

**NORTH MARIN WATER DISTRICT
MINUTES OF REGULAR MEETING
OF THE BOARD OF DIRECTORS
January 25, 2022**

CALL TO ORDER

President Petterle announced that due to the Coronavirus outbreak and pursuant to the Brown Act as modified by Assembly Bill 361, this was a virtual meeting. President Petterle called the regular meeting of the Board of Directors of North Marin Water District to order at 6:00 p.m. and the agenda was accepted as presented. President Petterle 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 Petterle 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 Petterle 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 Fraithe, Jim Grossi, Michael Joly and Stephen Petterle.

President Petterle announced that 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.

President Petterle announced that all public attendees will be invited to speak and will need to use the raised hand icon in Zoom or dial *9 to be called upon.

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), Tony Arendell (Construction/Maintenance Superintendent), Robert Clark (Operations/Maintenance Superintendent) and Tim Fvette (Senior Engineer). Also participating remotely were West Yost consultants; Rhodora Biagtan, Megan McWilliams, Anita Jain, Charles Hardy, Doug Moore, Ken Loy and Kathryn Geis; in addition to IT consultant Clay Smedshammer (Core Utilities).

President Petterle requested that for those joining the virtual meeting from the public to identify themselves. Attending remotely were Bob Maselli, Jim Homet, Kristin Johnson, Mark Hosletter, Hilary Maslon, Phillip Maddley, Jerry Peters and Jolly Brown.

OPEN TIME

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

LOCAL WATER SUPPLY ENHANCEMENT STUDY WORKSHOP

Mr. Williams introduced West Yost Associates as the presenter for the workshop. He stated there will be a series of presenters that will summarize each category and will outline various water supply alternatives that would be relevant to NMWD. Mr. Williams noted the original intent was to be in sync with Sonoma Water's Regional Water Supply Resiliency study, however NMWD's local water supply study is ahead of them in this process and will probably work in parallel soon. Mr. Williams stated that the primary goal is to increase local supply to a minimum threshold of 1,000-acre feet (AF) and if we can increase it to 2,000 AF that would be even better. Mr. Williams apprised the Board that the purpose of the study was to evaluate the best alternative and the workshop is an opportunity for the Board and the public to discuss and comment on possible water supply enhancement opportunities that are presented.

Rhodora Biagtan of West Yost Associates began the presentation on the Local Water Supply Enhancement Study Board Workshop and provided an overview on Water Supply Alternative Options and Evaluation Criteria and Ranking. She stated the purpose of the workshop was to provide the Board and the public with a preview and discuss the following topics; developed water supply options, criteria for evaluation, criterial scoring and weights, and next steps. Ms. Biagtan added the presentation will be broken up in the following local water supply alternatives: Aquifer Storage Recovery in Novato Basin; Recycled Water System Expansion; Indirect Potable Reuse, Improve Stafford Treatment Plant Process Water Recapture Efficiency; Divert Captured Stormwater Into Stafford Lake; Increase Stafford Lake Storage Capacity and Desalination.

The first alternative, Aquifer Storage and Recovery in Novato Basin, was presented by Ken Loy. Mr. Loy noted aquifer storage is very low at an estimated 50-100 AF, noting this estimate accounts for potentially usable acreage of the Novato Basin, basin thickness, and aquifer characteristics. Mr. Loy reported storage and recovery rates are also low, the estimate based on existing well productions was only tens of gallons per minute and made the costs per acre-foot infeasibly high. In reference to regional aquifer storage recover, Mr. Loy stated NMWD may benefit from a regional aquifer storage recovery program, if excess treated water allocated to NMWD could be stored and recovered when needed. He added that regional groundwater banking on other basins could include Santa Rosa Plain, Sonoma Valley and Petaluma. Mr. Loy stated that the preliminary conclusions is an estimated 50-100 AF of new storage volume and noted the cost estimate for local aquifer storage recovery is still in progress. His recommendation

was to focus on regional groundwater recovery programs.

