Delta-Mendota Subbasin Sustainable Groundwater Management Act Workshop

May 2019

DELTA-MENDOTA SGMA

DEPARTMENT OF WATER RESOURCES · STATE OF CALIFORNIA ·

PROP 1

GOVERNOR EDMUND G. BROWN, JR.

WATER BOND 2014

RELIABILITY | RESTORATION | RESILIENCE

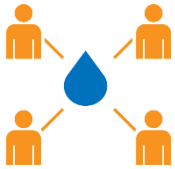
Agenda

1. Welcome
2. Introductions
3. Presentation
4. Breakout Sessions

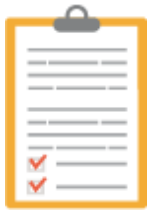
Sustainable Groundwater Management Act of 2014

Sustainable Groundwater Management Act Terms

SGMA = Sustainable Groundwater Management Act



GSA = Groundwater Sustainability Agency



GSP = Groundwater Sustainability Plan

aquifer = an underground layer of water-bearing materials, such as gravel or sand, from which water can be pumped

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Sustainable Groundwater Management Act Timeline

June 30, 2017
Groundwater Sustainability Agencies must be formed.

January 31, 2020
Groundwater Sustainability Plans must be submitted to the State.

January 31, 2040
Delta-Mendota Subbasin must achieve sustainability.

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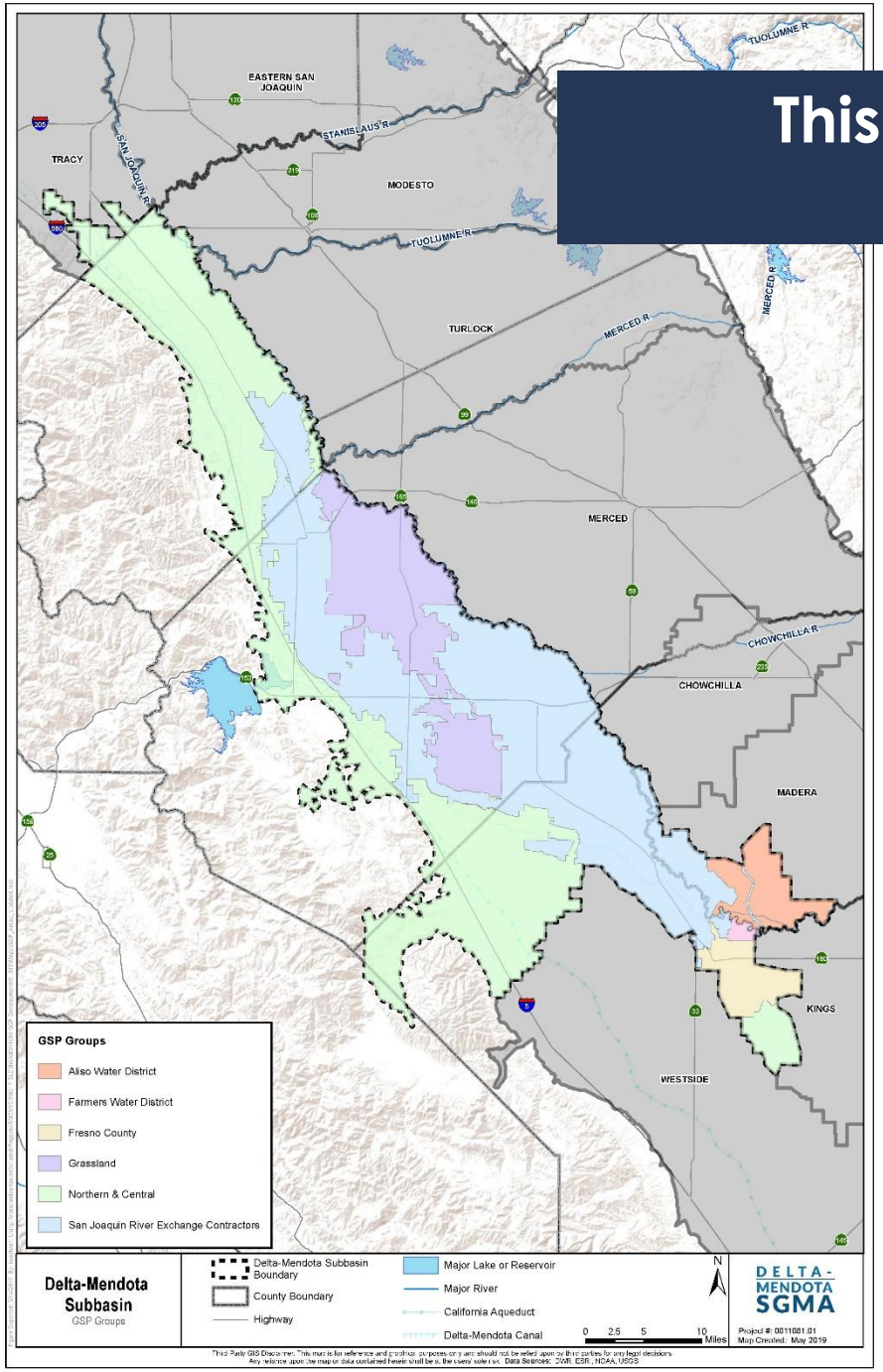
This is a collaborative, regional effort.



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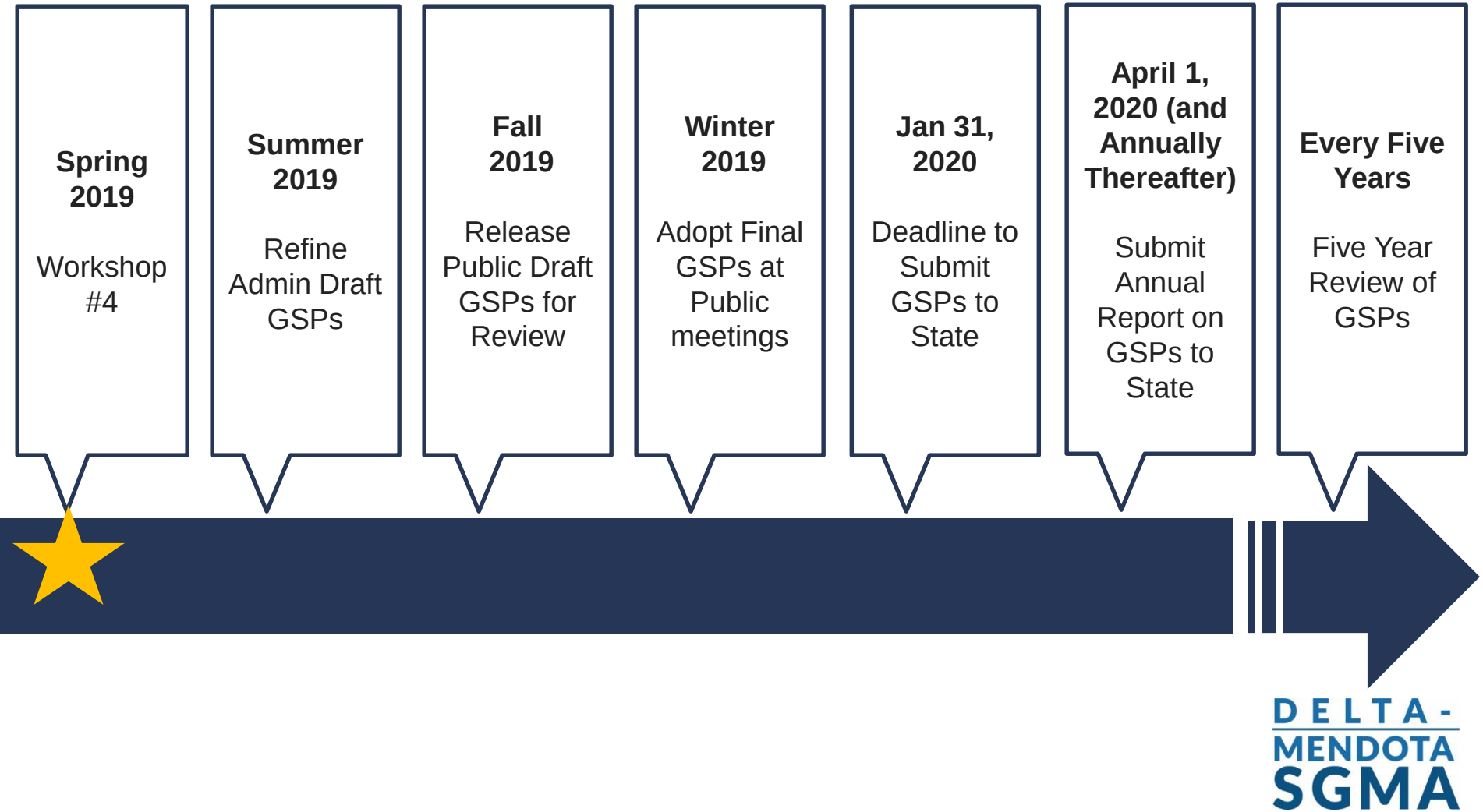
Our Timeline – Pathway to Sustainability



