

SOLANO SUBBASIN

GROUNDWATER SUSTAINABILITY AGENCY

BOARD OF DIRECTORS:

Chair:

Director Dale Crossley
Reclamation District No. 2068

Vice Chair:

Supervisor Mitch Mashburn
Solano County District 5

DIRECTORS:

Vice-Mayor Scott Pederson
City of Dixon

Mayor Ron Kott
City of Rio Vista

Director Jack Caldwell
California Water Services

Director Spencer Bei
Dixon Resource
Conservation District

Director Ryan Mahoney
Maine Prairie Water District

Supervisor John Vasquez
Solano County District 4

Director John Roteveel
Solano County Farm Bureau

Director Russ Lester
Solano County Agricultural
Advisory Committee

Director Kurt Balasek
Solano Resource
Conservation District

SECRETARY/TREASURER:

Roland Sanford
Solano County Water Agency

BOARD OF DIRECTORS MEETING

DATE: Thursday, May 13, 2021

TIME: **5:00 P.M.-NOTE CHANGE OF START TIME**

PLACE: Virtual Zoom Meeting

<https://us02web.zoom.us/j/83885574549?pwd=eTZpbkN3SXFWkNBRDdnNlYrcEhnUT9>
Meeting ID: 838 8557 4549/Passcode: 630031
One tap mobile: +16699009128,,83885574549#,,,,*630031#
Dial by your location: +1 669 900 9128

Backup Conference line: 800-510-5879/Passcode 385498

1. **CALL TO ORDER**

2. **PLEDGE OF ALLEGIANCE**

3. **APPROVAL OF AGENDA**

4. **PUBLIC COMMENT**

Limited to 5 minutes for any one item not scheduled on the Agenda.

5. **CONSENT ITEMS**

(A) Minutes: Approval of the Minutes of the Board of Directors meeting of March 11, 2021.

6. **BOARD MEMBER REPORTS** (estimated time: 5 minutes)

RECOMMENDATIONS: For information only.

7. **SECRETARY/TREASURER REPORT** (estimated time: 5 minutes)

RECOMMENDATIONS: For information only.

8. SOLANO GROUNDWATER SUSTAINABILITY PLAN UPDATE
(estimated time: 40 minutes)

RECOMMENDATIONS:

1. Hear presentation and provide direction to staff.

9. TIME AND PLACE OF NEXT MEETING

Thursday, June 10, 2021 at 5:00 p.m. at the SCWA offices.

The Full Board of Directors packet with background materials for each agenda item can be viewed on the Agency's website at
www.scwa2.com/resources-management/ground-water/solano-gsa-bod

Any materials related to items on this agenda distributed to the Board of Directors of Solano Subbasin Groundwater Sustainability Agency less than 72 hours before the public meeting are available for public inspection at the Agency's offices located at the following address: 810 Vaca Valley Parkway, Suite 203, Vacaville, CA 95688. Upon request, these materials may be made available in an alternative format to persons with disabilities.

**SOLANO SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY
BOARD OF DIRECTORS MEETING MINUTES**

MEETING DATE: March 11, 2021

The Solano Subbasin Groundwater Sustainability Agency Board of Directors met this evening at the Solano County Water Agency Offices. Present were:

Vice-Mayor Scott Pederson, City of Dixon
Mayor Ronald Kott, City of Rio Vista
Supervisor John Vasquez, Solano County District 4
Supervisor Mitch Mashburn, Solano County District 5
Director Jack Caldwell, California Water Services Dixon
Director Spencer Bei, Dixon Resource Conservation District
Director Ryan Mahoney, Maine Prairie Water District
Director Dale Crossley, Reclamation District 2068
Russ Lester, Solano County AG Advisory Committee

CALL TO ORDER

The meeting was called to order at 5:32 p.m. by Chairman Kott.

ELECTION OF OFFICERS

On a motion by Supervisor Vasquez and a second by Vice Mayor Pederson the Board unanimously approved-by roll call vote-the election of Director Crossley as the Chair and Supervisor Mashburn as the Vice-Chair of the Board of Directors.