President Petterle asked if there were any comments or questions from the Directors.

Director Grossi asked how deep the Novato basin is, noting most wells in the area are not that deep. Mr. Loy agreed, replying fifty feet is the typical depth. Director Grossi asked if Mr. Loy meant the aquifer was 50 feet thick and 50 feet down. Mr. Loy replied the bedrock underlying the aquifer sediments is 50 feet below the ground surface and the water depth is approximately 10 feet. Mr. Williams noted when looking at the regional study be aware that Sonoma Water is actively engaged in three wells in the Santa Rosa Plain, therefore there is definitely a regional opportunity.

President Petterle asked if there were any comments or questions from the public and there was no response.

The second alternative, Recycled Water System Expansion, was presented by Anita Jain. Ms. Jain stated that the focus of this effort was to evaluate expansion of the existing distribution system and explore other opportunities to increase recycled water use without expanding the existing distribution system. She evaluated the north, south and central service areas of Novato, which in total has a potential to offset an additional 220 AF of potable water. Ms. Jain also introduced other near-term opportunities that would not include an expansion of the distribution system which included: constructing additional hydrants or commercial fill stations; optimize residential fill station operations to increase use; and facilitate connection of in-fill sites and assess dual-plumbing requirements for toilet flushing. Ms. Jain also informed the Board of recycled water use opportunities for future study, which included: privately-owned recycled water storage tanks and delivery of recycled water to residential customers. She noted that livestock watering is not a consideration at this time since it is prohibited by current regulations. Ms. Jain stated the next steps would be to conduct planning level hydraulic analysis to determine: infrastructure sizing; prioritize alignments and phasing plan for construction; and develop planning level cost estimate. An additional future study would be needed to determine if recycled water supply reliability can meet future demand. In conclusion Ms. Jain reported that potential potable water offset of up to 220 AF is possible with a distribution system expansion. She noted a cost estimate for expanding this system is still in process; however, she recommended to continue to assess opportunities for increasing recycled water use within the existing distribution system.

President Petterle asked if there were any comments or questions from the Directors.

Director Petterle stated he had a question for Mr. McIntyre or Mr. Williams, stating if we look at ABAG requirements for affordable housing and potential future development, what is our projected additional need. He asked in perspective of what we are looking at for short or long-

term needs is 1,000 AF enough. Mr. Williams replied there are always a lot of variables with development. He stated that there are the known development sites like Fireman's Fund and vacant lots and commercial developments, and the projection between now and 2035 is to be about 1,000 AF of new potable demand. Mr. Williams that noted Fireman's Fund already receives recycled water and we are looking at 900 to 1,000 AF as the range for future build out in the City of Novato. Mr. Williams added there is additional forecast information in the Urban Water Management Plan. Director Petterle replied that this gave him a sense of where the District stands. Director Joly asked on behalf of the customers that are listening, he would like to ask Mr. McIntyre or Mr. Williams when we look at water supply, how many AF do we currently supply for Novato and how big is Stafford Lake. Mr. Williams replied if Stafford Lake is filled to the spillway it can hold 4,300 AF, however we never drain it down to zero. Mr. Clark added the typical annual production goal is 2,000 AF of local treated supply and that this amount supplements water from SONOMA WATER. Mr. Williams noted that the total annual water demand is approximately 8,000 AF total use in the Novato area.

President Petterle asked if any of the public had any comments or questions.

Jerry Peters commented that the District needs to do more to promote the recycled water residential fill station and expanding that program. He added there are some who are not aware of the programs available to them, and recycled water could allow us to keep our trees.

The third alternative, Indirect Potable Reuse, was presented by Charles Hardy. Mr. Hardy apprised the Board that state regulations allow "indirect" potable reuse through groundwater replenishment (augmentation), surface water source argumentation, noting full advanced treatment is required in this process. Mr. Hardy spoke about the feasibility of Indirect Potable Reuse (IPR) and noted IPR water cannot mix directly with potable water.

