Vina Groundwater Sustainability Agency
308 Nelson Avenue
Oroville, CA 95965
(530) 552-3592

Agenda Prepared: 1/7/2021
Agenda Posted: 1/8/2021
Prior to: 5:30 p.m.

VINA GROUNDWATER SUSTAINABILITY AGENCY BOARD MEETING

Regular Meeting Agenda
January 13, 2021, 5:30 p.m.
ONLINE MEETING ONLY VIA ZOOM

Materials related to an item on this Agenda are available for public inspection in the City of Chico Public Works Operation & Maintenance Office at 965 Fir Street, Chico, during normal 8 am to 5 pm business hours or online at https://www.vinagsa.org/

PUBLIC PARTICIPATION:

This meeting is being conducted via teleconference in accordance with Executive Order N-25-20 and N-29-20. Members of the public may virtually attend the meeting remotely using the ZOOM platform.

The public may listen to and/or participate in the Vina Groundwater Sustainability Agency (GSA) Board Meetings via landline or mobile telephone or via computer, with both video and audio enabled or audio only. If you wish to comment on an item, but do not wish to participate during the meeting, the public may submit comments prior to the meeting via email to **vinagsapubliccomments@chicoca.gov**. Please submit emails with the subject line "**PUBLIC COMMENT ITEM NO.__".** The public is encouraged to not send more than one email per item or comment on numerous items in one email.

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    a. https://us02web.zoom.us/j/86983600705
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    a. When prompted, use Meeting ID: 869 8360 0705
3. Directly from your mobile phone you can tap:
    a. +16699006833, 86983600705# US (San Jose)
4. Dial-in using your landline or mobile phone to:
    a. 1 669 900 6833
    b. When prompted, use Meeting ID: 869 8360 0705
5. If you are having any issues connecting to the meeting, please call or text Kamie Loeser, Durham Irrigation District, at (530) 680-7222 for assistance.

Please note that when you access the meeting, ***you will be placed into a waiting room and admitted*** into the meeting by the meeting host

Please contact the City of Chico Public Works Department at (530) 894-4200 if you require an agenda in an alternative format or if you need to request a disability-related modification or accommodation. This request should be received at least three working days prior to the meeting.

1. REGULAR BOARD MEETING

1.1. Call to Order

1.2. Roll Call

1.3. Election of Chair and Vice Chair

2. CONSENT AGENDA - all matters listed under the consent agenda are to be considered routine and enacted by one motion.

2.1. APPROVAL OF 12/09/20 VINA GSA BOARD MEETING MINUTES

Action: Approve minutes of Vina GSA Board meeting held on 12/09/20.

2.2. APPROVAL OF THE VINA GSA MONTHLY FINANCIAL STATUS REPORT

Action: Approve the Vina GSA Financial Status Report as of 1/04/2021.

3. ITEMS REMOVED FROM CONSENT – IF ANY

4. BUSINESS FROM THE FLOOR

Members of the public may address the Board at this time on any matter not already listed on the agenda; comments are limited to three minutes. The Board cannot take any action at this meeting on requests made under this section of the agenda.

5. NOTICED PUBLIC HEARINGS - NONE

6. REGULAR AGENDA

6.1. UPDATE ON THE DEVELOPMENT OF THE VINA GROUNDWATER SUSTAINBILITY PLAN (GSP)

Staff will provide an update on the development of the Vina GSP, which will include a presentation on the development of Sustainable Management Criteria, and an update on the Inter-basin Coordination efforts. **(*Presentation/Verbal Report – Paul Gosselin)*.**

Recommendation: Accept as information and provide direction to Staff as appropriate.

6.2. CONSIDERATION OF 2021 VINA GSA BOARD REGULAR MEETING CALENDAR.

The Board will consider for approval a proposed Vina GSA regular Board meeting calendar and meeting time for 2021. **(*Report – Linda Herman).***

Recommendation: The Management Committee recommends the Board approve the proposed 2021 calendar of the Vina GSA Board meetings for 2021 or provide alternative dates or times for these meetings.

7. COMMUNICATIONS AND REPORTS

These items are provided for the Board's information. Although the Board may discuss the items, no action can be taken at this meeting. Should the Board determine that action is required, the item or items may be included for action on a subsequent posted agenda.

7.1 Vina GSA Management Committee Updates

7.1.1 Vina Stakeholder Advisory Committee Update ***(Written Report -Kelly Peterson)***

7.1.2 DWR Technical Support Services Facilitation Services Update (***Verbal Report-Paul Gosselin)***

7.1.3. Rock Creek Reclamation District Update ***(Verbal Report-Paul Gosselin)***

7.1.4 Tuscan Water District Update ***(Verbal Report-Paul Gosselin)***

8. ***ADJOURNMENT*** **–** The meeting will adjourn to the next regular Vina GSA Board meeting on 2/10/21 unless changed by the Board at tonight's meeting

Vina Groundwater Sustainability Agency
308 Nelson Avenue
Oroville, CA 95965
(530) 552-3592

VINA GROUNDWATER SUSTAINABILITY AGENCY
BOARD MEETING MINUTES

Regular Meeting
December 9, 2020, 5:30 p.m.
ONLINE MEETING ONLY VIA ZOOM

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1. REGULAR BOARD MEETING

1.1. Call to Order:

Called to order by Vice Chair Tuchinsky at 5:30 p.m.

1.2. Roll Call

Board Members Present:
Evan Tuchinsky
Steve Lambert
Jeffrey Rohwer
Raymond Cooper

Board Members Absent: Alex Brown, Alternate for City of Chico

Staff Present:
Erik Gustafson (City of Chico Public Works Director), Paul Gosselin (BCDWRC Director), Kamie Loeser (Durham Irrigation District), Valerie Kincaid (Attorney O'Laughlin & Paris LLP), Colin Klinesteker (non-JPA member representing the Mechoopda Tribe), and Linda Herman (City of Chico Park and Natural Resources Manager)

2. CONSENT AGENDA - all matters listed under the consent agenda are to be considered routine and enacted by one motion.

2.1. APPROVAL OF 10/14/20 VINA GSA BOARD MEETING MINUTES

Action: Approve minutes of Vina GSA Board meeting held on 11/18/20.

2.2. APPROVAL OF THE VINA GSA MONTHLY FINANCIAL STATUS REPORT

Action: Approve the Vina GSA Financial Status Report as of 11/30/2020.

Board Member Lambert motioned to approve the consent agenda. Seconded by Board Member Cooper.

Motion carried as follows:

AYES: Board Member Rohwer, Board Member Cooper, Board Member Lambert, Vice Chair Tuchinsky

NOES: None

ABSENT: Alex Brown

3. ITEMS REMOVED FROM CONSENT – NONE

4. BUSINESS FROM THE FLOOR

Members of the public may address the Board at this time on any matter not already listed on the agenda; comments are limited to three minutes. The Board cannot take any action at this meeting on requests made under this section of the agenda.

There was no Business from the Floor.

5. NOTICED PUBLIC HEARINGS - NONE

6. REGULAR AGENDA

6.1. CONSIDERATION OF THE REMOVAL OF A STAKEHOLDER ADVISORY COMMITTEE (SHAC) MEMBER AND POTENTIAL CANDIDATES FOR REAPPOINTMENT.

The Board considered removing a Domestic Well Owner representative member on the SHAC who has missed more than three consecutive Committee meetings. If the removal is approved, the Board may also consider applications for this vacancy if any are available by the date of this meeting. **(*Report – Paul Gosselin*)**

Recommendation: The Management Committee recommends that the Board, as two separate actions:

1. Approve the removal of Joshua Pierce as one of the Domestic Well Owner representatives on the SHAC.

2. Review potential candidates, if any, and appoint one (1) applicant, if determined qualified, as the Domestic Well Owner representative to serve on the Committee until December 9, 2024.

Debra Lucero provided comments on this item during the meeting.

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1. **Action:** Approve the removal of Joshua Pierce as one of the Domestic Well Owner representatives on the SHAC.

   Board Member Lambert motioned to approve removing Joshua Pierce from the SHAC. Seconded by Board Member Rohwer.

   Motion carried as follows:

   AYES: Board Member Rohwer, Board Member Cooper, Board Member Lambert, Vice Chair Tuchinsky

   NOES: None

   ABSENT: Alex Brown

2. **Action:** Appoint Sam Goepp as the new Domestic Well Owner representative on the SHAC to serve until December 9, 2024.

   Board Member Cooper motioned to appoint Sam Goepp to the SHAC. Seconded by Board Member Rohwer.

   Motion carried as follows:

   AYES: Board Member Rohwer, Board Member Cooper, Board Member Lambert, Vice Chair Tuchinsky

   NOES: None

   ABSENT: Alex Brown

6.2. UPDATE ON THE DEVELOPMENT OF THE VINA GROUNDWATER SUSTAINBILITY PLAN (GSP)

Staff provided an update on the development of the Vina GSP which will include development of Sustainable Management Criteria, and efforts to coordinate with other neighboring subbasins and GSAs. (***Presentation/Verbal Report – Paul Gosselin)***.

Recommendation: Accept as information and provide direction to Staff as appropriate.

No Board direction or action was taken on this information item.

7. COMMUNICATIONS AND REPORTS

These items were provided for the Board's information. Although the Board may discuss the items, no action can be taken at this meeting. Should the Board determine that action is required, the item or items may be included for action on a subsequent posted agenda.

7.1 Vina GSA Management Committee Updates

Staff provided updates on the following agendized items:

7.1.1 Vina Stakeholder Advisory Committee Update ***(Report – Paul Gosselin)***

7.1.2 Rock Creek Reclamation District Update ***(Verbal Report-Paul Gosselin)***

7.1.3 Tuscan Water District Update ***(Verbal Report-Paul Gosselin)***

Management Committee member Gosselin also provided an update on the renewal of the contract with the Consensus Building Institute (CBI) to continue facilitation of the SHAC meetings and the inter-basin coordination efforts.

Jim Brobeck provided comments on Item 7.1.1 and the inter-basin coordination update.

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8. ***ADJOURNMENT*** **–** The meeting adjourned at 6:13 p.m. to the next regular Vina GSA Board meeting on January 13, 2021.

Vina
Groundwater Sustainability Agency
Agenda Transmittal

Agenda Item: **2.2**

Subject: **Vina GSA Financial Report**

Contact: Kelly Peterson **Phone: 530-552-3588** **Meeting Date: 12-9-20** **Consent Agenda**

Department Summary: Attached is the financial report for the 2020-2021 fiscal year for the Vina GSA as of 1/4/21.

Fiscal Impact: None

Staff Recommendation: Approve the financial report.

Vina GSA Financial Report	**Fund Balance:**	**$ 13,076.05**
FY 2020-2021 (7/1/2020 - 6/30/2021)	**Balance Date:**	**1/4/2021**

Expenditures

Budget Item	Date	Amount	Notes
Legal			
O'Laughlin & Paris	8/25/20	$ 1,785.00	
O'Laughlin & Paris	10/6/20	$ 1,330.00	
O'Laughlin & Paris	11/10/20	$ 630.00	
O'Laughlin & Paris	12/15/20	$ 595.00	
Total Legal Spent		$ 4,340.00	
Legal Budget		$ 10,000.00	
% of Legal Budget Spent		43%	
Insurance			
Golden State Risk Management Authority	7/7/20	$ 1,800.00	GSA insurance
Total Insurance Spent		$ 1,800.00	
Insurance Budget		$ 1,800.00	
% of Insurance Budget Spent		100%	2020 fees increased by $300
Audit			
Total Audit Spent		$ -	
Audit Budget		$ 2,000.00	
% of Audit Budget Spent		0%	
Contingency			
Total Contingency Spent		$ -	
Contingency Budget		$ 1,080.00	
% of Contingency Budget Spent		0%	
Website			
Digital Deployment		$ 240.00	Website Hosting Services
Total Website Spent		$ 240.00	
Website Budget		$ 240.00	
% of Website Budget Spent		100%	
All Expenditures		**$ 6,380.00**	
Total Budget for Expenditures		**$ 15,120.00**	
% of Budget Spent		**42%**	page 1

Vina GSA Financial Report

FY 2020-2021 (7/1/2020 - 6/30/2021)

Revenue

Budget Item	Date	Amount	Notes
Member Agency Contributions			
City of Chico	7/28/20	$ 5,000.00	
Durham Irrigation District	9/17/20	$ 1,000.00	
Durham Irrigation District	9/17/20	$ 1,000.00	
Durham Irrigation District	9/29/20	$ 1,000.00	
Durham Irrigation District	10/29/20	$ 1,000.00	
Durham Irrigation District	11/30/20	$ 1,000.00	Final Payment
Total Member Agency Contributions Received		$ 10,000.00	Note: Butte County's FY 20-21 contributions ($7K)were posted in previous FY and included in carry over balance
Total Member Agency Contributions Budget		$ 15,000.00	
% of Member Agency Contributions Budget Received		100%	
Interest	7/1/20	$ 41.99	Interest from last quarter
	10/15/20	$ 36.55	Interest from last quarter
Total Interest Received		$ 78.54	
Total Interest Budget		$ 120.00	
% of Interest Budget Received		65%	
All Revenue		**$ 10,078.54**	
Total Budget for Revenue		**$ 15,120.00**	
% of Budget Received		**100%**	Includes the Butte County contribution made last FY

Fund Balance

Starting Balance 7/1/2020	$	9,377.51
Expenses	$	6,380.00
Revenue	$	10,078.54
Fund Balance 1/4/21	**$**	**13,076.05**

Vina
Groundwater Sustainability Agency
Agenda Transmittal

Agenda Item: 6.1

Subject: Update on the Development of the Groundwater Sustainability Plan for the Vina Subbasin

Contact: Paul Gosselin **Phone: 530-574-7443** **Meeting Date: 1/13/21** **Regular Agenda**

Department Summary: The Vina Groundwater Sustainability Agency will receive an update on the development of the Groundwater Sustainability Plan (GSP) for the Vina Subbasin. The development of the GSP for the Vina subbasin is focusing on the development of the four major remaining elements – Sustainable Management Criteria; Representative Monitoring Locations; Projects and Management Actions, and; Interbasin Coordination. Staff will provide the Vina GSA Board with an overview of Sustainable Management Criteria, the status of Projects and Management Actions, and Inter-basin Coordination efforts. The focus of the presentation will be on the proposed Sustainable Management Criteria methodology presented to the Stakeholder Advisory Committee in December, 2020.

The presentation to the Stakeholder Advisory Committee by Geosyntec is attached as background material. Staff is also including a flyer with information on the interbasin coordination efforts. Staff will seek direction from the Vina GSA Board on the draft Sustainable Management Criteria, as appropriate.

Fiscal Impact: None

Staff Recommendation: Accept for information and provide direction as appropriate.

Project Meeting
Vina Subbasin
Development of SMCs
December 15, 2020

Agenda

- INTRODUCTIONS
- OVERVIEW
- SMC STRAWMAN OVERVIEW
- SMC STRAWMAN DETAILS
- OTHER

OVERVIEW

Basic Concepts for Developing Sustainability Criteria

1. Sustainable management is the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing ***undesirable results.***

2. **Undesirable results** occur when conditions related to one or more sustainability indicators cause ***significant and unreasonable impacts.***

3. SGMA and subsequent DWR guidance have left it to the GSAs to define what constitute significant and unreasonable impacts.

Undesirable Results :

Six Undesirable results are defined in SGMA

1. Chronic lowering of groundwater levels
2. Reduction of groundwater storage
3. Seawater intrusion
4. Degraded water quality
5. Land subsidence
6. Depletions of interconnected surface water

Sustainable Management Criteria and associated representative monitoring locations must be developed for each undesirable result.

Sustainable Management Criteria (SMC)

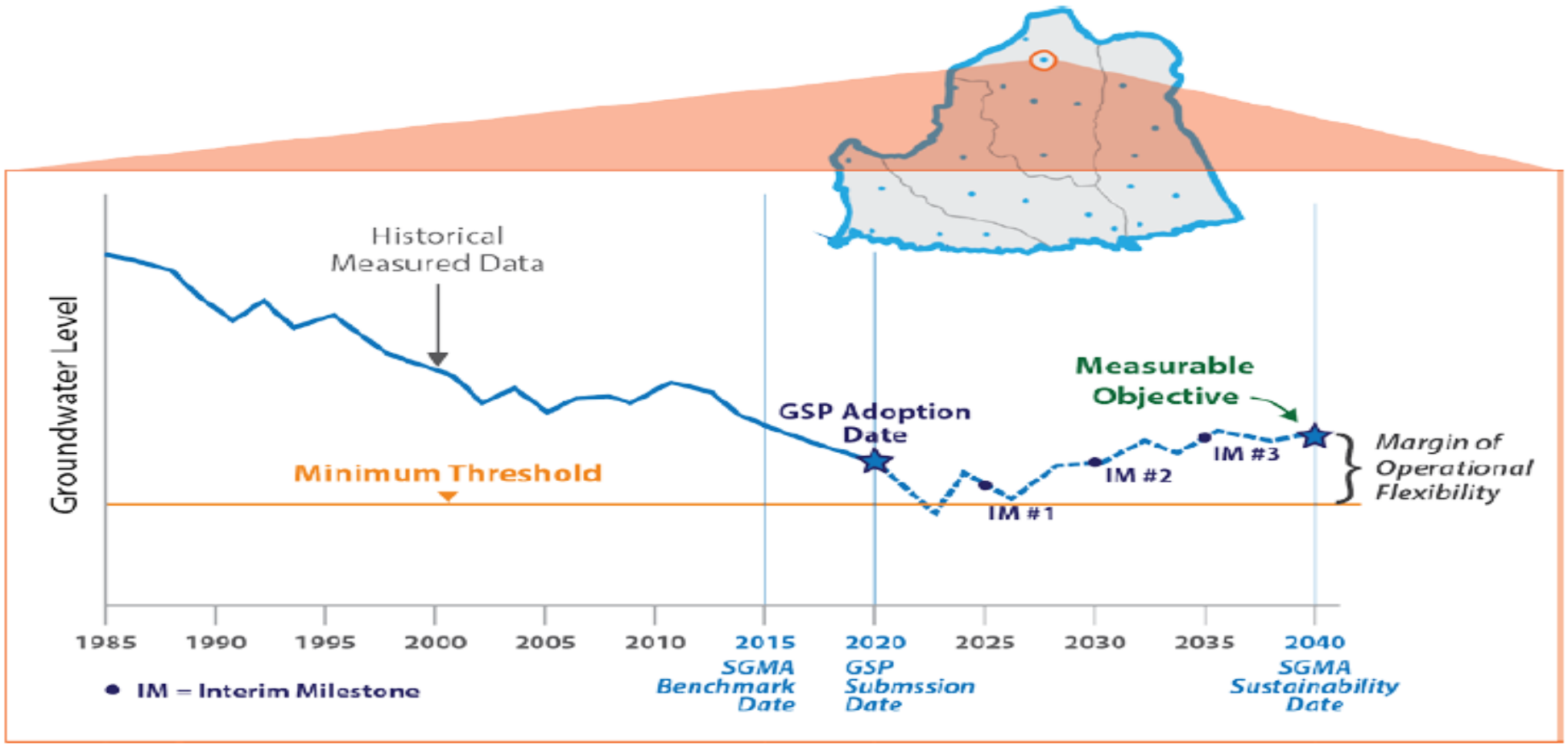
For each undesirable result, SMC must be defined that include:

1. **Description of Undesirable Results** – what constitutes a "significant and unreasonable" condition
2. **Minimum Threshold** – Quantitative definition of groundwater conditions at a representative monitoring site at which undesirable results may begin to occur
3. **Measurable Objective** – quantitative definition that reflect the basin's desired groundwater condition and allows the GSA to achieve sustainability goals within 20 years.

Other Definitions for SGMA GSP Development

- **Management Areas -** Sub-regions within the basin that differ from the basin at large due to local conditions. They are the geographic area(s) over which the significant and unreasonable impacts will be evaluated.
- **Representative Monitoring Sites** – A subset of a basin's complete monitoring network, where sustainable management criteria are set and measured
- **Margin of Operational Flexibility -** the "space" between the measurable objective and the minimum threshold
- **Interim Milestones :** 5 year targets for the Measurable Objective

Relationship between Minimum Thresholds, Measurable Objectives, Interim Milestones (IM), and Margin of Operational Flexibility for a Representative Monitoring Site



Schedule - SMCs

- **December 15, 2020 – Draft SMC Presentation**
- **January 19, 2020 – Continue Discussion of SMCs**
- **February 10, 2020 – Vina GSA Board Workshop – SMCs**
- **February 16, 2020 – Start of 30-Day Public Review of SMCs**
- **March 16, 2020 – Discuss SMC Public Comments**

SMC STRAWMAN OVERVIEW

Objectives of Strawman Discussion

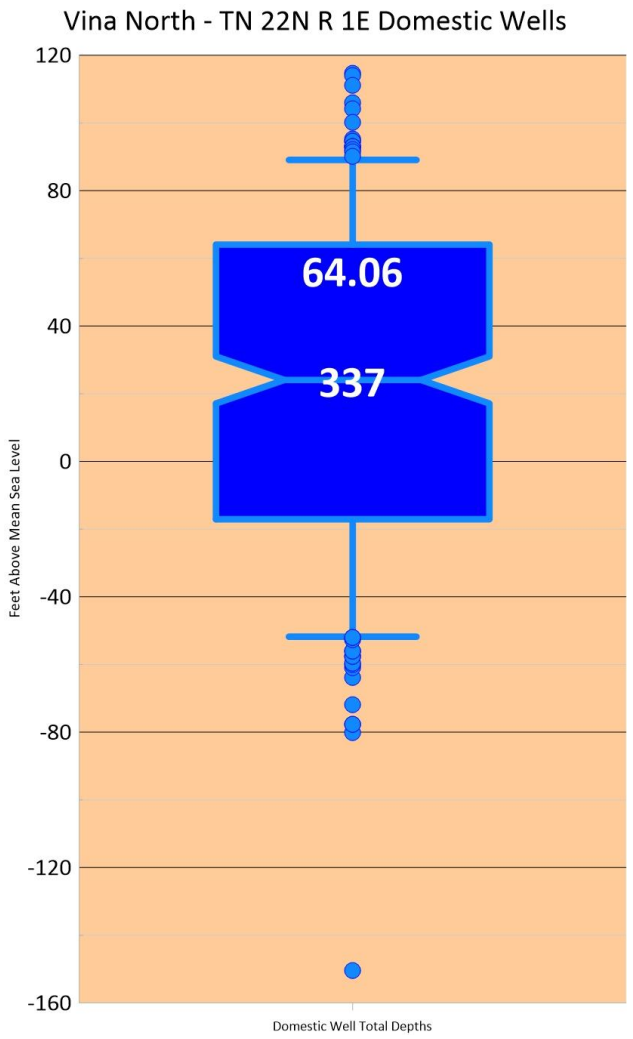
- Discuss potential wording and quantitative measures to include in the sustainable management criteria
- Discuss technical background or monitoring implications related to each sustainable management criteria definition as necessary
- Consider how or whether criteria may differ between areas
- Discuss and identify specific analysis or further refinement that would be necessary to prepare a draft SMC section for approval and incorporation into the Draft GSP

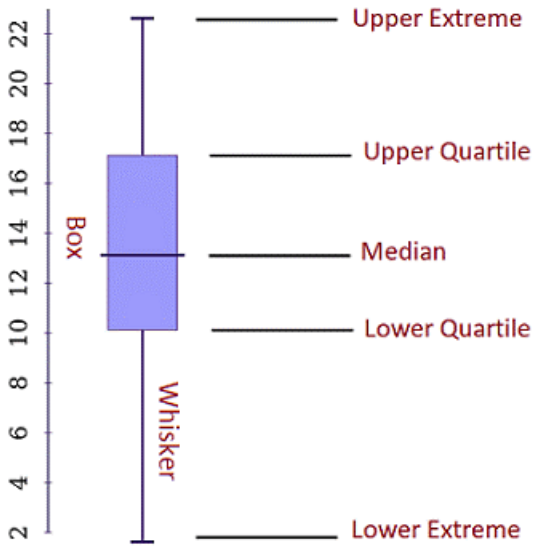
Chronic Lowering of Groundwater Levels

Chronic Lowering of Groundwater Levels

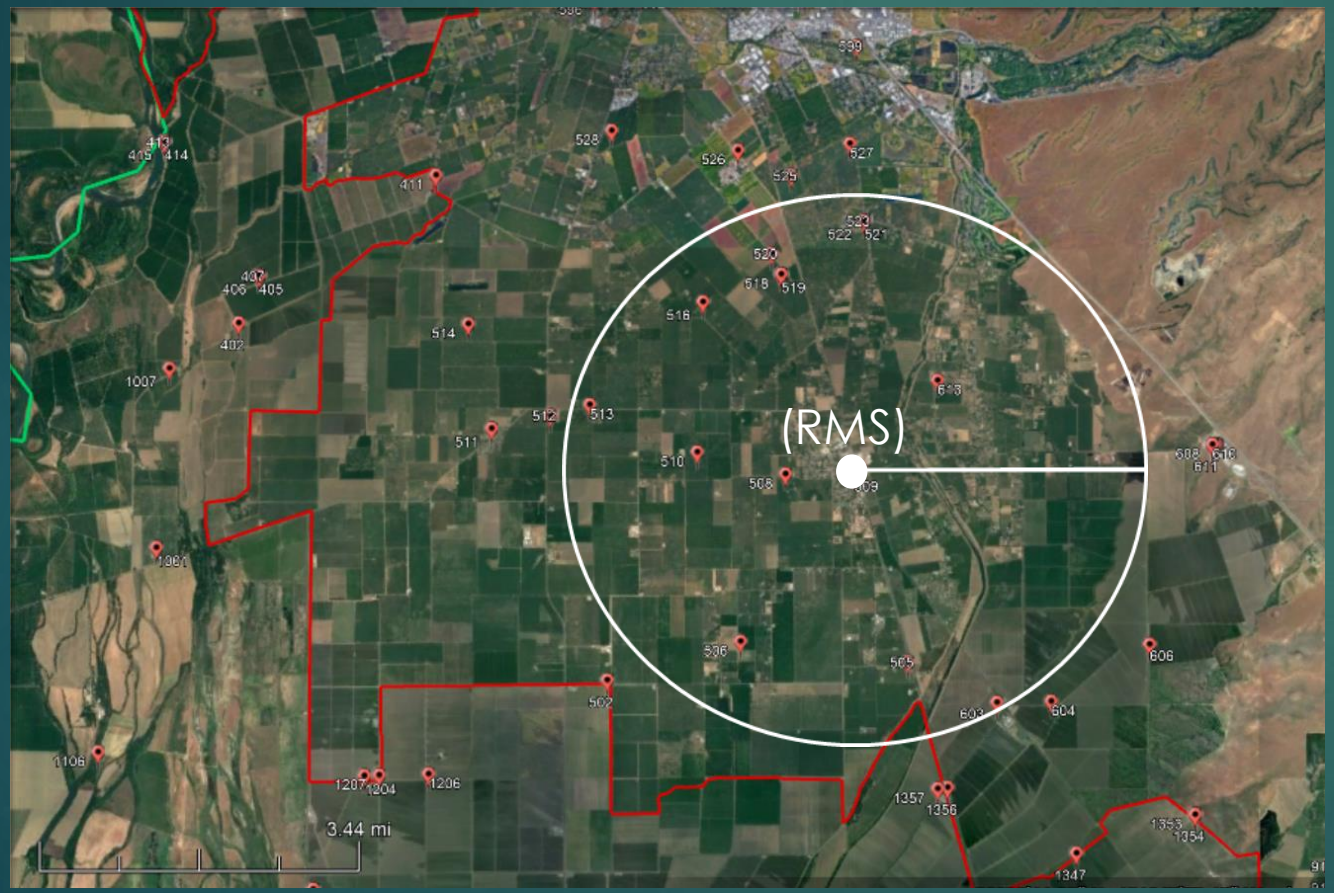
Undesirable Results and Sustainability Criteria	
Undesirable Result Statement	• GW Levels are unable to satisfy beneficial uses over a sustained period. Specific examples of undesirable results include domestic wells going dry, reduction in pumping capacity, Increase in pumping costs, Potential impacts to GDEs
Minimum Threshold (onset of undesirable result) and Measurable Objective (desired condition)	• Minimum Threshold – Fall (Sept/Oct) GW level is above the 15th Percentile of all domestic well depths in a given area or sub-area. This means 85% of all domestic wells are completed below the minimum threshold and will be "protected" • Measurable Objective – Fall 2015 groundwater level (or modeled 2015 groundwater level if no data are available). This means dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring wells fall below minimum threshold for 2 consecutive years

