



Posting Date: 04-13-2021

NOTICE OF SPECIAL MEETING OPERATIONS COMMITTEE/BOARD OF DIRECTORS (OPERATIONS)

MEETING DATE: 04-16-2021

TIME: 9:30 a.m.

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

To participate online, go to <https://zoom.us/j/98363978422>. You can also participate by phone by calling 1-669-900-6833 and entering the webinar ID#: 983 6397 8422.

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

EMAILED PUBLIC COMMENTS: You may submit your comments in advance of the meeting by emailing them to BoardComment@MarinWater.org. All emailed comments received by 7:30 a.m. on the day of the meeting will be provided to the Board of Directors prior to the meeting. Those emailed comments on approval items received by 7:30 a.m. will also be summarized by the board secretary at the board meeting. All emails will be posted on our website. (Please do not include personal information in your comment that you do not want published on our website such as phone numbers and home addresses.)

AGENDA ITEMS	RECOMMENDATIONS
Call to Order and Roll Call	
Adopt Agenda	Approve
Public Comment <i>Members of the public may comment on any items not listed on the agenda during this time. Comments will be limited to three minutes per speaker, and time limits may be reduced by the Committee Chair to accommodate the number of speakers and ensure that the meeting is conducted in an efficient manner.</i>	

MARIN WATER BOARD OF DIRECTORS: LARRY BRAGMAN, JACK GIBSON, CYNTHIA KOEHLER, LARRY RUSSELL, AND MONTY SCHMITT

AGENDA ITEMS	RECOMMENDATIONS
Calendar	
1. Minutes of the Operations Committee/Board of Directors (Operations) Special Meeting of March 26, 2021	<i>Approve</i>
2. Review of Proposed Mandatory Conservation Restrictions	<i>Information</i>
3. Landscape Restrictions for New Connections under Drought Conditions	<i>Information</i>
4. Long-Term Water Supply Review	<i>Information</i>
5. Adopt a resolution authorizing the General Manager to issue a Temporary Limited Use Permit for Service from a hydrant to the Marin County Agricultural Commission for water for livestock	<i>Approve</i>
6. Biodiversity, Fire, and Fuels Integrated Plan-Prescribed Burning Planning Report	<i>Information</i>
7. Non-Structural Spillway Repair Project (D21013)	<i>Information</i>
Adjournment	

ADA NOTICE AND HEARING IMPAIRED PROVISIONS:

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

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

FUTURE BOARD MEETINGS:

- ❖ Tuesday, April 20, 2021
Board of Directors' Regular Meeting
7:30 p.m.


Board Secretary



Item Number: 01
Meeting Date: 04-16-2021
Meeting: Operations
Committee/Board of Directors
(Operations)

Approval Item

TITLE

Minutes of the Operations Committee/Board of Directors (Operations) Special Meeting of March 26, 2021

RECOMMENDATION

Approve the adoption of the minutes.

SUMMARY

On March 26, 2021, the Operations Committee/Board of Directors (Operations) held a special meeting in lieu of its regularly scheduled monthly meeting. The minutes of the special meeting are attached.

DISCUSSION

None

FISCAL IMPACT

None

ATTACHMENT(S)

1. Minutes of March 26, 2021, Special Meeting of the Operations Committee/Board of Directors (Operations)

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

**MARIN MUNICIPAL WATER DISTRICT
OPERATIONS COMMITTEE /BOARD OF DIRECTORS (OPERATIONS) SPECIAL MEETING**

MINUTES

Friday, March 26, 2021

Via teleconference

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

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

DIRECTORS ABSENT: Cynthia Koehler and Monty Schmitt

CALL TO ORDER: Chair Russell called the meeting to order at 9:34 a.m.

ADOPT AGENDA:

On motion made by Director Bragman and seconded by Director Gibson, the board approved the adoption of the agenda by the following roll call vote:

Ayes: Directors Bragman, Gibson, and Russell

Noes: None

Absent: Directors Koehler and Schmitt

PUBLIC COMMENT:

There were no public comments.

Director Koehler arrived at 9:42 a.m.

CALENDAR ITEMS:

ITEM 1. PRESENTATION BY PRINCIPAL WATER AGENCY ENGINEER DONALD SEYMOUR, WITH SONOMA WATER, REGARDING AN UPDATE ON THE RUSSIAN RIVER WATER SUPPLY CONDITIONS

Mr. Seymour provided a presentation to the board. Discussion between the board and staff occurred throughout the presentation.

There was one public comment.

This was an information only item, so the board took no formal action.

**ITEM 2. MINUTES OF THE OPERATIONS COMMITTEE /BOARD OF DIRECTORS (OPERATIONS)
MEETING OF FEBRUARY 19, 2021**

On motion made by Director Bragman and seconded by Director Gibson, the board approved the minutes by the following roll call vote:

Ayes: Directors Bragman, Gibson, Koehler, and Russell
Noes: None
Absent: Director Schmitt

ITEM 3. GRANT AND LEGISLATION PROGRAM UPDATE

Facilities and Watershed Director Crystal Yezman introduced this item and Grant Program Coordinator Matt Sagues provided the presentation. Discussion followed.

There was one public comment.

This was an information only item, so the board took no formal action.


ADJOURNMENT

There being no further business, the Operations Committee/Board of Directors (Operations) special meeting adjourned at 10:43 a.m.