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Public Review and Participation

- Public workshops
- GSP Public Draft review
- Adoption of GSPs at public meetings
- Public comment process after adopted to State

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Questions?


GSP Development and Implementation
1
Gather Data
2
Prepare HCM
3
Develop Model
4
Prepare Water Budgets
5
Develop Sustainability Criteria
6
Identify Projects and Management Actions
Submit GSPs
7
Implement Projects
8
Monitor Projects
9
Implement Adaptive Management
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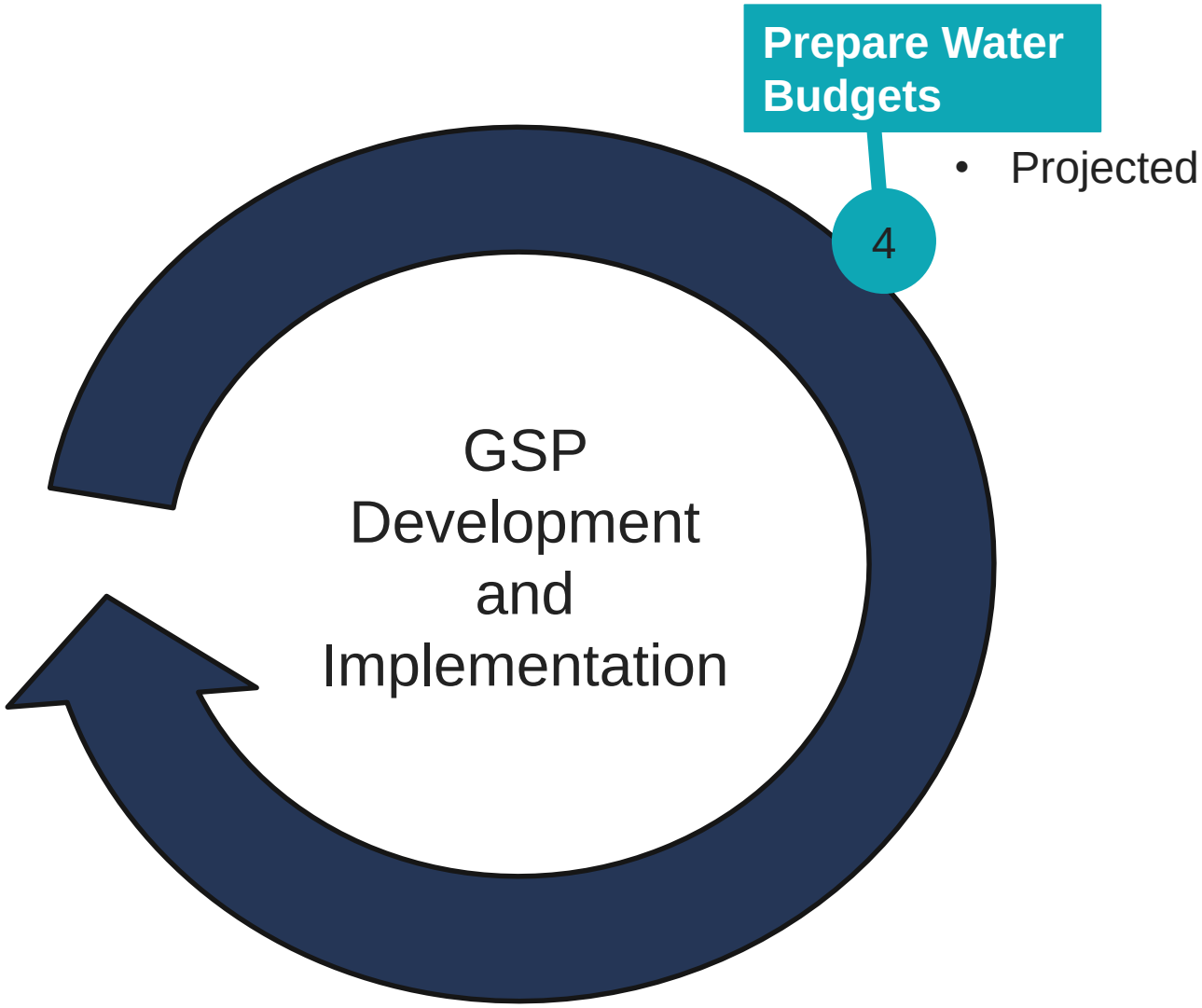

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A water budget is like a checking account…

