May 6, 2021

MEETING NOTICE

WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE

Members of the Water Conservation and Demand Management Committee:
Director Nai Hsueh, Committee Vice Chair
Director Barbara Keegan
Director Linda J. LeZotte, Committee Chair

Staff Support of the Water Conservation and Demand Management Committee:
Rick Callender, Esq., Chief Executive Officer
Melanie Richardson, Assistant Chief Executive Officer
Aaron Baker, Chief Operating Officer, Water Utility
Rachael Gibson, Chief of External Affairs
Anthony Fulcher, Interim District Counsel
Gregory Williams, Deputy Operating Officer, Raw Water Division
Vincent Gin, Deputy Operating Officer, Water Supply Division
Bhavani Yerrapotu, Deputy Operating Officer, Treated Water Operations & Maintenance Division
Donald Rocha, Deputy Administrative Officer, Office of Government Relations
Bart Broome, Assistant Officer, Office of Government Relations
Antonio Alfaro, Government Relations Advocate, Office of Government Relations
Kirsten Struve, Assistant Officer, Water Supply Division
Vanessa De La Piedra, Groundwater Management Manager, Groundwater Monitoring and Analysis Unit
Metra Richert, Unit Manager of the Water Supply Planning and Conservation Unit, Water Supply Division,
Samantha Greene, Senior Water Resources Specialist, Water Supply Planning & Conservation Unit
Karen Koppett, Senior Water Conservation Specialist, Water Supply Planning & Conservation Unit
Justin Burks, Senior Water Conservation Specialist, Water Supply Planning & Conservation Unit

The regular meeting of the Water Conservation and Demand Management Committee is scheduled to be held on **Monday, May 10, 2021 at 11:00 a.m.** Join Zoom Meeting Link: https://valleywater.zoom.us/j/92597340524.

The meeting agenda and corresponding materials are located on our website: https://www.valleywater.org/how-we-operate/committees/board-advisory-committees or https://www.valleywater.org/sites/default/files/WCaDMC-Agenda-05102021.pdf.

May 10, 2021, Water Conservation and Demand Management Committee Meeting

Join Zoom Meeting
https://valleywater.zoom.us/j/92597340524

Meeting ID: 925 9734 0524
One tap mobile
+16699009128,,92597340524# US (San Jose)

Dial by your location
+1 669 900 9128 US (San Jose)
Meeting ID: 925 9734 0524

Santa Clara Valley Water District
Water Conservation and Demand Management Committee

Teleconference via Zoom
Join Zoom Meeting
https://valleywater.zoom.us/j/92597340524

REGULAR MEETING
AGENDA

Monday, May 10, 2021
11:00 AM

District Mission: Provide Silicon Valley safe, clean water for a healthy life, environment and economy.

BOARD REPRESENTATIVES:
Director Nai Hsueh, Committee Vice Chair
Director Barbara Keegan
Director Linda J. LeZotte, Committee Chair

During the COVID-19 restrictions, all public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body, will be available to the public through the legislative body agenda web page at the same time that the public records are distributed or made available to the legislative body, or through a link in the Zoom Chat Section during the respective meeting. Santa Clara Valley Water District will make reasonable efforts to accommodate persons with disabilities wishing to participate in the legislative body's meeting. Please advise the Clerk of the Board Office of any special needs by calling (408) 265-2600.

Ms. Kirsten Struve
(Staff Liaison)

Ms. Glenna Brambill, (COB Liaison)
Management Analyst II
gbrambill@valleywater.org
1-408-630-2408

Note: The finalized Board Agenda, exception items and supplemental items will be posted prior to the meeting in accordance with the Brown Act.

Santa Clara Valley Water District
Water Conservation and Demand Management Committee

REGULAR MEETING
AGENDA

Monday, May 10, 2021	11:00 AM	Teleconference via Zoom

IMPORTANT NOTICES

This meeting is being held in accordance with the Brown Act as currently in effect under the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20 issued on March 17, 2020, that allows attendance by members of the Committee, staff, and the public to participate and conduct the meeting by teleconference, videoconference, or both.

Members of the public wishing to address the Committee during a video conferenced meeting on an item not listed on the agenda, or any item listed on the agenda, should use the "Raise Hand" tool located in Zoom meeting link listed on the agenda. Speakers will be acknowledged by the Committee Chair in the order requests are received and granted speaking access to address the Committee.

Santa Clara Valley Water District (Valley Water) in complying with the Americans with Disabilities Act (ADA), requests individuals who require special accommodations to access and/or participate in Valley Water Committee meetings to please contact the Clerk of the Board's office at (408) 630-2711, at least 3 business days before the scheduled meeting to ensure that Valley Water may assist you.

This agenda has been prepared as required by the applicable laws of the State of California, including but not limited to, Government Code Sections 54950 et. seq. and has not been prepared with a view to informing an investment decision in any of Valley Water's bonds, notes or other obligations. Any projections, plans or other forward-looking statements included in the information in this agenda are subject to a variety of uncertainties that could cause any actual plans or results to differ materially from any such statement. The information herein is not intended to be used by investors or potential investors in considering the purchase or sale of Valley Water's bonds, notes or other obligations and investors and potential investors should rely only on information filed by Valley Water on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access System for municipal securities disclosures and Valley Water's Investor Relations website, maintained on the World Wide Web at https://emma.msrb.org/ and https://www.valleywater.org/how-we-operate/financebudget/investor-relations, respectively.

Under the Brown Act, members of the public are not required to provide identifying information in order to attend public meetings. Through the link below, the Zoom webinar program requests entry of a name and email address, and Valley Water is unable to modify this requirement. Members of the public not wishing to provide such identifying information are encouraged to enter "Anonymous" or some other reference under name and to enter a fictional email address (e.g., attendee@valleywater.org) in lieu of their actual address. Inputting such values will not impact your ability to access the meeting through Zoom.

Join Zoom Meeting:
https://valleywater.zoom.us/j/92597340524

Meeting ID: 925 9734 0524
One tap mobile
+16699009128,,92597340524# US (San Jose)

1. CALL TO ORDER:

1.1. Roll Call.

2. TIME OPEN FOR PUBLIC COMMENT ON ANY ITEM NOT ON THE AGENDA.

Notice to the Public: Members of the public who wish to address the Committee on any item not listed on the agenda should access the "Raise Hand" tool located in Zoom meeting link listed on the agenda. Speakers will be acknowledged by the Committee Chair in order requests are received and granted speaking access to address the Committee. Speakers comments should be limited to two minutes or as set by the Chair. The law does not permit Committee action on, or extended discussion of, any item not on the agenda except under special circumstances. If Committee action is requested, the matter may be placed on a future agenda. All comments that require a response will be referred to staff for a reply in writing. The Committee may take action on any item of business appearing on the posted agenda.

3. APPROVAL OF MINUTES:

3.1. Approval of Minutes. 21-0459

Recommendation: Approve the April 12, 2021, Meeting Minutes.
Manager: Michele King, 408-630-2711
Attachments: Attachment 1: 04122021 WCaDM Comm DRAFT Mins
Est. Staff Time: 5 Minutes

4. ACTION ITEMS:

4.1. Water Conservation Program and Spring and Summer Outreach Campaigns. 21-0460

Recommendation:
1. Receive, review, and discuss information on water conservation programs, and
2. Receive, review, and discuss information on spring and summer outreach campaigns.

Manager: Kirsten Struve, 408-630-3138

Attachments: Attachment 1: PowerPoint Presentation

Est. Staff Time: 15 Minutes

4.2. 2020 Urban Water Management Plan Update. 21-0461

Recommendation: Provide update on draft 2020 Urban Water Management Plan and recommend bringing the plan to the June 8, 2021 Board meeting for public hearing and plan adoption.

Manager: Vincent Gin, 408-630-2633

Attachments: Attachment 1: PowerPoint Presentation

Est. Staff Time: 15 Minutes

4.3. Monitoring Assessment Program Update: Risk Assessment and Climate Analysis. 21-0462

Recommendation: Receive and discuss information on the Monitoring and Assessment Program risk assessment and climate change analysis.

Manager: Kirsten Struve, 408-630-3138

Attachments: Attachment 1: Sources of Risk
Attachment 2: Participant List
Attachment 3: PowerPoint Presentation

Est. Staff Time: 15 Minutes

4.4. Sustainable Groundwater Management Act (SGMA) Update. 21-0463

Recommendation: This is an information only item and no action is required.

Manager: Greg Williams, 408-630-2867

Attachments: Attachment 1: PowerPoint Presentation

Est. Staff Time: 15 Minutes

4.5. Review Water Conservation and Demand Management Committee Work Plan, the Outcomes of Board Action of Committee Requests; and the Committee's Next Meeting Agenda. 21-0464

Recommendation: Review the Committee work plan to guide the committee's discussions regarding policy alternatives and implications for Board deliberation.

Manager: Michele King, 408-630-2711

Attachments: Attachment 1: 2021 WCaDMC Work Plan
Attachment 2: Work Plan Discussion

Est. Staff Time: 10 Minutes

5. CLERK REVIEW AND CLARIFICATION OF COMMITTEE REQUESTS.

This is an opportunity for the Clerk to review and obtain clarification on any formally moved, seconded, and approved requests and recommendations made by the Committee during the meeting.

6. ADJOURN:

6.1. Adjourn.

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Santa Clara Valley Water District

File No.: 21-0459

Agenda Date: 5/10/2021
Item No.: 3.1.

COMMITTEE AGENDA MEMORANDUM

Water Conservation and Demand Management Committee

SUBJECT:
Approval of Minutes.

RECOMMENDATION:
Approve the April 12, 2021, Meeting Minutes.

SUMMARY:
A summary of Committee discussions, and details of all actions taken by the Committee, during all open and public Committee meetings, is transcribed and submitted for review and approval.

Upon Committee approval, minutes transcripts are finalized and entered into the District's historical records archives and serve as historical records of the Committee's meeting.

ATTACHMENTS:
Attachment 1: 04122021 WCaDMC Meeting Minutes

UNCLASSIFIED MANAGER:
Michele King, 408-630-2711

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WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE MEETING

DRAFT MINUTES

MONDAY, APRIL 12, 2021
11:30 AM

A special scheduled meeting of the Water Conservation and Demand Management Committee was held on April 12, 2021, via zoom in San Jose, California.

1. CALL TO ORDER/ROLL CALL

Committee Chair, Director Linda J. LeZotte called the meeting to order at 11:34 a.m.

Board Members in attendance were: Committee Vice Chair, Director Nai Hsueh-District 5, Director Barbara Keegan-District 2, Committee Chair, Director Linda J. LeZotte-District 4.

Staff members in attendance were: Aaron Baker, Glenna Brambill, Bart Broome, Justin Burks, Rick Callender, Theresa Chinte, Vanessa De La Piedra, Vincent Gin, Andy Gschwind, Jason Gurdak, Linh Hoang, Matt Keller, Karen Koppett, Metra Richert, Ashley Shannon, Kirsten Struve, and Gregory Williams.

Guest Agencies in attendance were: Diane Asuncion (City of Santa Clara), John Tang and Bill Tuttle (San Jose Water Company).

Public in attendance were: Doug Muirhead and William (Bill) Sherman.

2. TIME OPEN FOR PUBLIC COMMENT ON ANY ITEM NOT ON AGENDA

There was no one present who wished to speak.

3. APPROVAL OF MINUTES

3.1 APPROVAL OF MINUTES

It was moved by Director Nai Hsueh, seconded by Director Barbara Keegan, and carried by roll call and unanimous vote, to approve the minutes of the March 30, 2021, Water Conservation and Demand Management Committee meeting as presented.

4. ACTION ITEMS

4.1 UPDATE ON 2021 WATER SUPPLY CONDITIONS AND WATER CONSERVATION PROGRAM

Mr. Justin Burks and Mr. Matt Keller reviewed the materials as outlined in the agenda items

The Water Conservation and Demand Management Committee discussed the following: partnering with nurseries, native plant societies, water savings, Rebate Program, lawn conversion, retooling of the application process, those that are already conserving, tailoring the message in different categories, low, middle, high water consumers (users), 20% current water conservation goal needs to be clearly communicated in the messaging.

Mr. Doug Muirhead commented:

1. Groundwater Modeling average recharge 75k AF and what it is compared to, well depths are affected equally, and
2. Great job with managing Groundwater basin and continue to remind people of relying on State/Federal allocation during drought and planning future forecasting.

The Water Conservation and Demand Management Committee took the following action:

It was moved by Director Barbara Keegan, seconded by Director Nai Hsueh, and carried by roll call and unanimous vote, to approve:

1. Support maintaining current voluntary call for conservation
2. Recommends the Board direct staff to increase water conservation messaging, programs to inspire additional water savings, and
3. The Committee also recommended the outreach messaging include the following suggestions since the messaging is being developed to tailor the message:
    - To those that are conserving vs those that are not, (what should be done if someone is not conserving),
    - Encourage those that are already conserving and what tools/suggestions for them to continue,
    - To be user-friendly,
    - That the 20% water conservation message mention the base year (2013 or other year)
    - Conservation goal objective be clear—whether a number of 15% or 20% is going to be used (or not).

4.2 REVIEW WATER CONSERVATION AND DEMAND MANAGEMENT COMMITTEE WORK PLAN, THE OUTCOMES OF BOARD ACTION OF COMMITTEE REQUESTS; AND THE COMMITTEE'S NEXT MEETING AGENDA

Ms. Glenna Brambill reviewed the materials as outlined in the agenda items.

Ms. Vanessa De La Piedra answered Mr. Doug Muirhead's concern about the 5-year update to the District's Groundwater Sustainability Plan (GSP) which is due to the

Depart of Water Resources by January 1, 2022. She will bring the SGMA item to the next agenda if the Committee is ready.

The Committee agreed to have Vice Chair Director Nai Hsueh work on the Committee's work plan since meeting with the Chair would constitute a quorum.

Ms. Kirsten Struve would like to recommend the next steps items for the next agenda: Urban Management-Monitoring Assessment Program, Water Conservation Program, Spring/Summer Outreach.

The Water Conservation and Demand Management Committee will schedule a meeting the week of May 10, 2021.