Board Secretary

Informational Item

TO: Operations Committee/Board of Directors (Operations)

FROM: Ben Horenstein, General Manager 

ITEM: Review of Proposed Mandatory Conservation Restrictions

SUMMARY

As dry conditions have persisted through the typically wet spring months, staff will be recommending the Board declare a Water Shortage Emergency and implement mandatory water conservation restrictions. District reservoir storage volumes are at historically low levels at the close of the normally wet weather months. Reservoir storage as of April 1st was 43,385 acre-feet (AF), the lowest storage level in 38 years since Kent Dam was raised and the total capacity of Marin Water's reservoir system was increased to 79,566 AF. Staff will give an overview of the proposed mandatory restrictions ahead of the April 20th Board meeting.

DISCUSSION

Seventy-five percent of the District's water supply depends on rainfall in the District's watershed, with the remaining 25% provided by imported water from Sonoma County Water Agency. The District has experienced two successive dry winters with historically low rainfall and runoff. Over the course of calendar year 2020, the District received just over 20 inches of rain, the second lowest rainfall total for the District's watershed in 90 years. In response to the historically low rainfall and subsequent low reservoir storage levels, the Board adopted Resolution 8624 on February 16th, 2021 declaring initial drought water conservation actions and requesting District customers to voluntarily reduce their water usage. Adoption of these actions occurred with much of the normal wet season remaining in order to preserve the water supply and allow the Board to potentially terminate the voluntary call to action if weather conditions shifted and rainfall exceeded expectations leading up to the summer months.

The goal of the mandatory restrictions, coupled with continued and additional voluntary reductions in indoor water use, is to achieve a 40% reduction in overall demands on the limited water supply through December 2021.

Initial Drought Actions

Since declaring initial drought conditions in February, the District has continued to pursue opportunities to optimize and extend our water supply while prioritizing the conservation actions and public messaging necessary to educate and engage with our customers. Public outreach and communications surrounding the drought have focused on creating public

awareness emphasizing the dry conditions and need for conservation, targeted outreach to community groups, city councils, specific sectors and customers including high water users, as well as providing customers with water savings tips, resources, and incentives. Operational initiatives to optimize our existing water supply have included utilizing reserve reservoirs, such as Phoenix Lake, maximizing our supplemental supply from Sonoma County Water Agency, and closely working with Las Gallinas Valley Sanitary District as the upgrade of the Recycled Water Treatment Plant completes.

Despite these efforts and the response from customers to voluntarily reduce their water usage, dry conditions have continued into April. Precipitation so far in 2021 has remained exceptionally low at 43% of average, producing limited runoff and notably lower than normal storage levels. As of April 1, the district reservoirs contained 43,385 acre-feet of water, which is 30,158 acre-feet lower than average for this date and is the lowest April 1st storage level in the 38 years since Kent dam was raised in 1983.

Declaration of Water Shortage Emergency

Recognizing that very little rainfall typically occurs from May through October each year, the District analysis indicates that based on historical hydrology in the absence of above average rainfall and runoff, reservoir storage levels are projected between 24,000 to 28,000 AF on December 1, 2021 unless potable demand is further reduced. Given the current projections and low likelihood of additional rainfall for the remainder of the spring through the summer, staff is recommending declaring a Water Shortage Emergency and implementation of mandatory water curtailment to preserve water supply pursuant to Water Code sections 350 and 71640, et seq. District Code section 13.020.015, adopted by the Board in 1999, provides that when the District's lake storage on December 1 is projected to be in the vicinity of, or less than, 30,000 acre-feet, the Board may declare by resolution a Water Shortage Emergency as defined in the Water Code. Declaration of a water shortage emergency will allow the District the necessary flexibility to realign resources and pursue mandatory conservation measures throughout the coming months.

Mandatory Water Use Reduction Program

The purpose of the Mandatory Water Use Reduction Program (Program) is to significantly reduce the consumption of water during the drought to extend existing water supplies. Recognizing that in recent years, overall summer peak demand has averaged nearly twice winter demand due to outdoor water use and irrigation, the Program focuses on prohibiting outdoor water wastage and limiting irrigation to one day per week. Water use reduction actions included in the Program are highlighted below and are proposed to be adopted by ordinance that will go into effect immediately, with a grace period to May 1, 2021 for commencement of enforcement:

- Prohibit irrigation more than one day per week as assigned by the District
 - Monday: Tiburon, Belvedere, Ross, San Geronimo, Forest Knolls, Lagunitas
 - Tuesday: San Rafael, Unincorporated Marin

- Wednesday: San Anselmo, Corte Madera, Sausalito
- Thursday: Mill Valley
- Friday: Greenbrae, Kentfield, Larkspur, Fairfax, Woodacre
- Saturday and Sunday: No irrigation
- Installation of any new landscape, including the expansion of existing landscapes
- Washing of cars, boats, airplanes
- Refilling or as make-up water for decorative fountains or recreational pools
- Golf course irrigation restricted to greens and tees
- Use of private fire taps, also known as fire service lines, shall solely provide water for fire protection and annual fire service line testing
- Power washing of buildings and homes
- Use of potable water for dust control, compaction, sewer flushing, street cleaning, or any other use that can be met with tertiary recycled water

Implementation

The water waste prohibitions listed above will be included in a comprehensive water conservation ordinance that will be considered at a public hearing held by the Board on April 20, 2021, following consideration of a resolution declaring a water shortage emergency and calling for the implementation of mandatory conservation measures. Pursuant to Water Code sections 350 and 71641, the ordinance would be effective immediately upon adoption, though the enforcement provisions include a grace period and would become effective May 1st if adopted by the Board. Enforcement procedures for reported water wastage will be as follow:

- Water Waste Notification: Written notification of water waste and warning that 2nd Notice will result in a fine
- 2nd Notice: A \$25 fine for the water waste violation and a warning that subsequent violations of same water waste will result in a \$250 fine
- Subsequent Violations: For each violation of the same water waste violation within 60 days, a \$250 fine will be imposed on customer bill.
- The ordinance also includes notice and fine provisions for water leaks requiring verification of repair within two weeks from the first warning letter.
- A variance process to review unique circumstances presented by customers

Public outreach and communications regarding the drought and mandatory water use reduction program will continue to be a primary focus engaging customers of the importance to conserve water during this dry period. Drought-specific programs for customers are ongoing and will be continue to be rolled out, including offerings such as turf replacement rebates, landscape design review, and customer flowmeter technology incentives.