Inflows − Outflows = Change in Storage

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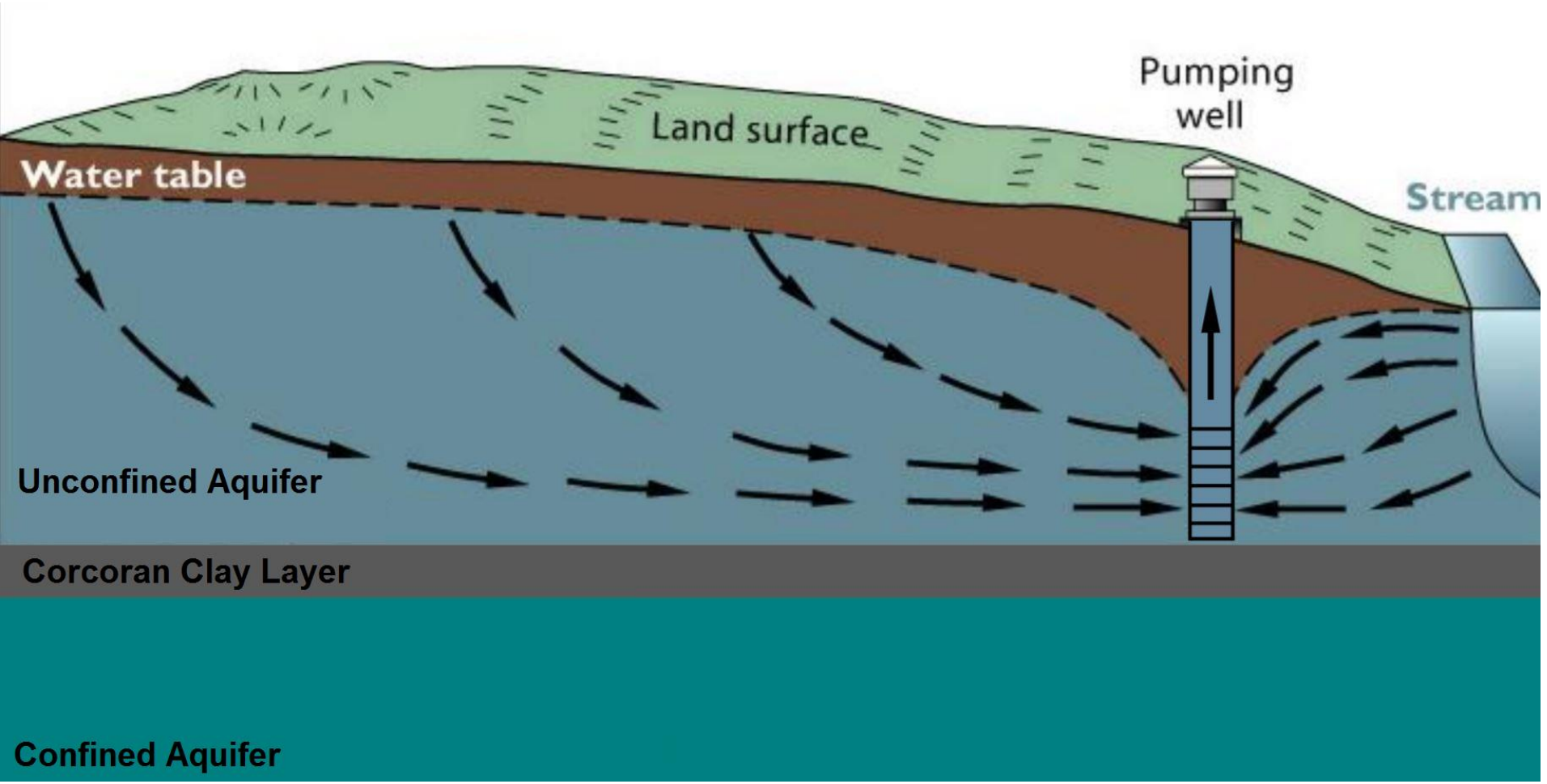

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Basin-Wide Water Budgets

	UPPER AQUIFER Average Annual Change in Storage	LOWER AQUIFER Average Annual Change in Storage
Historic (2003-2012)	-50,200 acre-feet	-32,400 acre-feet
Current (2013)	-123,400 acre-feet	-52,700 acre-feet
Projected (2014-2070)	-2,100 acre-feet	-1,500 acre-feet

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Estimated **Sustainable Yield** for the Delta-Mendota Subbasin

	UPPER AQUIFER	LOWER AQUIFER
Estimated Average Annual Sustainable Yield	320,000 – 450,000 acre-feet	250,000 acre-feet

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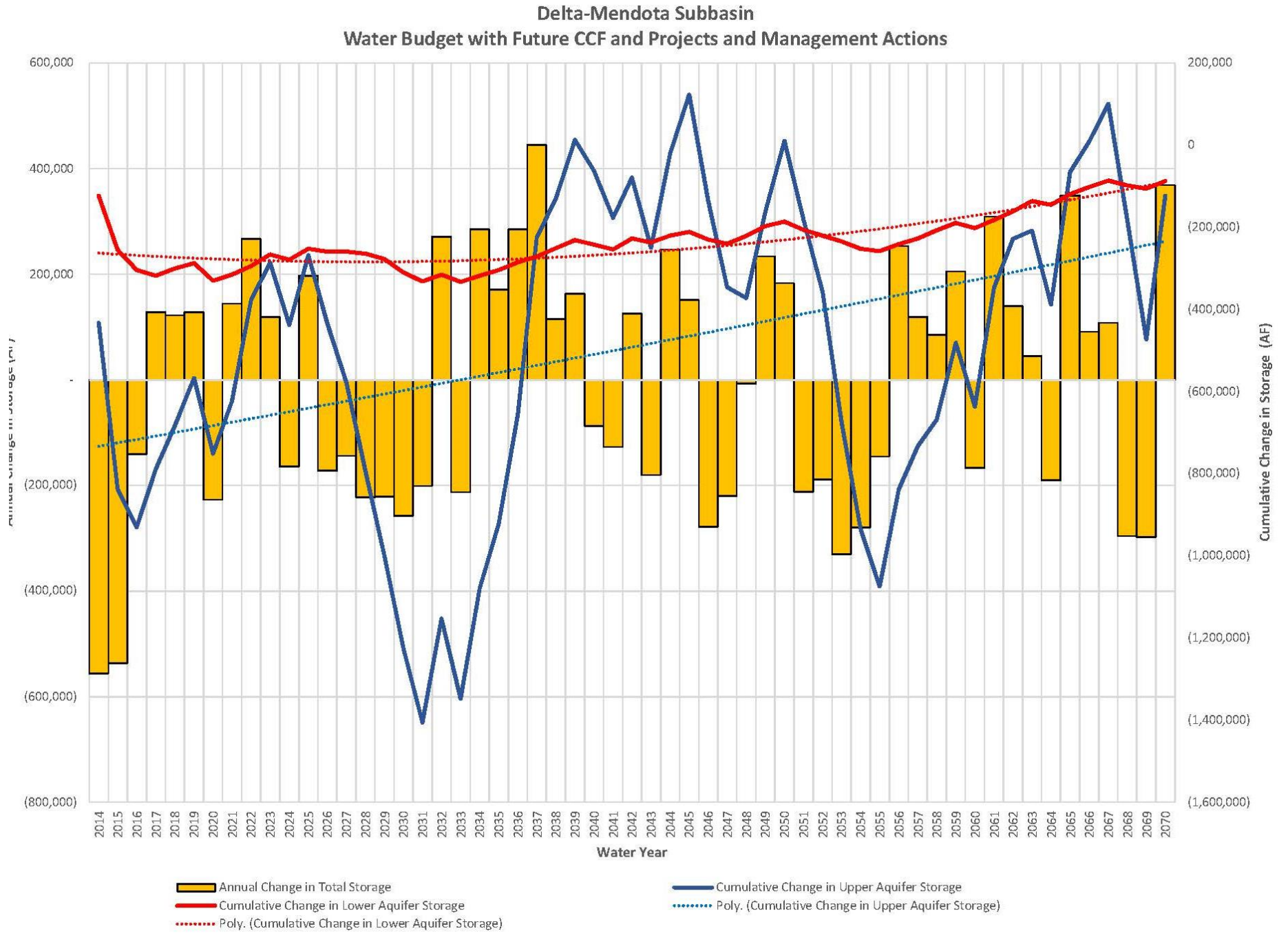
Delta-Mendota Subbasin
Water Budget with Future CCF and Projects and Management Actions
600,000
400,000
200,000
-
(200,000)
(400,000)
(600,000)
(800,000)
200,000
0
(200,000)
(400,000)
(600,000)
(800,000)
(1,000,000)
(1,200,000)
(1,400,000)
(1,600,000)
Cumulative Change in Storage (AF)
2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070
Water Year
Annual Change in Total Storage
Cumulative Change in Lower Aquifer Storage
Poly. (Cumulative Change in Lower Aquifer Storage)
Cumulative Change in Upper Aquifer Storage
Poly. (Cumulative Change in Upper Aquifer Storage)

Why is this important?

