# San Pasqual Valley Groundwater Basin Sustainable Groundwater Management Act Advisory Committee Meeting

**Basin Definition**

**Undesirable Results**

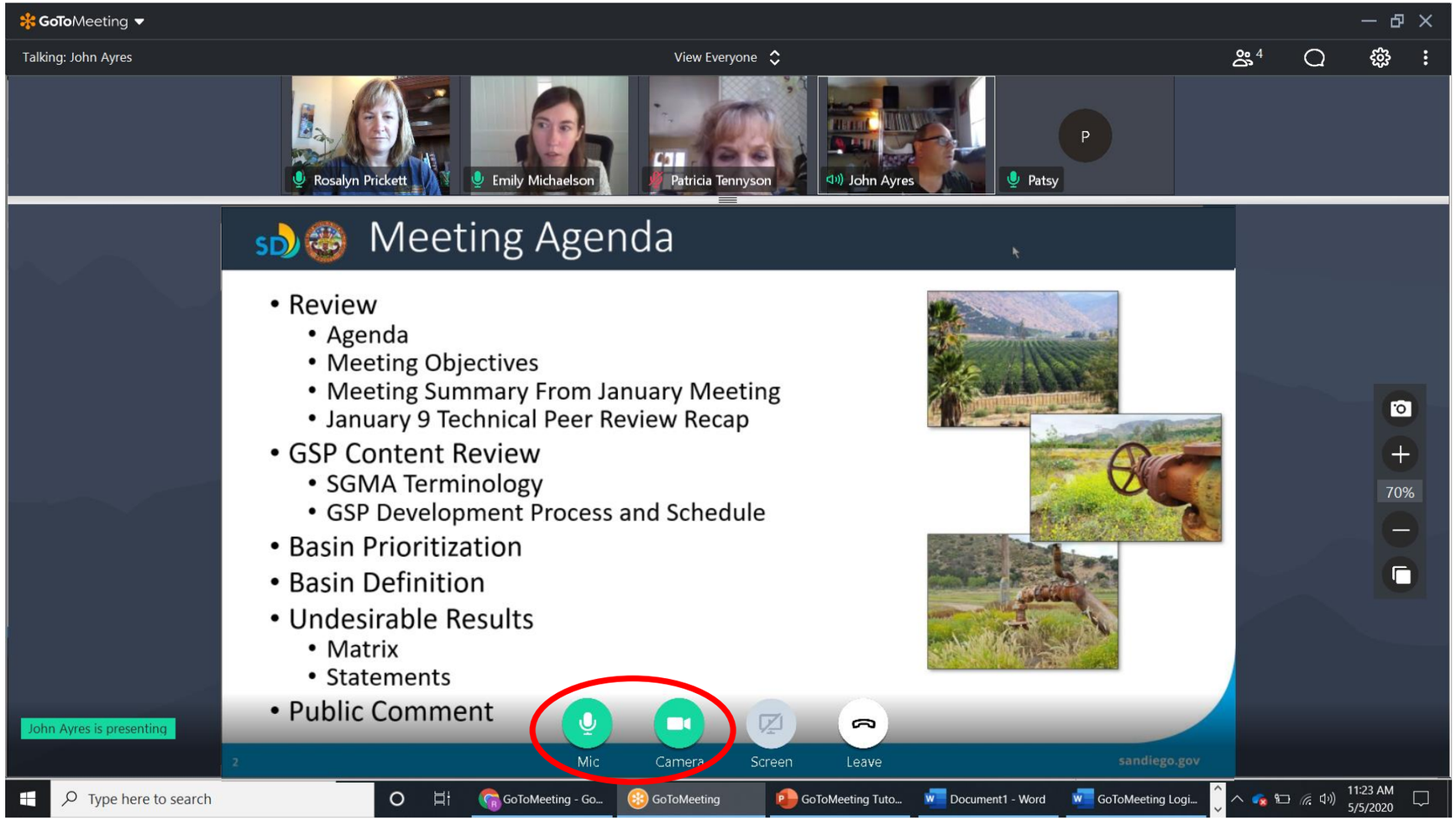
**Sustainable Management Criteria Primer**