5. CLERK REVIEW AND CLARIFICATION OF COMMITTEE'S REQUESTS

Ms. Glenna Brambill stated there was one action item for Board consideration.

Agenda Item 4.1

The Committee by a roll call vote unanimously approved

1. Support maintaining current voluntary call for conservation
2. Recommends the Board direct staff to increase water conservation messaging, programs to inspire additional water savings, and
3. The Committee also recommended the outreach messaging include the following suggestions since the messaging is being developed to tailor the message:
    - To those that are conserving vs those that are not, (what should be done if someone is not conserving),
    - Encourage those that are already conserving and what tools/suggestions for them to continue,
    - To be user-friendly,
    - That the 20% water conservation message mention the base year (2013 or other year)
    - Conservation goal objective be clear—whether a number of 15% or 20% is going to be used (or not).

6. ADJOURNMENT

Committee Chair Director Linda J. LeZotte adjourned at 12:19 p.m.

Glenna Brambill
Board Committee Liaison
Office of the Clerk of the Board

Approved:

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File No.: 21-0460

Agenda Date: 5/10/2021
Item No.: 4.1.

COMMITTEE AGENDA MEMORANDUM

Water Conservation and Demand Management Committee

SUBJECT:
Water Conservation Program and Spring and Summer Outreach Campaigns.

RECOMMENDATION:
1. Receive, review, and discuss information on water conservation programs, and
2. Receive, review, and discuss information on spring and summer outreach campaigns.

SUMMARY:
Conditions in the State of California continue to be very dry, with Santa Clara County being classified by the U.S. Drought Monitor as being in severe drought. On April 21st, Governor Newsom declared a regional drought emergency for Mendocino and Sonoma counties. Therefore, it is important to review current conditions, find efficiency improvements in water conservation programs, and optimize outreach campaigns to raise awareness of drought conditions and the need for water conservation, and drive conservation-oriented behavioral change and participation in water conservation programs.

Water Conservation Program

Landscape Conversion Rebate

Santa Clara Valley Water District (Valley Water) continues to promote our many conservation programs, saving nearly 75,000 acre-feet of water in the last fiscal year. Valley Water continues to work towards achieving long-term water conservation savings goals of 99,000 acre-feet of water per year by 2030, and 109,000 acre-feet of water per year by 2040, as established in the Water Supply Master Plan 2040.

During the April 12th Water Conservation and Demand Management Committee, the committee supported the recommendation to utilize approximately $700,000 a year of Safe, Clean Water Measure S funding in fiscal years 2022 and 2023 to increase Landscape Rebate Program's Landscape Conversion Rebates from $1 per square foot to $2 for all qualifying properties, and to increase the maximum rebate from $2,000 to $3,000 for single-family homes, as was done in April 2014 during the last drought. Valley Water has initiated the process for finding and allocating sufficient resources, including recruitment of additional support staff (i.e., interns, temporary staff, temporary re-assignment/rotation, and permanent hires).

Our City Forest

During the April 12th Water Conservation and Demand Management Committee, the committee received an update on expanding Valley Water's partnership with a local nonprofit organization, Our City Forest, to offer the Lawn Busters Program to low-income community members, US veterans, and other disadvantaged community members. Valley Water will also utilize Safe, Clean Water Measure S funding to offer educational services by Our City Forest. The Agreement has been drafted and will be brought to the June 8th Board meeting.

Shopping Cart
The latest efficiency improvement to the water conservation program is the online shopping cart feature in which residents and businesses can order, at no charge, water conservation tools and equipment. Water Conservation and Communications collaborated on a successful social media promotional piece that resulted in over 300 orders in less than seven days. In total during that time, over 1,600 products were ordered including leak detection tablets (370), garden hose nozzles (361), faucet aerators (270), showerheads (136), shower timers (167), promotional rebate yard signs, and more. All of this water-saving material had been available to order, but by providing a single tool and a simple interface to request items demand skyrocketed. Additionally, as the tools are sent to customers directly, this is a safe and cost-effective way to get this water saving equipment to the community. This new feature will continue to be promoted throughout the spring and summer. The Water Conservation Savings Model will calculate savings from delivered showerheads, faucet aerators, and other measures with tangible savings associated with them.

Fixture Replacement Program
The Fixture Replacement Program offers free direct installation services to commercial, industrial, institutional, and multi-family properties throughout Santa Clara County, including low-income or disadvantaged communities. This program replaces 1.6 gallon per flush or higher toilets with the most water efficient models compatible with a participating property. Through replacing inefficient showerheads, urinals, faucet aerators, and more water-using fixtures free of charge, this program will produce additional water savings. The Fixture Replacement Program provides an opportunity for providing efficient customer service with strong potential of cost-effective water savings for each participating property.

Public Outreach and Campaign Efforts
Staff is developing the new summer campaign focused on highlighting Valley Water's conservation programs. Staff has worked with a vendor to develop summer campaign marketing concepts, and will conduct focus groups in May to determine which concepts resonate the most and are most effective at driving behavioral change. Valley Water staff also will continue to work with retailers to share messaging throughout the spring and summer campaigns.

The creation of new yard signs for the current spring campaign and development of additional signs for the upcoming summer campaign is underway. In the short-term, staff will prioritize distributing existing yard signs that promote the Landscape Rebate Program and Graywater Rebate Program through the online shopping cart. Yard signs for the summer campaign are under development and will focus on highlighting Valley Water's conservation programs.

When in-person community events resume, staff also will resume hosting Valley Water booths and

the water truck at targeted events, where staff will conduct drought awareness outreach, including highlighting Valley Water's water conservation services and rebate programs.

ATTACHMENTS:
Attachment 1: PowerPoint Presentation

UNCLASSIFIED MANAGER:
Kirsten Struve, 408-630-3138

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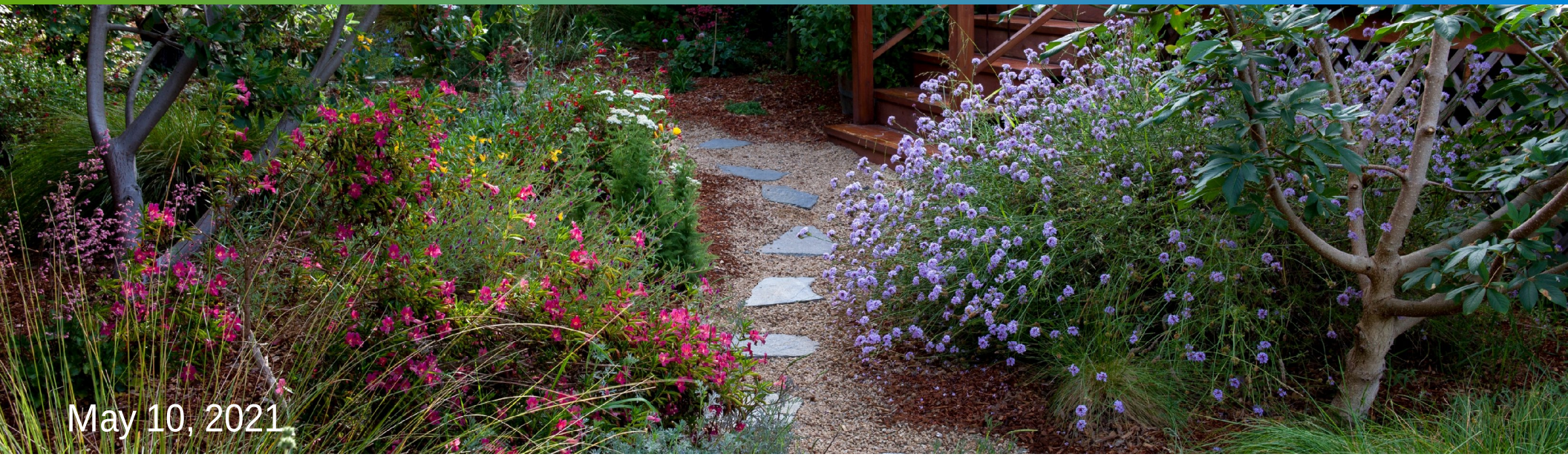
Water Conservation and Demand Management Committee

Update on 2021 Water Supply Conditions and discuss water conservation programs and outreach campaigns.



May 10, 2021

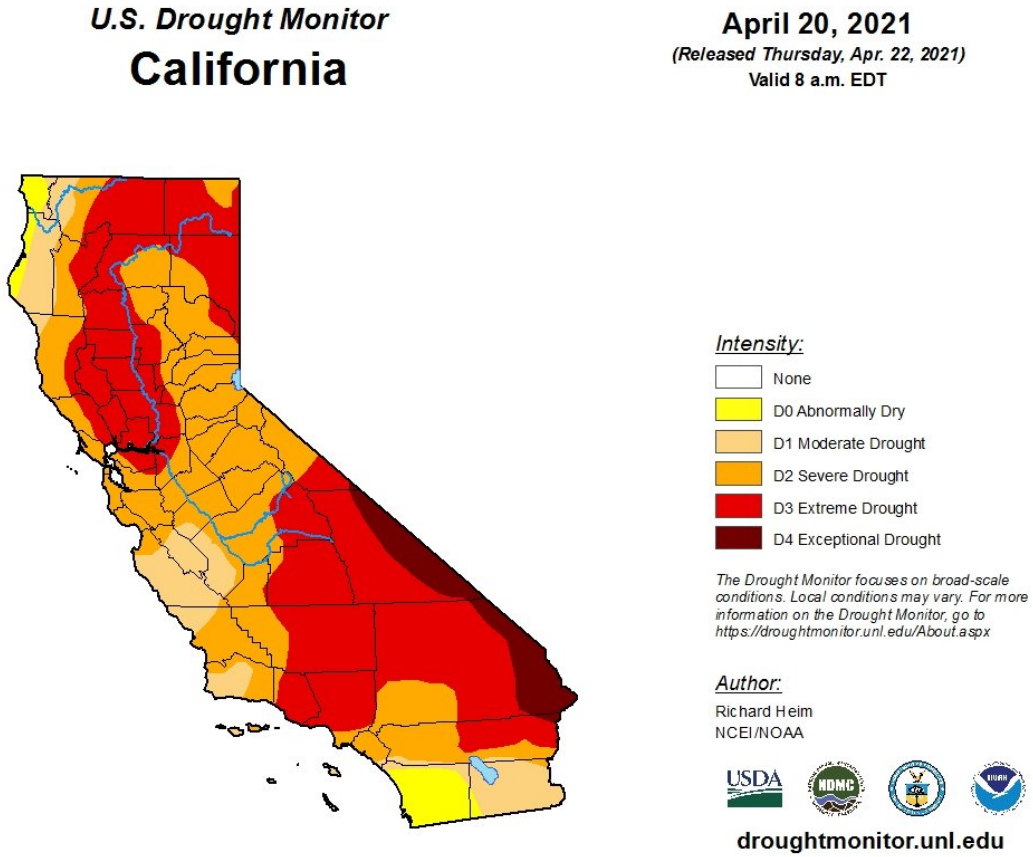
Valley Water

Valley Water

Clean Water • Healthy Environment • Flood Protection

2021 Initial Local Outlook

- Rainfall year total: 46% of average
- Snowpack: 66% of normal
- Local Reservoir Storage: 26% of average
- SWP Allocations: 5%
- CVP Allocations: 55%/5%



Valley Water

Program Updates

Recruitments started to assist with increased demand from increased Landscape Conversion Rebate amount beginning July 1, 2021.

Agreement drafted to increase low-income, disabled, and veteran rebates through Our City Forest partnership

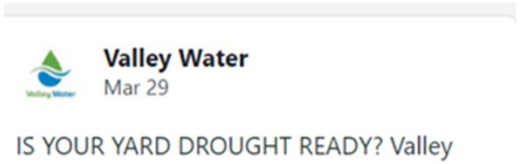
Improve how Valley Water interacts with customers through new technology, starting with the shopping cart tool

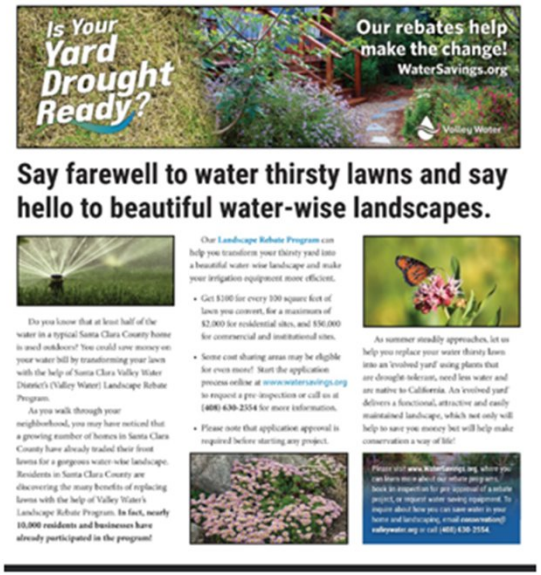
Shopping Cart

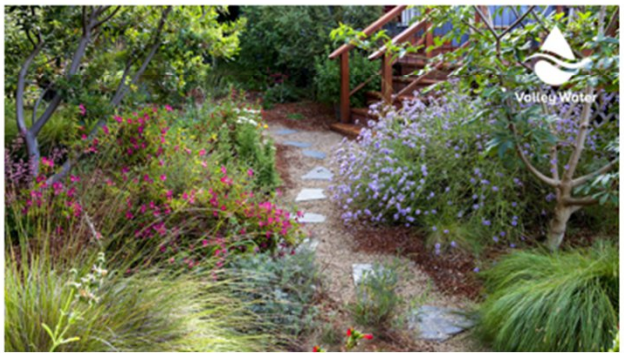
Over 320 requests in the first week!

Top Products	
Leak Detection Tablets for toilets	370
Garden Hose Nozzle	361
Aerator - Bathroom (1.0 gpm)	270
Moisture Meter	189
Toilet Flapper (blue)	172
Shower Timer	167
Toilet Flapper (red)	162
Showerhead (1.75 gpm)	136
Irrigation Screwdriver	129

Water Conservation Spring Campaign







valleywater.org

Valley Water

Next Steps

Next Steps

- Implement Landscape Conversion Rebate increase starting July 1, 2021
- Increase water conservation messaging to inspire additional water savings
- Returning to next scheduled meeting to discuss
    - Water Conservation Program
    - Spring and Summer Outreach Campaigns

QUESTIONS

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Santa Clara Valley Water District

File No.: 21-0461

Agenda Date: 5/10/2021
Item No.: 4.2.

