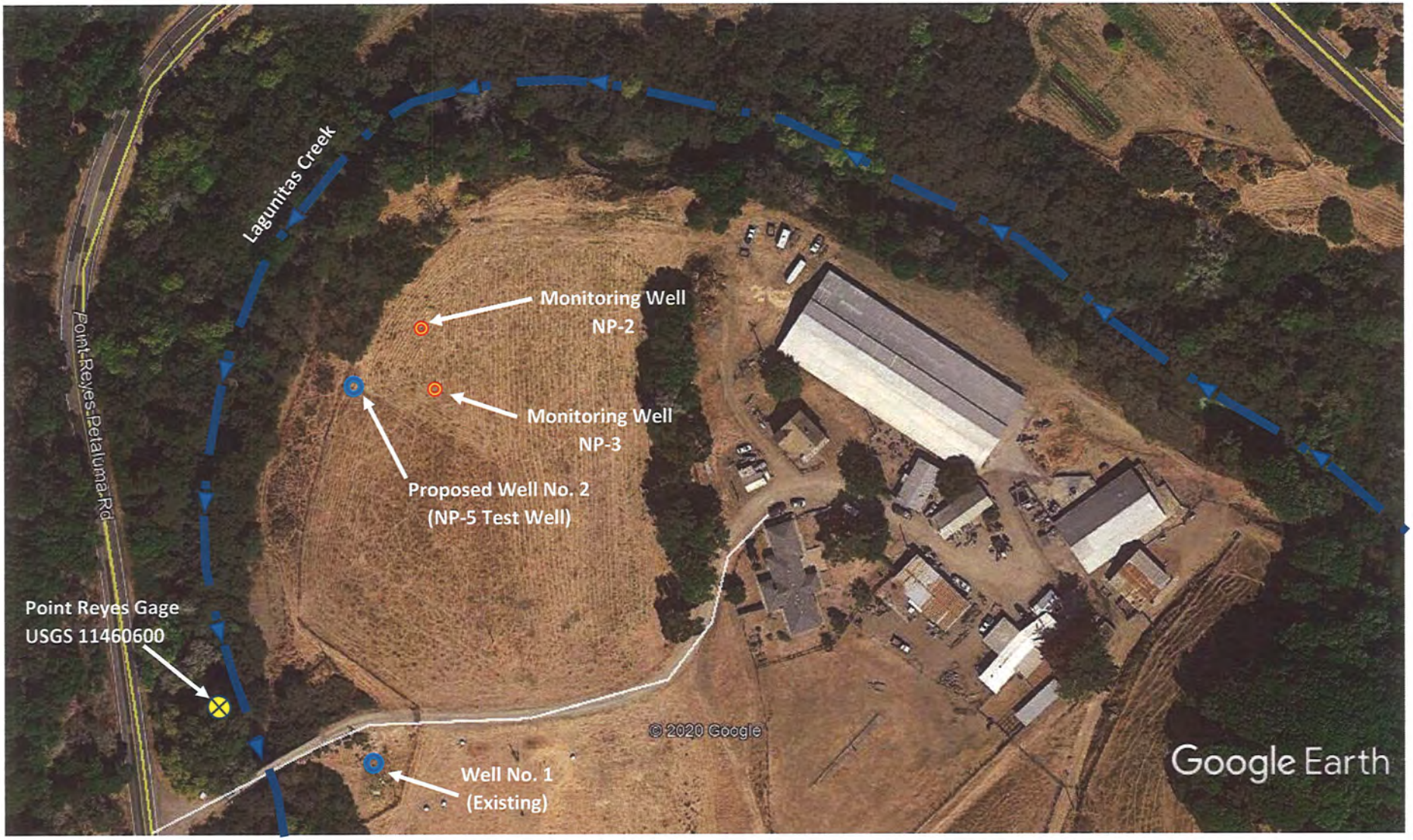
FIGURES



0 100 200

Scale in Feet

North

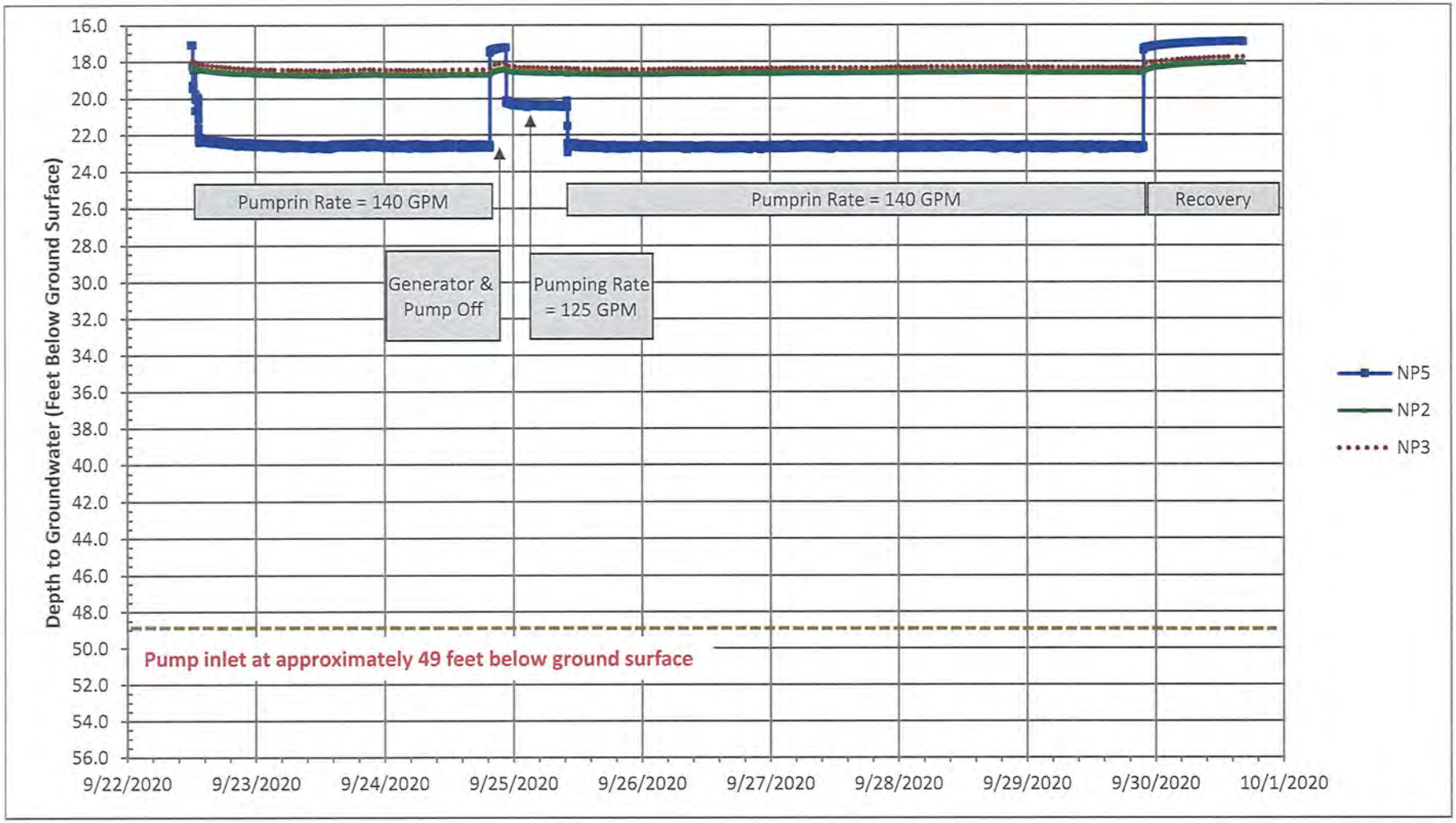
FIGURE 1

North Marin Water District
Gallagher Ranch
Well Site

14500 Point Reyes – Petaluma Road

SUTRO SCIENCE

Figure 2



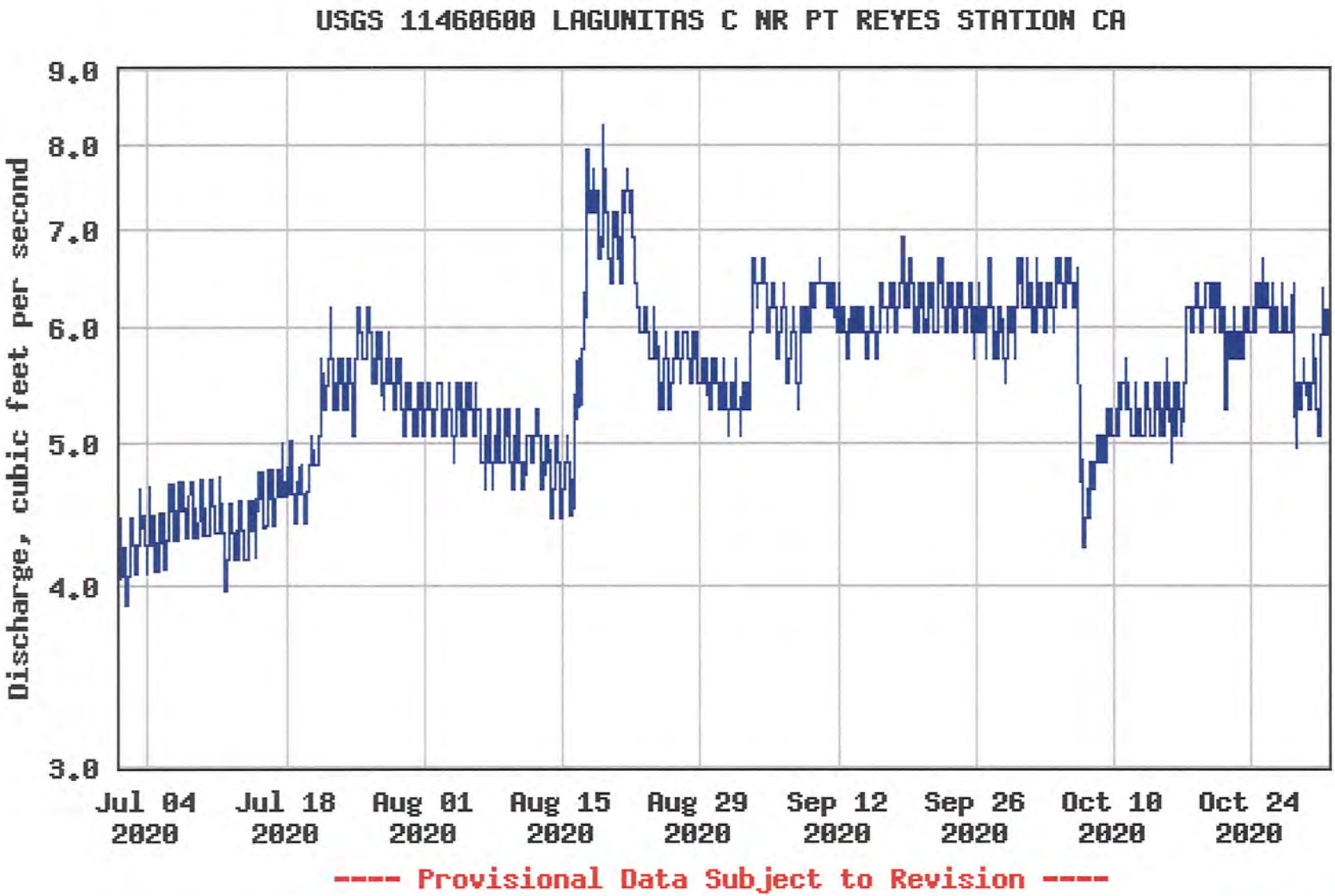
PES Environmental, Inc.
Engineering & Environmental Services

Hydrographs for 7-Day Constant Rate and Recovery Tests
Test Well NP-5 and Monitoring Wells NP-2 and NP-3

PLATE
6

872.002.01.001	87200201R001.xls	DRAFT	10/2020
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

Figure 3



SUTRO SCIENCE

SUTRO SCIENCE

Figure 4. Lagunitas Creek Daily Mean Flow

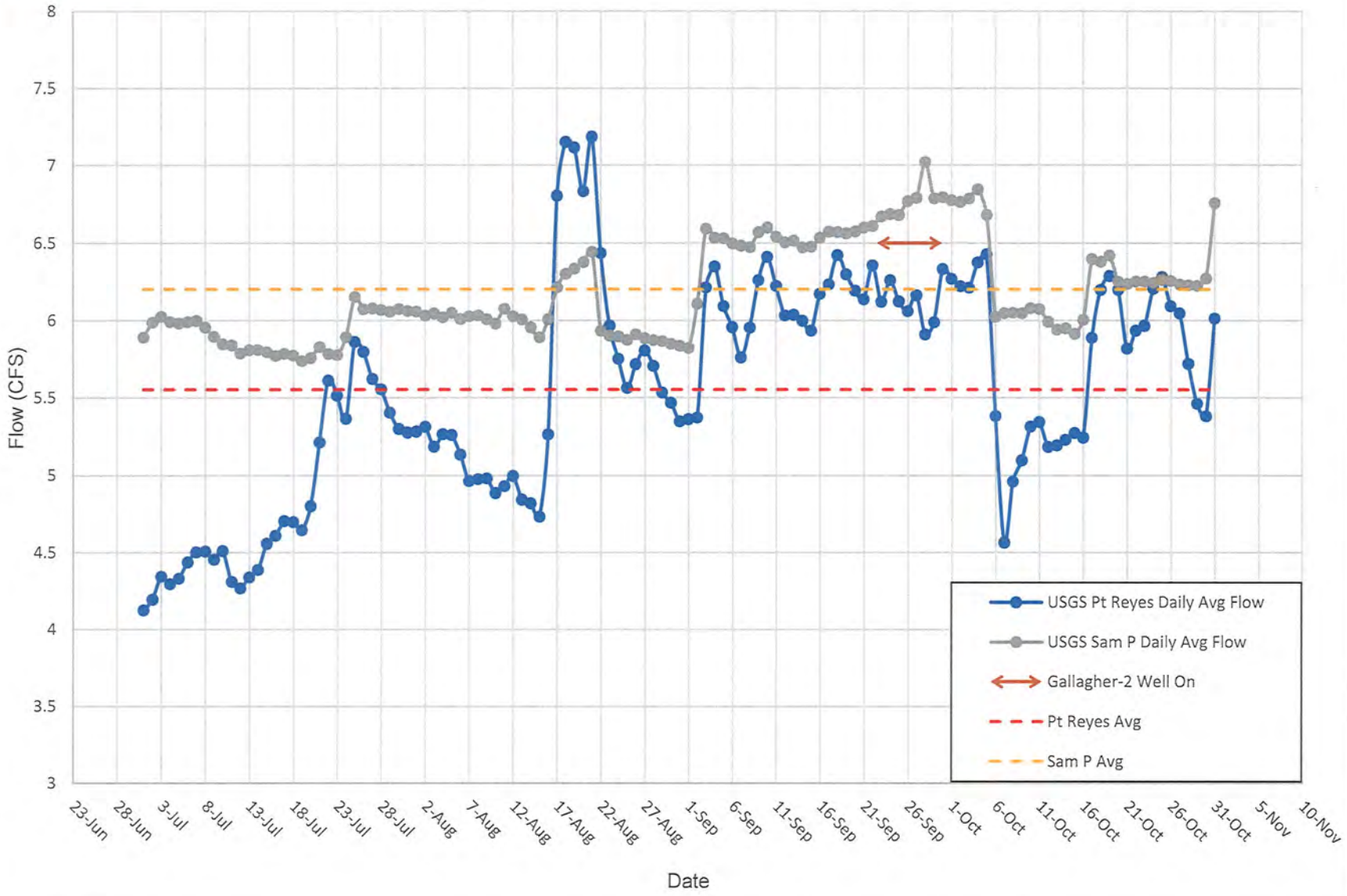
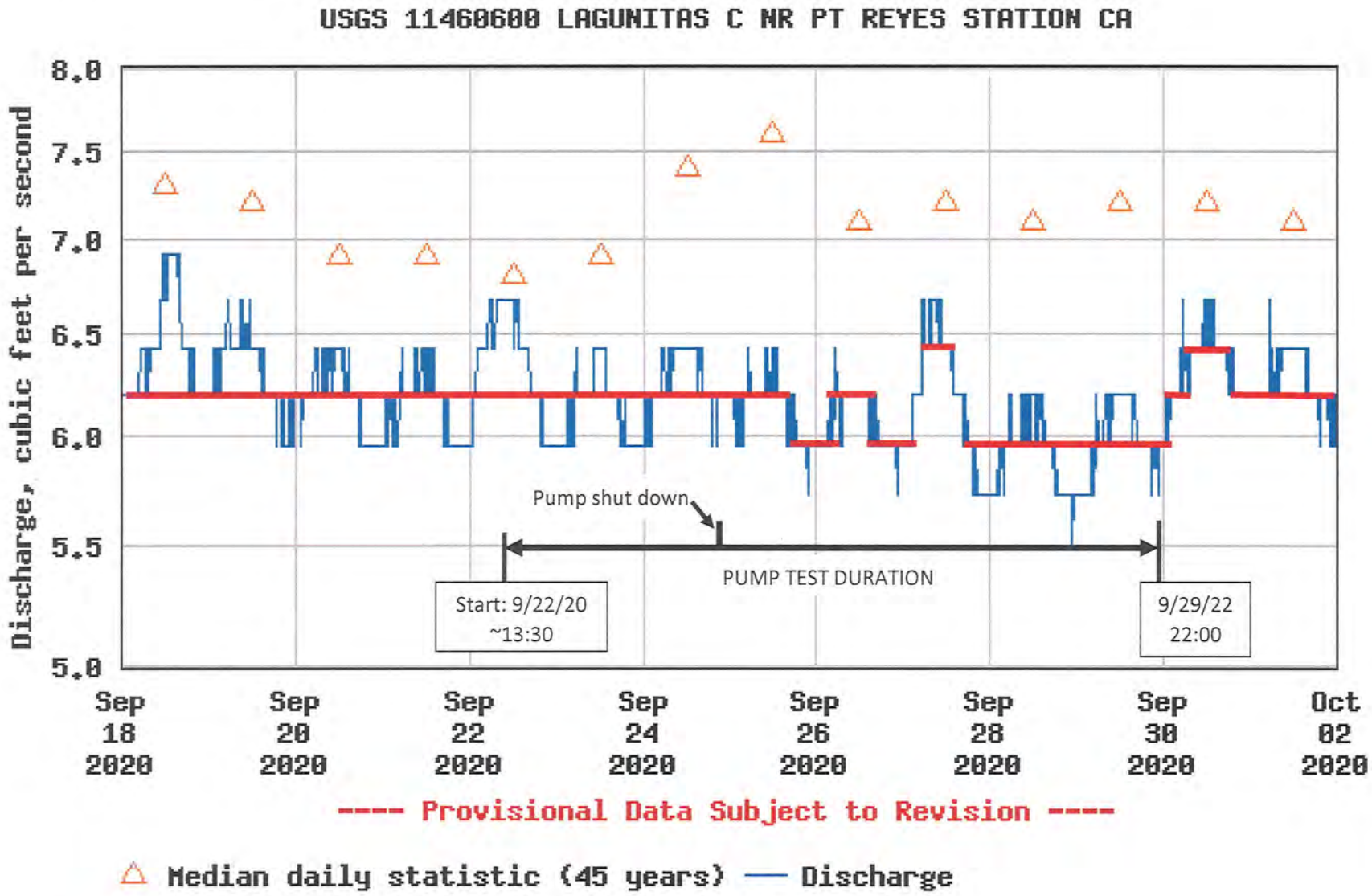


