

# Orientation to Groundwater Sustainability Plan Development

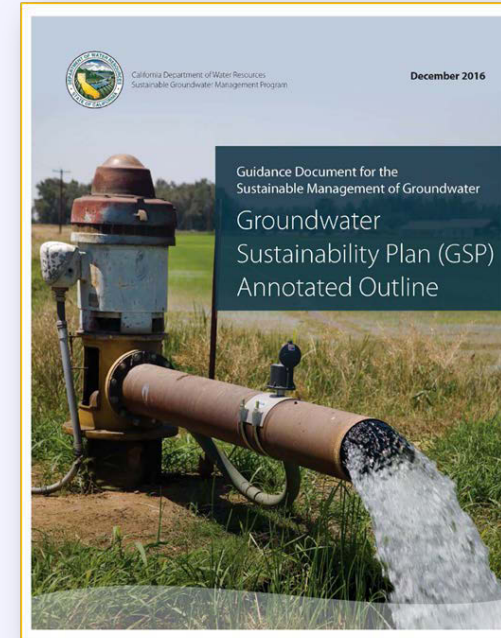
Santa Rosa Plain Groundwater Sustainability Agency  
Technical Advisory Committee Meeting  
April 9, 2018

# Presentation Overview

1. Groundwater Sustainability Plan Requirements
2. GSP Grant Application Work Plan
3. Proposed Schedule/Next Steps
4. Questions & Discussion

# Groundwater Sustainability Plan Requirements

- DWR developed requirements and regulations – 2016
  - Describe who you are and the basin's geology and hydrogeology
  - Describe how you will define and measure sustainability
  - Identify programs and projects that get you to sustainability
  - Implementation information
- Ongoing development of Best Management Practices and Guidance Documents by DWR



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

# Plan Area and Basin Setting

## Plan Area

Largely organizational information

- Maps of cities and towns
- Land use
- Well density
- Existing groundwater management activities
- Existing general plans