Box and Whisker Plots for Setting Minimum Threshold

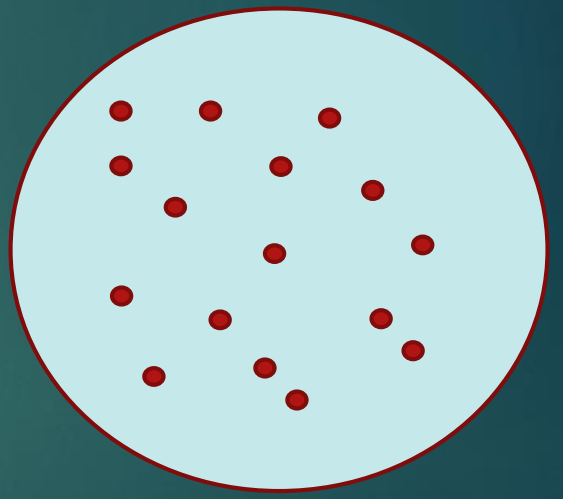




Box & whiskers process

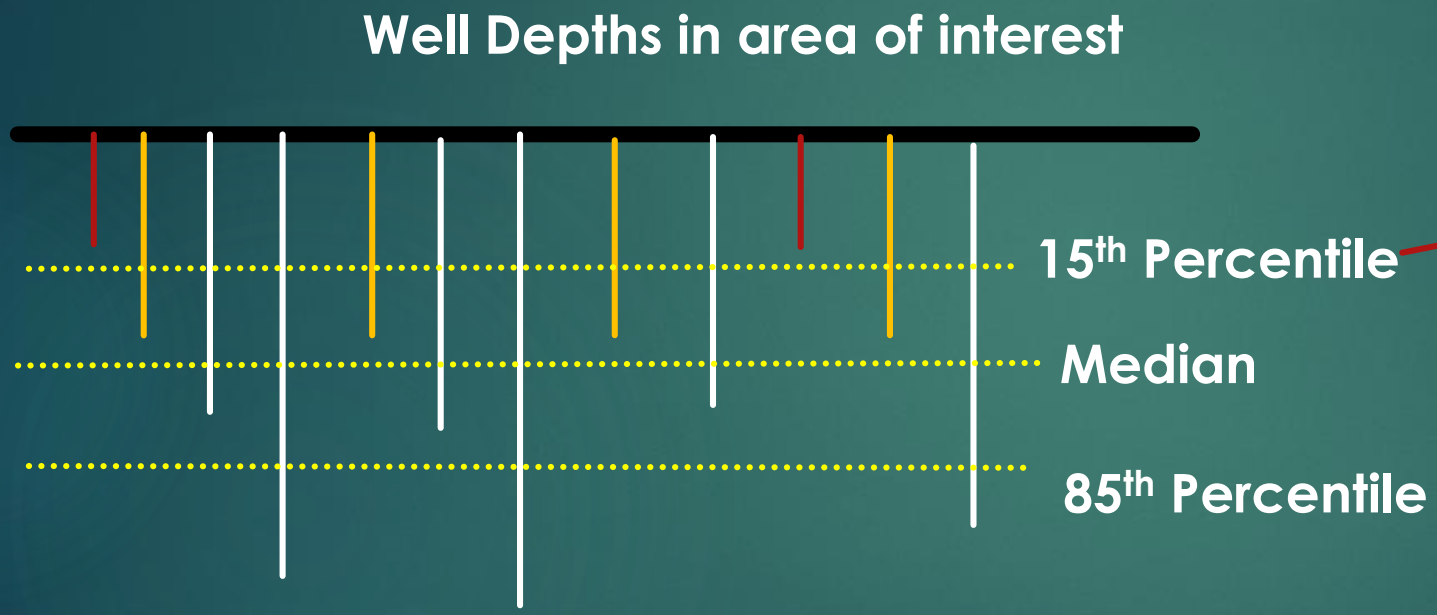


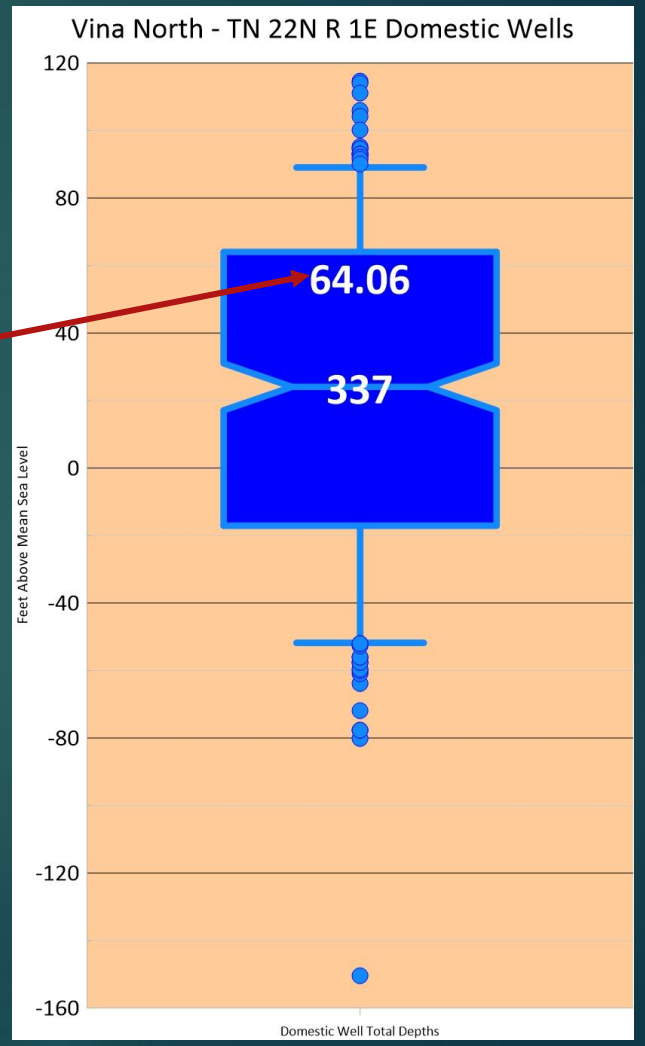
Compile well depths within a given radius of representative monitoring site (RMS)



Wells in 3 Mile Radius

Box and Whiskers plot is a rank-order analysis of all well depths

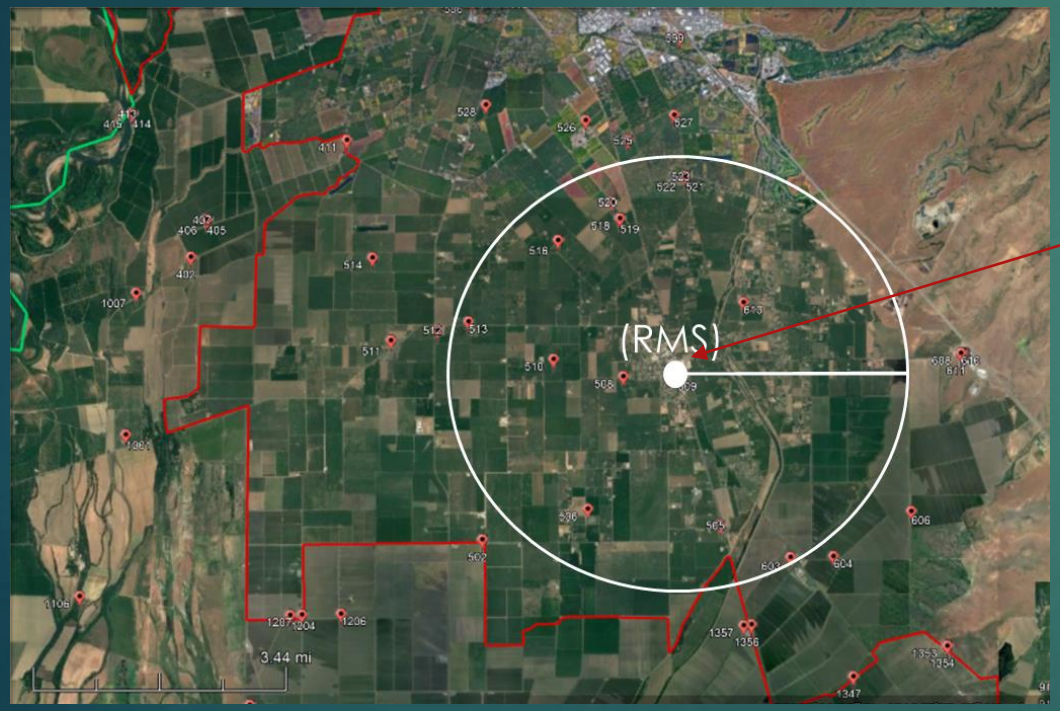


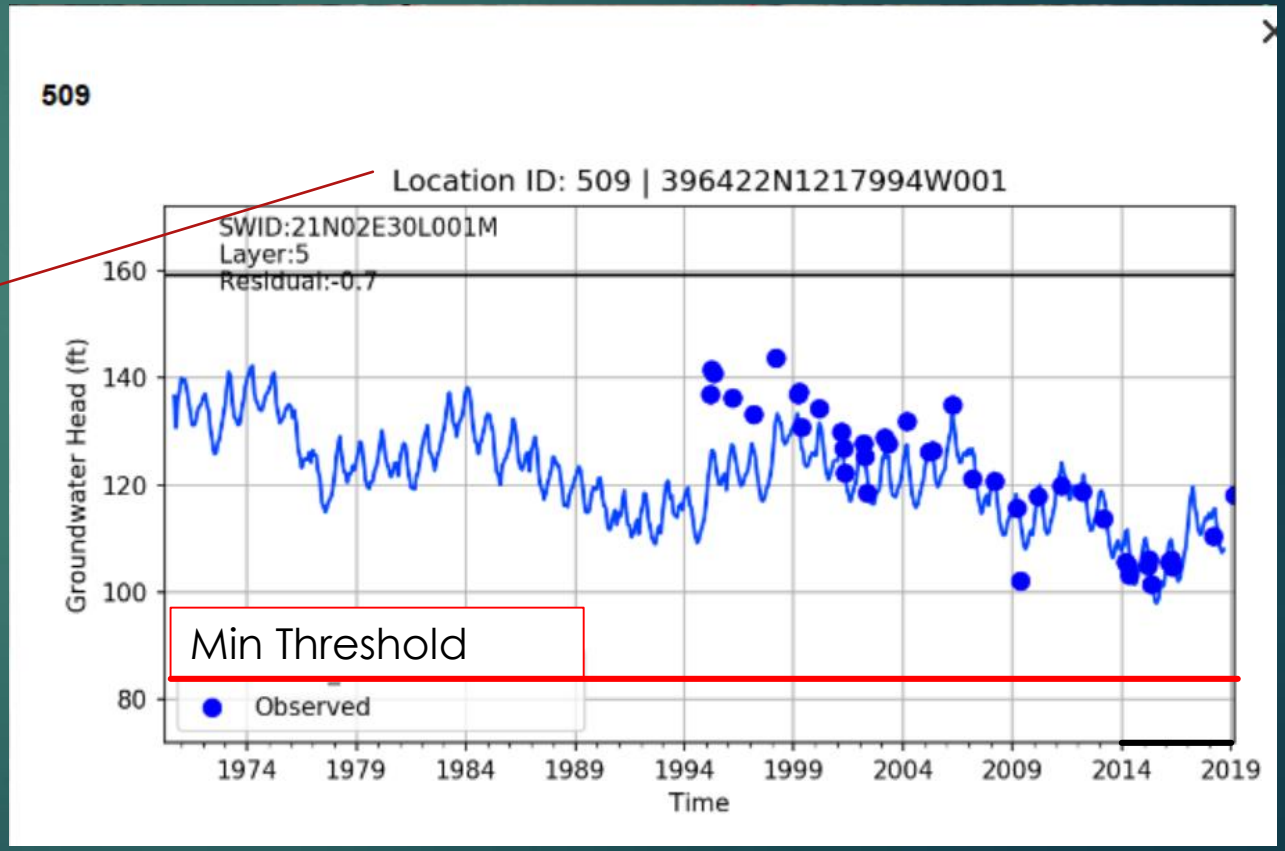


15th percentile depth means 85% of wells are completed below this depth and "protected" by the minimum threshold.

Summary : Domestic well depths set the Minimum Threshold

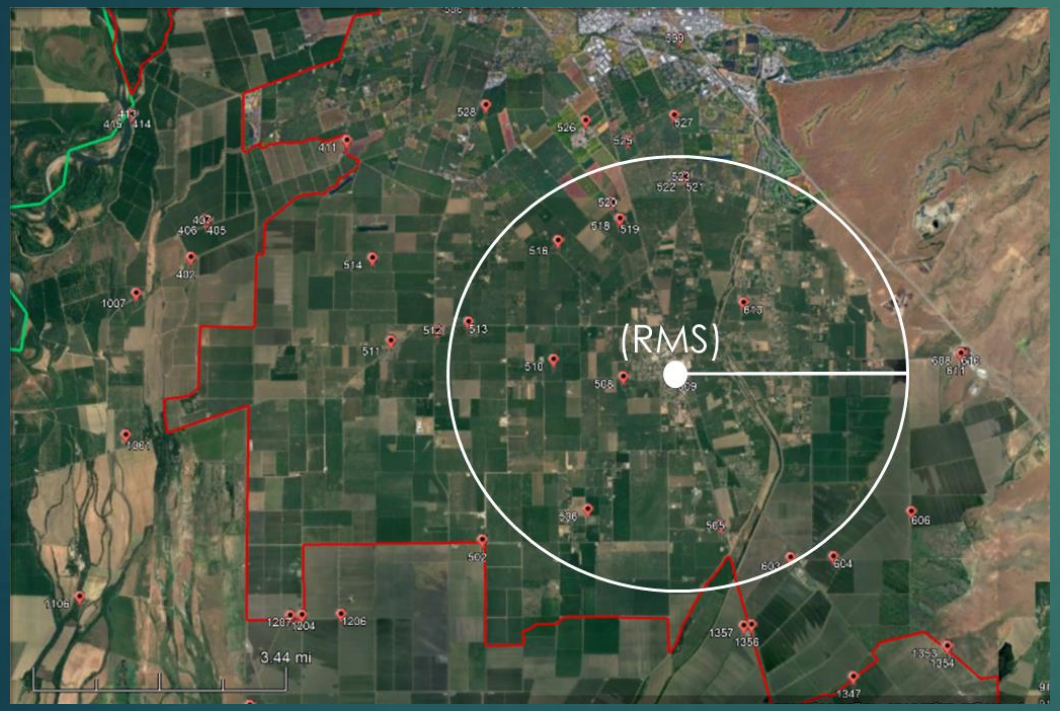
Chronic Lowering of Groundwater Levels

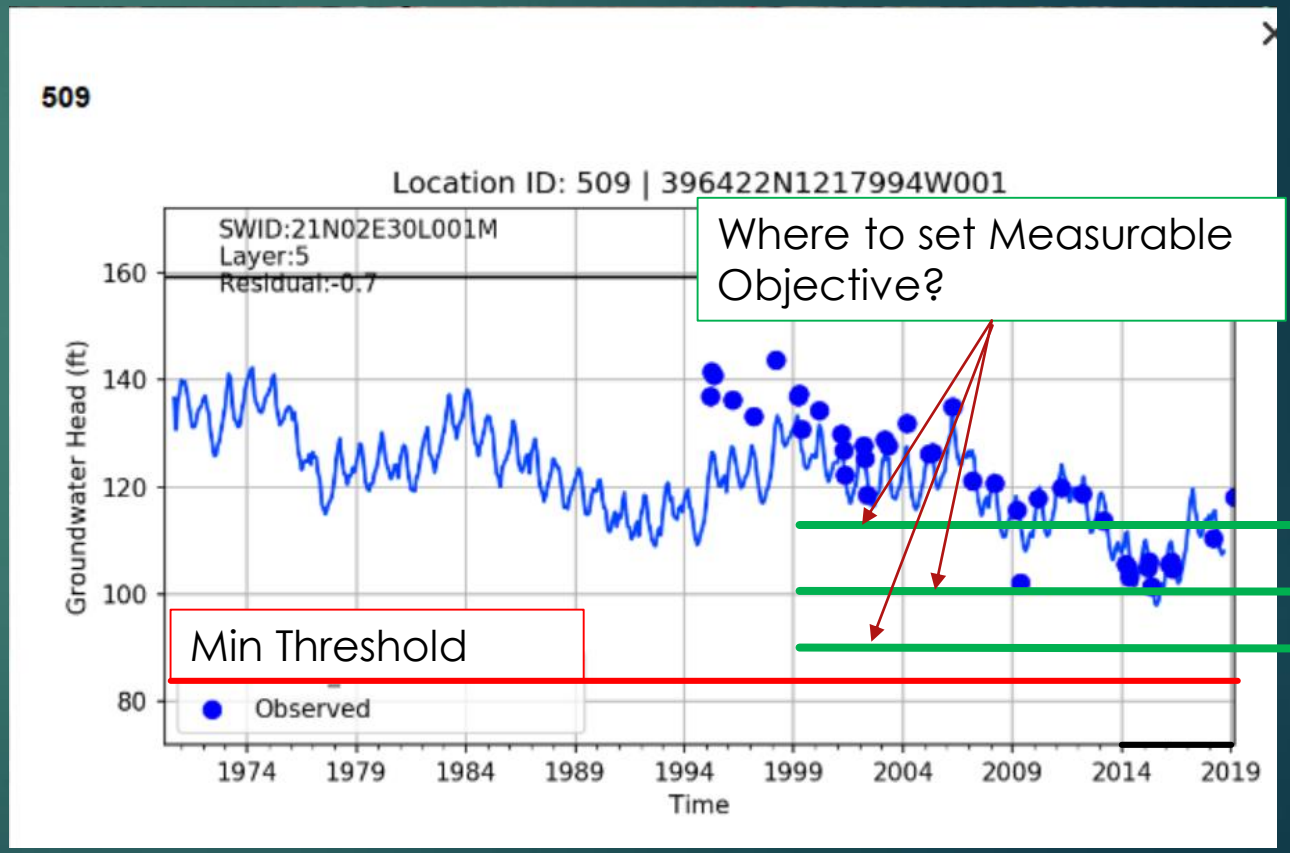




Establishing a Measurable Objective with periodic water level decline

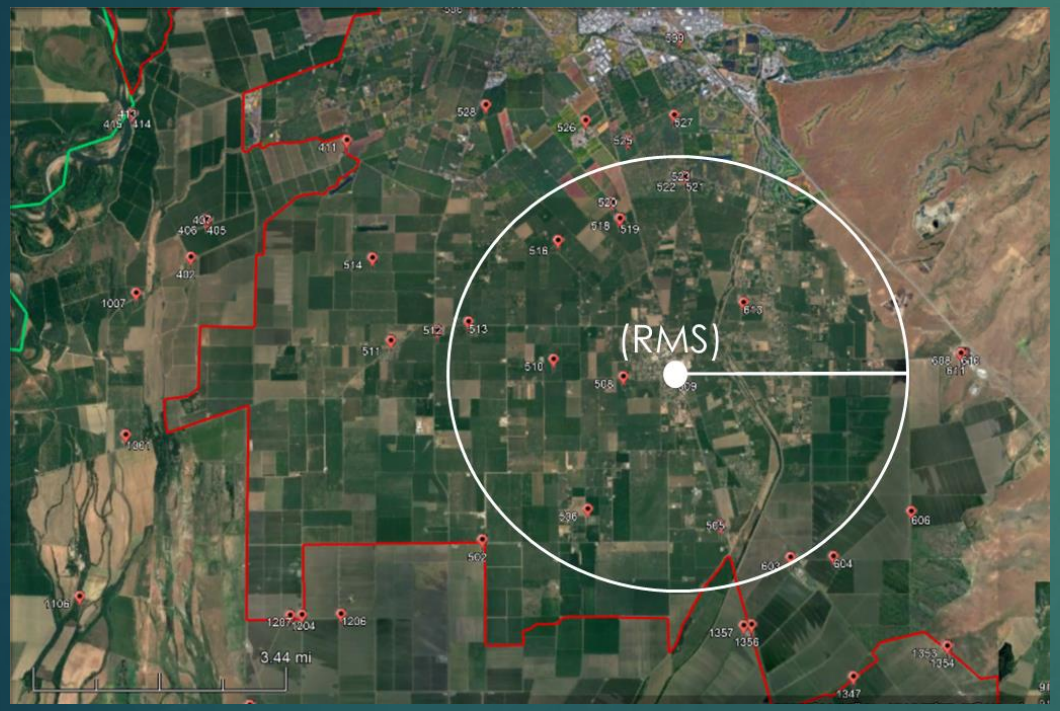
Chronic Lowering of Groundwater Levels

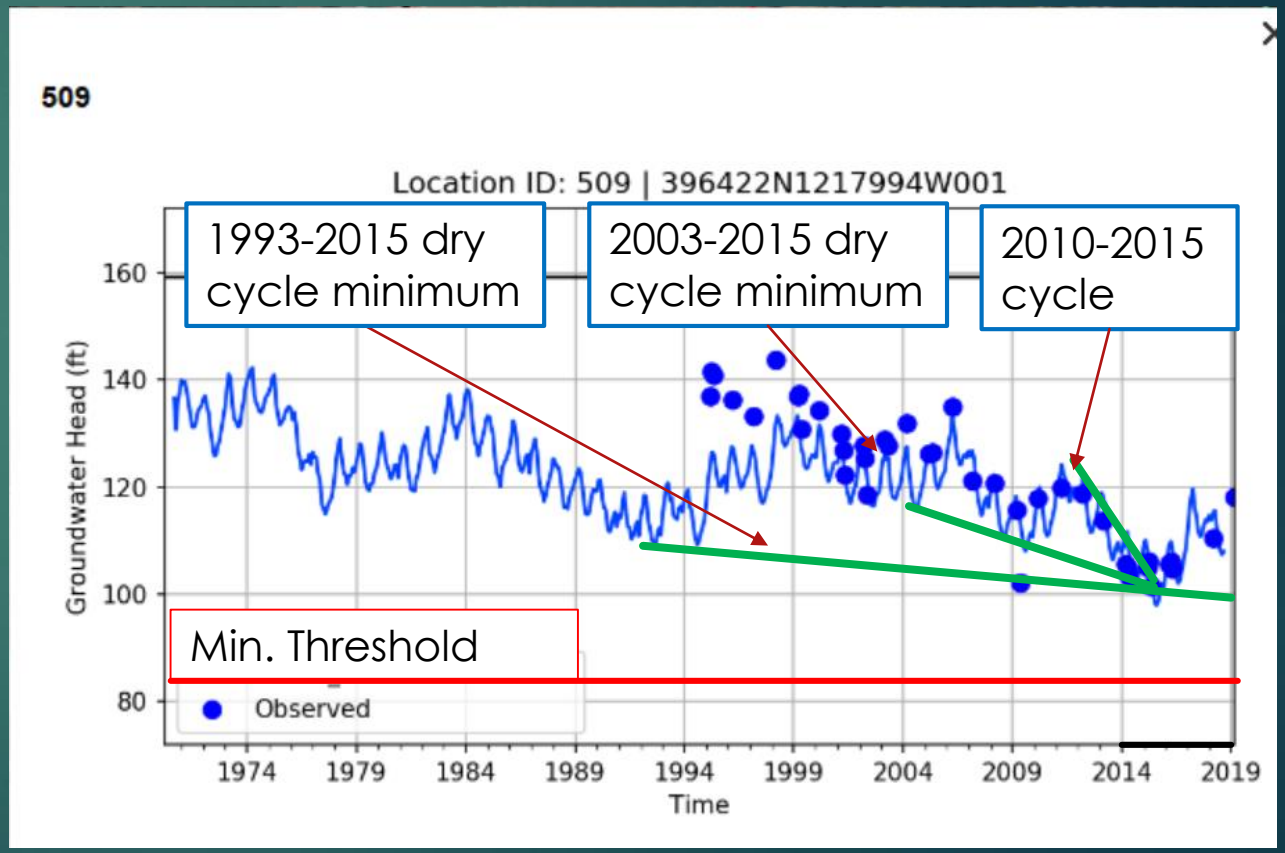




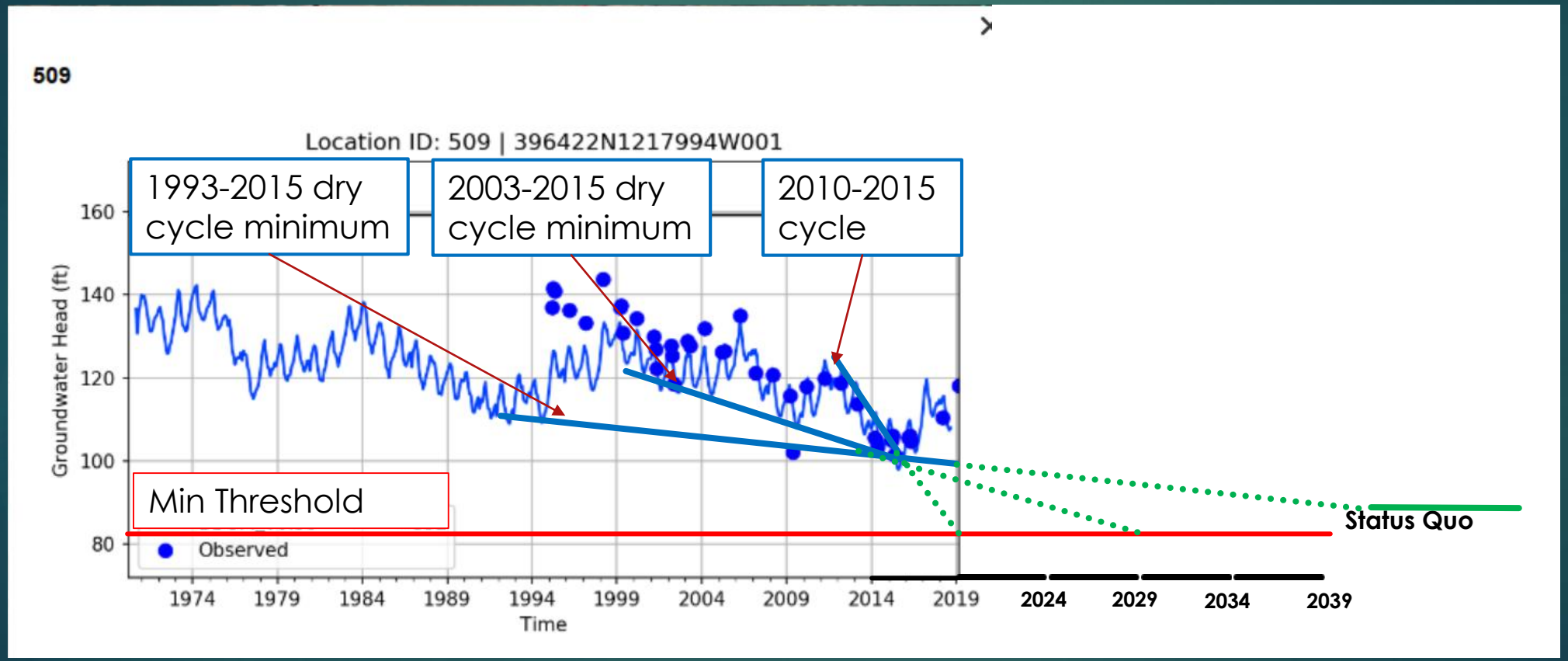
Selecting MO based on existing data: 2015 vs historic trend