Figure 5



Source: https://waterdata.usgs.gov/nwis/uv?cb_00060=on&cb_00065=on&format=gif_stats&site_no=11460600

SUTRO SCIENCE

ATTACHMENT 2

GALLAGHER WELL No. 2 PROJECT

CEQA REVIEW PROCESS TIMELINE

Description	Date	Current Status/Comments
Board Meeting – Discuss Proposed CEQA Strategy	December 15, 2020	Complete
Board Meeting – Request Approval to Initiate Courtesy CEQA Review	January 5, 2021	
30-day Courtesy Review Period Begins	January 6, 2021	
30-day Courtesy Review Period Ends	February 5, 2021	
Board Meeting – Adopt Addendum	February 16, 2021	

Updated: December 29, 2020

7

MEMORANDUM

To: Board of Directors

December 30, 2020

From: Drew McIntyre, General Manager

Subject: Renew Declaration of Local Emergency Related to COVID-19 Pandemic

t:\gm\bod misc 2021\renew covid emergency declaration #18 1_5_21.doc

RECOMMENDED ACTION:	Approve continuation of the local emergency resulting from the COVID-19 pandemic as declared in District Resolution No. 20-07
FINANCIAL IMPACT:	~$106,200 as of November 30, 2020 (total fiscal impacts are currently unknown)

On March 4, 2020, the Governor of the State of California declared a State of Emergency as a result of the coronavirus (COVID-19) pandemic. On March 13, 2020, the President of the United States declared a National Emergency as a result of the threat of COVID-19.

On March 16, 2020, the County of Marin by Order of the Health Officer issued a Shelter in Place Order limiting the travel of all county residents and ordering county businesses to cease all non-essential activities and to take further actions as described in said Order through April 7, 2020. The order limits activity, travel and business functions to most essential needs.

On March 16, 2020 the General Manger, as the District's Emergency Manager activated the District's Emergency Operations Plan.

On March 19, 2020, Governor Newson issued Executive Order N-33-20 ordering all individuals living in California to stay home at their place of residence, with certain exceptions for critical services and other qualifying exceptions. This shelter-in-place order has no specified termination date.

On March 31, 2020, the County of Marin by Order of the Health Officer issued an extended Shelter in Place Order through May 3, 2020 that is more restrictive than the original order. The new order continues to provide an exception for the operations and maintenance of "Essential Infrastructure," which includes, but is not limited to, water, wastewater, and recycled water service. Exemptions are also in place for Essential Government Functions, for certain "Minimum Basic Operations," for emergency management functions, for certain narrowly prescribed "Essential Business" functions, and for certain qualifying private construction, such as housing projects meeting low-income needs.

On April 29, 2020, Marin County and the other six Bay Area Public Health Officers issued a new order effective May 4, 2020 through May 31, 2020. Marin's public health order concerning use of face coverings does not have an end date and will remain in place until further notice. Under the May 4th Shelter-In-Place order, construction activities, certain businesses that operate primarily

outdoors, and some outdoor activities will be allowed to resume with specific conditions.

On May 15, 2020, Marin County issued a new order allowing a limited number of additional businesses and activities to resume operations subject to specified conditions. In particular, office spaces were allowed to resume operation on June 1, 2020 subject to strict compliance with specific Marin County requirements. This new order has no end date and is to remain in effect until rescinded or superseded.

On July 13, 2020 Governor Newson issued a statewide order to dial back on recent loosening of restrictions due to a significant increase in the number of confirmed cases. As a result, various activities in Marin County were once again closed down, including: office space for non-essential operations, indoor malls, hair salons/barbershops and indoor seating at restaurants.

On September 15, 2020, Marin County successfully appealed to the California Department of Public Health (CDPH) to move into Tier 2 in the state's COVID-19 response framework. Moving from Tier 1, or "widespread" COVID-19 community risk (or purple) status, to the Tier 2 "substantial" (or red) status risk category allowing more businesses to reopen.

On October 27, 2020 Marin County was notified that California was moving the county from Tier 2 or "substantial risk" status to the Tier 3 or "moderate risk" level due to fewer daily cases, and a reduction in the positivity rate.

On November 16, Governor Gavin Newsom announced that CDPH officially moved Marin County from orange Tier 3 ("moderate risk") to the more restrictive red Tier 2 ("substantial risk") on its Blueprint for a Safer Economy. The step back comes just three days after the Marin County Department of Health and Human Services (HHS) notified local businesses and agencies about preemptive restrictions to stem the virus' spread locally.

On December 3, 2020 Governor Newsom announced that all sectors other than retail and essential operations will be closed in regions of California when less than 15% of intensive care unit (ICU) beds are available under a new Regional Stay Home Order. Marin County proactively implemented the State's Regional Stay Home Order at noon on December 8th and the state officially issued said Order to Marin County (as part of the Bay Area region) on December 17th. The Marin County Order will remain in effect at least until January 4, 2021. However, the State Order for the Bay Area Region lasts a minimum of three weeks (or January 7, 2021). All essential government services will continue and residential, commercial and mixed-use construction projects will continue. This Order does not modify the District's current COVID-19 Preparedness and Response Plan which has been prepared to maintain optimum health and safety working conditions. As a result of the Plan, the District has adopted various housekeeping and physical distancing protocols and also instituted modified work schedules as appropriate.

On April 7th, the Board of Directors approved Resolution No. 20-07 proclaiming the existence of a local emergency, granting the General Manager to take actions necessary for emergency response due to the COVID-19 pandemic until the State of Emergency is terminated.

Since April 21, 2020, the Board of Directors has, at every regular meeting, approved continuation of the local emergency resulting from the COVID-19 pandemic as declared in District Resolution No. 20-07.

District emergency planning has been aggressively implemented since March 16, 2020. Initially approximately 50% of the District's staff were physically separated as much as possible by rotating shifts and having some employees work from home, but all critical operations needed to maintain essential services continue. Relocation of additional staff back to the District buildings, and certain other projects and activities has occurred and the District is now operating with 86% of staff on-site or in the field full time. The balance of staff are teleworking from home with most coming into the office at least one day each week. Walk-in customer service is still suspended. A summary of key emergency actions taken and current estimated costs is provided in Attachment 1.

As the COVID-19 emergency continues in our service area, Staff is requesting the Board find that there still exists a need to continue the State of Emergency reflected by Resolution No. 20-07.

RECOMMENDED ACTION:

Approve continuation of the local emergency resulting from the COVID-19 pandemic as declared in District Resolution No. 20-07.

Emergency Actions Summary

Emergency Operations Team Actions

- Water treatment plants have been closed to all non-essential staff and the public; expanded social distancing and safety measures for essential plant staff.
- Public lobby in the District Administration building has been closed and customers have been provided with alternative methods for communicating with District staff.
- Developed guidelines for social distancing in the office and in the field; distributed guidance to all employees and posted social distancing protocol at facility entrances.
- Developed an initial rotational schedule for operations and maintenance staff to reduce staffing density on-site and minimize the number of employees on duty while completing essential work. (This approach reduced productivity, but improved the likelihood of healthy backup staff.)
- During initial response, shifted ~50 percent of employees to rotating schedule and/or rotating work currently ~15% of employees are on full or partial temporary telework assignments.
- Procured additional District cell phones for field staff to have better access to District communications and direct contact with supervisors.
- Disinfected District vehicles and reconfigured vehicle assignments to accommodate single occupancy to allow for social distancing, including re-deployment of vehicles scheduled for auction
- Suspended discretional water service turn-offs for the duration of the emergency declaration.
- Continuing coordination with local agency, county and state contracts to share information and implement best practices.
- Participating in weekly multi agency coordination calls through Marin County Office of Emergency Services (OES).
- Updating public website, messaging and social media posts as necessary including messages on suspension of walk-in services and water safety and reliability.
- Spring 2020 Waterline newsletter, direct mailed to all customers, included COVID-19 messaging with information on water safety and reliability.
- Posted magnetic signage on vehicles to inform public to respect distancing around crews.
- Issued guidance on face coverings in compliance with Centers for Disease Control and Prevention and County recommendations; revised to address April 29 County order generally requiring members of the public and workers to wear face coverings.
- Developed and rolled out an employee self-assessment screening questionnaire for use by any District employee or vendor prior to entering a District workspace; self-assessment questions are reviewed and updated as needed.
- Continue to procure necessary face coverings and personal protective equipment, including disposable masks, face covering and N95 equivalent masks.
- Tracking customer delinquency and comparing to last year to asses potential revenue impacts.

- Developing a living "lessons learned" document.
- Installed hand disinfecting stations at District facilities.
- Expanded use of District's on-call requirements to ensure construction crew staff maintain their work "bubbles" to ensure adequate back-up staff availability.
- Increased janitorial services to include disinfection of frequently touched areas (door handles, knobs, etc.).
- Modified work spaces to improve physical separation between staff.
- Developed a COVID-19 Preparedness and Response Plan and provided training.
- Implemented a daily self-assessment reporting program for all staff reporting to work.
- Modifying District office front lobby in preparation of re-opening walk-in services (Date to be determined.).
- Installed "No Touch" drinking fountains in both Administration Building and Construction Building.

General Manager Authorizations

- Extended vacation accrual maximums from July 1, 2020 to September 30, 2020.
- Extended FY 2019/20 vision insurance reimbursement eligibility from July 1 to August 31, 2020.

COVID Cost Summary

PROCUREMENT EXPENSES

Vendor Purchases	Procurement Type	Total Purchase Order Amount	Date
Durkin Signs & Graphics	Magnetic "Social Distance" Signs	$1,077	4/14/2020
Winzer Corporation	Surgical Masks (2,000)	$3,751	4/15/2020
Boucher Law	COVID Protection Plan	$3,250	5/26/2020
JCA Construction	Misc. Office Social Distancing Modifications	$12,427	6/30/2020
Winzer Corporation	Surgical Masks (2,000)	$1,573	7/6/2020
Novato Glass	Plexiglass	$3,969	6/9/2020
Total Procurement Amount To-Date		**$26,047**	

Internal Labor Expenses

Increased on-call labor costs: ~$52,700, thru October 31, 2020
~$62,800, thru November 30, 2020

Families First Coronavirus Response Act (FFCRA)
Allows employees to take time off for COVID medical reasons and/or childcare. ~$15,500 thru October 31, 2020.
~$17,400 thru November 30, 2020

Water Bill Delinquency Impacts

	10/2019	10/2020	11/2019	11/2020
Customer Accounts Past Due (count)	1.7%	6.2%	**2.0%**	**5.8%**
Delinquent Balances Due on Account	3.8%	8.9%	**2.6%**	**10.7%**

8

MEMORANDUM

To: Board of Directors December 30, 2020

From: Ryan Grisso, Water Conservation Coordinator RG
Drew McIntyre, General Manager

Subject: West Marin 2020 Dry Year Water Conditions Report – Initial Review
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RECOMMENDED ACTION: Information Only

FINANCIAL IMPACT: Information Only

As a part of the 2003 Settlement Agreement with Tomales Bay Association, Trout Unlimited – North Bay and the Sierra Club, following a dry year, NMWD is required to prepare a report detailing the dry year summer month water conditions (July through October), including flow conditions as reported at the Gallagher gauge and comparisons with flows at the Samuel P. Taylor Park gauge. The report shall also detail documented conservation and assessments of the strengths and weaknesses of the Water Shortage Contingency Plan and the Salinity Intrusion Plan, and what improvements could be made to either or both. The District is required to hold an initial review to receive comments and recommendations on the draft report prior to a second meeting where the report is submitted to the NMWD Board of Directors for acceptance.

Attached is the draft West Marin 2020 Dry Year Water Conditions Report for review and comment by the Board and public. Please submit comments for incorporation into the final report by Tuesday, January 12, 2021. After which comments will be incorporated and the final report will be submitted to the Board for acceptance at a subsequent regularly scheduled meeting.

DRAFT

West Marin 2020 Dry Year Conditions Report

North Marin Water District

December 2020

Prepared by: Ryan Grisso
Water Conservation Coordinator

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West Marin 2020 Dry Year Conditions Report
Table of Contents

SECTION

ATTACHMENT

Section 1: Introduction

Water Right Order 95-17, adopted in 1995, defined dry year conditions on Lagunitas Creek and subsequent stream flow reductions based on the amount of rainfall received at Marin Municipal Water District's Kent Lake gauge between the preceding six months from October 1 through April 1. At the April 21, 2020 meeting, the Board was advised that the 2020 water year rainfall through April 1st was 23.6 inches which is less than the required 28-inches for normal year conditions. Dry year conditions trigger enactment of the District's Water Shortage Contingency Plan and adoption of a Water Conservation Ordinance. At the April 21, 2020 meeting the Board set a public hearing for May 5, 2020 to consider declaration of a Water Shortage Emergency, enacting the Water Shortage Contingency Plan (WSCP) and adopting a Water Conservation Ordinance. Since the State Water Resources Control Board (SWRCB) Order 95-17 was issued in 1995, a Dry Year Condition on Lagunitas Creek has only happened once before in 2014.

At the May 5, 2020 meeting the Board held a public hearing and declared a Water Shortage Emergency in West Marin, enacted the Water Shortage Contingency Plan (Attachment 1) and approved an Emergency Water Conservation Ordinance (Attachment 2). The Emergency Water Conservation Ordinance called for Stage 1, 15% voluntary conservation, beginning May 5th through June 30th, and Stage 2, Mandatory 25% conservation beginning July 1st through November 1st, as compared to water use in 2013[(1)]. Note that the mandatory 25% reduction was intended for the West Marin Service Area as a whole and does not necessarily impose a 25% mandatory reduction for individual residential customers. It is also important to note that customers in the West Marin Service area have achieved considerable conservation since 2002 and continued conservation since 2013. Stage 2 - 25% - Mandatory Reduction Stage gave authority to the Board to trigger enactment of a drought surcharge to be considered simultaneous with, or subsequent to enactment of the mandatory stage at the discretion of the Board, however, the Board elected not to enact a drought surcharge during the 2020 Dry Year Conditions. Stage 3 – up to 50% Mandatory Reduction Stage, triggered if any preceding 30-day period has an average daily use of over 433,000 gallons per day, was not triggered this year during the Dry Year Conditions.

[(1)] Most recent normal year water use as defined by the state during the most recent three-year drought from 2013-2015.

As a part of the 2003 Settlement Agreement with Tomales Bay Association, Trout Unlimited – North Bay and the Sierra Club, following the dry year, NMWD is required to prepare a draft report detailing the dry year summer month water conditions (July through October), including flow conditions as reported at the Gallagher Gauge and comparisons with flows at the Samuel P. Taylor Park Gauge (See Map in Attachment 3). The report shall also detail documented conservation and assessments of the strengths and weaknesses of the Water Shortage Contingency Plan and the Salinity Intrusion Plan, and what improvements could be made to either or both.