APPROVAL OF AGENDA

On a motion by Vice-Mayor Pederson and a second by Supervisor Vasquez the Board unanimously approved-by roll call vote-the Agenda.

PUBLIC COMMENT

There were no public comments.

CONSENT ITEMS

On a motion by Director Caldwell and a second by Director Bei the Board approved-by roll call vote-Consent Item 5(a) Minutes.

BOARD MEMBER REPORTS

There were no Board member reports.

SECRETARY/TREASURER REPORT

In addition to the written report, Staff discussed the Groundwater Sustainability Plan (GSP) schedule. Staff stated that it is likely that the draft GSP will be complete at the end of October. Staff asked the Board if they were comfortable, given the time constraints, releasing the entire draft GSP to the public at that time. This might mean that the last section or two of the GSP will be reviewed by staff but not presented to the Board before being released to the public. The Board was comfortable with this approach knowing that they would see the complete draft before adopting the GSP in December.

In addition, Staff asked if the start time of Board meetings could be moved up from 5:30 to 5:00 pm and the Board was okay with that suggestion.

SOLANO GROUNDWATER SUSTAINABILITY PLAN FUNDING

Staff discussed the two grants awarded to the Solano GSA, on behalf of the Solano Collaborative, a \$1 million grant from Proposition 1 in 2018 and a \$705,000 grant from Proposition 68 in 2019. These grants, in addition to the initial funding from the GSAs and in-kind services, were initially thought to be sufficient to complete the Solano GSP.

There have been two major shifts since 2019.

First, the Department of Water Resources (DWR) was only able to secure \$405,000 from Proposition 68 for the Solano Subbasin. There is a possibility that the additional \$300,000 will be allocated by DWR next fiscal year, but there are no guarantees that will occur at all, or when, if those funds are allocated.

For the second changed circumstance, there have been additional costs incurred for GSA Board and stakeholder outreach meetings, beyond what was originally anticipated in 2017.

To complete the GSP, staff are recommending the securing of an additional \$350,000.

Staff recommended four potential alternatives to consider for securing additional funding.

One alternative would be for each of the 5 GSA's to contribute towards the funding needed to complete the GSP. Staff have had conversations with the other GSA staff about contributing to the needed funding-both the City of Vacaville GSA and the Solano Irrigation District GSA stated they could help with the funding. The Sacramento GSA and Northern Delta GSA both stated it is very unlikely they could contribute at all.

A second alternative would be to ask the Solano County Water Agency to contribute again towards the GSP, with a similar amount as contributed in 2018. To enact this process, staff could draft a letter for the Board Chair to sign, an example letter was included in the Board packet, and submit to SCWA for consideration.

The third alternative would be to start extracting fees on landowners in the Solano Subbasin for completion of the GSP. Although staff are aware that this Board wanted to hold off charging fees as long as possible, this is a viable option to consider now.

A fourth alternative could be a hybrid of alternatives 1 and 2. Each of the GSAs could be asked what they could contribute and we could also ask SCWA if they would help contribute towards the remaining shortfall of funds.

Staff are asked the Board for guidance on how to proceed on securing additional funding to complete the GSP. Staff also asked for, if the Board did not want to explore extracting fees at this time, to allow Staff to start looking into the process for developing GSP implementation fees as it may take some time to meet all of the requirements for charging fees next year.

On a motion by Supervisor Vasquez and a second by Supervisor Mashburn the Board unanimously approved-by roll call vote-submitting a request to the Solano County Water Agency for assistance on funding completion of the Groundwater Sustainability Plan and authorizing staff to look into the process of developing implementation fee for the Solano GSP at a future date.

SOLANO SUBBASIN
GROUNDWATER SUSTAINABILITY PLAN UPDATE

Staff introduced the team from Luhdorff & Scalmanini Consulting Engineers (LSCE) to the Board of Directors. Vicki Kretsinger Grabbert from LSCE gave the Board a presentation on current development of the Solano Subbasin Groundwater Sustainability Plan (GSP).