Chronic Lowering of Groundwater Levels



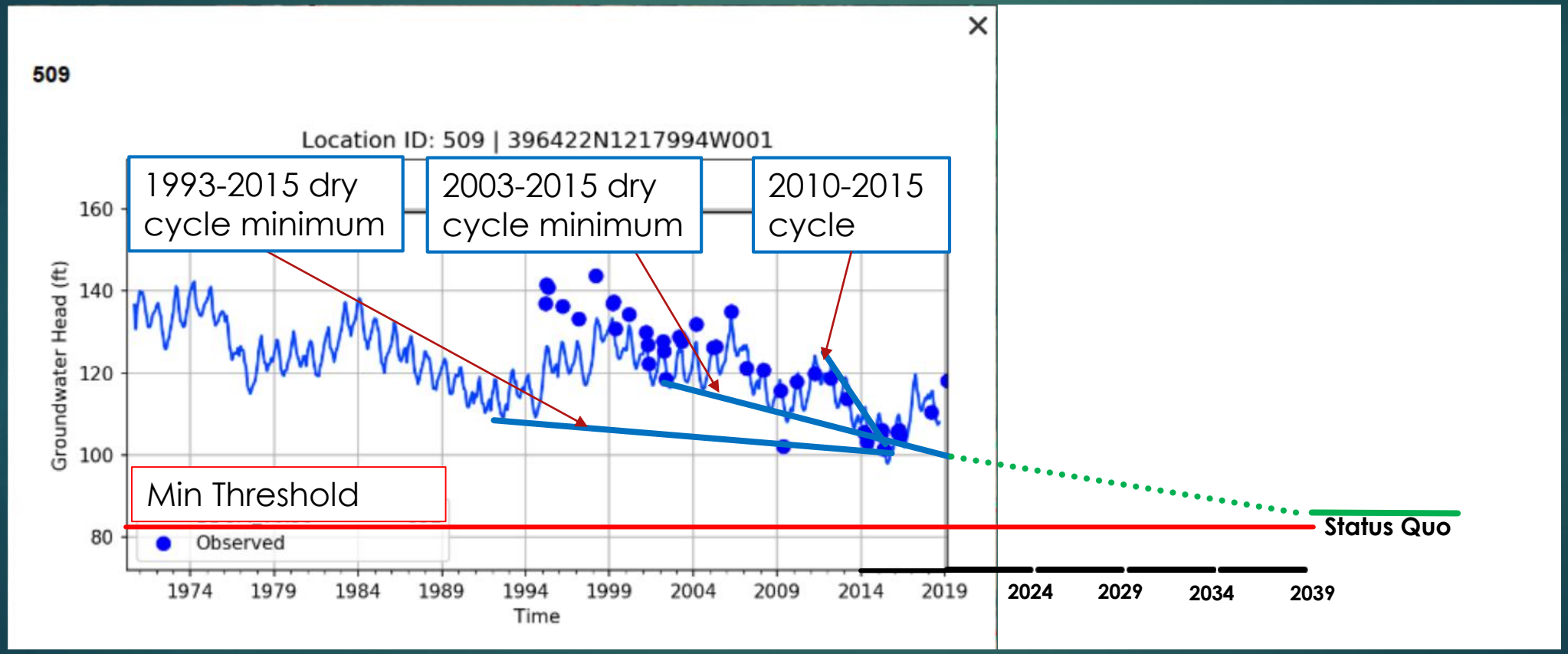


Simple projection of historic trend
Chronic Lowering of Groundwater Levels



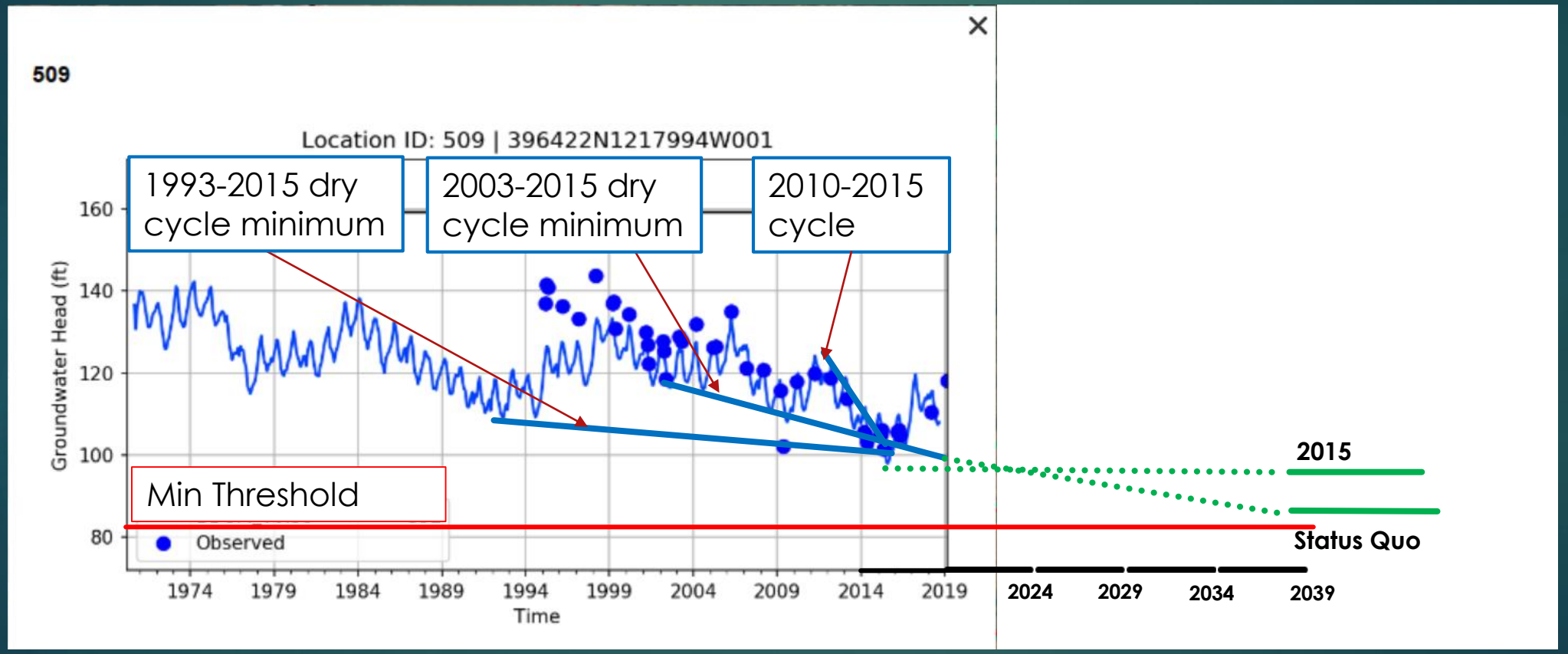
Simple Projection of historic trend

Chronic Lowering of Groundwater Levels



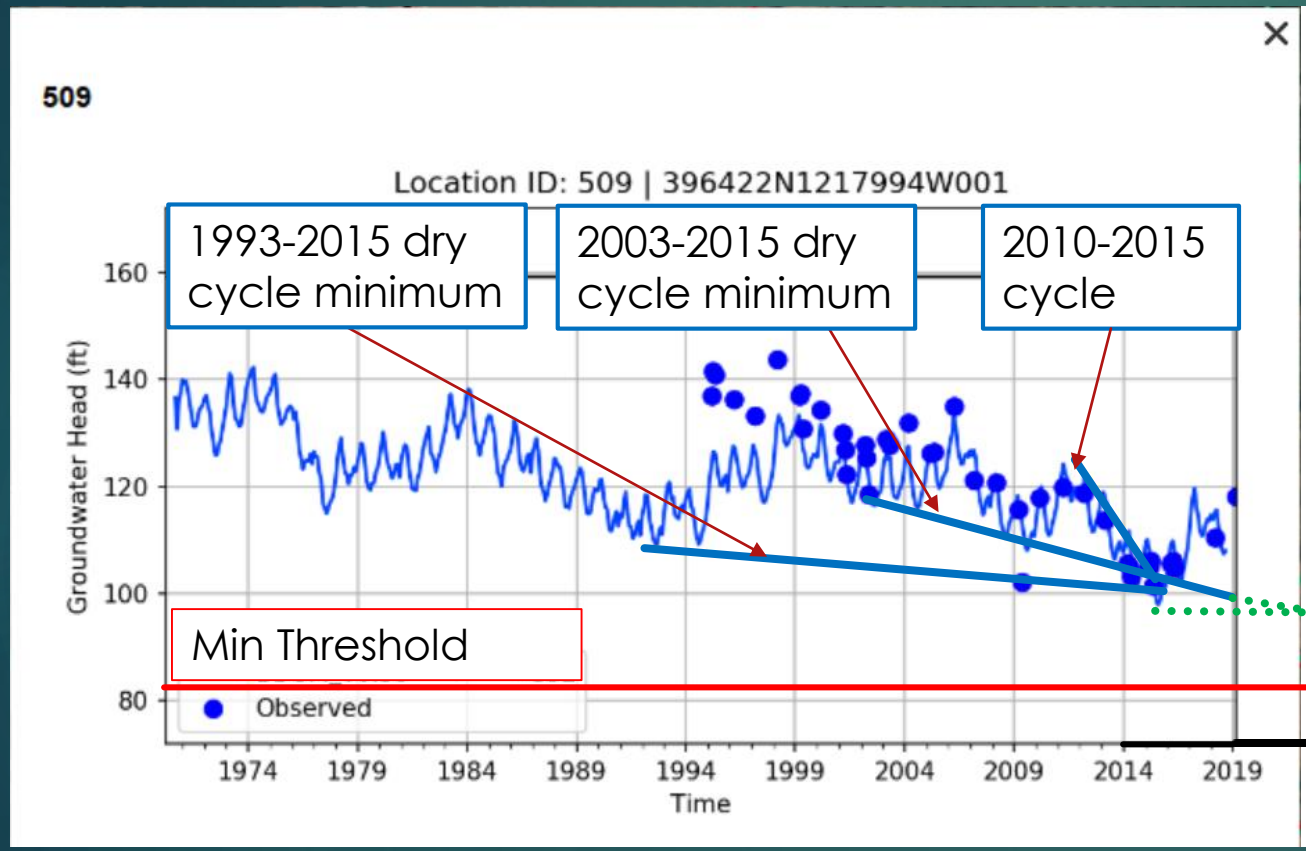
Simple Projection of historic trend

Chronic Lowering of Groundwater Levels



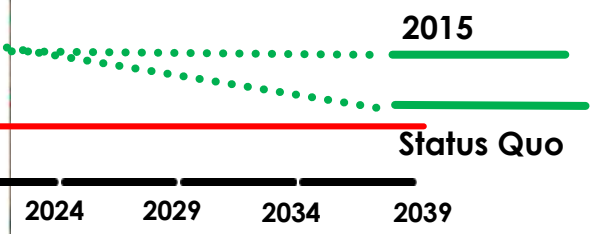
Simple Projection of historic trend

Chronic Lowering of Groundwater Levels



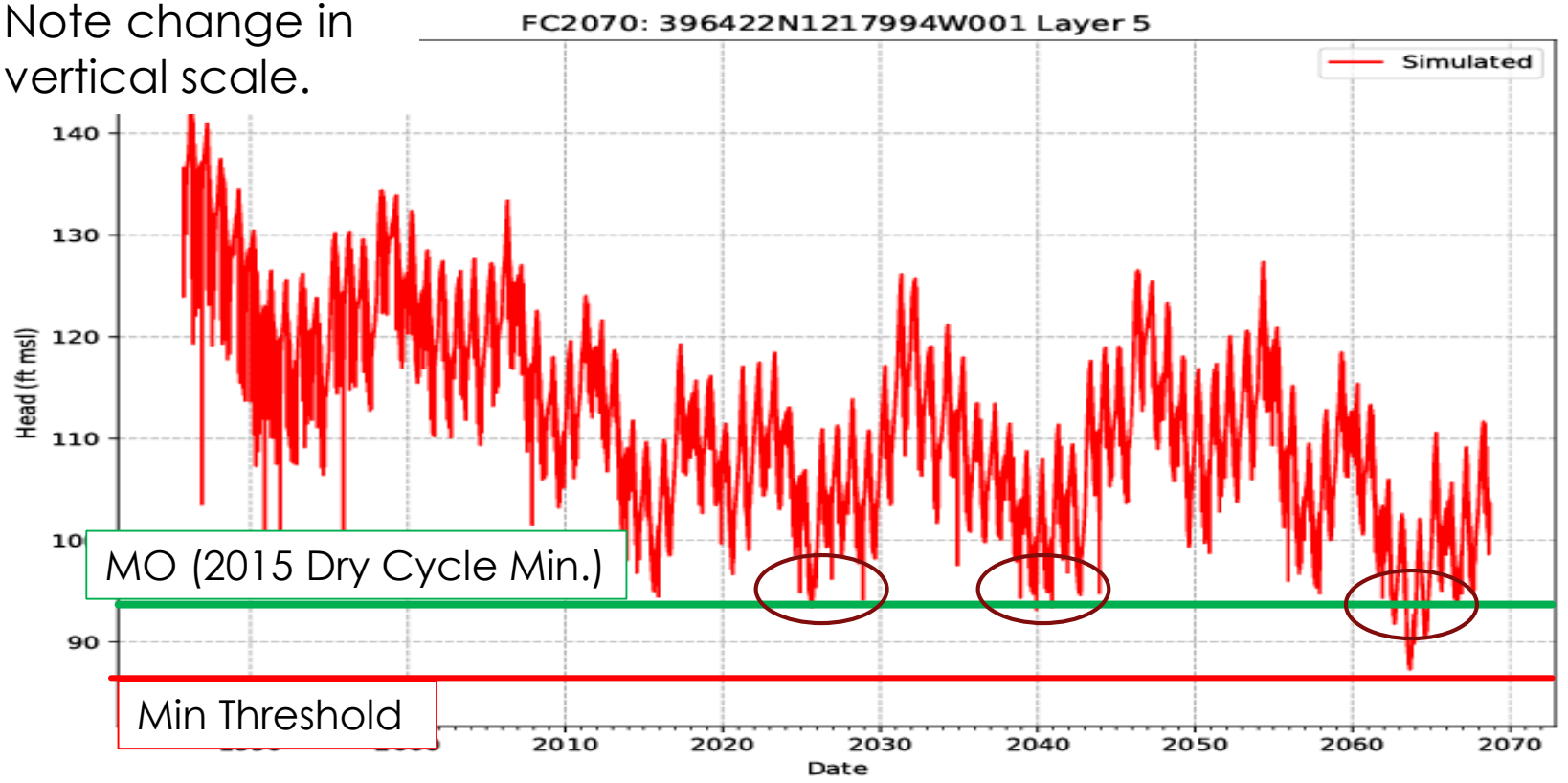
Question 1 : Will next drought cycle drop below 2015 levels?

Question 2 : If so, will projects and management actions successfully bring them up to 2015 levels?



Model Projection (2020-2070)
Chronic Lowering of Groundwater Levels

Note change in vertical scale.

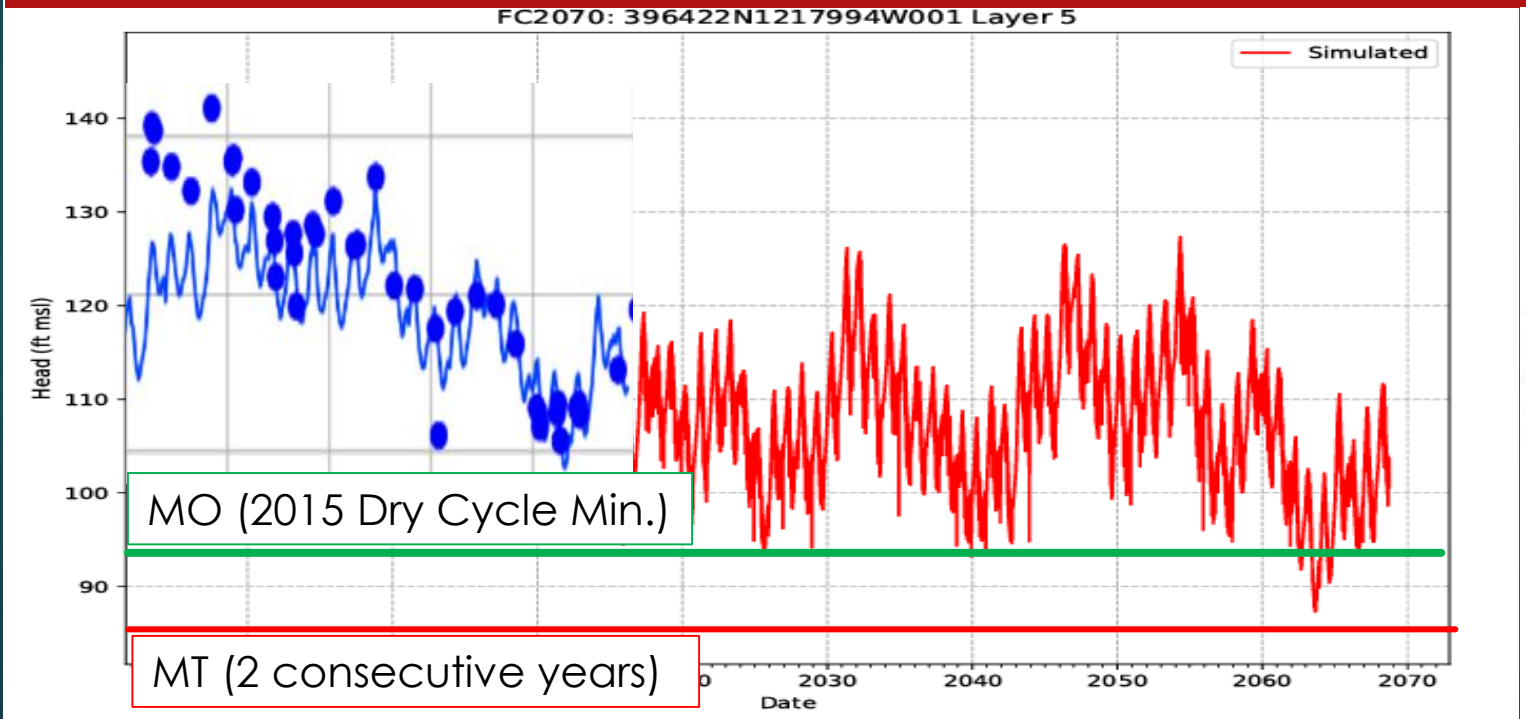


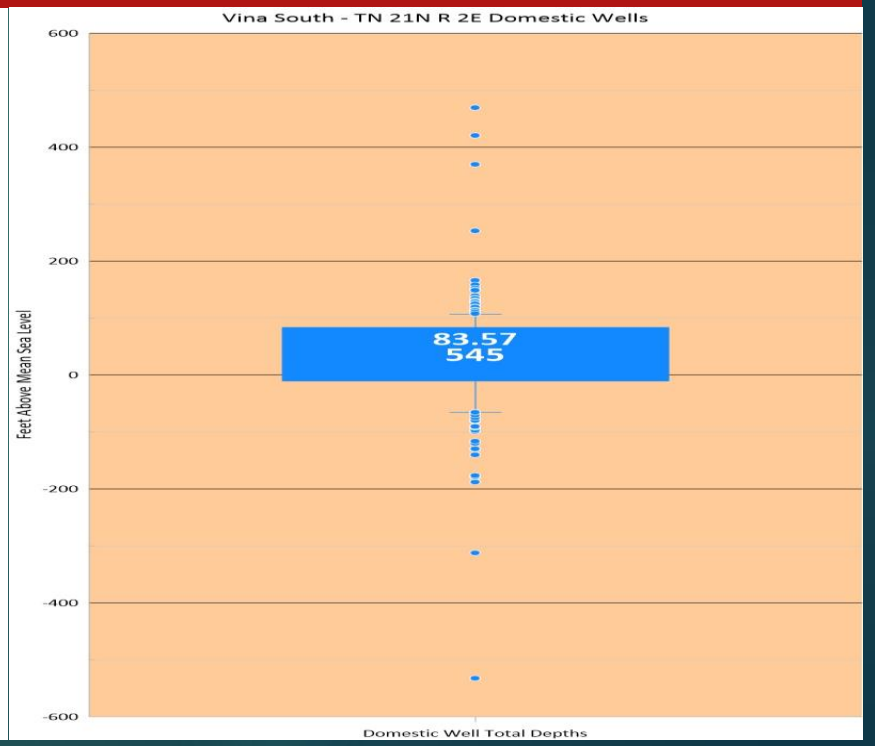
Projection based on:

1. 2030 Butte Co. General Plan land use
2. CalWater 2050 Urban water demands
3. Historical hydrology wit DWR central tendency for 2070 climate projection

Summary Example SMC
Chronic Lowering of Groundwater Levels

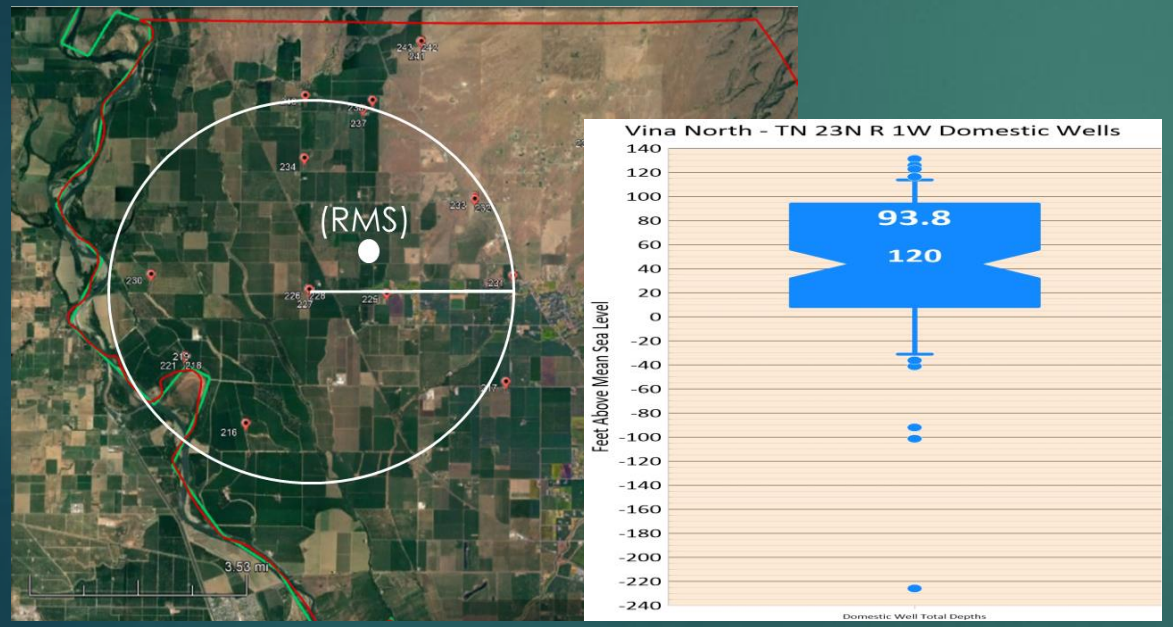
Minimum Threshold : Minimize impact to domestic wells
15th Percentile Domestic Well depth = 84 Ft MSL
Measurable Objective : Dry-cycle min. no worse than 1993-2015 min.
Fall 2015 – 93 Ft MSL



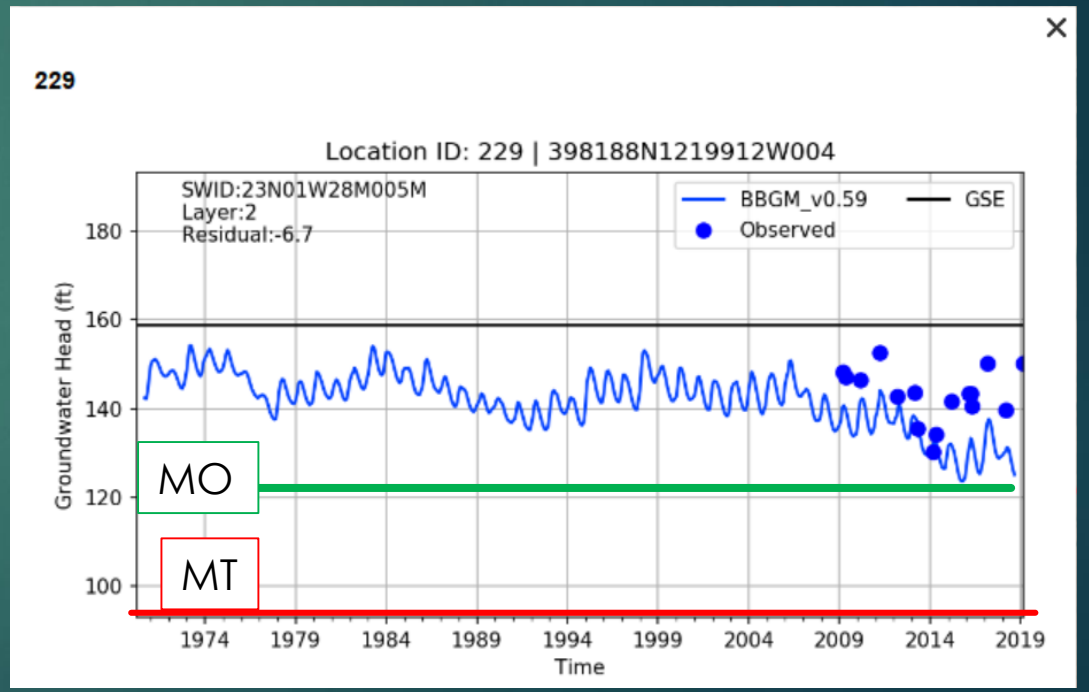


SMC Process applies to each Representative Monitoring Site (RMS)

Chronic Lowering of Groundwater Levels



North Vina : Shallow Well : Layer 2



Pause…..

