Meeting Summary: ECC GSP

East Contra Costa GSP Working Group and Communications Committee Meeting

When: Wednesday March 10, 2021, 10:00 a.m. to 11:45 a.m.
Where: Zoom call

Attendees: Bill Brewster, Dan Muelrath, Debbie Cannon, Eric Brennan, Faithe Lovelace, James Wolfe, Lisa Beutler, Marilyn Tiernan, Nacho Mendoza, Nick Janes, Paul Seger, Ryan Hernandez, Tom Elson, Vicki Kretsinger, Jackson Cook, Megan Murry, Aaron Trott, Kait Knight, Paul Seger

ACTION ITEMS March 2021

ITEM	OWNER	DUE
1. GSAs provide outreach updates to Lisa Beutler	All Working Group Members	Monthly
2. Provide Newsletter to group	Dan	March 12
3. Provide SMC survey for group to review	Lisa	March 15
4. ECC Subbasin Tribal Outreach	Debbie and Lisa	April 21
5. Notice of Intent to adopt a GSP, investigate requirement. City and county send notice to themselves?	Bill Brewster	April 14
6. Section 6 sent out with track change for Working Group review. Quick return.	All Working Group Members	March 12
7. Post Section 6 to ECC Website	CCWD	March 15
8. Check on list of wells in subbasin (septic database?)	Ryan	April 14
9. Send recurring Zoom invite for monthly meetings and delete phone invite	Faithe	March 17
10. Database of septic tanks in ECC subbasin	Aaron King, LSCE	March 26

Meeting Summary

1. Lisa provided a summary of outreach and communication progress.
    a. GSAs need to continue to update Outreach and Communications at the following link: https://www.surveymonkey.com/r/ECC_GSP_Coms
    b. DWR has a Sustainable Management Criteria webinar that Lisa will be modifying and send to the group for continuing outreach.
    c. Lisa will prepare a survey for Sustainable Criteria for targeted outreach and will request comments from the group.
    d. DWD is preparing a newsletter to go out and is going to send to group for review. Lisa recommends other GSAs send out a similar document to their consumers.
    e. DWD has notes posted on their website from the February 24 meeting with multiple presentations about the Delta that would be of interest to the group.
    f. Dan raised the question of completeness of the Stakeholder and Outreach distribution list and how to reach private well owners. He would like to know if septic tank permit holders are a potential source of data concerning rural domestic water users. Ryan will ask internally if there is electronic database for permits. Dan suggests looking into grant funding for creating of electronic database of private wells for CCC if it currently does not exist.

i. LSCE will internally look for a database of septic tanks in the subbasin based on statewide efforts to track nitrate sources.

g. Lisa asked the group to inform her if they anticipate fee structure changes.

h. Lisa noted the importance of tribal outreach will seek to determine adequacy of outreach and communication with these groups for the ECC Subbasin GSP.

2. Debbie reviewed the schedule for adopting and finalizing the GSP and the budget for the next five years.
    a. Bill Brewster will provide more detail on the requirement to submit 90-day notice of intent to adopt GSP.
    b. Aaron asked about potential funding for future GSP related activities. He expressed concern over costs to the GSAs in a setting with no current sustainability issues. Bill indicated that more funding will be available and that solicitation guidelines for Round 2 implementation funding have been released. Jackson Cook informed the group that applications will be competitive and that $77 million will be available for medium and high priority subbasins (ECC is a medium priority subbasin). The guidelines are found here; https://water.ca.gov/Work-With-Us/Grants-And-Loans/Sustainable-Groundwater
    c. Jackson also advised the group to review the DWR budget for future funding opportunities; The 2021-22 Budget: Department of Water Resources [Publication Details] https://lao.ca.gov/Publications/Detail/4321
    d. Bill stated that Facilitation services and Technical Services will continue as the GSAs move into GSP Implementation.
3. Bill's DWR updates were as follows:
    a. Bulletin 118 has been approved for release on March 11th with a 45-day public review period and a public meeting on March 30th 12-1:30 pm.
    b. On March 30th from 12 noon to 1:30, DWR will conduct a webinar on the Bulletin 118 update.
    c. The SGMA group is working on details on transitioning from CASGEM to a GSP data interface. CASGEM monitoring should be reported through fall 2021 after which a transition to the GSP data management systems will likely be effective. The SGMA GSP monitoring will be required for grants.
    d. Airborne Electromagnetic Survey is going forward, not currently scheduled in ECC Subbasin. DWR is requesting e-logs and other data to ground truth the surveys.
4. Eric reported that Brentwood had received payments for progress report 8.
    a. Also reminded the group that will have to review agreement between GSAs and LSCE to cover the Annual Report due April 1, 2022.
5. Tom's presentation reviewed:
    a. Comments received on Section 6 Monitoring Networks
    b. Described mechanism for baywater intrusion for the ECC Subbasin and how the reporting will correlate shallow monitoring wells with monitoring points in the Delta.
    c. Provided some additional background for Sustainable Management Criteria and Projects and Management Actions (Sections 7 and 8, respectively). See attached PowerPoint Presentation.
6. Future meetings will center on input solicited from GSAs on:
    a. ECC GSP Sustainability Goal

   b. Defining minimum thresholds (MTs) and measurable objectives (MOs) for representative wells in the ECC Subbasin.
   c. Potential projects and management actions for the next 20 years.
   d. Review GSP costs for the next 5 years.
7. Next meeting:
   a. Tuesday March 30th,10 am to 11:30 am, ECC GSP Working Group.