Vicki discussed the draft materials completed to date: Sections 1 and 2 of the GSP and a Technical Memorandum on the Surface Water Budget and the Hydrogeologic Conceptual Model (HCM) and Groundwater Conditions. Sections 3 and 4 of the GSP should be complete by early April. Vicki also discussed the upcoming schedule for the GSP, with the anticipation of a complete draft by the end of October.

Vicki gave an overview of what was covered in Sections 1 and 2 of the GSP as well as the HCM in the Technical Memorandum. Groundwater conditions and the surface water budget were also discussed. The team is working on the model and completion of the groundwater part of the water budget.

Currently, the technical team is working with the GSA staff to complete the picture of current and future land use, projections for 5, 10, and 50-years out. Preliminary numbers indicate a reduction of about 3% of agricultural acres that will be converted to urban areas.

Section 3 of the GSP will be about the Basin Setting. This section will include the geologic setting, the Hydrogeologic Conceptual Model, a description of the monitoring networks and programs, and surface water and groundwater conditions.

The technical team is also working with GSA staff on identifying potential Projects and Management Actions. This is akin to adaptive management. If conditions change in the subbasin, these potential projects and management actions could help correct any deficiencies. Example projects might include recharge basins, recycled water, irrigation efficiency, land fallowing, or surface water trading to name a few.

Next steps include focusing on completing Sections 3 and 4 of the GSP.

TIME AND PLACE OF NEXT MEETING

The time and place of the next meeting is Thursday, May 13, 2020 at 5:00 p.m., via Zoom.

ADJOURNMENT

This meeting of the Solano Subbasin Groundwater Sustainability Agency Board of Directors was adjourned at 6:26 p.m.

Roland Sanford
Secretary to the Solano Subbasin
Groundwater Sustainability Agency

SOLANO SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY

MEMORANDUM

TO: Board of Directors

FROM: Roland Sanford, Secretary to the Board of Directors

DATE: May 13, 2020

SUBJECT: May General Manager/Secretary Report

Groundwater Sustainability Plan Update

Luhdorff & Scalmanini (LSCE), our consultants developing the Groundwater Sustainability Plan (GSP), will give the Board an update on progress and next steps for the GSP. Some of the topics they will be covering include: Sections 3 and 4 of the GSP. Section 3 includes the Basin Setting, covering the Geologic Setting, the Hydrogeologic Conceptual Model, the Monitoring Network and Program, and Groundwater and Surface Water Conditions. Section 4 includes Historical, Current, and Projected Water Supplies, covering Land Use and Population Trends, Water Supplies and Utilization by Sector, and Total Water Solano Subbasin Water Use.

Groundwater Sustainability Plan Funding

As discussed at the March 11th Board of Directors (BOD) meeting, the awarded grant funds from Proposition 68 have not been fully allocated for the Solano GSA, which will cause a shortage of funds needed to complete the GSP and some ancillary tasks. The Solano GSA sent a funding request letter to the Solano County Water Agency (SCWA) asking for assistance in this matter at their April 8th Board of Directors Meeting. The SCWA BOD agreed to fulfill the funding request by the Solano GSA BOD for \$350,000.

Groundwater Sustainability Plan Implementation Fees

As directed by the Board of Directors, staff have started exploring all of the necessary requirements to enact fees to fund implementation of the GSP. The most time sensitive requirement is to provide information to Solano County by August so that any additions to the tax roll can be added for the following year. As mentioned by staff at the March 11th BOD meeting, this process will take a lot of stakeholder input and coordination with the other GSAs in the Solano Subbasin. Staff are currently discussing options with staff at the other GSAs. When

viable options are outlined, staff will bring that information to the BOD for consideration and possible direction to staff.

As mentioned by staff at the last BOD meeting, considering all of the requirements and outreach and meetings with stakeholders, GSP implementation fees would likely not be assessed until 2023.

Meetings and Inter-Basin Coordination

Coordination with our neighboring groundwater subbasins and other agencies continues.