Chronic Lowering of Groundwater Levels

Undesirable Results and Sustainability Criteria	
Undesirable Result Statement	• GW Levels are unable to satisfy beneficial uses over a sustained period. Specific examples of undesirable results include domestic wells going dry, reduction in pumping capacity, Increase in pumping costs, Potential impacts to GDEs
Minimum Threshold (onset of undesirable result) and Measurable Objective (desired condition)	• Minimum Threshold – Fall (Sept/Oct) GW level is above the 15th Percentile of all domestic well depths in a given area or sub-area. This means 85% of all domestic wells are completed below the minimum threshold and "will be protected" • Measurable Objective – Fall 2015 groundwater level (or modeled 2015 groundwater level if no data are available). Dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring wells fall below minimum threshold for 2 consecutive years

Reduction in Aquifer Storage

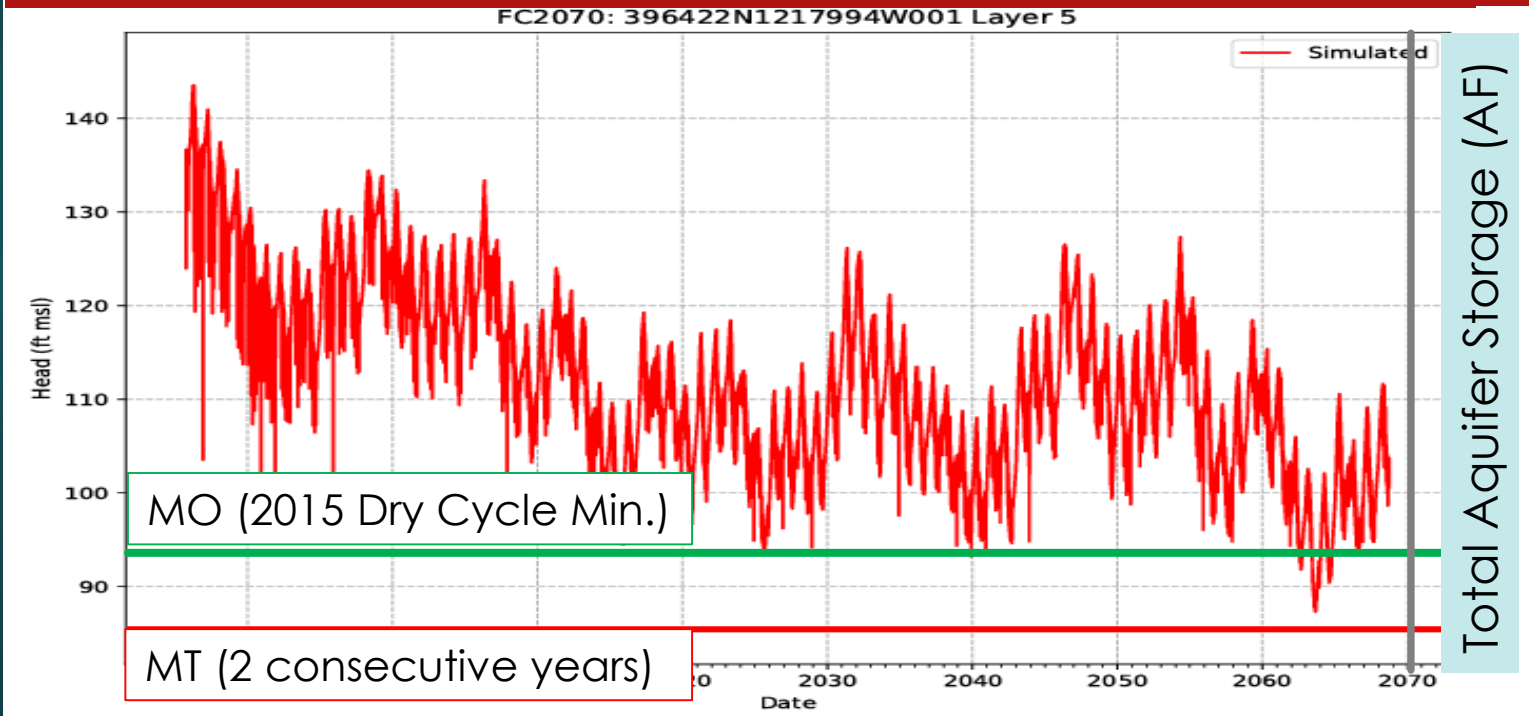
GW level is a proxy for aquifer storage and SMC should mimic GW level SMC

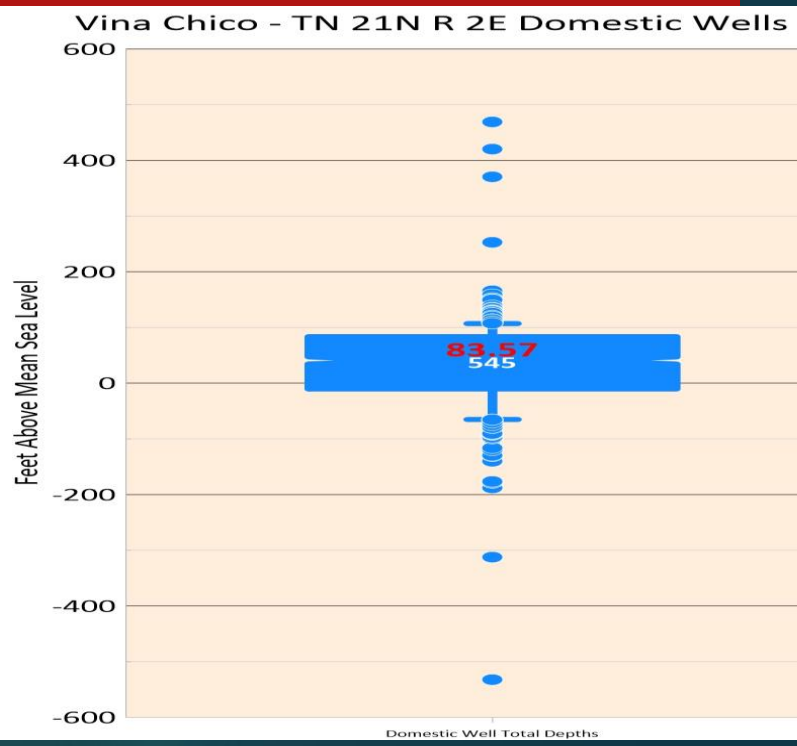
Reduction in Aquifer Storage

Undesirable Results and Sustainability Criteria	
Undesirable Result Statement	• Total groundwater storage volume is insufficient to satisfy beneficial uses. • Groundwater level will be used as a proxy for aquifer storage (i.e. groundwater storage will not be calculated explicitly)
Minimum Threshold (onset of undesirable result) and Measurable Objective (desired condition)	• Minimum Threshold – Fall (Sept/Oct) GW level is above the 15th Percentile of all domestic well depths in a given area or sub-area. This means 85% of all domestic wells are completed below the minimum threshold "will be protected" • Measurable Objective – Fall 2015 groundwater level (or modeled 2015 groundwater level if no data are available). Dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring wells fall below minimum threshold for 2 consecutive years

Example SMC : Vina South
Reduction in Aquifer Storage

Minimum Threshold : Minimize impact to domestic wells
15th Percentile Domestic Well depth = 84 Ft MSL
Measurable Objective : Dry-cycle min. no worse than 1993-2015 min.





Subsidence

GW level is a proxy for aquifer storage and SMC should mimic GW level SMC

Ground Subsidence

Undesirable Results and Sustainability Criteria	
Undesirable Result Statement	• Ground subsidence that results from groundwater pumping creates a safety hazard to critical infrastructure or property. • Other programs and agencies are responsible for enforcing ground engineering requirements for critical infrastructure. GSA will coordinate with other agencies if subsidence is associated with groundwater pumping • Groundwater levels will be used as a proxy for ground subsidence
Minimum Threshold (onset of undesirable result) and Measurable Objective (desired condition)	• Minimum Threshold – Fall (Sept/Oct) GW level is above the 15th Percentile of all domestic well depths in a given area or sub-area. This means 85% of all domestic wells are completed below the minimum threshold and "will be protective" • Fall 2015 groundwater level (or modeled 2015 groundwater level if no data are available). Dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• A subsidence rate of more than 0.2 feet per year for a 10-year period that is directly related to groundwater pumping and within 2,000 feet of critical infrastructure, including roads, railways, pipelines, water conveyance systems, hospitals or other critical facilities.

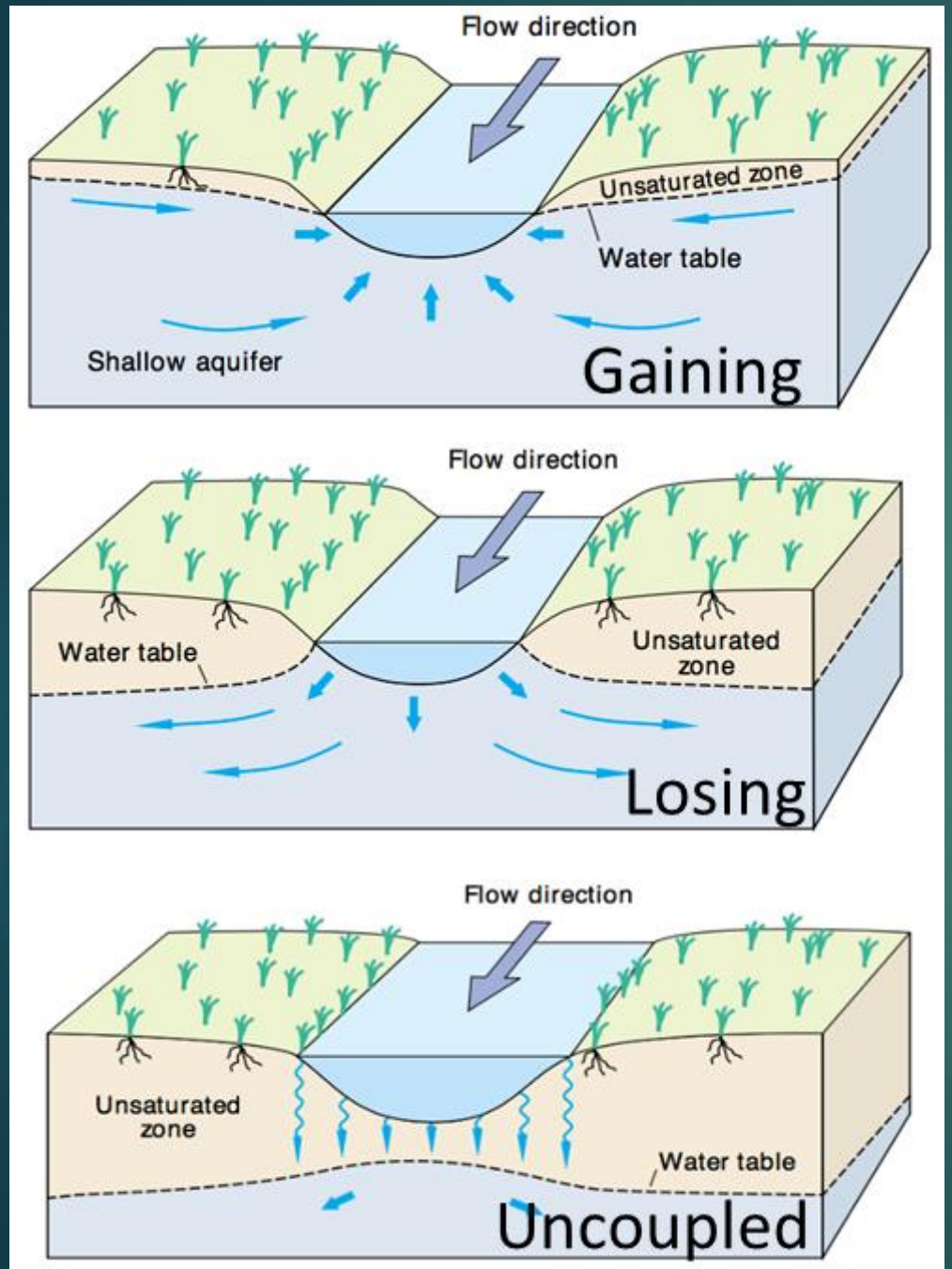
BREAK

Depletion of Interconnected Surface Water

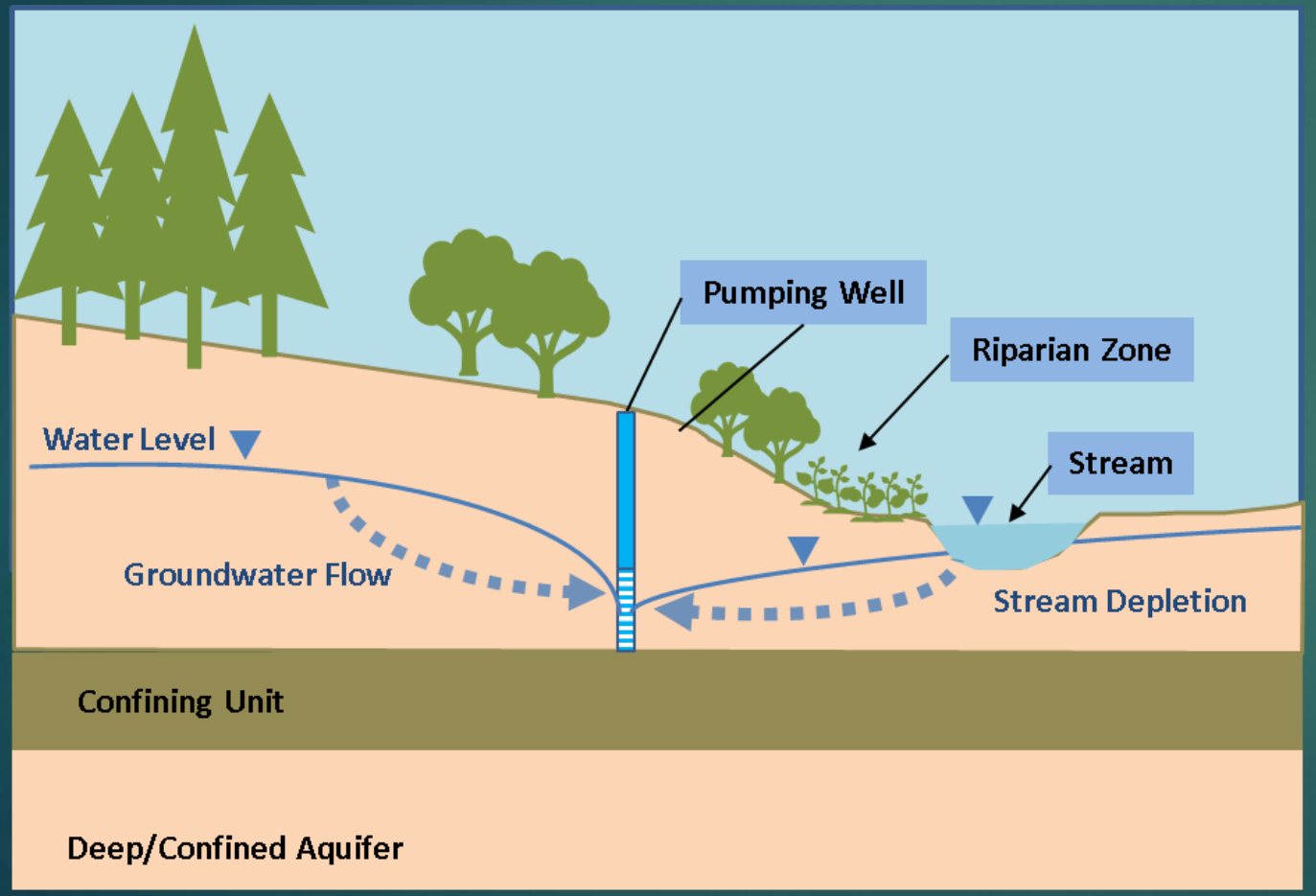
Depletion of Interconnected Surface Water

Undesirable Results and Sustainability Criteria	
Undesirable Result Statement	• Surface water depletion caused by groundwater pumping prevents beneficial uses over a sustained period. This includes environmental beneficial uses in natural stream channels that supports a viable ecosystem, particularly ecosystems containing endangered species. • Groundwater levels in shallow wells adjacent natural stream channels will be used as proxy for depletion. • Representative monitoring locations must be within a shallow aquifer that is known to be hydraulically connected to a natural stream channel
Minimum Threshold (onset of undesirable result) and Measurable Objective (desired condition)	• Minimum Threshold – Groundwater levels lower than 5 feet below the base of the stream channel during September for two consecutive years. • Fall 2015 groundwater level in shallow aquifer (or modeled 2015 groundwater level if no data are available). Dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring locations fall below minimum threshold for 2 consecutive years

Modes of Stream-Aquifer Interaction

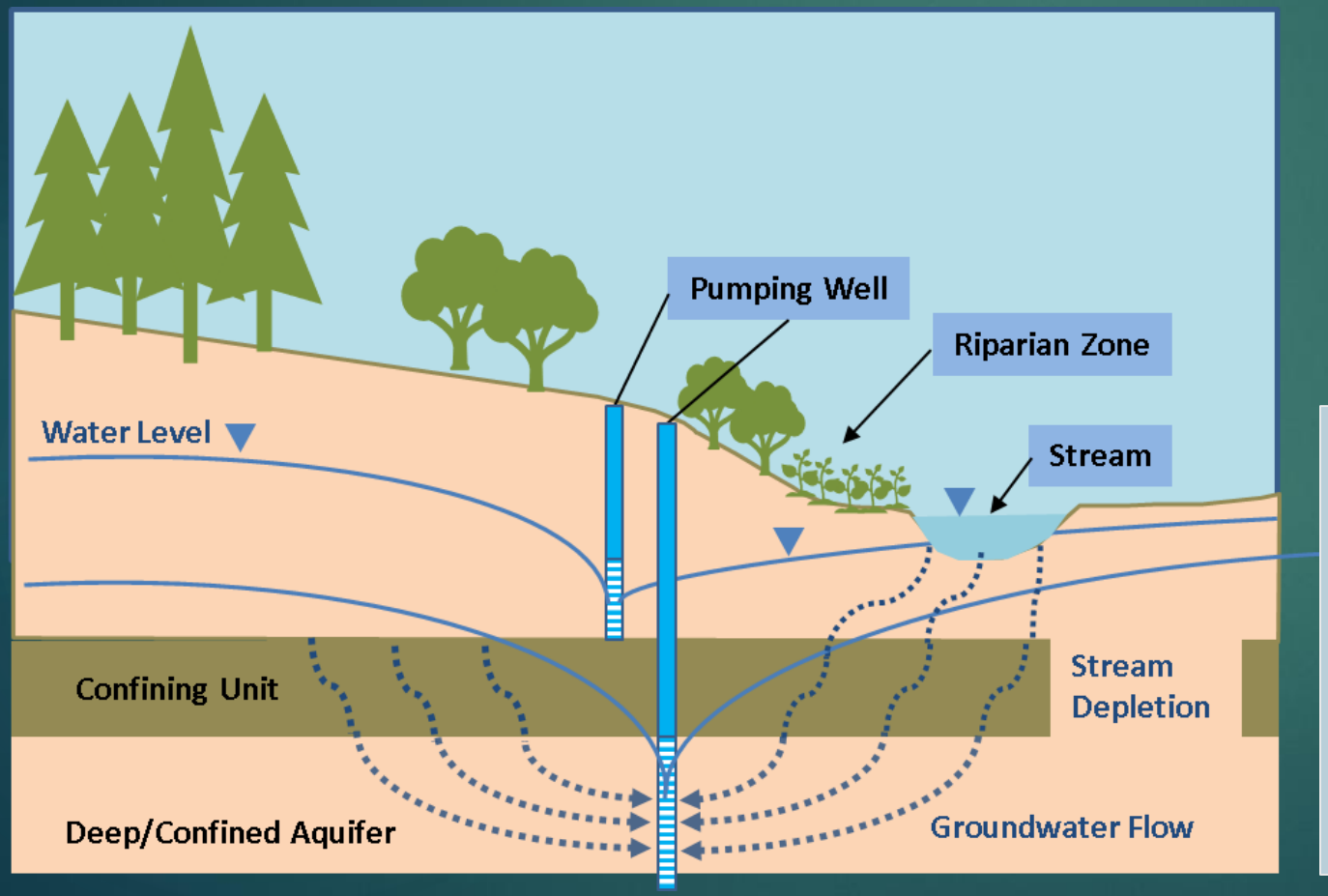


Pumping Induced Streamflow Depletion



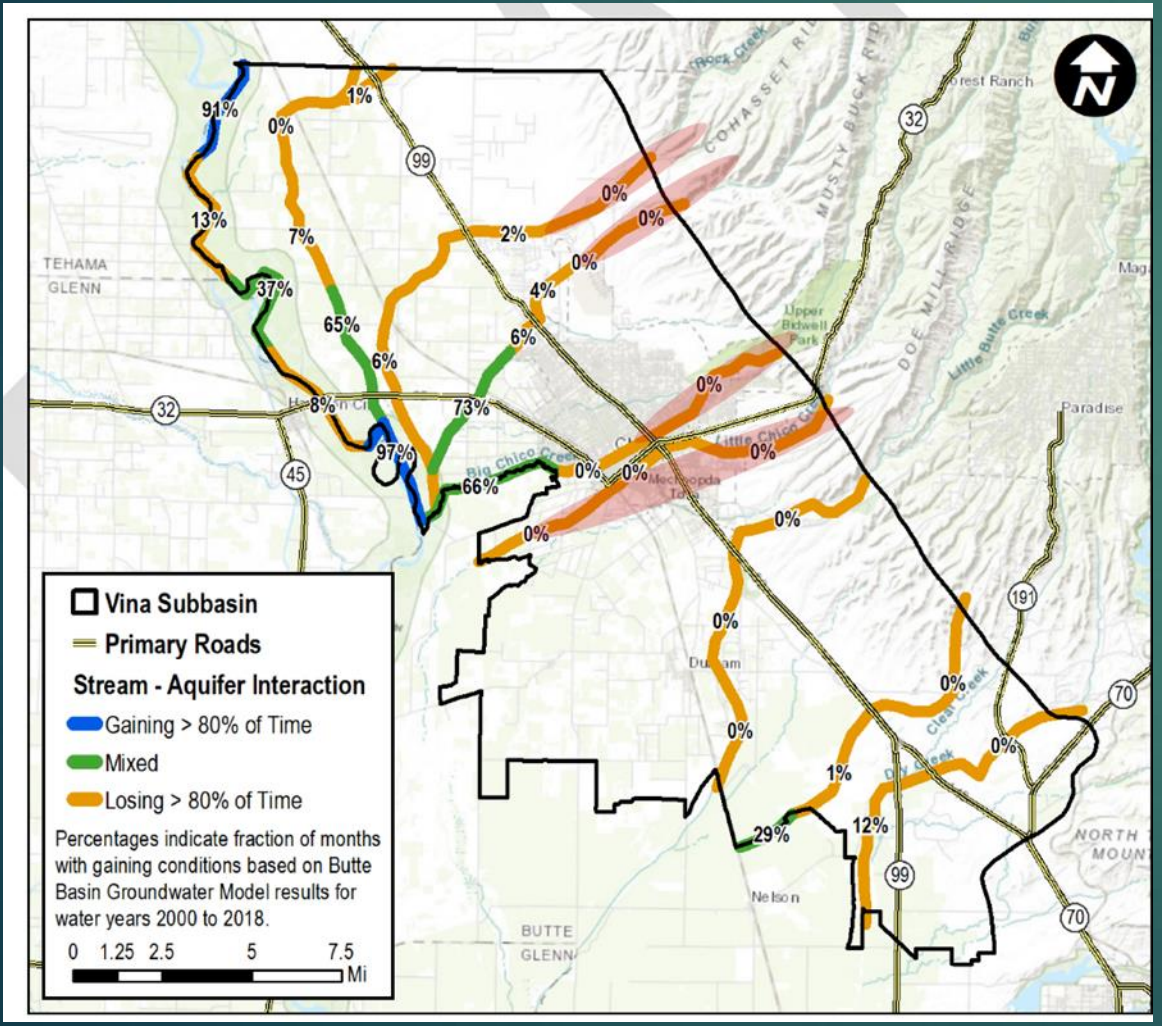
Shallow pumping can reduce streamflow directly or indirectly intercept groundwater that would otherwise discharge to the stream

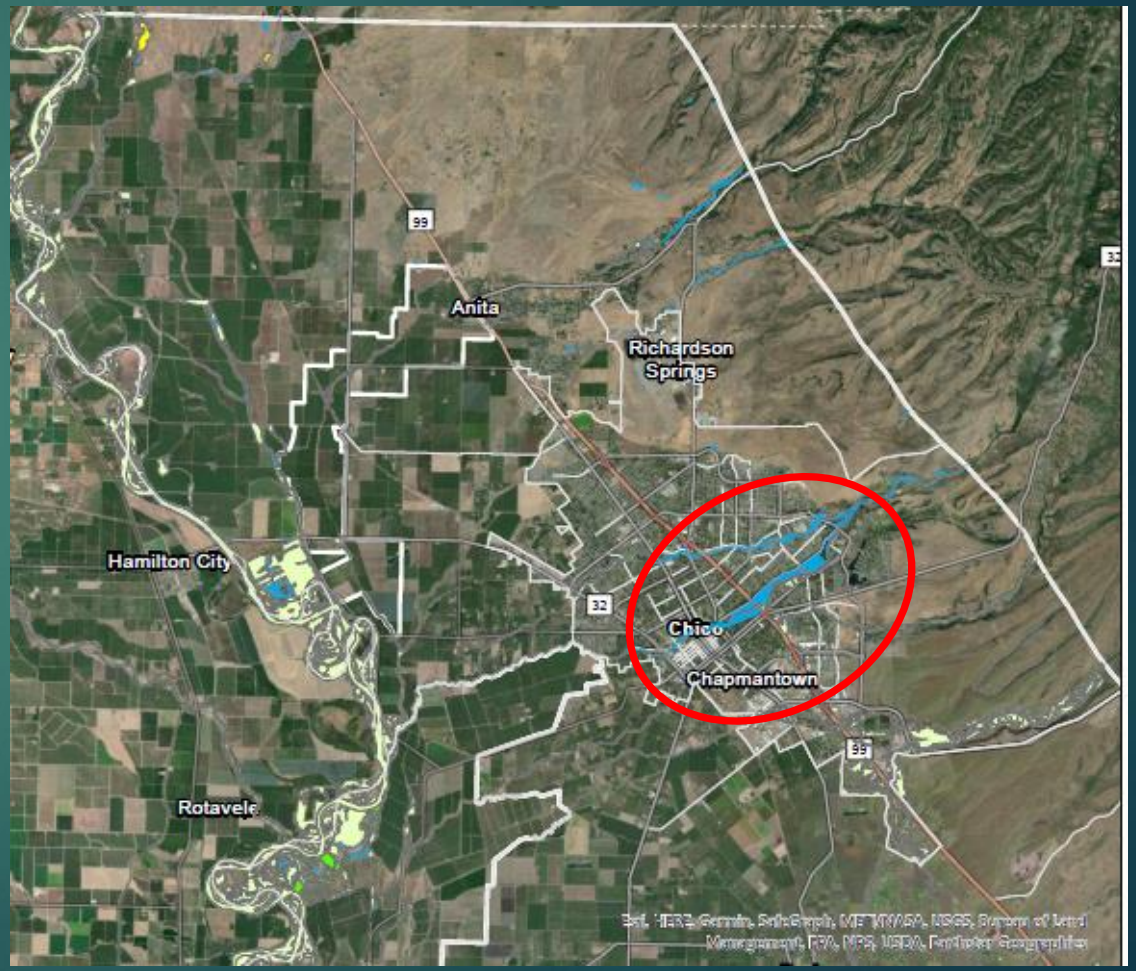
Pumping Induced Streamflow Depletion



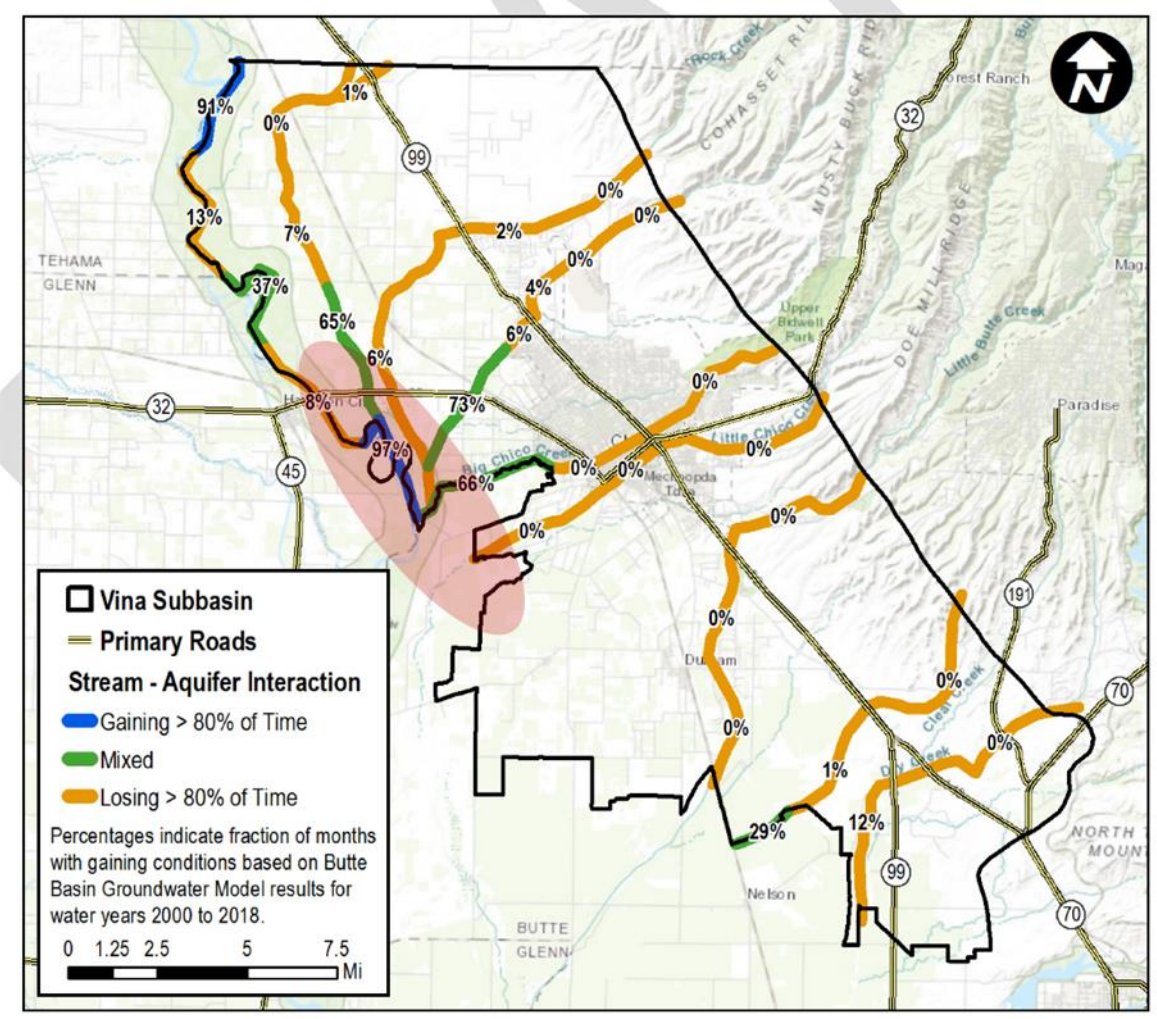
Deeper pumping can also reduce streamflow. The magnitude of streamflow reductions varies with time and is a function of several parameters.