- Compliance
- Long-term groundwater resources for all beneficial uses, including: drinking water, agriculture, and the environment.
- Short-term and long-term planning and management for water resources.

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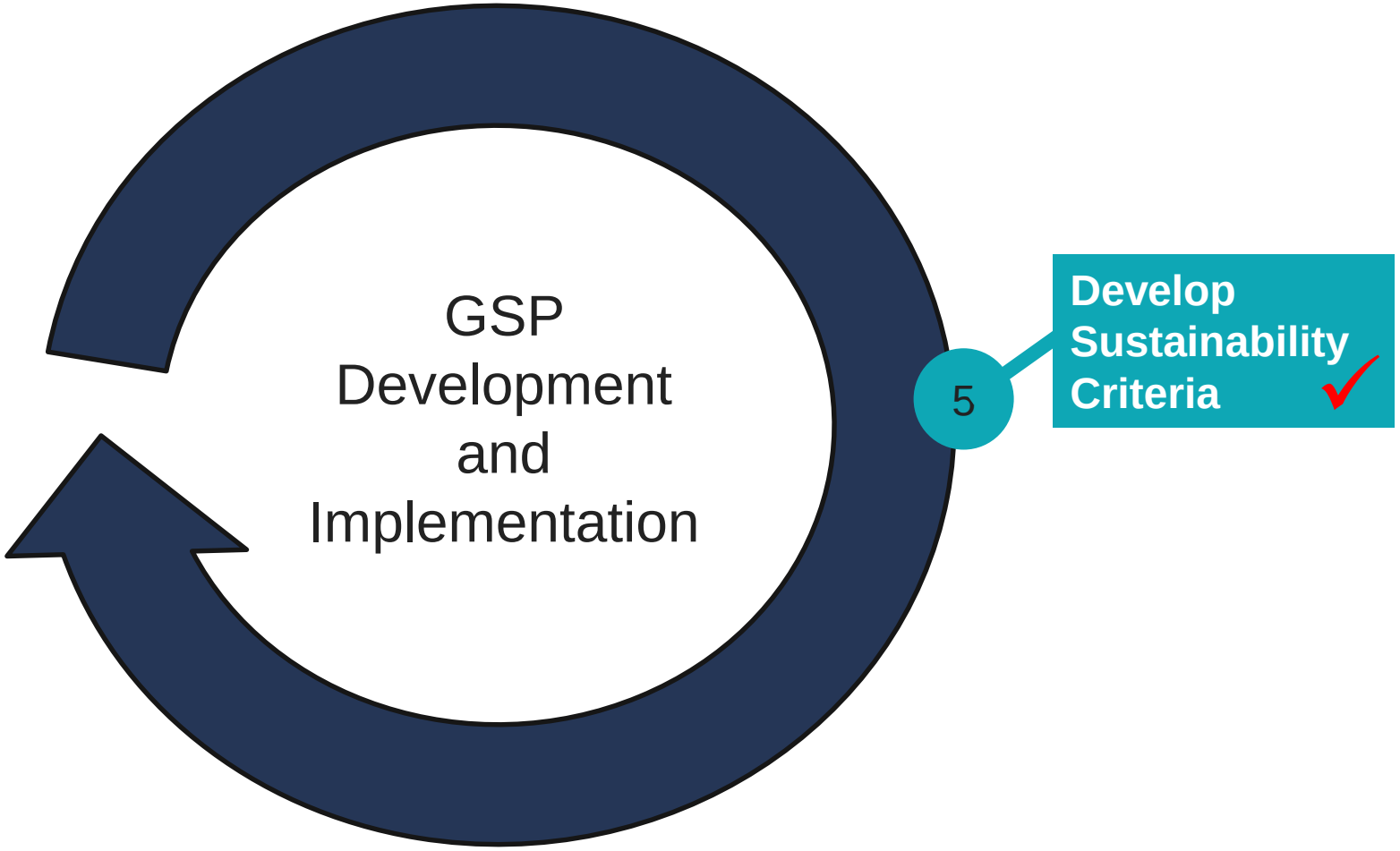

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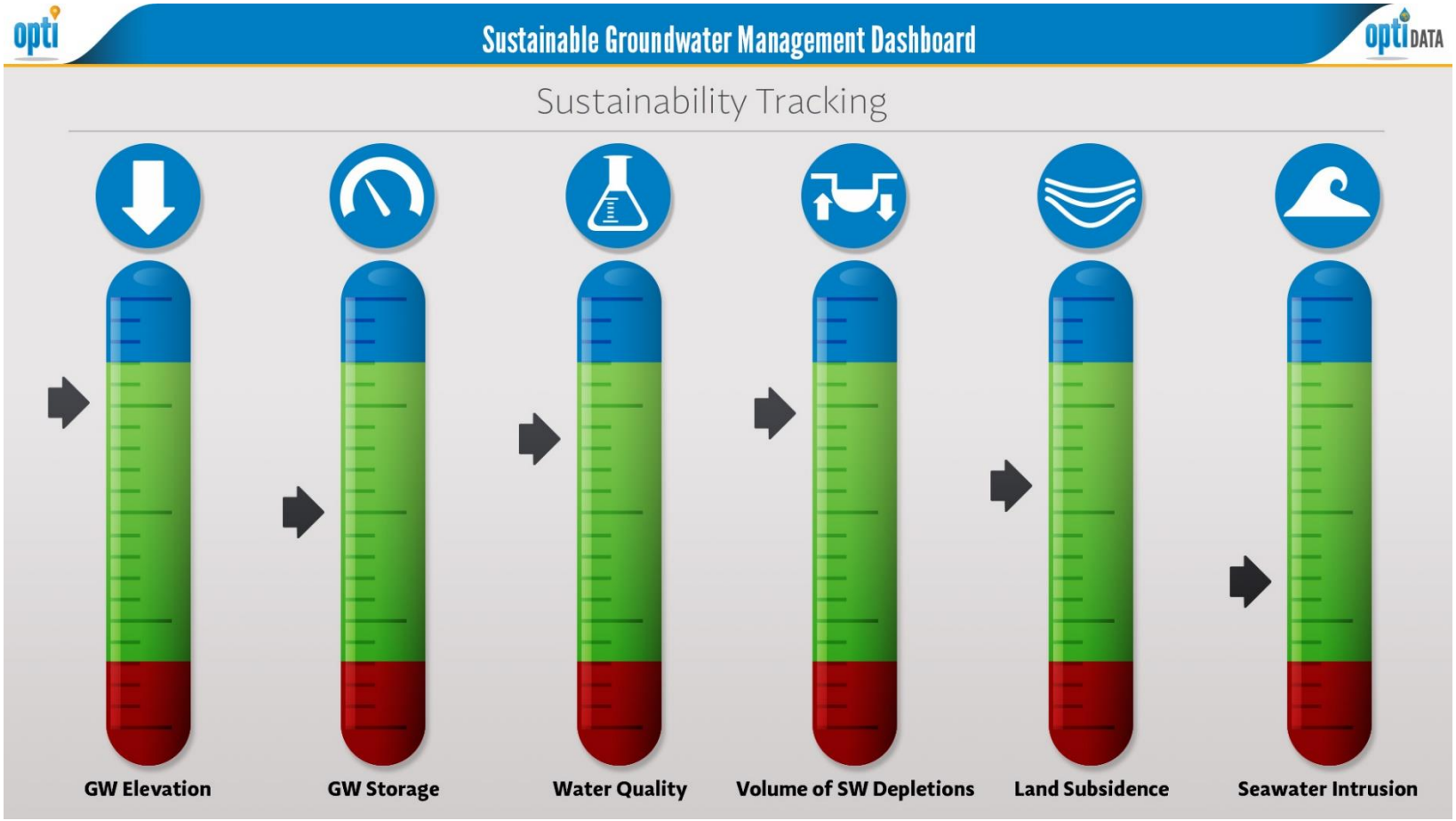
So What Are Undesirable Results?