Draft--East Contra Costa Groundwater Sustainability Plan Budget Forcast

FIVE YEAR BUDGET

Category	2020/2022	2022/23	2023/24	2024/25	2025/26	2026/27	Total	Comment
Agency Administration & Operations								Consultant or GSA?
Community Outreach & Education		$25,000	$25,750	$26,523	$27,318	$28,138		
Quarterly GSA meeting (4 times/year)								
Update ECC Online Visualization for public viewing of data. (2 times/year)								
Board notifications								
Intra/Inter subbasin coordination								
Newsletters to interested parties and other								
Update website								
GSP Monitoring and Data Management		**$52,000**	**$53,560**	**$55,167**	**$56,822**	**$58,526**		
Monitoring and Well Maintenance		$20,000	$20,600	$21,218	$21,855	$22,510		
Groundwater Elevation in New Wells: Consultant take manual measurements 2x/yr. and conducts maintenance when necessary.		$10,000						
Groundwater Quality in New Wells: 4-5 wells sampled by consultant annually, includes analysis.		$10,000						
Data Management		$32,000	$32,960	$33,949	$34,967	$36,016		
Data collection from online sources and GSAs. Includes groundwater levels, groundwater extractions, streamflow, water quality (groundwater and surface water), Geotracker, other.		$20,000						
DMS update		$5,000						
Data analysis including graphing and upload 2x/yr. to DWR Portal		$7,000						
GSP Reporting		**$150,000**	**$154,500**	**$159,135**	**$163,909**	**$112,551**		
GSP Annual Reporting	$43,000	$50,000	$51,500	$53,045	$54,636			
Prepare excel files of: groundwater extraction, groundwater extraction methods, surface water supply, total water use, change in storage, and elements guide.	$20,000	$20,000						
Prepare figures: maps of the subbasin, groundwater elevation contours (2/yr.), hydrographs, map of location and volume of extractions, map of changes in GW storage by aquifer, graph of historical GW use by water year type	$15,000	$15,000						
Executive summary and narrative describing findings and recommendations for the period.	$5,000	$12,000						
Upload to Annual Report Module/Report Submittal	$3,000	$3,000						
GSP Five Year Update to include:		$100,000	$103,000	$106,090	$109,273	$112,551	$500,000	Distribute across all 5 years
Basin Setting Evaluation: any changes? Evaluate new information from the last 5 years.							$30,000	
Monitoring Network: evaluation of network and description of data gaps and plan for new facilities if necessary.							$75,000	
Current Groundwater Conditions for each sustainability indicator. Includes update of subbasin model.							$250,000	
Evaluation of Sustainability Management Criteria: revisions proposed if necessary. Progress toward meeting sustainability goal.							$35,000	
Implementation of Projects evaluated							$30,000	
Other: Relevant Actions taken by GSAs impacting the implementation of the GSP. Enforcment or legal actions by the GSA, GSP amendments to the GSP.							$30,000	

Draft--East Contra Costa Groundwater Sustainability Plan Budget Forcast

FIVE YEAR BUDGET

Category	2020/2022	2022/23	2023/24	2024/25	2025/26	2026/27	Total	Comment
Outreach and Coordination specific to 5-year update: of GSAs, adjacent subbasins, and others							$50,000	
Project Funding/Grants		**$25,000**	**$25,750**	**$26,523**	**$27,318**	**$28,138**		based on past practice
SGMA: to address comments from DWR on the GSP		**$15,000**	**$15,000**					
Contingency (10%)		**$25,200**	**$25,956**	**$26,735**	**$27,537**	**$22,735**		
TOTAL GSP Expenses	$43,000	$277,200	$285,516	$294,081	$302,904	$250,088		
1/7 cost	$6,143	$39,600	$40,788	$42,012	$43,272	$35,727		
Implementing GSP: Projects and Management Actions (planned projects only)								
1								
2								
3								
Other costs based on critially overdrafted subbasins								
OPERATING EXPENSES								
Legal Services								
Insurance								
General								
Postage								
General Liability Insurance								
Website Development/Maintenance								
Financial Services/Banking/Bookkeeping								
Prop. 218 on Tax Rolls								
Contingency Fund								
Total Miscellaneous Expenses		$0	$0	$0	$0	$0		
TOTAL		**$277,200**	**$285,516**	**$294,081**	**$302,904**	**$250,088**		

Notes:

Assumes there is a GSA lead agency during initial post-GSP year implementation period.

Assumes GSP Working Group would meet quarterly with some GSP Coordination.

Assumes GSP monitoring and reporting would be handled as an on-going GSP implementation cost with consultant support.

Assumes Five Year GSP Update would be funded over five budget years.

Assumes on-going grant funding application preparation and submittal to secure available State and Federal grant funds for GSP implementation.

increase 3%/yr.

East Contra Costa Subbasin GSP Development

Monitoring, Sustainable Management Criteria, Projects and Management Actions

Working Group Meeting

Tom Elson and Debbie Cannon

LSCE

March 10, 2021

This slide presentation is for discussion purposes only. The content is preliminary and reflects work-in-progress on GSP development for the East Contra Costa Subbasin.