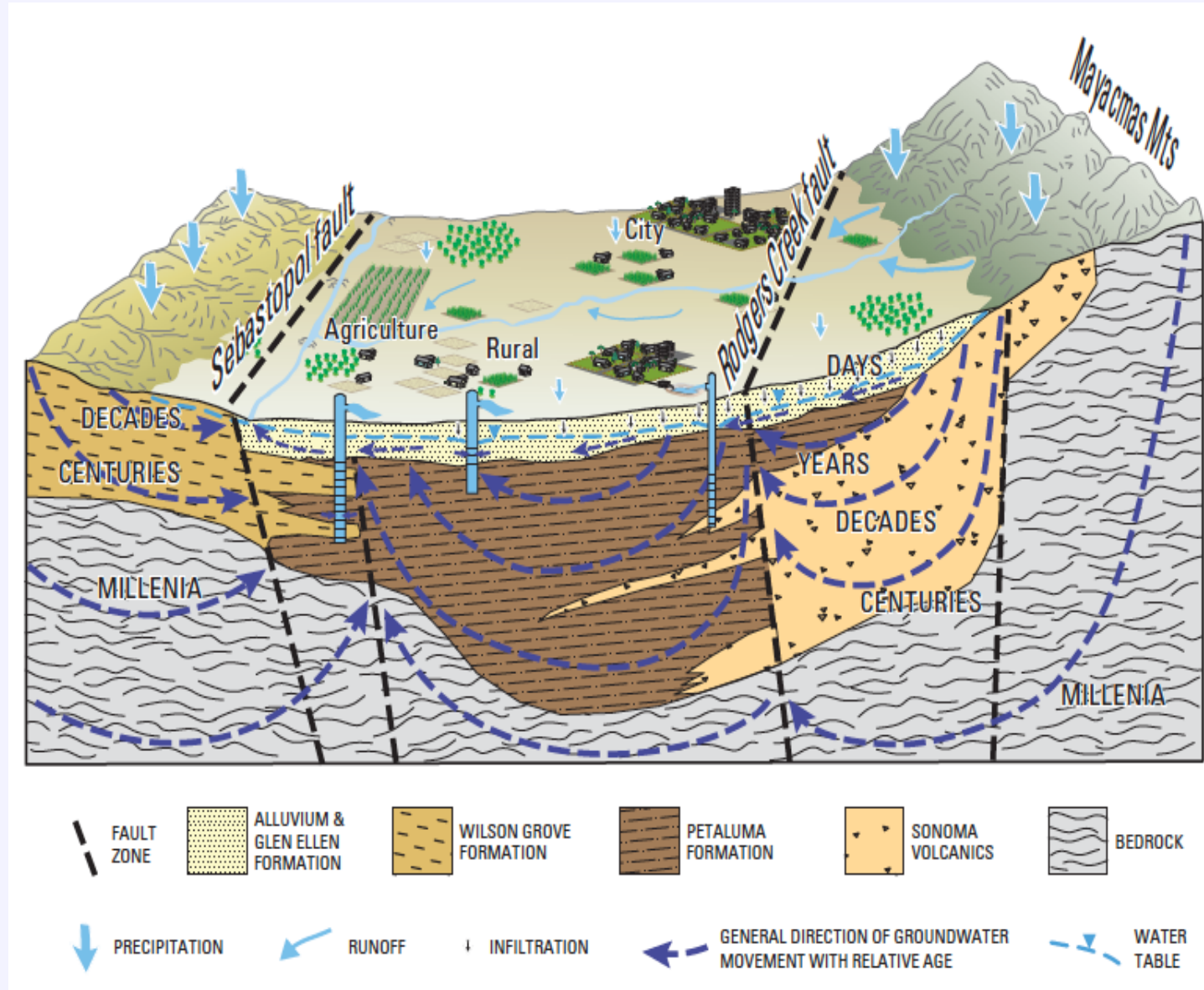
## Basin Setting

Largely technical section

- Geology
  - At least 2 geologic cross-sections per basin
- Historical and current groundwater conditions and budgets
  - Groundwater recharge
  - Groundwater pumping
  - Change in storage
  - Estimate of Sustainable Yield
- Future groundwater budget
  - Include effects of climate change
- Existing monitoring programs

# Conceptual Model

- Precipitation and streambed infiltration primary source of recharge
- Primary discharge:
  - Pumping
  - Evapotranspiration
  - Baseflow
- Dominantly flows east to west
- Imbalance in the amount of inflows and outflows to the basin - could be exacerbated by future climate change.
- Historical areas of groundwater-level decline largely recovered due to replacing some groundwater use with surface water and recycled water supplies and conservation.



# New Requirements vs Existing Information:

## Plan Area and Basin Setting Example - Groundwater Conditions

Example of Required GSP Component*	Information available from existing GMP or studies	Additional GSP Requirements
Groundwater Conditions	Description of groundwater elevation trends over time, groundwater elevation hydrographs and contour maps, groundwater quality data.	Annual and cumulative change in groundwater storage based on groundwater-level changes, description and map of known groundwater contamination sites and plumes, rates and map of land subsidence (as applicable) identification of interconnected surface waters and groundwater dependent ecosystems and estimates on timing and quantity of stream depletions.

\*Represents one of many required GSP components

# Sustainable Management Criteria

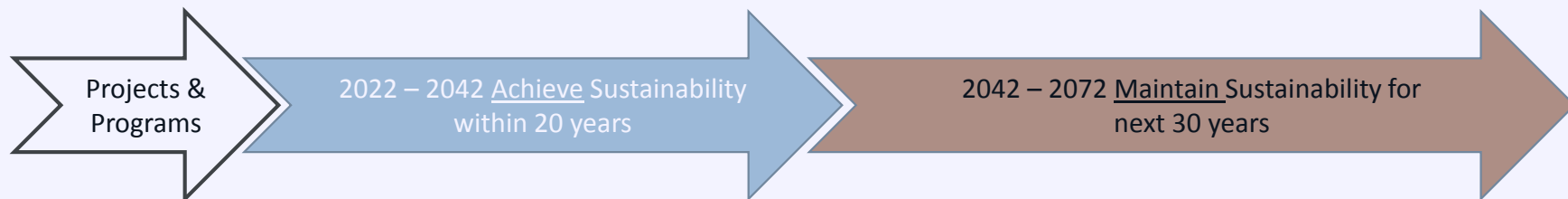
Avoid “significant and unreasonable” *undesirable results* for the following six *sustainability indicators*:



- Define basin-wide *undesirable results* for each applicable sustainability indicator (e.g., groundwater-levels will not fall below x% of well screens)
- Set *measurable thresholds* and *measurable objectives* for each sustainability indicator
- Iterative process that will require significant stakeholder and community input