Undesirable results are <u>significant and unreasonable</u> impacts caused by:

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

What are sustainability indicators?



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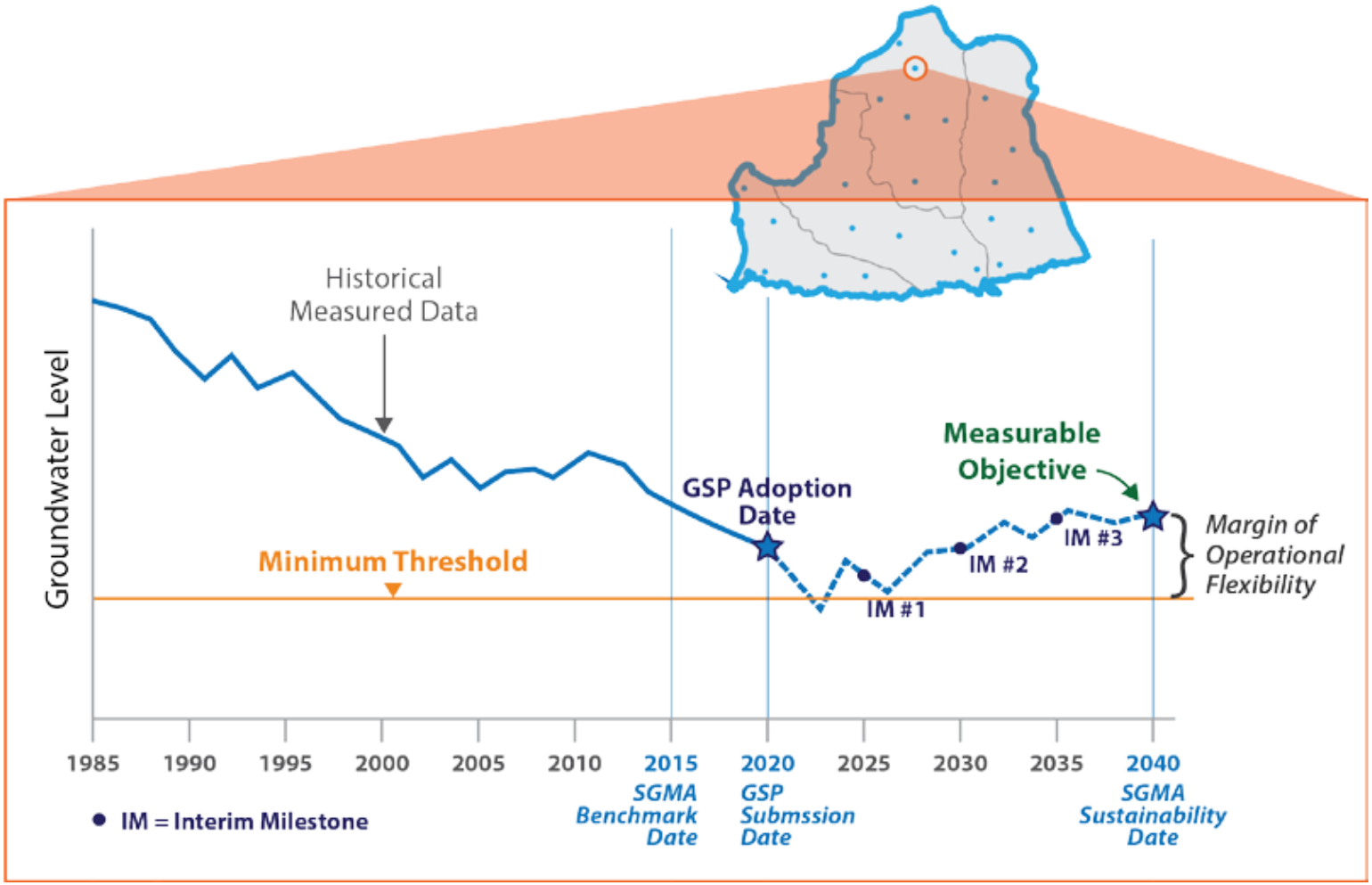
Thresholds & Measurable Objectives



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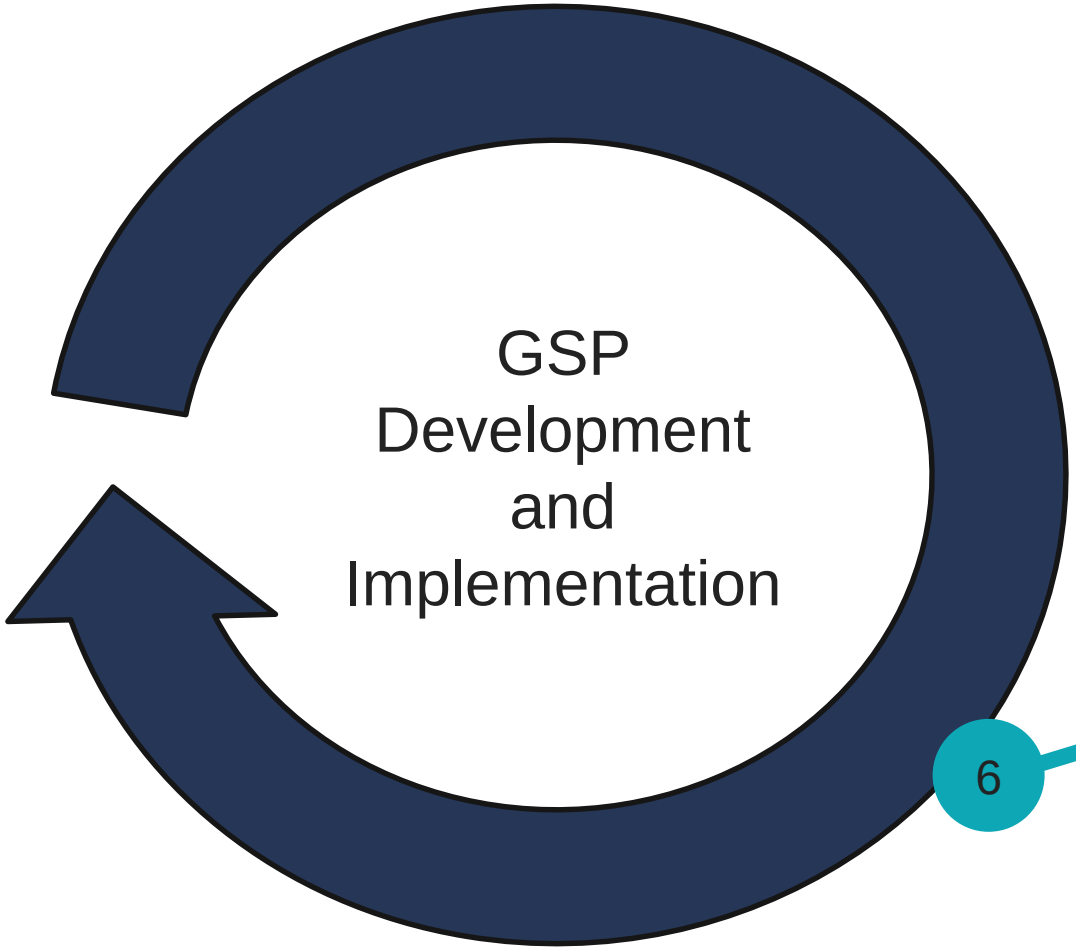