Topics

EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

Section 6 Monitoring Networks: public review

Shallow Monitoring Well Installations: site visits

Follow-up meeting on March 30 to discuss:

- **Section 7 Sustainable Management Criteria**
- **Section 8 Projects and Management Actions**
- **Section 9 GSP Implementation (5-yr budget)**

Monitoring Networks – Feedback

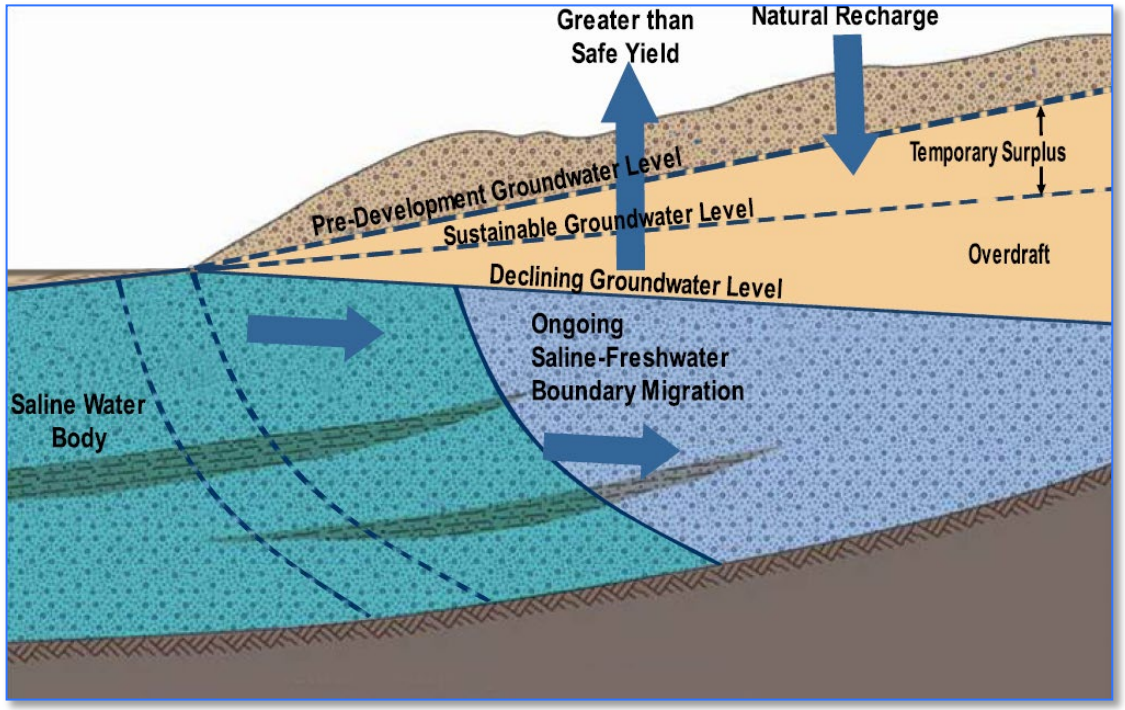
EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

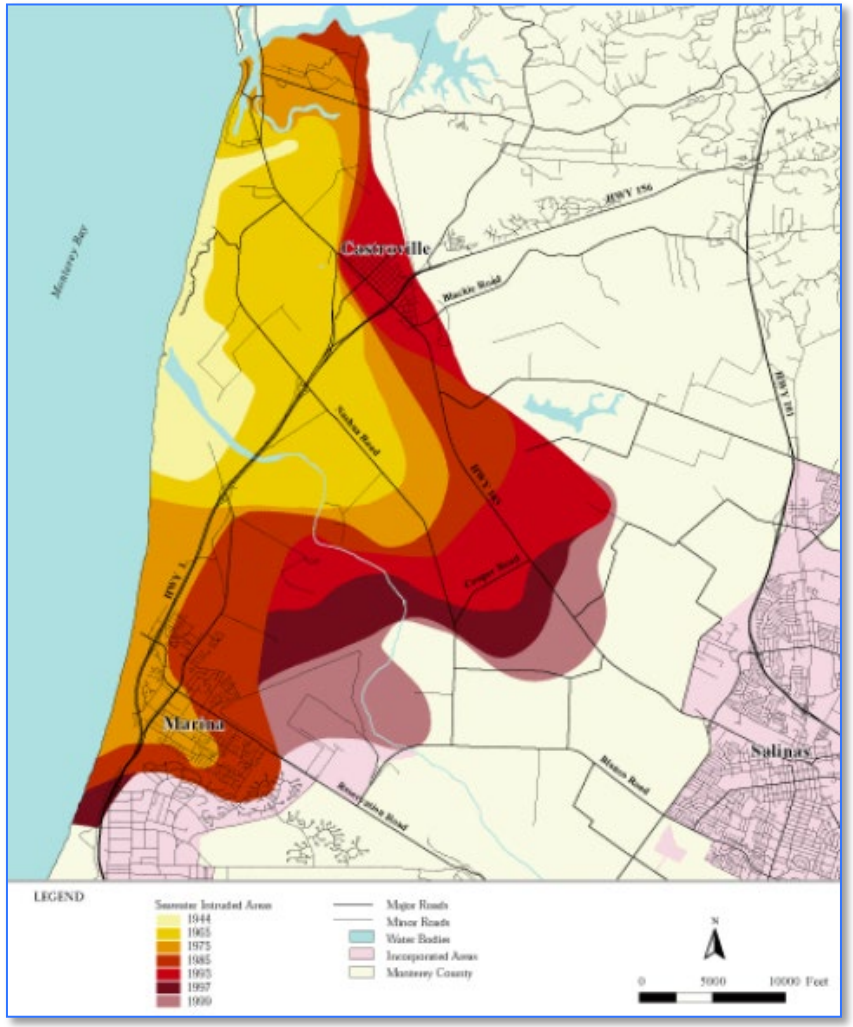
- **Incorporate seawater intrusion as a sustainability indicator**
- **Field and laboratory testing**
- **Downloading and database**

