Solano Subbasin

Sustainable Groundwater Management Act

Public Input Meeting Slides

Facilitated by

ag INNOVATIONS
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Meeting Goals

1. **Provide information and updates** about SGMA and the local implementation process

2. **Collect public input** on upcoming questions of concern for SGMA implementation.

Agenda Overview

Look for these green boxes for additional presentation notes for each slide throughout the slide deck

1. **Welcome & Overview**

2. **Overview of SGMA Law & State-level Updates**
   - Department of Water Resources Staff

3. **Solano Subbasin SGMA Process Updates**
   - Brooking Gatewood, Ag Innovations
   - **Q&A to follow**

     → DWR & agency staff on hand for technical questions

4. **Public Input:** Incentivizing Good Groundwater Management

5. **Closing Reflections**

Basics of SGMA: Requirements & Deadlines

Hong Lin, Mark Nordberg

Sustainable Groundwater Management Program

California Department of Water Resources

What is SGMA?

SGMA established robust framework for the sustainable management of groundwater resources for the first time in CA's history

Enacted in September 2014, and implementation began January 1, 2015

Requires groundwater sustainability plans in medium and high priority basins

Recognizes that management is most effective when done at the local level by local agencies with adequate info, tools, etc.

Creates state "backstop"

Defines timeframe for accomplishing goals

Source: DWR

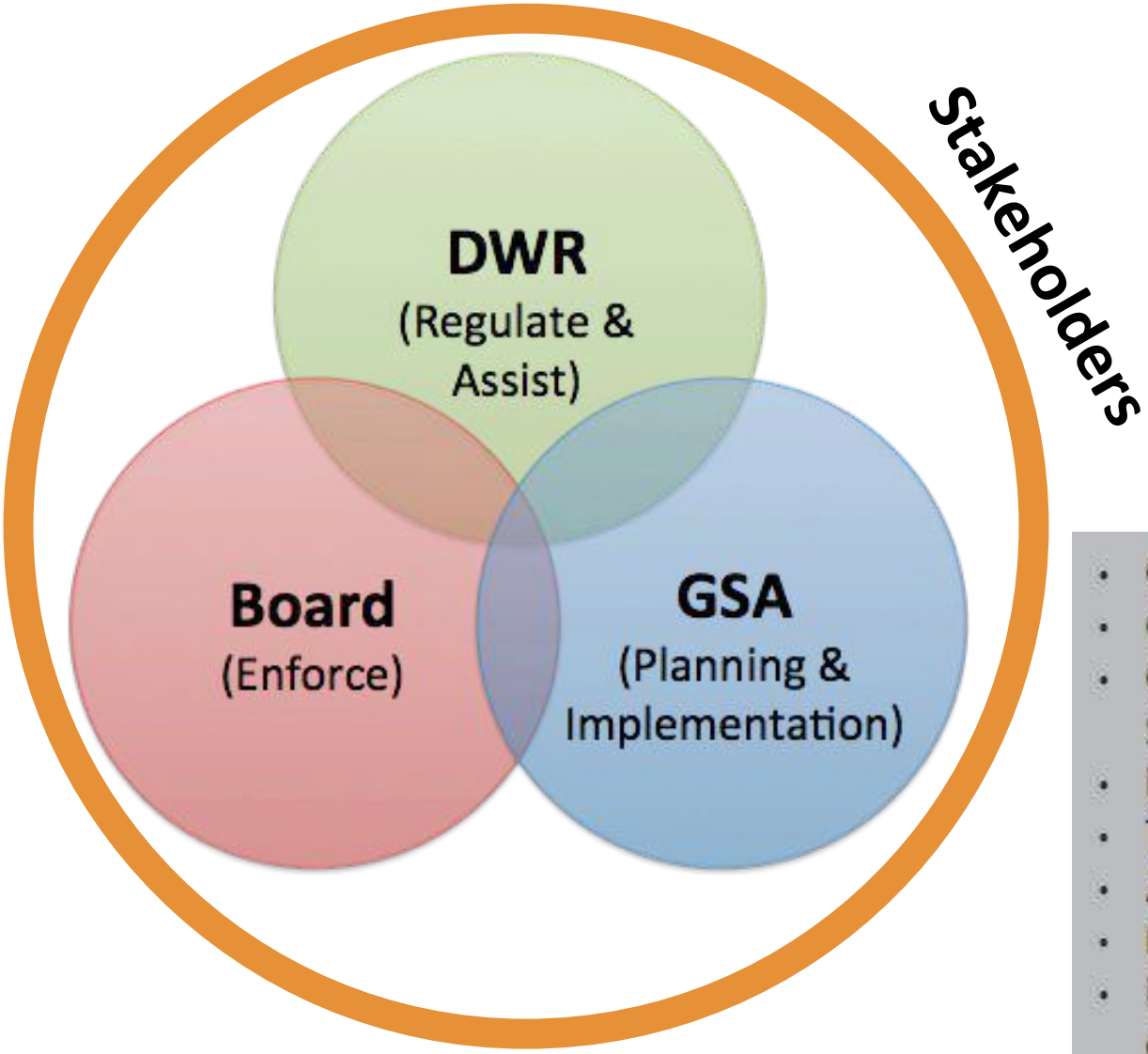
Key SGMA requirements

1. SGMA requires local agencies to form a **Groundwater Sustainability Agency (GSA)** by June 30, 2017.

2. GSAs are tasked with developing and implementing a **Groundwater Sustainability Plan (GSP)** by January 31, 2022, for basins that are not critically overdrafted basins, to guide the sustainable management of its groundwater basin.

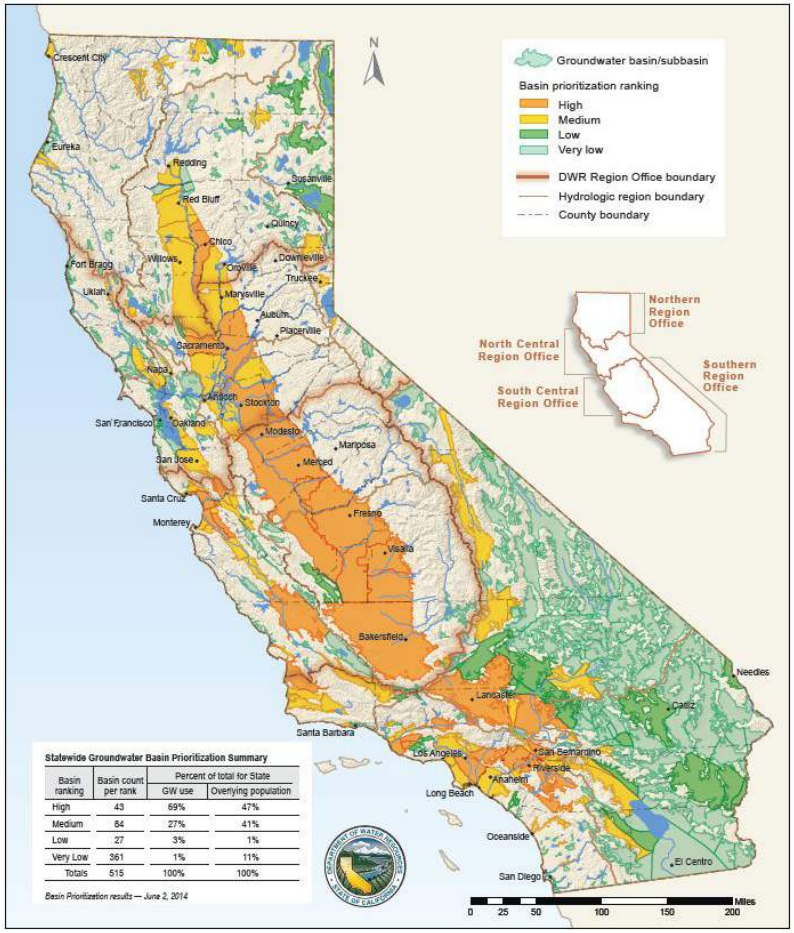
3. SGMA requires that those basins **achieve sustainability** 20 years after plan adoption and prevent undesirable results.