May 14, 2020

The City of SAN DIEGO

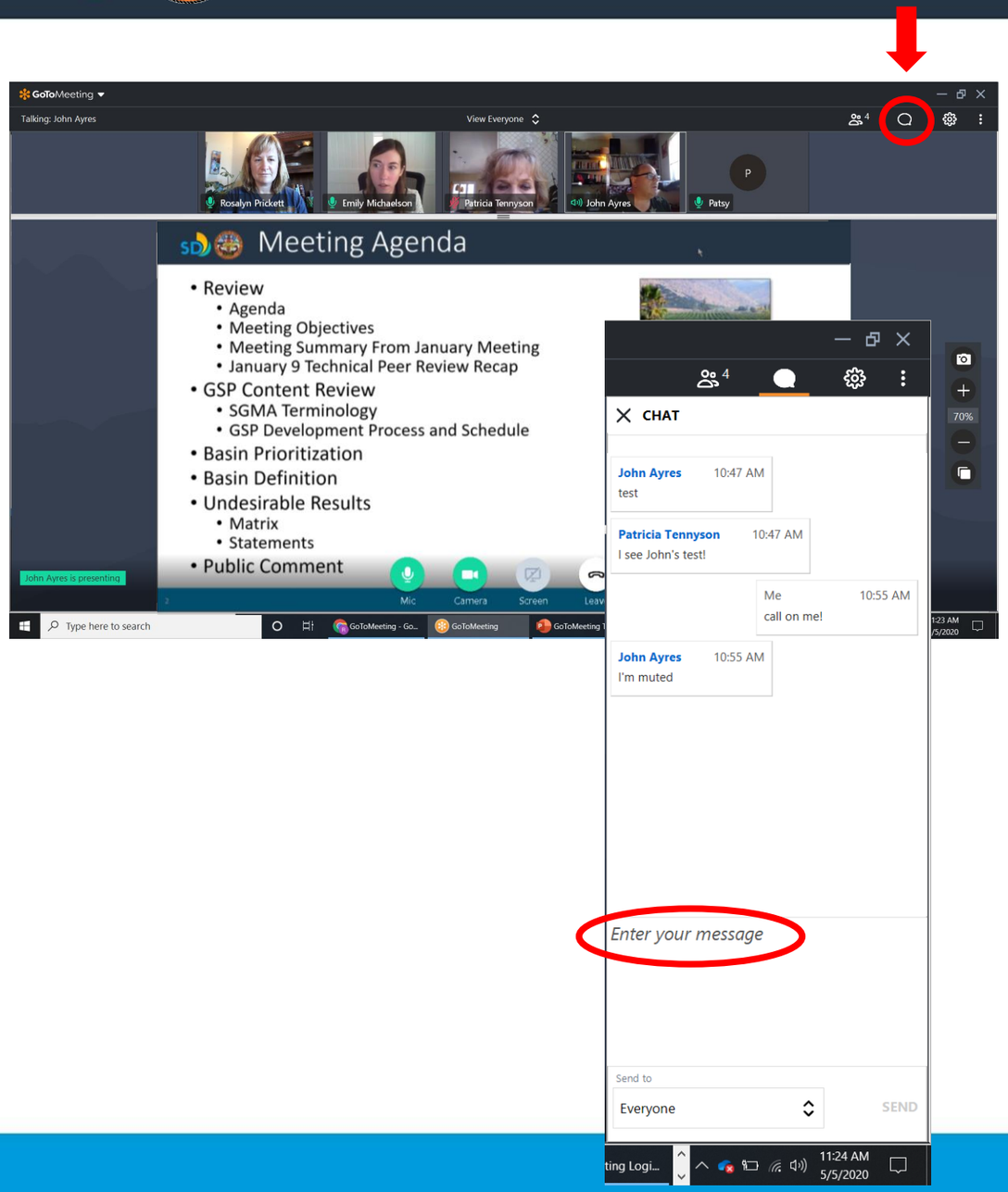
# GoToMeeting – Quick How To

- Your screen should look like this:



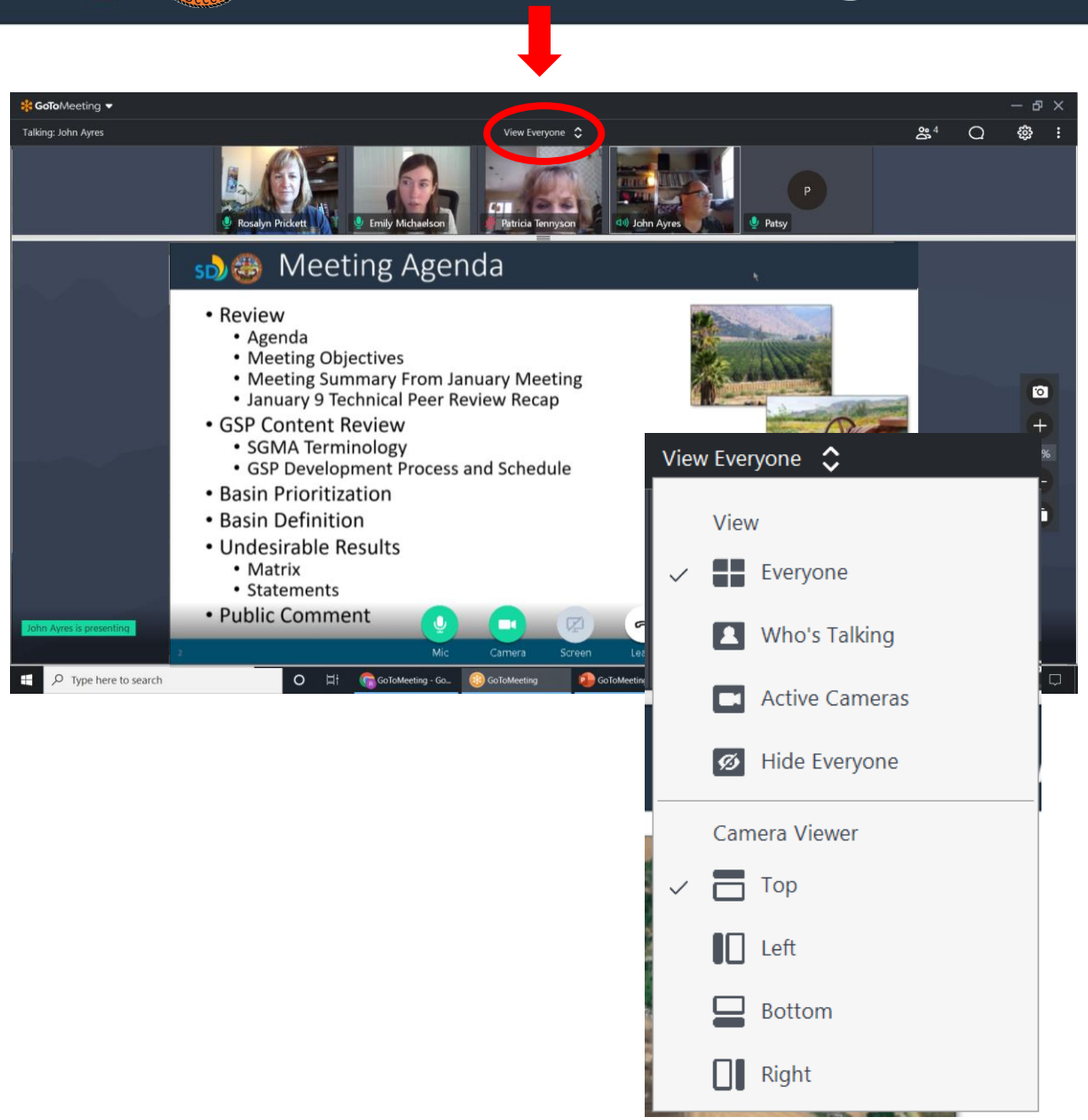

- Turn on/off your Mic (mute) and Camera (video) using the controls along the bottom
- During the meeting, you may need to wiggle your mouse to make the controls appear

# GoToMeeting – How to Ask a Question




- Let us know you have a question by clicking the **Chat** icon in the top right
- Click on *Enter your message*, type your message in the Chat and hit SEND
- Our organizer will mute everyone at the beginning of the meeting
- Once we receive your Chat and can pause to answer your question:
  - Our meeting organizer will unmute you to relay your question or comment
  - Please also check your phone/computer to make sure you're not muted there too
- For folks on the phone only, we will pause, unmute all callers, and ask for your questions or comments

