NORTH BAY WATER DISTRICT
22950 BROADWAY, SONOMA, CA 95476
Board of Directors

Mike Mulas, President and Chair (Sonoma Valley); Craig Jacobsen, Vice-President (Petaluma Valley); Carolyn Wasem, Secretary (Petaluma Valley); Matthew Stornetta, Treasurer (Sonoma Valley); and Mike Sangiacomo (Sonoma Valley)

PVGSA Advisor: Eugene Comozzi SVGSA Advisor: Jim Bundschu

MEETING MINUTES

Date: September 8, 2020
Time: 6:00 PM
Location: 22950 Broadway, Schell-Vista Station #1 (via Teleconference due to Covid-19 Shelter-in-Place Order)

1. CALL TO ORDER/ROLL CALL
   Chair, Mike Mulas, called the meeting to order at 6:04 p.m. Chair Mike Mulas, Director(s) Craig Jacobsen, Matt Stornetta, Mike Sangiacomo, and Carolyn Wasem were present.

   Also, in attendance Counselor Richard Idell, GSA Advisor Mike Martini, and Advisor Eugene Comozzi.

2. CLOSED SESSION
   There were no closed session items.

3. PUBLIC COMMENT PERIOD
   There were no public comments.

4. APPROVAL OF MINUTES OF PREVIOUS MEETING
   Director Jacobsen asked for a table of the minutes. Director Sangiacomo seconded. Minutes from the August meeting will be considered for approval at the next meeting.

5. FINANCIAL REPORT
   Chair Mulas reported that there was no update to the financials. The financials will also be considered for approval at the next meeting.

6. ITEMS FOR CONSIDERATION

Item 1. **Counselor Richard Idell**

Counselor Richard Idell informed the Board that he will further explore the Board of Supervisors actions related to NBWD bylaws. County Counsel asked if NBWD has a conflict of interest policy.

Item 2. Director Mike Sangiacomo

Director Sangiacomo shared that they had not been a GSA meeting since July 27. Therefore, there was little to report.

Item 3. Director Carolyn Wasem

Director Wasem reported that the last GSA meeting was held on August 27. NBWD was shown as in arrears in their payment for their participation in the GSA. At that meeting, the GSA Board approved expenditures of Proposition 68 grant dollars of $533,000. The expenditures associated with that funding will cover the following:

Monitoring Wells: $346,900
Pilot Geophysics Project: $25,500
Technical Services: GW Use Estimates Land Use Planning: $94,200
Community Stakeholder Engagement: $66,400

Ann Dubay then discussed the Rural Community Engagement Contract. The outside consultant was considered for the purpose of community outreach and advocacy for participation from rural groundwater (including agriculture) in a plan and a fee structure associated with pumping groundwater.

The GSA Directors also received an update on the Advisory Committee activities. The last meeting focused on seawater levels and land subsidence in the basin. The Advisory Committee supported recommendations for managing Sustainable Management Criteria on Seawater Intrusion and Land Subsidence, including:

- Inelastic subsidence due to groundwater pumping is unreasonable
- Cumulative total subsidence of 0.2 feet is exceeded within 5-year period is also unreasonable
- Seawater intrusion inland of areas of brackish groundwater is considered unreasonable
- Correlation between groundwater use and land subsidence and seawater intrusion will be assessed

- Minimum Thresholds of 250 mg/L chloride
- While zero inelastic subsidence due to pumping is the desire, the proposed annual MT is 0.1 feet per year of total subsidence is suggested.
- The MT will also represent the MO (Measurable Objective) MT was set as a 250 mg/L chloride reference isocontour and undesirable result determination will incorporate a) three consecutive years of MT exceedances and b) correlation with groundwater levels.

The Advisory Committee voted to support the above referenced MTs.

Jay Jaspers and Marcus Trotta reviewed the Sustainable Management Criteria. Those criteria include:

1) Chronic lowering of groundwater
2) Significant and unreasonable reduction of groundwater storage
3) Significant and unreasonable seawater intrusion
4) Significant and unreasonable degraded water quality, including the migration of containment plumes that impair water supply
5) Significant and unreasonable land subsidence
6) Depletion of interconnected surface water that impact streams and wetlands.

The draft of the SMCs to address each of these criteria impacts will be created over the next few months. Once those are developed the GSA will evaluate whether management programs or projects are necessary to avoid undesirable results. Staff anticipates an adaptive management program, where projects and programs may change over time to addressed changing conditions. The following criteria will be addressed:

Sea Water Intrusion: There is not enough water quality data to establish options to determine undesirable results. This is where NBWD has an opportunity through collective ground water monitoring.