General roles & responsibilities



- Citizens Groups and General Public
- Governmental and Land Use Agencies
- Commercial and Industrial Self-Supplied
- Private and Public Water Purveyors
- Tribal Governments and Communities
- Agricultural and Aquiculture Interests
- Environmental and Ecosystem Interests
- Remediation and Groundwater Cleanup

Priority basins



Groundwater basins/subbasins defined in DWR Bulletin 118 according to best available data.

DWR ranked gw basin importance by considering a 8 factors, including: population and population growth, irrigated acreage, and supply well distribution.

127 of 517* alluvial gw basins and subbasins are medium and high priority, so are required to implement SGMA.

What's a Groundwater Sustainability Agency (GSA)?

Any local agency or combination of local agencies overlying a groundwater basin can elect to be a GSA.

Local agency = local public agency having water supply, water management, or land use responsibilities within a basin.

Multiple local agencies may form a GSA through a joint powers agreement (JPA), or a memorandum of agreement (MOA).

Non-agency parties:

A water corporation regulated by PUC or a mutual water company may participate in a GSA through MOA, etc.

Others can be incorporated into the decision-making process for the GSA, or may wish to form a new GSA-eligible agency.

What does a GSA do?

Coordination: Regardless of the governance model that is chosen, the GSA will need to coordinate with other agencies in its basin and its neighboring basins.

Public outreach & stakeholder engagement: GSA is required to maintain a list of interested stakeholders, and engage them during GSP development/implementation.

GSP development: Priority basins required to develop/implement GSP(s). If multiple GSPs are developed for same basin, a coordination agreement will be required.

Monitoring & reporting: Additional monitoring of gw levels, water quality, or subsidence will likely be needed to track progress toward meeting GSP sustainability objectives.

GSP implementation: The GSP will be actionable through new authorities and tools intended to achieve groundwater sustainability in a basin within the SGMA timeline.

Enforcement: A GSA will need to enforce the provisions adopted in its GSP, which may include payment of fees, reporting on gw use, or restrictions on gw pumping.

What is a Management Area?

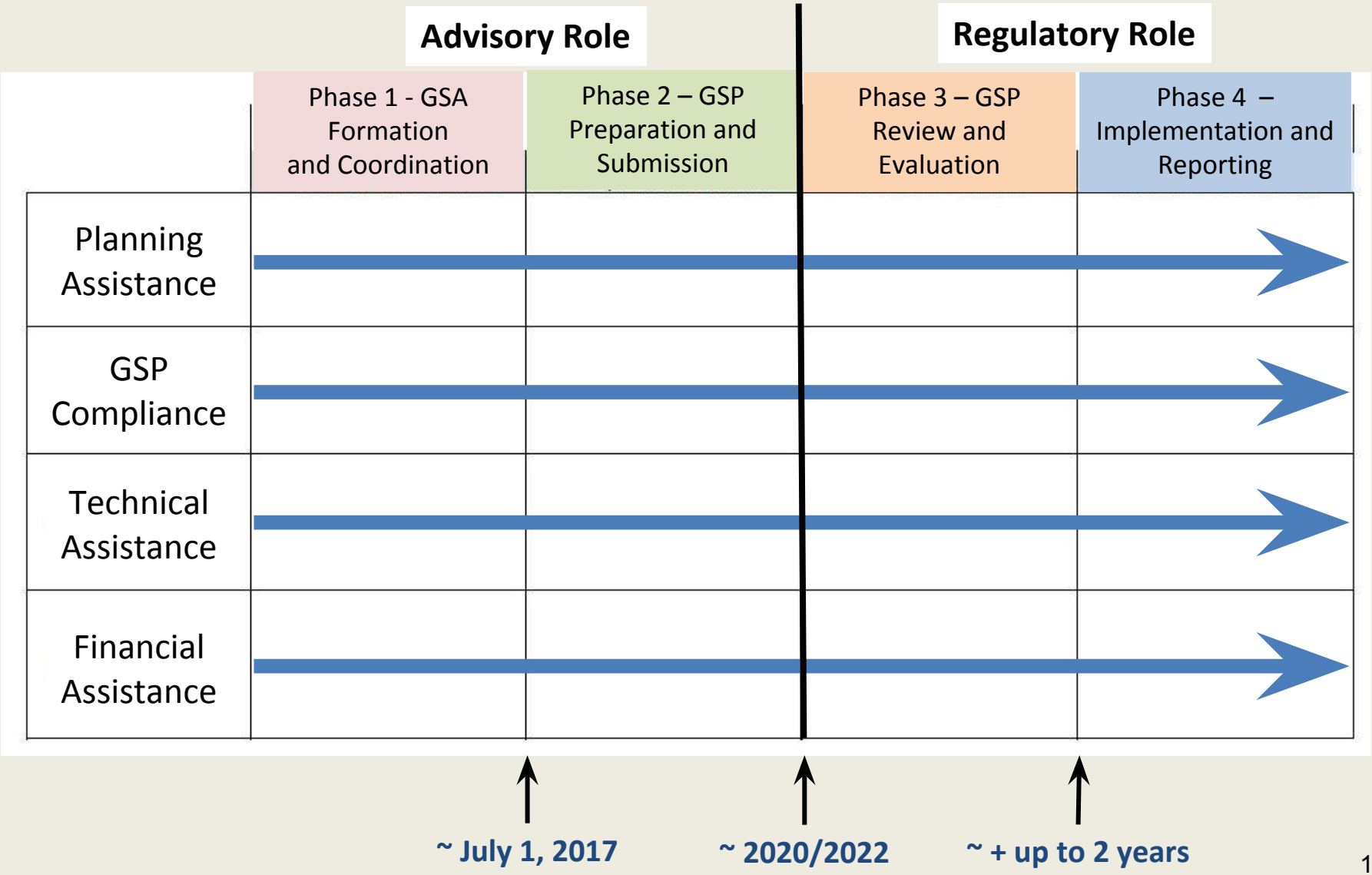
Refers to an area within a basin for which the Groundwater Sustainability Plan (GSP) may identify different minimum thresholds, measurable objectives, monitoring, or projects and management actions based on differences in water use sector, water source type, geology, aquifer characteristics, or other factors.

Each GSA may define one or more management areas within a basin if the GSA has determined that creation of management areas will facilitate implementation of the GSP.

http://www.water.ca.gov/groundwater/sgm/gsp.cfm

Based on input from the public and local advisory groups, Solano Subbasin submitted input in favor of the management area approach that helped shape this section of the draft GSP regulations. SGMA really offers opportunities for local input to shape the law!