# GoToMeeting – How to See Everyone



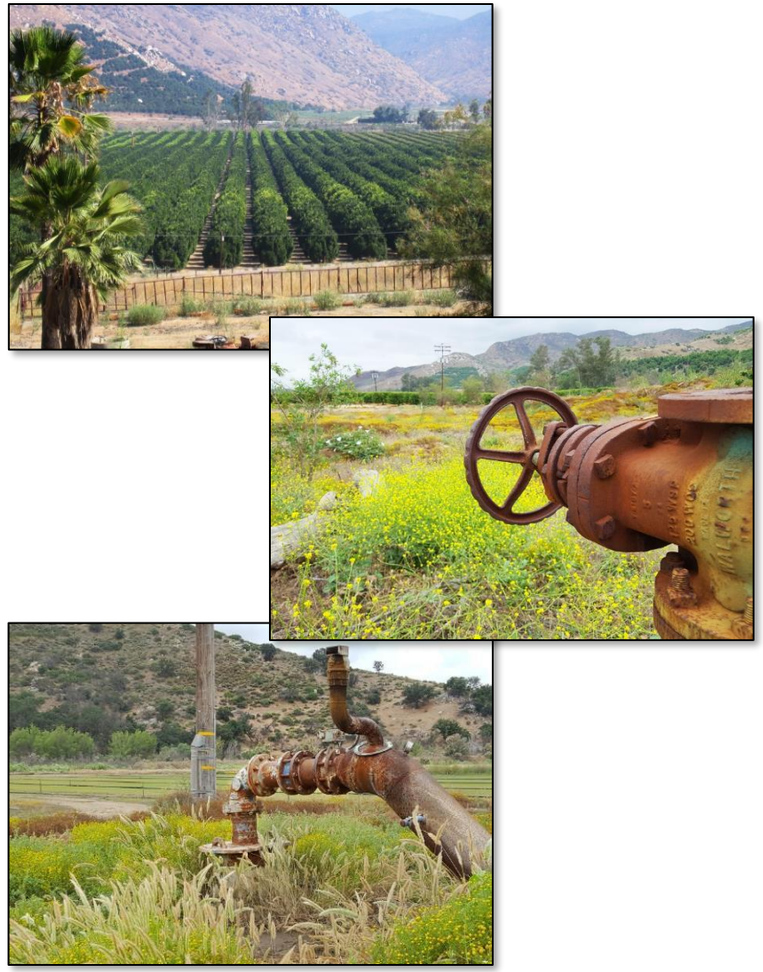

- To change your display options, select the **View Everyone** icon in the top right
- Select View-Everyone to display all attendees in the meetings
- Select Camera Viewer-Top to display participant images along the top of your screen
- The grey divider can be raised or lowered, which will change the screen size

# Welcome to Our New Team Member!

- Rafael Sol Glenn
- April 27, 2020
- 8 lbs. 11oz.

# Meeting Agenda

- Review
  - Agenda
  - Meeting Objectives
  - Meeting Summary From January Meeting
  - January 9 Technical Peer Review Recap
- GSP Content Review
  - SGMA Terminology
  - GSP Development Process and Schedule
- Basin Prioritization
- Basin Definition
- Undesirable Results
  - Matrix
  - Statements
- Public Comment



# Meeting Objectives, Summary, and TPR Recap

- Meeting Objectives
  - Provide GSP Development Update
  - Explain SGMA Terms and Sustainable Management Criteria
  - Discuss San Pasqual Valley Groundwater Basin Boundaries
  - Review Undesirable Results Statements
  - Provide a Field Program Update
- Previous Meeting Summary
  - Handout 1

# November 7 Technical Peer Review Recap

- Received Technical Input on:
  - Undesirable Results Approach
  - Water Quality and SGMA
  - Groundwater Levels
  - Numerical Model Approach
  - Land Subsidence
  - Bottom of Basin

# San Pasqual Valley GSP
# Advisory Committee Meeting

# AC Questions via Chat?
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# GSP CONTENT REVIEW

# GSP Content Review

- SGMA Terminology
- GSP Development Process
- Project Schedule

# SGMA Terminology

- Sustainable Groundwater Management Act – SGMA
- Groundwater Sustainability Agency – GSA
- Groundwater Sustainability Plan – GSP
- Hydrogeologic Conceptual Model – HCM
- Sustainable Management Criteria – SMC
- Projects and Management Actions – PMAs
- State Water Resources Control Board – SWRCB
- Department of Water Resources - DWR

# GSP Workplan


Field Program

Physical Conditions

Groundwater Modeling

Undesirable Results Narrative

Monitoring Networks

Water Budget Forecasting

Sustainable Management Criteria

Projects and Management Actions

GSP Implementation Planning

Complete Plan

# GSP Schedule

| Year | Quarter | Advisory Committee Topics | Technical Peer Review Topics | Outreach | Plan Area, HCM, GW Conditions | Model Development and Water Budgets | Monitoring and DMS | Undesirable Results and Sustainable Management Criteria | Projects and Management Actions and Implement-ation | Field Program |
|---|---|---|---|---|---|---|---|---|---|---|
| 2019 | Q4 | Introduce the consulting team<br>Initiate data collection efforts<br>Review GSP development process<br>Review communications plan | TPR schedule<br>Data Collection<br>Section 2: Plan Area<br>Section 3: Hydrogeologic Conceptual Model<br>Section 4: Groundwater Conditions | | | | | | | |
| 2020 | Q1 | Hydrogeologic Conceptual Model<br>Groundwater Conditions<br>Undesirable Results Introduction | Section 2: Plan Area<br>Section 3: Hydrogeologic Conceptual Model<br>Section 4: Groundwater Conditions<br>Section 6: Undesirable results, Groundwater model approach<br>- Model code<br>- Model data | | | | | | | |
| 2020 | Q2 | Undesirable Results<br>Groundwater Model Overview<br>Sustainable Management Criteria<br>Review Field Program Update | Section 6: Undesirable results, Groundwater model approach<br>- Model code<br>- Model data<br>Groundwater model check in<br>- calibration<br>- Fate and transport<br>Section 7: Monitoring Networks<br>Section 8: Sustainable Management Criteria | | | | | | | |
| 2020 | Q3 | Groundwater Model Update<br>Sustainable Management Criteria<br>Projects and Management Actions | Groundwater model check in<br>- calibration<br>- Fate and transport<br>Section 5: Water Budgets<br>Section 6: Undesirable results<br>Section 7: Monitoring Netoworks<br>Section 8: Sustainable Management Criteria<br>Groundwater model check in<br>Section 8: Sustainable | | | | | | | |
| 2020 | Q4 | Water Budgets<br>Sustainable Management Criteria<br>Projects and Management Actions | Groundwater model check in<br>Section 5: Water Budget<br>- Baselines<br>- Forecasts<br>Section 8: Sustainable Management Criteria<br>Section 9: Projects and Management Actions | | | | | | | |