Groundwater Use in Brackish Areas: It is assumed that there is a natural interface with seawater on the southern portion of the basin. However, there are significant data gaps to understand what is natural or created by groundwater uses. The proposed SMC does not account for well uses partially because it has a

baseline year of 2015 (for seawater intrusion). Wells have been pumped for a century in that area. Additionally, there is a relatively small use of well water in this basin and the belief is that the salinity has not been caused by groundwater pumping.

Sea Level Rise: The GSA will need to evaluate the impacts of sea level rise through modeling in conjunction with sea level rise projections. This will require a monitoring and assessment program.

Land Use Impacts: Historical land uses have had an impact on saline and freshwater surface areas. The staff for the GSA will coordinate with ongoing efforts to assess sea level impacts.

Connate Water: Management of high salinity connate water will not be covered by the SMC.

In terms of Definitions:
Significant and Unreasonable Conditions: Seawater intrusion inland of areas of existing brackish groundwater due to groundwater pumping.

Minimum Threshold: Conditions that are to be avoided to ensure substantial groundwater conditions. The MT for seawater intrusion must be defined by an isocontour of chloride. The acceptable boundary of chloride concentrations is 250 mg/l in groundwater.

Measurable Objective (MO): The MO is the isocontour of chloride concentrations in groundwater that represents a goal to maintain or improve optimal protection of groundwater conditions from seawater intrusion. The MO isocontour can be based on a different chloride concentration and have a different aerial extent than the MT reference isocontour, or it can be the same. The AC recommends that the MO be the same location and same concentration as the Minimum Threshold (e.g., 250 mg/l inland of baseline isocontour).

Undesirable Results: The draft SMC proposes that an undesirable result occurs when two conditions are met: (1) the Minimum Threshold is triggered because the monitoring data indicates that the current extent of the 250 mg/l chloride isocontour encroaches inland relative to the MT Reference contour for three

consecutive years; and (2) the MT exceedance is caused by groundwater pumping.

The Draft SMC proposes that undesirable results will be evaluated as follows:

1) Chloride water quality data collected at least semiannually
2) Annually averaging the twice annual collection of the data
3) MT would be triggered if three consecutive years of baseline isocontours show encroachment of beyond reference isocontours.
4) The MT must be caused by groundwater pumping. This will be determined by water level and chloride content data.

The GSA was then provided an update on land subsidence criteria. Considerations are as follows:

1. Ability to determine when subsidence is permanent and/or related to groundwater pumping.
2. Existing data does not indicate issues regarding subsidence.

Definitions for the Land Subsidence SMCs include:
Definition of Significant and Unreasonable Conditions: Any inelastic subsidence caused by groundwater pumping is a significant and unreasonable condition, everywhere in the sub basin and regardless of the beneficial uses and users.

Minimum Threshold (MT): MT represents conditions that are to be avoided to ensure sustainable groundwater conditions. The minimum threshold for land subsidence shall be the rate and extent of subsidence that substantially interferes with surface land uses and may lead to undesirable results.

Measurable Objective (MO): The MO is the aspirational goal to achieve optimal protection of groundwater conditions. The proposed MO is the same as the MT given that zero subsidence related to groundwater pumping is the significant and unreasonable condition.

Undesirable Results: An exceedance of the MT (0.1 feet per year of total subsidence); or (2) within a five-year period cumulative total subsidence exceeds .2 feet in any area. AND subsidence is determined to be correlated with a) groundwater pumping and b) a MT exceedance of a of the Chronic Lowering of GWLS below historic levels.

Item 4. Advisor Comozzi

Advisor Comozzi shared that the Advisory Committee were discussing the following items:

1. Defining current level of groundwater quality management and coordination
2. Determining metric to quantify degraded water quality
3. Identifying groundwater beneficial uses/users
4. Identifying contaminants of concern [COC(s)]
5. Determining the limits and concentrations of COCs
6. Identifying existing water quality monitoring programs that can be utilized
7. Establishing SMC

Marcus Trotta shared at the last meeting a flow chart of responsibilities of the Advisory Committee. Our primary responsibility is identifying project concepts and management actions, setting interim milestones and finally recommending projects and actions to the GSA.

Examples of Conceptual Projects and Management Actions and Responsibilities for the Advisory Committee (specific to industries) include:

- Identify and assemble Project Concepts and Management Actions into grouped activities and scenarios
- Re-evaluate and refine SMCs, Projects and Management Actions
- Set and Finalize Interim Milestones
- Recommend Projects and Management Actions

Examples of Conceptual Projects, specific to agriculture include:

1. Groundwater recharge via stormwater capture
2. Redistribution of pumping (if new wells are required)
3. Enhanced conservation and water use efficiency programs
4. Pumping demand reductions
5. *No increase in groundwater demand with new development*

Screening criteria for conceptual models:

1. Technically/legally feasible (?)
2. Data available to demonstrate project will help avoid minimum thresholds and enhance achievement
3. Enhances groundwater yield/or reduces demand.