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Identify Projects and Management Actions

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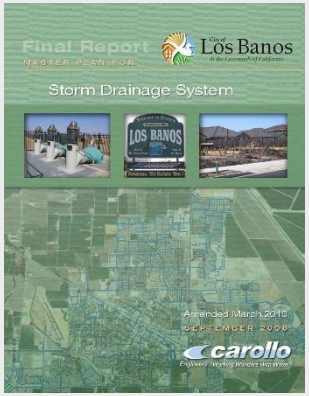
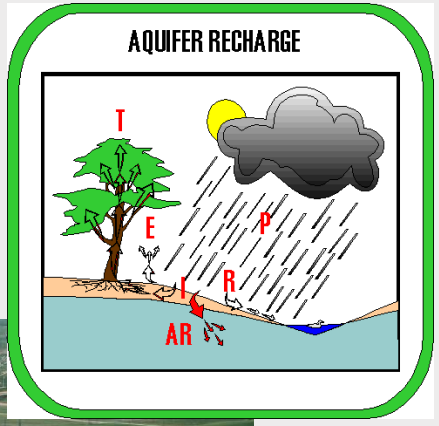
Step 6: Identify Projects and Management Actions

Projects = Things you can construct

Management Actions = Plans, permits, policies, or other actions





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Examples of Projects and Management Actions in the Delta-Mendota Subbasin

Projects	Management Actions
Direct and indirect groundwater recharge	Revising pumping regimes
Stormwater capture and reuse	Revising existing or implementing new pumping rules
Drainwater capture and reuse	Rotational fallowing of crop lands
Recycled water use	Drought contingency planning
Recapture and recirculation	Maximizing use of surface water and other ‘alternatives’ supplies
Surface water storage	Incentivizing use of surface water and reduction of groundwater demand
	Developing groundwater extraction reporting system
	Limiting groundwater pumping for credit by transferring outside a specified management area

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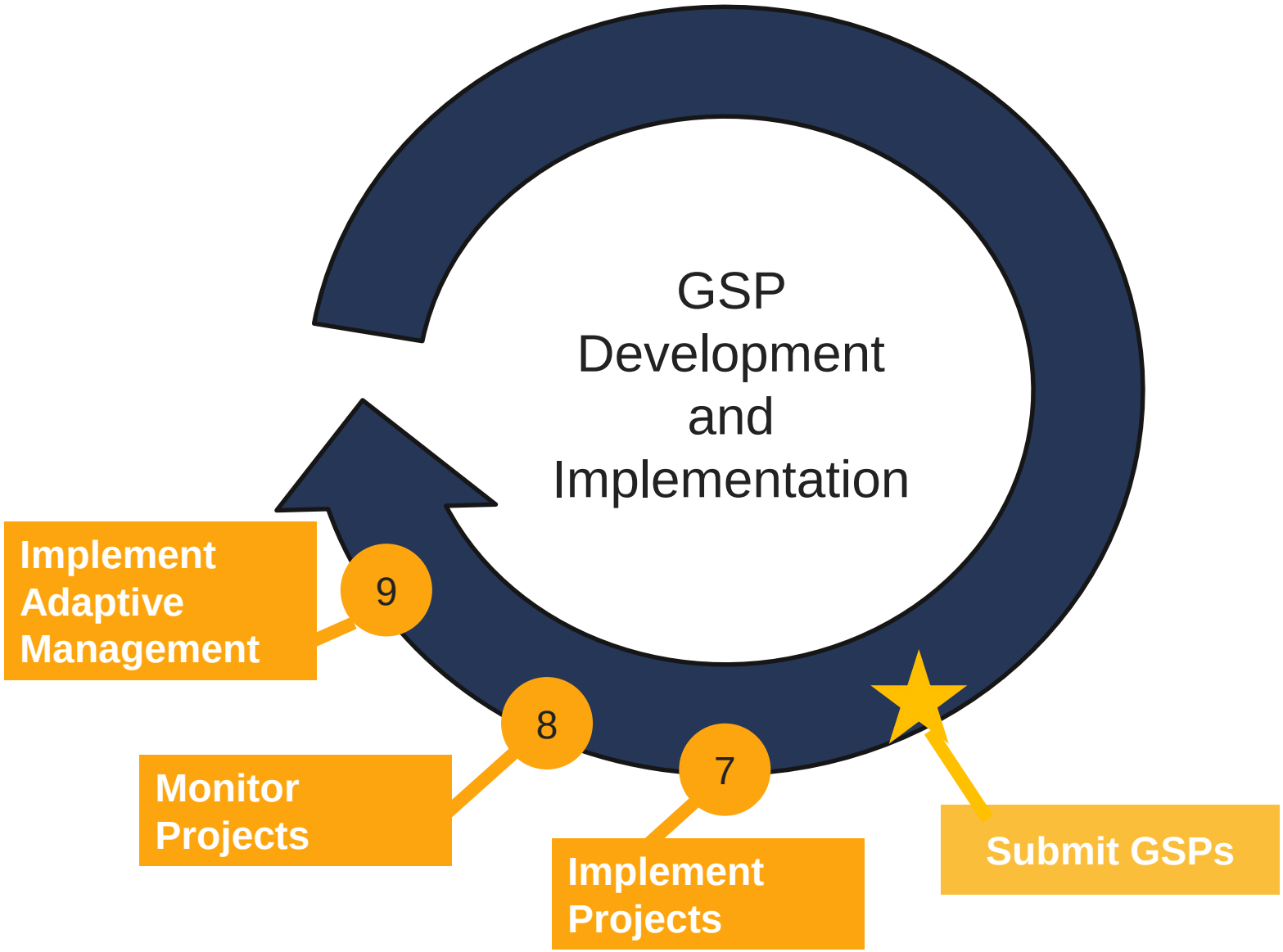

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Monitoring is like a "check-up" for the groundwater basin. It gives us data to assess the "health" of the basin.