FISCAL IMPACT

As previously shared with the Board, the combined loss in revenue and unbudgeted expenses due to the drought is projected at \$12.5M over the next 8 months due to voluntary conservation efforts. An additional \$8M of revenue loss is projected over the same period if

mandatory conservation efforts are implemented, bringing the net projected fiscal impact to \$20.5M over 8 months. Use of the District's reserves, along with tight expenditure controls, is anticipated to address the deficit. Staff will continue to monitor revenue impacts and report to the Board.

ATTACHMENT(S)

None

Informational Item

TO: Operations Committee/Board of Directors (Operations)

FROM: Michael Ban, Director of Engineering



THROUGH: Ben Horenstein, General Manager



DIVISION NAME: Engineering

ITEM: Landscape Restrictions for New Connections under Drought Conditions

SUMMARY

As of April 1st, reservoir storage was 43,485 acre-feet (AF), the lowest storage level in 38 years since Kent Dam was raised and the total capacity of Marin Water's reservoir system was increased to 79,566 AF. The District has experienced two successive dry winters with below average rainfall. Marin Water has measured 20.3 inches of rainfall to date, tracking with approximately 43% of average rainfall for this time of year. As a result of this drought, the District's reservoirs are 59% of average storage volume for this date and are projected to be as low as 24,000 – 28,000 AF on December 1, 2021 in the absence of above average rainfall and runoff.

Given the District's current drought conditions, District staff has developed potential new landscape restrictions that would apply to new customers wishing to connect to the District's water system. In 2018, 46 new customers connected to the District's water system, and in 2019, 36 new customers connected to the District's water system.

New landscape restrictions would apply to individual new connections and to larger development projects. Currently there are two new developments that have met all environmental and final approvals from the local planning agencies and will most likely be requesting a Pipeline Extension Agreement with the District in the coming months. These two new developments include a 28 unit single family residential development with five detached Accessory Dwelling Units (ADUs) located at Erin Drive in San Rafael and is known as the Talus Reserve project. The other development includes 45 townhomes (including nine Below Market Rate (BMR) units) in 9 buildings at 350 Merrydale Road in San Rafael.

At the April 16th Operations Committee meeting, District staff will present options for potential new landscape restrictions that would apply to new customers wishing to connect to the District's water system.

FISCAL IMPACT


None

ATTACHMENT(S)

None

Informational Item

TO: Operations Committee/Board of Directors (Operations)

FROM: Paul Sellier, Operations Director 

THROUGH: Ben Horenstein, General Manager 

DIVISION NAME: Operations

ITEM: Long-Term Water Supply Review

SUMMARY

In response to Board comments during the continuing 10-year financial plan workshops, staff will present potential water supply projects and programs the District may consider for inclusion into the 10-Yr Financial Plan. Staff will provide a review of long-term water supply opportunities and potential investment strategies in existing or future water use efficiency programs.

DISCUSSION

Providing a reliable water supply is the core function of the District. Over the years, the District has made investments to increase reservoir storage capacity, improve system reliability and to secure contractual rights to supplemental water supply. In addition, the District has benefited from increased investment in water use efficiency measures. At the April 16 Operations Committee meeting, staff will present information on long term water supply options, the historic water efficiency programs and provide an outline of potential future water efficiency programs.

Conservation Program: The District has had a water conservation program in place for many decades resulting in significant water savings. Demand reductions have been achieved through the implementation of the plumbing code and water conservation programs. Staff will present on historic water savings, and opportunities to expand the program through policy, strategic investments in distributed infrastructure, as well as data-driven programs aimed at accurately understanding customer usage patterns.

Imported Supply from Sonoma County Water Agency: Since 1976, the District has imported supplemental water supply from Sonoma County Water Agency to extend its local reservoir supply, especially through dry periods. In 1977, the District constructed Kastania Pump Station to increase the flow and pressure available in the North Marin Aqueduct and the pump station

was operated until August 2015. The District is evaluating rehabilitation of Kastania Pump Station to improve the operational efficiency of the District's imported supplemental supply.

Recycled Water: The District's recycled water program annually provides over 600 acre-feet of recycled water to customers in Terra Linda, Marinwood, and Santa Venetia. First distributed during the drought of 1976-77, the District was one of the first agencies in Northern California to recycle wastewater. Expansion of the recycled water distribution system largely occurred in the midst of the drought of the early 1990s, and the District has continued to evaluate opportunities to further expand the system. An overview of potential system expansion options, including direct potable reuse, and associated costs will be presented.

Water Transfers: Importing additional water supplies from new regions would require significant effort and resources from the District to implement. Conveyance infrastructure would be required to connect the District's water system to a neighboring agency, in addition to significant contractual wheeling and water rights negotiations.