Section 2: Flow Conditions in West Marin

The flow conditions in West Marin during the months of July through October 2020, as specified in the 2003 Settlement Agreement, were monitored using the "Park Gauge" (USGS 11460400 Lagunitas Creek at Samuel P. Taylor Park and at the "Gallagher Gauge" (USGS 11460600 Lagunitas Creek NR Pt Reyes Station). Table 2-1 below contains the average daily flow conditions for the 2020 summer months of July through October. The flow conditions were monitored to make sure that 6cfs was being maintained on Lagunitas Creek at the Park Gauge as required by WR Order 95-17. On three occasions during this dry summer month period, the USGS made calibration adjustments to the gauge instrumentation which resulted in a drop in reported flow. In each case, MMWD responded in a timely manner and made adjustments to the releases to maintain the flow above 6cfs. Staff also monitored the flow in San Geronimo Creek, a tributary to Lagunitas Creek (as noted Table 2-1) as reported by the Balancehydrologics.com San Geronimo Creek Gage. Flow measurements at San Geronimo Creek documented that other sources of water were flowing into Lagunitas Creek as well.

Table 2-1: West Marin Flow Conditions - July through August 2020

Month	Park Gage (cfs)	Gallagher Gage (cfs)	San Geronimo Creek (cfs)
July	5.91	4.82	0.37
August	6.02	5.58	0.30
September	6.57	6.09	0.27
October	6.28	5.73	0.19

Section 3: Documented Conservation

The Water Shortage Contingency Plan and subsequently approved Water Conservation Ordinance No. 39 (approved by the Board at the May 5th meeting) called for a 15% voluntary reduction in water use from May through June and a mandatory 25% reduction in water use from July through October, as compared to 2013. Staff monitored both production and billed consumption in 2020 as compared to 2013. Table 3-1 below shows the monthly production comparisons from 2020 to 2013.

Table 3-1: Monthly Production in the West Marin Service Area (May through October)

Month	2013 Production (MG)	2020 Production (MG)	Percent Reduction
May	8.52	5.99	-29.7%
June	8.46	7.44	-12.1%
July	9.32	7.98	-14.4%
August	9.26	8.76	-5.4%
September	8.55	7.43	-13.1%
October	7.99	6.41	-19.8%

Table 3-2 contains the consumption comparison of 2020 to 2013, however, the consumption billing periods do not accurately line up with the reduction mandated months of 15% from May through June and 25% from July through October, 2020).

Table 3-2: Billing Consumption in 2020 Compared to 2013

Billing Period Consumption	2013 Consumption (MG)	2020 Consumption (MG)	Percent Reduction
June (Apr./May)	15.02	10.49	-30%
August (Jun./Jul.)	16.90	14.70	-13%
October (Aug./Sept.)	17.14	13.96	-19%

Although only Stage 2 was triggered in the WSCP, Stage 3 triggers in the WSCP were monitored this spring and summer. Most notably, Stage 3 is triggered if any preceding 30 day period has an average daily use of over 433,000 gallons per day. Table 3-3 shows the daily demand average by month during the Dry Year Conditions summer period. Average daily demand stayed well below the 433,000 gallons per day trigger.

Table 3-3: Average Daily Demand by Month

Month	Average Gallons Per Day	Stage 3 Trigger (Gallons Per Day)	% Variance
May	201,170	433,000	-54%
June	254,960	433,000	-41%
July	264,960	433,000	-39%
August	296,560	433,000	-32%
September	262,340	433,000	-39%
October	217,420	433,000	-50%

There were three major outside influences on the conservation performance during the 2020 Dry Year Conditions summer period:

1. COVID-19: Staff believes COVID-19 and the associated shelter in place, created a higher occupancy situation in the West Marin Service Area. COVID-19 rules were in affect for the entire period of the Dry Year Conditions summer period and continue to this day. Although, it is hard to quantify how this impacted demands, there is anecdotal evidence from other customer observations that more vacation dwellings in the service area were fully occupied compared to normal years. Obviously, higher occupancy rates would have created higher water demands during the 2020 Dry Year Conditions summer period.

2. The Woodward Fire: The Woodward Fire started on August 18 and was declared contained as of September 30. This fire had a water demand impact on the performance of the West Marin Potable Service Area, most notably in August where the percentage reduction dropped to only 5.4% which was inconsistent to the reduction percentages during the 2020 Dry Year Conditions summer period. Early on in the fire, water from the fire hydrants was used for fire-fighting purposes. In analyzing the difference between production and consumption over the two-month period along with some assumptions on water loss and accounting for some days, staff believes that around 1.2 million gallons were used through the hydrants for fire-fighting purposes, mostly in the August 18th through August 28th period. This amount of water accounted for approximately 11% of demand in August and approximately 3% of demand in September.

3. Other Temporary Hydrant Water Users: There were two hydrant meters issued for essential construction purposes during the 2020 Dry Year Conditions summer period, including one to Ghilotti Construction for a road paving project on Sir Francis Drake and one to Piazza Construction for the construction of PRE Tank 4A. Pardini also had a hydrant meter for domestic or agricultural uses to customers within NMWD's West Marin Service area (surplus water deliveries to Nicasio were discontinued during the 2020 Dry Year Conditions period). Total combined water use through these hydrant meters ranged between 1-2% of total monthly demand during this period.

Section 4: Water Shortage Emergency Public Outreach

To help communicate the information to the customers and stakeholders regarding the Water Shortage Emergency, NMWD embarked on a comprehensive campaign of public outreach activities. A list of actions by month is provided below in Table 4-1 and sample outreach material are included in Attachment 4.

Table 4-1: Public Outreach Tracking - 2020 Water Shortage Emergency

Outreach/Communication Action	Month
Legal add in Pt Reyes Light advertising Public Hearing	April
Legal add in Pt Reyes Light advertising results of the Public Hearing	May
Article in Pt Reyes Light on Water Shortage	May
Article in Marin IJ on Water Shortage	May
Website news entry on Water Shortage	April/May
Spring West Marin Waterline Newsletter	May
Summary of Restrictions on Website	July
Updated News Story on Website	July
GM on KWMR Radio Station	July
Social media post on Fires	August
Social media post on salinity intrusion	August
Press Release on salinity intrusion	August
Website news entry on salinity intrusion	August
Website news entry on the fires and need for conservation	August
Direct phone calls to top users from Aug billing period	August/September
Summer West Marin Waterline Newsletter - Special Edition	September
Water Quality Supervisor on KWMR Radio Station	September
GM Town Hall Zoom Meeting with Director Rodoni and Public	September (30)
Pt Reyes Light Article	October (7th)

Section 5: Water Shortage Contingency Plan

On May 5th the Water Shortage Contingency Plan (WSCP) was adopted and Ordinance No. 39 was approved, declaring a Water Shortage Emergency in the West Marin Service Area (Attachments 1 and 2). The WSCP was updated in 2016 and contains many flexible measures for enforcement base on the State's past mandates and also NMWD's water waste regulations (in Regulation 17). However, the flexibility that was built in 2016 WSCP update to allow NMWD to adapt to varying water shortage situations, was negated during the 2020 Dry Year Conditions due to the 2003 Settlement Agreement, which specifically calls out set percentage reductions in the dry year summer months of July through October.

The WSCP has a comprehensive list of water waster prohibitions and both voluntary and mandatory reduction requirements (both being measured on the entire service area performance), restricts new connections to the system and allows the Board the ability to enact a drought surcharge if deemed necessary. The strength of the WSCP is that it contains these measures and triggers that allow for fairly straightforward transition to an official Ordinance approval for implementation. It is a fairly rare situation for a service area of this size to have a comprehensive WSCP in effect.

One of the issues with the WSCP is that enforcement of the prohibitions is difficult due to the remote and more rural landscape of the West Marin Service area. In addition, the COVID-19 shelter in place period has further constrained enforcement feasibility. For enforcement, NMWD is somewhat reliant on other customer alerts to violating situations, and NMWD did not receive any alerts from the public on violators in the service area during the water use prohibitions period.

Another issue is that a normal base year is not clearly defined. NMWD chose 2013 as the last year of normal use (preceding the three-year 2013-2015 drought). However, 2013 is 10 years after the 2003 Settlement Agreement and a substantial amount of conservation and customer water use reductions have occurred between 2003 and 2013. If the true intent of the WSCP was to reduce post 2003 Settlement Agreement water use, NMWD has already proven to have reduced demand even more than the mandated 25% consistent on a yearly basis. Demand (production) in 2020 compared to water use from the 2002 and 2003 years, during the settlement

agreement negotiations, is substantially lower. Table 5-1 shows the water production numbers in 2020 compared to that of both 2002 and 2003.

Table 5-1: Water Use Comparison (2020 to 2002/2003)

Month	2002 (MG)	2003 (MG)	2020 (MG)	2020 % Reduction from 2002	2020 % Reduction from 2003
May	11.36	8.29	5.99	-47%	-28%
June	13.56	11.82	7.44	-45%	-37%
July	15.09	14.47	7.98	-47%	-45%
August	12.95	13.94	8.76	-32%	-37%
September	12.36	12.29	7.43	-40%	-40%
October	10.61	11.44	6.41	-40%	-44%

The WSCP has fulfilled the objectives to date and no changes are recommended as a result of the 2020 Dry Year Conditions, however due to 2018 legislation in regards to WSCP requirements, there could be some notable changes to the West Marin Service Area WSCP in the future.

Section 6: Salinity Intrusion

As documented in the District Emergency Operations Plan, to the extent possible, without risking putting the water system out of water, pump operation is modified and other measures are taken to prevent salt water intrusion into the wells as follows: At any time during the year the conductivity is less than 500 µS/cm no special plant operating measures are required. With conductivity above 500 µS/cm, utilize Gallagher well to meet as much of the demand as possible and to minimize the bromide levels in the treated water supply. The District has adopted the policy that if sodium in the Pt. Reyes water supply system exceed 50 mg/L, customers are notified by means of a public notice placed in the "Pt. Reyes Light" newspaper each week that sodium is present at or above that level

The plan takes in to account the multiple challenges presented by salinity intrusion- dietary sodium, increased disinfection byproduct formation potential, objectionable salt taste. The plan also uses objective criteria as trigger points for several actions such as well water conductivity and sodium concentration, tide height and duration, etc. In addition, the plan takes advantage of every operational "tool" we have to minimize the effects of salinity intrusion.

Even with careful planning in effect, the District has no real control of the magnitude of salinity intrusion in the Coast Guard Wells and as higher and higher concentrations of salts are noted in well water, the actions and "tools" in the plan are less effective. In addition, customer summertime use plays a large role in determining how much water must be sourced from the Coast Guard wells to meet demand. To address this issue the District is moving forward with a project to construct a second well at Gallagher to increase production of low saline water. Once completed and fully operational the Salinity Intrusion Plan will be reviewed and revised to incorporate new information concerning worsening salinity intrusion and any possible new operational procedures and controls. Revisions will be presented to the Board at a future date as part of the next Emergency Operations Plan update.

NORTH MARIN WATER DISTRICT'S

WATER SHORTAGE CONTINGENCY PLAN

FOR WEST MARIN SERVICE AREA

April 29, 2016

ATTACHMENT 1

NORTH MARIN WATER DISTRICT

WATER SHORTAGE CONTINGENCY PLAN

FOR WEST MARIN SERVICE AREA

April 2016

Customer Notification

I. January 1 water year classification "dry"

A. NMWD notifies customer by bill message.

"There are dry year conditions on Lagunitas Creek which may trigger implementation of water shortage contingency measures. Final determination will be made on April 1. Please use water wisely."

B. NMWD issues press release in February and March informing that potential dry year conditions exist and promoting customer participation in NMWD water conservation programs.

II. April 1 water year classification "normal"

A. Spring edition of NMWD West Marin "Water Line" promotes conservation measures.

III. April 1 water year classification "dry"

A. Spring edition of NMWD West Marin "Water Line" informs customers of "Water Shortage Emergency," public hearing and contingency measures. Water conservation programs and giveaways to be on display.

B. Stages of Action published as required in Point Reyes Light and posted at Point Reyes Station post office.

Specific Triggers

Stage 1 Trigger: When the total precipitation that occurs from October through April 1 of the following year is less than 28" as measured at the MMWD Kent precipitation gage and the period is April 1 through June 30, or when the NMWD Board of Directors determines that Dry Conditions prevail based on advice from NMWD staff or the State Water Resources Control Board.

Stage 2 Trigger: When the total precipitation that occurs from October through April 1 of the following year is less than 28" as measured at the MMWD Kent precipitation gage and the period is July 1 through November 1, or when the NMWD Board of Directors determines that Dry Conditions prevail based on advice from NMWD staff or the State Water Resources Control Board.

Stage 3 Trigger: When the total precipitation that occurs from October through April 1 of the following year is less than 28" as measured at the MMWD Kent precipitation gage and water demands in any preceding thirty-day period exceed an average of 433,000 gpd, or when the NMWD Board of Directors determines that Critical Dry Conditions prevail based on advice from NMWD staff or State Water Resources Control Board.

Consumption Limits (do not apply where private well or recycled water supply is used)

Stage 1: (Request for up to _____% voluntary reduction)

Residential:	_____% voluntary reduction in water use from a prior year for similar billing period to be determined by the NMWD Board of Directors depending on circumstances in place at the time of enactment.
Commercial and Industrial:	_____% voluntary reduction in water use from a prior year for similar billing period (exceptions may be granted in order to preserve jobs) to be determined by the NMWD Board of Directors depending on circumstances in place at time of enactment.

Stage 2: (Mandatory water use restrictions to enable reduction in water use up to _____%)

Residential:	Water use for certain purposes are restricted as determined by the NMWD Board of Directors depending on circumstances in place at time of enactment.
Commercial and Industrial:	Water use for certain purposes are restricted as determined by the NMWD Board of Directors depending on circumstances in place at time of enactment (exceptions may be granted in order to preserve jobs).

Stage 3: (Up to 50% mandatory reduction)

Residential:	_____% mandatory reduction in water use from a prior year for similar billing period or maximum gallons per person per day allowance to be determined by the NMWD Board of Directors depending on circumstances in place at time of enactment.
Commercial and Industrial	_____% mandatory reduction in water use from a prior year for similar billing period to be determined by the NMWD Board of Directors depending on circumstances in place at time of enactment (exceptions may be granted to preserve jobs).

Stages of Action

Stage 1 Voluntary - achieve _____% reduction[1] in water use by implementation of any of the following

a. Encourage voluntary rationing;

b. Pursue vigorous enforcement of water wasting regulations and provisions of District's Water Conservation Regulation 17 which requires water saving devices in new construction, prohibits installation of certain wasteful types of turf configurations, and encourages turf avoidance;

c. Request customers to make conscious efforts to conserve water;

d. Request other governmental agencies to demonstrate leadership and implement restrictive water use programs;

e. Distribute water saving kits upon customer request, to assure availability to existing and new customers (Note: Similar kits were distributed system wide to all customers

[1]Exact amount and District wide measurement of goal and method of achievement to be established by Board of Directors after examining projected supplies and after holding water shortage emergency public hearing.

during the 1976-77 California drought);

f. Encourage private sector to use alternate water sources such as recycled water or use of private wells;

g. Encourage the non-commercial washing of privately owned motor vehicles, trailers and boats only from a bucket and except that a hose equipped with a shut-off nozzle may be used for a quick rinse.;

h. Encourage nighttime irrigation;

i. Request restaurants, hotels, cafes, cafeterias, bars or other public places where food or drink are served/purchased to serve water only upon request;

j. Implement detailed measures from other stages to meet desired objective;

k. Any use of potable water from a fire hydrant except for fighting fire, human consumption, essential construction needs or use in connection with animals;

l. Navy style showering will be promoted (e.g., turn on water to wet person or persons, turn off water, lather up, scrub, then turn on water for a quick rinse, then turn off shower with free push button showerhead control valves available to customers upon request);

m. Customers will be urged not to regularly flush their toilets for disposal of urine only;

n. Request hotel and motel operators to provide guests with the option of choosing not to have towels and linens laundered daily;

o. Prohibit use of potable water for dust control at construction sites or other locations;

Stage 2 Mandatory - achieve a ____% reduction[1] in water use by declaring a water shortage emergency and implementing Stage 1 (voluntary) and Stage 2 (mandatory) restrictions on water use for the following certain purposes

a. Washing sidewalks, driveways, parking areas, tennis courts, patios or other exterior paved areas except by the Marin County Fire Department or other public agency for the purpose of public safety;

b. Refilling a completely drained swimming pool and/or initial filling of any swimming pool;

c. Non-commercial washing of privately-owned motor vehicles, trailers and boats except from a bucket and except that a hose equipped with a shut-off nozzle may be used for a quick rinse;

d. Watering of any lawn, garden, landscaped area, tree, shrub or other plant except from a hand-held hose or container or drip irrigation system except sprinklers can be used if customer maintains the volume or percent reduction pursuant to the NMWD Board of Directors determination compared to a prior year's use in same billing period;

e. Any non-residential use by a vehicle washing facility in excess of the volume percent or reduction pursuant to the NMWD Board of Directors determination;

f. Irrigating landscape other than between the hours of 7pm and 9am the following day;

g. Irrigating landscape more than _____ days per week;

h. Irrigating landscape during or within 48 hours of measureable precipitation;

i. Irrigating with potable water of lawn area on public street medians.

j. Intertie deliveries through the intertie to Inverness Public Utility District (IPUD), except for critical needs as determined by the General Manager.