Seawater intrusion sustainability indicator

EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

When there is a direct connection between seawater and production aquifers:





Saline water intrusion in the ECC subbasin

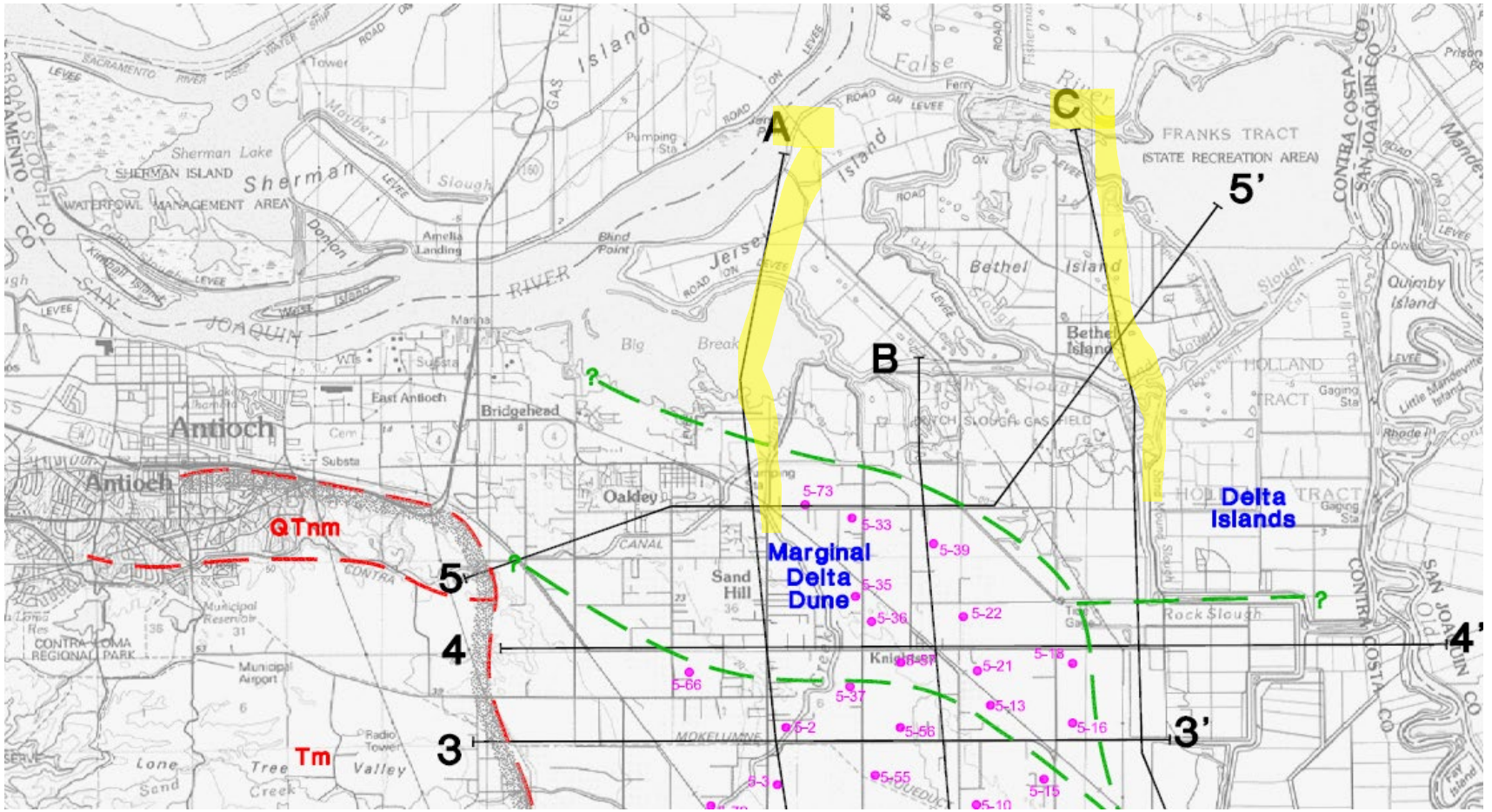
EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

1. In the ECC Subbasin, there is no saltwater interface.
2. A potential source of saline water intrusion is migration of baywater into the Shallow Zone aquifers
3. Although outflow through the Delta is managed to protect water quality,
    - increases in baywater salinity could potentially occur such as due to sea-level rise and, in turn,
    - saline baywater may impact sustainability if intrusion into shallow groundwater migrated vertically into the Deep Zone