Regional Groundwater Conjunctive Use: Engagement in a regional groundwater conjunctive use partnership to utilize groundwater basins in Santa Rosa or Petaluma may provide a source of water that could be accessed during drought conditions. Operation of this supplemental supply would require partnering with a city or agency that draws water from the Santa Rosa Plain Groundwater Basin. Purchased supplemental supplies from Sonoma County would be stored in the groundwater basin in normal or wet years, and withdrawn from the groundwater basin in dry years, requiring minimal additional infrastructure.

Desalination:

Desalination options that include participation in the Bay Area Regional Desalination Plant, potentially developing a new regional desalination effort located in the North Bay, and a local desalination plant. Staff is also evaluating the feasibility and cost of a barge desalination unit to provide an emergency water supply.

FISCAL IMPACT

None

ATTACHMENT(S)

None

Approval Item

TITLE

Marin County Agricultural Commission's Request for Temporary Water Supply for Livestock

RECOMMENDATION

Adopt a resolution authorizing the General Manager to issue a Temporary Limited Use Permit for Service from a hydrant to the Marin County Agricultural Commission for water for livestock.

SUMMARY

The Marin County Agricultural Commission has requested that the District allow purchase of water from a fire hydrant at Nicasio reservoir to provide untreated reservoir water to ranching operations essential for livestock. The volume of water is expected to be de minimis.

DISCUSSION

Calendar year 2020 was the 2nd driest year in the past 90 years; and, so far in 2021, precipitation totals are less than 2020. The dry conditions are affecting the availability of water for ranchers in Marin County. Due to these drought conditions, the Marin Agricultural Commission has requested that the District provide access to untreated water via a hydrant located below Nicasio dam for the ranch operators to provide water for livestock only.

Staff has determined that the hydrant location is accessible to water trucks, subject to landowner permission, and that any water pulled from the hydrant can be provided, metered and billed pursuant to District Code sections 6.01.030, 11.32.070 and 11.56.030. Specifically, this will require payment of an \$85 account set up charge, a deposit of either \$1,400 or \$350 (dependent upon the requested meter assembly size), and bi-monthly payment of 150% of the Tier 1 residential water rate for each CCF of water used and payment of bi-monthly service charge based upon the meter size requested.

The hydrant is located on a private road and prospective users will need the landowner permission for access to the hydrant. The amount of water requested is unspecified at this time but is expected to be less than 9 acre-feet in total. Any permit issued for such use will include language expressly providing for the District's revocation of the permit at the sole discretion of the General Manager, for reasons including but not limited to: the water use is beyond the minimal amount expected or is being used for purposes beyond the narrow scope of the permit, which is to provide essential water for livestock, or it is determined that the District has insufficient supply to allow the continued use, or future objections are received from water agencies that provide water to the area.

The location of the Nicasio Reservoir, including the hydrant mentioned above, is located outside the District's service area. Water Code Section 71612.5, Article 11, Section 9 of the California Constitution and Section 10005 of the Public Utilities Code collectively authorize the

District to sell water for use outside the of the District's service area provided that the Board determines surplus water exists and no other water agency providing water to the area objects. At the present time, the District's reservoirs contain approximately 43,000 acre-feet of water, an amount just in excess of total annual demands including environmental releases and evaporative losses. Given the nominal amount of water sought by the Marin County Agriculture Commission for livestock, at this time, staff believes that sufficient excess water is available for these very limited purposes. However, staff will continue to monitor changing water supply conditions, and if insufficient surplus water supply exist and/or excessive/improper water usage occurs, the General Manager would be authorized to revoke the permit. Additionally, staff is unaware of any objections from other water agencies servicing the area, as North Marin Water District has already allowed use of Stafford Lake for this purpose of essential agricultural use. Furthermore, staff believes water use for the limited purposes described herein is a beneficial use in the interest of the people and for the public welfare and is consistent with Article 10, Section 2 of the California Constitution.



Staff recommends the Board's adoption of a resolution authorizing the General Manager to Issue a Temporary Limited Use Permit for Service from a hydrant to the Marin County Agricultural Commission for Livestock with conditions limiting the use as set forth in the proposed resolution.

FISCAL IMPACT

The impacts of the sale of water are not anticipated to be significant.

ATTACHMENT(S)

1. Resolution

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Operations	 Paul Sellier Operations Director	 Ben Horenstein General Manager

MARIN MUNICIPAL WATER DISTRICT

RESOLUTION NO.

**A RESOLUTION OF THE MARIN MUNICIPAL WATER DISTRICT BOARD OF DIRECTORS
PERMITTING TEMPORARY WATER SUPPLY FOR LIVESTOCK**

WHEREAS, within Marin County, California, calendar year 2020 was the second driest year in the past 90 years; and, so far in 2021, precipitation totals are less than calendar year 2020; and

WHEREAS, the drought conditions caused by the aforementioned lack of precipitation are affecting the availability of water for ranchers' livestock throughout Marin County; and

WHEREAS, due to the aforementioned drought conditions, the Marin County Agricultural Commission has requested that the Marin Municipal Water District ("District") permit temporary usage of a limited amount of untreated water for livestock via a fire hydrant located at the District's Nicassio Reservoir in West Marin County, which is outside of the District's service area; and

WHEREAS, Water Code Section 71612.5, Public Utilities Code Section 10005 and Article 11, Section 9 of the California Constitution collectively permit the District to sell excess water outside of its service area provided that no municipal corporation providing water services in the area objects; and

WHEREAS, the Board of Directors of the District desires to assist ranchers within Marin County during the current drought by permitting usage of a limited temporary water supply, as described above, and further subject to the conditions set forth herein.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors of the District hereby finds:

1. As April 7, 2021, District reservoir storage contained 42,727 acre feet of water, which was approximately 53.7% of normal, and represents sufficient water supply for approximately one year of average water demand by District customers, including environmental releases and evaporative losses.
2. Despite the need for additional conservation measures, the current reservoir storage levels are adequate to meet customer demands and very limited amounts of excess water are available to be provided to ranchers for essential water livestock located outside of the District's service area at Nicasio Reservoir as sought by the Marin Agricultural Commission.
3. No other municipal corporations providing water services near or about the Nicasio Reservoir have expressed any objections to the District's plan to provide water for the limited purposes expressed herein, and North Marin Water District is already permitting the use of Stafford Lake water for essential agricultural purposes.