COMMITTEE AGENDA MEMORANDUM

Water Conservation and Demand Management Committee

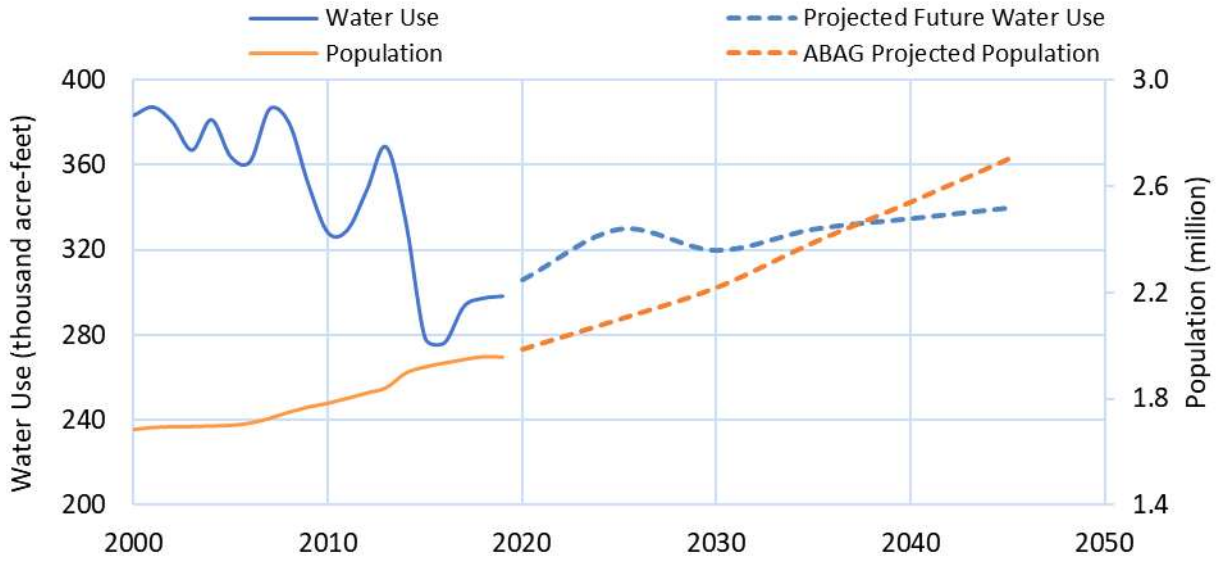
SUBJECT:
2020 Urban Water Management Plan Update.

RECOMMENDATION:
Provide update on draft 2020 Urban Water Management Plan and recommend bringing the plan to the June 8, 2021 Board meeting for public hearing and plan adoption.

SUMMARY:
Every five years, urban water suppliers in California are required by State law to prepare an Urban Water Management Plan (UWMP). Santa Clara Valley Water District (Valley Water) meets the definition of an urban water wholesaler and is currently preparing its 2020 UWMP. Valley Water's 2020 UWMP documents current and projected water supplies and demands over the next 25 years during normal and drought years, as well as water shortage contingency planning and conservation efforts. The plan provides an overall picture of past, current, and future water conditions and management in Santa Clara County. In addition, the plan includes an appendix on reduced reliance on the Sacramento-San Joaquin Delta (Delta), in consistence with the Delta Plan.

Water Demand Projections
Understanding water demands and how they may change over time allows Valley Water to manage the county's water supply and appropriately plan infrastructure investments. Due to expected population increases and job growth, county-wide demands are projected to increase from 306,000 acre-feet per year (AFY) in 2020 to approximately 345,000 AFY in 2045 (Figure 1). The projected demands are significantly lower than what was used in previous UWMPs and the Water Supply Master Plan 2040 (WSMP) based on a recently completed demand study for the county. County retailers have also reduced their projected demands and Valley Water's demands are within 1-5% difference with retailer demands from 2025 to 2040, and 10% for 2045.

Figure 1. Historic and Projected Future Water Use



Existing and Planned Water Supply

Valley Water maintains diverse water supply sources to meet countywide demands, including local surface water and groundwater, imported water, and recycled water. Water conservation is also an important part of the water supply mix, helping to keep water rates lower while improving water supply reliability. Valley Water is considering investing in projects to help mitigate potential future supply reductions from climate change and new regulations. Valley Water's WSMP provides a strategy for meeting future water demands, and the Monitoring and Assessment Program (MAP) annually tracks WSMP implementation. This year's UWMP is based on WSMP recommended projects per Board direction. Imported water allocations are provided by DWR in their Delivery Capability Report (DCR) 2019, which does not include any projected changes to future regulations. With the phased implementation of planned future projects, Valley Water's available supplies are projected to increase over time (Table 1). However, given the uncertainty associated with projected project benefits and potential future Delta regulations, the available supplies should be interpreted as providing a more optimistic picture than what the future may look like in reality.

Table 1. Projected Average Water Supplies (AF)

Water Supply	2025	2030	2035	2040	2045
Surface water	30,000	70,000	185,000	185,000	185,000
Imported water	130,000	134,000	136,000	139,000	142,000
SFPUC Supply	55,000	56,000	59,000	61,000	63,000
Local groundwater storage	140,000	164,000	163,000	162,000	162,000
Out of county Storage	75,000	75,000	75,000	70,000	70,000
Recycled water (non-potable)	16,000	19,000	22,000	26,000	28,000

Total	**446,000**	**518,000**	**640,000**	**643,000**	**650,000**

NOTES: Recycled water and SFPUC supply are rounded to the nearest 1,000 AF. All other supplies are rounde of available supplies. Actual availability during any given year depends on hydrology, groundwater recharge o assumes groundwater can be drawn down to the severe stage of the Water Shortage Contingency Plan. This do supplies represent water that may be needed to get through a prolonged drought. Imported water allocations are does not include any projected changes to future regulations nor the hydrologic sequence for the most recent 2 delivery during the 1987-1992 drought in the DCR 2019 dataset is 83,200AF, while the actual lowest annual in through Valley Water's Monitoring and Assessment Program, Valley Water is conservatively planning for inve will occur in the future. Projects included in the supply projections include transfer Bethany pipeline (2025); A Calero, and Almaden dam seismic retrofits and Pacheco Reservoir Expansion (2035); and an additional 35,000 with a 1992 baseline).

Water Supply Reliability

Based on Valley Water's existing and planned sources of supply, Valley Water will be able to meet countywide demands through 2045 under normal, a single dry, and five consecutive dry year conditions (Table 2). If a prolonged drought were to occur in the next five years, Valley Water would employ a range of response actions to meet countywide demands, including water conservation, bringing back water stored in the Semitropic Groundwater Storage Bank, imported water transfers and exchanges, and calling for short-term water use reductions.

Table 2. Multiple Dry Years Supplies and Demands (AF)

		2025	2030	2035	2040	2045
First Year	Supply Totals	345,000	349,000	491,000	483,000	487,000
	Demand Totals	330,000	325,000	330,000	335,000	345,000
	Difference	15,000	24,000	161,000	148,000	142,000
Second Year	Supply Totals	370,000	376,000	477,000	482,000	501,000
	Demand Totals	330,000	325,000	330,000	335,000	345,000
	Difference	40,000	51,000	147,000	147,000	156,000
Third Year	Supply Totals	340,000	349,000	443,000	450,000	448,000
	Demand Totals	330,000	325,000	330,000	335,000	345,000
	Difference	10,000	24,000	113,000	115,000	103,000
Fourth Year	Supply Totals	347,000	341,000	416,000	421,000	429,000
	Demand Totals	330,000	325,000	330,000	335,000	345,000
	Difference	17,000	16,000	86,000	86,000	84,000
Fifth Year	Supply Totals	341,000	365,000	430,000	440,000	444,000
	Demand Totals	330,000	325,000	330,000	335,000	345,000
	Difference	11,000	40,000	100,000	105,000	99,000

NOTES: All numbers are rounded to the nearest 5,000 AF. Supplies shown are based on modeled estimate hydrologic years 1988-1992. Imported water allocations are provided by DWR in their DCR 2019, which not include projected future regulations nor the hydrologic sequence for the most recent 2012-2016 drough For comparison, the lowest total annual imported delivery during the 1987-1992 drought in the DCR 2019 dataset is 83,200AF, while the actual lowest annual imported delivery during the 2012-2016 drought was 60,320 AF. However, through Valley Water's Monitoring and Assessment Program, Valley Water is conservatively planning for investments by considering severe droughts, such as the 2012-2016 drought, v occur in the future. Projects included in the supply projections include transfer Bethany pipeline (2025); Anderson dam seismic retrofit and potable reuse (2030); Guadalupe, Calero, and Almaden dam seismic retrofits and Pacheco Reservoir Expansion (2035); and an additional 35,000 AF of conservation.

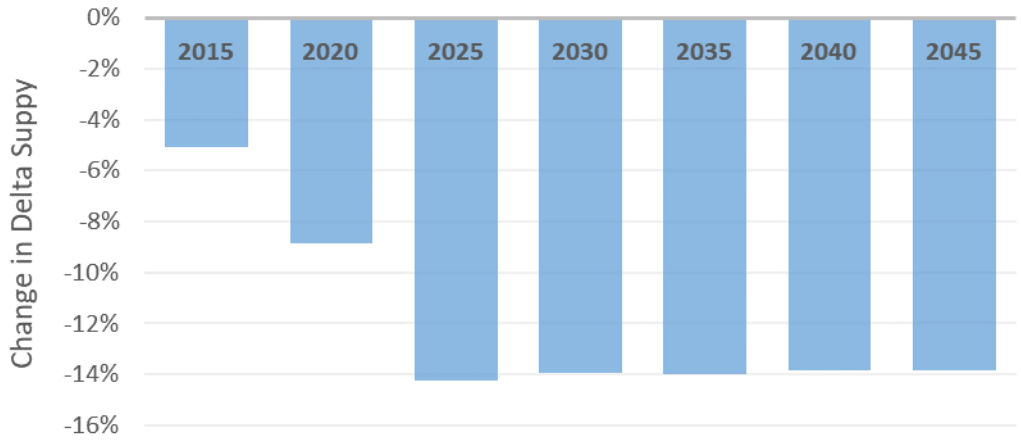
Water Shortage Contingency Plan
As part of the 2020 UWMP, Valley Water expanded its Water Shortage Contingency Plan (WSCP) to a standalone document to establish actions and procedures for managing water supplies and demands during water shortages due to droughts and other emergencies. Valley Water uses projected countywide end-of-year groundwater storage as an indicator of potential water shortages and the trigger for WSCP actions. In the event of prolonged droughts or other emergency situations, Valley Water considers all available tools for managing available water supplies, including public education and community outreach, coordinating response among the county's municipalities and retailers, augmenting supplies by investing in supplemental supply sources, calling for short-term water use reductions, and balancing demands for treatment plants and recharge facilities, to maximize the use of available supplies in order to meet potential shortage. The WSCP also summarizes other planning efforts related to natural disaster, drought revenue impacts, and Valley Water's legal authority and communication protocols to respond to water shortages.

Demand Management Measures
Valley Water continues to be a leader in water conservation and has implemented a wide range of Demand Management Measures that help reduce water use. Valley Water's conservation programs include metering, public education and outreach, rebates for residential and commercial users, landscape rebates for lawn conversion, free water use audits and consultation, and many more. Collectively, conservation and stormwater capture accounted for about 75,000 AFY in 2020 in water savings over a 1992 baseline. Valley Water has a target to increase these savings to 110,000 AFY by 2040.

Reduced Reliance on the Delta
The 2020 UWMP requires the suppliers that are receiving or plan to receive water from the Delta to demonstrate their reduced reliance on the Delta. Valley Water receives Delta water from the State Water Project (SWP) and Central Valley Project (CVP) and therefore falls under this requirement. Valley Water, with the support of all its retailers, has made significant investments in demand management and local supplies to increase regional self-reliance and reduce the county's reliance on the Delta. These investments include conservation and demand management; recycled and purified water; stormwater capture; seismic retrofits of local reservoirs; and regional collaborations. With these past efforts and planned expansion of water recycling and long-term water conservation savings recommended in the WSMP, water supply analysis estimates that Valley Water has reduced its reliance on imported water supplies from the Delta from the 2010 baseline, from 5.1% in 2015 to

13.8% in 2040 (Figure 2), consistent with the Delta Plan, WR P1. The reduced Delta reliance was also appended to 2015 UWMP, as required by DWR.

Figure 2. Change in Percent of Water Supplies from the Delta Watershed



Coordination and Outreach
This UWMP was prepared in coordination with the 13 major water retailers in Santa Clara County. Throughout the plan development, Valley Water had numerous group and individual communications with retailers on issues related to demand and supply projections, reduced reliance on the Delta, reliability analyses, and the WSCP. Regular updates have been provided to various committee meetings. Valley Water provided the retailers with the draft UWMP and WSCP for review before they were release for public review.

Public Hearing and Plan Adoption
Valley Water is targeting the June 8, 2021 Board meeting for the public hearing and the draft plan will be made available for public review in Mid-May. The plan adoption is scheduled for the same day, after the close of the public hearing. After the public hearing and plan adoption, Valley Water's 2020 UWMP will be submitted, as required, to the Department of Water Resources by July 1, 2021.

ATTACHMENTS:
Attachment 1: PowerPoint Presentation.