Mr. Hardy also informed the Board about the feasibility of indirect potable reuse (IPR). He noted IPR water cannot mix directly with potable water and there are not viable local IPR storage options in Novato in the groundwater aquifer or as surface water storage. Mr. Hardy reported groundwater augmentation in the local groundwater basin is limited to approximately 50-100 AF in storage availability. He also reviewed the surface water augmentation options at Stafford Lake. He stated regulations require a blending ratio of less than ten percent and a retention time of more than sixty days. Mr. Hardy added IPR is limited by the small volume of Stafford Lake, even if the lake is kept full, the maximum supply potential is approximately 100-400 AF. Mr. Hardy explained the indirect potable reuse infrastructure to the Board. He stated the unit cost of treatment prior to storage is at least \$3,000 per AF without economy of scale seen by other agencies. He noted that additional costs for groundwater recharge, injection and extraction wells and associated

infrastructure. Mr. Hardy reported a new conveyance pipeline would be required for Stafford Lake augmentation with an estimated pipeline length of 28,000 linear feet that would run from Novato Sanitary District to Stafford Lake. He added this 16-inch diameter transmission pipeline would have an estimated cost of over \$20M dollars. Mr. Hardy recommended no further analysis of local IPR is feasible with a groundwater augmentation of approximately 50-100 AF and surface water augmentation of approximately 100-400 AF. Mr. Hardy however, did note that regional IPR may be viable, potentially with approximately 3,100 AF from Novato Sanitary District. In conclusion, Mr. Hardy stated direct potable reuse would be a potentially viable option in the future as regulations and public acceptance evolve, but that would be at least ten years out.

President Petterle asked if there were any comments or questions from the Directors.

Director Grossi suggested further analysis of surface water getting into Stafford Lake, noting there is a potential for raising the capacity another 700 AF if we add it back into the lake or find another place to store the water. Director Baker asked about the treatment process for IPR and the requirement is that it must go through both microfiltration and the reverse osmosis units. Mr. Hardy confirmed, they were both part of the process. Director Baker asked if the water rejected was a significant amount. Kathryn Gies of West Yost responded it is about 5-10% of the total. Director Joly stated the AF of recycled water from Novato Sanitary District is a good supply. Director Joly asked what the prohibited cost was, and what is Novato Sanitary District capable of converting. Ms. Jain replied that would be a discussion with Novato Sanitary. Mr. Hardy added the facilities for treatment would still need to be produced.

President Petterle asked if any of the public had any comment or questions and there was no response.

The fourth alternative, Improve Stafford Treatment Plant (STP) Process Water Recapture Efficiency, was also presented by Charles Hardy. Mr. Hardy noted STP potable water production is limited by a wastewater discharge permit from Novato Sanitary District. He stated STP has several reject water streams: hydrocyclone which accounts for 80-90% of total wastewater discharge and has the potential to reduce the discharge by 50-75% with hydrocyclone modifications. He noted these modifications are subject to performance testing and regulatory approval. Mr. Hardy reported an additional yield of at least 100 AF could occur by a 50% reduction of hydrocyclone during a dry year. Additionally, he stated that there is a potential to achieve an additional yield of 600 AF during an average rainfall year or if supplemental water is stored during a dry year. Mr. Hardy explored improving the Stafford Treatment Plant process in regard to water recapture efficiency. He apprised the Board that District staff previously conducted a plant-scale study of modifying hydrocyclone return to reduce reject flow volume, however he recommended

an additional plant-scale study be done with external technical support to confirm capital/operations changes needed in order to change sludge diversion. He added raw water intake may also need modifications for more consistent intake water quality and the District should account for replacing the 4-inch discharge pipeline to Novato Sanitary District to reduce maintenance efforts. Mr. Hardy recommended the District should conduct additional plant-scale testing with technical support. He concluded there is a potential estimated yield of approximately 100-600 AF and a cost estimate is still in progress.