DWR's Future SGMA Engagement



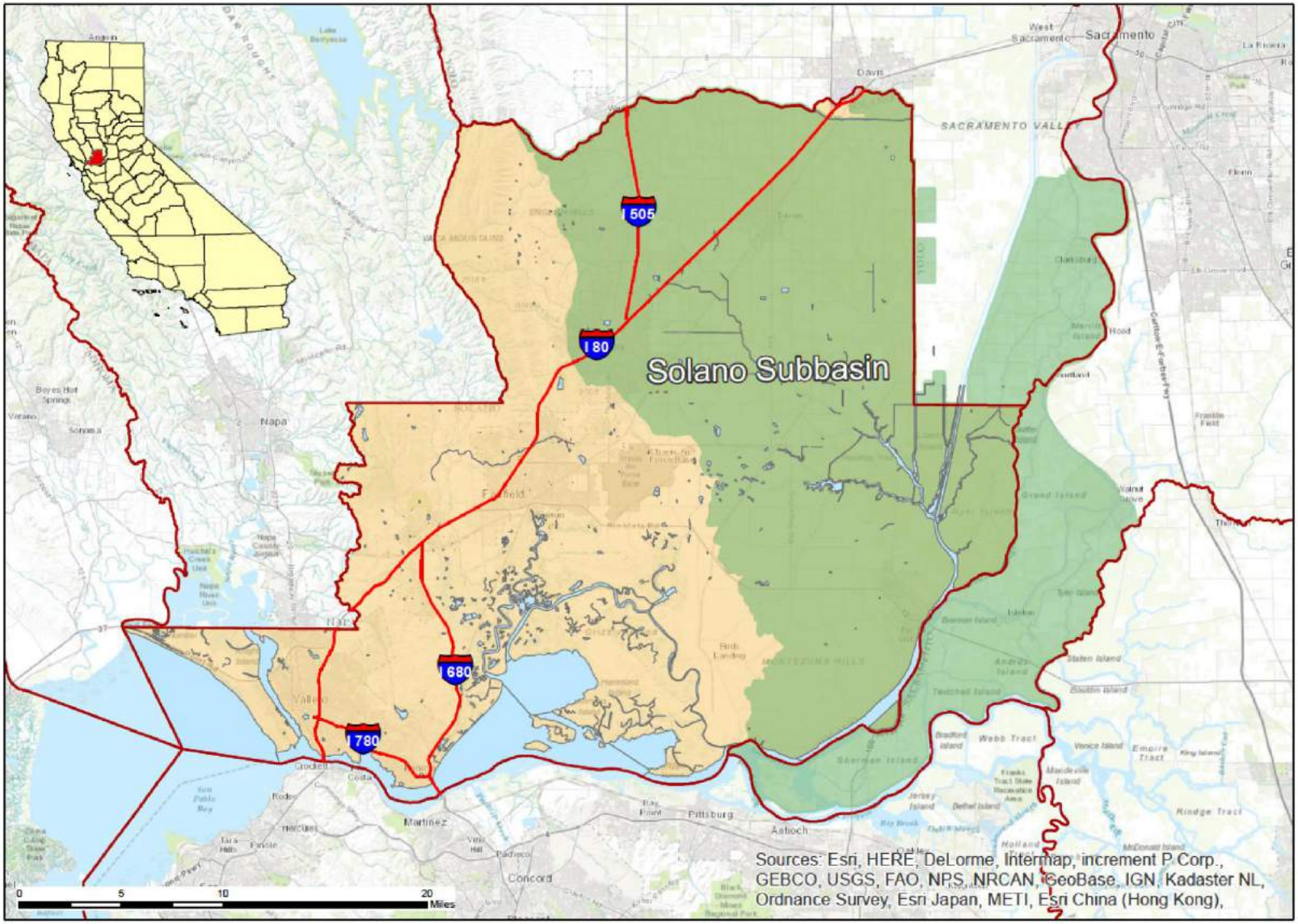
What's Happening in the Solano Subbasin?

Brooking Gatewood

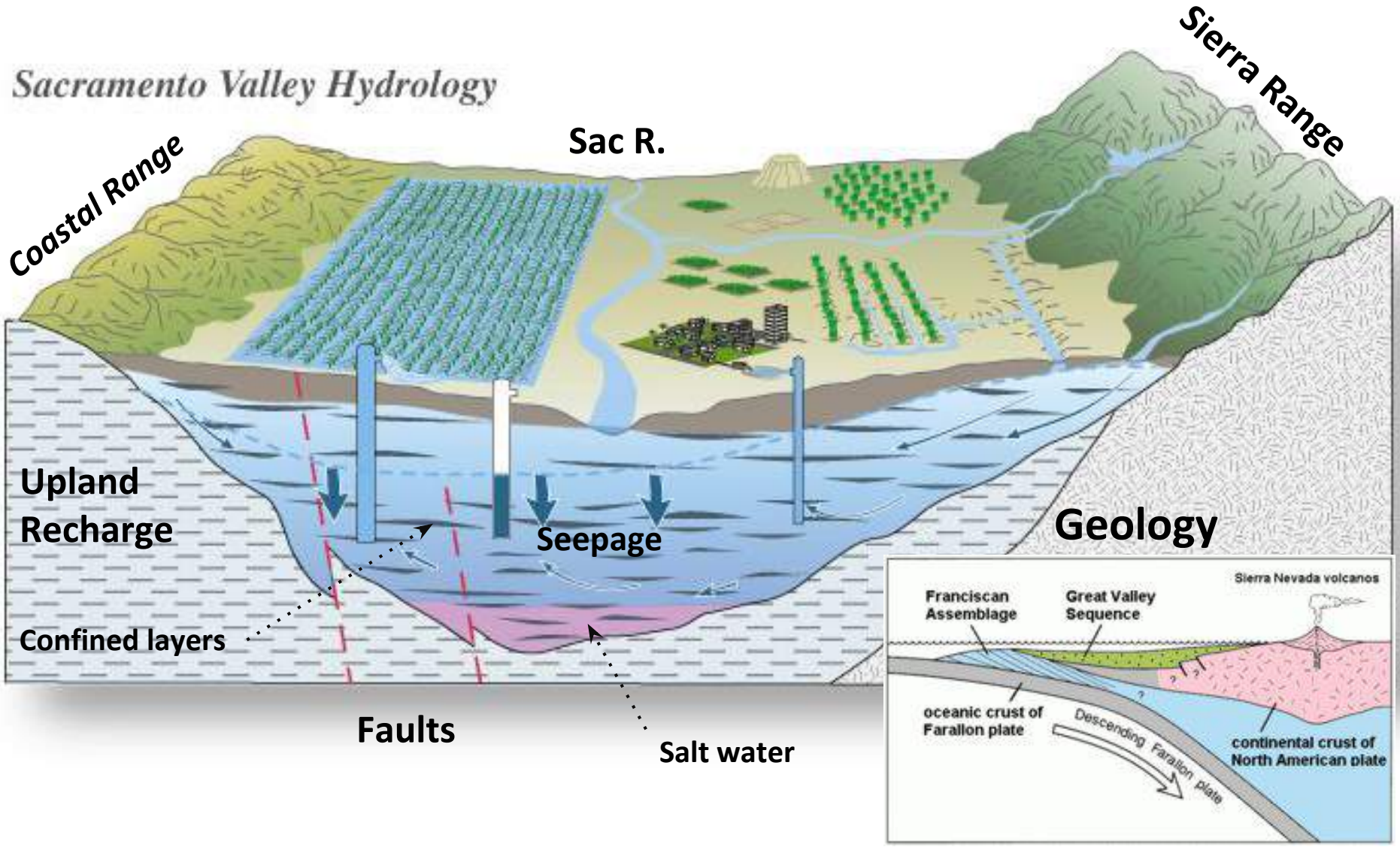
Solano Subbasin
Facilitation support services lead