UNCLASSIFIED MANAGER:
Vincent Gin, 408-630-2633

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2020 Urban Water Management Plan

Presented by: Jing Wu, Ph.D., Senior Water Resources Specialist

Water Conservation and Demand Management Committee

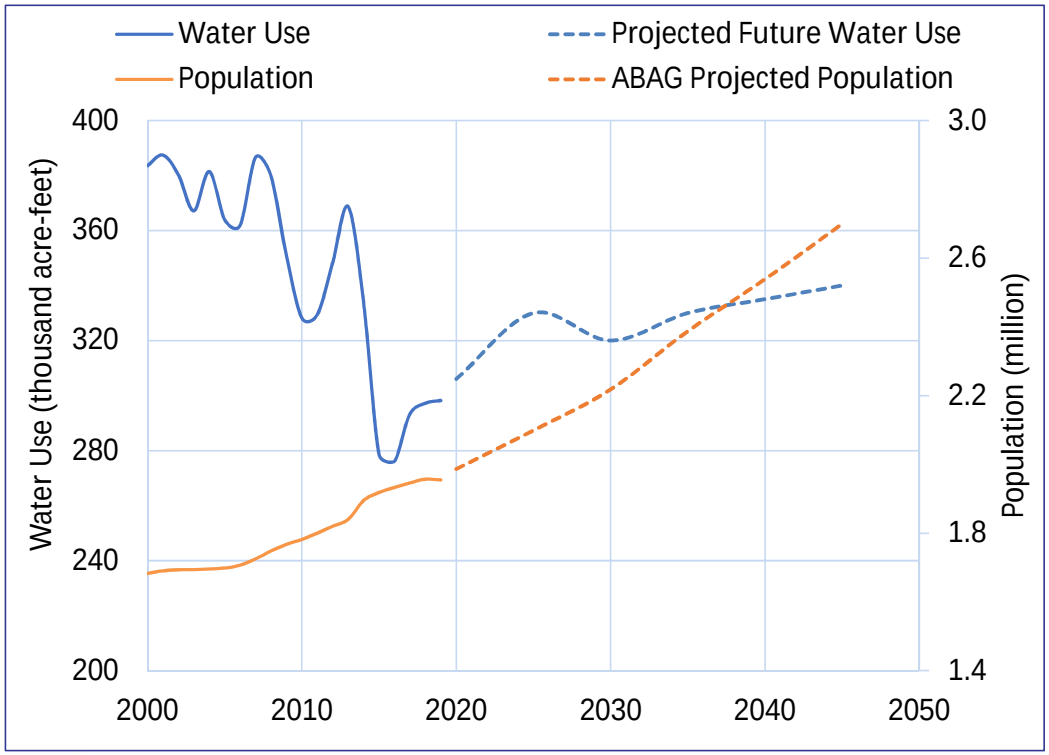
May 10, 2021

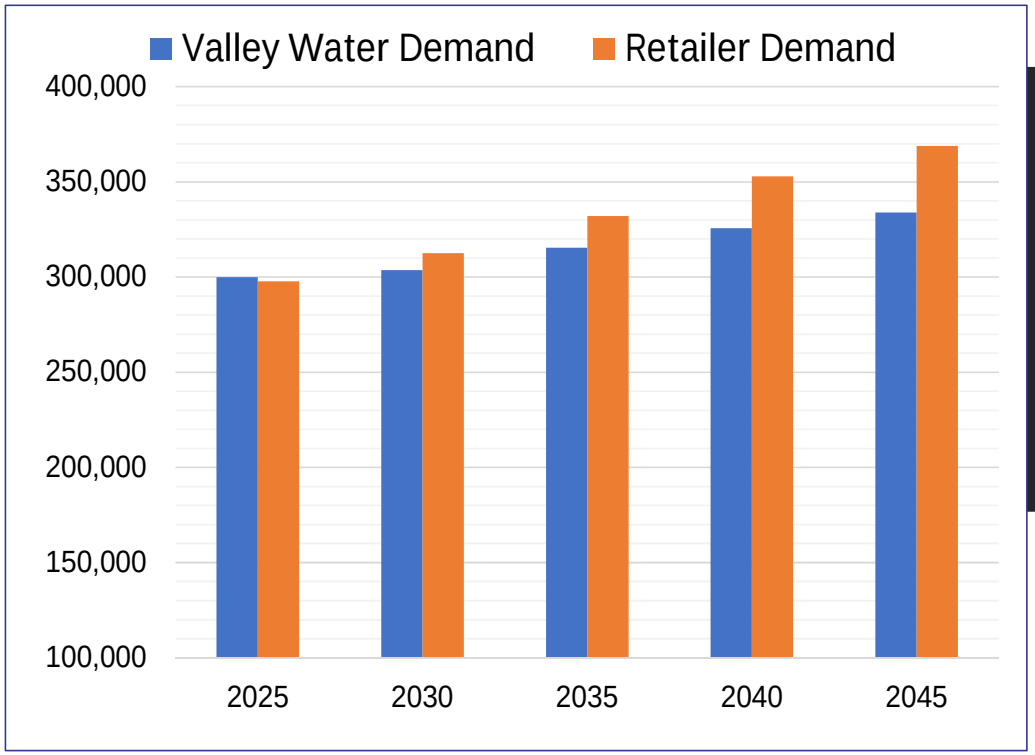
Valley Water

Urban Water Management Plan

- State requirement
- Agency's water conditions and management
  - Demand
  - Supply
  - Reliability
  - Conservation
  - Contingency planning
- Statutory deadline - July 1, 2021

Demand Projection





Valley Water

Existing and Projected Water Supplies

- Water Supply Master Plan recommended projects
- Delivery Capability Report 2019
- Meet Level of Service Goal

Water Supply	2025	2030	2035	2040	2045
Surface water	30,000	70,000	185,000	185,000	185,000
Imported water	130,000	134,000	136,000	139,000	142,000
SFPUC Supply	55,000	56,000	59,000	61,000	63,000
Local groundwater storage	140,000	164,000	163,000	162,000	162,000
Out of county Storage	75,000	75,000	75,000	70,000	70,000
Recycled water (non-potable)	16,000	19,000	22,000	26,000	28,000
Total	**446,000**	**518,000**	**640,000**	**643,000**	**650,000**

Water Supply Reliability

- No shortage under normal and dry years
  - Lower demand
  - Planned water supply projects
  - Higher imported water delivery
  - More optimistic than reality
- UWMP for meeting State requirement
- Master Plan and MAP for evaluating investment strategy

Water Shortage Contingency Plan

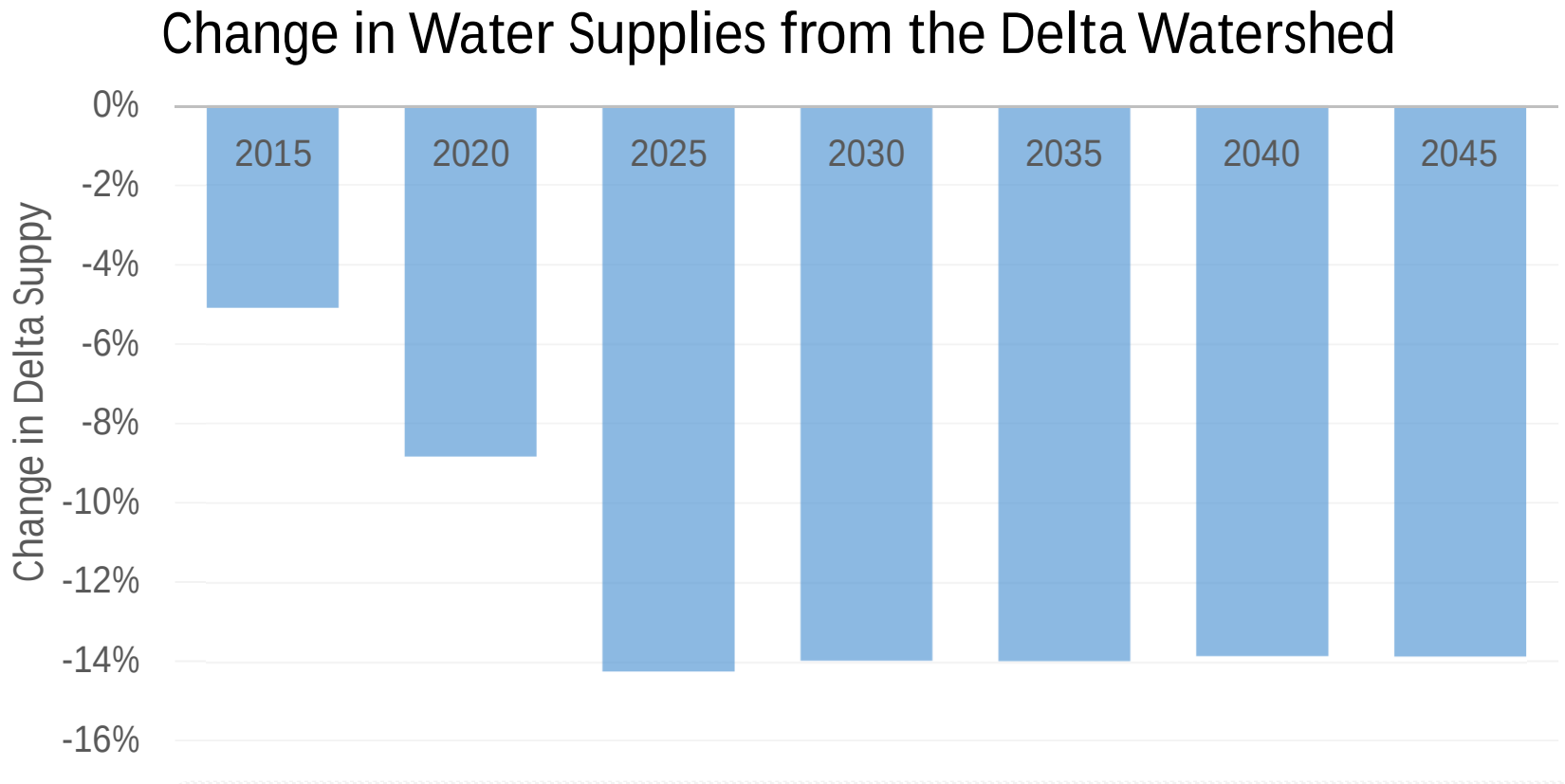
- Actions and procedures for managing water shortages
- Legal Authority
- Communication
- Financial impact

Stage	Title	Projected Countywide End of Year Groundwater Storage (AF)	Suggested short-term reduction in water use
1	Normal	>300,000	None
2	Alert	300,000 - 250,000	0-10%
3	Severe	250,000 - 200,000	10-20%
4	Critical	200,000 - 150,000	20-40%
5	Emergency	<150,000	Over 40%

Stage	Standard water shortage levels
1	Up to 10%
2	10 to 20%
3	20 to 30%
4	30 to 40%
5	40 to 50%
6	> 50%

Valley Water

Reduced Delta Reliance



Valley Water

Next Steps

- Finalize the plan
- Public review – Mid-May 2021
- Public hearing and plan adoption – June 8, 2021
- Plan submittal to DWR - July 1, 2021

Recommendation

Recommend bringing the plan to June 8, 2021 Board meeting for public hearing and plan adoption.

QUESTIONS

File No.: 21-0462

Agenda Date: 5/10/2021
Item No.: 4.3.

COMMITTEE AGENDA MEMORANDUM

Water Conservation and Demand Management Committee

SUBJECT:
Monitoring Assessment Program Update: Risk Assessment and Climate Analysis.

RECOMMENDATION:
Receive and discuss information on the Monitoring and Assessment Program risk assessment and climate change analysis.

SUMMARY:
The Water Supply Master Plan 2040 (Master Plan), which was adopted by the Board of Directors (Board) in November 2019, defines a new level of service goal, provides an investment strategy, and recommends water supply projects that achieve the investment strategy and level of service goal. However, new water supply data, modeling, and project information is available each year and needs to be integrated into the Master Planning process so that the Master Plan strategy and investments can be adjusted as needed. The Monitoring and Assessment Program (MAP) was prescribed in the Master Plan to provide a mechanism to integrate this new water supply data and information. Through MAP, Santa Clara Valley Water District (Valley Water) develops an annual report to summarize new information and receive direction from the Board on how to proceed with the implementation of the Master Plan.

The MAP 2020 report provided updated demands that consider the 2012-2016 drought rebound and new growth and development information. Forecasted demands are lower than had been modeled in the 2019 Master Plan and are not expected to exceed historic water use, even when considering impacts of climate change. However, Valley Water is still considering investing in new water supplies to mitigate potential impacts of climate change and future regulations on existing supplies. To address this potential water supply need, Valley Water completed a preliminary analysis of how projects could help meet Valley Water's level of service goal through 2040[1].

The MAP 2021 report will provide an improved analysis of how Valley Water could meet Valley Water's level of service goal considering climate change and the lower future demands (as published in the MAP 2020 report). The improved analysis will include a:

1) project risk assessment,
2) climate change evaluation,

3) project cost analysis, and
4) evaluation of how different investment portfolios could meet Valley Water's level of service goal.

This memorandum provides the preliminary results of the water supply project risk assessment and the climate change evaluation. The water supply projects considered in the risk assessment are projects recommended in the Master Plan and projects that Valley Water staff are actively evaluating.

(footer note: [1]Valley Water's level of service goal is to meet 100% of demands during normal years and at least 80% of demands during droughts.)

Project Risk Assessment

The goal of the project risk assessment is to have a diverse team of experts independently evaluate project risks that would reduce project success, including a project's ability to be completed on time and provide the needed benefits throughout its lifecycle. Assessed projects included:

1. Delta Conveyance Project
2. Lexington Pipeline
3. Los Vaqueros Expansion
4. Out-of-county groundwater banking
5. Pacheco Reservoir Expansion
6. Potable Reuse
7. Refinery Recycled Water project
8. Regional Desalination project
9. Sites Reservoir
10. South County Recharge project

Staff considered many, diverse sources of risk (described in Attachment 1), which were classified into six risk categories:

1. Cost
2. Political/Stakeholder
3. Implementation
4. Operations
5. Climate Change
6. Water Supply Reliability

Nine units from across Valley Water's business areas participated in the risk assessment (Attachment 2). Each participant considered the likelihood and severity of each risk category impacting each project's success in providing needed benefits. Valley Water then compiled all risk ratings to evaluate total risk (Figure 1) and risk by category (Figure 2).