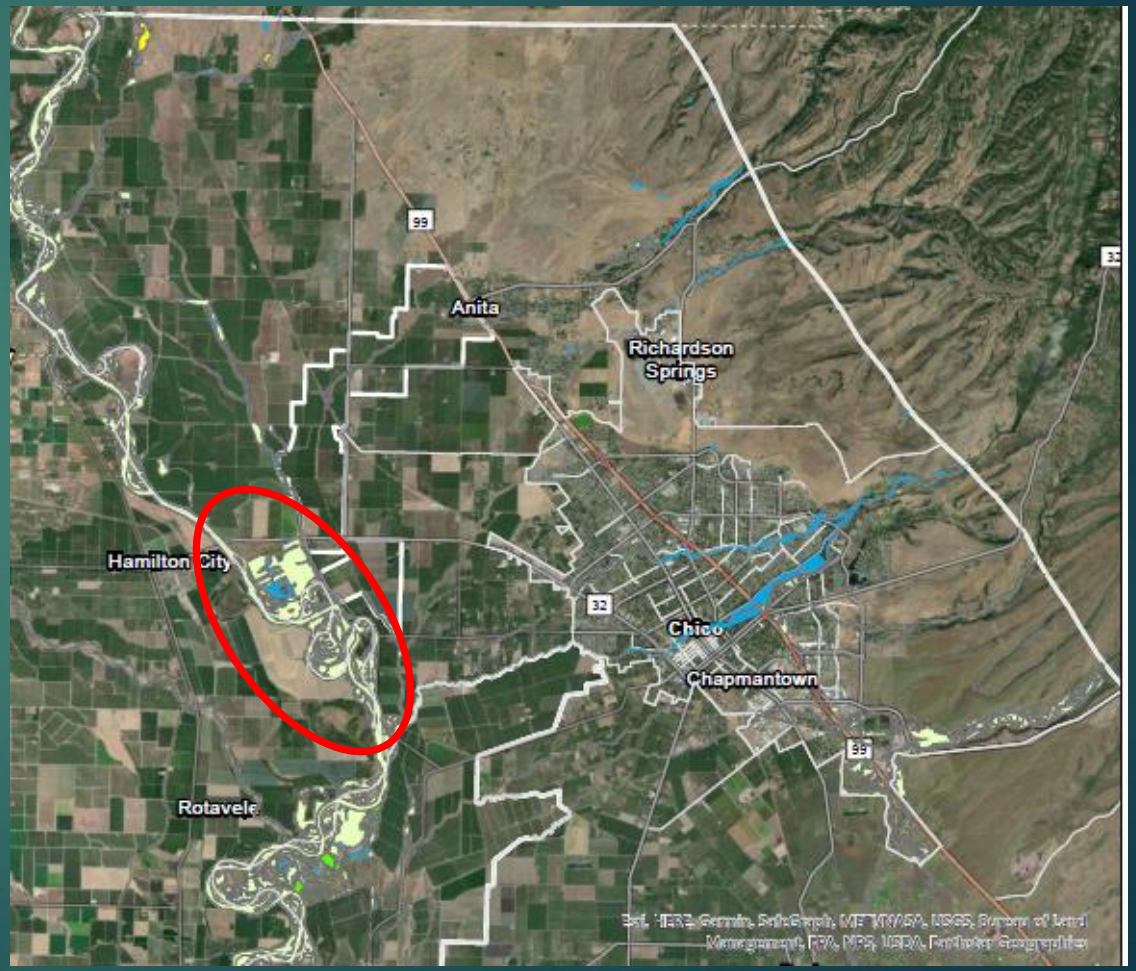
GDE's and Modeled Stream/Aquifer Interaction – Upland Areas





GDE's and Modeled Stream/Aquifer Interaction – Floodplain Areas

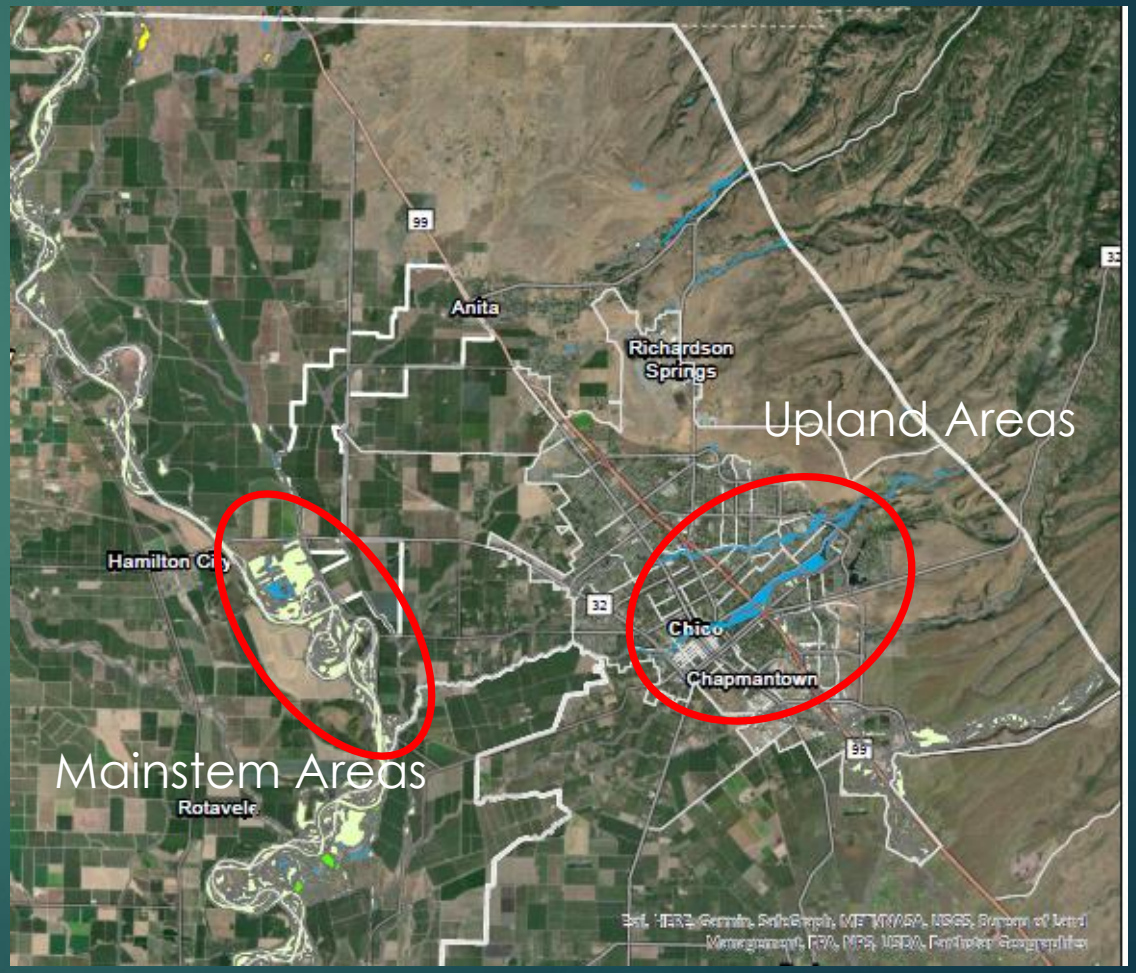




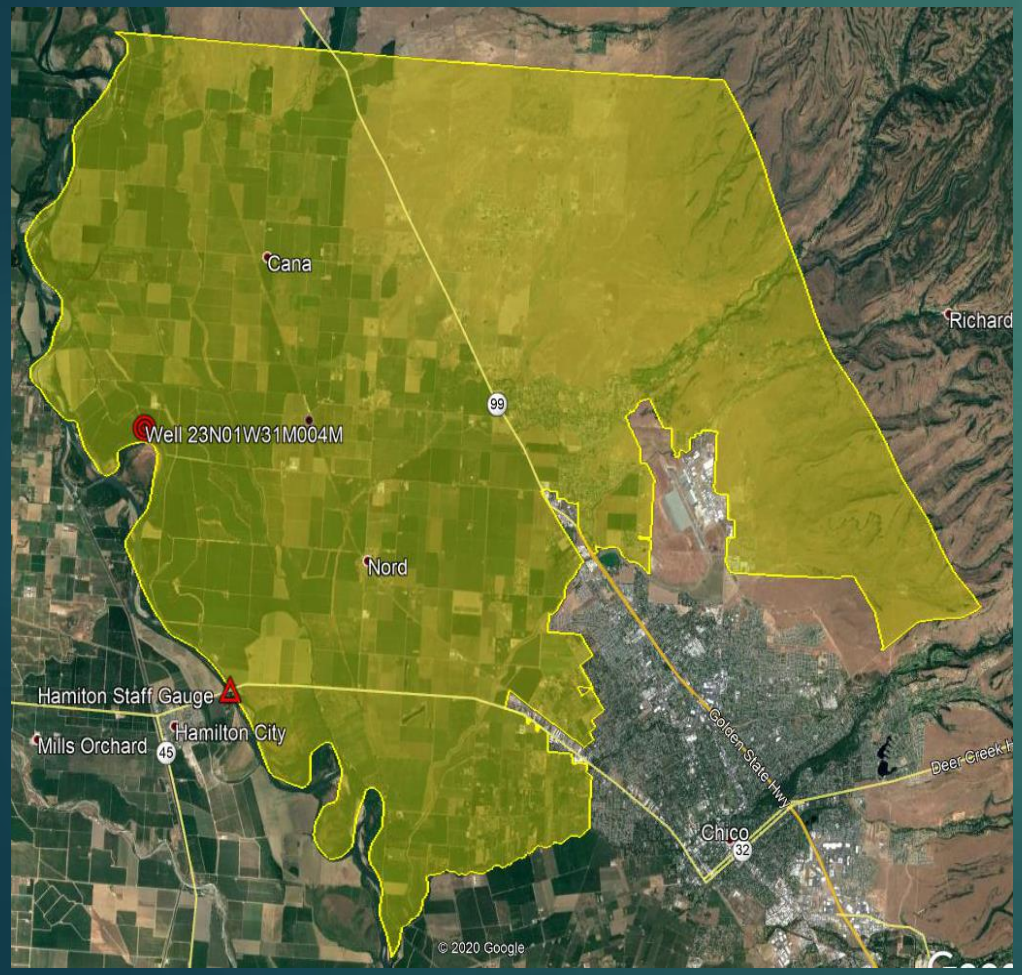
SMC for Stream Depletion

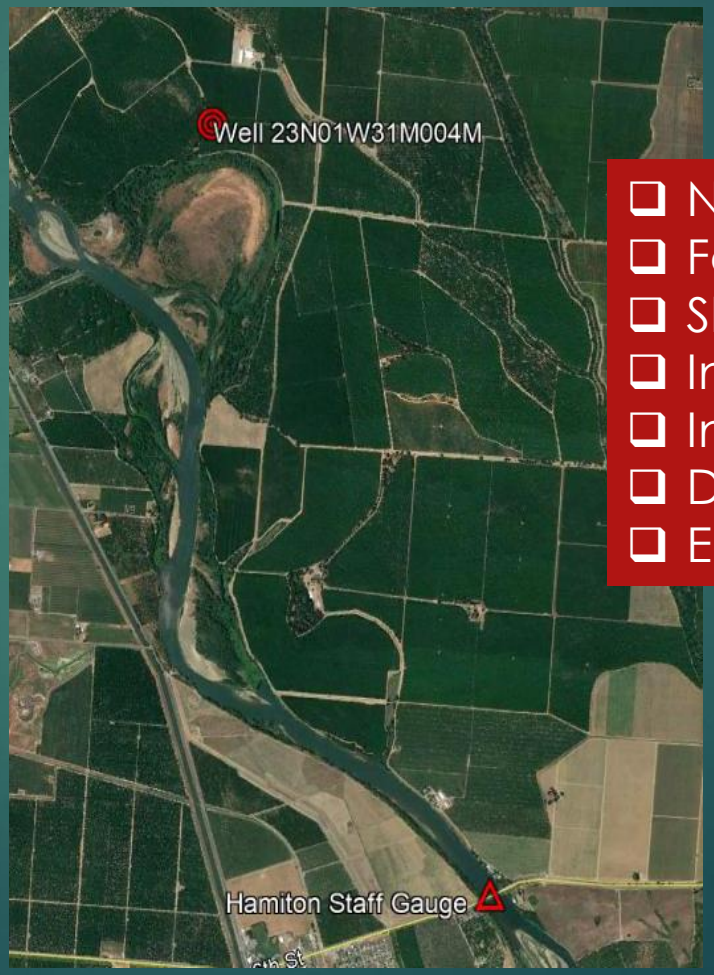
If groundwater levels in shallow wells adjacent natural stream channels are used as proxy for depletion, there are data gaps and model limitations in defining measurable objectives.

Stream/Aquifer interaction in upland tributary areas differs from stream aquifer interaction in Sacramento River mainstem



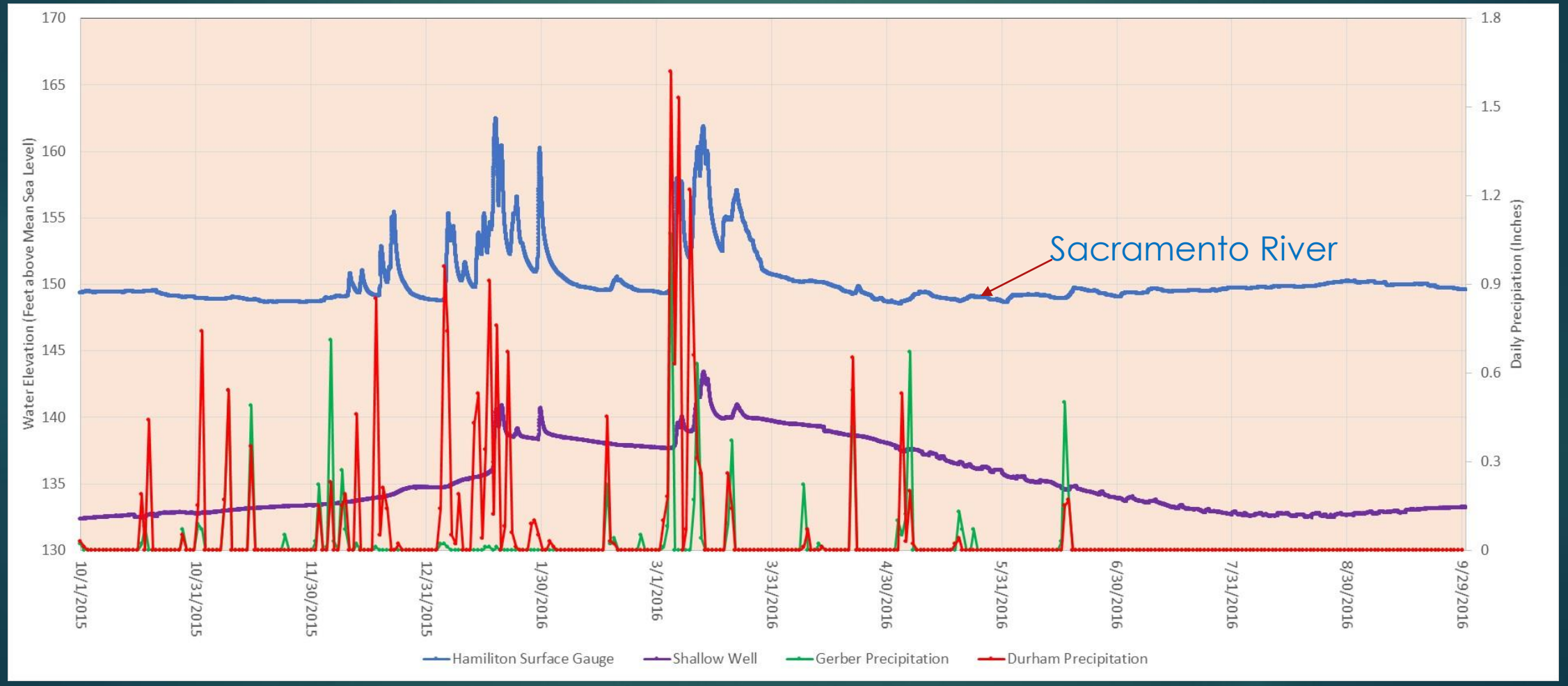
Vina North – Sacramento River Representative Monitoring Well



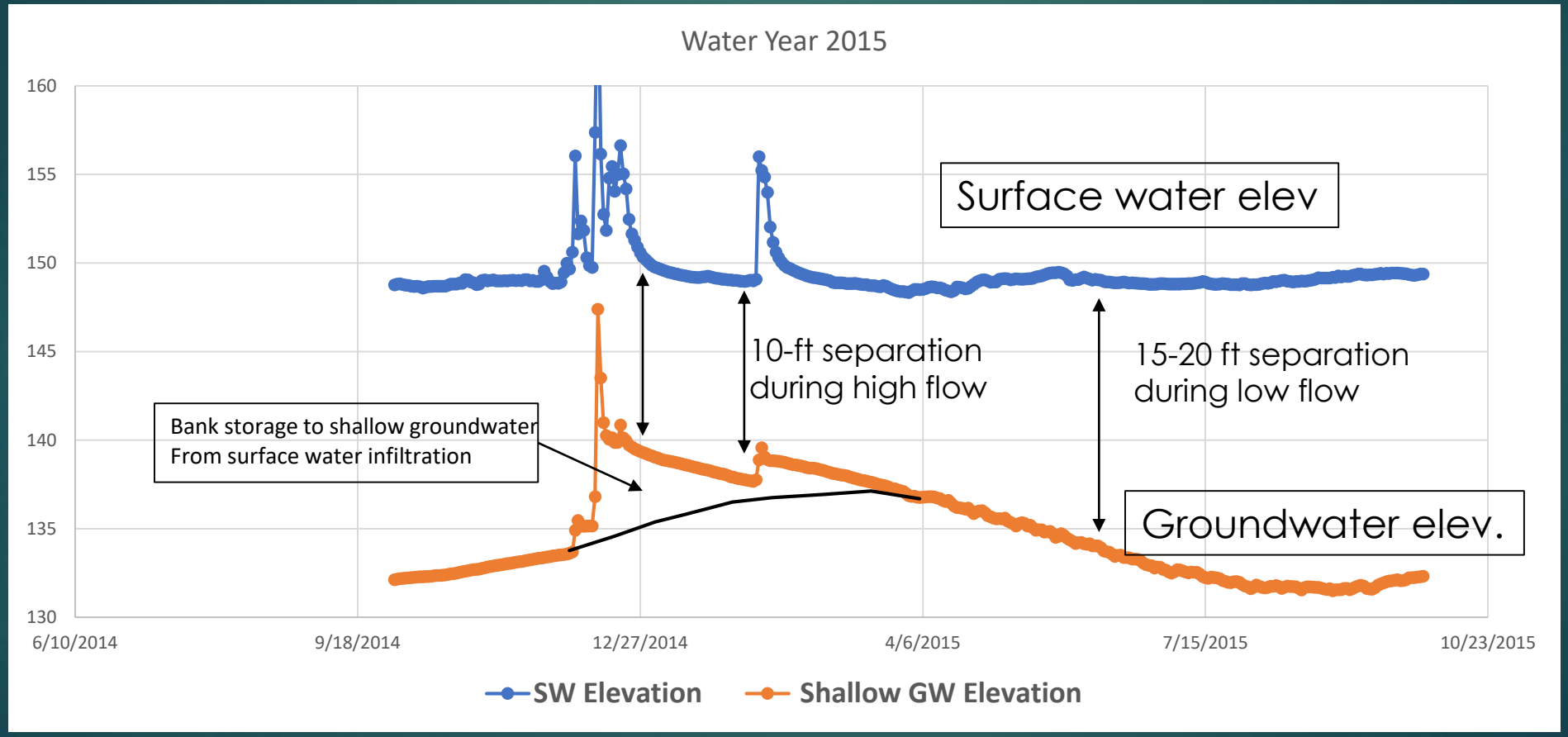


- Nested Monitoring Well
- Four Screened Zones
- Shallow – 65-75 Feet BGS
- Intermediate – 140-201 Feet BGS
- Intermediate – 590-690 Feet BGS
- Deep – 1000-1030 Feet BGS
- Equipped with Transducers

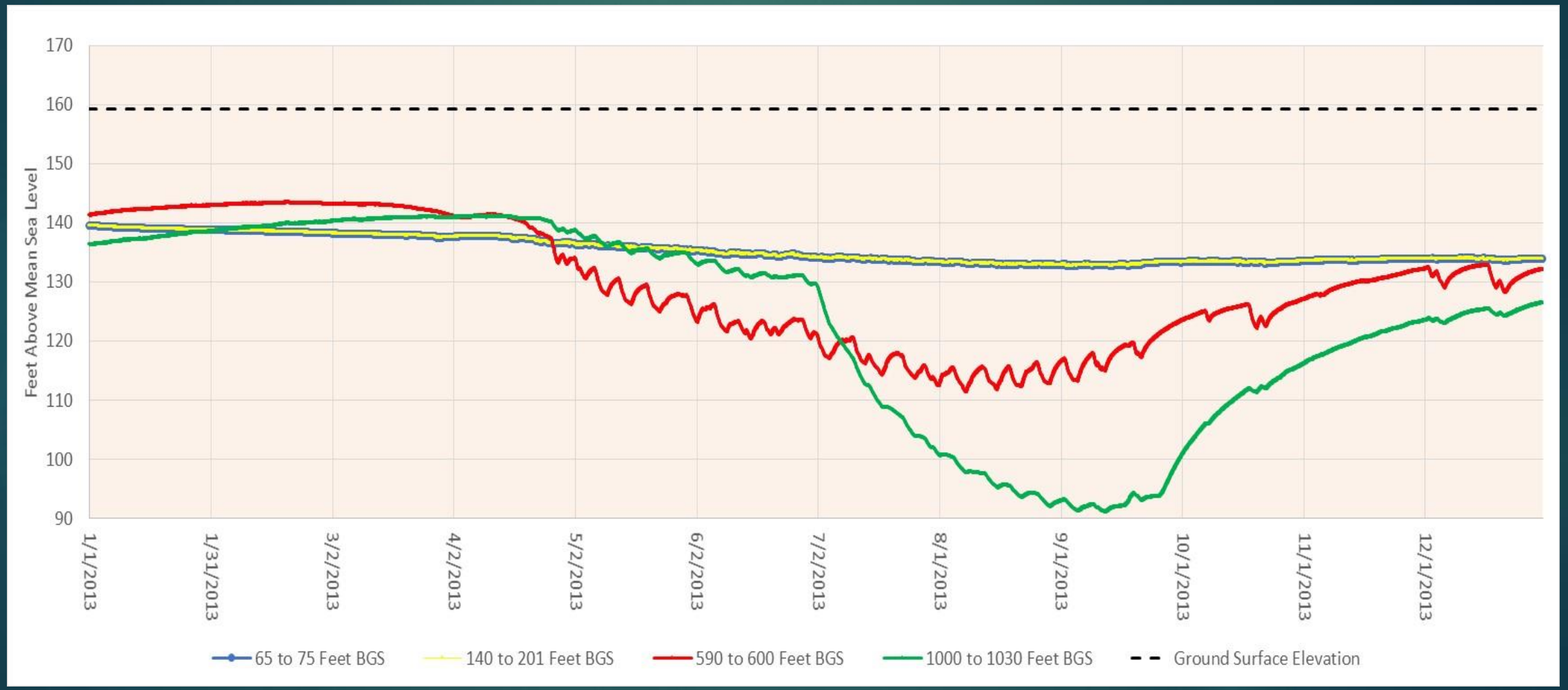
Mainstem Hydrograph Surface Water and Groundwater



High flow surface water infiltration from Sacramento River



Mainstem Hydrograph Effects From Deeper Pumping



Upland Hydrograph Effects From Deeper Pumping

- We have little to no data in upland areas to analyze:
  - How the shallowest aquifer zones interacts with streams
  - How deeper pumping affects water levels in shallowest aquifer zone
- Based on the performance of the model, it appears there is limited connectivity between deeper pumping and streamflow. If there were, the model would have difficulty predicting streamflows (which it doesn't)

Depletion of Interconnected Surface Water

Data Gap

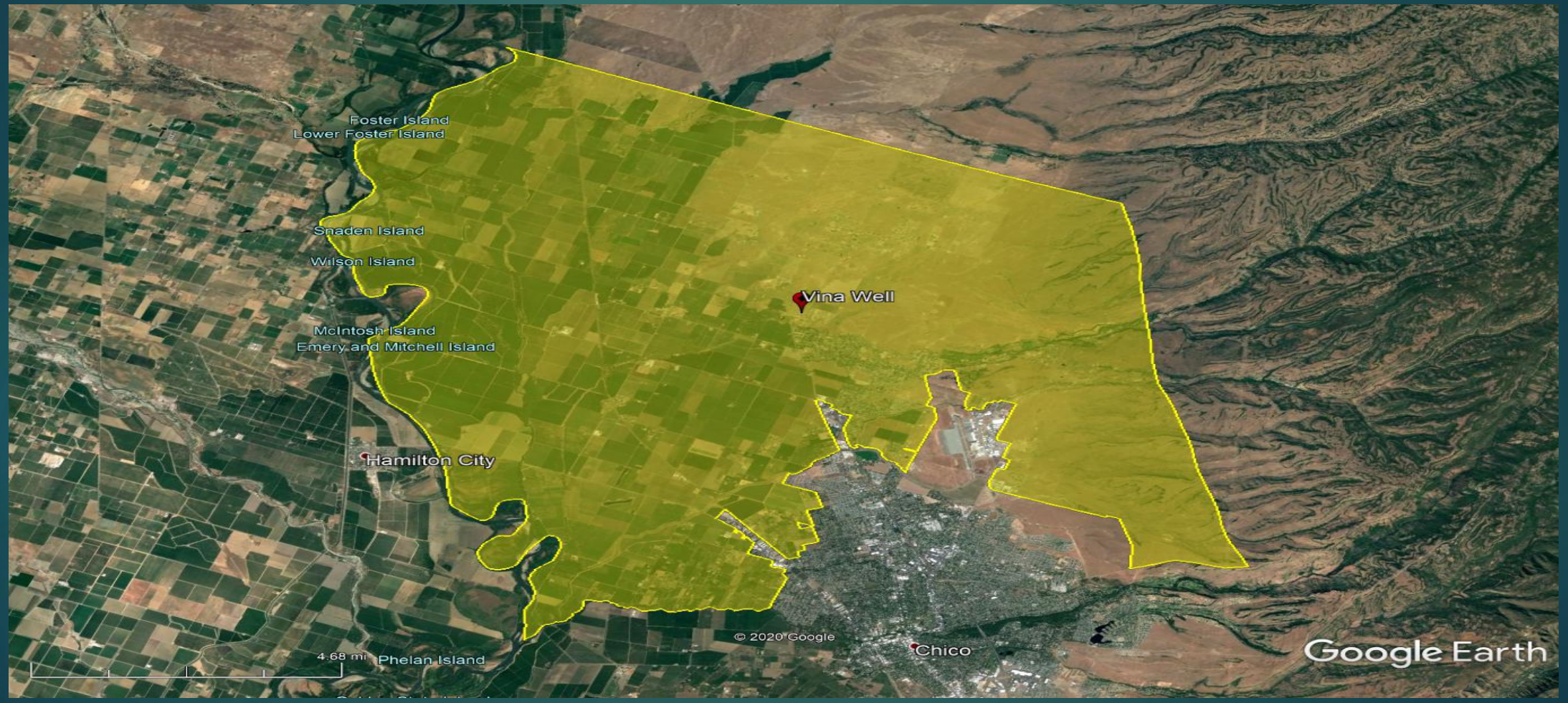
Undesirable Results and Sustainability Criteria	
Undesirable Result Statement	• Surface water depletion caused by groundwater pumping prevents beneficial uses over a sustained period. This includes environmental beneficial uses in natural stream channels that supports a viable ecosystem, particularly ecosystems containing endangered species. • Groundwater levels in shallow wells adjacent natural stream channels will be used as proxy for depletion. • Representative monitoring locations must be within a shallow aquifer that is known to be hydraulically connected to a natural stream channel
Minimum Threshold (onset of undesirable result) and Measurable Objective (desired condition)	• Minimum Threshold – Groundwater levels lower than 5 feet below the base of the stream channel during September for two consecutive years. • Fall 2015 groundwater level in shallow aquifer (or modeled 2015 groundwater level if no data are available). Dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring locations fall below minimum threshold for 2 consecutive years