ag INNOVATIONS
collaboration with impact

Solano Subbasin - medium priority



Sacramento Valley Groundwater Basin



Solano County Water Sources

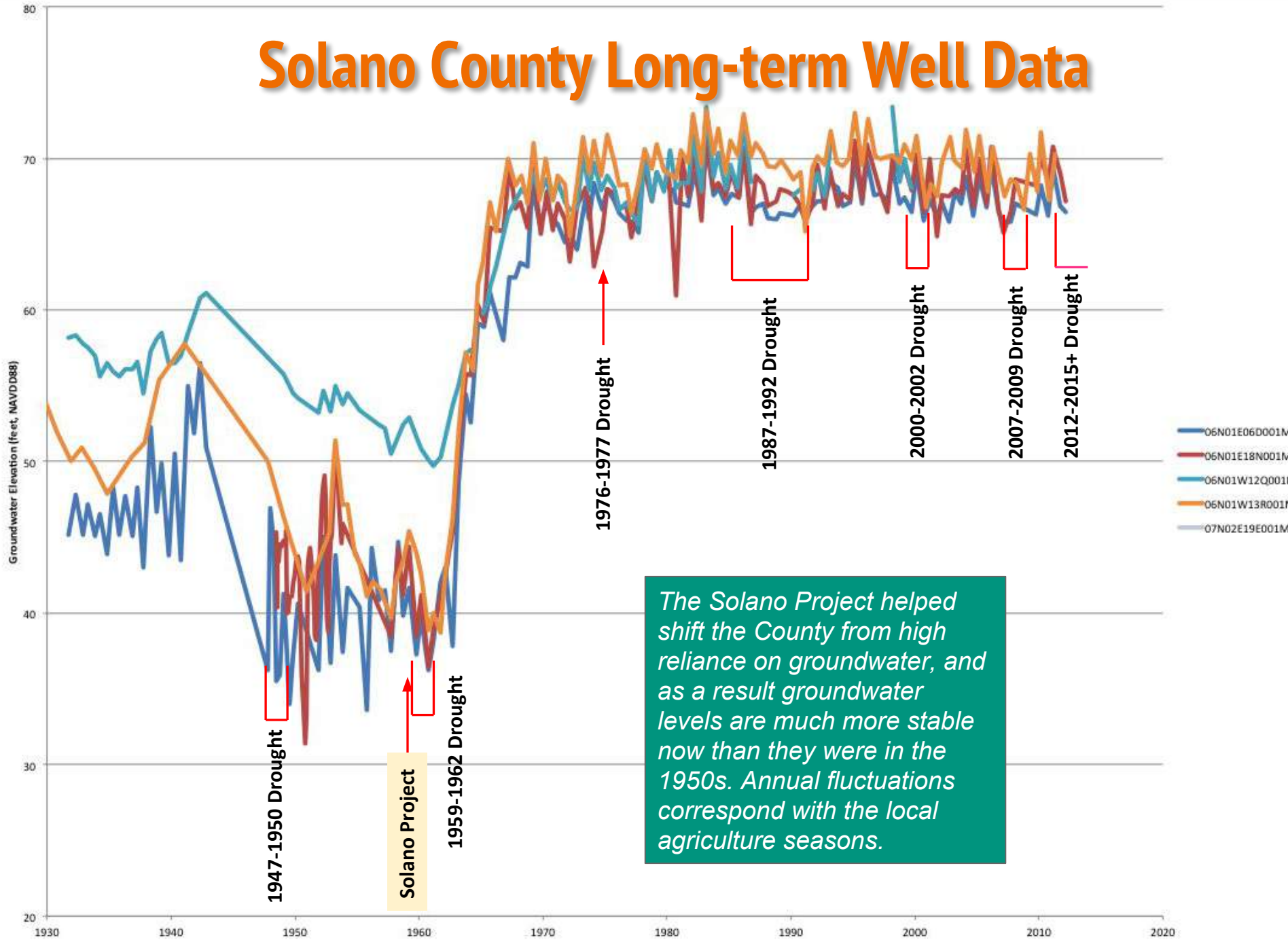
North Bay Aqueduct (State Water Project)

Solano Project (Lake Berryessa)

Groundwater

About 10% of agency-tracked water use is currently from groundwater, though many area wells are not monitored, so the total percentage is likely higher than this.

Solano County Long-term Well Data



The Solano Project helped shift the County from high reliance on groundwater, and as a result groundwater levels are much more stable now than they were in the 1950s. Annual fluctuations correspond with the local agriculture seasons.

Undesirable Groundwater Results *as Defined by SGMA*

- Chronic lowering of groundwater levels
- Reduction of groundwater storage
- Degraded water quality
- Land subsidence that substantially interferes with surface land uses
- Sea water intrusion
- Depletions of surface water that have adverse impacts on beneficial uses of surface water

Solano Subbasin is medium priority less because of current groundwater level issues, and more because of the risks to the resource as population and agricultural water uses are likely to increase in the coming decades. Our subbasin has some problem areas, but largely the focus of SGMA locally will be ***to ensure continued sustainable use into the future.***

Two local, interrelated processes

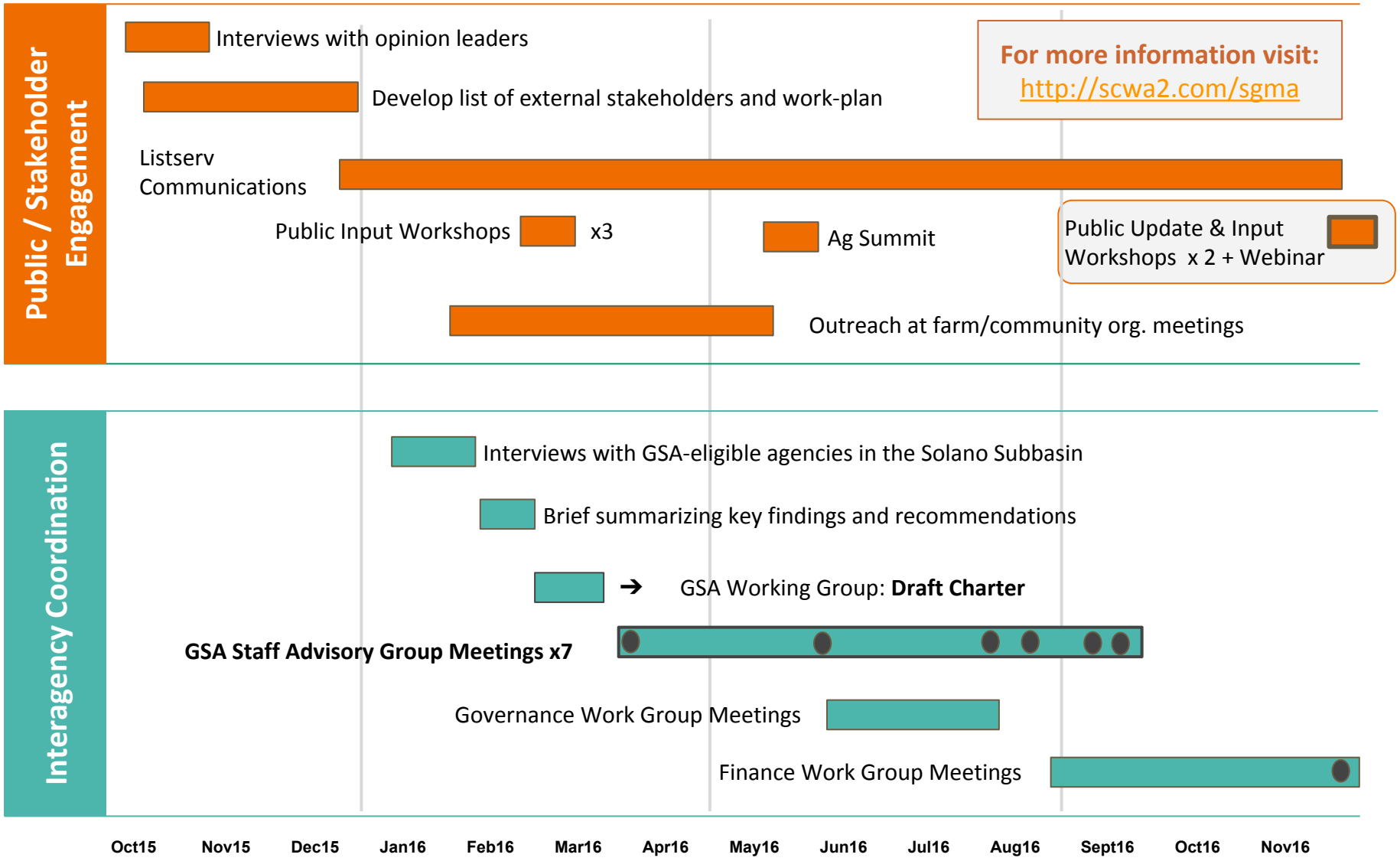
The formation of GSA(s) that have widespread support of the eligible agencies, groundwater users, and others requires two interrelated processes:

1. **Public stakeholder engagement:** The engagement of groundwater users and other stakeholders to ensure that their concerns and interests are included in the GSA formation process.

2. **Inter-agency coordination:** The convening of GSA-eligible agencies & landowner representatives to ID and implement an appropriate governance approach for the GSA.

DWR and SCWA are funding a facilitator (Ag Innovations) to support these activities in the Solano Subbasin.