March 30th-Staff met with the California Department of Fish and Wildlife and The Nature Conservancy to discuss the GSP and their perspectives of how we should consider Groundwater Dependent Ecosystems (GDEs). Staff gave information on our monitoring networks including the seepage and infiltration studies we are doing near Putah Creek and they gave us some helpful links. Staff believe we are on track here to provide the necessary information on GDEs in the GSP.

March 31st-Staff met with the South American Subbasin to discuss interbasin coordination. They are eager to create an interbasin coordination agreement. Staff discussed that our priorities at present are completing the GSP, but we can certainly share information and data now. They seemed to be okay with that approach. This is a subbasin where we don't see any negative or even really any interactions going to take place.

April 6th-Staff met with the other GSA Staff to start discussions on implementation fees for the GSP. Staff are now meeting with the other GSA staff twice a month as we move forward on completing the GSP.

April 6th-Staff participated in an Interbasin Coordination Forum. Five adjacent subbasins-Yolo, South American, Eastern San Joaquin, Contra Costa, and Cosumnes Subbasins joined the Forum discussion which focused on the projects and management actions (PMAs) subbasins are either considering for their GSP or are beginning to implement.

As with our subbasin, it seems that none of the other subbasins have planned on penalties or punitive measures for their stakeholders. It also appeared that not much was actually being planned on PMAs at this point in other subbasins-our process on PMAs was maybe ahead of the curve a bit.

Most of the other basins were also focusing on the supply side of things-which begs the question, where are they going to get new water supplies?

April 7th-Staff met with consulting team to continue discussions on GSP development.

April 13th-Staff met with RD 349 BOD to give them an update on the GSP.

April 15th-Staff met with the other GSA Staff to continue discussions on GSP development.

April 16th-Staff met with Dixon Resource Conservation District Staff to look at the data they collect for the Irrigated Lands Program-to see if we can incorporate that into our reporting process for the GSP. Staff are attempting to incorporate existing programs as much as possible into the GSP so that growers don't have to report things twice.

April 20th-Staff met with consulting team to continue discussions on GSP development.

GSP Schedule

As requested, the schedule for the GSP is attached. The GSP schedule will be discussed during the GSP update presentation.

Solano Groundwater Sustainability Plan Website

Continuous updates are being made to the Solano Groundwater Sustainability Plan website. The address for the website is: <http://www.solanogsp.com>

**ACTION OF
SOLANO SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY**

DATE: May 13, 2021

SUBJECT: Solano Groundwater Sustainability Plan Update

RECOMMENDATION:

Hear presentation and provide direction to staff.

FINANCIAL IMPACT:

None.

BACKGROUND:

Luhdorff & Scalmanini Consulting Engineers (LSCE) will provide an update on progress of the Solano Groundwater Sustainability Plan (GSP) to the Board. Topics to be covered during the presentation (attached):

- Draft Sections 3 and 4
- Integrated Hydrologic Model-Local Solano Subbasin Model
- Projects and Management Actions
- Schedule

After the presentation, staff will ask for input from the Board on continued direction of the development of the GSP.

Recommended: _____
Roland Sanford, Secretary

<input type="checkbox"/> Approved as recommended	<input type="checkbox"/> Other (see below)	<input type="checkbox"/> Continued on next page
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Modification to Recommendation and/or other actions:

I, Roland Sanford, Secretary to the Solano Groundwater Sustainability Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on May 13, 2021 by the following vote.

Ayes:

Noes:

Abstain:

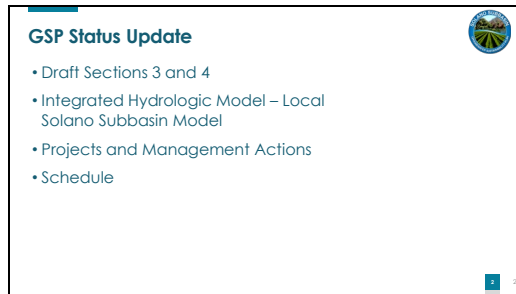
Absent:

Roland Sanford,
Secretary to the
Solano Groundwater Sustainability Agency

Slide 1



Slide 2



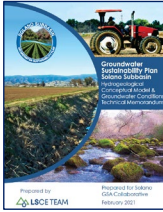
Slide 3



Slide 4

Draft Sections 3 and 4

- **Draft Section 3: Basin Setting (and TM)**
 - Geologic Setting
 - Hydrogeologic Conceptual Model
 - Description of Monitoring Networks and Programs
 - Surface Water and Groundwater Conditions
- **Draft Section 4: Historical, Current, Projected Water Supplies**
 - Land Uses and Population Trends
 - Water Supplies and Uses
 - Total Salano Subbasin Water Use



Groundwater Sustainability Plan
Salano Subbasin
Hydrogeologic Conceptual Model &
Description of Monitoring Programs
February 2021

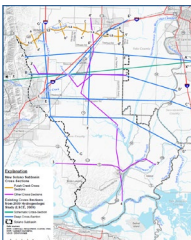
Prepared by: LBC TEAM
Prepared for: Salano
GSA, CA Department of
February 2021

Slide 5

Hydrogeologic Conceptual Model

§ 854.14. Hydrogeologic Conceptual Model
Each Plan shall include a descriptive hydrogeologic conceptual model of the basin based on technical studies and qualified maps that characterizes the physical components and interaction of the surface water and groundwater systems in the basin.

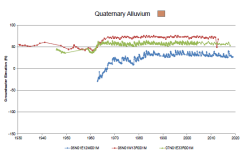
- **Geologic Cross Sections (Key Component of HCM)**
 - 7 prior cross sections focused on deeper conditions
 - 8 new cross sections to enhance HCM
 - 5 shallow sections along Putah Creek
 - 3 across northern and southern areas of Subbasin
- **Lithologic & Geophysical Logs: Characterize Subsurface Sediments to Depths >2500 FT**



Slide 6

HCM and Groundwater Conditions

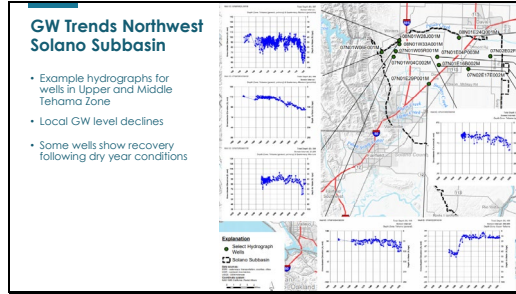
- Previous Hydrogeologic Studies
- Numerous Figures/Maps
- Groundwater Data and Analyses (historical by aquifer/depth zone)
 - GW levels (hydrographs; contours)
 - GW quality (key constituents: TDS; nitrate; boron; arsenic; chromium 6)



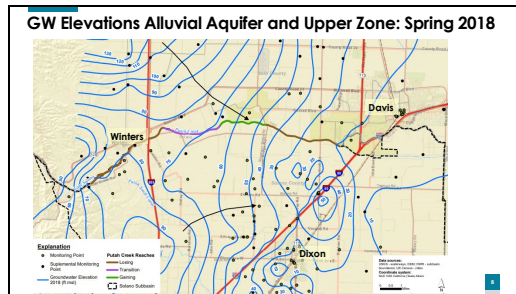
Quaternary Alluvium

Vertical Axis: Elevation (Feet) from 0 to 100
Horizontal Axis: Year from 1920 to 2010