4. Water use for the limited purposes described herein is a beneficial use in the interest of the people and for the public welfare and is consistent with Article 10, Section 2 of the California Constitution.

NOW THEREFORE BE IT FURTHER RESOLVED, the Board of Directors agrees to permit the sale of water for the limited purposes set forth above, subject to the following conditions:

1. District staff shall continue to monitor reservoir storage levels, precipitation amounts, amount of water usage from the hydrant at Nicasio Reservoir for these limited purposes, and any other relevant factors necessary to determine whether or not excess water continues to be available for the limited purposes described herein.
2. All water usage for these limited purposes shall be sold and billed pursuant to District Code sections 6.01.030, 11.32.070 and 11.56.030.
3. Any permit issued for these purposes shall be revocable by the District General Manager at any time and for any reason deemed necessary by the General Manager, including but not limited to insufficient water supply, future objections from water agencies that provide water to the area, and excessive or improper water usage by ranchers.

PASSED AND ADOPTED this 16th day of April, 2021, by the following vote of the Board of Directors.

AYES:

NOES:

ABSENT:

President, Board of Directors

ATTEST:

Board Secretary

Informational Item

TO: Operations Committee/Board of Directors (Operations)

FROM: Crystal Yezman, Director of System Maintenance and Natural Resources

THROUGH: Ben Horenstein, General Manager

DIVISION NAME: Facilities and Watershed

ITEM: Biodiversity, Fire, and Fuels Integrated Plan-Prescribed Burning Planning Report

SUMMARY

The District conducts vegetation management work on watershed lands throughout the year under the Biodiversity, Fire, and Fuels Integrated Plan (BFFIP), which was adopted in October of 2019. Under the BFFIP, the District has identified management targets for carrying out prescribed burning in which fire will be applied to most or all of a well-defined area with discrete boundaries for the combined purpose of fuel load reduction and habitat improvement. Staff will provide a brief presentation relating to the findings of the Prescribed Burning Planning Report and options for implementation.

DISCUSSION

The District adopted its first vegetation management plan in 1995. The District's principal management concern at the time was reducing wildfire hazards on its lands, while minimizing impacts on natural resources. The plan included the creation of a series of fuelbreaks and access roads along major ridges, and the maintenance of the fuelbreak infrastructure. The plan also included limited use of prescribed burning. Prior to 1995, watershed rangers were regularly using prescribed burning as a cost effective approach to managing watershed fuel loads. During the adoption of the 1995 plan, there were general concerns relating to air quality and the use of prescribed burning so it was not brought forward as a primary management tool. Since that time there have been advancements in air quality monitoring and our understanding of the implications of removing fire from this fire-adapted landscape for hazardous fuels and ecosystem health.

In October of 2019, the District adopted the BFFIP which described the actions the District would implement to reduce wildfire hazards and to improve ecosystem resilience. Under the BFFIP there are 27 management actions that are being implemented to fulfill the goals and approaches described in the plan. To implement the inventorying, planning, and monitoring management actions, the District conducts surveys, manages data, and creates maps. To

implement the vegetation management actions, the District uses a combination of manual and mechanical techniques to achieve the BFFIP management action targets.

Vegetation management under the BFFIP aims to reduce fuel loads, maintain fuelbreak infrastructure, preserve defensible space, and reduce invasive weed species. Vegetation management is conducted continuously throughout the year with the chief goals of reducing fuel loads, maintaining the ecosystem function of water provisioning and maintaining the watershed's biological diversity. Management Action 23-Improve Forest Stand Structure and Management Action 24-Improve Grassland and Oak Woodland, both include the use of prescribed burning as a treatment method. We know wildfire will someday come to the watershed, the treatment goal is to change fire behavior in treated areas by reducing future intensity and flame lengths. Additionally, the focus is to increase ecosystem resiliency, watershed health, provide defensible space, and create possible anchor points.

To facilitate the re-introduction of prescribed burning as a fuels and vegetation management tool, the District hired Ben Jacobs, a consultant who is a retired National Parks Service Burn Boss, to develop a Prescribed Burning Planning Report for the District. Jacobs has experience implementing prescribed burning at Sequoia Kings Canyon National Parks and in Point Reyes National Seashore. The findings of the report will be used to inform the development of burn plans for identified burn units. Once the burn plans are finalized, the District will conduct the necessary environmental compliance survey work to facilitate implementation and carry out pre-project vegetation removal as needed. The District will then work with Marin County Fire Department, who will lead the execution of the prescribed burn.