ECC seawater intrusion mechanism

EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

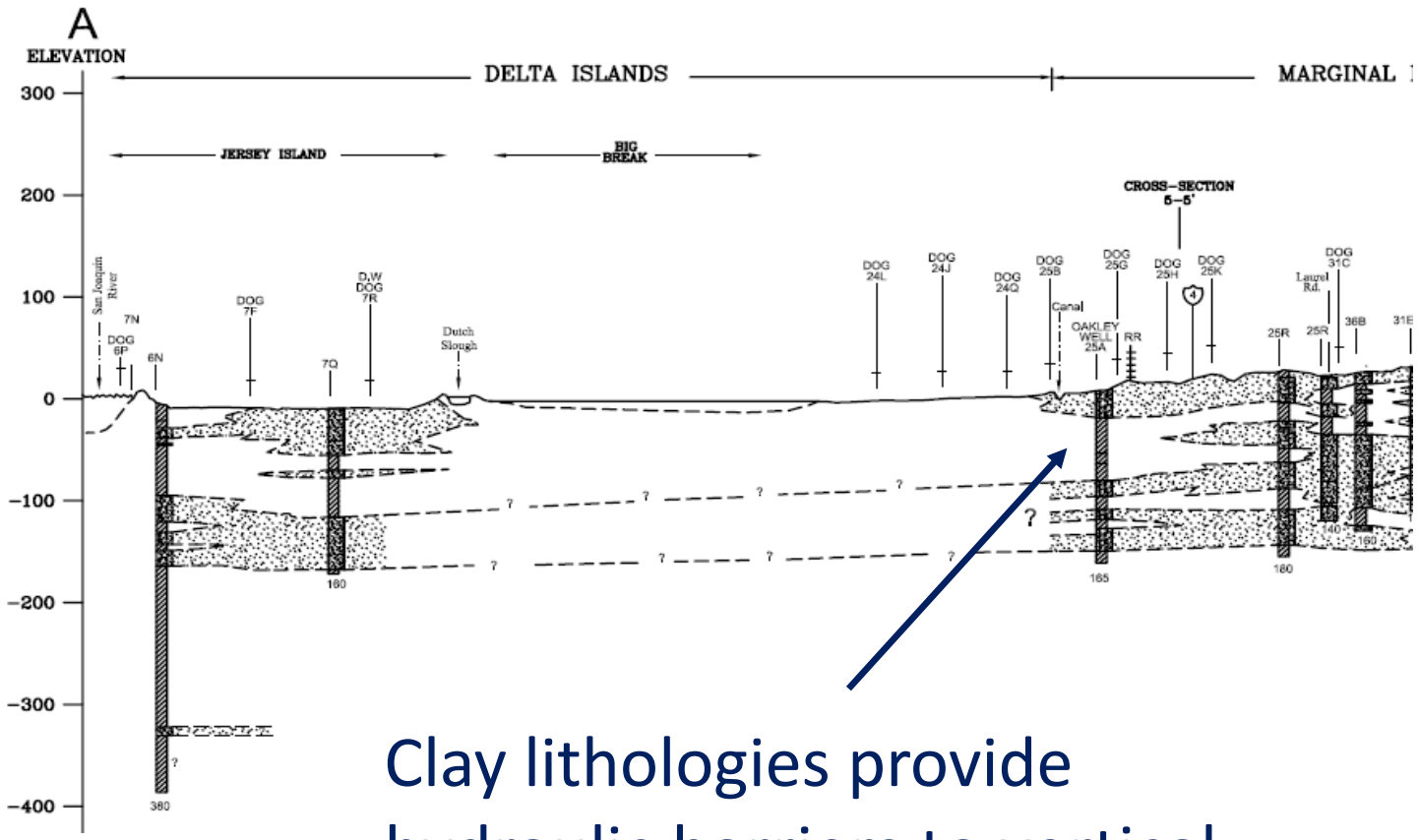
Consider Delta setting (x-sects A-A’ and C-C’):



ECC seawater intrusion mechanism

EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

X-sect A-A’