# SGMA Basin Prioritization Score

- Basin Priority assigned based on eight components
- Medium and High Priority basins required GSP development

| TOTAL PRIORITY RANGES | |
|---|---|
| Very Low | 0 ≤ x ≤ 7 |
| Low | 7 < x ≤ 14 |
| Medium | 14 < x ≤ 21 |
| High | 21 < x ≤ 40 |

| SAN PASQUAL VALLEY BASIN - PRIORITY | | |
|---|---|---|
| COMPONENT | SGMA 2019 | CASGEM 2014 |
| Population | 1 | 1 |
| Population Growth | 0 | 0 |
| No. Public Supply Wells | 4 | 2 |
| No. Wells Draw Water | 4 | 3 |
| Irrigation Acreage | 5 | 5 |
| Groundwater Reliance | 4 | 4 |
| Impacts | 1 | 3 |
| Other | 0 | 1 |
| **TOTAL** | **19** | **19** |

**BASIN PRIORITY = Population + Population Growth + Public Supply Wells + Wells Drawing Water + Irrigated Acreage + GW Reliance + Impacts + Other**

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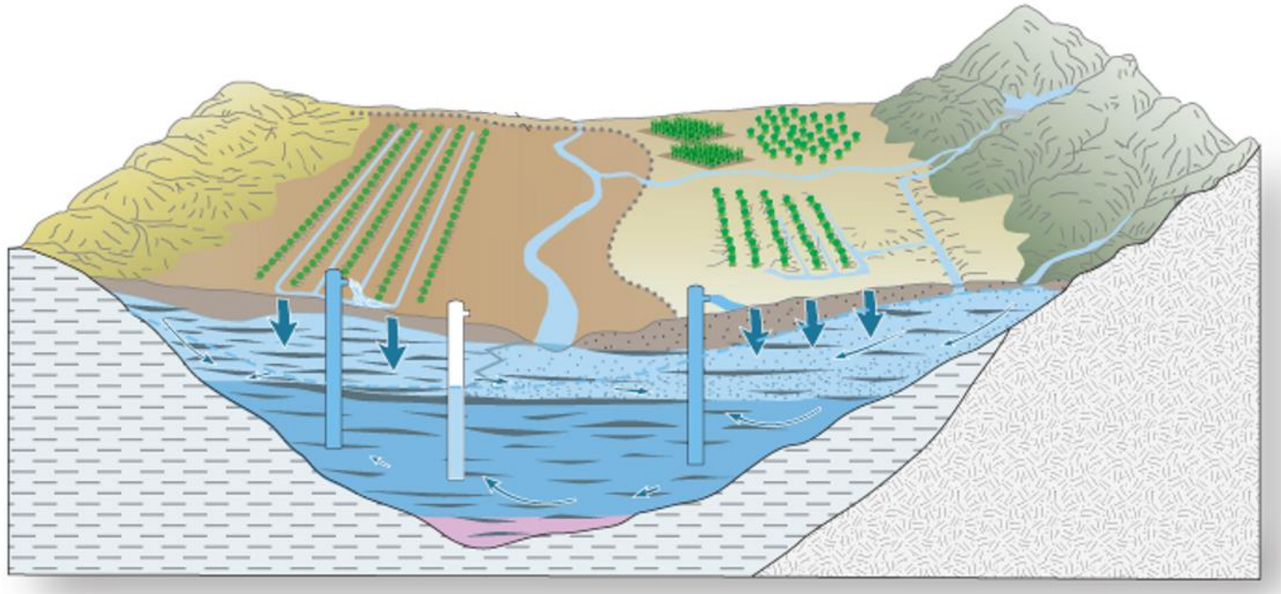
# BASIN DEFINITION

# Basin Definition

- Groundwater basins are defined by boundaries to establish where the basin ends
  - Edges
  - How Deep
- The boundaries of San Pasqual Basin are defined as the contact between Alluvium and Residuum with Granitic rock, picked by DWR from a geologic map