Degraded Groundwater Quality

Degraded Groundwater Quality

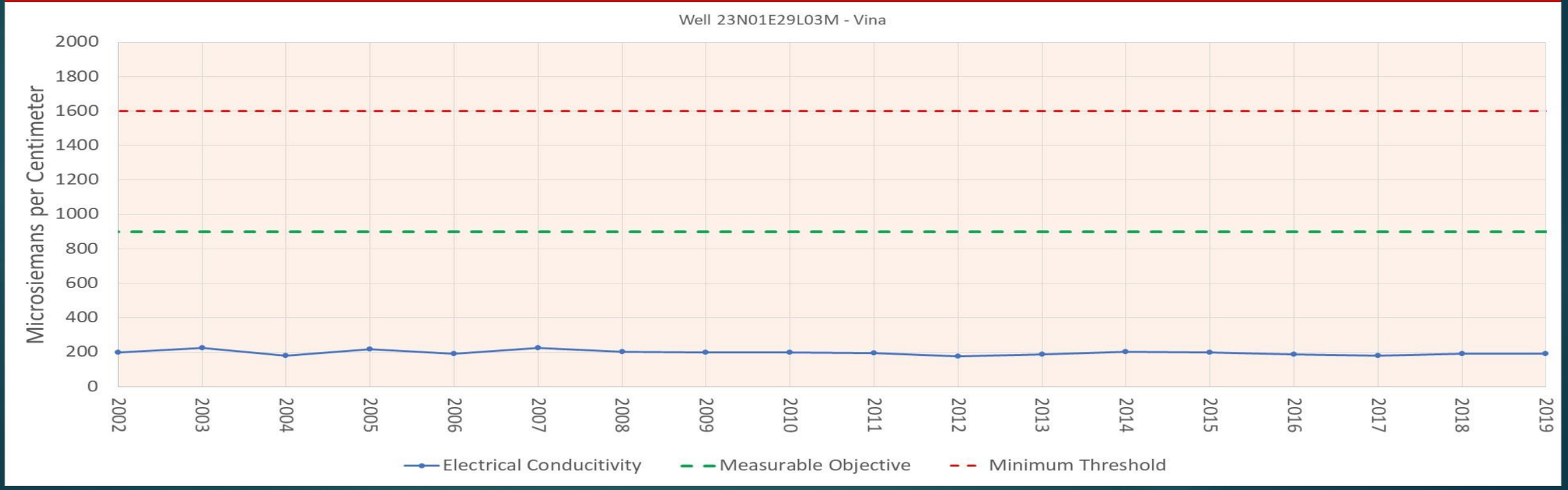
Undesirable Results and Sustainability Criteria	
Undesirable Result Statement	• Water quality is below State Maximum Contaminant Levels (MCLs) or thresholds for agricultural productivity as a result of groundwater pumping. • Salinity will be used as a proxy for overall water quality. • Other programs and agencies are responsible for enforcing groundwater quality violations. GSA will coordinate with other agencies if water quality degradation is associated with groundwater pumping
Minimum Threshold (onset of undesirable result) and Measurable Objective (desired condition)	• Minimum Threshold – 1,600 µS/cm – Upper SMCL • Measurable Objective – 900 µS/cm – Secondary MCL (SMCL)
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring wells fall below minimum threshold for 2 consecutive years

Vina North
Representative Monitoring Well

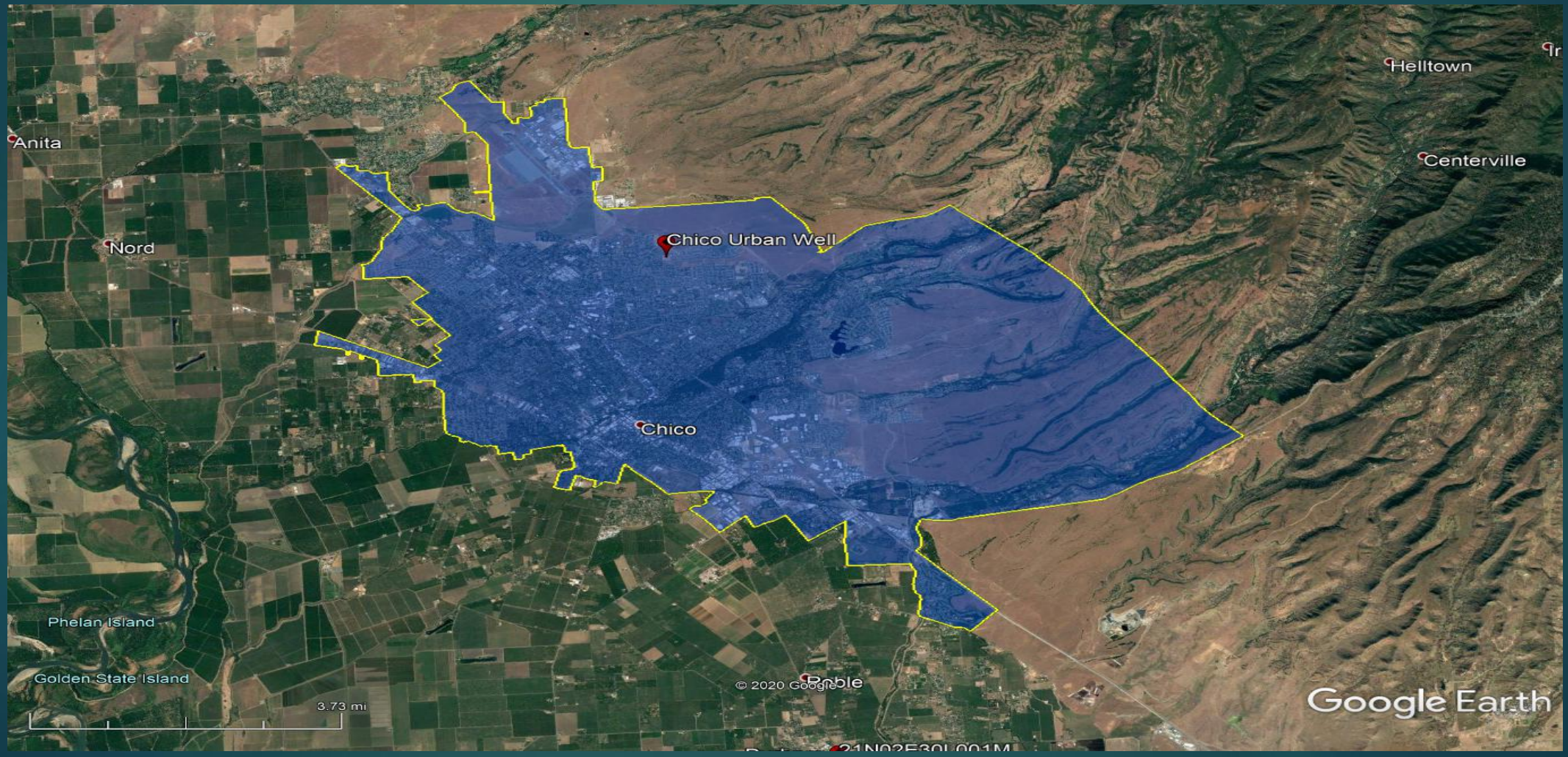


SMCs Vina North
Degraded Groundwater Quality

Measurable Objective
900 µS/cm
Minimum Threshold
1600 µS/cm



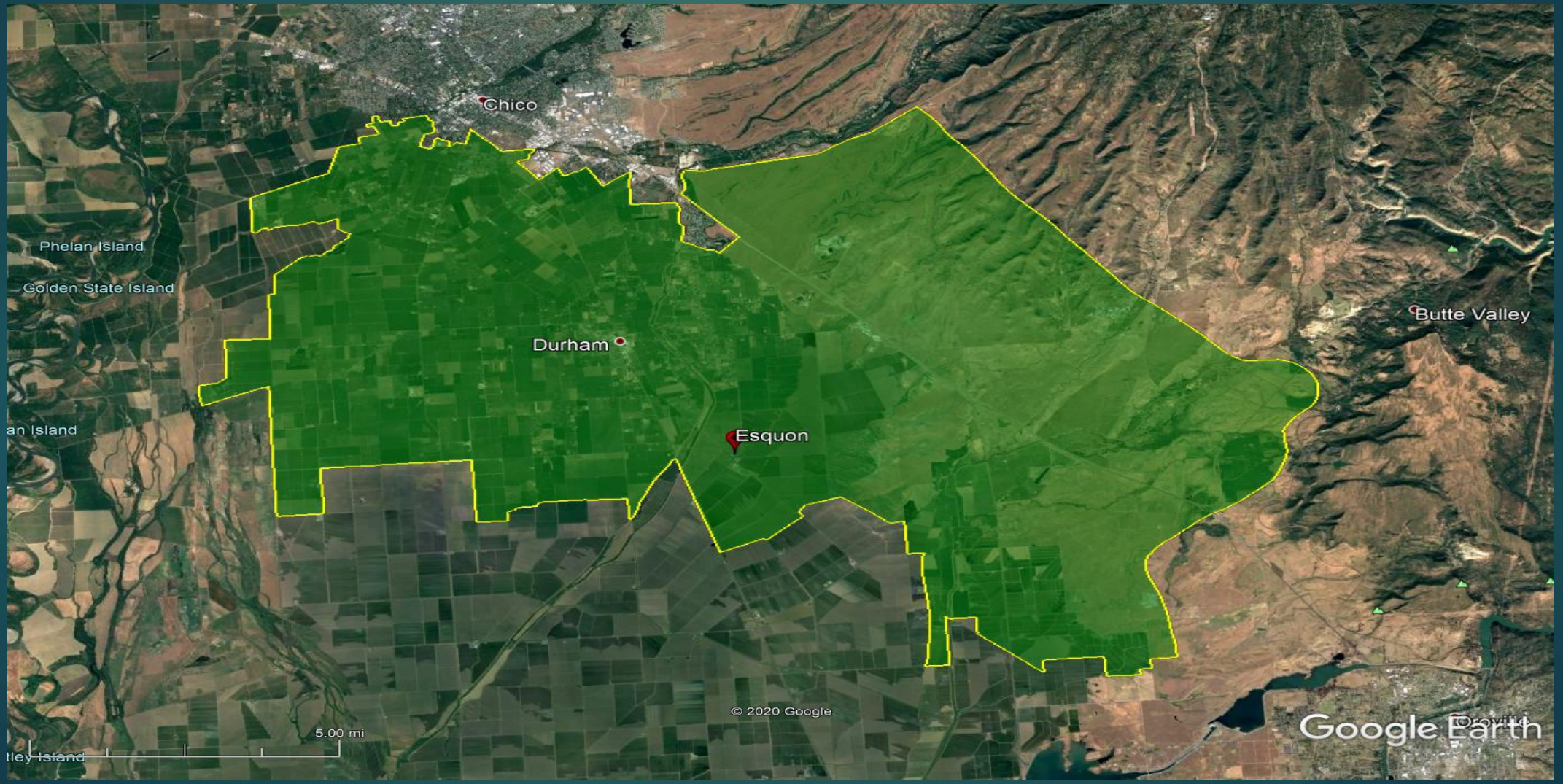
Vina Chico
Representative Monitoring Well



SMCs Vina Chico
Degraded Groundwater Quality

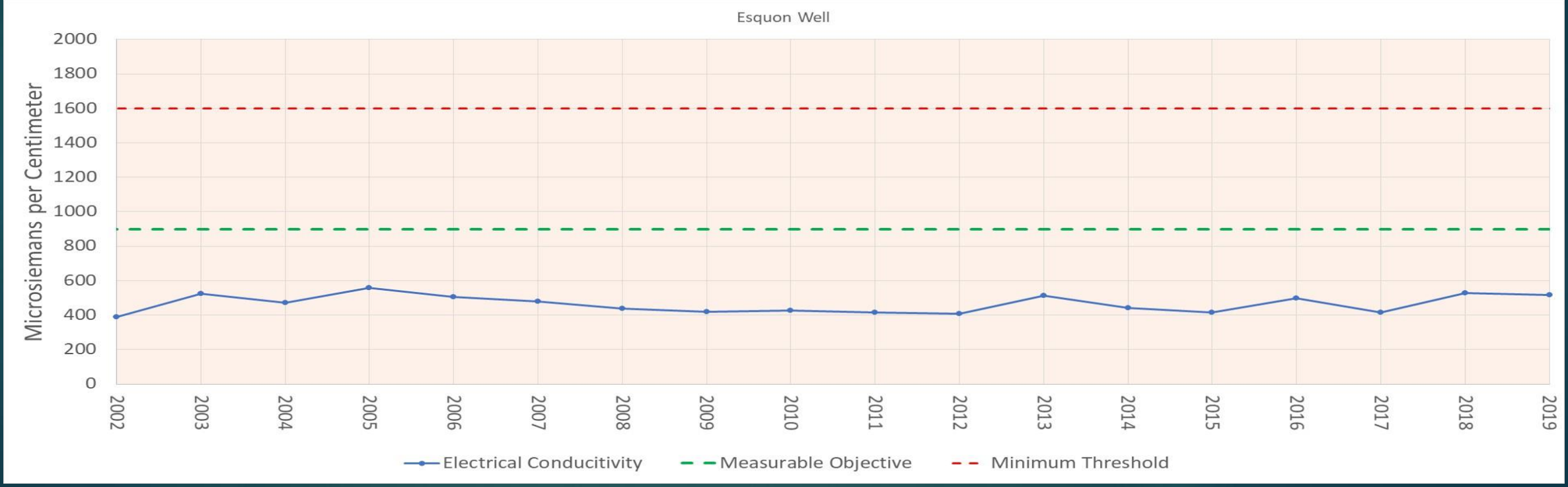
Measurable Objective
900 µS/cm
Minimum Threshold
1600 µS/cm

Vina South
Representative Monitoring Well



SMCs Vina South
Degraded Groundwater Quality

Measurable Objective
900 µS/cm
Minimum Threshold
1600 µS/cm



Northern Sacramento Valley | Sustainable Groundwater Management Act

Regional Coordination Between Subbasins

Antelope | Bowman | Butte | Colusa | Corning | Los Molinos | Red Bluff | Sutter | Vina | Wyandotte Creek | Yolo

Sustainable Groundwater Management Act

What is SGMA? California enacted the Sustainable Groundwater Management Act (SGMA) in 2014 to better manage groundwater over the long term. Sustainability is achieved by avoiding significant and unreasonable conditions for the six "sustainability indicators."

- Lowering of Groundwater Levels
- Reduction of Groundwater Storage
- Land Subsidence
- Surface Water Depletion
- Water Quality Degradation
- Sea Water Intrusion

Why is regional coordination important? In the Sacramento Valley, inter-basin coordination is critical as Groundwater Sustainability Agencies (GSA) develop their Groundwater Sustainability Plans (GSP). Since groundwater subbasins in the Northern Sacramento Valley (NSV) are hydrologically interconnected, water management decisions and actions in one subbasin (e.g. groundwater pumping) and processes like climate change could change aquifer conditions and affect flows to other subbasins. Understanding and accounting for these processes is key to achieve sustainability in all subbasins.

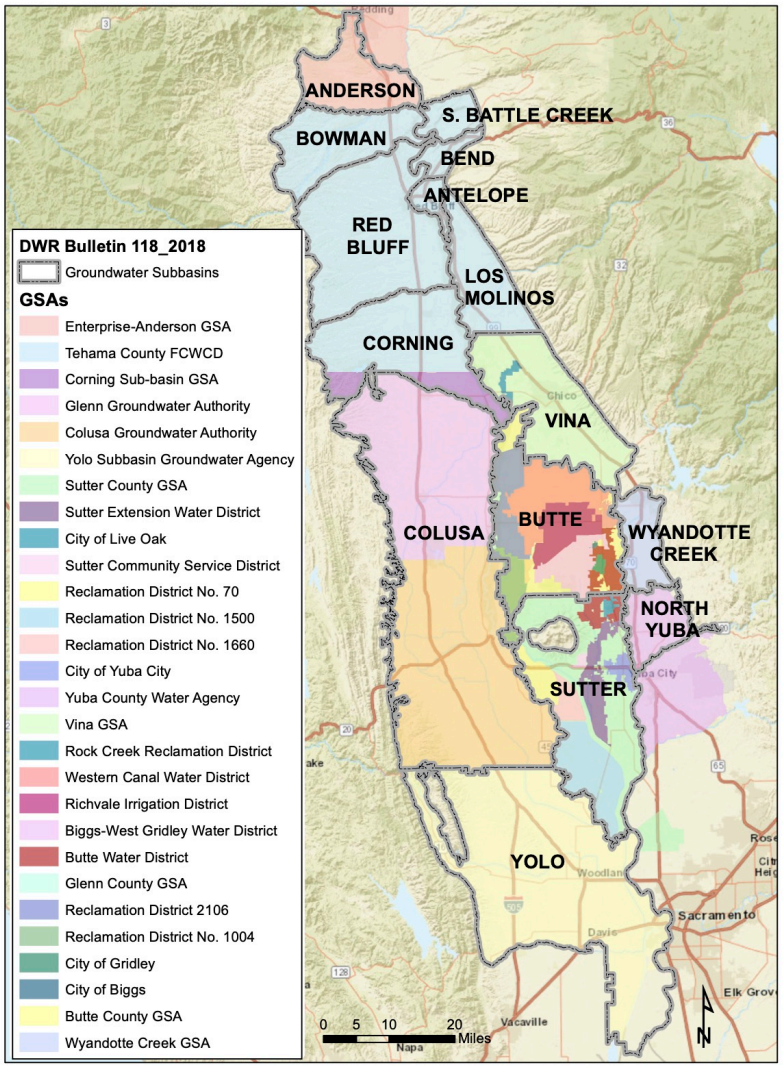
Who is involved in ongoing efforts?

Collaborative efforts have begun among representatives from 11 subbasins (Antelope, Bowman, Butte, Colusa, Corning, Los Molinos, Red Bluff, Sutter, Vina, Wyandotte Creek, Yolo), with facilitation support from the Consensus Building Institute. While efforts have focused on the subbasins mentioned, coordination will occur, as warranted, with other neighboring subbasins (Anderson and North Yuba).

What are the coordination priorities?

Groundwater Sustainability Agencies are working together to establish a foundation for open and transparent inter-basin coordination and communication by developing tools to:

- SHARE & COMPILE INFORMATION IN A CONSISTENT WAY
- OUTLINE A PROCESS TO IDENTIFY & RESOLVE ISSUES
- DOCUMENT COORDINATION EFFORTS



Learn More & Get Involved

Receive Updates
Sign up for your GSA's interested parties list.

Contact Your GSA
Talk to your GSA representative

Attend Meetings
Attend public workshops, Advisory Board, and GSA Board meetings

Subbasin	GSA(s)	Website
Antelope	Tehama County Flood Control and Water Conservation District (FCWCD)	Website
Bowman	Tehama County FCWCD	Website
Butte	Biggs West Gridley WD, Butte County, Butte WD, City of Biggs, City of Gridley, Colusa Groundwater Authority, Glenn County, RD 1004, RD 2106, Richvale ID, Western Canal WD	Website
Los Molinos	Tehama County FCWCD	Website
Red Bluff	Tehama County FCWCD	Website
Corning	Corning Sub-basin GSA, Tehama County FCWCD	Website
Colusa	Glenn Groundwater Authority; Colusa Groundwater Authority	Websites (Glenn) | (Colusa)
Sutter	Butte WD, City of Live Oak, Sutter Community Service District, Sutter County, Sutter Extension Water District, RD 70, RD 1660, RD 1500, City of Yuba City	Website
Vina	Rock Creek Reclamation District, Vina GSA	Websites (Vina) | (RCDC)
Wyandotte Creek	Wyandotte Creek GSA	Website
Yolo	Yolo Subbasin Groundwater Agency	Website

Find more information about regional inter-basin coordination at:
ButteCounty.net/waterresourceconservation/Sustainable-Groundwater-Management-Act/Inter-basin-Coordination

Vina
Groundwater Sustainability Agency
Agenda Transmittal

Agenda Item:
6.2

Subject: CONSIDERATION OF 2020 VINA GSA BOARD REGULAR MEETING CALENDAR.

Contact: Linda Herman **Phone: 530 896-7241** **Meeting Date: 1/13/21** **Regular Agenda**

Department Summary:

Section IV. b. of the Vina Groundwater Sustainability Agency Bylaws state that Regular meetings of the Board shall occur at least annually; however, meetings may occur more frequently. It also states that the Board at its first meeting of the calendar year shall establish a regular meeting schedule for the following year, including the date, time and location.

In 2020. the Vina GSA Board set the regular meeting as monthly at 5:30 p.m. on the second Wednesday of the month in the Chico City Council Chamber Building at 421 Main Street, Chico. However, due to COVID restrictions the meetings have been held remotely online using the Zoom platform.

Staff is proposing that the monthly Vina GSA regular meeting dates continue as the 2nd Wednesday of the month at 5:30 p.m. for 2021 and that the meetings be held remotely while COVID restrictions are in place. Recognizing that this date and time may not work for the two newly appointed Board members, Staff is requesting that the Board either approve the attached regular Board meeting calendar or provide alternative dates and times.

Fiscal Impact: None

Staff Recommendation: The Management Committee recommends that the Board approve the calendar of the regular meetings of the Vina GSA Board, or provide alternative meeting dates or times for 2021.

Attachments

Proposed 2021 Vina GSA Board Meeting Calendar

PROPOSED 2021 VINA GSA BOARD REGULAR MEETING SCHEDULE - 2ND WEDNESDAY AT 5:30 P.M.

2021

JANUARY

Su	Mo	Tu	We	Th	Fr	Sa
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

FEBRUARY

Su	Mo	Tu	We	Th	Fr	Sa
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	1	2	3	4	5	6
7	8	9	10	11	12	13

MARCH

Su	Mo	Tu	We	Th	Fr	Sa
28	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

APRIL

Su	Mo	Tu	We	Th	Fr	Sa
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	1
2	3	4	5	6	7	8

MAY

Su	Mo	Tu	We	Th	Fr	Sa
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

JUNE

Su	Mo	Tu	We	Th	Fr	Sa
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3
4	5	6	7	8	9	10

JULY

Su	Mo	Tu	We	Th	Fr	Sa
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

AUGUST

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

SEPTEMBER

Su	Mo	Tu	We	Th	Fr	Sa
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2
3	4	5	6	7	8	9

OCTOBER

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

NOVEMBER

Su	Mo	Tu	We	Th	Fr	Sa
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4
5	6	7	8	9	10	11

DECEMBER

Su	Mo	Tu	We	Th	Fr	Sa
28	29	30	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1
2	3	4	5	6	7	8

	Vina Groundwater Sustainability Agency Agenda Transmittal	Agenda Item: **7.1.1**

Subject: Management Committee Report - Vina GSA Stakeholder Advisory Committee Update

Contact: Kelly Peterson Phone: (530) 552-3588 Meeting Date: January 13, 2020 Regular Agenda

Department Summary:

The Vina GSA Stakeholder Advisory Committee (SHAC) met virtually last month on December 15, 2020, the draft meeting notes are attached. At the last meeting, the SHAC:

- Made changes to the previous meeting notes for the 11/17/20 meeting

- Received a presentation and provided input on draft Sustainable Management Criteria (SMC) from the consulting team. The objectives of the discussion were to discuss:
(1) wording and quantitative measures to include in the SMC,
(2) technical background or monitoring implications related to each SMC definition,
(3) potential differences between areas, and
(4) specific analysis or further refinement needed to prepare a draft SMC section for approval and incorporation into the Draft GSP.

Due to time limitations, the SHAC did not discuss all the indicators in depth; rather, discussion focused on Chronic Lowering of Groundwater Levels and Surface Water Depletion.

- Received an update from the Vina GSA Management Committee, including next steps for the Projects and Management Actions and an update on inter-basin coordination efforts.

SHAC membership details, meeting materials, detailed meeting notes and recordings of the meetings are on the Vina GSA website at https://www.vinagsa.org/

All SHAC meetings are open to the public and scheduled for the third Tuesday of each month from 9:00 a.m. – 12:00 p.m. in an online format using Zoom. The SHAC will meet again via video conference on January 19, 2020 at which time they will consider in addition to other items, approval of the December 2020 meeting summary, continue SMC discussions (Minimum Thresholds and Measurable Objectives), review proposed representative monitoring sites and continue PMA discussions.

Fiscal Impact: None

Staff Recommendation: Accept as an information item.

Meeting Brief

- The Vina Stakeholder Advisory Committee (SHAC) met virtually on December 15, 2020.
- **Meeting Notes:** The SHAC made revisions to the previous meeting notes (11/17/20) [Access Notes Here].
- **Sustainable Management Criteria (SMC):** The SHAC received a presentation and provided input on draft SMC from the Geosyntec consulting team. The objectives of the discussion were to discuss (1) wording and quantitative measures to include in the SMC, (2) technical background or monitoring implications related to each SMC definition, (3) potential differences between areas, and (4) specific analysis or further refinement needed to prepare a draft SMC section for approval and incorporation into the Draft GSP [Access Slides Here]. Due to time limitations, the SHAC did not discuss all the indicators in depth; rather, discussion focused on Chronic Lowering of Groundwater Levels and Surface Water Depletion. The SHAC will continue SMC conversations during the next meeting.
- **Updates:** The SHAC received an update from the Vina GSA Management Committee, including next steps for the Projects and Management Actions (PMAs) and an update on inter-basin coordination efforts.
- **Next Meeting:** The SHAC will meet again via video conference on January 19, 2021 from 9:00-12:00.

Action Items

Item	Lead	Completion
• Incorporate suggested changes to the Vina SHAC meeting summary (11/17/20) and redistribute.	CBI & Management Committee	Upon completion
• Follow up with Gary Cole regarding access to online resources and upload meeting materials in PDF version for easier access.	CBI & Management Committee	Upon completion
• Share DWR 1978 recharge study referenced with the Vina GSA Management Committee.	Jim Brobeck & Gary Cole	Complete
• Share Groundwater Dependent Ecosystem information with Geosyntec.	Management Committee	Upon completion
• Share PMA glossary and legal implications Q&A document with the SHAC.	CBI & Management Committee	Complete Shared via email 12/21.

Summary

The Vina SHAC met on December 15, 2020 via video conference, as a result of COVID-19. 27 participants attended, including Vina SHAC members, Groundwater Sustainability Agency (GSA) member agency staff, technical consultants, representatives of the CA Department of Water Resources (DWR), and members of the public. Below is a summary of key themes and next steps discussed at the meeting. This document is not intended to be a meeting transcript. Rather, it focuses on the main points covered during the group's discussions. The video-conference meeting recording is available at the Vina GSA website [Video| Audio].