Stage 3 Mandatory – achieve up to a _____%[2] reduction in water use by declaring a water emergency and implementing Stage 1 (Voluntary), Stage 2 (Mandatory) and the following additional Stage 3 (Mandatory) requirements.

a. Watering any residential lawn, or any commercial or industrial area lawn maintained for aesthetic purposes, at any time day or night during the period of July 1, through October 31. (These designated lawns will be allowed to dry up for the summer). Affected customers will be advised on tested methods for re-greening the lawns at minimum expense beginning on November 1, during a Stage 3 mandatory period if operating conditions permit. By following the prescribed instructions, the affected customers will likely avoid the cost of replacing lawns.

b. Planting any new landscaping, except for designated drought resistant landscaping authorized by NMWD.

c. Public groups may apply to the General Manager for exemptions for watering specific public lawns used extensively for community wide recreation. Such public area lawn watering shall only be done under methods and time periods prescribed by the General Manager. Such exemptions will only be given by the General Manager, if the mandatory _____% reduction in water can otherwise be achieved on a service area basis.

d. All day and nighttime sprinkling will be discontinued. Any and all outside watering will be done only with a hand held nozzle. An exception will be made to permit drip irrigation for established perennial plants and trees using manual or automatic time controlled water application sufficient only for assured plant survival.

e. No new annual plants, vegetables, flowers or vines may be planted until the Stage 3 mandatory period is over. An exception will be considered on a case by case basis for customers who are eliminating existing thirsty landscaping and replacing same with drought resisting landscaping prescribed by NMWD, as in b. above.

f. Limit deliveries of water to outside service area customers to that needed for human consumption, sanitation and public safety only or as stipulated in outside service agreements.

g. Discontinue all water deliveries through the intertie to IPUD.

Plan Preparation	This plan has been coordinated with County, State and Federal Emergency Services Offices.
Adoption of Plan	The Stage of Action will be enacted after public hearing required by the District's Emergency Water Conservation Ordinance and a determination by the District's Board of Directors that a West Marin Water Shortage Emergency exists.
Monitoring of Actual Water Use	Monitoring of water use will be by meters with data analysis using the District's computers.
Mandatory Prohibitions	Wasting of water is prohibited by Regulation 17 of the North Marin Water District. Stage 2 and Stage 3 of the Water Shortage Contingency Plan contain specific mandatory provisions.
Revenue and Expenditure Analysis	Temporary Drought Revenue Recovery Surcharge In the event that mandatory water use restrictions or mandatory reduction in water use is triggered (Stage 2 or Stage 3 herein), a Temporary Drought Revenue Recovery Surcharge may be implemented. The Temporary Drought Revenue Recovery Surcharge will serve to mitigate the revenue loss resulting from a reduction in water use. The Temporary Drought Revenue Recovery Surcharge shall be a quantity charge for each 1,000 gallons as specified in District Regulation 54.

NORTH MARIN WATER DISTRICT

WEST MARIN SERVICE AREA

EMERGENCY WATER CONSERVATION ORDINANCE NO. 39

May 5, 2020

ATTACHMENT 2

EMERGENCY WATER CONSERVATION ORDINANCE

ORDINANCE NO. 39

AN ORDINANCE OF NORTH MARIN WATER DISTRICT DECLARING THE EXISTENCE OF A WATER SHORTAGE EMERGENCY CONDITION WITHIN THE WEST MARIN SERVICE AREA OF THE DISTRICT, PROHIBITING THE WASTE AND NON-ESSENTIAL USE OF WATER, AND PROVIDING FOR THE CONSERVATION OF THE WATER SUPPLY OF THE DISTRICT

BE IT ORDAINED by the Board of Directors of North Marin Water District as follows:

Section 1. Declaration of a Water Shortage Emergency

This Board of Directors does hereby find and declare as follows:

(a) A public hearing was held on May 5, 2020, on the matter of whether this Board of Directors should declare a water shortage emergency condition exists within the West Marin water service area of this District which is served by wells adjacent to Lagunitas Creek.

(b) Notice of said hearing was published in the Point Reyes Light, newspaper of general circulation printed and published within said West Marin water service area of the District.

(c) At said hearing all persons present were given an opportunity to be heard and all persons desiring to be heard were heard.

(d) Said hearing was called, noticed and held in all respects as required by law.

(e) This Board heard and has considered each protest against the declaration and all evidence presented at said hearing.

(f) A water shortage emergency condition exists and prevails within the portion of the territory of this District served by wells adjacent to Lagunitas Creek. Said portion of this District is hereinafter referred to as the West Marin Service Area and consists in all the territory of this District generally known as Point Reyes Station, Inverness Park, Olema, Bear Valley and Paradise Ranch Estates. Said water shortage exists by reason of the fact that the ordinary demands and requirements of the water consumers in the West Marin Service Area cannot be met and satisfied by the water supplies available to this District in the West Marin Service Area without depleting the water supply to the extent that there would be insufficient water for human consumption, sanitation and fire protection.

(g) On May 5, 2020 the Board of Directors enacted the North Marin Water District Water Shortage Contingency Plan for the West Marin Service Area (Plan) and said Plan defines specific triggers for stages of action applicable to District customers, and pursuant to this ordinance. The specific triggers for stages of action vary and are determined based on rainfall measured at the Marin Municipal Water District Kent precipitation gage, calendar period and water demands in the West Marin Service Area.

Section 2. Purpose and Authority

The purpose of this ordinance is to conserve the water supply of the District for the greatest public benefit with particular regard to public health, fire protection and domestic use, to conserve water by reducing waste, and to the extent necessary by reason of the existing water shortage emergency condition to reduce water use fairly and equitably. This ordinance is adopted pursuant to Water Code Section 350 to and including 358, Sections 375 to and including 378, and Section 31026 to and including 31029.

Section 3. Effect of Ordinance

This ordinance shall take effect on May 5, 2020, shall be effective only in the West Marin Service Area, shall supersede and control over any other ordinance or regulation of the District in conflict herewith, and shall remain in effect until the Board of Directors declares that the water shortage emergency has ended.

Section 4. Suspension of New Connections to the West Marin Service Area

(a) From July 1, 2020 until, the Board of Directors by resolution declares that the water shortage has ended, which period is hereinafter referred to as the suspension period, no new or enlarged connection shall be made to the West Marin Service Area except the following:

(1) connection pursuant to the terms of connection agreements which prior to July 1, 2020, had been executed or had been authorized by the Board of Directors to be executed;

(2) connections of fire hydrants;

(3) connections of property previously supplied with water from a well which runs dry.

(4) connection of property for which the Applicant agrees to defer landscape installation until after the suspension period.

(b) During the suspension period applications for water service will be processed only if the Applicant acknowledges in writing that such processing shall be at the risk and expense of the Applicant and that if the application is approved in accordance with the District's regulations, such approval shall confer no right upon the Applicant or anyone else until the suspension period has expired, and that the Applicant releases the District from all claims of damage arising out of or in any manner connected with the suspension of connections.

(c) Upon the expiration of the suspension period, the District will make connections to its water system in accordance with its regulations and the terms of connection agreements for all said applications approved during the suspension period. The water supply then available to the District will be apportioned equitably among all the customers then being served by the District without discrimination against services approved during the suspension period.

(d) Nothing herein shall prohibit or restrict any modification, relocation or replacement of a connection to the District's system if the General Manager determines that the demand upon the District's water supply will not be increased thereby.

Section 5. Waste of Water Prohibited

No water furnished by the District shall be wasted. Waste of water includes, but is not limited to, the following:

(a) permitting water to escape down a gutter, ditch or other surface drain;

(b) failure to repair a controllable leak of water;

(c) failure to put to reasonable beneficial use any water withdrawn from the District's system.

Section 6. Prohibition of Non-Essential Use of Water

(a) No water furnished by the District shall be used for any purpose declared to be non-essential by this ordinance for the following stages of action as determined by the Board of Directors after considering specific triggers consistent with the Water Shortage Contingency Plan

for the West Marin Service Area.

Stage 1 - Voluntary Stage (15% reduction). Achieve 15% reduction in water usage compared to the corresponding billing period in 2013 by encouraging voluntary rationing, enforcement of water wasting regulations and water conservation Regulation 17, requesting customers to make conscious efforts to conserve water, request restaurants to serve water only upon request, encourage private sector to use alternate source and encourage night irrigation.

Stage 2 - Mandatory Stage (25% reduction)

(b) The following uses are declared to be non-essential from and after July 1, 2020:

(1) washing sidewalks, driveways, parking areas, tennis courts, patios or other exterior paved areas except by the Marin County Fire Department or other public agency for the purpose of public safety;

(2) refilling a swimming pool completely drained after July 1, 2020;

(3) non-commercial washing of privately-owned motor vehicles, trailers and boats except from a bucket and except that a hose equipped with a shut-off nozzle may be used for a quick rinse.

(4) Request restaurants to serve water only upon request.

(c) The following additional uses are declared to be non-essential from and after July 1, 2020:

(1) any use of water from a fire hydrant except for fighting fires, human consumption, essential construction needs or use in connection with animals;

(2) watering of any lawn, garden, landscaped area, tree, shrub or other plant except from a handheld hose equipped with an automatic shut-off nozzle, container or drip irrigation system except overhead sprinkler irrigation can be used if customer maintains an overall 25% reduction in water use compared to the corresponding billing period in 2013, (customers using less than 200 gallons per day are permitted to water their landscape without a 25% reduction) and properly operates the irrigation system in a non-wasteful manner between the hours of 7:00 p.m. and 9:00 a.m. the next day. If sprinkler water is used in a wasteful manner, the General Manager may prohibit sprinkling by that customer.

(3) Irrigating landscape more than 3 days per week or within 48 hours of measurable rainfall.

(4) Irrigating lawn area on public street medians.

(5) use of water for dust control at construction sites;

(6) initial filling of any swimming pool for which application for a building permit was made after May 5, 2020;

(7) use by a vehicle washing facility in excess of 25% less than the amount used by it during the corresponding billing period in 2013. If the facility was not operating in 2013, an assumed amount shall be computed by the District from its records.

(8) any non-residential use in excess of 25% less than the amount used by the customer during the corresponding billing period in 2013. If connection to the District system was not in existence or use in 2013, an assumed amount will be computed from the District's records.

(9) Intertie deliveries to Inverness Public Utilities District (IPUD), except for critical needs as determined by the General Manager

(10) Deliveries to customers outside the service area except as needed for human consumption, sanitation and public safety or as stipulated in outside service agreements.

Stage 3 - Severe Mandatory Rationing (50% reduction)

(d) From and after the date that the Board of Directors, by resolution, determines that the water shortage emergency requires severe rationing, the following additional uses are declared to be non-essential:

(1) Watering any residential lawn, or any commercial or industrial area lawn maintained for aesthetic purposes, at any time of the day or night during the period of August 1, through October 31, when a Stage 3 is in progress.

(2) Planting any new landscaping, except for designated drought resistant landscaping prescribed by the District.

(3) All day and nighttime sprinkling will be discontinued. Any and all outside watering will be done only with a hand-held nozzle. An exception will be made for carefully timed drip irrigation for established perennial plants and trees. Only sufficient water for assured plant survival may be applied.

(4) No new annual plants, vegetables, flowers or vines may be planted during the Stage 3 emergency period. An exception will be made for customers who are eliminating existing thirsty landscaping and replacing same with drought resisting landscaping prescribed by the District, as in (2) above.

The combined rationing including Stage 1, 2, and 3 is designed to achieve a minimum reduction of 50% or more in West Marin service territory water consumption as compared with normal year annual usage.

(e) The percentages stipulated in Stage 2 and Stage 3 may be increased by the General Manager for any class of customer if the General Manager determines that such increase is necessary to protect the public health, safety and welfare or to spread equitably among the water users of the District the burdens imposed by the drought and the shortage in the District's water supply.

Section 7. Variances

Applications for a variance from the provisions of Section 6 of this ordinance may be made to the General Manager. The General Manager may grant a variance to permit a use of water otherwise prohibited by Section 6 if the General Manager determines that the variance is reasonably necessary to protect the public health and safety and/or economic viability of a commercial operation. Any decision of the General Manager under this section may be appealed to the Board of Directors.

Section 8. Violations

(a) If and when the District becomes aware of any violation of any provision of Section 5 or 6 of this ordinance, a verbal warning will be given, then if the violation continues or is repeated, a written notice shall be placed on the property where the violation occurred and mailed to the person who is regularly billed for the service where the violation occurs and to any other person known to the District who is responsible for the violation or its correction. Said notice shall

describe the violation and order that it be corrected, cured and abated immediately or within such specified time as the General Manager determines is reasonable under the circumstances. If said order is not complied with, the District may forthwith disconnect the service where the violation occurs.

(b) For the first offense, a fee of $50 shall be paid for the reconnection of any service disconnected pursuant to subsection (a) during the suspension period. For each subsequent violation of Section 8 (a), the fee for reconnection shall be $75.

(c) No service which is disconnected twice because of a violation of Section 5 or 6 of this ordinance during the suspension period, shall be reconnected unless a device supplied by the District which will restrict the flow of water to said service is installed. Furthermore, the fee for reconnection of such a service during the suspension period shall be $100 in lieu of the fee required by subsection (b) hereof.

Section 9. Signs on Lands Supplied from Private Wells

The owner or occupant of any land within the West Marin water service area that is supplied with water from a private well shall post and maintain in a conspicuous place thereon a sign furnished by the District giving public notice of such supply.

Section 10. Drought Surcharge

Notwithstanding anything to the contrary in District Regulation 54, in the event a mandatory reduction in water use is triggered under the District's Water Shortage Contingency Plan for the West Marin Service Area, a Drought Surcharge may be implemented by resolution of the Board of Directors simultaneous with, or subsequent to, enactment of the mandatory stage, in the sole discretion of the Board of Directors. The Drought Surcharge will serve to mitigate the revenue loss resulting from a reduction in water use, as well as to offset the cost for water purchased from Marin Municipal Water District (MMWD) under the Interconnection Agreement between North Marin Water District and MMWD triggered by dry year conditions. The Drought Surcharge shall be a quantity charge for each 1,000 gallons as specified in District Regulation 54. Any Drought Surcharge shall be adopted and implemented in compliance with applicable law, including Article XIIIC of the California Constitution.

* * * * *

I hereby certify that the foregoing is a true and complete copy of an ordinance duly and regularly adopted by the Board of Directors of North Marin Water District at a regular meeting thereof held on May 5, 2020 by the following vote:

AYES: Directors Baker, Fraites, Grossi, Joly, Petterle
NOES: None
ABSENT: None
ABSTAINED: None

(SEAL)

Theresa Kehoe
District Secretary
North Marin Water District

USGS GAGING STATION LOCATIONS

ATTACHMENT 3

December 28, 2020 - 3:37 PM J:_NMWD Files\USGS Gages_Attachment 3.dwg User: Susan Dove

Attachment 4

Sample Outreach Materials from West Marin 2020 Dry Year Conditions Period

The Waterline

West Marin Service Area Newsletter | Volume 17 | Spring 2020

NORTH MARIN WATER DISTRICT

Water Supply Update Spring 2020

Drew McIntyre, General Manager

Water supplied by North Marin Water District (NMWD) to our West Marin customers is diverted from shallow wells adjacent to Lagunitas Creek near the former U.S. Coast Guard Housing Facility in Point Reyes Station and on Gallagher Ranch. The State Water Resources Control Board (SWRCB) has determined that Lagunitas Creek is fully appropriated in summer months of dry years and has ordered NMWD to find an alternative source of water from July to October during dry years. (A dry year occurs when the total precipitation from October 1 to April 1 is less than 28 inches as measured at Marin Municipal Water District's Kent Lake). NMWD has complied with this request by purchasing a portion of the Giacomini Ranch water rights to use during these periods.

Rainfall at Kent Lake through April 1, 2020 totals just under 24 inches and dry year conditions are now in place on Lagunitas Creek. This is the second dry year since Water Right Order 95-17 was adopted by the SWRCB in October 1995 (the first was in 2014). Pursuant to the order, Lagunitas Creek flows are currently being maintained by Marin Municipal Water District at the regulated threshold of 14 cfs (cubic feet per second, or about 6,300 gallons per minute) and will drop to 10 cfs on May 1 and to 6 cfs on June 16.