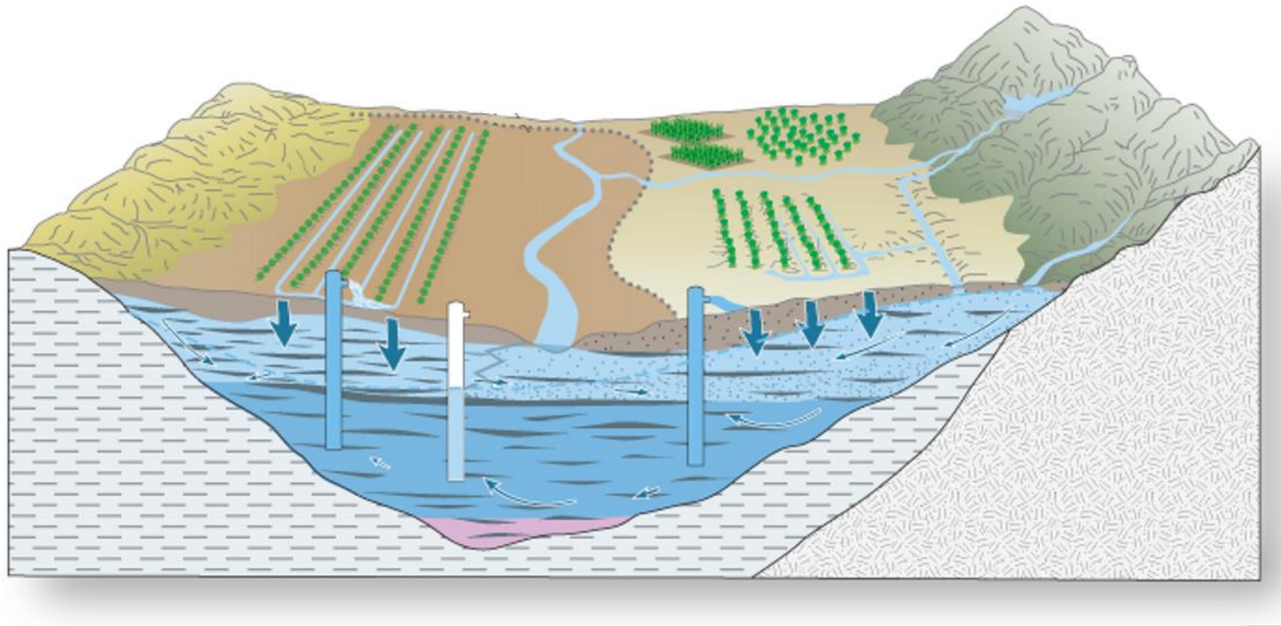


Example from USGS of the San Joaquin Basin

# Basin Definition

**Definition of Basin Statement:**

- The SPV Basin is defined by Bulletin 118 and includes the Alluvium and Residuum. The interaction of groundwater between fractured bedrock beneath the Alluvium and the Residuum is not well understood and represents a potential Data Gap in the understanding of the SPV Basin. If groundwater conditions require the implementation of management actions, additional data collection, studies, aquifer testing, and/or surveying may be recommended to improve understanding of this interaction.



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# UNDESIRABLE RESULTS

# Undesirable Results

- “Undesirable Result” wording is used in two ways in SGMA:
  - 1st - Statements that describe what happens if conditions are bad for local users e.g. what happens if there is an “undesirable result”.
  - 2nd - Sustainable Management criteria define how measurements will indicate if the basin reaches an “undesirable result”.

# Undesirable Results

- Statements and how they are detected are a key component of the GSP, and require careful wording
- Approach:
  - Consider stakeholder input
  - Phrased broadly to meet regulations “significant and unreasonable effects…caused by groundwater conditions” (354.26)
  - Drives monitoring network, thresholds, projects, and management actions portions of GSP

# Undesirable Results

| Sustainability Indicator [1] | I. STORAGE | II. GROUNDWATER ELEVATION | III. WATER QUALITY | IV. SURFACE WATER CONNECTIVITY |
|---|---|---|---|---|
| Undesirable Results Consideration [2] | Unreasonable reduction of groundwater storage, which results in:<br>a. Adverse impacts to the viability of agriculture, and the agricultural economy.<br>b. Unusable and stranded groundwater extraction infrastructure.<br>c. Need to deepen or construct new wells.<br>d. Adverse impacts to domestic wells users.<br>e. Adverse impacts on connected ecosystems. | Chronic lowering of groundwater levels indicating unreasonable depletion of supply, which results in:<br>a. Adverse impacts to the viability of agriculture, and the agricultural economy.<br>b. Unusable and stranded groundwater extraction infrastructure.<br>c. Need to deepen or construct new wells.<br>d. Adverse impacts to domestic wells users.<br>e. Adverse impacts on connected ecosystems. | Significant and unreasonable degraded water quality that adversely impacts drinking, irrigation, industrial, and environmental uses, resulting from:<br>a. Adverse impacts to the viability of agriculture, and the agricultural economy.<br>b. Adverse impacts to ecosystems and habitat.<br>c. Adverse impacts to the viability of drinking water. | Significant and unreasonable depletions of interconnected surface water that results in:<br>a. Adverse impacts on downstream neighbors.<br>b. Adverse impacts on the natural stream environment. |
| Minimum Threshold Consideration [3] | • TBD | • Local well infrastructure depths<br>• Groundwater dependent ecosystems | • Maintain and sustain water quality<br>• Trend or exceedance of historic baseline of water quality indicators at representative sites (TDS, Nitrate) | • Understand historic rates of stream depletion for comparison |
| Measurable Objective Consideration [4] | *Example*<br>• Maintain groundwater storage (*within the limits of basin sustainable yield*) that provide for sustainable use of the groundwater basin. | *Example*<br>• Maintain groundwater elevations (*within xx at locations y, z*) that provide for sustainable use of the groundwater basin. | *Example*<br>• Maintain groundwater quality in the San Pasqual Valley Basin for the benefit of groundwater users. | *Example*<br>• Manage groundwater to protect against adverse impacts to surface water flows in creeks flowing through the San Pasqual Valley Basin. |
| Interim Milestones Consideration [5] | • TBD | • TBD | • TBD | • TBD |
| Projects & Management Actions Consideration | • Lean and efficient management of groundwater<br>• Use recycled water for recharge or direct use<br>• Agricultural Best Management Practices (BMPs) | • Manage streambeds to increase percolation<br>• Maximize stormwater capture<br>• Work with RWQCB on runoff<br>• Limit new users if needed<br>• Allow alternate dust control methods | • Use recycled water for recharge or direct use<br>• Protect habitat restoration areas<br>• Limit contamination of groundwater due to stormwater infiltration | • TBD |
| Planning Principles [6] | • Consistent, reliable supplies of water desired<br>• Seek grant funds for conservation improvements<br>• Maintain ability to market crops | | • Collaboration and cooperation<br>• Consider effects of west end pumping on east end groundwater levels<br>• Avoid economic impacts where possible<br>• Limit invasive species | |

Notes:

# Undesirable Results

- Groundwater Levels example:

  “The Undesirable Result for the chronic lowering of groundwater levels is a result that causes significant and unreasonable reduction in the long-term viability of domestic, agricultural, municipal, or environmental uses over the planning and implementation horizon of this GSP.”