Solano SGMA Work to Date Review



Public stakeholder engagement OVERVIEW

- **Outreach to organizations:** Meetings with Solano Co. Farm Bureau, Solano RCD, Solano Co. Ag Advisory Committee, North Delta Water Agency, Reclamation District 2068
- **Website & listserv:** Maintaining a local SGMA resource website and sending important updates through listserv (**http://scwa2.com/sgma**)
- **Public workshops**
  (advertised via postcards, newspaper ads, and listserv)
  - Feb/March 2016 x 3
  - Ag Summit in late May 2016
  - December 2016 x 3
- **Direct Landowner/Farmer representation on GSA Advisory Group *& GSA Board*** *(assuming recommendations go forward)*

GSA Staff Advisory Group (GSAG) Participants

Sac County (**Darrell Eck**)

Solano County (**Misty Kaltreider**)

Yolo County/ YCFCWD (**Tim O'Halloran**)

City of Fairfield/Travis AFB (**Felix Riesenberg)**

City of Dixon (**Joe Leach**)

City of Rio Vista (**Dave Melilli**)

City of Vacaville (**Royce Cunningham**)

California Water Service (**Jack Caldwell**)

Maine Prairie WD (**Don Holdner /** alt. Ryan Mahoney)

Rural N. Vacaville WD (**Gordon Stankowski**)

Solano County Water Agency (**Chris Lee**)

Solano Irrigation District (**Cary Keaton**)

N. Delta Water Agency (**Melinda Terry**)

RD 2068 (**Mike Hardesty**)

Dixon RCD (**John Currey**)

Solano RCD (**Chris Rose**)

Northern Delta GSA (**Erik Ringelberg**)

SC Farm Bureau (**Derrick Lum**)

SC Ag Advisory Committee (**Russ Lester**)

The Advisory Group includes farm-owners (dark orange) and indirect ag reps (light orange)

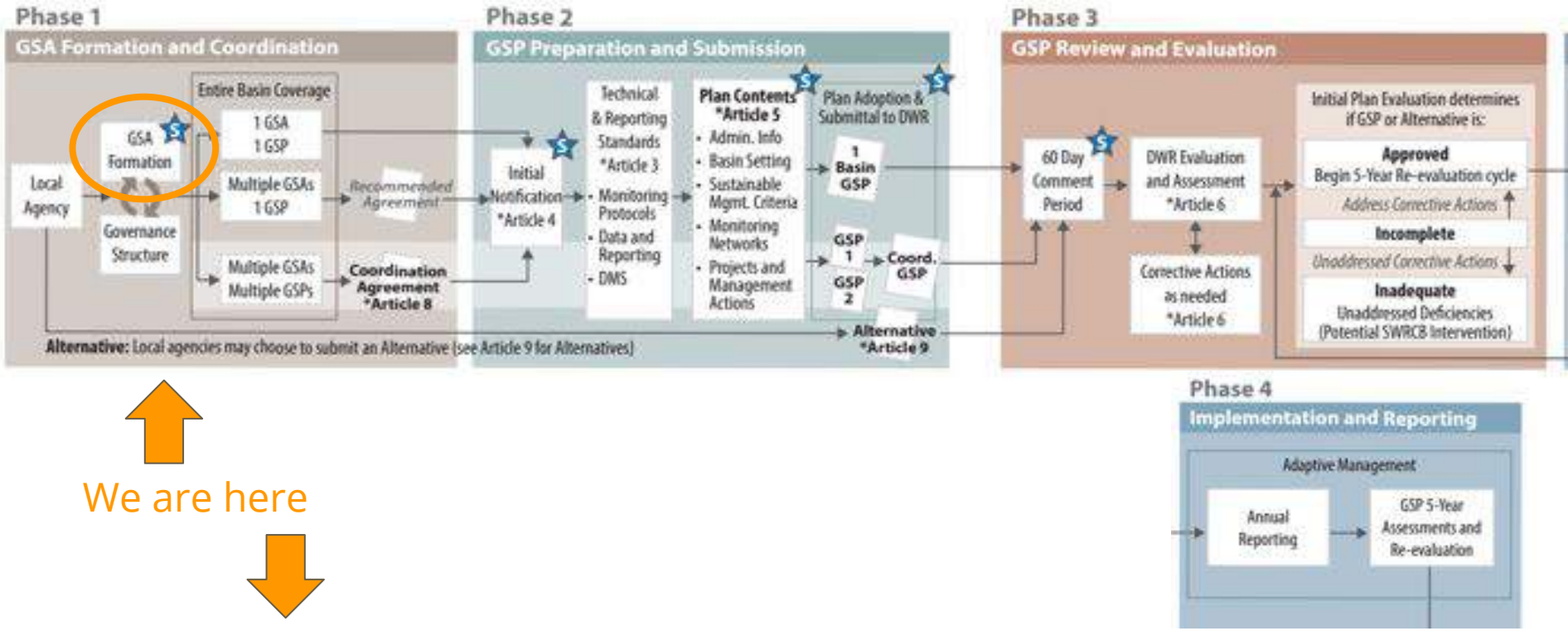
Additional RD reps invited have included:
Pat Markum (RD 765),
Kekrick Jameson (RD 900),
Juan Mercado (RD 1601),
Tom Schene (RD 2098),
Ken Machado (RD 2104)

SNAPSHOT: How Your Input Is Being Used

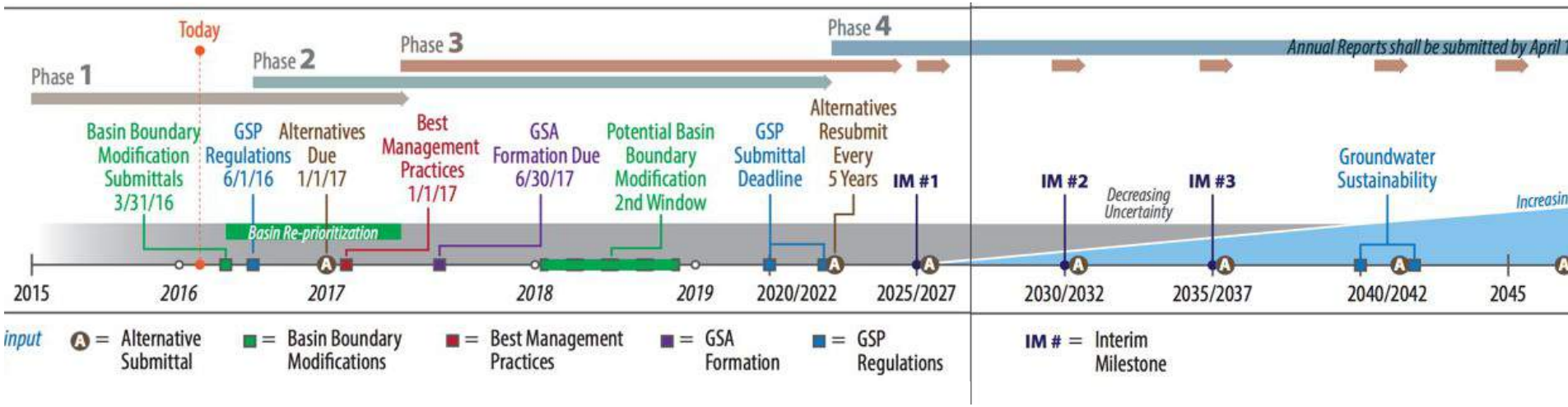
Event	#	Input solicited	How it's being used
Three Public Input Workshops in February and March 2017 Vacaville, Rio Vista, Davis	145	**1. What are your concerns** **2. How, when, and how do you want to be involved?** **3. What are the local groundwater conditions in your area?**	**1. Led to Ag reps on GSA Advisory groups** **2. Designing public engagement strategy** **3. Will help technical staff prioritize areas for monitoring and research**
Ag Summit	85	1. Did we get your concerns right? **2. What guiding principles could ensure fair ag representation?** **3. How can ag be represented in the GSA?**	→ Informed GSA governance and principles development: 2 dedicated ag reps as part of the recommended board structure, in addition to 2 RCD seats, 2 county seats, and an RD 2068 seat. *(More on next slides)*
Three Public Input Workshops in December 2016 Vacaville, Rio Vista, *online*	95	**1. What are the ways that landowners are currently managing groundwater well that we might learn from, expand, and incentivize?**	*This input will help inform upcoming GSP development discussions on ways to minimize end-users costs and encourage positive management practices in the subbasin.* *(More later tonight)*