A public hearing was held on May 5, 2020 where the Board of Directors declared a water shortage emergency in NMWD's West Marin Service Area, the West Marin Water Shortage Contingency Plan was enacted and an Emergency Water Conservation Ordinance was adopted. From May 5 to June 30, customers are asked to voluntarily reduce water consumption by 15% when

compared to the corresponding billing period in 2013 (the most recent pre-drought normal year). Beginning on July 1, a mandatory 25% reduction in water use will be in place (also when compared to the corresponding billing period in 2013). Customers are also required to implement other conservation measures intended to eliminate the waste of water. Many customers have already reduced their water use to less than these mandated reduction levels and customers using less than 200gpd (gallons per day) are already in compliance, but are requested to conserve more if possible. A drought surcharge for customers using more than 200 gpd may be implemented by the Board of Directors simultaneous with or subsequent to enactment of the mandatory stage on July 1. You can see your water use history and target to reduce 25% by visiting the NMWD website at **nmwd.com/account_balance.php**

NMWD customers are encouraged to use water efficiently during this drought period, reduce outdoor irrigation and participate in NMWD Water Use Efficiency Programs described in this Waterline and at **nmwd.com**.

New Low Income Rate Assistance (LIRA) Program

This program is available to eligible low-income customers and provides a credit on a two-month billing cycle of $15 per bill or $90 per year. A direct water customer who has a single-family residential account and is eligible for PG&E's income-based CARE program is eligible for the District's LIRA Program. Once approved the discount would apply to your first billing cycle after July 1, 2020. To request an application or for further information call our billing department at 415-897-4133 or visit the website at **nmwd.com**.

Tap Water Is Safe From Coronavirus (COVID-19)

Water served by NMWD to customers is purified using modern treatment techniques to remove pathogens, including bacteria and viruses. Our continuous monitoring ensures that it surpasses all state and federal regulations for health and safety. NMWD staff are working 24/7 to make sure that water is available to you at all times. As you make any preparations to deal with the risks of coronavirus, know that your tap remains a safe, reliable and affordable source of clean water. **Quick Fact** – It costs less than 60 cents to wash your hands 100 times for 20 seconds each.

Pay your bills online.

Visit onlinebiller.com/nmwd

New Water Storage Tank in Construction in Paradise Ranch Estates

A new tank is being constructed in Paradise Ranch Estates (PRE). The project includes the construction of a 125,000-gallon concrete water storage tank that will provide expanded water storage for improved emergency and fire flow capacity. The tank site historically had two wooden tanks, one of which was destroyed in the 1995 Mt. Vision Fire. The new tank will restore the storage lost when that tank was burned, plus add sufficient water storage to meet current fire flow storage requirements.

The new 125,000-gallon tank (4A) will also replace the capacity provided by the remaining wooden tank (4B), since that tank is approaching the end of its useful life span. Tank 4B will remain operational until construction of the new tank is complete, and will then be decommissioned and removed from the site. A construction contract was awarded in December 2019 and the new $1.4M tank should be completed by November 2020.

NORTH MARIN WATER DISTRICT

999 Rush Creek Place
PO Box 146
Novato, CA 94948

nmwd.com

PRESORTED STANDARD U.S. POSTAGE PAID SAN RAFAEL, CA PERMIT NO 2

Water Smart Savings Program

North Marin Water District wants to help customers use water efficiently. That's why we've put all of our water saving promotions under one umbrella. The Water Smart Savings Program encompasses all you need to get started on saving water and saving money. Call (415) 761-8944 for program details or visit **nmwd.com**.

Water Smart Home Survey
This free service includes thorough indoor and outdoor water efficiency checks.

Water Smart Landscape Rebate
Rebates for water-efficient landscape equipment, such as a new drip irrigation system replacing a spray system.

Cash for Grass Rebate
Cash for removing irrigated and maintained lawn, replacing it with low water use plants.

Clothes Washer Rebate
NMWD offers a rebate to customers when they purchase a qualifying high-efficiency clothes washer.

Rainwater Catchment Rebate
Rebate for collection of rainwater.

High Efficiency Toilet Rebate
Customers who replace an old water-guzzling toilet with a high-efficiency toilet may be eligible for a rebate.

Water Smart Savings Program

Find out more at nmwd.com

The Waterline

West Marin Service Area Newsletter | Volume 18 | Summer 2020

NORTH MARIN WATER DISTRICT

Water Supply Update Summer 2020

Drew McIntyre, General Manager

Unprecedented salinity intrusion has occurred in two wells which North Marin Water District uses as sources of drinking water in the West Marin system.

These two wells, located near the former Coast Guard housing property in Point Reyes Station, have experienced periodic and seasonal salinity intrusion for many years. In 2015, NMWD completed permitting and construction of a well and pipeline that brings water from a different source, out of the reach of tides. This third well is situated approximately a mile and a half east of Point Reyes station adjacent to the Gallagher ranch.

Unfortunately, the third well is unable to produce enough water to meet 100% of the volume demands of our customers in the summer months and the salinity intrusion at the Coast Guard wells has continued to worsen, likely due in part to sea level rise. This year, under dry-year water conditions, we have seen the salt levels in the water produced from the Coast Guard wells rise to unprecedented levels. While there is no direct health concern from the salt for most people at this concentration, it does affect the taste. Customers that may be on sodium restricted diets should consult their physicians to see if the additional sodium is a concern for them.

Additionally, bromide, a component of the salt water that has increased, can also contribute to the formation of disinfection byproducts. We have taken every action available to keep disinfection byproducts as low as possible and continue to monitor their concentrations. If they rise to an unsafe level we will, in consultation with the California Division of Drinking Water, communicate this to our customers.

In order correct the situation, North Marin Water District is actively working to construct additional sources of water that are not prone to salinity intrusion. The acquisitions of land, planning and permitting have been going on for two years. We hope to have this new source constructed and available for water supply in 2021. Emergency water conservation measures remain in place and reducing water use decreases our dependence on wells impacted by salinity intrusion.

More information about water quality can be found at **https://nmwd.com/your-water/water-quality**

If you have questions or concerns that are not addressed here, please call Pablo Ramudo, Water Quality Supervisor at 415-761-8924.

Emergency Water Conservation Update

Ryan Grisso, Water Conservation Coordinator

A water shortage emergency was declared and Emergency Water Conservation Ordinance (Ordinance No. 39) adopted in the West Marin Service Area pursuant to Water Right Order 95-17, triggered by dry year conditions with rainfall levels less than 28 inches (i.e. 24 inches) this past winter on Lagunitas Creek. Ordinance No. 39 mandates percentage reductions in water use and also prohibits waste and non-essential uses of water.

May 5 to June 30, customers were asked to voluntarily reduce water consumption by 15% compared to the consumption in 2013 (the most recent pre-drought normal year). West Marin customers did a great job conserving during this period and the service area water use was down 21%. On July 1, Ordinance No. 39 required a mandatory 25% service area wide reduction in water use (also when compared to 2013). West Marin Service Area customers did a good job reducing water use by 15% compared to 2013 in July, but we are still below our mandated 25% reduction.

For more information on Ordinance No. 39, including the actual Ordinance and a summary of water use prohibitions, please visit **https://nmwd.com/water-shortage-emergency-declared-in-west-marin-service-area/.**

Continues on next page

Pay your bills online.

Visit onlinebiller.com/nmwd

Water Conservation Update (continued)

You can also see your water use history by visiting our website at the following link: **nmwd.com/account/watersmart/**

Although the mandatory 25% reduction applies to the West Marin service area as a whole (and not at individual customers at this time), we ask for your diligence to reduce water use as much as reasonably possible and to please fix all leaks. There is not a drop to waste! Reducing your water use also decreases our dependence on wells impacted by salinity intrusion and preserves water supply for fighting fires.

If you have any questions or concerns please feel free to email our Water Conservation Department at waterconserve@nmwd.com or call 415-761-8944.

Water Use Monitoring and Leak Detection Device Pilot Program

The District is in the process of developing a pilot program for the shared cost purchase and use of water monitoring and leak detection devices.

These devices attach to your meter and relay real time water use data and leak alerts through your Wi-Fi. If you are interested in participating, please email your contact information and service address to waterconserve@nmwd.com.

This pilot program is available to West Marin Service Area customers only.

NORTH MARIN WATER DISTRICT

999 Rush Creek Place
PO Box 146
Novato, CA 94948

nmwd.com

PRESORTED STANDARD U.S. POSTAGE PAID SAN RAFAEL, CA PERMIT NO 2

Water Smart Savings Program

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This free service includes thorough indoor and outdoor water efficiency checks.

Water Smart Landscape Rebate
Rebates for water-efficient landscape equipment, such as a new drip irrigation system replacing a spray system.

Cash for Grass Rebate
Cash for removing irrigated and maintained lawn, replacing it with low water use plants.

Clothes Washer Rebate
NMWD offers a rebate to customers when they purchase a qualifying high-efficiency clothes washer.

Rainwater Catchment Rebate
Rebate for collection of rainwater.

High Efficiency Toilet Rebate
Customers who replace an old water-guzzling toilet with a high-efficiency toilet may be eligible for a rebate.

Water Smart Savings Program

Find out more at nmwd.com

PROOF OF PUBLICATION (2015.5 CCP)

This space is for the County Clerk's Filing Stamp

STATE OF CALIFORNIA
County of Marin

I am a citizen of the United States and a resident of the county aforesaid. I am over the age of eighteen years, and not a party to or interest in the above-entitled matter. I am the publisher of the Point Reyes Light, a newspaper of general circulation, printed and published in the town of Point Reye s Station, County of Marin and which newspaper has been adjudged a newspaper for general circulation by the Superior Court of the County of Marin, State of California, under the date April 26, 1949, Case Number 183007; that the notice of which annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement therof on the following dates to wit:

4/30/20

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Date at Inverness, California, this

4/30/20

Signature

Proof of Publication

NOTICE OF A PUBLIC HEARING
NORTH MARIN WATER DISTRICT
Declaration of a Water Shortage Emergency
West Marin Service Area

Tuesday, May 5th – 6:00 p.m.
Location: Virtual Meeting Via Teleconference
Novato, California
(415) 897-4133

ATTENTION: This will be a virtual meeting of the Board of Directors pursuant to Executive Order N-29-20 issued by the Governor of the State of California.

There will not be a public location for participating in this meeting, but any interested member of the public can participate telephonically by utilizing the dial-in information printed on the agenda.

The North Marin Water District Board of Directors will accept public comments and consider adoption of an emergency water conservation ordinance for the West Marin Service Area in response to dry year conditions on Lagunitas Creek pursuant to the State Water Resources Control Board Order 95-17 for water right permits issued to North Marin Water District.

Copies of the Draft Emergency Water Conservation Ordinance are available on the NMWD website at www.nmwd.com. In order to comply with Marin County Health Shelter in Place Order, inspection of the draft ordinance will not be available at the District office.

PROOF OF PUBLICATION (2015.5 CCP)

This space is for the County Clerk's Filing Stamp

STATE OF CALIFORNIA
County of Marin

I am a citizen of the United States and a resident of the county aforesaid. I am over the age of eighteen years, and not a party to or interest in the above-entitled matter. I am the publisher of the Point Reyes Light, a newspaper of general circulation, printed and published in the town of Point Reye s Station, County of Marin and which newspaper has been adjudged a newspaper for general circulation by the Superior Court of the County of Marin, State of California, under the date April 26, 1949, Case Number 183007; that the notice of which annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement therof on the following dates to wit:

5/14/20

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Date at Inverness, California, this

5/14/20

Signature

Proof of Publication

NORTH MARIN WATER DISTRICT
Declaration of a Water Shortage Emergency
West Marin Service Area

The North Marin Water District Board of Directors has adopted Emergency Water Conservation Ordinance No. 39 for the West Marin Service Area in response to dry year conditions on Lagunitas Creek pursuant to the State Water Resources Control Board Order 95-17 for water right permits issued to North Marin Water District. A Public Hearing was held on May 5, 2020 to consider adoption of Emergency Water Conservation Ordinance No. 39, and was approved by the following votes of the Board:

AYES: Directors Baker, Fraites, Grossi, Joly, Petterle
NOES: None

A full version of the Emergency Water Conservation Ordinance No. 39 is available on the NMWD website at www.nmwd.com. In order to comply with Marin County Health Shelter in Place Order, inspection of the draft ordinance will not be available at the District office until such time as the Order is lifted.

Summary:
Emergency Water Conservation Ordinance No. 39 calls for Stage 1, 15% voluntary conservation, May 5th through June 30th and Stage 2, Mandatory 25% conservation, July 1st through November 1, as compared to water use during the comparable periods in 2013. Note that the mandatory 25% reduction would be for the West Marin Service Area as a whole and does not necessarily impose a 25% mandatory reduction for individual residential customers. The Mandatory Stage may trigger enactment of a drought surcharge to be considered simultaneous with, or subsequent to enactment of the mandatory stage at the discretion of the Board.

Emergency Water Conservation Ordinance No. 39 prohibits waste of water and certain non-essential uses. A complete list prohibitions of water waste and non-essential uses can be found on the District website at www.nmwd.com

NORTH MARIN WATER DISTRICT

North Marin Water District

Water Use Prohibitions for 2020 (West Marin Service Area)

On May 5, 2020 the NMWD Board of Directors held a public hearing and approved Ordinance No. 31 enacting water use prohibitions on water waste and non-essential use in the West Marin Service Area. All current prohibitions are summarized below.

Water Waste and Non-Essential Use Prohibitions Effective July 1, 2020:

- Permitting water to escape down a gutter, ditch or other surface drain.
- Failure to repair a controllable leak of water within a reasonable time.
- Using water for non-recycling decorative fountains or single-pass cooling systems.
- Washing down exterior paved areas.
- Refilling a swimming pool drained after May 5, 2020 or initial filling of a swimming pool for which an application for a building permit was made after May 5, 2020.
- Washing privately-owned motor vehicles, trailers and boats except from a bucket and hose equipped with an automatic shut-off nozzle for a quick rinse.
- Watering of any lawn, garden, landscape area. Overhead sprinkler irrigation can be used if the customer maintains an overall 25% reduction in water use when compared to the same billing period in 2013 or if the landscape is irrigated with drip or by hand with a container or hose with automatic shut off nozzle.
- Landscape watering beyond the hours of 7:00 PM and 9:00 AM of the next day and more than 3 days per week or within 48 hours of measurable rainfall.
- Use of water for dust control at construction sites.
- Non-residential use in excess of 25% less than the amount used by the customer during the corresponding billing period in 2013.

Violation Procedure

1) Customers found to be in violation will receive a written or verbal warning describing the violation and order that it be corrected, cured and abated immediately or within such specified time that is determined to be reasonable. If said order is not complied with, service may be disconnected.
2) If customer's water service is disconnected for said violation, a reconnection fee of $50 shall be paid.
3) If the violation is not corrected after the first disconnection of water service and reconnection fee has been paid, the water service may be disconnected again with a reconnection fee of $75.

Variance Procedure

Applications for variance for any non-essential use prohibitions may be made to the General Manager. The General Manager may grant a variance if reasonably necessary.

Questions or Comments

All customer questions and comments regarding the water use prohibitions for 2020 should be referred to the Water Conservation Hotline at (415) 761-8944 or email at waterconserve@nmwd.com.

Water shortage emergency declared in West Marin area

(Updated July 23, 2020) The North Marin Water District Board of Directors has adopted Emergency Water Conservation Ordinance No. 39 for the West Marin Service Area in response to dry year conditions on Lagunitas Creek pursuant to the State Water Resources Control Board Order 95-17 for water right permits issued to North Marin Water District.

A Public Hearing was held on May 5, 2020 to consider adoption of Emergency Water Conservation Ordinance No. 39, and was approved by the Board. Emergency Water Conservation Ordinance No. 39 calls for Stage 1, 15% voluntary conservation, May 5th through June 30th and Stage 2, Mandatory 25% conservation July 1st through November 1, as compared to water use in 2013.

Note that the mandatory 25% reduction would be for the West Marin Service Area as a whole and does not necessarily impose a 25% mandatory reduction for individual residential customers. The Mandatory Stage may trigger enactment of a drought surcharge to be considered simultaneous with, or subsequent to enactment of the mandatory stage at the discretion of the Board. Emergency Water Conservation Ordinance No. 39 also prohibits waste of water and certain non-essential uses.

A full version of the Emergency Water Conservation Ordinance No. 39 is available in the link below. In order to comply with Marin County Health Shelter in Place Order, inspection of the draft ordinance will not be available at the District office.

West Marin Emergency Conservation Ordinance No. 39

West Marin Water Use Prohibitions Summary 2020

IJ: localnews@marinij.com
Point Reyes Light: editor@ptreyeslight.com

Contact: Pablo Ramudo, Water Quality Supervisor, 415-761-8929

PRESS RELEASE

Salinity Intrusion in North Marin Water District Point Reyes system source wells

Point Reyes Station, CA- August 20, 2020 - Unprecedented salinity intrusion has occurred in two wells which North Marin Water District uses as sources of drinking water.

These two wells, located near the former Coast Guard housing property in Point Reyes Station, have experienced periodic and seasonal salinity intrusion for many years. In 2015, NMWD completed permitting and construction of a well and pipeline that brings water from a different source, out of the reach of tides. This third well is situated approximately a mile and a half east of Point Reyes station adjacent to the Gallagher ranch.