Prescribed Burning Planning Report Findings

The District's preliminary planning process for prescribed burning of eight sites was mapped and assessed, totaling approximately 370 acres. The District is advancing burn planning work for at least three of the most suitable burn units to establish a series of projects that can be carried out over the next 3-5 years. Under the BFFIP, the District is targeting the implementation of 2-3 prescribed burns per year. In order to achieve this target, additional burn units will need to be assessed for future burn plans. The preliminary report found that local fire history relating to pre-settlement burning likely occurred during the drier summer months and suggested that the District mimic this process to the extent feasible and establish an ongoing maintenance regime to maintain the areas as shaded fuelbreaks. The report identified three burn seasons for consideration including spring/early summer, fall after initial moisture followed by adequate drying or a few days ahead of precipitation, and in some cases in the winter if it aligns with ecological goals. For each of the eight sites the preliminary report evaluated burn boundaries and size, defensibility and proposed mitigation, pre-burn vegetation site prep work, smoke management, chance of implementation, and objectives.

Coordination with Marin County Fire

Marin County Fire Department has identified prescribed burning as an important tool for fuel reduction work in Marin County. As such, the District shared the preliminary Prescribed Burning Planning Report with the Marin County Fire on March 22, 2021. On March 31, 2021 the District and the Marin County Fire Department conducted field site inspections and assessed operational logistics for each of the burn units. At that meeting the District discussed opportunities for collaboration and the process for establishing Marin County Fire Department as the project lead for the implementation of the prescribed burns. A major challenge for implementing prescribed burns is the availability of suitable resources during California's extended wildfire seasons.

Staff will provide a brief presentation relating to the findings of the Prescribed Burning Planning Report and the approach for implementation.

FISCAL IMPACT

Expenditures for FY2021 Vegetation Management efforts were budgeted within appropriate operational cost centers and capital appropriations under fund center A1E07 Natural Resource Projects.


ATTACHMENT(S)

None

Informational Item

TO: Operations Committee/Board of Directors (Operations)

FROM: Michael Ban, Director of Engineering 

THROUGH: Ben Horenstein, General Manager 

DIVISION NAME: Engineering

ITEM: Non-Structural Spillway Repair Project (D21013)

SUMMARY

The concrete spillways at Peters Dam (Kent Lake), Seeger Dam (Nicasio Reservoir) and Soulajule Dam were inspected in 2018-2019 and found to have surface defects that need to be addressed in order to maintain proper spillway functionality. The Non-Structural Spillway Repair Project will repair non-structural concrete surface defects including concrete spalling, surface crack sealing, offsets, sub-drain cleaning and spillway joint sealing at these three dams.

DISCUSSION

The Non-Structural Spillway Repair (Project) is a component of the District's Capital Improvement Program. As a result of the 2017 Oroville Dam spillway failure, the Division of Safety of Dams (DSOD) has required dam owners to conduct phased condition assessments of concrete lined spillways, with Phase I assessments to comprise visual inspections and a review of relevant documents. If warranted by the results of the Phase I assessments, agencies are required to conduct Phase II assessments, which will include a more comprehensive evaluation.

In accordance with DSOD's requirements, the District conducted Phase I condition assessments on the spillways of Peters, Seeger, and Soulajule Dams in 2019. In those condition assessments, many minor imperfections were identified requiring repair. These deficiencies will be repaired as part of the District's Non-Structural Spillway Repair Project and include repair of non-structural concrete surface defects including concrete spalling, surface crack sealing, offsets, sub-drain cleaning and spillway joint sealing at these three dams

The District will conduct Phase II assessments of the spillways in 2021, in coordination with DSOD.

Summaries of the estimated Project cost and schedule are provided below:

Budget

Engineer's Estimate:	\$ 350,000
Contingency:	\$ 35,000
Materials and Professional Fees:	\$ 35,000
District Labor / Inspection:	\$ 75,000
Total Budget:	\$ 495,000
Budget Category:	1A05

Project Implementation:

Project Advertisement:	April 6, 2021
Bid Opening:	April 27, 2021
Project Award:	May 18, 2021
Work Begins:	August 1, 2021
Estimated Completion Date:	October 15, 2021
Duration:	150 Days

ENVIRONMENTAL REVIEW

This project is categorically exempt pursuant to California Environmental Quality Act (CEQA) Guidelines 15302(c), Replacement or Reconstruction. The project qualifies for exemption pursuant to Section 15302(c) inasmuch as the repair of existing spillways involves no expansion of capacity. A copy of the draft Notice of Exemption is enclosed as Attachment 2.