The Work Ahead: Long View

= Stakeholder input opportunity



We are here



Concerns raised in early Public Input Meetings

GSA Formation Concerns	GSP Development Concerns
As the largest user of groundwater in the Solano Subbasin, the ag community wants **fair representation** in the GSA.	**New fee structures** are of concern, and answers are unclear.
The question of **who can represent ag** on the GSA	**Well monitoring/metering:** local agencies will need to measure and somehow monitor groundwater sustainability for SGMA.
Ensuring **local control** (not state) is important.	**Deep well drilling** that impacts neighbors' groundwater is of concern.
Non-affected local public agencies should not be part of the GSA governing board.	**Varying groundwater conditions** mean one-size-fits-all management won't work.
	How does this **connect with the Irrigated Lands Program?**

GSA Staff Advisory Group (GSAG) OVERVIEW

- Formed at the direction of the Solano County Water Agency Board
  - Invitation-based, ad hoc **Advisory** Group - *not* the GSA Board
  - Composed of GSA-eligible agency staff representatives, a*nd* representatives from agriculture stakeholder groups *(Farm Bureau & Solano County Ag Advisory Committee, + RCDs)*
- Have developed recommendations for the governance structure of a GSA(s) for the Solano portion of the Solano Subbasin
  - Public input and Ag Summit have informed recommendations
  - Recommendations are currently being reviewed and vetted by member groups' boards
    - → *GSA Board convening in early 2017*
- Legal documentation for a Joint Powers Authority GSA is in progress to establish GSA board by deadline.

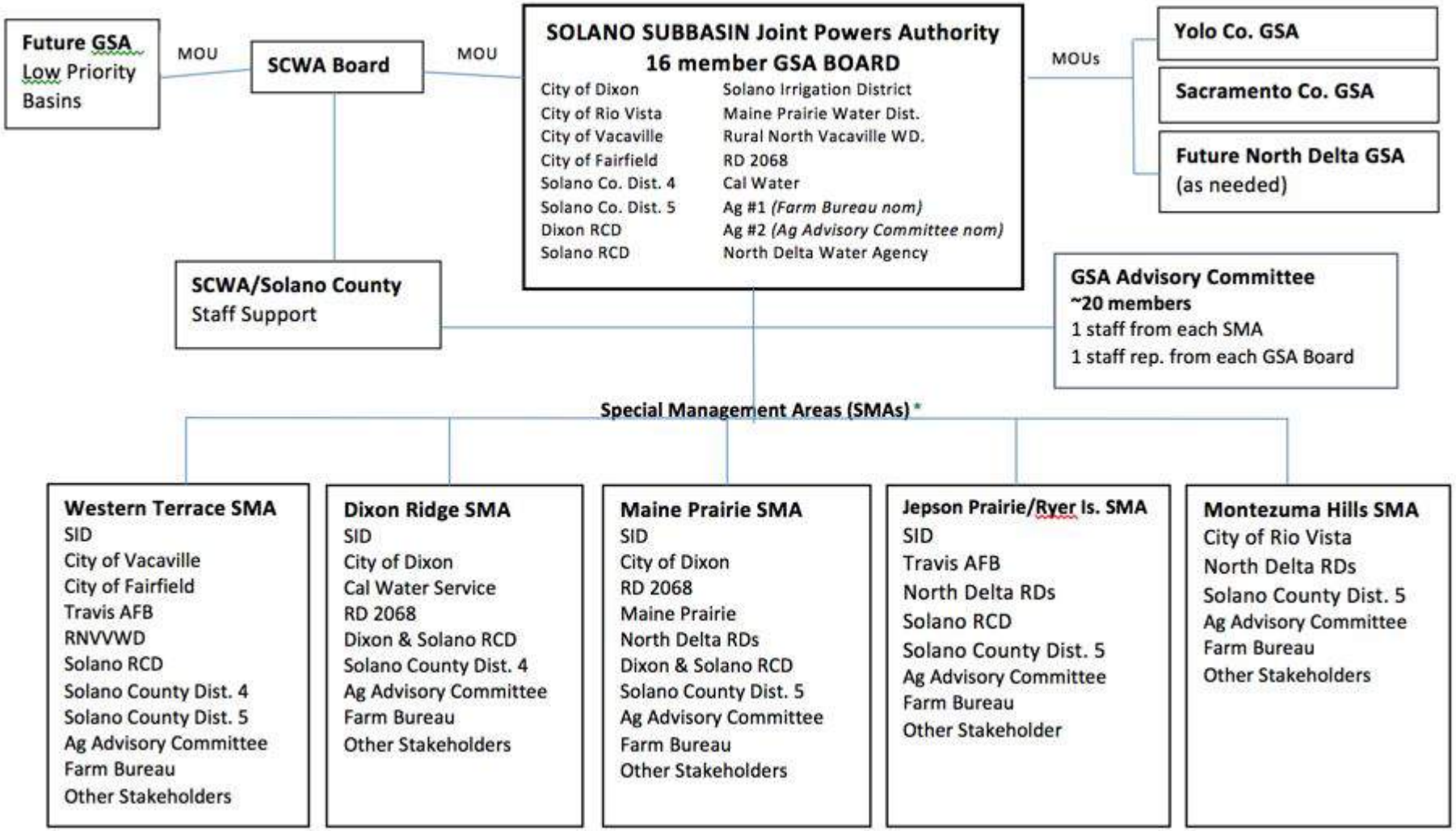
GSA Recommendations OVERVIEW

- **Recommending 1 Solano County-based GSA with**
  - A **Joint Powers Authority** legal structure
  - **MOUs with neighboring Subbasin authorities**
  - **Special Management Areas** for implementation
  - **A Technical Advisory Group**

- **A 16 Member Board** with dedicated Ag Seats
  - Supermajority voting for key decisions (Details on voting structure to be decided by GSA Board)

- **12+ GSA & GSP planning principles**
  - based on public input & staff recommendations

Full *Recommended* **GSA Governance Structure**



**SMA number & make-up not final, this shows one possible configuration.*

Recommended **GSA Board Structure** (16 seats)

Counties	Cities	Water Agencies	Other Agencies
~~Sacramento Co.~~	**City of Dixon**	**Maine Prairie Water District**	Northern Delta GSA* (Represents Delta RDs)
Solano Co. Sups (x2)	**City of Fairfield**	**North Delta Water Agency***	**Dixon Resource Conservation District**
~~Yolo Co.~~	**City of Rio Vista**	**Rural North Vacaville WD**	**Solano Resource Conservation District**
	City of Vacaville	**Solano Irrigation District**	***California Water Service****
		*Solano County Water Agency***	
		~~Sacramento County Water Agency~~	
		~~Yolo Co. Flood Control And Water Conservation District~~	
		Reclamation District 2068	

+ 2 Ag Seats Nominated by:

- Ag Advisory Committee
- Solano County Farm Bureau

(active farmers/gw users in Subbasin)

* will share a seat as NDGSA is not yet formed
** non-voting, admin role
*** Local water corporations can participate by MOU/invite.

One possible **Special Management Area** Approach

Based onthe ag areas in the Solano County General Plan.

Also similar to the five recharge regions captured By a UC Davis study on groundwater recharge.