President Petterle asked if there were any comments or questions from the Directors.

Director Fraites stated Jolly Brown sent in a question on the Zoom chat platform. Director Petterle read Mr. Brown's comment and a discussion ensued.

President Petterle asked if any of the public had any comments or questions and there was no further discussion.

The fifth alternative, Divert Captured Stormwater Into Stafford Lake was presented by Doug Moore. Mr. Moore reported on the watersheds in Leveroni and Bowman Canyons, he quantified the rainfall to runoff relationship to calculate the yield of the Leveroni and Bowman Canyon runoff, evaluated increased water supply to Stafford Lake and evaluated costs. In addition, he reported on possible capture of diverted stormwater in Stafford Lake. Mr. Moore stated there was no significant runoff for the first eight to ten inches of rain, however the watershed yields 353 AF per inch of rain after the first eight to ten inches. He reported the 2016-2020 average watershed yield for Stafford Lake was 4,000 AF, the estimated yields for the same time period were 910 AF for Leveroni Canyon, 1,590 AF for Bowman Canyon and 2,500 AF combined. Mr. Moore noted however, this alternative only works if there is stormwater runoff available. The increased water supply to Stafford Lake could be 788 AF. Mr. Moore also reviewed the estimated total annual cost per AF, which included the capital, operations and maintenance cost. In conclusion, Mr. Moore stated that the use of Leveroni and Bowman Canyon water is cost feasible, however the use of the detention basin is cost prohibitive unless there is a cost sharing. He recommended evaluating the long-term benefit of Bowman and Leveorni Canyon flow diversion using twenty to forty years of rain data, but adjusting for future climate change. Additionally, he recommended monitoring flows and water quality from Leveroni and Bowman Canyons.

President Petterle asked if there were any comments or questions from the Directors.

Director Baker asked aside from the operational and treatment of water, does the District need to buy property or the rights of the property. Mr. Moore replied that he did not mention acquisition of property in his report. Director Baker responded that is a big deal, not only the cost, but possible environmental implications. Mr. Moore replied, that Director Baker is absolutely right,

the capital cost of the land and other possible issues was not included. Director Baker stated that there will be a cost associated as political and environmental issues arise. Director Fraites stated that last week he has a discussion with a county supervisor, and Bowman Canyon is Agricultural or A60 zoning. He added, the County of Marin is looking to put development in the Bowman Canyon area as they continue to get pressure from the state for more housing. Director Fraites asked if a housing development were to be constructed, how would that affect the District's ability to extract water from Bowman Canyon. Mr. Moore said the facility could be constructed on the south side of the roadway and may not be affected by a development. However, he added there would be a difference of urban runoff versus a natural watershed. Director Fraites stated it is something we should be aware of. Director Grossi stated it is a complicated analysis. He noted Bowman Canyon has been sitting there with threats of development for a long time. Director Grossi stated the analysis on Leveroni Canyon and Bowman Canyon was excellent. He added a simpler approach might be to store the water and make one reservoir, it could store the excess water and solve some of the flooding problems. Director Grossi stated there is an excess of 3,000 AF of water there, noting a lot of water is running down the watershed and we should save it. He added there would be the cost for infrastructure, and building of a dam, but think of the potential possibilities. Director Grossi asked Mr. Moore how much could be held back in one or both of the canyons, and what can we do to work with the county and sanitary district to make this a multi-agency project. He also recognized there are various opinions on dams. Mr. Moore replied, Director Grossi is correct about environmental concerns. He added, from a cost perspective you would need to get storage and then have to extract the storage and that is an idea they have not put cost or volume to yet. Director Grossi stated it would be something the District should look at, especially if desalination is not feasible for this District. He noted this study has brought to light that we have a lot of sources for water; but our problem is the storage. Mr. Williams stated the disadvantage we have tonight is that we do not have the information of the Sonoma Water regional study. He noted there is a potential to physically store water in Sonoma County to provide regional storage. Director Grossi stated that we need to throw everything on the table and look at the long term with radical changes in rainfall and drought as critical factors. Director Petterle stated water rights and fishery is a concern, considering a dam in the canyon is an interesting proposition and it may be worth giving it some consideration.