This third well is unable to produce enough water to meet 100% of the volume demands of our customers in the summer months and the salinity intrusion at the Coast Guard wells has continued to worsen, likely due in part to sea level rise.

This year, under dry-year water conditions, we have seen the salt levels in the water produced from the Coast Guard wells rise to unprecedented levels. While there is no direct health concern from the salt for most people at this concentration, it does affect the taste. Customers that may be on sodium restricted diets should consult their physicians to see if the additional sodium is a concern for them.

Additionally, bromide, a component of the salt water that has increased, can also contribute to the formation of disinfection byproducts. We have taken every action available to keep disinfection byproducts as low as possible and continue to monitor their concentrations. If they rise to an unsafe level we will, in consultation with the California Division of Drinking Water, communicate this to our customers.

Actions the District has taken to correct the problem are:

1) Continue to maximize operation of the third well which is not under the influence of salinity intrusion.

2) Continue sampling and monitoring of the sodium levels. Additional public notices will be issued should the sodium levels remain above 50 ppm.

3) Continue to actively work to construct additional wells that are not prone to salinity intrusion.

For more information see the NMWD website at nmwd.com.

North Marin Water District
Published by Ryan Grisso · August 20 ·

Conserve Water Due to Wildfires in Sonoma County and West Marin

Due to several wildfires burning in Sonoma County and in West Marin, we are urging all North Marin Water District customers to conserve water immediately. Sonoma County Water Agency is closely monitoring the situation, and there are currently no impacts to water quality or water supply. North Marin Water District is also closely monitoring the situation near our West Marin Service area and there is also no current impact to water quality or supply. The more water we can store now for essential needs and firefighting, the better prepared we will be during this emergency. For more information visit: https://www.sonomawater.org/fire

Sonoma Water - Sonoma County Wildfires Response
The official website for Sonoma Water | Clean....

Sonoma Water - Sonoma County Wildfires Response
The official website for Sonoma Water | Clean....

Salinity Intrusion in West Marin System Source Wells

(Posted August 20, 2020) Unprecedented salinity intrusion has occurred in two wells which North Marin Water District uses as sources of drinking water in the West Marin system.

These two wells, located near the former Coast Guard housing property in Point Reyes Station, have experienced periodic and seasonal salinity intrusion for many years. In 2015, NMWD completed permitting and construction of a well and pipeline that brings water from a different source, out of the reach of tides. This third well is situated approximately a mile and a half east of Point Reyes station adjacent to the Gallagher ranch.

Unfortunately, the third well is unable to produce enough water to meet 100% of the volume demands of our customers in the summer months and the salinity intrusion at the Coast Guard wells has continued to worsen, likely due in part to sea level rise.

This year, under dry-year water conditions, we have seen the salt levels in the water produced from the Coast Guard wells rise to unprecedented levels. While there is no direct health concern from the salt for most people at this concentration, it does affect the taste. Customers that may be on sodium restricted diets should consult their physicians to see if the additional sodium is a concern for them.

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In order correct the situation, North Marin Water District is actively working to construct additional sources of water that are not prone to salinity intrusion. The acquisition of land, planning and permitting have been going on

for two years. We hope to have this new source constructed and available for water supply in 2021.

Emergency water conservation measures remain in place and reduced water use decreases our dependence on wells impacted by the salinity intrusion.

More information about water quality can be found at https://nmwd.com/your-water/water-quality/

If you have questions or concerns that are not addressed here, please call Pablo Ramudo, Water Quality Supervisor at 415-761-8924.

North Marin Water District
Published by Ryan Grisso · August 21 ·

Salinity Intrusion in West Marin System Source Wells

Unprecedented salinity intrusion has occurred in two wells which North Marin Water District uses as sources of drinking water in the West Marin system.

These two wells, located near the former Coast Guard housing property in Point Reyes Station, have experienced periodic and seasonal salinity intrusion for many years. In 2015, NMWD completed permitting and construction of a well and pipeline that brings water from a different source, out of the reach of tides. This third well is situated approximately a mile and a half east of Point Reyes station adjacent to the Gallagher ranch.

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More information about water quality can be found at https://nmwd.com/your-water/water-quality/

If you have questions or concerns that are not addressed here, please call Pablo Ramudo, Water Quality Supervisor at 415-761-8924.

9

Item #9

*DRAFT Minutes of Technical Advisory Committee
Virtual Meeting – No Physical Location
December 7, 2020

Attendees:
Easter Ledesma, City of Santa Rosa
Gina Perez, City of Santa Rosa
Craig Scott, City of Cotati
Kent Carothers, City of Petaluma
Mary Grace Pawson, City of Rohnert Park
Jennifer Burke, City of Santa Rosa
Colleen Ferguson, City of Sonoma
Drew McIntyre, North Marin Water District
Sandi Potter, Town of Windsor
Matt Fullner, Valley of the Moon Water District
Paul Sellier, Marin Municipal Water District

Staff:
Grant Davis, SCWA
Pam Jeane, SCWA
Don Seymour, SCWA
Paul Piazza, SCWA
Barry Dugan, SCWA
Lynne Rosselli, SCWA
Colin Close, City of Santa Rosa
Peter Martin, City of Santa Rosa
Kimberly Zunino, City of Santa Rosa
Claire Nordlie, City of Santa Rosa
Tony Williams, NMWD

Public Attendees:
Bob Anderson, United Wine Growers
David Keller, FOER
Margaret DiGenova, California American Water

1. Check-in
Drew McIntyre, TAC Chair, called the meeting to order at 9:05 a.m.

2. Public Comments
No public comments

3. Sonoma Marin Saving Water Partnership
   a. 2020 Water Production Relative to 2013 Benchmark
   Drew McIntyre, North Marin Water District. Refer to handout. Water use year to date is down 10% compared to the 2013 benchmark. No public comments.

   b. 2020 Urban Water Management Plan Update
   Colin Close, City of Santa Rosa. Nine agencies have been working together with consultant EKI to develop a shared methodology for projecting demands out to 2045 and analyzing water conservation programs. Agencies met with EKI November 12th to discuss draft final reports and final reports will be sent to Sonoma Water. Sonoma Water will be analyzing their water supply out to 2045 based on the 9 agencies' projections. There is a new drought risk assessment piece, agencies must now assess their water supply reliability for 5-year periods and

must provide a methodology of analyzing the annual water supply and demand assuming current year conditions are followed by dry year conditions. The first assessments are due July 1, 2022. No public comments.

4. Water Supply Conditions and Temporary Urgency Change Order
Don Seymour, SCWA. Storage at Lake Mendocino is currently 30,500-acre ft. and releases are at 115 cfs. Lake Sonoma storage is at 162,400-acre ft and releases are at 115 cfs. Major deviation update: The new request was made with the Army Corps and conversations are happening. It is moving ahead and will likely be approved in late January to mid-February 2021. Sonoma Water has requested a minor deviation as a stop gap. The Temporary Urgency Change Order expires December 27th. No public comments.

5. Water Supply Conditions Public Outreach Messaging Timeline
Paul Piazza, SCWA. Winter has been dry so far and Sonoma Water wants to be prepared for any needed conservation messaging. Staff met to discuss initial work to develop framework of annual Summer ad campaign and will meet again in a couple of weeks. Sonoma Water is putting together social media winter outreach messaging and will continue to work with the Partnerships for consistent messaging. The idea behind the message is that it is a dry winter and supplemental water is not needed so irrigation should be off for the winter. No public comments.

6. Biological Opinion Status Update
Pam Jeanne, SCWA. Refer to handout. Fish Flow Project: Staff continues to work on the draft EIR report and expect the recirculation of the draft in Spring 2021. Dry Creek Habitat Enhancement: The contractor Hanford is wrapped up and completed the project elements that were required for 2020. Construction of the two remaining projects in Phase III is scheduled to start in Summer 2021. Hanford also completed maintenance activities in four locations to remove excessive sediment. Corps plans to make progress in Phases IV-VI and continue to work on right of way and review the 99% design packages. Last month, Sonoma Water board approved the Project Partnership Agreement and expect the Corps to approve it early December. Fish Monitoring: One of the main objectives of habitat enhancements is to create a suitable habitat for coho salmon. Sonoma Water has a hatchery program to supply young coho for planting in the enhancements sites as there is currently a scarce amount of coho in the river. They have a new program to keep the young coho in cages for a few days to get used to the water that they are in so they have a larger amount stay in the area. Russian River Estuary Management Project: 2020 management season ended October 15. The river mouth closed September 28, self-breached on October 26 and closed again December 1, 2020 and the plan is to mechanically breach it December 8, 2020. No public comments.

7. Potter Valley Project Relicensing Update
Pam Jeanne, SCWA. Mid November all interested stake holders and agencies filed comment letters with FERC on the Initial Study Report that was released in September. Sonoma Water has been working on responding to all comments made and responses are due to FERC December 14. Sonoma Water expects FERC will issue a study plan determination in mid-January and will then have a full picture of what they expect in terms of which studies to move forward with in the next two years. Public comments: David Keller, FOER, asked if the agency has any specific outreach plan in response to Congressman Garamendi's recent letter against the proposal to remove Scott Dam. Pam Jeanne stated that the Partners have met with Lake County Supervisors and it is

expected that there will be more meetings in the future. There was supposed to be a meeting set up for early December and there is dialogue going on. David Keller asked if the Lake County Supervisors understand the costs and liability of keeping Scott Dam; Grant Davis stated that they do and it has been made part of the discussions. Another concern David Keller expressed was about the engagement of Russian River grape growers and wineries. A discussion ensued about this issue. David Keller also shared the concern about the continued resistance in looking at studying the issues at Cape Horn Dam which may need redesign or full replacement and is an important piece of the Two Basin Solution.

8. FY 2019/20 SCWA Budget Year End Review
   Lynne Rosselli, SCWA. Refer to presentation. Water deliveries had an increase of 4.1% over what was originally budgeted. Revenue was $5.65 million higher than what was budgeted, and expenditures were $13.26 million less than budgeted. Key next steps for FY2021-2022 Water Transmission Budget: TAC vote on Monday February 1, WAC vote on Monday April 5 and adoption by the Sonoma Water's Board by April 30.

9. Items for Next Agenda (November 2, 2020 WAC/TAC Meeting)
   2021 WAC/TAC schedule will be posted in the Agency's website soon
   Emergency Training and Coordination-Alert system and emergency items

10. Check Out
    Meeting adjourned at 10:18am.

10

DISBURSEMENTS - DATED DECEMBER 17, 2020

Date Prepared 12/15/20

The following demands made against the District are listed for approval and authorization for payment in accordance with Section 31302 of the California Water Code, being a part of the California Water District Law:

Seq	Payable To	For	Amount
1	ABC Tree Farms	Refund Overpayment on Closed Account	$78.38
2	Able Tire & Brake	Tires (8) ('17 F350 $1,390 & '07 Int'l $822)	2,212.04
3	All Star Rents	Forklift Tank	313.10
4	Alpha Analytical Labs	Lab Testing (Novato & W.M. - $585)	900.00
5	Alphagraphics Marin	Novato Spring Waterline Processing & Mailing	4,343.60
6	Arrow Benefits Group	November Dental Expense	4,697.50
7	Associated Right of Way Services	Prog Pymt#3: Right of Way Real Estate Services for Gallagher Well #2 (Balance Remaining on Contract $21,293)	150.00
8	Athens Administrators	November Indemnity Review Fee	105.00
9	Backflow Distributors	Backflow Repair Parts	899.39
10	Bank of Marin	Bank of Marin Loan Principal & Interest (Pymt 110 of 240) Aqueduct Energy Efficiency Project	46,066.67
11	Bearings & Hydraulics	Air Hoses for Small Tools	154.69
12	Chandrasekera, Carmela	Retiree Exp Reimb (Dec Health Ins)	987.21
13	Cilia, Joseph	Retiree Exp Reimb (Dec Health Ins)	334.00
14	Cinquini & Passarino	Prog Pymt#3: Gallagher Ranch Well No. 2 (Balance Remaining on Contract $16,378)	7,520.00
15	Clipper Direct	January Commuter Benefit Program	49.00
16	Core Utilities	Consulting Services: November IT Support ($6,000) & CORE Billing Maintenance	6,500.00
17	Cummings Trucking	Rock (16 yds) ($716) & Sand (49 yds) ($3,859)	4,575.29
18	Durkin Signs & Graphics	Signs for Lobby ($378) & Decals for Trucks	509.58
19	Environmental Express	Standards (Lab)	251.59

*Prepaid

Seq	Payable To	For	Amount
20	Fisher Scientific	Magnetic Stir Plate ($372) & Tip Racks (2) (Lab)	503.66
21	Frontier Communications	Leased Lines	1,444.50
22	Gemmellaro, Virginia	Novato "Toilet Rebate" Program	100.00
23	GHD	Prog Pymt#15: Engineering Services for Oceana Marin Pond Repair (Balance Remaining on Contract $21,962)	5,264.50
24	Grainger	Dual Hose Reel (Air & Water) ($453), Replacement Support Chain for Solar Bees (100') ($756), Electrical Enclosure (San Antonio Tank) ($135) & Miscellaneous Maintenance Parts & Supplies ($1,398)	2,742.20
25	Hageman, Richard	Novato "Toilet Rebate" Program	100.00
26	HERC Rentals	Generator ($9,949) & Fuel Tank Rental ($611) to Power Pump Stations During Power Outages (4 weeks)	10,559.93
27	High-Purity Standards	Standards for Instrument Calibration	347.82
28	Hildebrand Consulting	Prog Pymt#2: West Marin Water Rate Study 2021 ($7,140) (Balance Remaining on Contract $22,680) & Prog Pymt#1: NMWD Financial Model Training ($315) (Balance Remaining on Contract $3,885)	7,455.00
29	Idexx Laboratories	Colilert Media (2) ($1,695) & Comparator (Lab)	1,734.32
30	InfoSend	November Fee for Processing Water Bills ($1,336), Postage ($3,614) & November Monthly Support Fee ($750)	5,700.85
31	Ireland, Michael & Jeri	Refund Overpayment on Closed Account	747.49
32	Jackson, David	Retiree Exp Reimb (Dec Health Ins)	987.21
33	Kapus, Catherine & Sean	Refund Overpayment on Open Account	1,087.09
34		Vision Reimbursement	14.13
35	Kiosk Creative	Prog Pymt#15: Implement District Direct Communication Actions (Balance Remaining on Contract $28,947)	2,718.50
36	Latanyszyn, Roman	Retiree Exp Reimb (Dec Health Ins)	334.00

Seq	Payable To	For	Amount
37	Lemos, Kerry	Retiree Exp Reimb (Dec Health Ins)	987.21
38	Manzoni, Alicia	Retiree Exp Reimb (Dec Health Ins)	987.21
39	Marin County Tax Collector	Annual Hazardous Material Inventory Permit (STP $3,817, Yard $2,081, PRTP $341 & OMTP $312)	6,551.00
40	Marin County Ford	Service Parts ('18 Ford Cargo Van)	62.91
41	Marin County Dept of Finance	STP SRF Loan Semi Annual Principal & Interest (#23 of 40)	513,737.10
42	Michael Baker International	Prog Pymt#5: Engineering Services to Prepare Additional Inundation Map and EAP for Stafford Dam (Balance Remaining on Contract $471)	838.80
43	Mirabella, Matthew	Novato "Washer Rebate" Program	50.00
44	NMWD Employee Association	Dues (9/30/20-11/30/20)	1,130.00
45	Novato Sanitary District	September 2020 RW Operating Expense	34,766.54
46	Pace Supply	Tapped Caps (4) ($425), Ball Corps (2) ($470), Bell Flange Meters (10) ($5,179), Copper Pipe (60') ($702), Butterfly Valves (2) ($4,253), Tees (2) ($1,207), Meter Flange Adaptors (4) ($766), Dual Wedges (4) ($417), Bolt Sets (14) ($1,233), Gaskets (113) ($589), Bell Restraints (2) ($340), Elbows (2) ($379), Bolts & Nuts (34) ($235) & Gate Valves (2) ($3,615) (Less Credit of $819 Received for Returned Part)	18,991.47
47	Parkinson Accounting Systems	Accounting Software Support 10/2020-12/2020	5,107.50
48	PES Environmental	Prog Pymt#7: Consulting Services-Gallagher Ranch Well #2 Project (Balance Remaining on Contract $28,840)	19,135.22
49	Peterson Trucks	Oil Seals ($132) & Flex Hose ('02 Int'l Dump Truck)	151.12
50	PG&E	Energy Bill for District Apartment ($14) & Power: Bldgs/Yard ($4,220), Other ($166), Pumping ($39,330), Rect/Controls ($492) & Treatment ($199)	44,420.23

Seq	Payable To	For	Amount
51	Piazza Construction	Prog Pymt#6: PRE Tank 4A Replacement Project (Balance Remaining on Contract $400,349)	166,675.08
52	Piazza Construction Escrow Acct	5% Retainer: Piazza Construction-PRE Tank #4A Replacement	8,772.37
53	Point Reyes Light	Legal Notice on 12/3: Salinity Intrusion into Pt. Reyes Supply	105.00
54	Point Reyes Prop Mgmt Assn	December HOA Fee (25 Giacomini Rd)	75.05
55	Darlene D. Rhodes	HR Consulting 10/08-11/03/20	3,018.75
56	Sjoblom, Jeff	Exp Reimb: D2 Certification (1/21-1/24)	80.00
57	Soiland	Rock (13 tons) ($306) & Asphalt Recycling (13 tons)	522.65
58	SPG Solar	November Energy Delivered Under Solar Services Agreement	8,704.15
59	SRT Consultants	Prog Pymt#13: Consulting Services to Complete Stafford Lake Sanitary Survey (Balance Remaining on Contract $9,711)	4,665.00
60	Staples	Miscellaneous Office Supplies & Hand Sanitizer (30)	468.36
61	Tamagno Green Products	Sludge Removal @ STP (15 yds)	525.00
62	Thone, Michalene R.	Novato "Toilet Rebate" Program	200.00
63	TPx	December Telephone Charges	602.20
64	Township Building Services	November Janitorial Services	2,035.48
65	United Parcel Service	Delivery Services: Shipped Backflow Tester for Calibration	11.59
66	Van Bebber Bros	Steel Plate	21.05
67	Verizon Wireless	SCADA & AMI Collectors ($650)	810.88
68	VWR International	Nitrate, Bromide, Medium ($265), Nitrate, Brush, Copper Standard & Lamp Replacement Assembly ($171) (Lab)	603.53

Seq	Payable To	For	Amount
69	Waste Management	Green Waste Disposal from Tank Sites	380.11
		TOTAL DISBURSEMENTS	**967,680.80**

The foregoing payroll and accounts payable vouchers totaling $967,680.80 are hereby approved and authorized for payment.