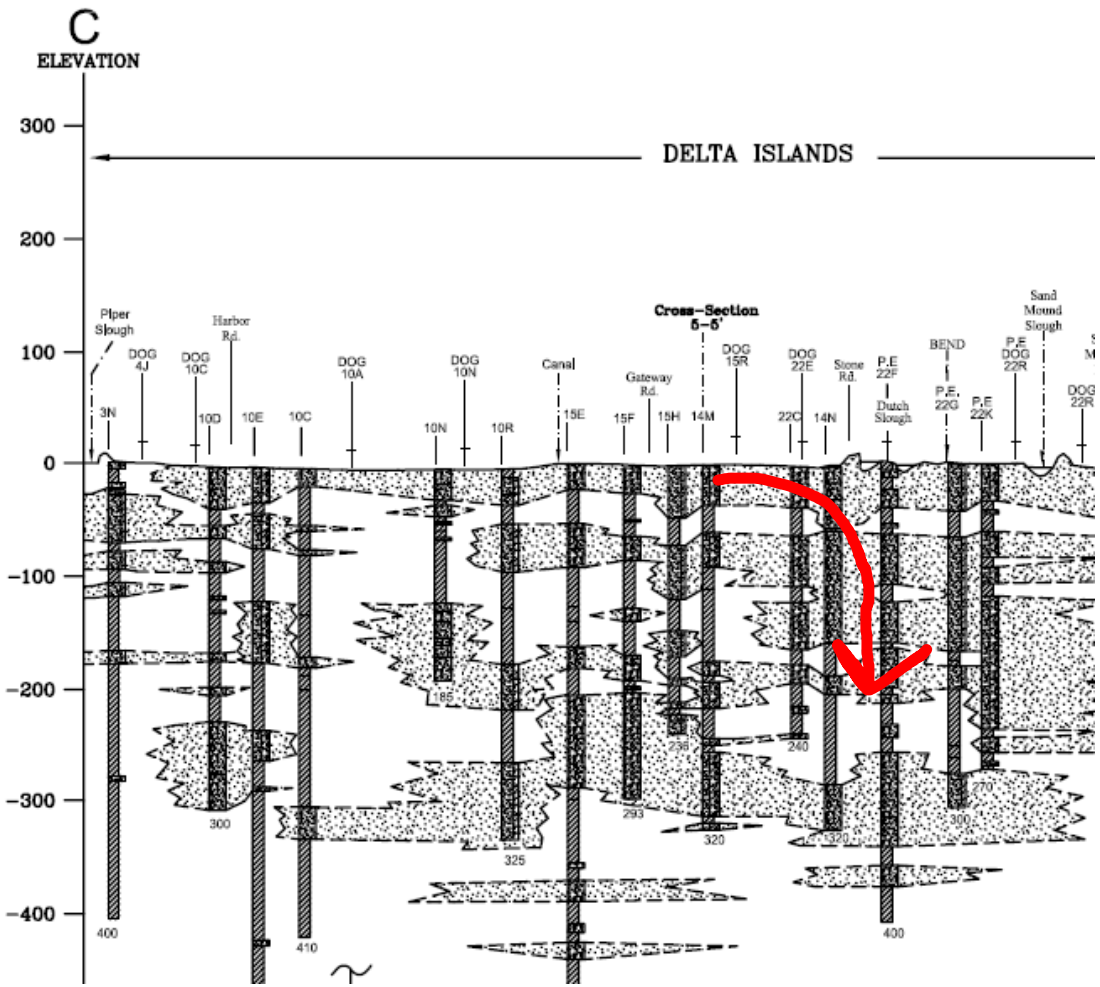


Clay lithologies provide hydraulic barriers to vertical migration

ECC seawater intrusion mechanism

EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

X-sect C-C’

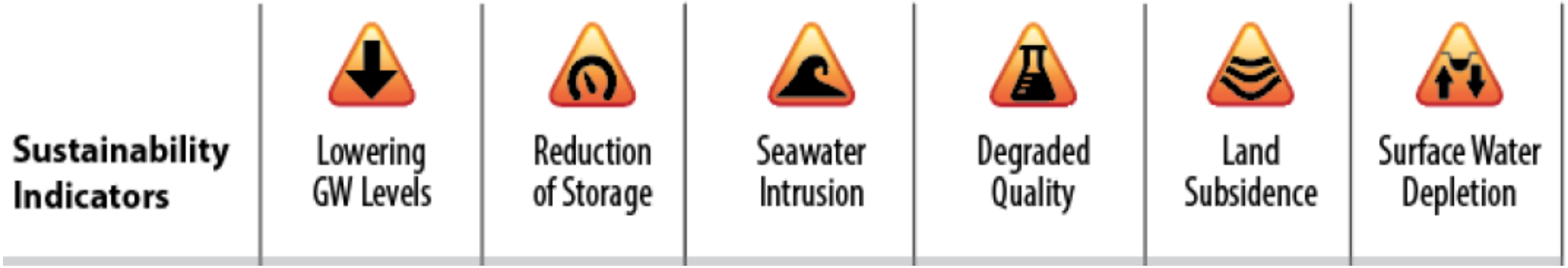


Vertical hydraulic separation?

Sustainable Management Criteria

- **Locally defined by GSAs based on Sustainability Goals**
- **Must consider each Sustainability Indicator:**

Include indicator for potential Delta baywater intrusion



Sustainability Goal

§ 354.24 Sustainability Goal

Each Agency shall establish in its Plan a sustainability goal…

The Plan shall include:

- a description of the sustainability goal
- a discussion of measures that will be implemented to ensure the basin is operated within its sustainable yield, and
- an explanation of how the goal will be achieved within 20 years of Plan implementation and maintained through the planning and implementation horizon (50 years).