3&4 SMA models also under consideration for admin cost-saving benefits

Public Input into GSA Principles Development

AG SUMMIT PRINCIPLES THEMES:

- ❑ Consider sustainability and longevity of our local groundwater resource
- ❑ Keep it transparent and simple
- ❑ Ensure fair access to technical knowledge for sound decision-making
- ❑ Prioritize local governance and control
- ❑ Recognize variance in local conditions
- ❑ Proportional and fair representation
- ❑ GSA should not have financial conflict of interest
- ❑ Value ag's role in the local economy

FINAL PRINCIPLES THEMES:

1. (Summary principle)
2. Water use and rights protection
3. Protect property owners' access w/in sustainable yield
4. Collaboration
5. Shared technical knowledge
6. Fact-based decision-making
7. Aim for minimal required response
8. Manage close to use (use SMAs)
9. Coordination with other laws / water mgmt efforts
10. Fair cost sharing
11. Maximizing recharge *(also, 13, draft)*
12. Minimize adverse economic impacts

Ag Summit principles were combined with agency considerations and examples from other areas around the state to create these final 12 agreed-upon draft principles. A 13th principle re: details of recharge agreements is being negotiated and so is listed in draft form. Wording may be refined in JPA development.

Draft Principles, in detail, part 1

The principles are meant to assist GSA member agencies and other stakeholders to engage in a transparent and effective discussion regarding expectations for GSA operations and coordination within the basin for the GSA Board's JPA development, GSP development, and ongoing GSA governance.

1. Seven cardinal principles guide the formation of our GSA:
   a. Compliance with the requirements of SGMA and subsequent law and regulations
   b. Protection of groundwater resources in the Subbasin
   c. Protection of existing reasonable and beneficial water uses
   d. Protection of existing legal rights to groundwater
   e. Assurance of full and fair representation of all groundwater stakeholders in the GSA
   f. Respecting the value of local management of the distinct water regions in the County
   g. Respecting existing riparian and permitted surface water rights of landowners and agencies, and existing water purchase agreements
2. We recognize that SGMA specifically does not change rights to water (including the rights of surface water users to groundwater recharge that results from the application of surface water) and we are committed to both protecting rights and reasonable and beneficial current water uses in the implementation of SGMA.
3. Every property owner in the Subbasin has access to the sustainable yield of the groundwater aquifer beneath their property, subject to the Groundwater Sustainability Plan.
4. Our approach is explicitly collaborative. We believe the best results for the GSA will come when we engage all stakeholders in an effective process that finds solutions that respect the various interests in our community.
5. Technical knowledge and resources will be critical to the success of the GSA. We agree to open and transparent sharing of data and knowledge between GSA partners and stakeholders.
6. Fact-based decision-making is central to our efforts.

Draft Principles, in detail, part 2

7. We agree to address issues identified in the Subbasin starting with voluntary measures and only when those are documented to be insufficient to achieve sustainability, move on to the other powers granted to the GSA under SGMA and its subsequent laws and regulations.
8. The best solutions to managing groundwater come from those who are closest geographically to the unique hydrology of the Solano Subbasin and therefore we agree to create and support a GSA with multiple management areas.
9. We recognize that SGMA is just one of many efforts to better manage water resources in the Subbasin and we intend to find the potential synergies between all these efforts to both reduce costs and maximize benefits to maximize knowledge and opportunities.
10. Cost for the operation of the GSA, the development of the GSP, and for implementation of groundwater management projects will shared equitably between all the beneficiaries and stakeholders in the Subbasin.
11. We agree to maximize the groundwater recharge capacity of the Subbasin through the actions we promote within the GSA. Development of a GSP shall consider the merits and possible impacts of the sustainability of assigning credits for rechargers for their actions to improve groundwater resources both in quality and quantity.
12. We intend to consider the economic impacts of any GSA future actions and to minimize or mitigate adverse impacts where possible.
13. ***STILL UNDER REVIEW:*** *It is acknowledged that groundwater recharge by some property owners or agencies may be able to locally remediate aquifer depletion in a subarea, much like groundwater recharge on a property or agency boundary where groundwater extraction is not occurring may cause "groundwater mounding". Therefore, should it be necessary for the GSA to impose groundwater extraction restrictions in a subarea of the Subbasin to remediate [or prevent(?)] undesirable results, those restrictions will recognize the groundwater surcharge made available by and accruing to the benefit of the recharging entity. The remaining groundwater will be proportionately applied to all lands within the subarea.*

Concerns raised in early Public Input Meetings

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Non-affected local public agencies should not be part of the GSA governing board.	**Varying groundwater conditions** mean one-size-fits-all management won't work.
	How does this **connect with the Irrigated Lands Program?**

Responses to common GSP development concerns:

- **Well monitoring/metering: local agencies will need to measure and somehow monitor groundwater sustainability for SGMA.**

  Voluntary metering will be a likely first step: it is too early to tell what approaches beyond this that the GSA will need to use for monitoring.

  - ***Wells that extract less than than 2 acre-feet/year are exempt.***
- **Deep well drilling** that impacts neighbors' groundwater is of concern.
  - SGMA is intended to help minimize these sorts of negative impacts and ensure sustainable groundwater resources into the future for all beneficial uses.
- **Varying groundwater conditions** mean one-size-fits-all management won't work. Can we avoid this without complicating the regulations?
  - Principle 8 as well as the draft GSA structure includes a management area approach for this reason
- How does this **connect with the Irrigated Lands Program?**
  - Principle 9 focuses on synergies w/ existing programs to reduce costs & maximize benefits

Responses to SGMA FEE concerns

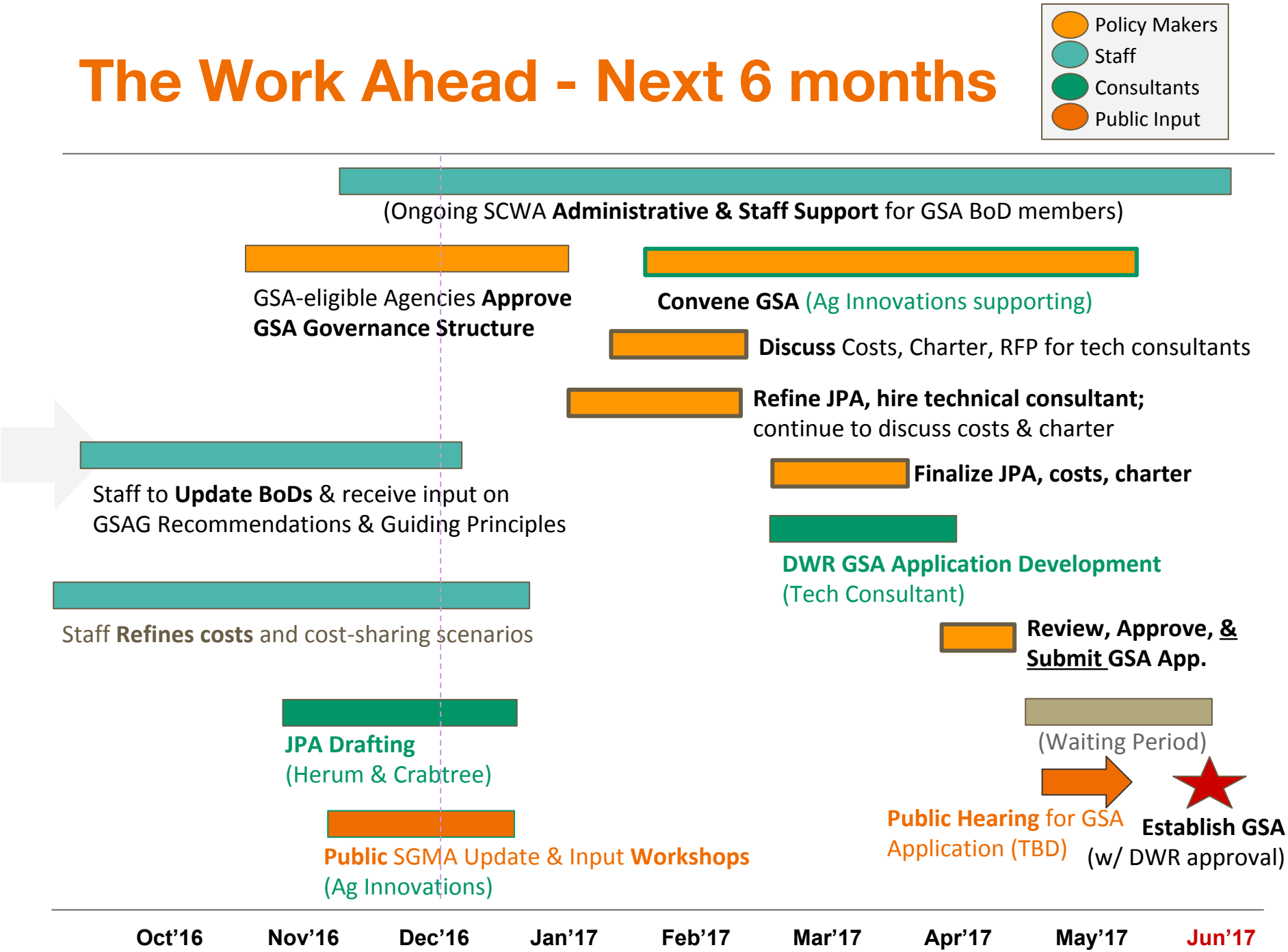
- How will groundwater users be charged for water? When?
  - User fees will likely be part of the solution, along with state grants, Prop 1 $, and agency membership fees.
  - We will not know more until the GSP draft is developed, 2020-2021