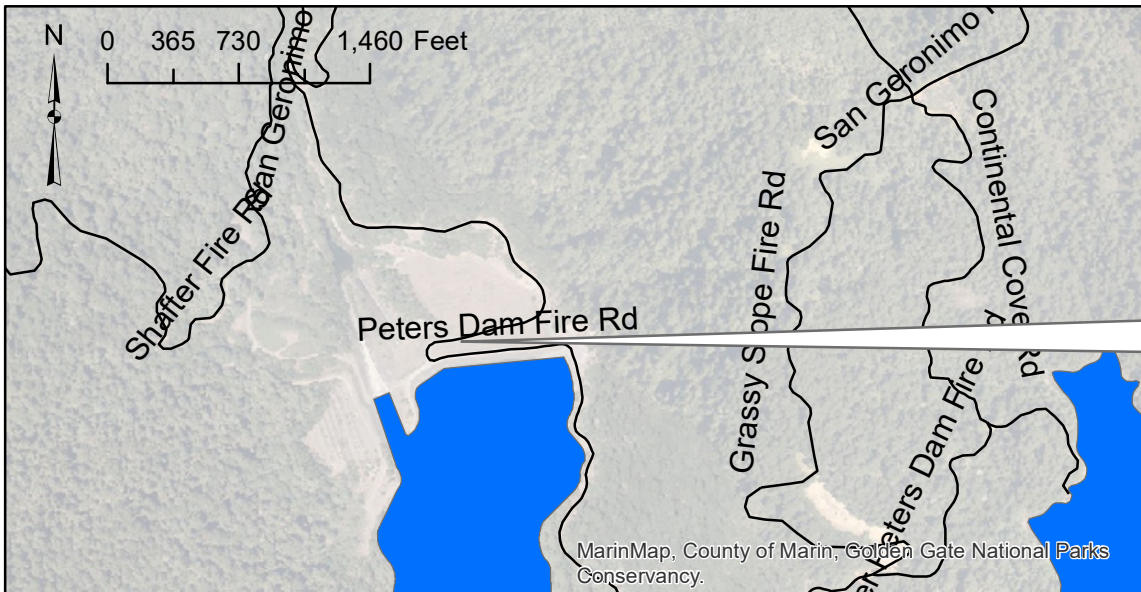
FISCAL IMPACT

The total cost to complete the Non-Structural Spillway Repair is estimated at \$495,000.

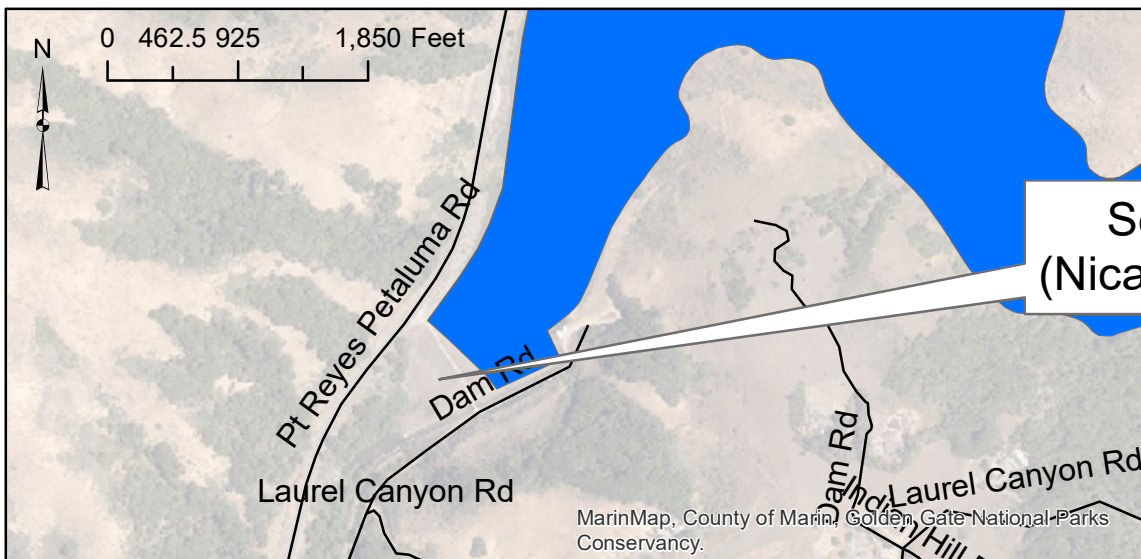
ATTACHMENT(S)

1. Site Map
2. Draft Notice of CEQA Exemption

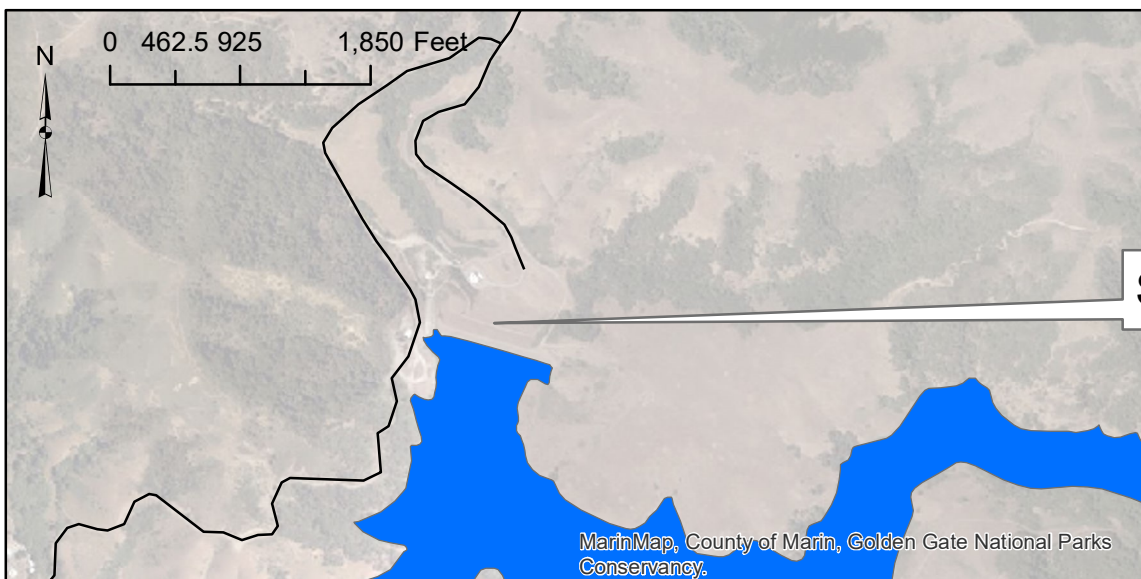
Non-Structural Spillway Repair Project Locations



Peters Dam
(Kent Lake)



Seeger Dam
(Nicasio Reservoir)



SoulaJule Dam

Notice of Exemption



Filing Requested By and When Filed Return To:

Marin Municipal Water District
220 Nellen Ave
Corte Madera, CA 94925
Attn: Mike Ban, Manager of Environmental & Engineering Services

Project Title: Non-Structural Spillways Repair Project (D21013)

Project Location – City: Kent Lake, Forest Knolls; Nicasio Reservoir, Nicasio; Soulajule Dam, Novato

Project Location – County: Marin

Project Description: The Non-Structural Spillway Repair Project is a component of the District's Capital Improvement Program. This project will repair non-structural concrete surface defects including concrete spalling, surface crack sealing, offsets, sub-drain cleaning and spillway joint sealing on Peters, Seeger and Soulajule Dams' spillways.