Figure 1. Project Risk Matrix

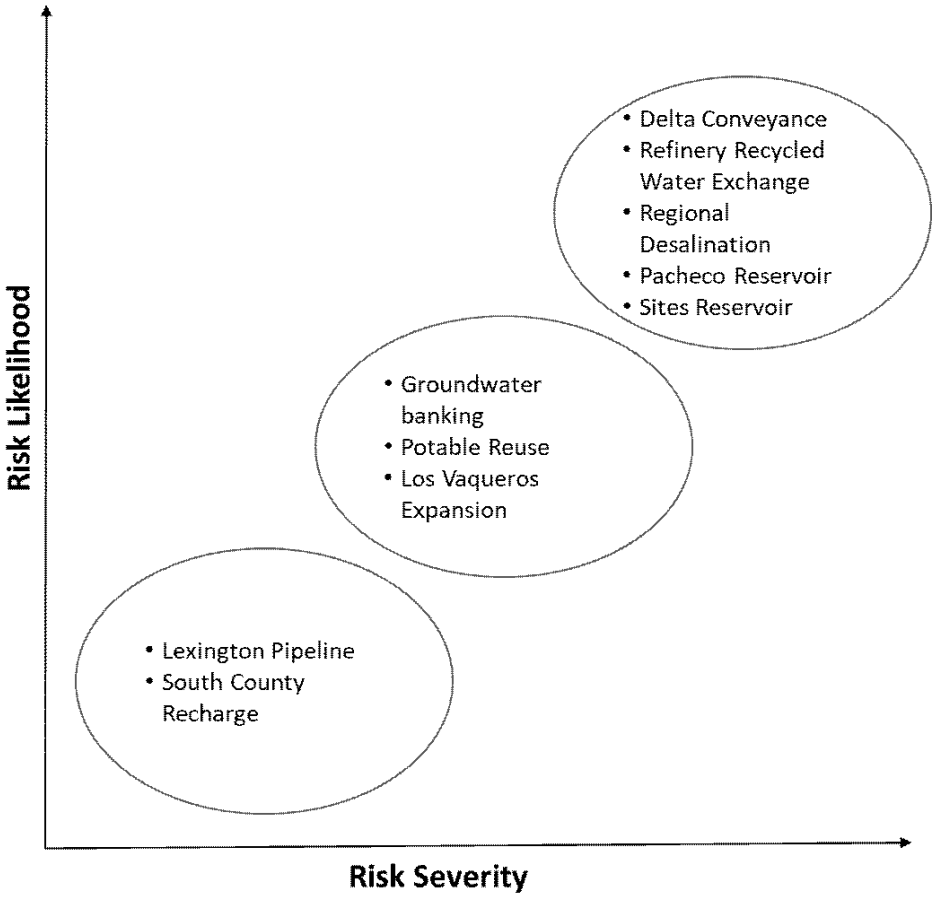
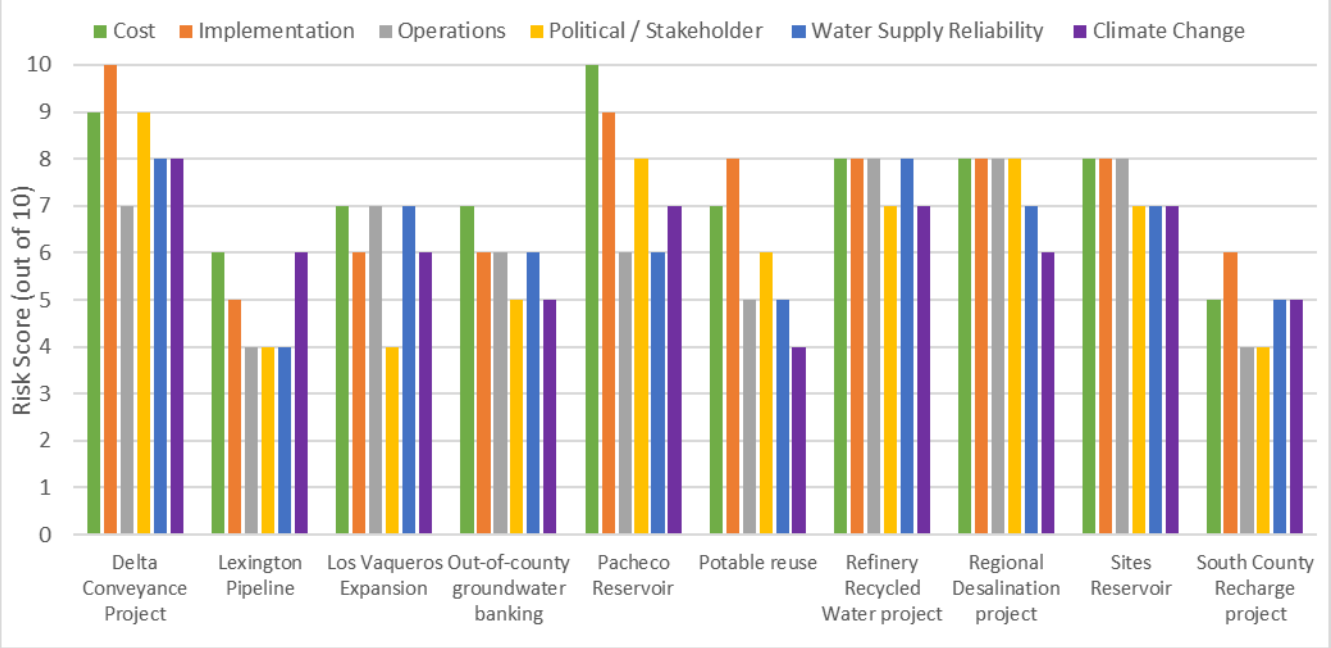


Figure 2. Project Risk Score by Risk Category. Risk score calculated as the sum of the likelihood and severity scores.



The risk assessment results indicate that projects whose benefits depend on imported water may have greater risk than projects that rely on local water. An important exception is out-of-county groundwater banking. The high-risk projects include the Delta Conveyance Project, Refinery Recycled Water Exchange, Pacheco Reservoir, Regional Desalination, and Sites Reservoir. Imported water-dependent projects were found to have a greater risk since they tend to be large infrastructure projects that carry significant cost and implementation uncertainties. In addition, the water supply reliability of imported water was found to be high risk, especially considering the impacts of climate change. Valley Water investments are primarily needed to improve drought year supply reliability. Imported water tends to be less reliably available through a multi-year drought since it is generally a wet year supply. While surface storage projects help mitigate the impacts of drought on imported supplies, their storage capabilities tend to be limited and thus may not provide water supplies throughout each year of a multi-year drought.

The risk assessment indicated that out of county groundwater banking, potable reuse and Los Vaqueros Reservoir Expansion may have moderate risk. Los Vaqueros Reservoir Expansion may be lower risk than other imported water surface storage projects because Valley Water's storage share is relatively small and the reservoir has been expanded before successfully. However, Los Vaqueros Reservoir does have relatively high evaporative losses and may provide less storage capacity than other storage projects. Los Vaqueros may also have risks associated with conveyance capabilities.

Out-of-county groundwater banking was rated as lower risk compared to other imported water-dependent projects because it requires significantly less infrastructure, which causes less cost and implementation uncertainty. In addition, groundwater storage does not experience evaporation losses, which are expected to increase significantly from climate change. Also, groundwater banking projects generally have greater storage capacities than surface storage, and thus may provide supplies throughout more years of a multi-year drought. However, the risk assessment does indicate it has moderate risk for each risk category, indicating risks will persist throughout its planning and

operational lifecycle. Risks are primarily associated with conveyance capabilities for putting and taking supplies from the groundwater bank and groundwater contaminant concerns. Of the groundwater banking risk scores, cost imparted the greatest risk likely because the projects are early in development.

The risk assessment indicated that potable reuse may have less risk than projects dependent on imported supplies, with exception to groundwater banking. The risk assessment indicated an equal amount of risk for potable reuse and groundwater banking, but with slight differences in the risk attributed to each category. Potable reuse is a drought resilient supply that may be less impacted by climate change compared to the other projects in the risk assessment. Because of its drought and climate change resilience, the risk assessment indicated lower risks for the project once implemented compared to many of the imported water projects. However, the risk assessment did indicate that potable reuse may have significant cost and implementation risks on par with the higher risk imported water-dependent projects. These risks are likely primarily related to securing source water supply contracts, cost uncertainties related to plant design and procurement process, and public acceptance. Therefore, project planning and implementation may have the greatest sources of risk for potable reuse.

Projects that are in-county and smaller in estimated total cost and spatial extent were found to be lower risk. This is primarily because Valley Water has greater control over local supplies. Valley Water may have greater control over the implementation and operations of local projects and the smaller size of the project reduce risks associated with cost increases and project administrative requirements (e.g., easements, regulations/permits, etc.).

Climate Change Evaluation

Valley Water worked with Dr. Edward Maurer, a researcher from Santa Clara University, to evaluate the impacts of climate change on local reservoir inflows, precipitation, and temperature. The climate change analysis evaluated 16 global climate models (GCM) to determine the range of potential impacts to forecasted water demands and local water supply availability. From those 16 models, Valley Water with the support of Dr. Maurer chose a subset of five GCMs to represent the range of potential impacts Valley Water may experience from climate change. The subset includes models best represent the range of potential outcomes for California. The choice of model in the subset were informed by the significant work completed by the Department of Water Resources (DWR) Climate Change Technical Advisory Group (CCTAG). CCTAG was a 14-member group of the leading California climate change scientists. The findings reported hereafter are based on modeling from the five GCMs plus a low impact scenario used only in the demand modeling that assumes climate change impacts do not increase from present. Valley Water also reviewed scientific studies that evaluated potential climate change impacts to the State Water Project (SWP) and Central Valley Project (CVP) supplies.

In general, climate change may increase annual demands to approximately 360,000-375,000 acre-feet (AF) by mid-century primarily by increasing outdoor irrigation needs across all water use sectors and cooling needs in the commercial, industrial, and institutional sector. While this is approximately 20,000-35,000 AF per year greater than the low climate change impact scenario, it is still within the range of historical water use. Historical water use was generally between 360,000-390,000 AF per

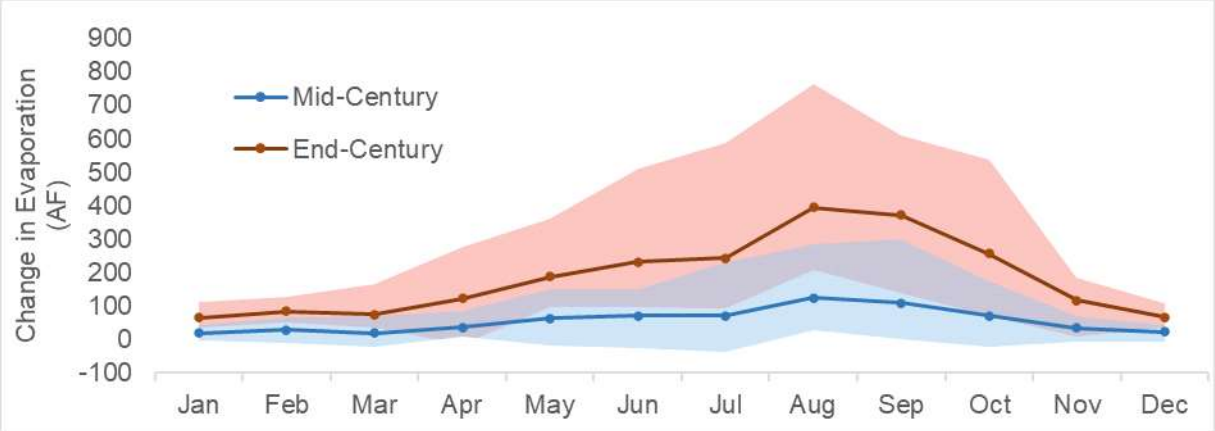
year prior to the 2012-2016 drought (Table 1). Demands are not projected to exceed historic water use by mid-century primarily because Valley Water continues to invest in conservation and Santa Clara County residents continue to make water conservation a way of life.

Table 1. Demands Considering Climate Change Compared to Historic Demands

Climate Change Impact	Demands (Acre-feet)
Low Impact	340,000
Moderate Impact	360,000
High Impact	375,000
Historic Demands (pre-drought)	360,000-390,000

The results of Valley Water's work with Santa Clara University show that climate change will impact water supply through changing the volume, timing, and quality of water that is available. There is high certainty that increased temperatures will shift Sierra Nevada Mountain precipitation from snowfall to rainfall and increase reservoir evaporation statewide. The Santa Clara University analysis shows the potential increases in local reservoir evaporation due to increased temperatures (Figure 3). Similar impacts of temperature on evaporation would be expected throughout the state. Groundwater storage could potentially become more important into the future to minimize evaporative losses of stored water both locally and statewide and provide large enough storage space to capture the potential increase in Sierra Nevada rainfall. In addition, increased temperatures could make surface reservoir water quality management more difficult as warmer temperatures tend to support greater algal growth and create other water quality issues.

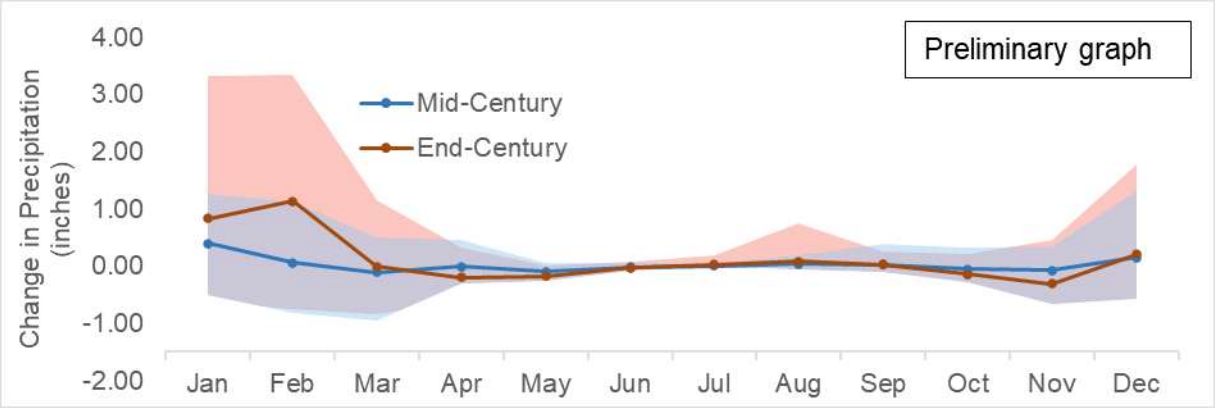
Figure 3 Projected Increased Santa Clara County Reservoir Evaporation due to Climate Change. The bands represent the range of projected evaporation change from current based on downscaled climate models while the lines represent the average across models.