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We will be monitoring for impacts to beneficial users, including…

- Groundwater extraction volumes
- Surface water-groundwater interactions
- Shallow wells
- Stage data (water levels in rivers)
- Groundwater dependent ecosystems
- Upper and lower aquifer groundwater levels
- Upper and lower aquifer groundwater quality
- Subsidence
- Evapotranspiration

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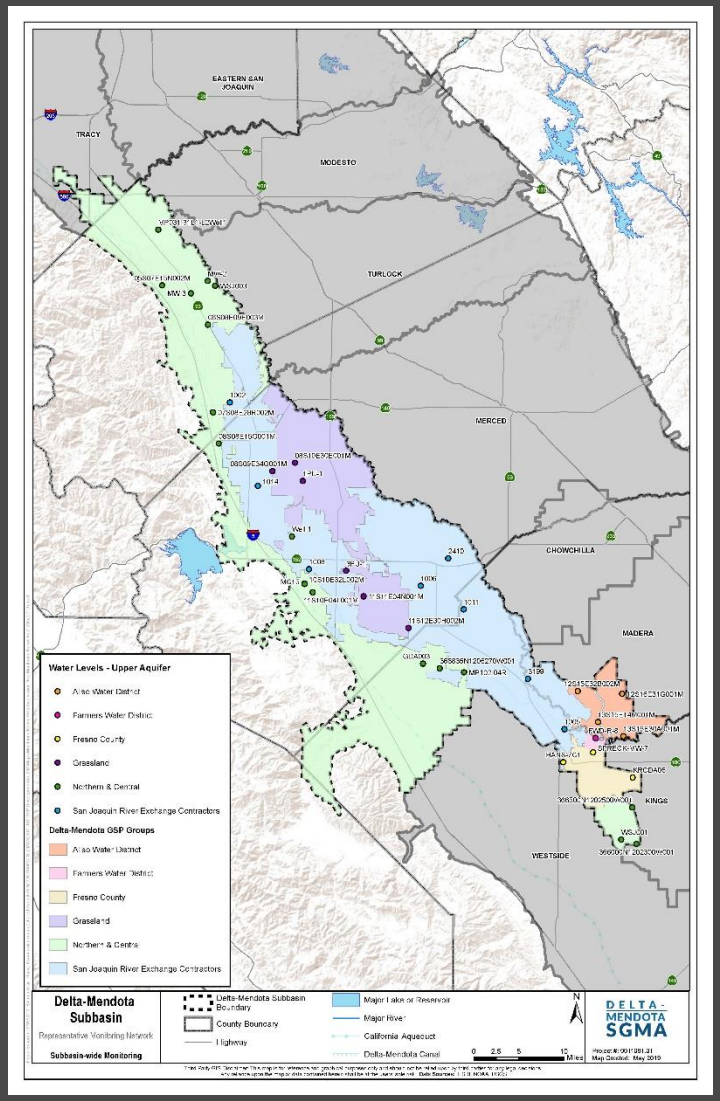
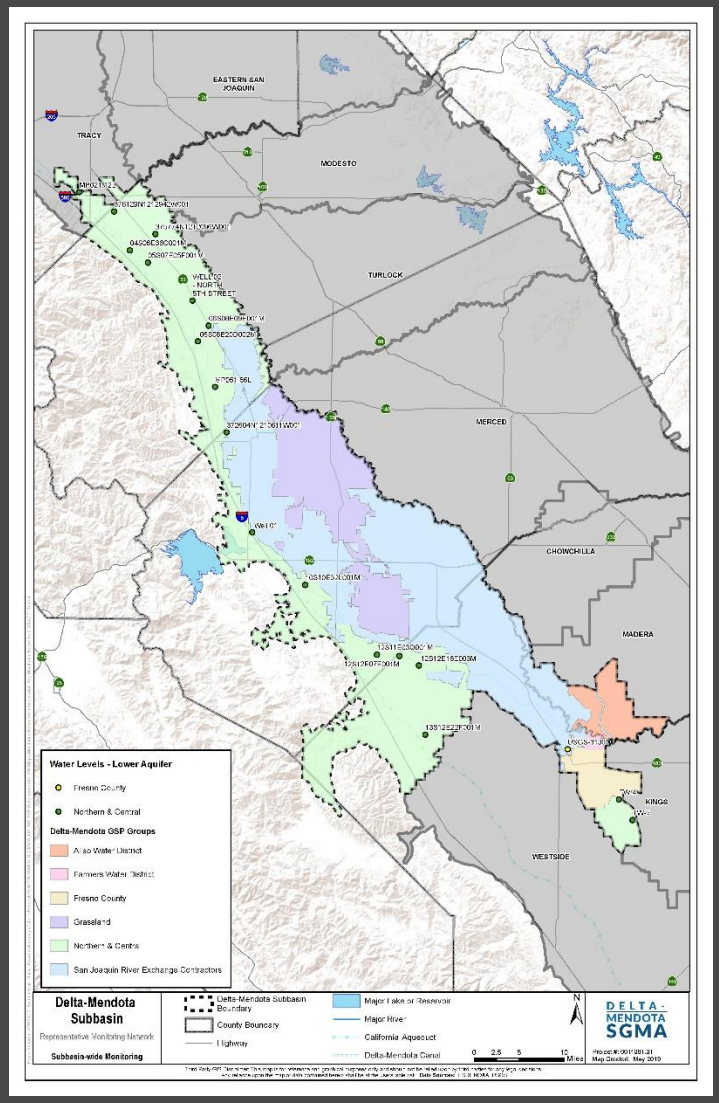
Delta-Mendota Monitoring Network Maps