Public Agency Approving Project: Marin Municipal Water District

Name of Person or Agency Carrying Out Project: Marin Municipal Water District

CEQA Exemption Status: Categorical Exemption Section 15302(c), Replacement or Reconstruction

Reason for Exemption: The project qualifies for exemption pursuant to Section 15302(c) inasmuch as it is the repair of existing dam spillways that involves no expansion of capacity.

Project Approval: The Marin Municipal Water District Board of Directors approved the award of a contract for project construction, which represents project approval as defined by Section 15352 of the Guidelines for Implementation of the California Environmental Quality Act, at their regularly scheduled meeting on May 18, 2021.

Lead Agency Contact Person: Michael Ban, Marin Municipal Water District

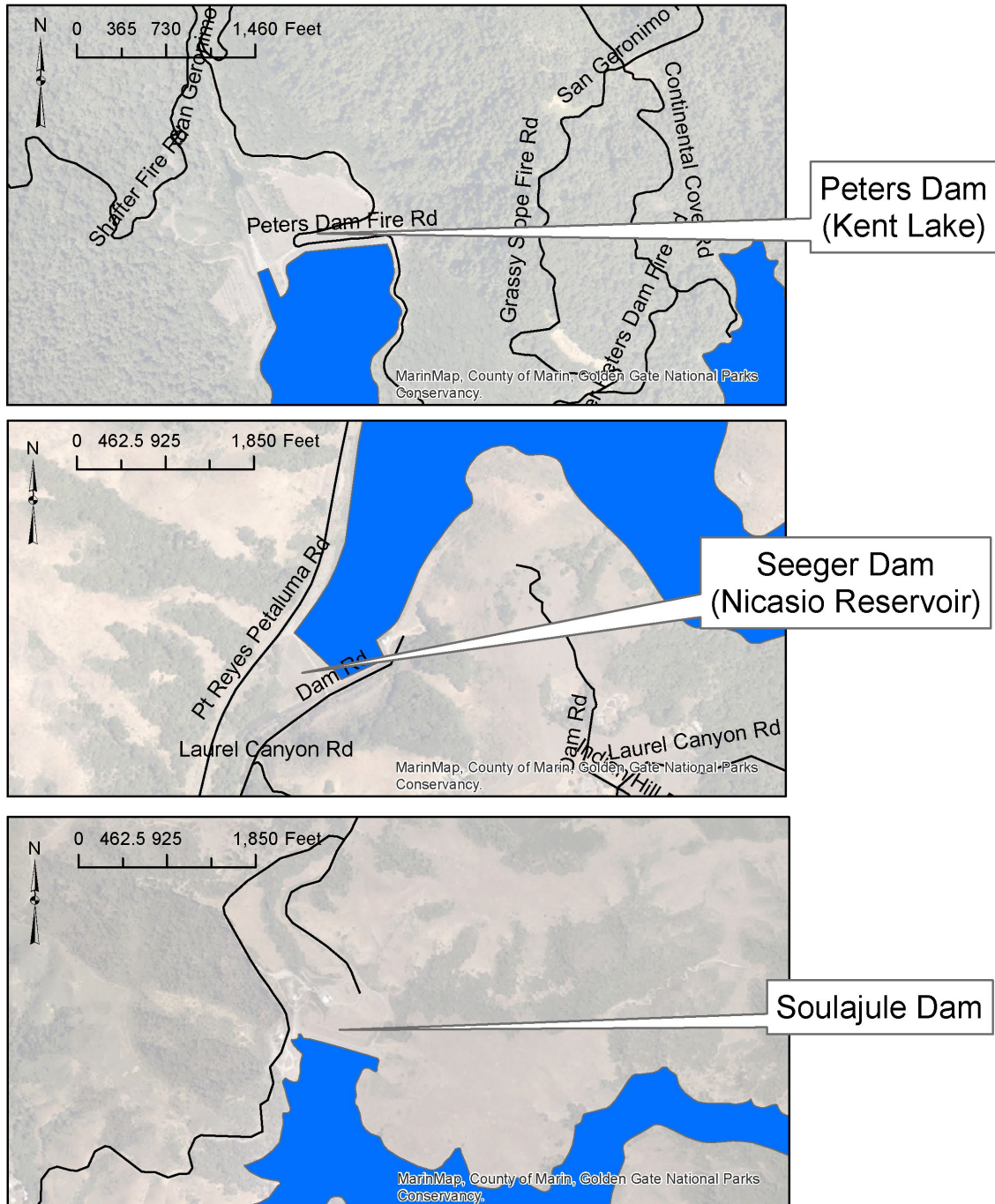
Telephone: (415) 945-1435

Michael Ban, Director of Engineering

Date

Figure 1: Non-Structural Spillway Repair Project

Non-Structural Spillway Repair Project Locations



SOURCE: MMWD 2021