Per the climate change analysis, droughts and wet periods are expected to become more severe. In other words, future precipitation is likely to come as large storm events within a wet period that is punctuated by severe and potentially prolonged dry periods. There is significant uncertainty whether average precipitation is expected to increase or decrease since it will depend on the specific track that atmospheric rivers take (e.g., will they tend to track to the north and cover the Pacific Northwest or to the south and cover California more consistently). Figure 4 shows the potential change in local

precipitation based on the downscaled global climate models.

Figure 4 Change in Average Santa Clara County Monthly Precipitation due to Climate Change. The bands represent the range of projected precipitation change from current based on downscaled climate models while the lines represent the average across models.



The modeled expected increased drought severity makes drought resilient water supplies (e.g., potable reuse and conservation) more important to mitigate the potential climate change and regulatory related decrease in existing supplies. Maintaining storage infrastructure may also help maximize the benefits of climate change-related increases in storm severity to mitigate potential decreases in existing supplies. However, since increased temperatures may result in increased evaporation from surface storage and may negatively impact water quality in surface storage, groundwater storage may provide a more climate resilient approach to capturing wet year supplies. While reuse, conservation, storage, and other supply projects could all help mitigate future declines in existing supplies, MAP 2021 will help evaluate the different projects to determine which projects may best achieve Valley Water's level of service goal.

Next Steps

The preliminary climate change analysis and risk assessment provide background information to support the evaluation of which projects may best meet Valley Water's future water supply needs. Through MAP, Valley Water will also evaluate the potential water supply benefits of projects included in the risk assessment to determine how they may support Valley Water in meeting its level of service goal. The water supply benefit evaluation will incorporate new project information developed since the Master Plan was adopted in 2019 and the MAP 2020 report.

Valley Water will finalize the project risk assessment and continue evaluating climate change impacts, project costs, and projects needed to meet the level of service goal. Regular updates on this analysis will be provided to the Water Conservation and Demand Management Committee (WCDM). The final MAP 2021 report will provide the risk assessment, climate change analysis, and water supply benefit analysis for Board consideration. Valley Water will present the draft MAP 2021 report to the WCDM in July 2021 and to the Board of Directors in August 2021.

ATTACHMENTS:
Attachment 1: Sources of Risk
Attachment 2: Risk Assessment Participants
Attachment 3: Staff Presentation

UNCLASSIFIED MANAGER:
Kirsten Struve, 408-630-3138

Risk Categories and Associated Sources

The categorized risk source table below is based on the 2017 risk assessment used to develop the 2019 Water Supply Master Plan and then further refined with the risk assessment stakeholders. The table was used by risk assessment stakeholders to complete the risk assessment survey.

Risk Categories	Risk Sources
Costs	• Uncertainty in cost estimate • Construction, operational and/or maintenance cost increases • Cost-sharing/partner reliability • Financing and funding security • Costs related to uncertainty of regulatory and permitting requirements • Undesirable water rate impacts • Economic fluctuations and instability • Scheduling issues • Potential for stranded assets
Implementation	• Maturity of planning and design (e.g., early vs. late stage of implementation) • Land ownership/availability to purchase • Regulatory and permitting requirements altering project benefits and schedule prior to full operation • Lack of phasing potential • Project duration and schedule • Reoperation requirements • Additional infrastructure/capacity needed for existing system • Constructability (e.g., structural issues, technology, complexity) • Partnership agreements needed • Staff knowledge and resource availability • Water rights uncertainties • Project delivery method (e.g., design-bid-build vs. public-private partnership)

Risk Categories	Risk Sources
Operations	• Project inter-dependency • Ongoing environmental and water quality regulations and permitting • Lack of local control • Asset failure(s) • Conveyance reliability during droughts or other water shortages • Emergency impacts to water supply system elements (e.g., earthquakes, floods, levee failures, etc.) • Environmental impacts/adaptive management requirements
Political / Stakeholders	• Public support/perception (includes rate payers, the public, NGO's, environmental groups, etc.) • Internal stakeholder concerns • External stakeholder opposition • Partnership coordination and negotiation • Changes in State or federal goals/participation/negotiation position • Board approval • External media communications
Water Supply Reliability	• Water quality issues • Volume uncertainty • Timing uncertainty • Delivery reliability • Lack of drought resilience or access during drought (e.g., reverse flow issues for banked supplies) • Ongoing regulatory/permitting requirements and adaptive management
Climate Change **(This does not include impacts of the project on Climate Change)**	• Warmer temperatures – surface storage evaporation, evapo-transpiration, water quality • Sea level rise • More frequent and/or more extreme droughts • More frequent and/or more extreme wildfires • More frequent and/or more extreme rain events • Hydrological variations (ex. less frequent but larger flows, seasonal variability) • Reduced snowpack volume • Changes in timing and rate of snowpack melt

Risk Assessment Participant List

- Raw Water Operations Unit
- Groundwater Management Unit
- Asset Management Unit
- Imported Water Unit
- Pacheco Project Delivery Unit
- Recycled and Purified Water Unit
- Treasury and Debt Management Unit
- Water Supply Planning and Conservation Unit
- Treatment Plant Process and Commissioning Unit

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Water Supply Master Plan 2040 Monitoring and Assessment Program Annual Report

Samantha Greene, Ph.D., Water Supply Planning and Conservation Unit

Water Supply "Ensure Sustainability" Strategy

Secure

- Capital Improvement Program Projects
- Delta Conveyance Project

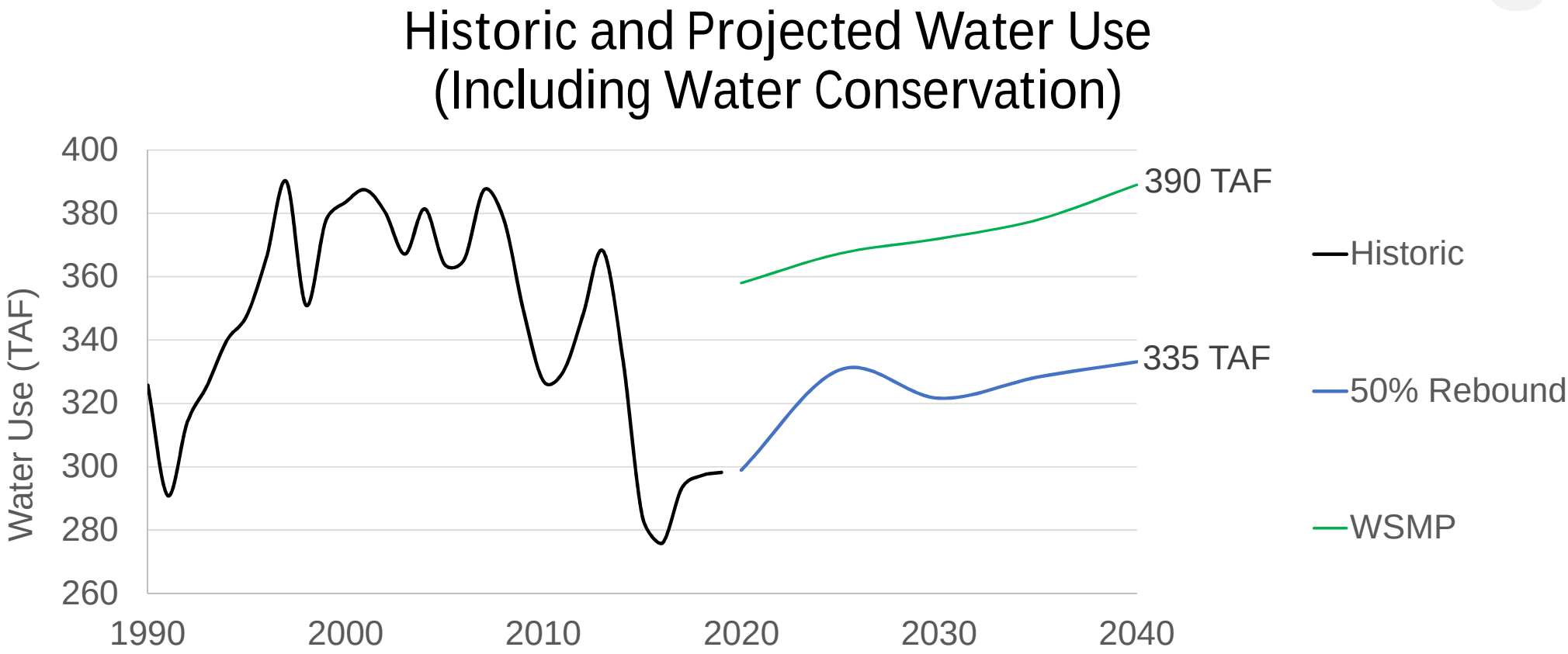
Expand

- Water Conservation
- Stormwater Capture
- Potable Reuse

Optimize

- Pacheco Reservoir Expansion
- Transfer-Bethany Pipeline
- South County Recharge

MAP 2020: Updated Demand Model



MAP 2021 Work Plan

- Project risk analysis
- Climate change analysis
  - Mid and late century literature and public data review
  - Mid-century water supply system analysis
- Portfolio analysis
  - Level of service
    - Project and portfolio benefits modeling
  - Project and portfolio cost analysis

MAP 2021 Risk Analysis

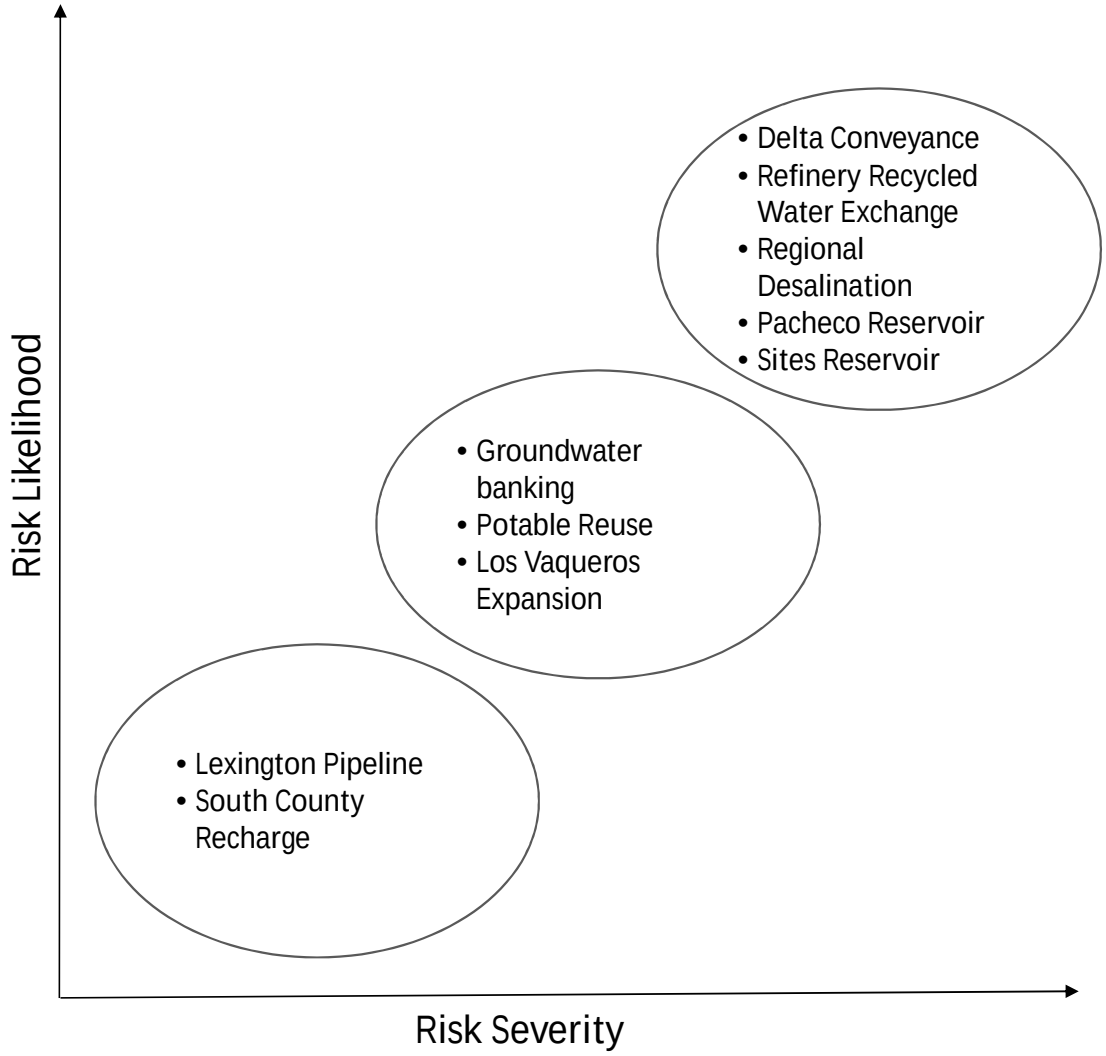
GOAL:

Evaluate project risks that would reduce project success, including a project's ability to be completed on time and provide the needed benefits throughout its lifecycle.

Risk Categories

- Cost
- Political/Stakeholder
- Implementation
- Operations
- Climate Change
- Water Supply Reliability

Total Project Risk



MAP 2021 Climate Change Analysis

GOAL:

Evaluate potential climate change impacts and uncertainties related to temperature, hydrology, evaporation, and demands.