1. Introductions & Agenda Review

The SHAC members, facilitator, technical consulting teams, and staff introduced themselves. The SHAC welcomed a new member, Sam Goepp, domestic well user. The facilitator gave a brief overview of the agenda.

2. Public Comment for Items Not on the Agenda

a) A SHAC member expressed concern with some members providing comments in other venues without clarifying they were speaking as individuals and not on behalf of the SHAC.

b) A SHAC member and a member of the public suggested revisiting the conversation regarding legal and efficiency implications of Projects and Management Actions (PMAs). P. Gosselin (Butte County) shared that the Management Committee prepared two documents (glossary of key terms and legal implications Q&A document) to inform future PMA conversations, once conversations regarding Sustainable Management Criteria (SMC) catch up. The facilitation team will share these documents following the meeting.

c) P. Vellines and D. Spangler (DWR) attended the meeting and wanted to address SHAC members' concerns related to the DWR 1978 document addressing groundwater recharge. To do so, they asked SHAC members to share the document citation and clarify their questions or concerns. SHAC Members, J. Brobeck and G. Cole, shared that they are concerned with the potential impacts of purposefully creating additional space for recharge in the Tuscan Aquifer and, the possibility of transferring water south of the Delta, under emergency drought and water scarcity conditions.

3. Meeting Notes Review & Consideration

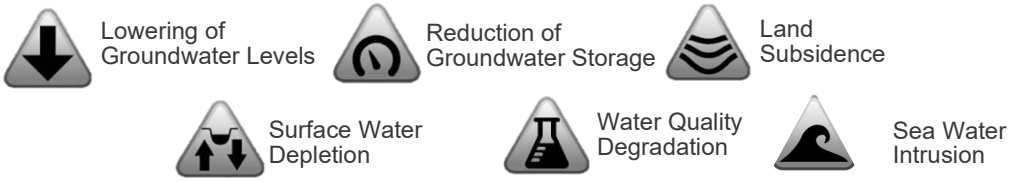
The SHAC reviewed and made some suggested edits to the 11/17/20 SHAC meeting notes [access here]. A SHAC member shared he had been having difficulties accessing materials, since the packages are not printed and mailed anymore. The facilitation team will connect with this member to address difficulties. The meeting notes will be reviewed again at the next meeting.

4. Sustainable Management Criteria (SMC) Overview - Discussion

The SHAC received a presentation focused on draft SMC from Geosyntec, the technical consulting team supporting GSP development. Geosyntec sought the SHAC's input on overall approach to developing the SMC [Access Presentation | SMC Best Management Practices Report].

SGMA Terminology

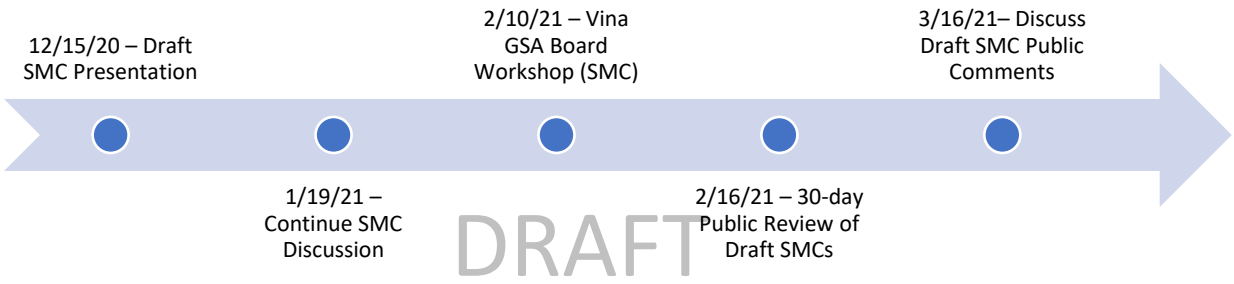
Sustainability, under the Sustainable Groundwater Management Act (SGMA), is demonstrated by the avoidance of Undesirable Results for the six sustainability indicators below. Undesirable Results occur when conditions related to the sustainability indicators cause "significant and unreasonable" impacts, as defined by the GSAs. SMC and representative monitoring locations must be developed for each of the indicators below.



Each undesirable result must include three elements:

a) **Description of Undesirable Results:** what constitutes a "significant and unreasonable" condition
b) **Minimum Threshold:** quantitative definition of groundwater conditions at a representative monitoring site at which undesirable results may begin to occur
c) **Measurable Objective:** quantitative definition that reflects the basin's desired groundwater condition and allows the GSA to achieve sustainability goals within 20 years

SMC Development Schedule:



Strawman Undesirable Results & Sustainable Management Criteria

The technical team presented draft, or "strawman" undesirable results, measurable objectives, and minimum thresholds for discussion with the objectives of discussing (1) wording and quantitative measures to include in the SMC; (2) technical background or monitoring implications related to each SMC definition; (3) potential differences between areas; and (4) specific analysis or further refinement needed to prepare a draft SMC section for approval and incorporation into the Draft GSP [Access Slides Here].

Chronic Lowering of Groundwater Levels

Approach: Geosyntec, the consulting team, proposed setting the Minimum Threshold (MT) based on domestic well depths, with the intent to establish some level of protection for domestic wells. Geosyntec suggested establishing Measurable Objective (MO), or desired state for water levels, based on current and projected water level trends, using existing monitoring data and modeling results. The area between the MT and MO indicates the level of operational flexibility. This SMC process would apply to each Representative Monitoring Site. In sum, the proposed approach takes into account local hydrogeological conditions, is protective of domestic wells (MT), and uses modeled water level trends.

Draft Undesirable Results and Sustainability Criteria

Undesirable Result Statement	• GW Levels are unable to satisfy beneficial uses over a sustained period. Specific examples of undesirable results include domestic wells going dry, reduction in pumping capacity, Increase in pumping costs, Potential impacts to GDEs.

Minimum Threshold (onset of undesirable result) & Measurable Objective (desired condition)	• Minimum Threshold – Fall (Sept/Oct) GW level is above the 15th Percentile of all domestic well depths in a given area or sub-area. This means 85% of all domestic wells are completed below the minimum threshold and will be "protected." • Measurable Objective – Fall 2015 groundwater level (or modeled 2015 groundwater level if no data are available). This means dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring wells fall below minimum threshold for 2 consecutive years.

Discussion:

a) **Units & Graphs:** The SHAC recommended that all units in the graphs are consistent (e.g., head vs. elevation, etc.). SHAC members suggested modifying the graphs to make the information more digestible and accessible to the public. For example, users may not understand head and mean sea level, but rather the depth of their wells. The consulting team will ensure consistency in the future.

b) **MT Well Depths:** A SHAC member asked if MT based on well depth relate more to domestic wells, rather than CalWater or agricultural wells. Geosyntec responded that the approach so far is to set the number based on domestic wells, but they could consider including other wells if the SHAC believes it would be important. These options are not mutually exclusive. The GSA could establish representative sites and incorporate MO into deeper wells; however, that approach could artificially impact domestic well owners. So far, Geosyntec used DWR well log data but is open to switch to other dataset if available and desired.

c) **Future Growth Projections:** A SHAC member asked if future growth was accounted for in the projections. C. Buck (Butte County) shared that the model built in projected urban growth but does not make assumptions on agricultural acreage growth, other than increased Evapotranspiration (ET) due to projected higher temperatures with climate change. The SHAC member was concerned that the graphs do not reflect potential urban growth and new subdivisions that would represent more "straws" in the aquifer. P. Gosselin (B. County) shared that future land use plans will have to take into account the GSPs for their updates. The SGMA process will make the decision-process more transparent; larger subdivisions will have to prove they can provide reliable water supply, which could be achieved by funding PMAs in the Vina subbasin. For example, new developments could fund projects to ensure more supply is generated through conservation. Further, P. Gosselin mentioned the GSA can integrate these considerations in the PMAs and in the 5-year updates.

d) **Monitoring Well Radius:** A SHAC member asked how the technical team will determine MT in the context of large populations and changing elevations. J. Turner (Geosyntec) explained that hydrogeologic conditions would determine how to select representative monitoring wells. The group would consider establishing smaller radiuses to capture elevation change. The group might also find data gaps and may select a deeper well per area.

e) **Butte Basin Groundwater Model (BBGM):** Another SHAC member questioned the BBGM's 2050 urban water demand projections, as the 2015 severe drought led to significantly lower

water use. Geosyntec shared that while the model is a useful tool, SGMA requires management based on data collected through monitoring.

f) **Wildfire Impacts on Demand:** P. Gosselin (Butte County) shared that another issue for future growth may be impacted by the displacement of wildfire survivors. These changes will be accounted for as part of the 5-year updates based on the best available data. Further, in the interest of supporting the SGMA process, CalWater provided early projections to the technical team, which will be released to the public with the urban water management plan next year.

g) **Data Gaps & MT Considerations:** V. Kincaid (O'Laughlin & Paris, LLP) noted two considerations related to data gaps and MT determinations. She suggested looking at a map of representative monitoring wells to evaluate basin coverage (location and concentration). Some key questions to ask: how many Monitoring wells do we have, where are they located, when will they be triggered, and how many would it take to be in violation? Geosyntec clarified that they will use a combination of wells used to calibrate the model and a good sampling of domestic wells to set minimum criteria. The present monitoring wells are set based on good data availability for water levels and interval screening. Further, Geosyntec is in the process of writing the Representative Monitoring Chapter now and will be presenting to the SHAC in the near future.

h) **Connecting SMCs and PMAs:** Geosyntec and the Management Committee encouraged the SHAC to consider that SMCs and PMAs are interconnected. The subbasin is trying to manage groundwater to a desirable state (MO) through PMAs, making sure it does not reach the MT or undesirable result.

i) **Representative monitoring wells**: The SHAC would like to revisit a map of monitoring well locations. The radius around each well may need to vary per area, might be too big for urban areas and only cover 3-4 domestic wells in other areas. Further, some domestic wells may not be recorded or monitored.

j) **Views on process and approach:**

   i) *MT percentile of domestic wells (15%):* some SHAC members were comfortable with the approach, while others requested an estimate of how many domestic wells would go dry at that percentile to make an informed assessment. Geosyntec shared that they currently do not know how many of the wells considered in the dataset are already dry. Further, the GSA could consider PMAs to mitigate impacts on domestic wells. The percentile that would trigger MT warrants further discussion.

   ii) *Significant and unreasonable impact:* a SHAC member suggested increasing the timeframe from 2 to 3 consecutive years, as isotope studies show slower recharge cycles in the subbasin. Geosyntec shared that shallow areas tend to recharge at quicker rates. A longer time frame is less protective, so they recommend 2 years to trigger action. Timeframe can also be specified per management area.

   iii) *Overall approach:* Most SHAC members supported the process and approach. Others would need more time and information (e.g., number of wells affected at MT, map and screening depths of monitoring wells, more information on agricultural wells, GDE considerations, etc.) to make an informed recommendation. A SHAC member

requested more consideration of agricultural wells, as agricultural users in the subbasins are highly dependent on groundwater and currently have no alternatives.

Reduction in Aquifer Storage:

Due to time limitations, the SHAC did not have in-depth discussion related to this sustainability indicator. The consulting team proposed using groundwater levels as a proxy for aquifer storage; therefore, the proposed approach mimics the Chronic Lowering of Groundwater Levels process described above.

Draft Undesirable Results and Sustainability Criteria

Undesirable Result Statement	• Total groundwater storage volume is insufficient to satisfy beneficial uses. • Groundwater level will be used as a proxy for aquifer storage (i.e. groundwater storage will not be calculated explicitly)
Minimum Threshold (onset of undesirable result) & Measurable Objective (desired condition)	• Minimum Threshold – Fall (Sept/Oct) GW level is above the 15th Percentile of all domestic well depths in a given area or sub-area. This means 85% of all domestic wells are completed below the minimum threshold and will be "protected" • Measurable Objective – Fall 2015 groundwater level (or modeled 2015 groundwater level if no data are available). This means dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring wells fall below minimum threshold for 2 consecutive years

Land Subsidence:

Once again, the consulting team proposed using groundwater levels as a proxy for subsidence; therefore, the proposed approach mimics the process described above.

Draft Undesirable Results and Sustainability Criteria

Undesirable Result Statement	• Ground subsidence that results from groundwater pumping creates a safety hazard to critical infrastructure or property. • Other programs and agencies are responsible for enforcing ground engineering requirements for critical infrastructure. GSA will coordinate with other agencies if subsidence is associated with groundwater pumping • Groundwater levels will be used as a proxy for ground subsidence

Minimum Threshold (onset of undesirable result) & Measurable Objective (desired condition)	• Minimum Threshold – Fall (Sept/Oct) GW level is above the 15th Percentile of all domestic well depths in a given area or sub-area. This means 85% of all domestic wells are completed below the minimum threshold and "will be protective" • Fall 2015 groundwater level (or modeled 2015 groundwater level if no data are available). Dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• A subsidence rate of more than 0.2 feet per year for a 10-year period that is directly related to groundwater pumping and within 2,000 feet of critical infrastructure, including roads, railways, pipelines, water conveyance systems, hospitals or other critical facilities.

*Depletion of Interconnected Surface Water – **Data Gap***

Geosyntec explained that the process to determine the MT and MO for this sustainability indicator is challenging due to existing data gaps. It is difficult to use deeper wells as a proxy for depletion of stream flow. Geosyntec suggests using groundwater levels in shallow wells adjacent to natural stream channels as a proxy for depletion; however, there are monitoring data gaps and model limitations (lack of information of shallow aquifer) to define measurable objectives. Stream/Aquifer interaction in upland tributary areas differs from stream aquifer interaction in Sacramento River mainstem. The subbasin may need to rely more on words than numbers initially.

Suggested approach: Geosyntec suggests focusing on shallow aquifer conditions but recognizing significant data gaps exist. The subbasin will need to define in the implementation chapter, when and how data gaps will be filled. P. Gosselin (Butte County) shared that the state acknowledges that this is one of the most difficult indicators to measure, due to the lack of data and methodology. Thus, the State Board indicated that there would be no potential intervention on this sustainability indicator until 2025.

Draft Undesirable Results and Sustainability Criteria

Undesirable Result Statement	• Surface water depletion caused by groundwater pumping prevents beneficial uses over a sustained period. This includes environmental beneficial uses in natural stream channels that supports a viable ecosystem, particularly ecosystems containing endangered species. • Groundwater levels in shallow wells adjacent natural stream channels will be used as proxy for depletion. • Representative monitoring locations must be within a shallow aquifer that is known to be hydraulically connected to a natural stream channel

Minimum Threshold (onset of undesirable result) & Measurable Objective (desired condition)	• Minimum Threshold – Groundwater levels lower than 5 feet below the base of the stream channel during September for two consecutive years. • Fall 2015 groundwater level in shallow aquifer (or modeled 2015 groundwater level if no data are available). Dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring locations fall below minimum threshold for 2 consecutive years

Discussion:

a) **Alternative indicators:** A SHAC member expressed he is uncomfortable with this approach and wondered if there are any other alternatives, such as monitoring biological indicators. Geosyntec replied that they could consider setting minimum stream flows, conducting an ecological analysis rather than hydrogeologic analysis. However, the technical team would like to account for the cyclical trends in the subbasin. The SHAC member responded that in losing streams, significant reductions in pumping would be needed to have small impact on surface water depletion.

b) **Minimum Threshold:** A SHAC member suggested that the 5 ft drop delineated seems too strict. Geosyntec shared that it may be difficult to know due to the lack of available data; a 2 ft drop may be significant. In their experience, more than 5 ft below base of stream, impacts leakage significantly.

c) **Disconnected streams:** Another SHAC member mentioned a study indicated that groundwater pumping on disconnected portions of the aquifer may affect stream flow by extending reach of stream and decreasing overall flow. Geosyntec mentioned the subbasin could consider taking a water budget approach, followed in the Pacific Northwest. This approach would entail looking at total volume of recharge to streams. The downside is that the estimate is not easy to calculate and would be more indirect.

d) **Intermittent Streams:** A SHAC member emphasized there are multiple streams in the subbasin that only flow part of the year and was unable to visualize how this approach would work in those streams. The technical team stated that their initial focus has been on streams with GDEs and have not established MT/MOs in every single stream.

e) **Areas of Concern:** Another SHAC member highlighted the urgency of addressing surface water depletion in areas like Bidwell Park, which has been highly impacted by drought.

Outcomes & Next Steps | SMC

a) **Information Requests for Groundwater Levels:** number of domestic wells affected at the given MT percentile established, a map of the representative monitoring well spatial distribution and depth of well screening.

b) **Stream Depletion:** The technical team will evaluate alternative approaches for sustainability indicator. Regardless of the approach, the technical team recognizes there are significant data

gaps and would like to acknowledge that this indicator will be described more qualitatively than quantitatively.

c) **Overall Concern**: SHAC members expressed general concerns with the approach, as the group did not have sufficient time to discuss all five indicators. The SHAC would like to have all the information and time needed to make informed decisions. To provide additional input or ask clarifying questions, SHAC members can follow up with the technical consultants, staff, and facilitation team via written correspondence. If these concerns continue to come up, the GSA board could appoint an ad hoc committee. Other options would be sending a survey to all SHAC members, but all results would need to be shared publicly to prevent Brown Act violations.

d) **Next Steps:** The facilitation team, staff, and consulting teams will meet to discuss next steps. SHAC members will continue SMC discussions at the next meeting.

5. Vina GSA Management Committee Reports

a) Vina GSA Board Updates: The Vina GSA Board approved suggested changes to the Vina SHAC Charter. Further, DWR approved continued Facilitation Support Services (FSS) through 2021. CBI will continue to support Vina SHAC inter-basin coordination meetings. In addition, CBI will be helping revise the Communications and Engagement Plan. The Management Committee may consider extending the length of SHAC meetings to allow enough time for presentations and discussion.

b) Inter-basin coordination updates: Staff and consulting teams from 11 subbasins (Antelope, Bowman, Butte, Colusa, Corning, Los Molinos, Red Bluff, Sutter, Vina, Wyandotte Creek, and Yolo) met on December 1st to discuss preliminary findings from the information-sharing template and regional outreach and engagement strategies. CBI presented a series of documents developed through inter-basin coordination efforts, including a document describing modeling tools used for SGMA in the Northern Sacramento Valley (NSV) [access here] and a flyer summarizing inter-basin coordination efforts [access here]. Since subbasins are at different stages in GSP development, not all water budget results were ready for comparison. Staff and consultants will reconvene in February-March 2021 to review compiled data and discuss appropriate ways to compare and communicate information on model assumptions, cross-boundary flows, and stream-aquifer interactions at boundaries. Key findings will be presented when available for provide input. More information can be found at https://www.buttecounty.net/waterresourceconservation/Sustainable-Groundwater-Management-Act/Inter-basin-Coordination.

6. Next Steps

The Vina SHAC will reconvene on January 19, 2021 from 9am-12pm via videoconferencing.

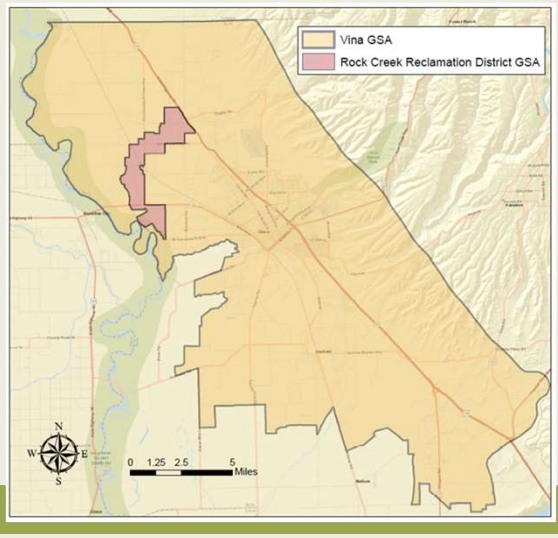
Participants

Participant	Representation/Affiliation	Present
Vina Stakeholder Advisory Committee (SHAC) Members		

Participant	Representation/Affiliation	Present
Anne Dawson	Domestic well user	Y
Bruce Smith	Business representative	Y
Cheri Chastain	CSU Chico	Y
Christopher Madden	Butte College	Y
Gary Cole	Agricultural well user	Y
George Barber	California Water Service	Y
Greg Sohnrey	Agricultural well user	?
James Brobeck	Environmental representative	Y
Sam Goepp	Domestic well user	Y
Samantha Lewis	Agricultural well user	Y
Groundwater Sustainability Agency (GSA) Member Agency Representatives		
Christina Buck	Butte County	Y
Paul Gosselin	Butte County	Y
Kelly Peterson	Butte County	N
Linda Herman	City of Chico	Y
Erik Gustafson	City of Chico	Y
Jeff Carter	Durham Irrigation District	N
Kamie Loeser	Durham Irrigation District	Y
Colin Klinesteker	Mechoopda Indian Tribe	N
Darren Rice	Rock Creek Reclamation District GSA	Y
Technical Consultants		
Joe Turner	Geosyntec	Y
Amer Hussain	Geosyntec	Y
Bob Anderson	Geosyntec	Y
Other Representatives		
Pat Vellines	CA Department of Water Resources	
Debbie Spangler	CA Department of Water Resources	
Valerie Kinkaid	O'Laughlin & Paris LLP	
Facilitator		
Tania Carlone	Consensus Building Institute	Y
Mariana Rivera-Torres	Consensus Building Institute	Y

1 Approximately seven members of the public attended the meeting.

Groundwater Sustainability Plan Status
Vina Subbasin



January 13, 2021

Groundwater Sustainability Plan Status

Groundwater Sustainability Plan

1. **Administrative Information**
   - §354.4. General Information
   - §354.6. Agency Information
   - §354.8. Description of Plan Area
   - §354.10. Notice & Communication
2. **Basin Setting**
   - §354.14. Hydrogeologic Conceptual Model
   - §354.16. Groundwater Conditions
   - §354.18. Water Budget
   - §354.20. Management Areas
3. **Sustainable Management Criteria**
   - §354.24. Sustainability Goal
   - §354.26. Undesirable Results
   - §354.28. Minimum Thresholds
   - §354.30. Measurable Objectives
4. **Monitoring Networks**
   - §354.34. Monitoring Network
   - §354.36. Representative Monitoring
   - §354.38. Assessment & Improvement
   - §354.40. Reporting Monitoring Data to the Department
5. **Projects and Management Actions**
   - §354.44. Projects & Management Actions

Groundwater Sustainability Plan Status

Schedule

Vina Groundwater Sustainability Plan (version 1)

- **Basin Setting Chapter – draft completed**
- **January to June 2021 (6 months)**
  - Primary emphasis on specific chapters
    - Sustainable Management Criteria
    - Representative Monitoring Network
    - Interbasin Coordination
    - Projects and Management Actions
    - Implementation Cost and Funding Options

Groundwater Sustainability Plan Status

Schedule

January 13, 2021

- Draft Sustainable Management Criteria Methodology
- Representative Monitoring Sites
- Projects and Management Actions
- Interbasin Coordination Update

- Provide Direction as Appropriate

Groundwater Sustainability Plan Status

Schedule

February 10, 2021

- Sustainable Management Criteria Draft Document
  - 30 day public comment period
  - Vina GSA Board Workshop

March 2021

- Representative Monitoring Network Draft Document
  - 30 day public comment period

Groundwater Sustainability Plan Status

Schedule

April – May 2021

- Recommendations from the SHAC on draft
  - Sustainable Management Criteria
  - Projects and Management Actions including costs and funding options
  - Representative Monitoring Network
  - Data Gaps
  - Interbasin Coordination

Groundwater Sustainability Plan Status

Schedule

June 2021

- Projects and Management Actions Draft Document
  - 30 day public comment period
- Interbasin Coordination Report

July 2021

- Review the Status of Groundwater Sustainability Plan chapters
- Implementation Chapter Draft Document
  - 30 day public review

Groundwater Sustainability Plan Status

Schedule

August 2021

- Review the Draft Vina GSP

September 2021

- Complete Draft Vina GSP
- 60 day public comment period

November – December 2021

- Board Hearings and Adoption

Implementation …

Groundwater Sustainability Plan Status

Draft Sustainable Management Criteria Methodology

Groundwater Sustainability Plan Status

Sustainable Management Criteria

Sustainability Goal

- Describes the objective for management of the basin
- Sustainability is demonstrated by the avoidance of Undesirables Results for the six sustainability indicators
- Measures that will be taken to manage the basin (projects and management actions)
- How those measures will lead to sustainability

If No Undesirable Results Occurring Then Basin operating within its Sustainable Yield And Sustainability Goal is being Achieved

Groundwater Sustainability Plan Status

Sustainable Management Criteria

- Sustainable groundwater management is defined as the management and use of groundwater that can be maintained without causing an Undesirable Result from sustainability indicators.
- Undesirable Results as defined in SGMA are:
  - Persistent lowering of groundwater levels
  - Significant and unreasonable reductions in groundwater storage
  - Significant and unreasonable saltwater intrusion
  - Significant and unreasonable degradation of water quality
  - Significant and unreasonable land subsidence
  - Surface water depletion having significant and unreasonable effects on beneficial uses
- "Significant and unreasonable" is determined by the local GSA through a public process

Groundwater Sustainability Plan Status

Sustainable Management Criteria

Sustainability Indicators

Sustainability Indicators	Lowering GW Levels	Reduction of Storage	Seawater Intrusion	Degraded Quality	Land Subsidence	Surface Water Depletion
Metric(s) Defined in GSP Regulations	• Groundwater Elevation	• Total Volume	• Chl… co…tion	• Migration of Plumes • Number of supply wells • Volume • Location of isocontour	• Rate and Extent of Land Subsidence	• Volume or rate of surface water depletion

Beneficial uses & users:

Agricultural groundwater users
Domestic well users
Municipal water systems
Public water systems
Land use agencies
Environmental Users
Surface water users
California Native American Tribes
Federal lands
Disadvantaged Communities

Sustainability = Avoidance of Undesirable Results from Sustainability Indicators

Groundwater Sustainability Plan Status

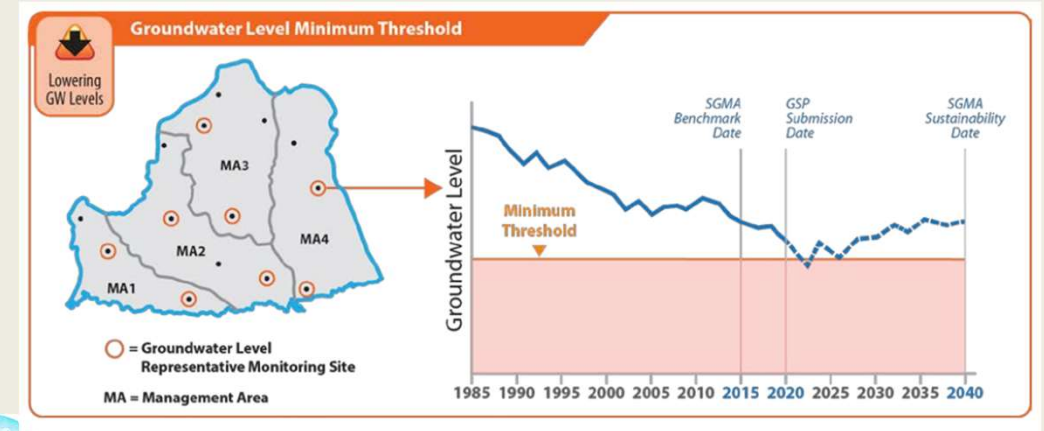
Sustainable Management Criteria

Undesirable Results and Minimum Thresholds

- A Minimum Threshold is set at the point of where an Undesirable Result would occur
- Setting the Minimum Threshold must consider and describe:
  - The factor and causes leading to an Undesirable Result
  - The effects of the Undesirable Result on beneficial uses and users of groundwater
- Operational flexibility of the basin through Measurable Objectives