President Petterle asked if any of the public had any comments or questions.

Mr. Brown (via Zoom chat) asked how long the amortization cost would be for the basin, is twenty-five years realistic or would it last longer; what would be the cost of the project. He added we don't have a drought as much as we have a storage issue. Hilary Maslon sent in a

Zoom chat request and asked how is it that Israel does desalination and we cannot. She asked if there is a way to store the brine, or use it for another purpose. Director Petterle replied we will look at desalination later in this study, however it is really expensive and the District's is not directly near the ocean. He reassured Ms. Maslon that the Board and staff will look at that option and it is not completely off the table. Ms. Maslon suggested staff could setup a training program for residential passive gray water use. She noted washing machines, for example could be on a simple low grey water system for low cost. Mr. McIntyre reported NMWD does offer gray water rebates and the County of Marin has a program to teach customers about gray water use and storage. He suggested Ms. Maslon contact NMWD's Water Conservation Coordinator, Ryan Grisso.

The sixth alternative, Increase Stafford Lake Storage Capacity, was also presented by Doug Moore. Mr. Moore discussed two options; modifying the spillway and removing sediment. He noted one way to increase the storage capacity would be to install a slide gate on the spillway "notch". He noted the increased storage volume is only useful when there is enough rain to overtop the spillway notch, however it could increase storage volume up to 726 AF. Mr. Moore stated the slide gate had an estimated total capital cost of \$710,000, adding the capital cost of increased storage volume would be around \$1,000 per AF. Another option discussed by Mr. Moore is to remove sediment by excavating the bottom of the lake. He stated the capital cost of increased storage volume for a 15-foot depth is estimated to be \$48,500 per AF. Mr. Moore noted a minor benefit of excavation is removal of nutrient rich soils that can temporarily help the treatment process. In conclusion, Mr. Moore stated the slide gate is cost feasible and the excavation of sediment from the lakebed is cost prohibitive. He noted some future considerations which included: evaluating long-term benefit of slide gate using 20-40 years of rain data, but adjusted for future climate change. Additionally, he considered evaluating the long-term benefit of slide gate combined with Leveroni and Bowman Canyon flow diversion using 20-40 years of rain data, but adjusted for future climate change.

President Petterle asked if there were any comments or questions from the Directors.

Director Grossi asked if pouring concrete to raise the level could be done instead of using a slide gate. Secondly, he asked what factors was used to generate the cost for the removal of sediment, noting it is about fifty dollars a cubic yard to remove dirt. Mr. Moore replied they used \$30 per cubic yard as an estimated cost for sediment removal. He added that the number is a reasonable value as a starting point. Mr. Moore added this option is a very expensive and not feasible. In answer to Director Grossi's question about filling the notch with concrete, Mr. Moore explained the notch is part of the flood control feature of the dam, his understanding is the notch