Climate Change Analysis Approach

LOCAL:

- Collaborated with Dr. Edward Mauer from Santa Clara University
- Downscaled global climate models to evaluate:
  - local supplies: reservoir inflows, natural groundwater recharge, reservoir evaporation
  - County-wide demands

IMPORTED:

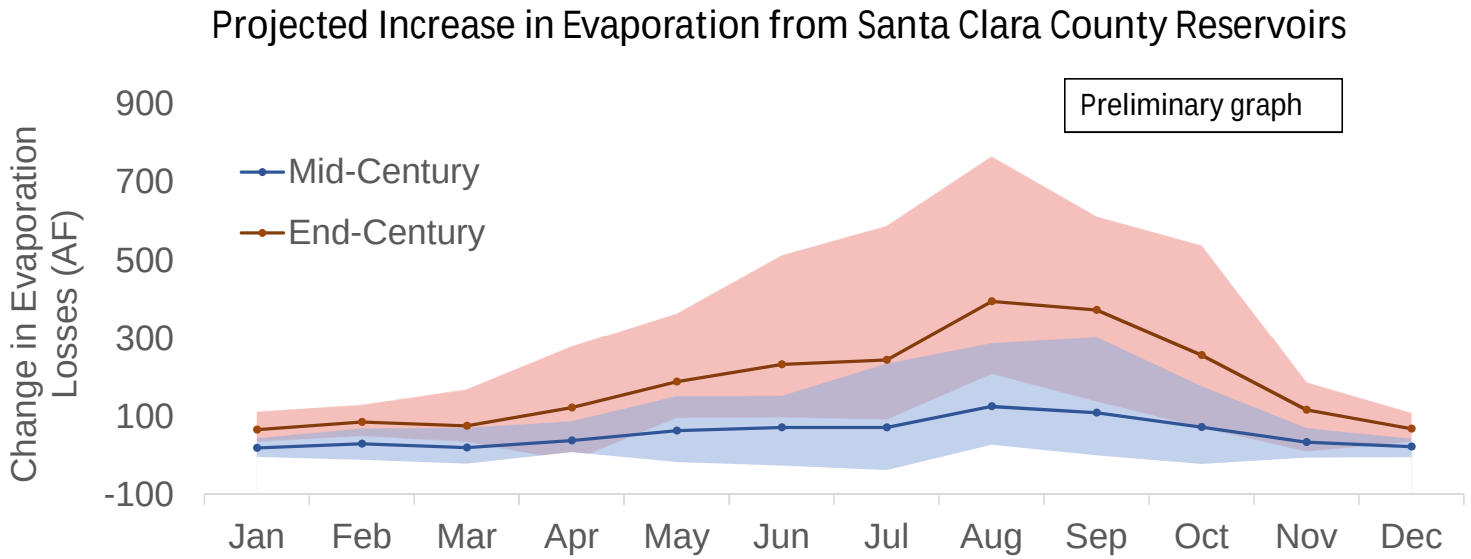
- Reviewed studies by State agencies and researchers
- Preliminary climate change impacts provided by DWR is included in water supply modeling analysis

Climate Change Analysis: Mid-Century Demands

Climate Change Impact	Demands (Acre-feet)
Low	340,000
Moderate	360,000
High	375,000
Historic Demands (pre-drought)	360,000-390,000

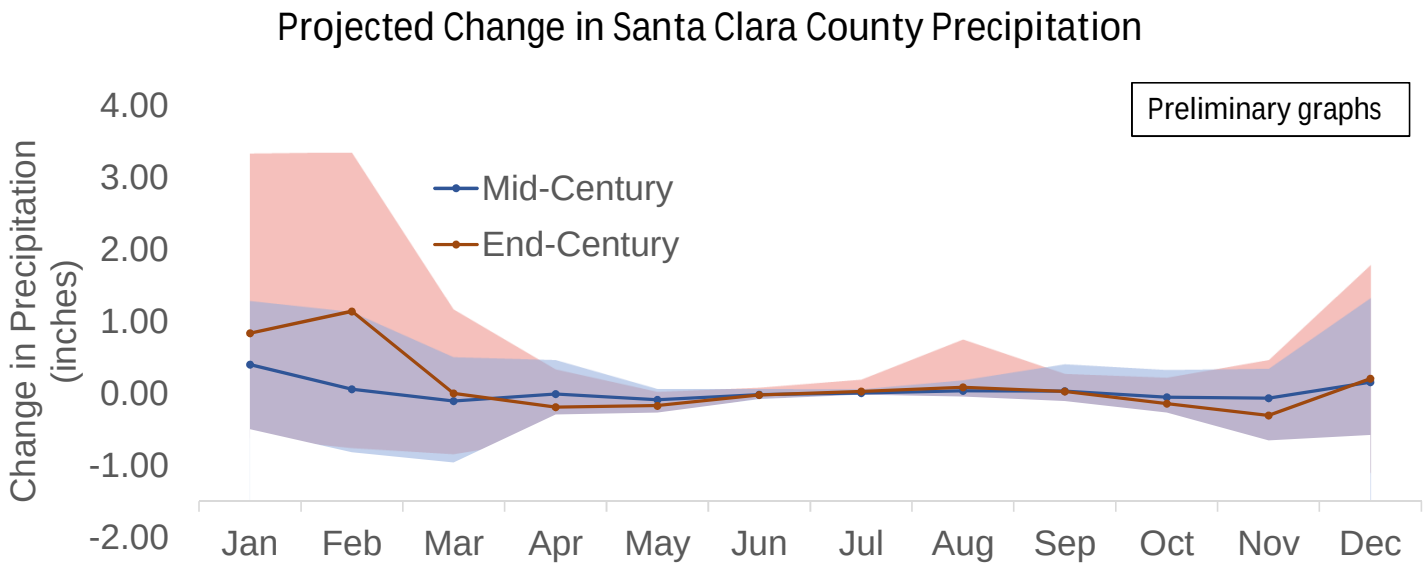
Climate Change Analysis: Increased Temperature Impacts on Water Supplies

- Increased evaporation from surface reservoirs
- Shift from snowfall to rainfall in the Sierra Nevada Mountains
- Potential negative impacts to surface reservoir water quality



Climate Change Analysis: Precipitation Impacts on Water Supplies

- Increased storm severity
- Increased drought severity and potentially duration
- Decreased snowpack in Sierra Nevada Mountains



Next Steps for MAP 2021

1) Finalize Risk Assessment – Appendix in MAP 2021 report
2) Complete climate change analysis – Appendix in MAP report
   - Summarize state and local impacts to temperature, hydrology, and demands
3) Portfolio analysis
   - Level of service: project and portfolio benefits modeling
   - Project and portfolio cost analysis: reliability cost, capital/O&M/R&R

IMPORTANT DATES
- Regular updates to the WCDM Committee: as scheduled
- Draft MAP report presented to the WCDM Committee : July 2021
- MAP report presented to full Board: August 2021

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File No.: 21-0463

Agenda Date: 5/10/2021
Item No.: 4.4.

COMMITTEE AGENDA MEMORANDUM

Water Conservation and Demand Management Committee

SUBJECT:
Sustainable Groundwater Management Act (SGMA) Update.

RECOMMENDATION:
This is an information only item and no action is required.

SUMMARY:
SGMA requires that groundwater sustainability agencies (GSAs) managing basins ranked as medium - or high-priority submit a groundwater sustainability plan (GSPs) or prescribed Alternative to a GSP (Alternative) by the applicable statutory deadline. Santa Clara Valley Water District (Valley Water) met this deadline and has a Department of Water Resources (DWR) approved Alternative for the high-priority Santa Clara and Llagas subbasins. Additionally, Valley Water serves as a GSA with San Benito County Water District (SBCWD) for the medium-priority North San Benito Subbasin.

Valley Water staff last updated the Water Conservation and Demand Management Committee (Committee) on September 29, 2020 with an outline for the required five-year Alternative update that is due to DWR by January 1, 2022. This Committee update includes the progress and schedule for the five-year Alternative update for the Santa Clara and Llagas subbasins and the new GSP being developed for the North San Benito Subbasin.

Santa Clara and Llagas Subbasins - Five-Year Alternative Update:

Staff are conducting technical analyses needed to update information on basin conditions and incorporate DWR recommended actions into the five-year Alternative update. The recommended actions are designed to facilitate DWR evaluation and improve implementation of the Alternative. Progress on the recommended actions is summarized below:

1. Identify groundwater dependent ecosystems (GDEs).

   Using guidance developed by The Nature Conservancy, staff created preliminary GDE maps for the Santa Clara and Llagas subbasins. Valley Water biologists have conducted extensive field surveys to verify the location of likely and potential GDEs, and staff is working to complete the draft mapping.

2. Incorporate climate change into the groundwater budget over the SGMA planning and implementation horizon.

Using downscaled data from Global Climate Models (GCMs), staff has completed groundwater model simulations to project the future groundwater budget, with a focus on how climate change will affect natural recharge.

3. Develop seawater intrusion outcome measure for the Santa Clara Subbasin.

   Using long-term groundwater quality monitoring data, staff has created maps of historical seawater intrusion in the shallow aquifer zone. Staff is working to finalize a related outcome measure and to identify expanded monitoring of the shallow and principal aquifer zone for early detection of seawater intrusion.

4. Clarify outcome measures to evaluate the avoidance of undesirable results.

   Staff is proposing to update some existing outcome measures in the Alternative, which are derived from Board Ends Policy and represent desired outcomes for groundwater conditions. Per the DWR recommendation to clarify what thresholds constitute unsustainable conditions, staff is working to propose new lower thresholds related to undesirable results.

As work to update the Alternative progresses, staff will update the Committee and engage basin stakeholders through email updates and public meetings. A public review draft of the updated Alternative is expected to be available in late summer 2021 to solicit public input prior to consideration by the Board of Directors in fall 2021. The updated Alternative is due to DWR by January 1, 2022.

North San Benito Subbasin - New GSP Development:

Valley Water shares GSA responsibilities with SBCWD for the North San Benito Subbasin, which is primarily located in San Benito County. The GSP for the North San Benito Subbasin is being developed through a Memorandum of Understanding between the two agencies, with SBCWD leading GSP development, including all technical analyses. Valley Water staff are supporting the GSP development, including serving on the Technical Advisory Committee.

As the GSP development progresses, staff will update the Committee and engage basin stakeholders. A public review draft GSP for the North San Benito is expected to be available in late summer 2021 to solicit public input prior to consideration by both the SBCWD and Valley Water Board of Directors in fall 2021. The GSP is due to DWR by January 31, 2022.

ATTACHMENTS:
Attachment 1: PowerPoint Presentation

UNCLASSIFIED MANAGER:
Greg Williams, 408-630-2867

Sustainable Groundwater Management Act (SGMA) Update

Presented by: Jason Gurdak, Groundwater Management Unit

Water Conservation and Demand Management Committee May 2021

Valley Water

SGMA Compliance Update

Agenda:

1. Valley Water's Role — Sustainable Groundwater Management Act (SGMA)

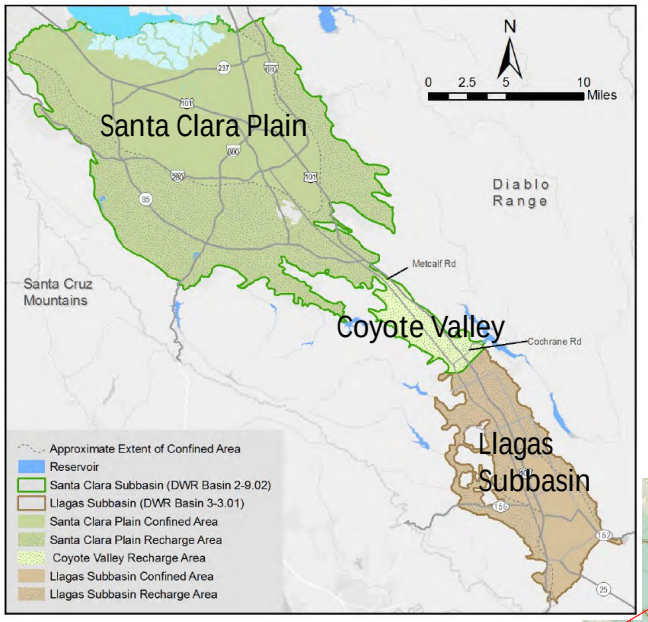
2. Santa Clara and Llagas Subbasins:
   - Five-Year Update of Approved Alternative
   - Department of Water Resources (DWR) Recommended Actions
   - Schedule and Key Deadlines

3. North San Benito Subbasin:
   - New Groundwater Sustainability Plan (GSP)
   - Valley Water's Role
   - Schedule and Key Deadlines

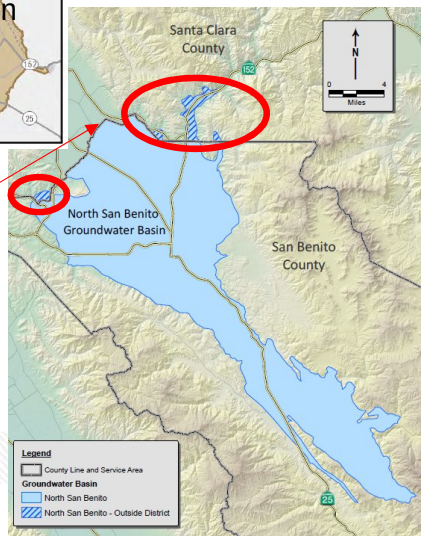
GSA Responsibilities

- Valley Water is the Groundwater Sustainability Agency (GSA):
  - Santa Clara and Llagas subbasins
  - North San Benito Subbasin
- Santa Clara and Llagas subbasins
  - Groundwater Management Plan (GWMP, Alternative)
  - Addressing DWR recommended actions
  - 5-year Alternative update due January 1, 2022
- North San Benito Subbasin
  - New Groundwater Sustainability Plan (GSP)
  - Led by San Benito County Water District
  - GSP due January 31, 2022

Santa Clara and Llagas Subbasins:



North San Benito Subbasin:



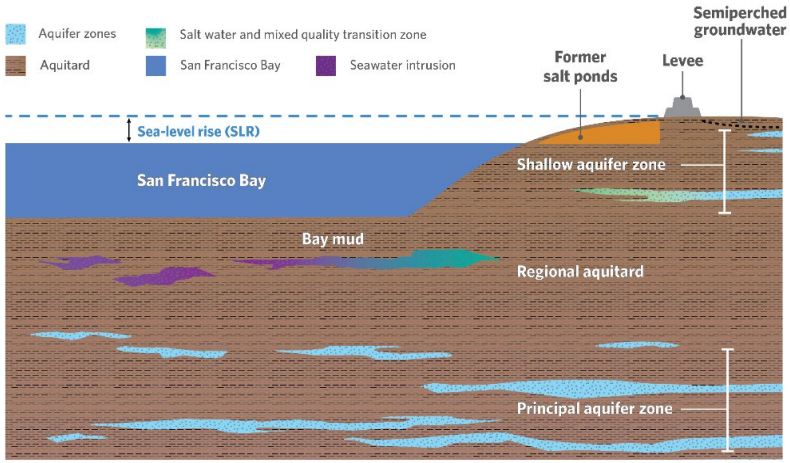
small areas in Santa Clara County

Valley Water

5-Year Alternative Update – Progress

- Identify groundwater dependent ecosystems (GDEs)
  - Created preliminary GDE map
  - Biologist field verification
- Project water budget: climate change for 50-year horizon
  - Global Climate Models (GCMs)
  - Groundwater modeling
- Develop seawater intrusion outcome measure
  - Shallow aquifer - groundwater monitoring of chloride
  - Created maps of historical extent of seawater intrusion
  - Plan for continued monitoring

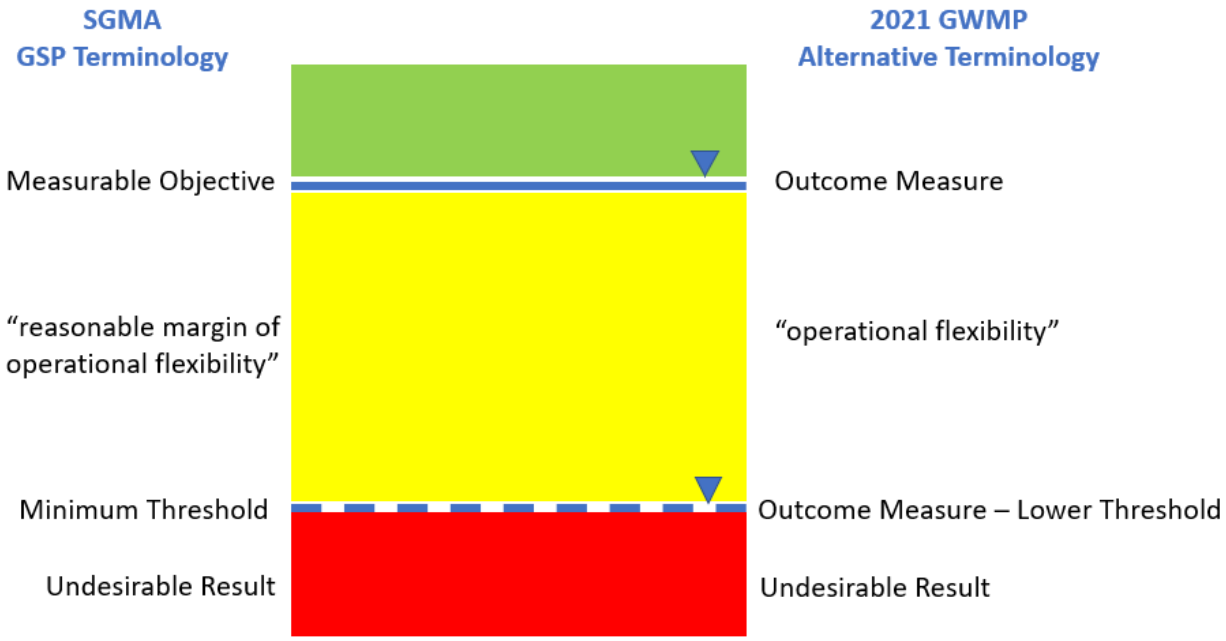
Seawater Intrusion:



Valley Water

5-Year Alternative Update – Progress

- Update and clarify outcome measures
  - Groundwater storage
  - Subsidence
  - Water quality (2)
  - Seawater intrusion (new)
- Will define what constitutes an "undesirable result" for each



Schedule & Key Deadlines

Stakeholder Engagement:

- Engage interested parties via:
  - Email/website updates
  - Water Conservation and Demand Management Committee Updates
  - Retailers Water Supply & Groundwater Subcommittee meetings
  - Public meetings (Summer 2021)

Expected GWMP Release/Adoption Schedule:

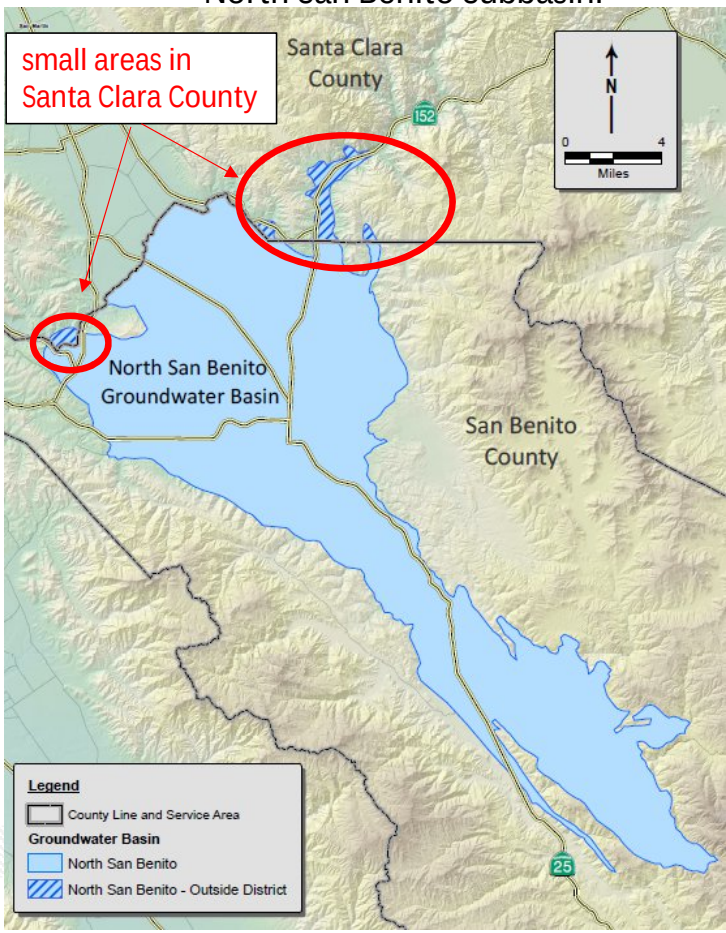
- Late Summer 2021: Public draft of 2021 GWMP released
- November 2021: Board consideration of GWMP

➢ January 1, 2022: Deadline to submit updated Alternative to DWR

New Groundwater Sustainability Plan (GSP)

- MOU: Valley Water & San Benito County Water District
  - Both agencies are GSAs
  - Responsibilities for GSP development
- San Benito County Water District
  - Lead on GSP development, outreach, and implementation
- Valley Water
  - Support GSP development and serve on Technical Advisory Committee
  - Inform local stakeholders

North San Benito Subbasin:



Expected Schedule

- August – October 2021: 90-day public review period for the GSP
- November 2021: Tentative schedule for public hearings to adopt GSP (SBCWD and Valley Water must both adopt)

➢January 31, 2022: Deadline to submit GSP to DWR

Valley Water

Clean Water • Healthy Environment • Flood Protection

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Santa Clara Valley Water District

File No.: 21-0464

Agenda Date: 5/10/2021
Item No.: 4.5.

COMMITTEE AGENDA MEMORANDUM

Water Conservation and Demand Management Committee

SUBJECT:
Review Water Conservation and Demand Management Committee Work Plan, the Outcomes of Board Action of Committee Requests; and the Committee's Next Meeting Agenda.

RECOMMENDATION:
Review the Committee work plan to guide the committee's discussions regarding policy alternatives and implications for Board deliberation.

SUMMARY:
The attached Work Plan outlines the Board-approved topics for discussion to be able to prepare policy alternatives and implications for Board deliberation. The work plan is agendized at each meeting as accomplishments are updated and to review additional work plan assignments by the Board.

BACKGROUND:
Governance Process Policy-8:

The District Act provides for the creation of advisory boards, committees, or commissions by resolution to serve at the pleasure of the Board.

Accordingly, the Board has established Advisory Committees, which bring respective expertise and community interest, to advise the Board, when requested, in a capacity as defined: prepare Board policy alternatives and provide comment on activities in the implementation of the District's mission for Board consideration. In keeping with the Board's broader focus, Advisory Committees will not direct the implementation of District programs and projects, other than to receive information and provide comment.

Further, in accordance with Governance Process Policy-3, when requested by the Board, the Advisory Committees may help the Board produce the link between the District and the public through information sharing to the communities they represent.

ATTACHMENTS:
Attachment 1: WCaDM Committee 2021 Work Plan
Attachment 2: WCaDMC Work Plan Discussion

UNCLASSIFIED MANAGER:
Michele King, 408-630-2711

2021 Work Plan: Water Conservation and Demand Management Committee

Update: April 2021

The annual work plan establishes a framework for committee discussion and action during the annual meeting schedule. The committee work plan is a dynamic document, subject to change as external and internal issues impacting the District occur and are recommended for committee discussion. Subsequently, an annual committee accomplishments report is developed based on the work plan and presented to the District Board of Directors.

ITEM	WORK PLAN ITEM	MEETING DATE	DISCUSSION/ACTION ITEM	ACCOMPLISHMENT DATE AND OUTCOME
1	**Review voluntary call for conservation**	3-30-2021	Discussion/Action Item	**Accomplished March 30, 2021:** The Committee reviewed and discussed voluntary call for conservation and took the following action: The Committee voted unanimously to increase the Landscape Rebate Program to $2.00 a square foot. *Board approved at its meeting on April 27, 2021*.
2	**Review Water Conservation and Demand Management Committee Work Plan, the Outcomes of Board Action of Committee Requests; and the Committee's Next Meeting Agenda**	3-30-2021 4-12-2021	Discussion/Action Item	**Accomplished March 30, 2021:** The Committee reviewed and discussed the Water Conservation and Demand Management Committee Work Plan and took no action, however, the Committee would like to connect items to the 2040 Water Supply Master Plan. **Accomplished April 12, 2021:** The Committee reviewed and discussed the Water Conservation and Demand Management Committee Work Plan and took no action, however, Committee Vice Chair Nai Hsueh will work on the Committee's work plan since meeting with the Chair would constitute a quorum.

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

2021 Work Plan: Water Conservation and Demand Management Committee

Update: April 2021

ITEM	WORK PLAN ITEM	MEETING DATE	DISCUSSION/ACTION ITEM	ACCOMPLISHMENT DATE AND OUTCOME
3	**Update on 2021 Water Supply Conditions and Water Conservation Program**	4-12-2021	Discussion/Action Item	**Accomplished April 12, 2021:** The Committee received updated information on the 2021 Water Supply Conditions and Water Conservation Program and took the following action: The Committee by a roll call vote unanimously approved 1. Support maintaining current voluntary call for conservation 2. Recommends the Board direct staff to increase water conservation messaging, programs to inspire additional water savings, and 3. The Committee also recommended the outreach messaging include the following suggestions since the messaging is being developed to tailor the message: • To those that are conserving vs those that are not, (what should be done if someone is not conserving), • Encourage those that are already conserving and what tools/suggestions for them to continue, • To be user-friendly, • That the 20% water conservation message mention the base year (2013 or other year) • Conservation goal objective be clear—whether a number of 15% or 20% is going to be used (or not).

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

2021 Work Plan: Water Conservation and Demand Management Committee

Update: April 2021

ITEM	WORK PLAN ITEM	MEETING DATE	DISCUSSION/ACTION ITEM	ACCOMPLISHMENT DATE AND OUTCOME
				Board approved at its meeting on April 27, 2021, with a recommended conservation goal objective of 25%.
4	**Monitoring Assessment Program Update: Risk Assessment and Climate Analysis**	5-10-2021	Discussion/Action Item	
5	**2020 Urban Water Management Plan Update**	5-10-2021	Discussion/Action Item	
6	**Water Conservation Program and Spring and Summer Outreach Campaigns**	5-10-2021	Discussion/Action Item	
7	**Sustainable Groundwater Management Act (SGMA) Update**	5-10-2021	Discussion/Action Item	
8	**Water Conservation Strategic Plan**		Discussion/Action Item	
9	**Agricultural Water Use Baseline Study**		Discussion/Action Item	
10	**Collaboration with UC Water on Flood Managed Aquifer Recharge {FloodMAR]**		Discussion/Action Item	

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

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Item	Work Plan Item	Meeting Date	Discussion/Action Item	Accomplishment Date and Outcome
	Water Supply Master Plan Strategy 1: Secure Existing Supplies Goal: Achieve 99,000 AF conservation by 2030			
1	Monitor progress in achieving water conservation goal: • Amount of water conserved • Water conservation program success metrics (participation, lawn conversion, etc) • Water conservation outreach success metrics • Collaboration with retailers • Communicating about water waste • Engage and support private-sector stakeholders, local, state, and federal agencies that promote water conservation.			
2	Recommend policies towards achieving the water conservation goal: • Water Conservation Strategic Plan • Making Water Conservation a Way of Life • Review calls for conservation during droughts • New programs • SCW funding			

	Water Supply Master Plan Strategy 2: Increase Water Conservation and Reuse Goal: Increase demand management and storm water capture to reduce future demand by 100,000 AF and increase supply by 10,000 AF by 2040			
3	Monitor progress in achieving the long term water conservation and stormwater capture goal: • Investments in no-regrets package/stormwater resource plan implementation • Ag Baseline study • Collaboration with UC Water on Flood Managed Aquifer Recharge {FloodMAR]			
4	Recommend policies towards achieving long term water conservation goal • Collaboration on ordinances •			
	Water Supply Master Plan Strategy 3: Optimize the Use of existing supplies and infrastructure			
5	South County Recharge			
6	Sustainable Groundwater Management Plan			
	Future Demand Projections			
7	Monitor progress and recommend policies • Monitoring and Assessment Program • UWMP • CCAP water supply portion			

	Other items			
8	• Water resilience portfolio • SB 606/AB 1668			

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