Julie Blue 12/15/2020

Auditor-Controller Date

12/15/2020

General Manager Date

DISBURSEMENTS - DATED DECEMBER 31, 2020

Date Prepared 12/28/20

The following demands made against the District are listed for approval and authorization for payment in accordance with Section 31302 of the California Water Code, being a part of the California Water District Law:

Seq	Payable To	For	Amount
P/R*	Employees	Net Payroll PPE 12/15/20	$149,358.13
90339*	Internal Revenue Service	Federal & FICA Taxes PPE 12/15/20	58,536.63
90340*	State of California	State Taxes & SDI PPE 12/15/20	13,520.87
90341*	CalPERS	Pension Contribution PPE 12/15/20	39,390.32
EFT*	US Bank	November Bank Analysis Charge (Lockbox $966 & Other $335, Less Interest $80)	$1,220.90
*58503	Marin County	Deposit for Costal Permit Application Submittal for Gallagher Well No. 2 Project	$8,648.40
1	Allied Mechanical	Office HVAC Maintenance ($840)	839.51
2	Alpha Analytical Labs	Lab Testing	3,255.00
3	Amazon/Genuine-Hardware	Distribution Cords for Generators (2) ($59), Service Awards (5) ($538), Ice Packs (5) ($28), Monitors (2) ($270), Ratchet Wrench ($23) & Concrete Mixing Mats (4) ($304)	1,221.43
4	American Family Life	December AFLAC Employee Paid Benefit	3,027.83
5	Arrow Benefits Group	November Dental Admin Fee	271.20
6	AT&T	December Internet Connection	90.25
7	AT&T	Leased Lines	66.68
8	AWWA CA-NV SEC	Water Use Efficiency Practitioner Renewal (Grisso) (1/21-12/22) ($100) & WQ Lab Analyst Certification Renewal G-1 (Nommsen) (5/21-5/22) ($75)	175.00
9	Bearings & Hydraulics	Parts for Air Compressor	62.20
10	Bold & Polisner	November Legal Fees-General ($1,463) & Potter Valley FERC ($247)	1,710.00

Seq	Payable To	For	Amount
11	CA Highway Con. Group	Refund Security Deposit on Hydrant Meter Less Final Bill	418.13
12	CA Water Efficiency Partnership	Membership Dues (Grisso) (9/20-9/21) (Budget $4,100)	3,739.19
13	CDW-Government	Battery Back-ups (2)	138.10
14	Chapman, James	Reimb on Overpayment of Advance (42 Cypress-Kill Service/Relocate)	3,549.58
15	The Climate Registry	Annual Membership (Clark) (1/21-12/21) (Budget $900)	750.00
16	Comcast	December Internet Connection	144.92
17	CWEA	Lab Analyst Certification Renewal Grade 2 (1/21-12/21) (Budget $100) (Reischmann)	96.00
18	Diesel Direct West	Diesel (101 gal) ($336) & Gasoline (500 gal) ($1,465)	1,801.21
19	Dryco Construction	Refund Security Deposit on Hydrant Meter Less Final Bill	1,179.09
20	Engineering News Record	Subscription Renewal (Williams) (3/21-3/22) (Budget $100)	84.00
21	Environmental Express	Standards (Lab)	203.88
22	Environmental Science Assoc	Prog Pymt#3: NMWD Gallagher Well No. 2 CEQA/Coastal Permit Services (Balance Remaining on Contract $27,634)	20,617.50
23	Evoqua Water Technologies	Service on Deionization System	292.77
24	Fishman Supply	Safety Glasses (400) & Gloves (24)	104.23
25	Fisher Scientific	Zinc ($62), Sulfate Standards & Filling Solution ($112) (Lab)	226.99
26	Ghany, Hassan	Reimbursement of Reduced Pressure Principal Charge for Single Service Installation (299 Marin Valley Drive)	667.00
27	GHD	Prog Pymt#4: Water Tank 4A Replacement (Balance Remaining on Contract $14,009)	498.00

Seq	Payable To	For	Amount
28	Grainger	Inline Check Valve ($272), Shop Vacuum ($198) (STP), Relays for Yard Programmable Logic Controllers (3) ($215) & Miscellaneous Maintenance/Construction Tools & Supplies ($1,245)	1,929.60
29	HERC Rentals	Preventative Maintenance on Rental Equipment & Fuel Tank Rental (1 Day) ($325)	335.66
30	Irrigation Association	Certification Renewal (1/21-12/21) (Grisso)	125.00
31	Joshua Tree Home	Refund of Deposit/New Development/WC Restriction-Novato	1,000.00
32	Kaiser Foundation Health Plan	DMV/DOT Physical (Lemos)	115.00
33	Kane, Shawn	Exp Reimb: Traffic Control Training - Breakfast	151.19
34		Vision Reimbursement	208.96
35	Larsengines	Hose & Gaskets for Trash Pump	43.54
36	Lincoln Life	Deferred Compensation PPE 12/15/20	9,892.76
37	Liss, Julia	Reimbursement of Overpayment of Advance (75 Sunnyside Drive)	215.61
38	Marin County Parks	Compensation Mitigation Summary for Two Brick Springs Project ($1,500) & Refund Security Deposit on Hydrant Meter Less Final Bill ($469)	1,968.66
39	Mutual of Omaha	Jan Group Life Insurance Premium	954.85
40	Nationwide Retirement Solution	Deferred Compensation PPE 12/15/20	920.00
41	Nerviani's Backflow	Annual Backflow Testing Services (243)	14,580.00
42	Novato, City of	Annual Encroachment Permit	6,000.00
43	Pace Supply	Flange Adaptor ($313), Dual Wedges (9) ($940), Head Bolts & Nuts (72) ($499) & Blue Thread Seal Tape (15) ($77)	1,829.85
44	Prunuske Chatham	Refund Security Deposit on Hydrant Less Final Bill	788.76
45	PT Reyes AFFD Homes	Refund Overpayment on Open Account	1,845.46

Seq	Payable To	For	Amount
46	R & B	Corp Stops (25) ($909), Couplings (23) ($556), Meter Boxes (67) ($1,918), Hydrant Extensions (8) ($535), Nipples (8), Plugs (12), Meter Adaptors (200) ($2,582), Tee ($220), Spools (8) ($1,371), Ball Valves (2) & Gate Valves ($432)	8,605.20
47	Recology Sonoma Marin	Dispose of Scrap PVC Pipe in Back Lot (30 yds)	1,343.10
48	Darlene D. Rhodes	HR Consulting (11/11/20-12/10/20)	3,062.50
49	Rosell, Nancy	Refund Security Deposit on Hydrant Meter Less Final Bill	512.27
50	RS Professional Painting	Refund of Deposit/New Development/WC Restriction-Novato	1,000.00
51	Safety Center	Lock-Out Tag-Out Class ($1,275) & On-Site Trenching & Excavation Training (2-Days-14 Employees) ($2,000)	3,275.00
52	Scharninghausen, Olga	Refund Overpayment on Closed Account	189.95
53	Selna, R	Refund Overpayment on Closed Account	49.20
54	Smith Denison Construction	Reimb of Overpayment of Hydrant Deposit	450.00
55	Sonoma County Water Agency	November Contract Water	617,359.81
56	Steiner, Brook	Refund Security Deposit on Hydrant Less Final Bill	621.45
57	Syar Industries	Asphalt (6 tons)	967.75
58	Team Ghilotti	Refund Security Deposit on Hydrant Less Final Bill	758.15
59	US Bank	November Safekeeping Treasury Securities	85.00
60	Van Bebber	Steel for Truck Shelves	124.75
61	VWR International	Alcohol Prep, Lead Standard, Biological Indicator ($160), Buffers (2) ($114), Lab Utensil & Brilliant Green Bile Broth ($132) (Lab)	464.70
62	Waste Management	Green Waste Removal	325.85
63	West Coast Energy Systems	Generator Service Parts	287.45

Seq	Payable To	For	Amount
64	WIN-911 Software	Software for SCADA Alarm	495.00
		TOTAL DISBURSEMENTS	**$998,786.97**

The foregoing payroll and accounts payable vouchers totaling $998,786.97 are hereby approved and authorized for payment.

Julie Blue 12/29/2020

Auditor-Controller Date

12/29/2020

General Manager Date

Notice:

Salinity intrusion into the Point Reyes well supply serving the West Marin communities of Point Reyes, Olema, Inverness Park, and Paradise Ranch Estates has occurred and has caused sodium levels to increase from background levels of 15-30 milligrams per Liter (mg/L). While there is no direct health concern from the salt for most people at this concentration, it does affect the taste. Customers that are on sodium restricted diets should consult their physicians to see if the additional sodium is a concern for them. The table below lists the most recent concentrations for sodium in the West Marin water supply:

Date	Sodium	Chloride	Units
11/10/20	102	277	mg/L
11/17/20	31.9	69.8	mg/L
11/23/20	219	639	mg/L
12/1/20	224	595	mg/L

*milligrams per liter

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11/17/20	31.9	69.8	mg/L
11/23/20	219	639	mg/L
12/1/20	224	595	mg/L
12/8/20	67.9	194	mg/L

*milligrams per liter

Three-Month Outlooks

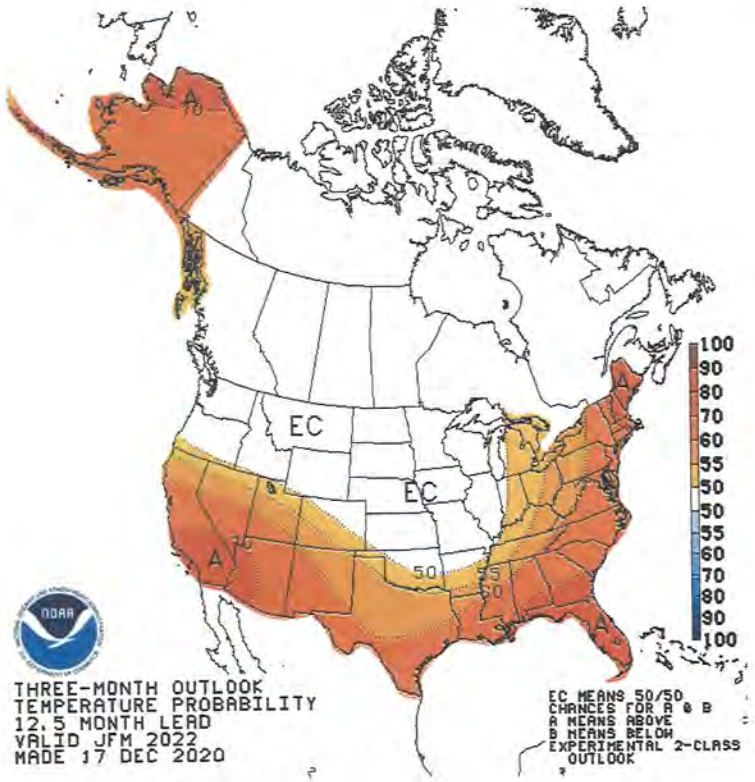
Revised OFFICIAL Forecasts

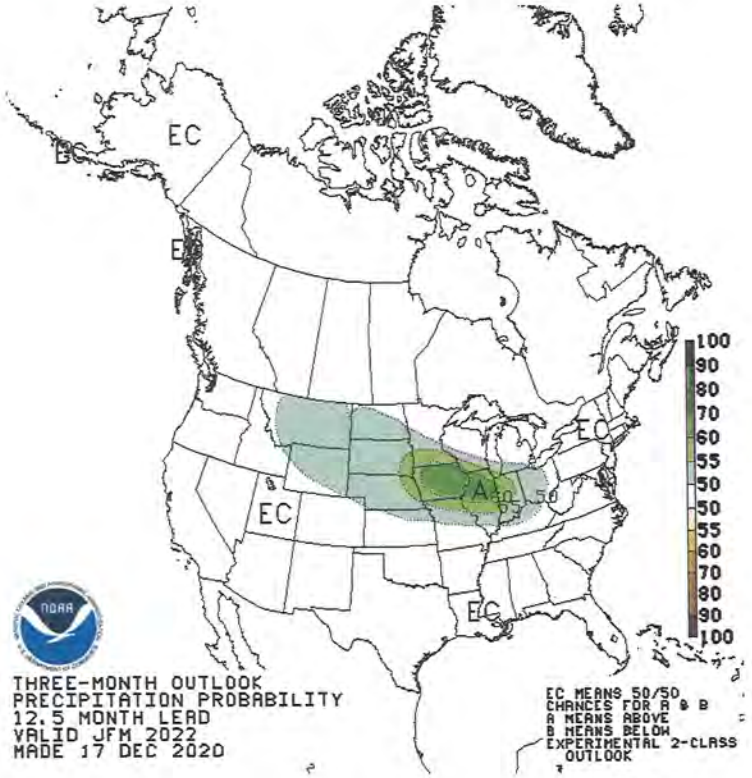
December 2020

Precipitation Probability

(Jan-Feb-March 2021/22)

https://www.cpc.ncep.noaa.gov/products/predictions/long_range/two_class.php





[UPDATED MONTHLY FORECASTS SERVICE CHANGE NOTICE]

[EXPERIMENTAL TWO-CLASS SEASONAL FORECASTS]

MARIN COUNTY FISH AND WILDLIFE COMMISSION

This newsletter is an annual publication of the Marin County Fish and Wildlife Commission.

Volunteer members are appointed by the Board of Supervisors for three year terms.

The Commission serves to advise the Board and administer the annual grant program.

Meetings are held on the second Tuesday of the month.

Members:
Craig Anderson
Brooke Halsey
Al Nichelini
Susan Ristow
Laurette Rogers
Ed Schulze
Brad Stompe

From The Commission.....

This year the Commission was pleased to receive proposals for many wonderful education programs and restoration projects. The Marin County Board of Supervisors reviewed and approved the following grant proposals for funding in 2020-2021. These grant recipients, a mix of Marin non-profit organizations, will use the awards for equipment and supplies that directly benefit habitat, wildlife and fish populations in Marin.

Point Reyes Seashore Association

This association is a partner with the National Park Service at Point Reyes National Seashore. Membership dues support a variety of park programs. The association provides a variety of educational field seminars, summer camp programs, and operates sales outlets in park visitor centers that help fund various park programs. The grant request is to provide (6) 2 way radios and funding for 1st quarter of satellite phone service. Information: (415) 663-1200 ext. 303.

Felidae Conservation Fund

The F.C.F. monitors puma activity in Marin County to determine their populations and movements. Funding is for trail cameras and locks. Information: (415) 354-5655.

Environmental Action Committee of West Marin (EAC)

The EAC provides youth outdoor experiences to learn about the unique habitats of West Marin fish and wildlife. The grant funding is to monitor Marin's (M.P.A.) marine protected areas and programs. Information: (415) 663-9312.

...Continued next page

STRAW

Students and Teachers Restoring a Watershed (STRAW) started in 1992 to respond to the problem of an endangered species. Today, STRAW is a wing of Point Blue that sustains a network of teachers, students and restoration specialists who plan and implement watershed and riparian corridor restoration projects. The grant funding is to purchase equipment to support classroom and hands-on, in-the-field projects. Information: www.pointblue.org.

Wildcare

Wildcare/Terwilliger Nature Education and Wildlife Rehabilitation operate a wildlife rehabilitation center for injured animals. In addition, Terwilliger nature vans travel off-site to dozens of schools throughout the area each year to provide hands-on nature education. The grant funding is for materials, literature and support items for Nature Discovery Programs, Terwilliger Nature Camps, and Wildlife Ambassador Programs. Information: (415) 456-7283 or www.wildcare.org.