allows water to release in a controlled fashion before the water spills over the larger spillway. Director Grossi stated if you combine the storage you would end up with a complicated three-dimensional matrix. Jolly Brown Zoom chatted that the gate sounds like a great idea. Director Joly stated the gate option sounds very attractive, and asked if it would create an inundation issue when walking around the dam. Mr. Moore replied the facilities are constructed below so there should not be any potential for an issue. Director Joly stated that the average rainfall for Novato is 27 inches, and asked how many inches would it cause it to spill if analyzing inch of rain per get 700 AF. Mr. Moore stated that he has not done that calculation; however, the Stafford Lake watershed yields 353 AF per inch of rain after the first 8-10 inches. He noted with two added inches, a yield of about 700 AF would be a ball park number. Director Joly asked if it would be the metric of Leveroni and Bowman Canyon, and Mr. Moore confirmed. Mr. McIntyre stated the idea of an adjustable gate is for utilization after the January-February months, so the spillway can still act as it was designed to attenuate sudden flooding events due to heavy rainfall. Mr. McIntyre added, during spring time we could have higher water levels along the perimeter of the lake, but no higher than what is experienced during major storm events. Mr. Williams stated NMWD Senior Engineer, Tim Fvette, came up with the concept and sent it to West Yost. He added staff would have to work with the Division of Safety of Dams to approve the spillway gate and we would have more details on that later. Mr. Clark stated that in a previous report the lake generally spills 70% of the time and we would need details to see how much we would gain. Director Baker reminded the Board that 35 years ago there was a joint project initiated by Marin County Flood Control District (MCFCD) when downtown Novato flooded. He stated at that time they contributed financially to raise the top of the dam and rebuild the spillway to what it is today. Director Baker stated that the conceptual changes to modify the spillway will need to consider some standing agreements with the County of the Marin and MCFCD on who is responsible for what. Mr. Williams stated that staff has already reached out to the MCFCD and there is a benefit in this. He added when the County via the MCFCD did the Novato Watershed study, a modification of the spillway was an alternative to consider and if we decide to pursue this it will take a lot of coordination and review of any agreements in place.

President Petterle asked if any of the public had any comments or questions and there was no response.

The seventh alternative, Desalination, was presented by Kathryn Gies. Ms. Gies apprised the Board that this must be pursued as a regional partnership in order to be a viable project due to: economy of scale, environmental consideration, and the fact that there is no viable intake or brine discharge locations for NMWD. She shared some agency comparisons. Ms. Gies stated

that MMWD completed a desalination study in 2008 and again in 2021, and opted not to pursue. She noted MMWD is currently investigating a pipeline connection with EBMUD for emergency supply as an alternative option. Additionally, Ms. Gies added MMWD is proceeding with an EIR for the pipeline, which will look at desalination as an alternative, noting an estimated 15 MGD desalination plant has an estimated cost of \$230M. She noted that any desalination partnership would be a long-term project of fifteen or more years. Ms. Gies also reported that Sonoma Water is preparing a regional study and desalination is one option being evaluated. She added that if the Sonoma Water Study is not available, the findings will not be incorporated into NMWD's local study.

President Petterle asked if there were any comments or questions from the Directors.

Director Joly noted the study said that NMWD did not have an appropriate place to access the ocean water. He added he would be hesitant to wait for Sonoma Water's regional desalination report. Director Joly stated that there is an irony of running out of water when we are next to the largest body of water on the planet. He noted if other communities like Israel can bring on desalinated water then clearly, we should be at least studying the technology and not relying on water from the sky. Director Fraites stated that desalination is enormously expensive, but maybe we can look at the bay, Petaluma River or Blackpoint as an option, noting Petaluma River is brackish water, not sea water. Mr. McIntyre stated that with respect to desalination, whether is it ocean water or brackish water, we are too small of an agency to do it on our own, we need a partner. Mr. McIntyre added Sonoma Water's regional study is looking at brackish water desalination with the potential location in the Petaluma area. Director Joly stated we need not just regional money, but federal money. He noted the Bay Area is large and he would expect federal money would be available and it is worth pursuing. Director Grossi stated that he agrees that desalination is something we can not be the lead agency on, we don't have the money. He noted we will need to partner with others, whether it is MMWD, Sonoma Water, the state or federal government. Director Grossi added he also agrees desalination needs to be looked at and we need to keep monitoring the agencies around us. He noted, however, it will not solve our problems right now. Director Grossi stated that even if you got funding it would be fifteen years before you would be able to get water. He emphasized we need to look at options that will work for us now, and the report from West Yost is very beneficial to us. Director Petterle stated California is water rich, it was the coastal areas that were hit, which is why they took on desalination. He noted ultimately the solution is desalination, but it takes a regional coordination. Director Petterle stated that as an example look where solar was thirty years ago, we have made so many advances since then. Director Petterle stated that in thirty years we will see many

advances in desalination too, but we need to be realistic on the expense and the environmental consequences. Director Petterle stated we need to look at the shorter-term options, especially with ABAG decision on affordable housing units in Novato, we need solutions now.