4. Implementation planned within 20 years
5. Funding mechanism for project identified.

The process is moving forward and many on the Advisory Committee don't see that they have a lot of impact. The Farm Plan is something that needs to be shared with the Advisory Committee.

Item 5. Advisor Jim Bundschu

The Sonoma Valley Advisory Committee just wrapped up. The impression was that saltwater intrusion and land subsidence decisions have not been made. One of the major topics of discussion was developing the metric for measuring groundwater quality conditions. Next actions that need to be considered:

- Identify list of beneficial users that may be impact by groundwater degradation
- Identify contaminants of concern (COC) associated with beneficial uses

Setting Sustainable Management Criteria will likely entail the following steps:

1. Defining level of groundwater quality management and coordination required (levels and water quality)
2. Determine type of metric: Three Options: 1) volume of affected water; 2) location a COC concentration; and 3) Number of affected supply wells
3. Determine and identify beneficial users
4. Define COCs for beneficial users
5. Determine limits of concentrations for each COC
6. Identify existing water quality monitoring programs that can be used

Note: The presentation did not assign any responsibilities to NBWD or the Ag Community. NBWD has a real role to play here.

7. Establish Sustainable Management Criteria

The Advisory Committee was asked to take a straw vote. *There are only 12 months to present the final plan to the Water Boards*. Andrew Rich will present an estimate of overdraft and sustainable yields. Everything in the model is an estimate. Andrew is not certain how to estimate rural domestic pumping. The water budget is very technical, and all done on estimates. Advisor Bundschu suggested that someone needs to go over the water budget for agriculture users.

Item 6. NBWD Advisor Mike Martini

In terms of the agriculture water budgets presented, they are estimates. In a conversation with Dr. Boulton, the outside engineers hired by the GSA, and Sonoma Water, Dr. Boulton strongly suggested that he could provide and the GSP should use real numbers. Dr. Boulton argued against the assumptions of the water budget Advisor Bundschu discussed. This is the time that we need to arm ourselves with real data. At the close of the meeting referenced earlier with Sonoma Water and outside engineer consultants, there seemed to be interest in using Dr. Boulton's numbers.

Advisor Bundschu commented that the model is complete and is several pages long. The model is public information. According to the model, Sonoma Valley groundwater basin is being overdrafted about 900-acre feet a year. There are 14 pages leading up to that conclusion.

The Climate Change model was presented by Marcus. There are two different presentations by DWR re: formatting for climate change a 4.5 a moderate condition on the climate projections. 8.5 is more dramatic. There was division within the advisors in which approach to use. Therefore, no decision was made.

Director Stornetta referenced a model from the Santa Rosa Plain that had been completed and were either of these the model referenced?

Advisor Bundschu shared that Marcus Trotta made the comment that it will be twice as expensive to run both climate models. For water quality: nitrate and boron for data used in the GSP. Saltwater is a different issue and we were asked to take a vote – what acreage to use for land subsidence. Do they want to use 250 m/l for chloride? They are going to drill four test wells around the boundary.

Director Stornetta further suggested that they are considering the isocontours for measuring saltwater intrusion. One other item in the packet, our next meetings we are going to discuss projects to sustainably manage groundwater. The water agency is stating what needs to be done to approve projects and what the ongoing management criteria are.

Criteria under consideration include:

- Conducting Business of GSA
- Implementing Policies and Procedures

- Annual Data Report
- Implementing Groundwater Monitoring
- Fill Data gaps on Groundwater Monitoring
- Maintaining and Updating Models
- Preparing 5-year Progress
- Making Appropriate Changes to Plan and Directing Actions
- Providing Oversight and Implementing Capital Projects in the Basin

From Director Stornetta's perspective, the Advisory Committee tends to focus on the extreme option.

Guest Martini shared that he discussed with Mark Bramfitt (Director of LAFCO) expansion of the District. The documentation associated with expansion can be done in-house and or we can use an outside service. A $10K number is adequate. The main criteria:

1) Adequate funding
2) Adapt an assessment strategy
3) All elections are based on land value
4) District does not require contiguity

The biggest hurdle that this organization (NBWD) must figure out is a funding mechanism. There are 5,400 acres listed as irrigate vineyards.

We had earlier estimated that $42,000 needed. However, LAFCO has a different perspective. I would suggest that $100,000 is the threshold that they believe the District must meet in terms of appearing real and to garner support from LAFCO staff.

7. ADJOURNMENT

Director Mulas asked for other business. Seeing no other Business, Carolyn Wasem made the motion for adjournment. Director Jacobsen second the motion. The meeting was adjourned at 7:10 pm.

The next meeting is scheduled for October 13th.