Groundwater Sustainability Plan Status

Sustainable Management Criteria



Groundwater Sustainability Plan Status

Sustainable Management Criteria

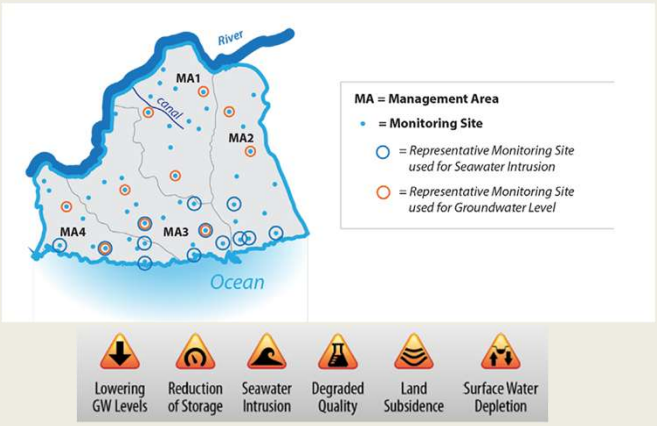
Measurable Objectives

- A quantitative target that will achieve the sustainability goal within 20 years.
- Operational flexibility between the minimum threshold and measurable objective that will accommodate most droughts, climate change, groundwater management activities and uncertainty
- Should achieve 5-year interim milestones from representative monitoring site data
- Modifications may be necessary if interim milestones are not met

Groundwater Sustainability Plan Status

Representative Monitoring Sites

- Compliance through monitoring not modeling
- Subset of the monitoring network
- Quantitative measure indicating whether minimum thresholds, measurable objectives and interim milestones are being met
- Measures one or more sustainability indicator



Groundwater Sustainability Plan Status

Sustainable Management Criteria

Measurable Objectives

"Best Management Practice 6: Sustainable Management Criteria" (DWR)

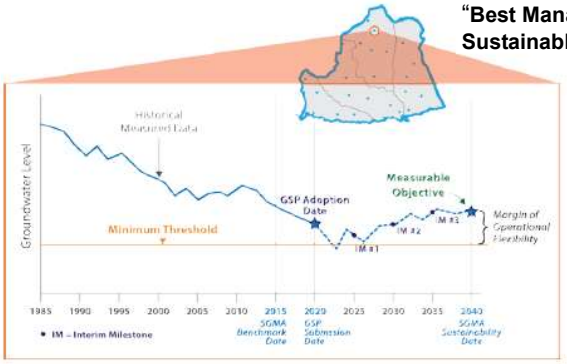


Figure 14. Relationship between Minimum Thresholds, Measurable Objectives, Interim Milestones (IM), and Margin of Operational Flexibility for a Representative Monitoring Site

Groundwater Sustainability Plan Status

Sustainable Management Criteria

Schedule

- February 10, 2020 – Vina GSA Board Workshop – SMCs
- February 16, 2020 – Start of 30-Day Public Review of SMCs
- March 16, 2020 – Discuss SMC Public Comments

Groundwater Sustainability Plan Status

Sustainable Management Criteria

Sustainable Management Criteria Strawman

Groundwater Sustainability Plan Status

Sustainable Management Criteria

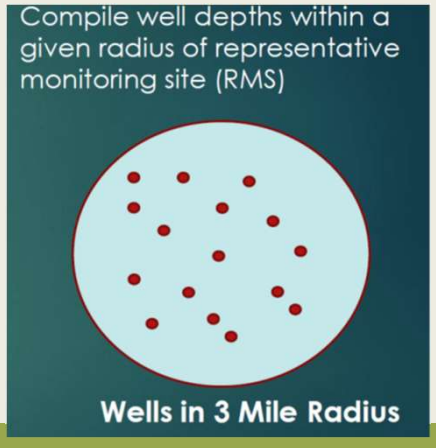
Strawman Process Presented to SHAC

- Discussed potential wording and quantitative measures to include in the sustainable management criteria
- Discussed technical background or monitoring implications related to each sustainable management criteria definition as necessary
- Considered how or whether criteria may differ between areas
- Discussed and identified specific analysis or further refinement that would be necessary to prepare a draft Sustainable Management Criteria section for approval and incorporation into the Draft Groundwater Sustainability Plan

Groundwater Sustainability Plan Status
Sustainable Management Criteria
Chronic Lowering of Groundwater Levels

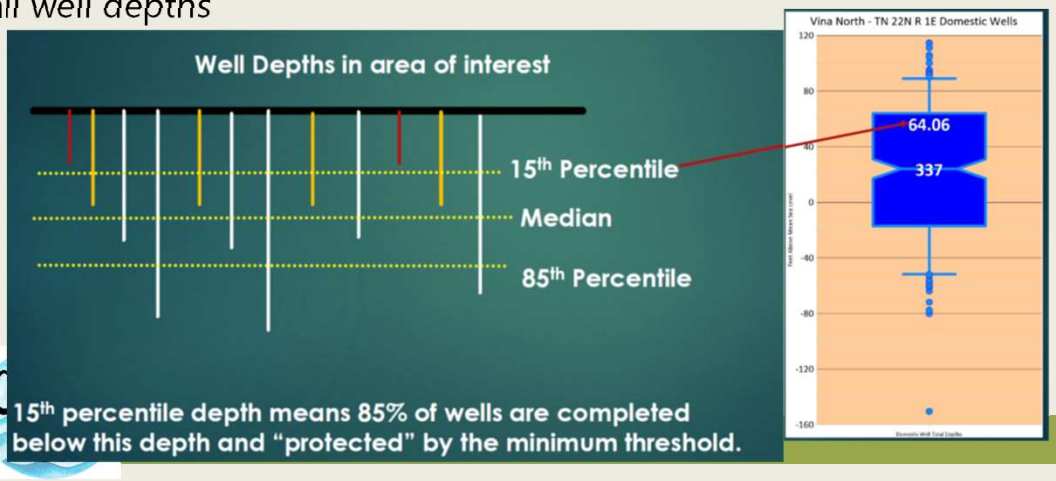
Undesirable Results and Sustainability Criteria	
Undesirable Result Statement	• GW Levels are unable to satisfy beneficial uses over a sustained period. Specific examples of undesirable results include domestic wells going dry, reduction in pumping capacity, Increase in pumping costs, Potential impacts to GDEs
Minimum Threshold (onset of undesirable result) and Measurable Objective (desired condition)	• Minimum Threshold – Fall (Sept/Oct) GW level is above the 15th Percentile of all domestic well depths in a given area or sub-area. This means 85% of all domestic wells are completed below the minimum threshold and will be "protected" • Measurable Objective – Fall 2015 groundwater level (or modeled 2015 groundwater level if no data are available). This means dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring wells fall below minimum threshold for 2 consecutive years

Groundwater Sustainability Plan Status
Sustainable Management Criteria
Chronic Lowering of Groundwater Levels



Groundwater Sustainability Plan Status
Sustainable Management Criteria

Box and Whiskers plot is a rank-order analysis of *all well depths*

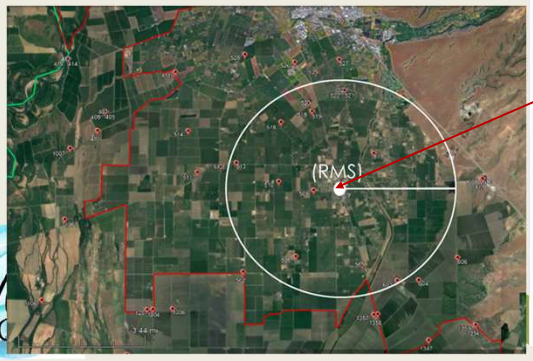


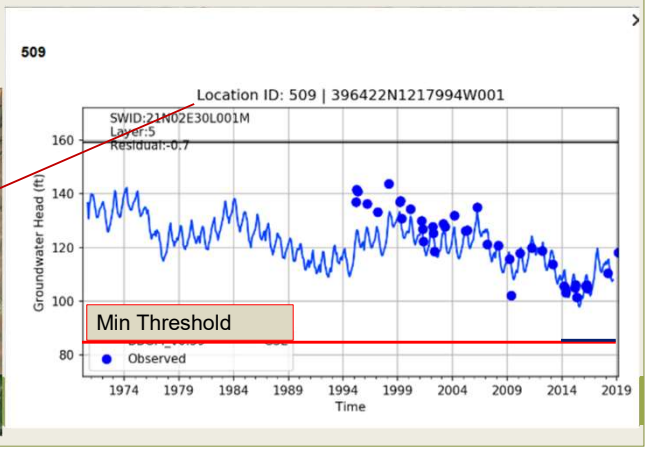
Groundwater Sustainability Plan Status
Sustainable Management Criteria

Chronic Lowering of Groundwater Levels

Summary : Domestic well depths set the Minimum Threshold

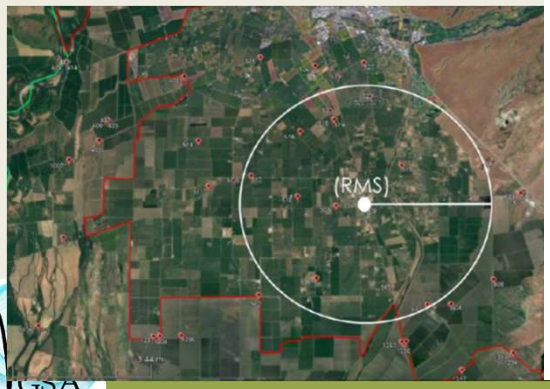
Chronic Lowering of Groundwater Levels

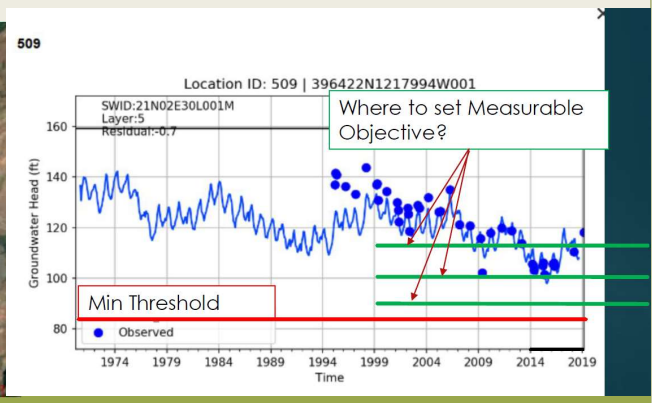




Groundwater Sustainability Plan Status
Sustainable Management Criteria
Chronic Lowering of Groundwater Levels

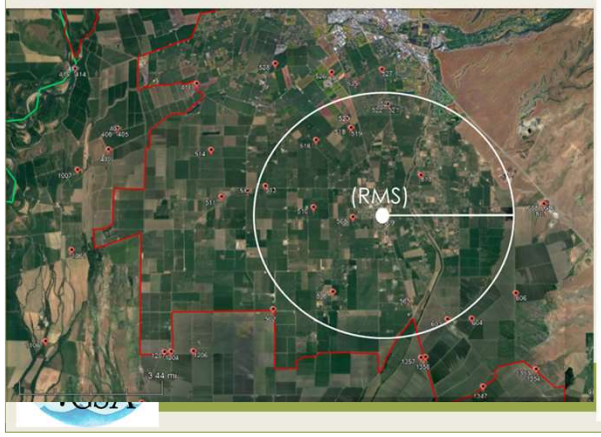
Establishing a Measurable Objective with periodic water level decline
Chronic Lowering of Groundwater Levels

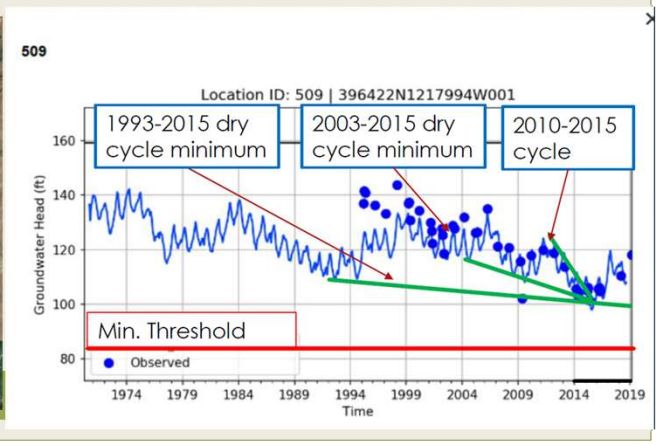




Groundwater Sustainability Plan Status
Sustainable Management Criteria
Chronic Lowering of Groundwater Levels

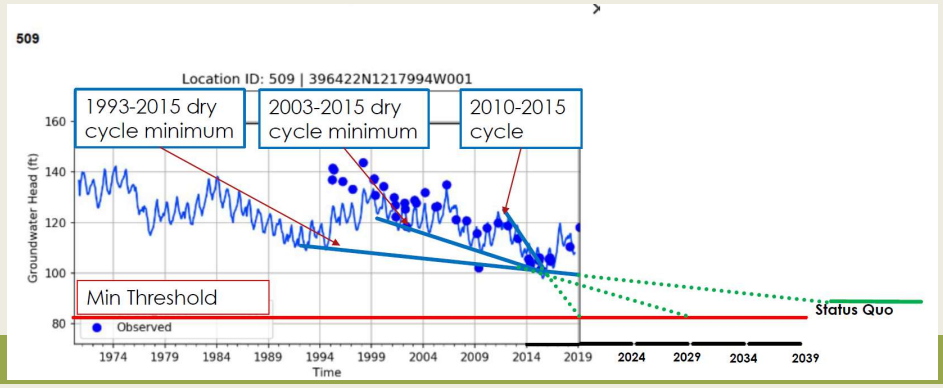
Selecting a Measurable Objective based on existing data: 2015 vs historic trend
Chronic Lowering of Groundwater Levels





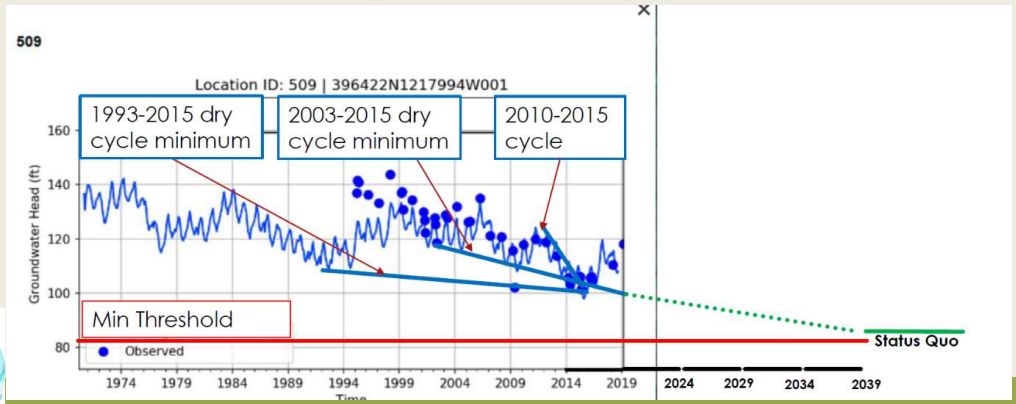
Groundwater Sustainability Plan Status
Sustainable Management Criteria
Chronic Lowering of Groundwater Levels

Simple projection of historic trend
Chronic Lowering of Groundwater Levels



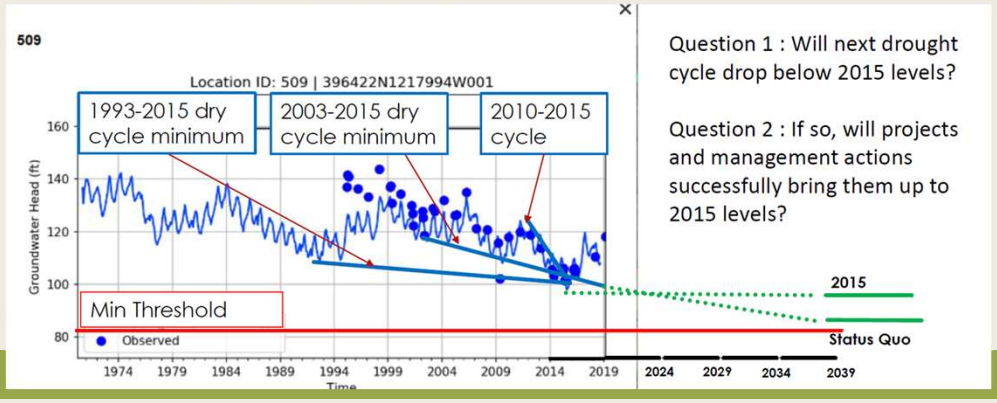
Groundwater Sustainability Plan Status
Sustainable Management Criteria
Chronic Lowering of Groundwater Levels

Simple Projection of historic trend



Groundwater Sustainability Plan Status
Sustainable Management Criteria
Chronic Lowering of Groundwater Levels

Simple Projection of historic trend
Chronic Lowering of Groundwater Levels

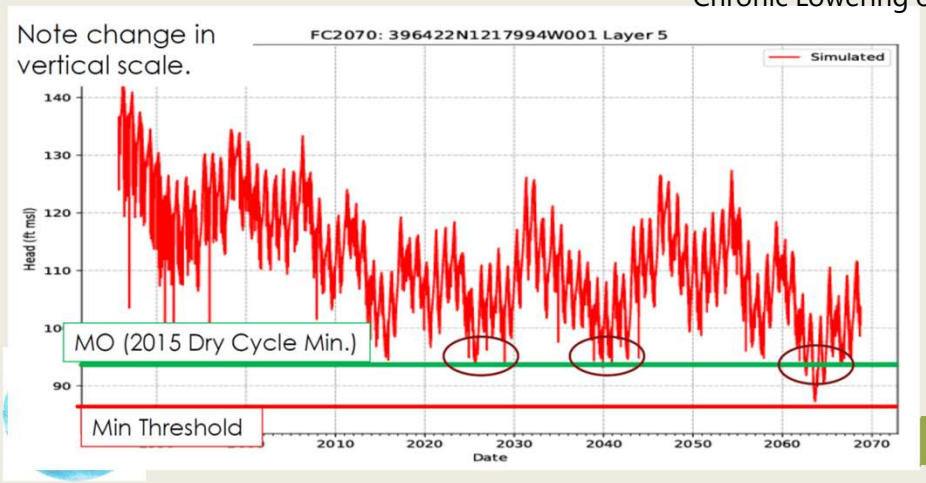


Question 1 : Will next drought cycle drop below 2015 levels?

Question 2 : If so, will projects and management actions successfully bring them up to 2015 levels?

Groundwater Sustainability Plan Status
Sustainable Management Criteria
Chronic Lowering of Groundwater Levels

Model Projection (2020-2070)
Chronic Lowering of Groundwater Levels



Projection based on:

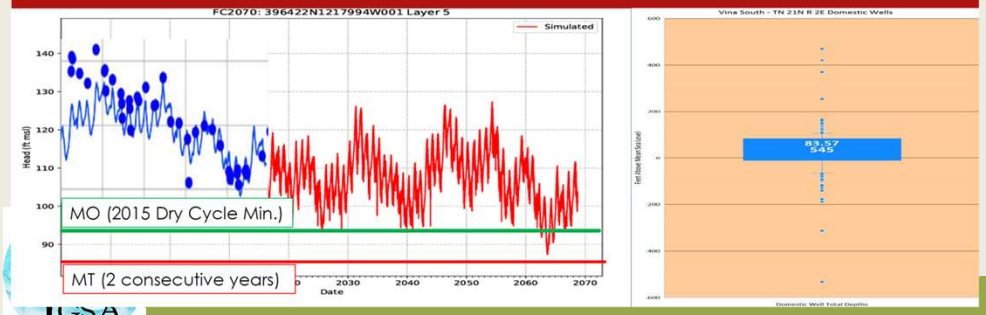
1. 2030 Butte Co. General Plan land use
2. CalWater 2050 Urban water demands
3. Historical hydrology wit DWR central tendency for 2070 climate projection

Groundwater Sustainability Plan Status
Sustainable Management Criteria
Chronic Lowering of Groundwater Levels

Summary Example SMC

Chronic Lowering of Groundwater Levels

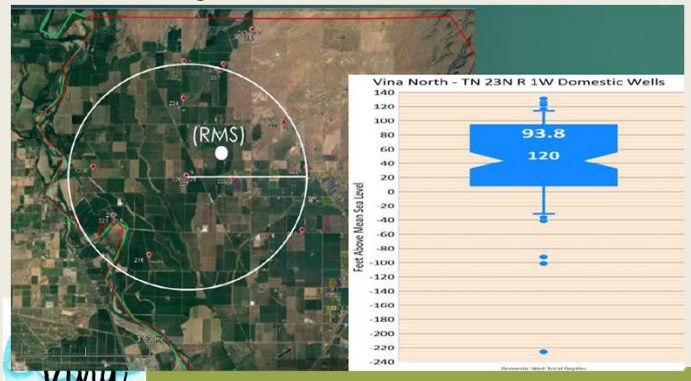
Minimum Threshold : Minimize impact to domestic wells
15th Percentile Domestic Well depth = 84 Ft MSL
Measurable Objective : Dry-cycle min. no worse than 1993-2015 min.
Fall 2015 – 93 Ft MSL

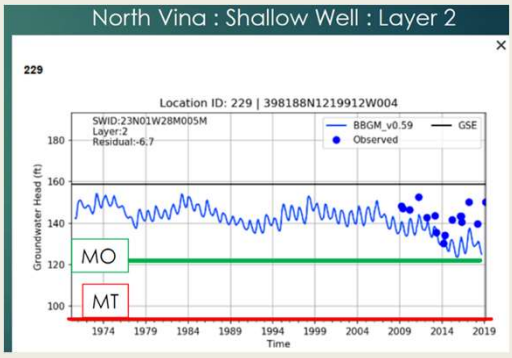


Groundwater Sustainability Plan Status
Sustainable Management Criteria
Chronic Lowering of Groundwater Levels

SMC Process applies to each Representative Monitoring Site (RMS)

Chronic Lowering of Groundwater Levels





Groundwater Sustainability Plan Status

Sustainable Management Criteria

Reduction in Storage & Subsidence

Sustainable Management Criteria for Groundwater Levels will be a proxy for Reduction in Storage and Subsidence

Groundwater Sustainability Plan Status

Sustainable Management Criteria

Depletion of Interconnected Surface Water

Undesirable Results and Sustainability Criteria	
Undesirable Result Statement	• Surface water depletion caused by groundwater pumping prevents beneficial uses over a sustained period. This includes environmental beneficial uses in natural stream channels that supports a viable ecosystem, particularly ecosystems containing endangered species. • Groundwater levels in shallow wells adjacent natural stream channels will be used as proxy for depletion. • Representative monitoring locations must be within a shallow aquifer that is known to be hydraulically connected to a natural stream channel
Minimum Threshold (onset of undesirable result) and Measurable Objective (desired condition)	• Minimum Threshold – Groundwater levels lower than 5 feet below the base of the stream channel during September for two consecutive years. • Fall 2015 groundwater level in shallow aquifer (or modeled 2015 groundwater level if no data are available). Dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring locations fall below minimum threshold for 2 consecutive years

Groundwater Sustainability Plan Status

Sustainable Management Criteria

Degraded Water Quality

Undesirable Results and Sustainability Criteria	
Undesirable Result Statement	• Water quality is below State Maximum Contaminant Levels (MCLs) or thresholds for agricultural productivity as a result of groundwater pumping. • Salinity will be used as a proxy for overall water quality. • Other programs and agencies are responsible for enforcing groundwater quality violations. GSA will coordinate with other agencies if water quality degradation is associated with groundwater pumping
Minimum Threshold (onset of undesirable result) and Measurable Objective (desired condition)	• Minimum Threshold – 1,600 µS/cm – Upper SMCL • Measurable Objective – 900 µS/cm – Secondary MCL (SMCL)
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring wells fall below minimum threshold for 2 consecutive years

Groundwater Sustainability Plan Status

Sustainable Management Criteria

Next Steps

- January 19, 2021 - Presentation and discussion by SHAC of Sustainable Management Criteria and Representative Monitoring Sites
- February 10, 2021 – Public Comment Period (30 days)
- February 19, 2021 – Vina GSA Board Workshop

Groundwater Sustainability Plan Status

Sustainable Management Criteria

Discussion

Groundwater Sustainability Plan Status

Projects and Management Actions

Groundwater Sustainability Plan Status

Projects and Management Actions

- A required element of Groundwater Sustainability Plans
- Comprise the efforts that will achieve the sustainability goals (Measurable Objectives) established in the Vina GSP

Groundwater Sustainability Plan Status

Projects and Management Actions

Current Status

- SHAC continues to discuss of potential Projects and Management Actions
- Solicitation of potential Projects and Management Actions for consideration
- By spring, a matrix of prioritized potential Projects and Management Actions
  - **Planned** – Projects in this category meet the acceptable criteria, have adequate planning and are scheduled to be completed prior to 2042.
  - **Potential** – Projects in this category meet the acceptable criteria but are in early planning stages, but possibly could be completed by 2042. For example, these projects may have uncertain funding sources or need additional analysis.
  - **Conceptual** – Projects in this category are in early conceptual planning stages and would require significant additional work.

Projects and Management Actions

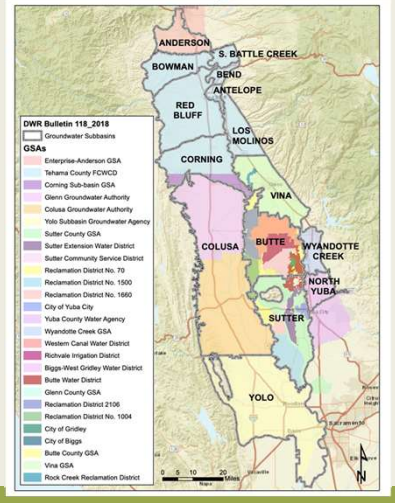
Projects and Management Actions

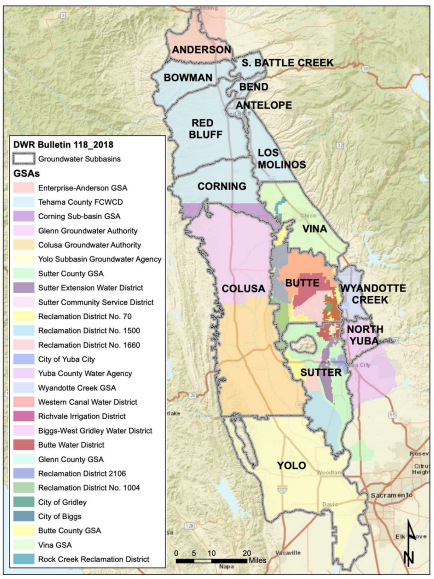
Project Name	Project Type	Project Proponent	Measurable Objective Expected to Benefit	Current Status	Time-table (initiation to completion	Estimated Cost	Required Permitting and Regulatory Process	Expected Groundwater Demand Reduction (AF/year)	Planned, Potential, Or Concept	Management Area
Project A	Ag Conservation	TBD	Groundwater levels, Stream		TBD	TBD	TBD	TBD	TBD	TBD
Project B	Recharge	TBD	Groundwater levels, Stream		TBD	TBD	SWRCB Temporary water right permit	TBD	TBD	TBD
Project C	Recycling	TBD	Groundwater levels, Stream		TBD	TBD	NPDES, Regional Board	TBD	TBD	TBD
Project D	New Water Supply	TBD	Groundwater Levels, Stream		TBD	TBD	TBD	TBD	TBD	TBD
Project D	Urban Conservation	Vina GSA	Groundwater levels, Stream		TBD	TBD	TBD	TBD	TBD	TBD
Project E	Pumping Allocation	TBD	Groundwater Levels, Stream		TBD	TBD	TBD	TBD	TBD	TBD

Example

Groundwater Sustainability Plan Status

Northern Sacramento Valley Interbasin Coordination





Inter-basin Coordination Efforts | Northern Sacramento Valley

Antelope | Bowman | Butte | Colusa | Corning | Los Molinos | Red Bluff | Vina | Wyandotte Creek Subbasins

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CBI
CATALYZING COLLABORATION

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Groundwater Sustainability Plan Status

Thank You

Vina GSA