- Will users have input into decisions?
  - Yes!
    - We are seeking your input ahead of the GSP planning process
    - Draft GSP plans will also be open for public comment and input, ~2021-2022
    - There will also be direct ag representation and public representation via county supervisors on the GSA Board.
  - Principle #10 strives for equal cost sharing across all beneficiaries & stakeholders.

- Can it be streamlined and kept simple?
  - That's the hope for agencies and the public alike!
  - This idea shows up in our principles of keeping it voluntary where possible (#7) and coordinating with other requirements (#9).

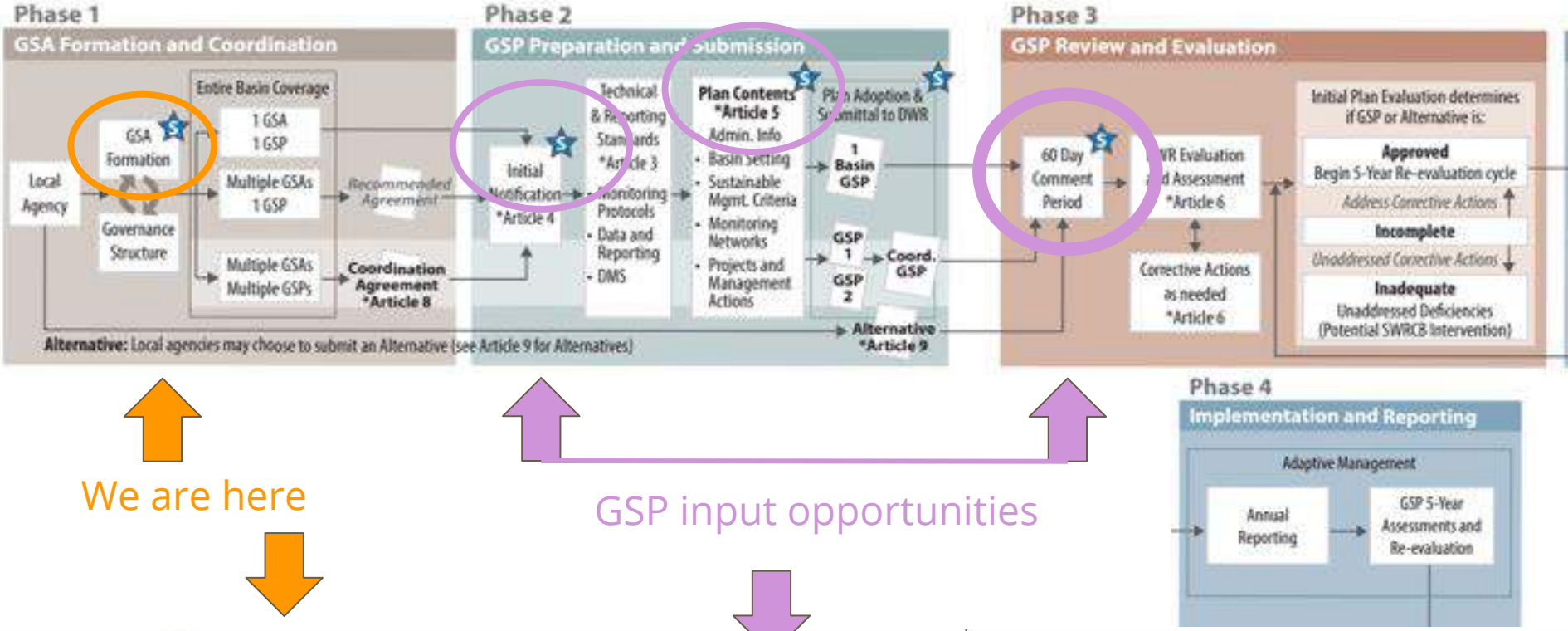
- Can farmers be paid for recharge?
  - **This is something we will explore tonight,** and is written into principle #11

The Work Ahead - Next 6 months



The Work Ahead: Long View

= Stakeholder input opportunity



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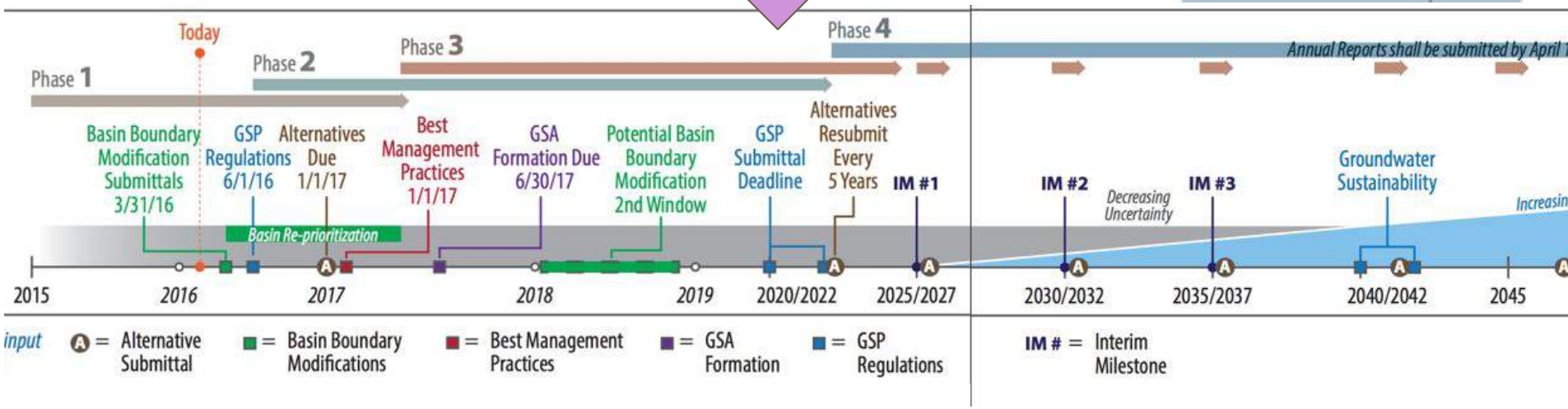
GSP input opportunities



SGMA in the Solano Subbasin

Questions?

Comments?

Group Discussion

What are the ways the community / individual landowners are currently managing groundwater effectively that we might learn from, expand, and incentivize?

Consider:

- Conservation practices
- Surface water & groundwater connectivity
- Specifics may be things like:
  - On-farm flood capture
  - Fallowing fields
  - Other groundwater recharge practices
  - Practices that impact percolation rates
- What else?

Next Steps

- We will share slides, notes and input from this week's public meetings via our listserv and on our website in the coming weeks:
    - **scwa2.com/sgma**
    - **Visit this website anytime** for more resources on SGMA, timeline updates, and notes from GSA meetings

- Please sign in by typing your email in the chat box if you haven't already to be kept informed of future SGMA updates and input opportunities via our listserv.

- Contact us anytime for more information!

THANK YOU!

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