Marin Audubon Society

Marin Audubon Society was established more than 50 years ago to protect the environment. Marin Audubon's educational activities focus on birds, other wildlife, and wildlife habitat. The grant funding is to provide native plants on the levies of Bahia wetlands. Information: www.marinaudubon.org.

Friends of Corte Madera Creek Watershed

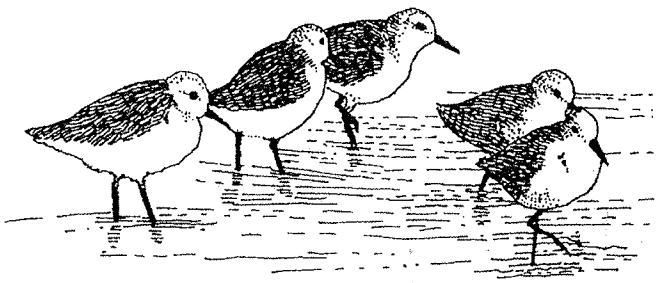
Founded in 1995, "Friends" works on habitat enhancement, fish passage, flood management, and public outreach and education. The grant funding is to purchase 2 loggers to monitor water surface elevations during the partial removal of the lower concrete channel. Information: (415) 456-5052.

Golden Gate Trout Unlimited (GGTU)

Golden Gate Trout Unlimited's "first cast" program started in 2001 to engender TU's values of conserving, protecting, and restoring coldwater fishing into youthful stewards of our environment. The grant is for literature, tackle and fly tying equipment for youths, 8-10 years old. Information: (415) 307-5363.

Slide Ranch

Established in 1970 on the Marin coast, Slide Ranch is a working ranch/farm that has an ongoing program of hands on educational experience for children to connect with nature. The grant funding is for tents and sleeping bags. Information: development@slideranch.org.



Audubon Canyon Ranch (ACR)

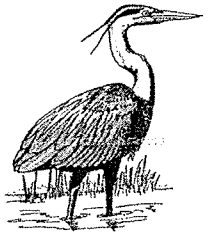
ACR was founded in 1962 to protect one of the largest heronries on the west coast. ACR's mission is to protect nature through land preservation, nature-based education and conservation science. The grant funding is for equipment and tower to track the declining population of banded shore birds on Tomales Bay. Information: (415) 868-9244.

All One Ocean

This group, founded in 2010, is working to protect ocean and marine life from the dangers posed by marine debris, especially plastic trash. They have established "Beach Clean-Up Stations" (B'CUS) at various West Marin beaches. They also have an educational program for local Bay Area schools about the dangers of marine debris to ocean ecosystem and human health. The grant funding is for materials and supplies to repair and maintain B'CUS. Information: (510) 859-9198.

Richardson Bay Audubon Center and Sanctuary

The Bay Audubon Center and Sanctuary protects open space in Tiburon along the San Francisco Bay and provides nature education programs about local flora and fauna. The grant funding is for materials for their native plant nursery and for an A.E.D. medical device. Information: (415) 388-2524 or www.tiburonaudubon.org.



River Otter Ecology Project

Hands-on high school program with students, scientists, and teachers to collect data on the life and role of otters in watershed ecosystems. The funding is to support materials and supplies. Info: megan@riverotterecology.org.

Salmon Protection and Watershed Network (SPAWN)

SPAWN works to protect endangered salmonids and improve ecosystem health in the Lagunitas Creek Watershed. The grant funding is for supplies and equipment to support their native plant nursery. Information: (415) 663-8590 ext 6.

Friends of Corte Madera Creek Watershed (for College of Marin)

COM students in partnership with "Friends" will install, operate, monitor, and record the environmental variables resulting from the concrete channel removal downstream of the Stadium Way Bridge. The grant funding is for the purchase of E.S.S. sensors and related equipment. Information: (415) 755-0874.

This year, due to the COVID-19 restrictions, we will not host our annual barbecue.

"Stay safe and wear your mask"

Marin County Fish and Wildlife Commission c/o
U.C. Cooperative Extension
1682 Novato Blvd., Ste. 150B
Novato, California 94947-7021

North Marin Water District
Director
P.O. Box 146
Novato, CA 94948

Marin County Fish and Wildlife Commission

The Fish and Wildlife Commission advises the County of Marin Board of Supervisors on expenditures of funds obtained through fines levied for fish and wildlife violations in Marin. The funds are designated to enhance fish and wildlife resources in the county and for public education. Grant proposals submitted to the Commission Chair are reviewed during the first quarter of any calendar year and recommended on a competitive basis and availability of funds. If approved by the Board of Supervisors, funding becomes available by fall of the same year. The commission can also provide letters of endorsement for projects seeking alternative sources of funding.

For applications and deadline information, contact: Marin County Fish and Wildlife Commission, U.C. Cooperative Extension, 1682 Novato Boulevard, Suite 150 B, Novato, CA 94947-7021, (415) 473-4204, http://cemarin.ucdavis.edu

Cost for lawyers soars in rate war

MMWD

Utility allots $800K for 2 lawsuits over billing

Marin Independent Journal

By Will Houston

whouston@marinij.com

The Marin Municipal Water District is doubling down in its fight against two lawsuits challenging its water fees and seeking refunds on rates deemed unconstitutional.

The district's board of directors voted unanimously this month to enter into a two-year agreement with the Grass Valley-based law firm Colantuono, Highsmith & Whatley. The district will pay up to $400,000 per year.

The district had already been using the firm to represent it in the two cases, but staff said the complexity of the litigation will require the district to retain the firm for a longer period, requiring the new agreement.

Some ratepayers and one of the organizations suing the district criticized the board for what they argued was needless spending amid a pandemic to defend unfair rate and fee increases.

"Now is the time to get money into the pockets of ratepayers," Larkspur resident Chris W heaton wrote to the board. "By proposing to fund up to $400,000 of legal expenses to defend large rate increases,

you are forcing ratepayers to sue themselves and pay for both sides ..." "Come to your senses and scale back your spending and rates," Wheaton wrote.

Jack Gibson, president of the water district's board, said the district has a duty to defend its water rates and fees. He said officials have gone through a long and costly vetting process to ensure they comply with the state constitution.

"I'm a little shocked that we're getting criticized for not defending the district on the cheap," Gibson said. "We hired the most preeminent firm in the complex world of utility rates."

While the lawsuits are separate, both allege MMWD violated the voter-approved Proposition 218 from 1996. The law prohibits government

agencies from charging more for a service than it costs to provide it.

"The district takes these matters seriously, and while we cannot comment on the specifics of pending litigation, the board is taking the necessary and appropriate steps to address both cases," district spokeswoman Jeanne Mariani-Belding said Friday.

One lawsuit, by Mill Valley ratepayer Anne Walker, has been in litigation since 2015. Earlier this year, Marin County Superior Court Judge Stephen Freccero made a key and potentially costly ruling against the water district.

Freccero found that the previous water rate structure in place from 2011 to 2015 violated Proposition 218. The rate structure was meant to encourage conservation by charging higher rates for people who used more water.

Walker argued that this tiered rate system was not based on the actual cost of the water service. Other water districts throughout the state had been using a similar system and were also challenged.

"A fter reviewing the record, the court can only conclude that there is no correlation between the rates in the different tiers and the cost of water service in those tiers," Freccero wrote in his ruling on March 30.

This rate structure had been in effect since 2004, according to Walker's attorney, Beau Burbidge, until it was changed by the district in 2016. The court is now deciding how many ratepayers were overcharged and how much they should be refunded, Burbidge said. Any refunds would be limited to rates charged in 2014 and 2015, Burbidge said.

"Essentially it's been very clear that the Marin Municipal Water District has not complied with the constitutional requirements," Burbidge said Friday. "That has been known from about day one. We've been fighting that for five years. We expect a further fight from them and it's disappointing that a public agency that serves all of these customers and found to be overcharging these customers has done very little to try to remedy that wrong that has been done by them."

The next court date for the Walker case is scheduled for April 27.

The second lawsuit was filed in 2019 by the watchdog group Coalition of Sensible Taxpayers, or COST. The suit has many similarities to the Walker case, but instead targets two fixed water fees charged to ratepayers.

COST argues that the new capital maintenance fee, which MMWD adopted in June 2019, and the district's watershed maintenance fee violate Proposition 218. Both fees are charged based on the size of customers'

water meters.

The district increases the fee charges as water meter sizes increase because of the potential demand that larger water meter sizes could have on the utility's system. COST argues these fees should be charged based on actual water use.

"If you're using lots and lots of water, and there are a few big water users around the district, you should be paying a lot more," COST attorney Walt McNeill said. "That works, and it would work quite well in the Marin Municipal Water District, but they decided not to go that direction."

The class-action lawsuit seeks to invalidate the fees and get all fee payments refunded.

The capital maintenance fee was adopted as a way for the district to pay for decades' worth of upgrades within the district's 22,000-acre watershed on Mount Tamalpais. The district is using the fee to pay for projects with cash rather than through bonds as it has normally done. This method would work to prevent customers from having to cover millions of dollars in interest costs that they would have to pay over the decades on the bonds, but it also comes with more upfront costs for ratepayers.

The majority of the district's 60,000 customer accounts have 5/8th-inch or 1-inch meters, which equate to a $164 or $409 fee respectively each year. Following complaints, the district began allowing customers who have larger meter sizes — because of circumstances such as having to install fire sprinklers in their homes or to maintain adequate water pressure — to lower their fee amount based on how much water they use.

McNeill argues this after- the-fact change requires customers to file an application with the district before any reduction can be approved.

"Their obligation is to give you a correct fee as you start paying that fee on the first bill," McNeill said. "The burden is not on the water user to correct their mistake. It's their obligation to make sure that they correct their mistake. It's bizarre and it's upside down."

The watershed maintenance fee ranges from about $10 to $26 for most customers and is used for fire prevention, protecting habitats, improving water quality and maintaining recreational sites on the watershed.

A case management hearing in the COST lawsuit is scheduled for Jan. 15 in Marin County Superior Court.

Marin towns targeted as agencies wage war on suburbs

DICK SPOTSWOOD

Marin Independent Journal

The Bay Area regional agencies' war on suburbia just went up a notch. In its effort to address California's "housing crisis," the Association of Bay Area Governments, a subsidiary of the all-powerful Metropolitan Transportation Commission, just released a draft of its 2023-2031 Regional Housing Needs Allocation report.

The RHNA draft specifies the precise housing mandate by four housing price categories that each municipality and Bay Area county must include in their revised general plans. ABAG's draft is camouflaged in innocuous bureaucratic language indicating that the proposed RHNA "methodology" will be finalized at a Jan. 21 video conference meeting. The reality is once that step is taken, the number of housing units each community must authorize is locked in cement.

Here's the allocation of new housing units for each of Marin's 11 municipalities and in the county's unincorporated suburban neighborhoods and rural villages. It's a mind-spinning 21 times the allocation for the current cycle.

Belvedere 162, Corte Madera 709, Fairfax 579, Larkspur 1,018, Mill Valley 835, Novato 2,166, Ross 118, San Anselmo 745, San Rafael 2,785, Sausalito 727, Tiburon 621 and unincorporated Marin 3,820. Sites for those 14,285 units must be provided in revised general plans and essentially allowed upon application for a building permit.

It's another example of the regional agency's push to take community planning away, not just from local governments but to eliminate popular control. To paraphrase Claremont Review contributing editor and author Christopher Caldwell when writing about the European Commission, the fundamental disposition of the Bay Area regional alphabet agencies is to favor technocratic expertise over representative government.

As in the past, RHNA allocations are an unfunded mandate. It's up to local communities to tax themselves for more classrooms, water supply, transportation, roads, police, fire and expected community amenities for — presuming with children for an average three-per-household — another 42,000 Marinites.

Don't blame our county supervisors. They oppose the RHNA methodology. Given ABAG/MTC's backing by state government, without allying with similarly situated suburban jurisdictions, Marin's pleas will be as effective as trying to hold back the tide.

ABAG's RHNA process is determined by a combination of local government representatives and "stakeholders" using dubious housing needs presumptions. Those stakeholders include Joint Venture

Silicon Valley, big businesses' Bay Area Council, the Non-Profit Housing Association of Northern California, and the influential Building Industry Association of the Bay Area. There's not a single federation of neighborhood associations on ABAG's methodology panel.

Inexplicitly, the methodology ignores looming seismic changes in how and where urban and suburban people work, shop and commute.

RHNA is only partially about "very low income" and "low income" housing, the two categories generally considered "affordable." Of the supposed 441,176 Bay Area "housing unit need" the draft sets aside only 40.8% for the two affordable categories.

Regionwide, fully 42.6% or 188,130 units, are for "above moderate income" folks. The Bay Area is already over capacity and doesn't need more homes for rich people. That'll contribute to declining quality of life and higher taxes for current residents with few upsides other than for developers and the booming technology industry. It's axiomatic: High-priced market-rate homes aren't workforce housing.

Of Marin's combined 14,285unit allocation, only 47.7% or 6,826 units are for very low- and low-income residents.

Clearly Marin will benefit from a more diverse community that provides additional workforce housing but yet, few Marinites believe our county needs more upper income homes.

Instead, Marin should urge compromise to forge a balanced approach. First, accept the proposed allocation for low and very low-income targeted homes. Second, form a suburban political coalition to fight demands from big business, building trade unions and big-city politicians to jam more expensive and unneeded rich people housing into an already overburdened Bay Area. *Columnist Dick Spotswood of Mill Valley writes on local issues Sundays and Wednesdays. Email him at spotswood@comcast.net.*

Dick Spotswood

Vaccine is a welcome sight, but we must stay vigilant

Editorial

Marin Independent Journal

Marin Public Health Officer Dr. Matt Willis got his COVID-19 vaccine last week.

Willis, who himself battled the coronavirus earlier this challenging year, was among the frontline health care providers across Marin to get the first round of the shot. The second vaccine will be administered in a couple of weeks, completing the two-shot inoculation that is providing a ray of hope to a year that has been marked with deaths, severe illnesses, widespread lockdowns and layoffs.

The first round of vaccines was also provided to patients in long-term care facilities, many of which have been the scene of the 90% of the 110 COVID linked deaths recorded among Marin residents in 2020.

Officials and local medical care providers need to take steps to assure a methodical and safe vaccination of Marin residents and workers in the coming months. That means clear and constant public communication.

The long-awaited development, approval and rollout of the vaccines comes at a time of sad irony, when local COVID rates are rising, leading to a return of stricter lockdowns.

"We know that community transmission is accelerating exponentially," Willis told the county Board of Supervisors on Dec. 22.

Some officials blame the increases on Thanksgiving gatherings, held despite repeated public-health warnings, and fear that similar Christmas celebrations could drive COVID numbers upwards as well.

On Dec. 16, Marin reported its highest number of daily cases of COVID- 19 since March, when Willis' office started tracking those numbers. The percentage of tests showing positive for the coronavirus has hit 3.9%. Compared to 0.8% in October. Even Bolinas, which early in the pandemic showed it had no cases of the virus, has reported 11. And cases have included youths and teenagers. Over half the cases, however, have been among people ages 19 to 49 and that number has been rising.

Most of those cases don't result in severe symptoms or hospitalization, but those who have contracted the virus can still spread it without even knowing they ever had it.

The virulence of the virus has caused admissions to local hospitals, prompting worries about swamping intensive care unit beds and staff.

Willis stressed that now is not the time to let down our guard.

We have been fortunate that Marin has not seen the deadly crises that the pandemic has caused in the East Coast or in Southern California since the pandemic began to spread.

"The safest strategy for all of us is really to stay at home and limit our encounters outside of the household as much as possible," he said.

After local health care workers, first responders and long-term care residents get vaccinated, the effort will turn to people at high risk because of medical conditions or age or those involved in infrastructure work. That phase should extend from late January through February, according to Willis.

During the second phase, school teachers and staff and childcare workers, residents and staff at homeless shelters, group homes and detention centers and workers at industries deemed "essential to the functioning of society" and potentially at a higher risk of exposure will be in line for the vaccine.

Vaccines for the general population would be in the next phase, expected to run from March through June.

Clarifying those phases, getting that information out to the public and making the vaccines readily available will be a herculean, but critical task for county officials and local health-care institutions involved in the dispensing of these life-saving vaccines.

The promise of the widespread administering of the vaccine is a welcomed light at the end of the dark tunnel we have endured since March. The coming months and the success of the rollout of the vaccines should set the stage for a return to a greater level of normalcy. But we are not there yet. Not even close. The local statistics are heading the wrong direction.

In Marin, we have already lost 110 local residents. That doesn't include the 28 COVID-linked deaths among inmates and staff at San Quentin State Prison.

Those numbers and the fact that the deadly threat of the further spread of the disease continues to grow should be enough sobering persuasion to continue recommended precautions to save others' lives and your own.

Some officials blame the increases on Thanksgiving gatherings, held despite repeated public-health warnings, and fear that similar Christmas celebrations could drive COVID numbers upwards as well.