Sustainability Goal

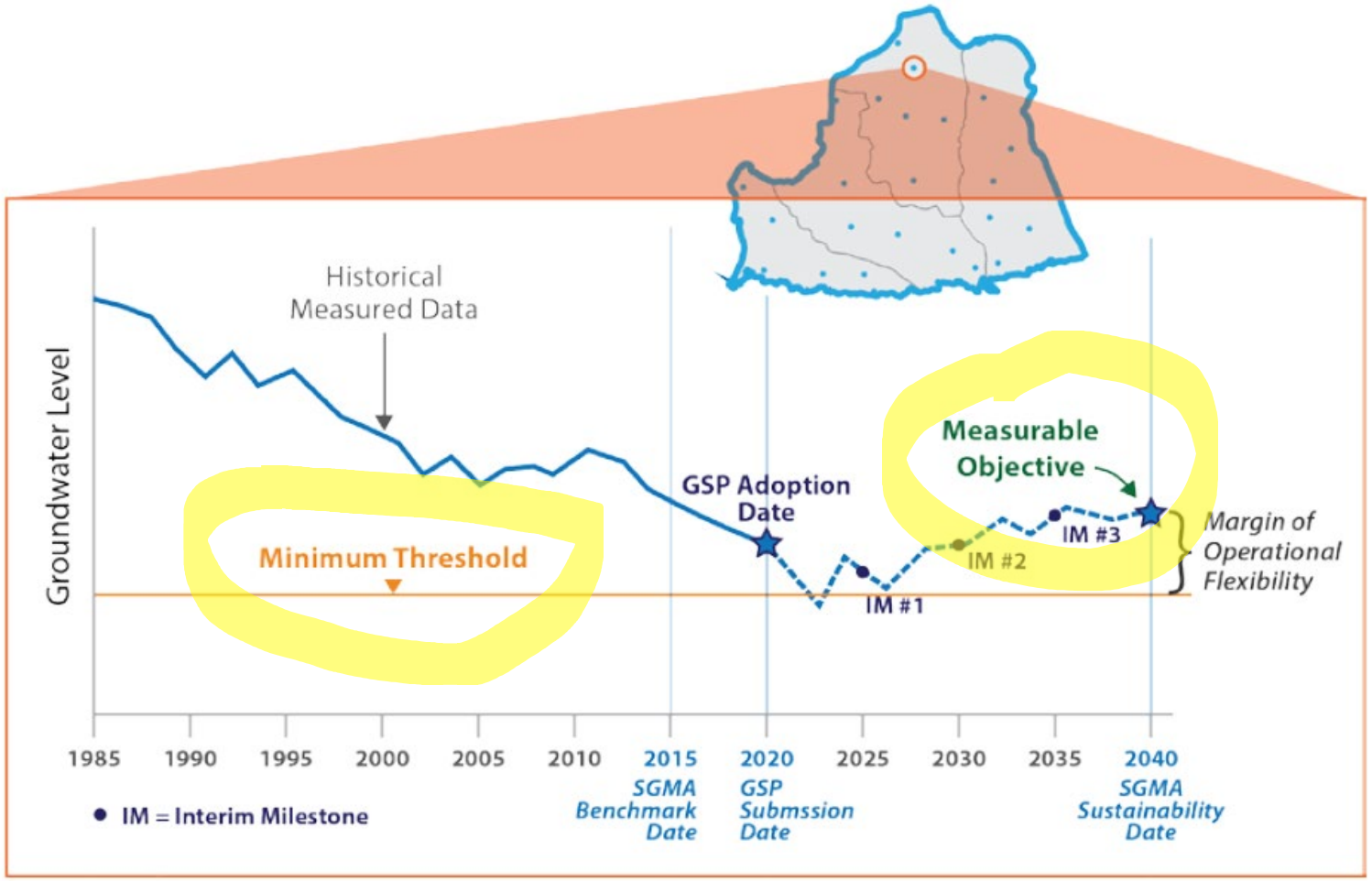
EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

Manage the ECC subbasin to:

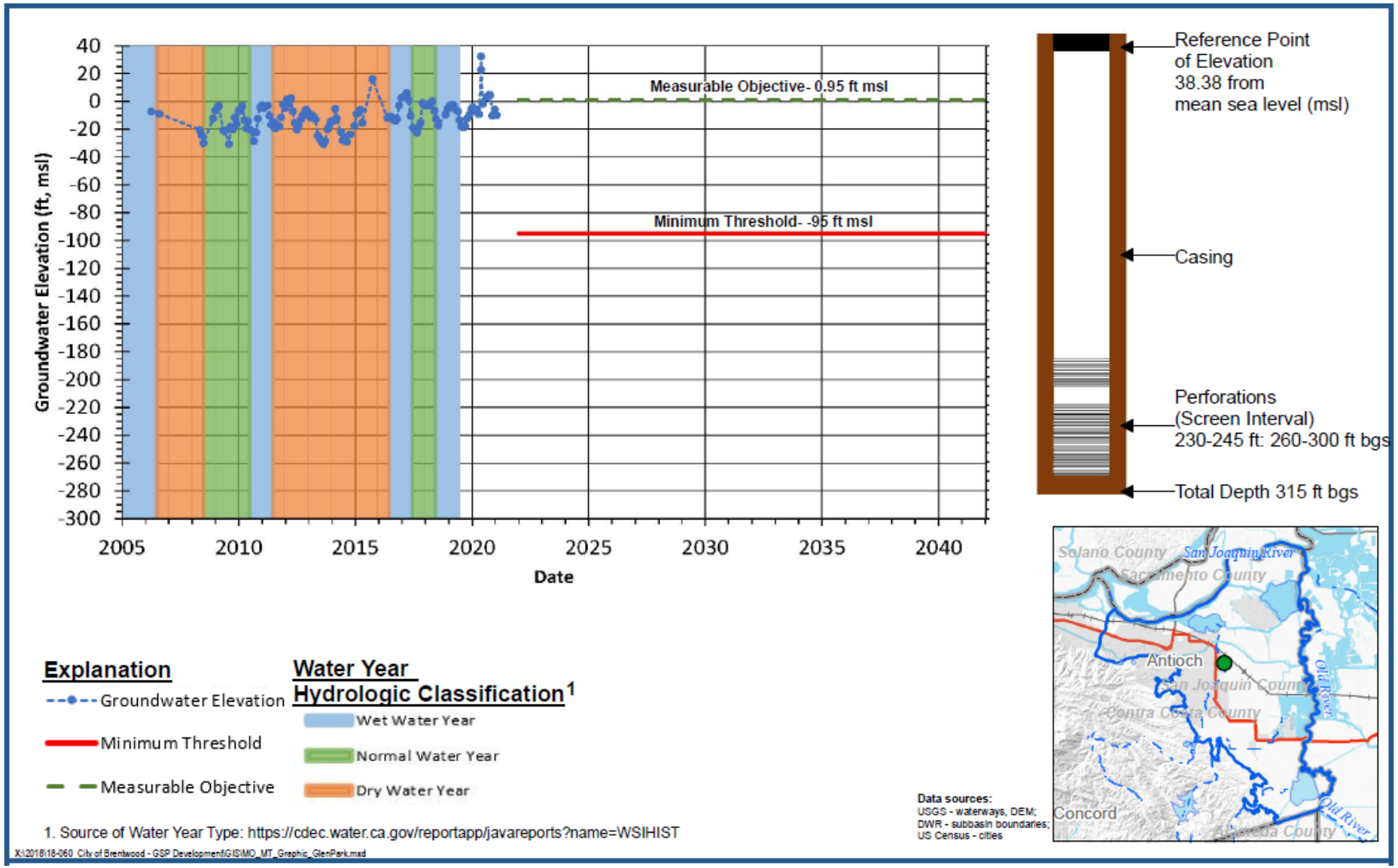
- ensure safe and reliable supplies for all beneficial uses and users
- meet current and future water demands
- avoid undesirable results