- Statements for the six sustainability indicators are included in Handout 2

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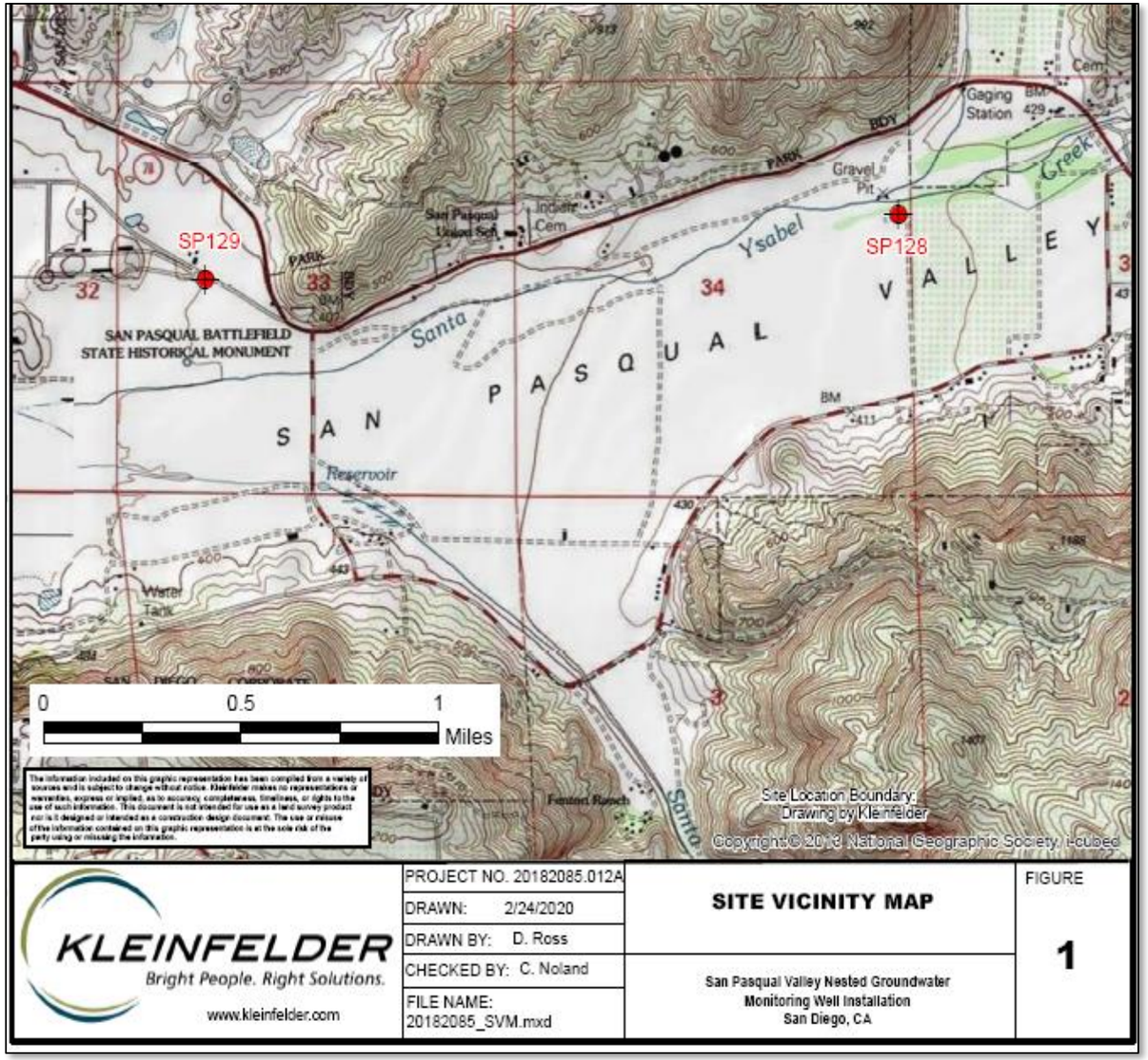
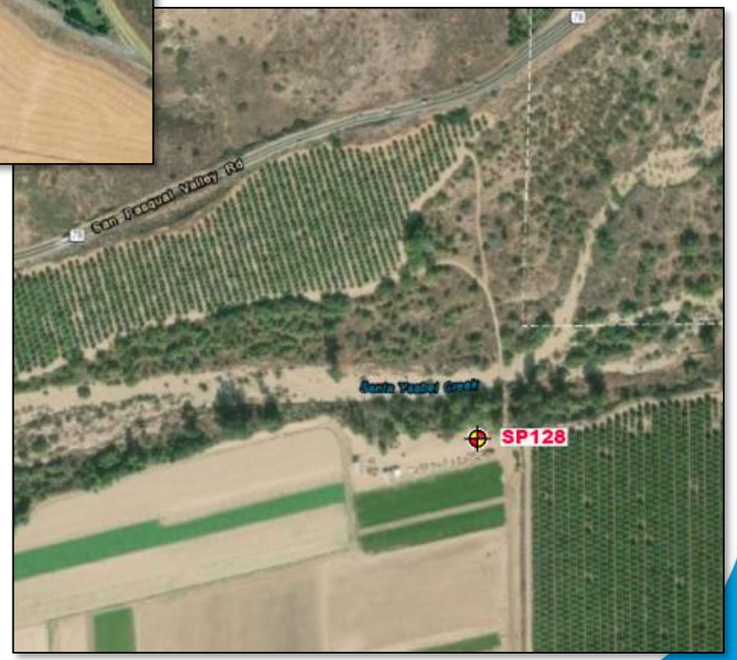
# FIELD PROGRAM UPDATE

# Field Program Update – Monitoring Wells







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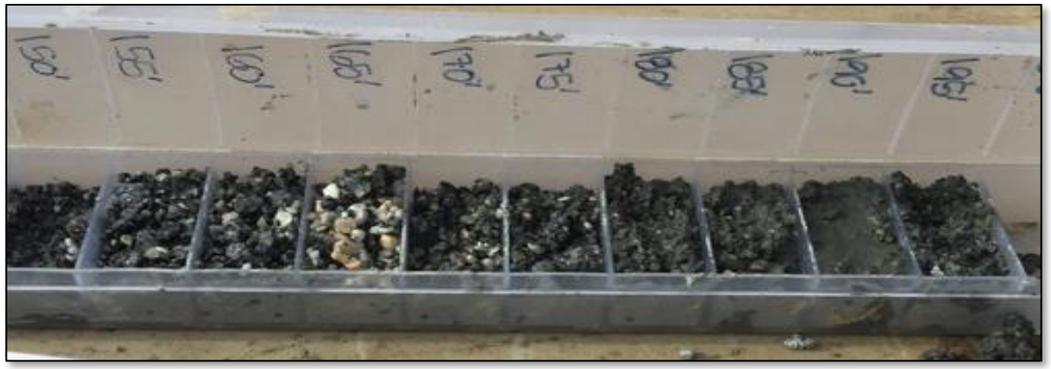