President Petterle asked if any of the public had any comments or questions and there was no further discussion.

Rhodora Biagtan gave a presentation on Evaluation Criteria, which included: cost, water supply yield and reliability; operational impacts; regulations and permitting; public and institutional considerations and other considerations. In regards to cost Ms. Biagtan stated they considered the following: capital cost plus operations and maintenance cost estimate; cost estimates to include additional labor, material, energy and chemicals needed; compare using dollar per AF for each water supply alternative; making the cost estimate translatable to NMWD's water; noting revenue impacts that would be relative to the volume of water generated, except for new recycled water uses. In regards to water supply yield, Ms. Biagtan stated they included an estimate of the expected water supply yield. Additionally, she considered reliability and the likelihood of the water supply alternative producing the anticipated yield, noting climate change may impact the reliability. Ms. Biagtan stated that in regards to operational impacts, they evaluated the impact to distribution and treatment operations. She stated they also considered the following: challenges to blending from different supply sources; additional chemicals required to produce and maintained high-quality of water; energy intensity; and additional staff resources or special certifications required. In regards to regulations and permitting, Ms. Biagtan stated that first they need to identify the required permits and then evaluate applicable regulations and anticipated permitting requirements. She noted considerations include: environmental impacts; conformance with CEQA, permitting requirements specific to the water supply alternative and water right for alternatives that may have water rights issues. In regards to public and institutional considerations, Ms. Biagtan included: public acceptance; coordination and collaboration with other entities; need for partnerships or agreements; and required easements from other entities. In conclusion, she stated that each water supply alternative is unique and may have other important considerations that are relevant to each water supply alternative and will be discussed, but not scored.

President Petterle asked if there were any comments or questions from the Directors and there was no response.

President Petterle asked if any of the public had any comments or questions and there was no response.

Ms. Biagtan reviewed criteria ranking and weighting. She stated the criteria scoring was

based on a quantitative criterion that included cost and water supply yield. Additionally, the qualitative criteria would include: reliability; operational impacts; regulations and permitting; and public and institutional considerations. In regards to qualitative criteria priorities and weight, Ms. Biagtan stated the criteria were ranked by weight. In conclusion of the presentation, Ms. Biagtan reviewed the next steps. She stated West Yost will prepare evaluations and complete the study, they will present their findings to the Board and public in spring of 2022 and then it will be up to the Board to accept.

Director Petterle thanked West Yost and staff for a study, that he felt was done well beyond his expectations. He stated the study looked at many things he had not considered, it was fascinating discussion and it was absolutely an amazing presentation. Director Joly stated he couldn't agree more, noting it was extremely helpful for the Board and the public to see. He noted as a criteria water supply should be higher in weight; the allotment of percentage should be higher for water. Mr. Williams stated if we don't have supply, we don't have water. He added we want to look at the other factors, and he agrees in principal, but other impacts do have weight. Director Joly stated in reference to water enhancement, our partner Sonoma Water has a three well storage program and just got a \$9M grant. Mr. Williams replied, in talking about catchment, or water from the sky", we need to look at the regional aquifer storage and recovery, as well stormwater storage and aquifer recharge known as flood-managed aquifer recovery. He added we can take stormwater and put it back in the ground and extract it during dry periods, noting Sonoma Water is looking at this as part of the regional study.

ADJOURNMENT

President Petterle adjourned the meeting at 7:30 p.m.

Submitted by



Theresa Kehoe
District Secretary