Sustainable Management Criteria

EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan



Setting MTs and Mos in the ECC subbasin



Projects and Management Actions

EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

Implementation of projects or actions to achieve sustainability:

- Developed by GSAs individually or cooperatively
- In response to potential causes of undesirable results
- Actions might include:
  - Conservation
  - Pumping restrictions
  - Well location limitations
- Projects might include:
  - Direct recharge
  - Aquifer Storage and Recovery (ASR)
  - In-lieu recharge

GSP requirements for PMAs

EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

§ 355.4. Criteria for Plan Evaluation

….the Department shall consider the following:

1) *Whether the assumptions, criteria, findings, and objectives, including the sustainability goal, undesirable results, minimum thresholds, measurable objectives, and interim milestones are reasonable...*
2) *Whether the Plan identifies reasonable measures and schedules to eliminate data gaps.*
3) *Whether sustainable management criteria and projects and management actions are commensurate with the level of understanding of the basin setting…*
4) *Whether the interests of the beneficial uses and users of groundwater in the basin, and the land uses and property interests potentially affected by the use of groundwater in the basin, have been considered.*
5) *Whether the projects and management actions are feasible…*
6) *Whether the Plan includes a reasonable assessment of overdraft conditions…*
7) *Whether the Plan will adversely affect the ability of an adjacent basin to implement its Plan...*
8) *Whether coordination agreements, if required, have been adopted by all relevant parties...*
9) *Whether the Agency has the legal authority and financial resources...*
10) *Whether the Agency has adequately responded to comments...*

Initial screening using IRWM PMAs (1-13)

EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

Project #	Project Name	Sponsoring Agency / Organization	Project Type
1	Recycle Water for AYSC	Antioch Youth Sports Complex	Infrastructure - Wastewater / Recycled Water
2	City of Antioch Brackish Water Desalination Project	City of Antioch	Infrastructure - Water / Water Quality
3	Northest Antioch Annexation Water and Sewer Facility Installation	City of Antioch	Infrastructure - Water / Water Quality
4	Non-Potable Storage Facility and Non-Potable Water Distribution	City of Brentwood	Infrastructure - Wastewater / Recycled Water
5	Citywide Non-Potable Water Distribution System	City of Brentwood	Infrastructure - Wastewater / Recycled Water
6	Knightsen Biofilter/Weltand Habitat Restoration	Contra Costa County	Infrastructure - Stormwater / Flood Management
7	East Antioch Creek Marsh Restoration (#206)	CCC Flood Control & Water Conservation District	Environmental (e.g., habitat)
8	Marsh Creek Reservoir Capacity and Habitat Restoration (#213)	CCC Flood Control & Water Conservation District	Environmental (e.g., habitat)
9	Upper Reach of Three Creeks Parkway Restoration Project	CCC Flood Control & Water Conservation District	Infrastructure - Stormwater / Flood Management
10	BBID-CCWD Regional Intertie	Contra Costa Water District	Infrastructure - Water / Water Quality
11	Los Vaqueros Pond E-7 Embankment Rehabilitation	Contra Costa Water District	Environmental (e.g., habitat)
12	Stormwater Management at Meadows Siphon	Contra Costa Water District	Infrastructure - Stormwater / Flood Management
13	Canal Liner Rehabilitation and Slope Stability at Milepost 23.03	Contra Costa Water District	Infrastructure - Water / Water Quality

Initial screening using IRWM PMAs

EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

IRWM PMA statistics:

- Total number=37
- Number by Agency:
  - Antioch = 2
  - Brentwood = 2
  - CCC = 1
  - CCWD = 5
  - Delta Diablo San. Dist. = 6
  - DWD = 8
  - Ironhouse San. Dist. = 5
  - Other = 8
- Number by Category
  - Water Quality = 13
  - Recycled Water = 13
  - Environmental = 5
  - Flood control = 3
  - Monitoring = 2
  - Water Supply Reliability = 1

5-yr budget

EAST CONTRA COSTA SUBBASIN
Groundwater Sustainability Plan

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