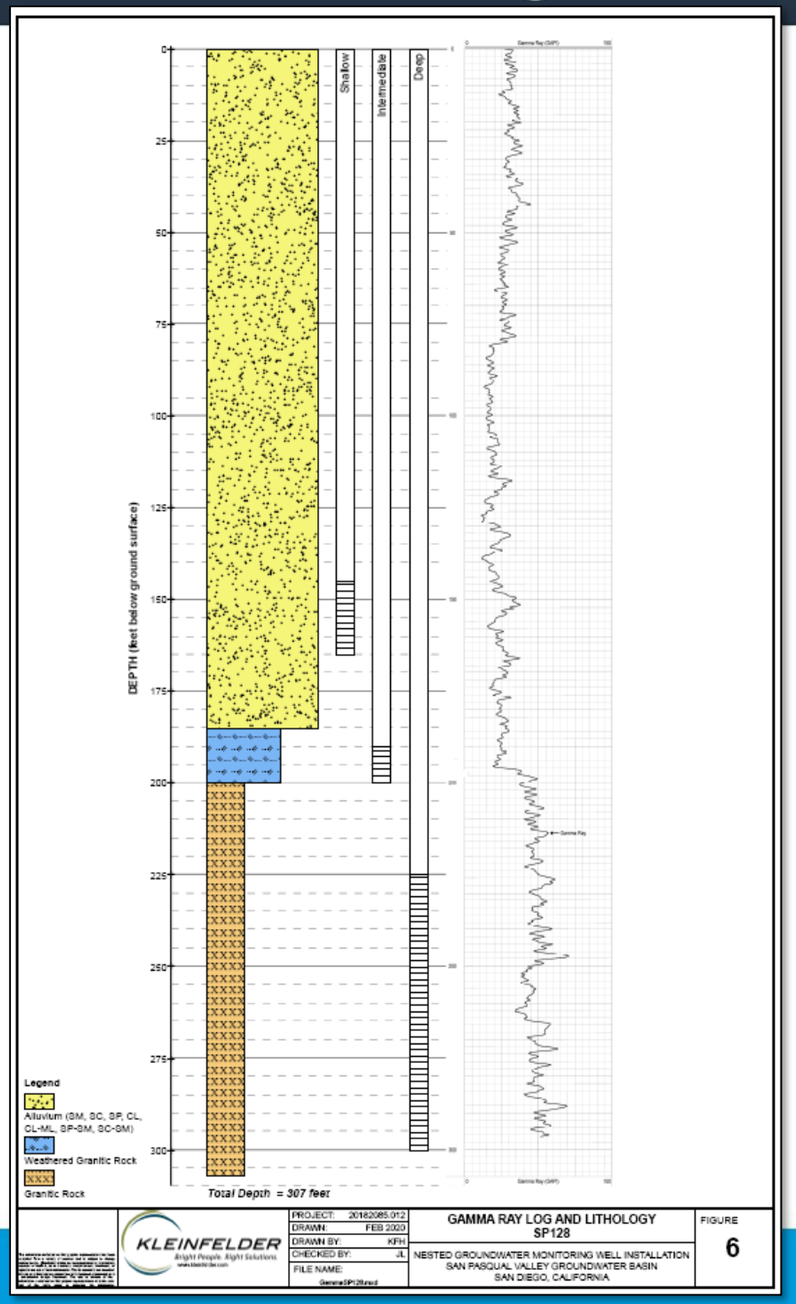

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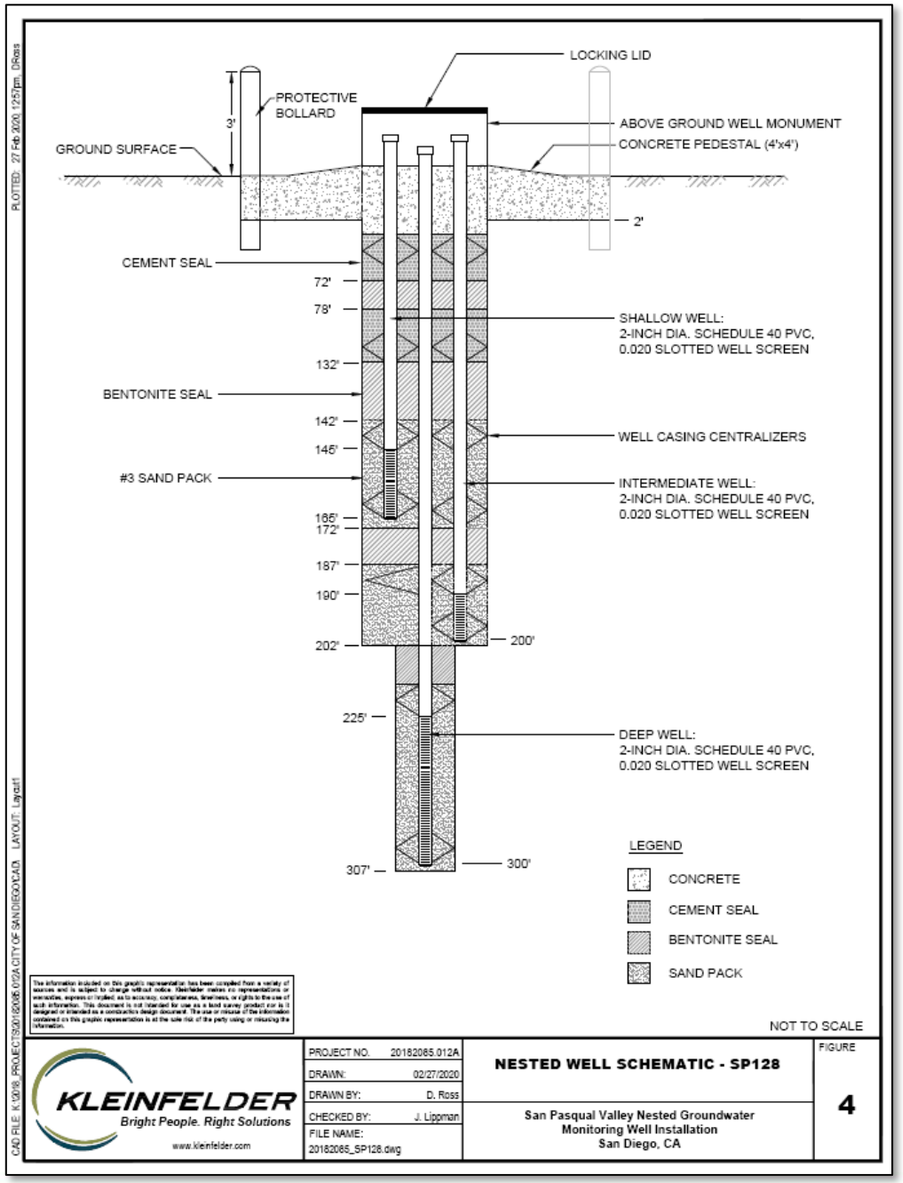
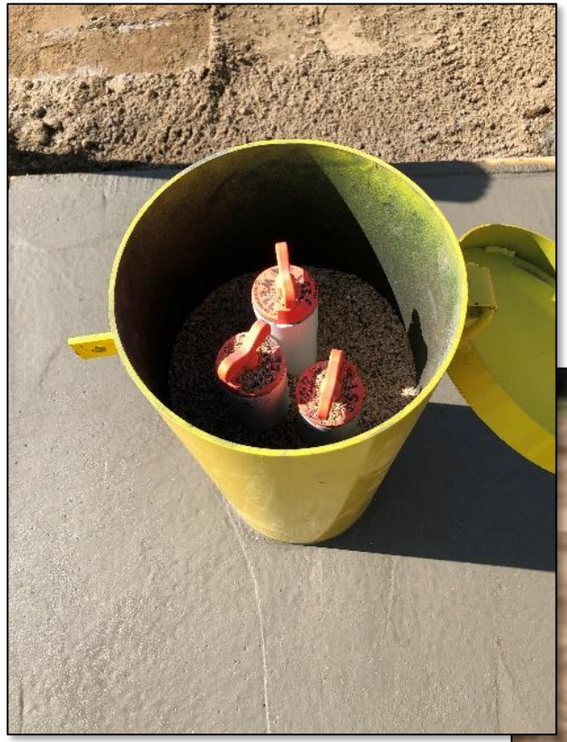
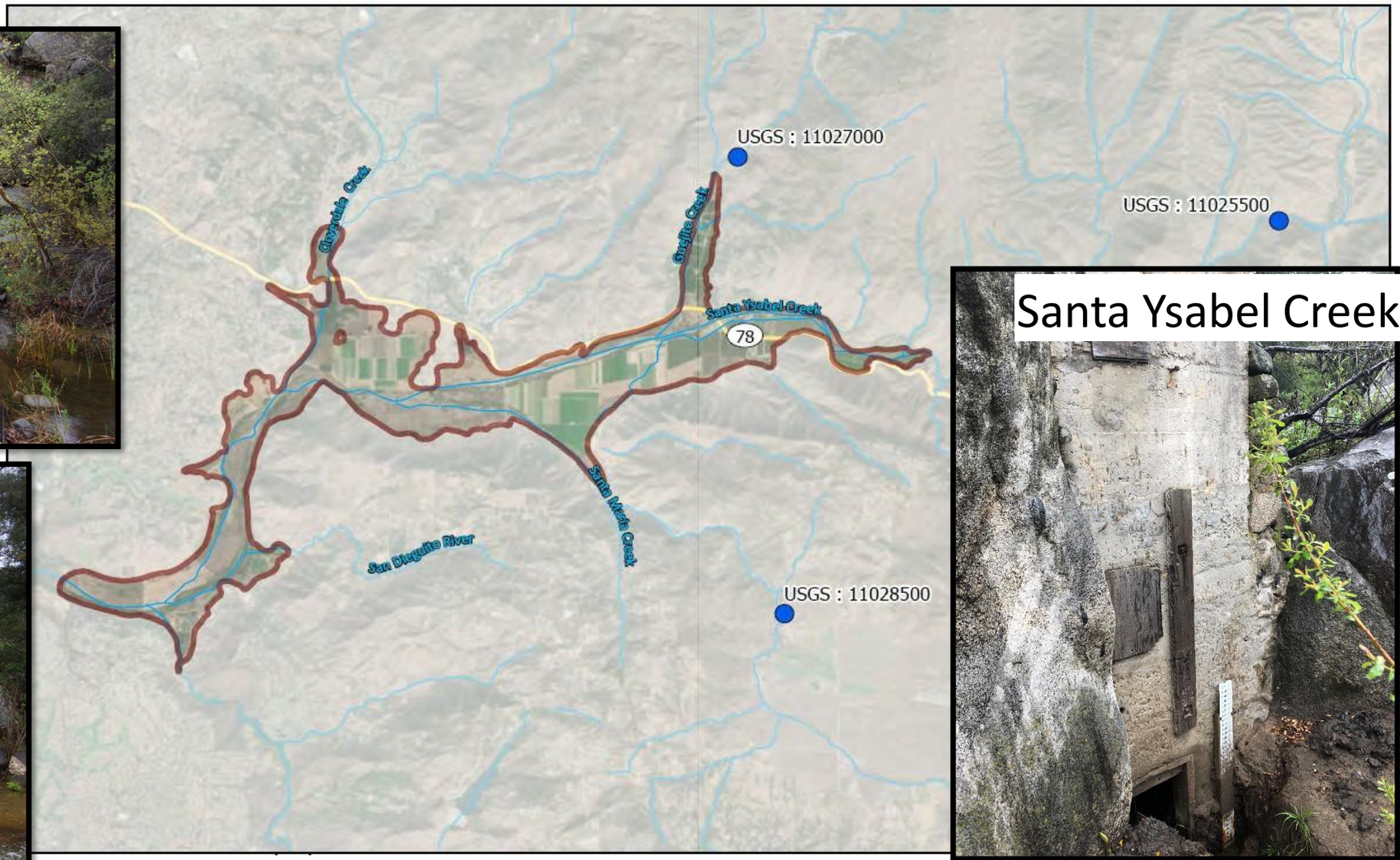


# Isotope Sampling - USGS Stream Gauges Monitoring

March 18, 2020

Guejito Creek




Santa Ysabel Creek



Santa Maria Creek



Draft Work Product

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# PUBLIC COMMENT

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# NEXT STEPS & CLOSING REMARKS

# Next Steps

- Written comments on today's materials:
  - Due Thursday May 28, 2020 to Sandra Carlson: carlsons@sandiego.gov
- Next AC Meeting:
  - Thursday July 9, 2020, 2-4pm
- Public Notices are at:
  - Online: https://www.sandiegocounty.gov/content/sdc/pds/SGMA/san-pasqual-valley.html

- For additional information, please contact:

Sandra Carlson at (619) 533-4235
carlsons@sandiego.gov

# Thank You!