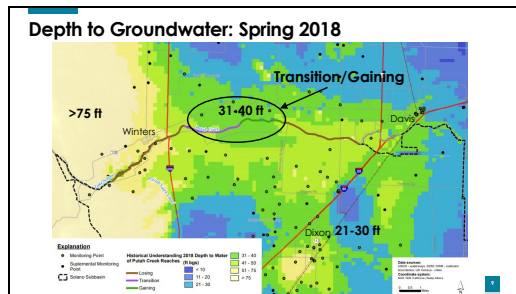
Slide 7



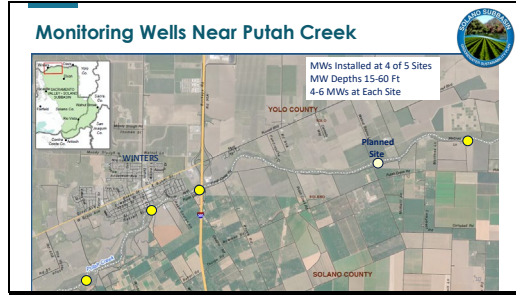
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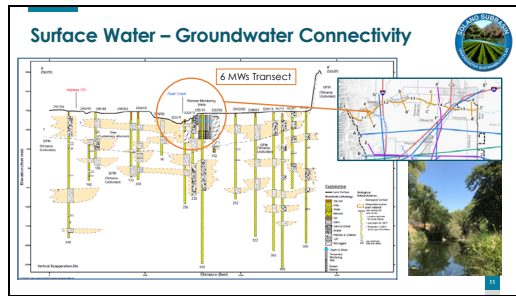
Slide 9



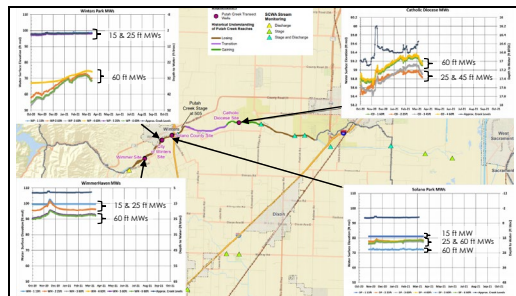
Slide 10



Slide 11



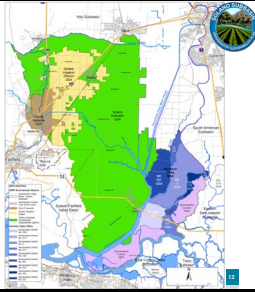
Slide 12



Slide 13

Solano Subbasin Water Budgets

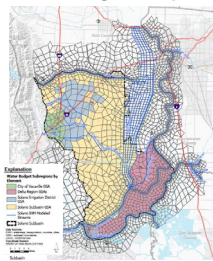
- Subbasin water budget includes four subregions:
 - City of Vacaville GSA
 - Solano Irrigation District GSA
 - Solano Subbasin GSA
 - Delta Region GSAs (Northern Delta GSAs and Sacramento County GSA)



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Solano Integrated Hydrologic Model (Solano IHM)

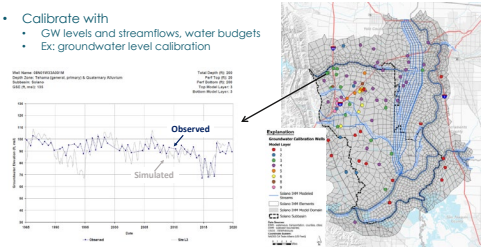
- Locally Refined & Calibrated
 - Updated with local land use data
 - Added locally important streams
 - Refined sediment textural data for calibrating aq. parameters based on local geology
 - Included key pumping well locations and depths
- Key Outputs Summarized by Subbasin and GSAs
 - Groundwater levels
 - Water budgets
- Next Steps
 - Continued refinement and calibration
 - Projected/future scenarios



Slide 15

Solano Integrated Hydrologic Model (Solano IHM)

- Calibrate with
 - GW levels and streamflows, water budgets
 - Ex: groundwater level calibration



Slide 16



Slide 17

**SGMA Requirements:
Projects and Management Actions**

- Description of PMAs to achieve the sustainability goal for the Subbasin; respond to changing conditions in the Subbasin
- Measurable objective that is expected to benefit from the PMAs
- Implementation of PMAs
- Notice and actions to be taken

ADAPTIVE MANAGEMENT

<p>Projects: Increase Supply</p>	<p>Management Actions: Reduce Demand</p>
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**SGMA Requirements
(cont.)**

- Quantification of demand reduction
- Permitting and regulatory process
- Time-table for initiation and completion
- Benefits expected to be realized
- How PMAs will be accomplished
- Legal authority
- Cost
- Long-term sustainability

ADAPTIVE MANAGEMENT

<p>Projects: Increase Supply</p>	<p>Management Actions: Reduce Demand</p>
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Solano Subbasin GSP Schedule