Upper Aquifer Water Level Monitoring Network



Lower Aquifer Water Level Monitoring Network

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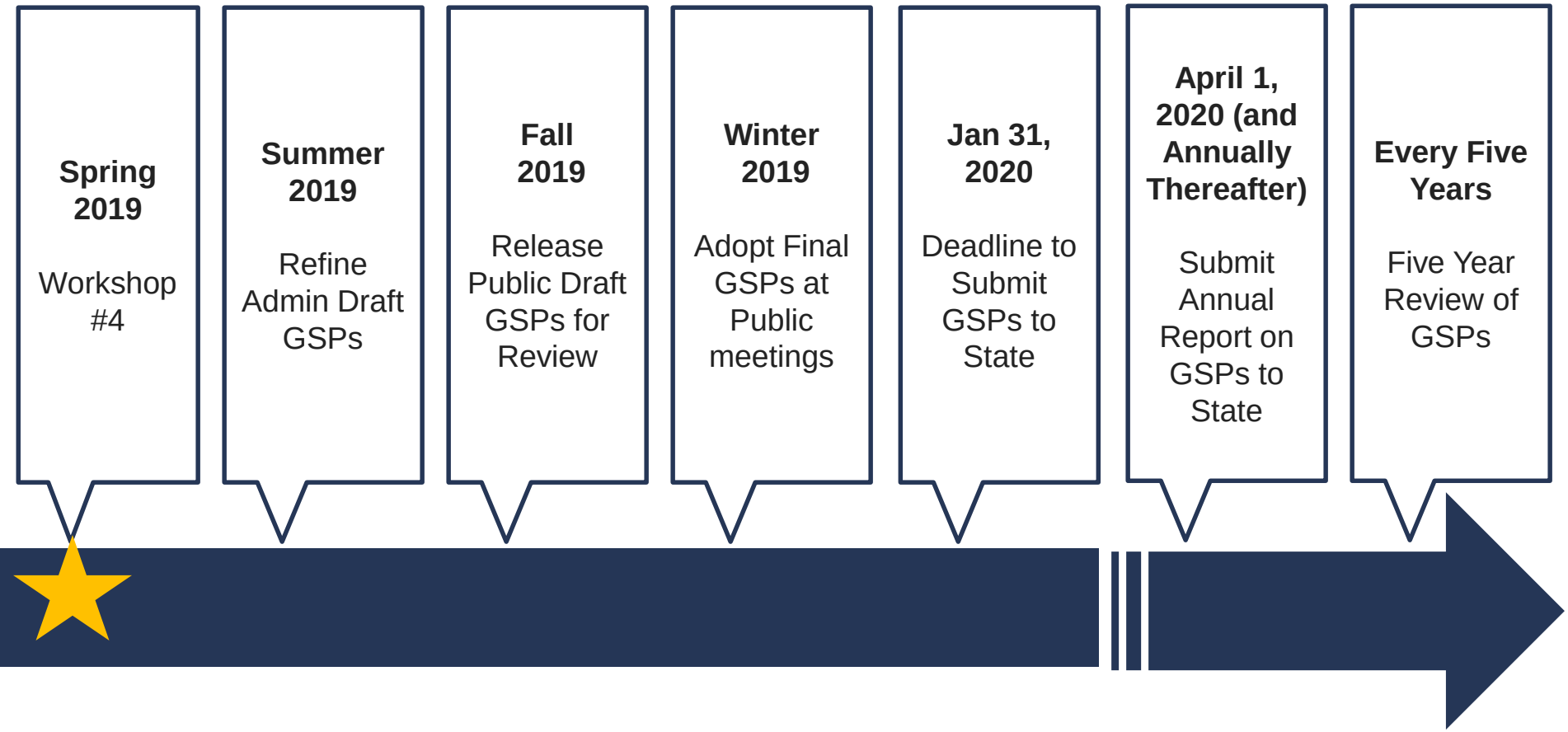
What's Next?

Our Timeline



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Get Involved

Talk to your local groundwater sustainability agency representative

Sign-up for your local groundwater sustainability agency's email list

Attend meetings and workshops

Provide input on groundwater sustainability plan development

Help us spread the word!

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Attend Public Meetings and Workshops

Delta-Mendota Subbasin Coordination Committee: 2nd Monday of each month, 9:30 AM – 12:00 PM

Delta-Mendota Technical Working Group, 3rd Tuesday of each month, 10:00 AM – 12:00 PM

Delta-Mendota Communications Working Group: 4th Tuesday of each month, 1:00 – 3:00 PM

All in-person meetings located at the San Luis & Delta-Mendota Water Authority's office at: 842 6th Street, Los Banos, CA 93635

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For more information on groundwater sustainability plan development and a full calendar of public meetings, visit our website at:

DeltaMendota.org

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Questions?

Breakout Session

Appendix Slides

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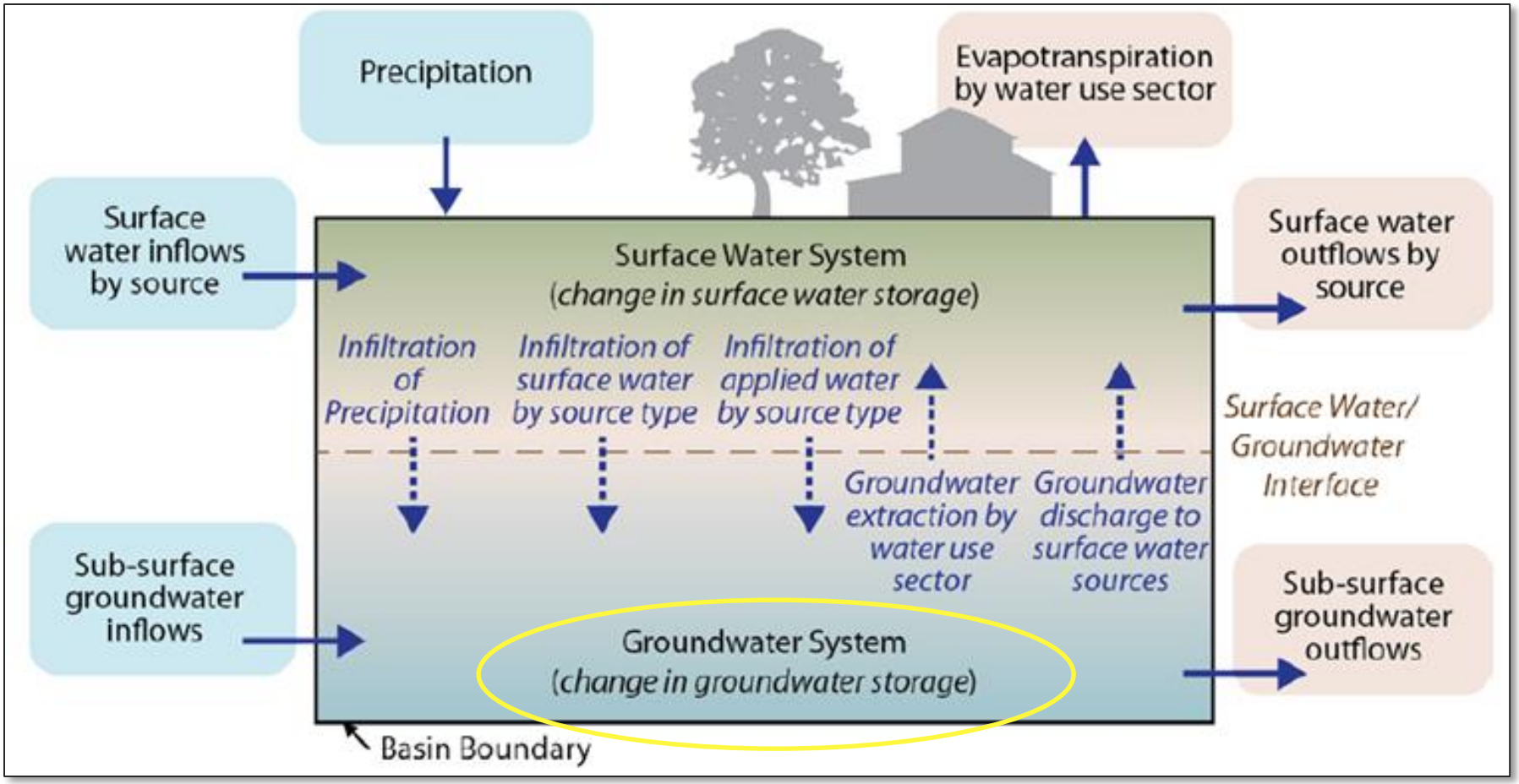

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SGMA GSP Requirements

- Establish sustainability goals
- Define “significant and unreasonable” and criteria for undesirable results
- Develop sustainability goal, minimum thresholds and measurable objectives
- Develop plan for meeting sustainability goal
- Implement plan
- Monitor progress
- Engage stakeholders throughout process

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