Updated Draft April 21, 2021

GSP Section/Event	NOTES	MEETING TOPICS: 2021	2020				2021				2022	
			1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Jan.	
Executive Summary	SUMMER 2021										X	
Draft Section 1 INTRODUCTION GSA structure/authorities, Beneficial uses and users,	SPRING 2020		X									
Draft Section 2 PLAN AREA Land/Water Mgmt., Monitoring and Management, Decision-Making	Sect 2; TM-HCM/GW; Water Supply Scenarios; Intro Proj & MAs					X						
Draft Section 3 BASIN SETTING Geologic setting, Hydrogeologic Conceptual Model, SW/GW, Potential Recharge Areas; Monitoring Network and Program	NOVEMBER, DECEMBER 2020, JANUARY 2021: Sect 3; Water Supply Scenarios; FEBRUARY/MARCH 2021: Projects & Mgmt Actions	MARCH/APRIL: Brief discussion of draft TM							X			
TM: Hydrogeologic Conceptual Model and Groundwater Conditions	Draft TM-HCM/GW							X				
Draft Section 4 HISTORICAL, CURRENT AND PROJECTED WATER SUPPLIES Land Use/Population Trends; Historical, Current and Projected Water Supplies/Use; Total Water Use	JANUARY/FEBRUARY 2021: Draft Section 4 (builds off of TM SWS plus input from GSAs on Water Demand and Supply Projections; MARCH 2021: Summary Projected Land Use	MARCH/APRIL/MAY: Projected Land Use; PMAs discuss Collaborative Input							X			
TM: Preliminary SWS Water Budget	SPRING 2020			X								
Draft Section 5 WATER BUDGET Water Budget, Hydrologic Model, Sustainable Yield	SPRING 2021: Prepare following Model TM	MAY: Discuss draft Water Budget results									X	
TM: Groundwater Model Development, Calibration and Scenarios	SPRING 2021: Prepare while completing model development and calibration; complete when model scenarios for Projects and MAs are run	MAY/JUNE: Discuss draft Future Scenarios							X			
Draft Section 6 Sustainable Management Criteria Sustainable Management Criteria Sustainability Goal, Sustainability Indicators, Undesirable Results, Minimum Thresholds, Measurable Objectives	Preliminary discussion of SMC concepts (FEBRUARY/MARCH 2021; Need to complete modeling to inform setting of criteria (SMC); May 2021 Draft Section 6	MAY/JUNE: Discuss Sustainable Management Criteria and esp. UR definitions; JULY: Discuss SMC Min. Thresholds and Measurable Objectives								X		
Draft Section 7 MONITORING DATA MANAGEMENT AND REPORTING Data Management, Reporting, Mapping, Modeling Standards	SPRING 2021	JUNE: Discuss Data Management and Annual Reporting							X			
Draft Section 8 SUSTAINABLE GROUNDWATER MANAGEMENT: PROJECTS AND MANAGEMENT ACTIONS	Fall 2020 through April 2021 discuss Projects and MAs of GSA Goals, Policies, Ordinances, Education, Projects and Management Actions	MARCH: Projected Land Use; PMAs discuss Collaborative Input from Feb. 2021 request; APRIL/MAY: Discuss highest ranked PMAs related to Modeling Scenarios and additional info needs; JULY/AUGUST: Discuss Policies related to Management Actions									X	
Draft Section 9 PLAN IMPLEMENTATION Summary, Recommendations, Annual Reports, Periodic Evaluation	SUMMER 2021: Builds off of discussions related to Projects and MAs, modeling results, and Policy discussions by GSAs	JUNE/JULY/AUGUST: Discuss draft Plan Implementation Costs									X	
Draft Section 10 REFERENCES	SUMMER 2021										X	
Complete Draft GSP for GSAs' Review	LATE SUMMER 2021											
Complete Draft GSP for Public Comment	FALL 2021											
Release of Final GSP for Public Comment	FALL 2021											
GSAs' Consideration/Adoption of the Final GSP	FALL 2021											
Submittal of GSP DWR SGMA Portal	JANUARY 2022: Submit to DWR											