# Project and Management Actions

- Evaluate and select projects and actions that will achieve sustainability in 20 years (e.g., recycled water, stormwater recharge, groundwater banking, demand management, etc.)
- Demonstrate sustainability will be maintained for 30 years thereafter
- Agree on how to fund these programs
- Backup or supplemental plans may be needed if preferred projects and programs are not adequate





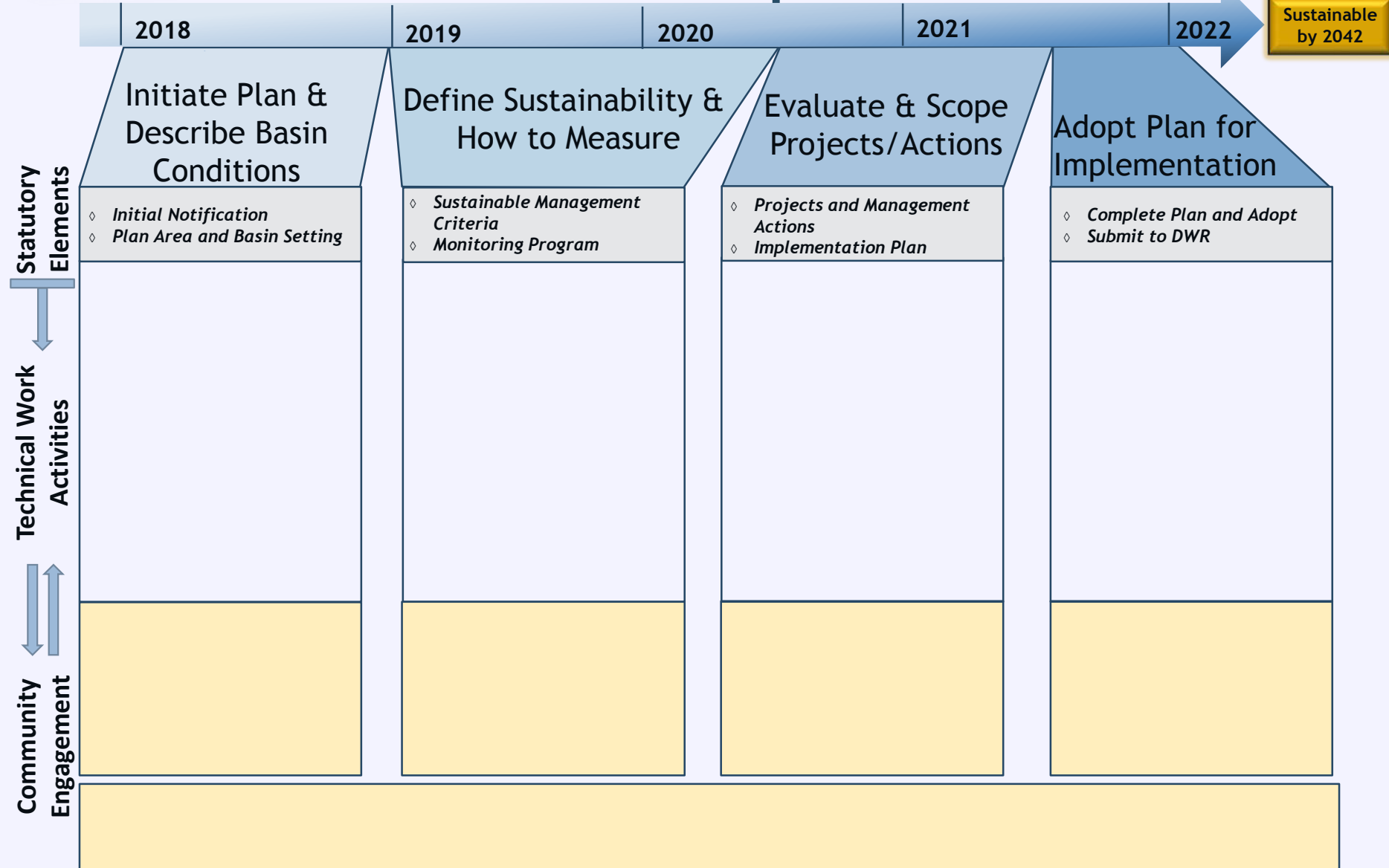
# GSP Work Plan Objectives

- **Meet SGMA requirements** - establish criteria and management actions to achieve and maintain sustainable groundwater.
- **Build on strong technical foundation** established through previous technical studies and voluntary groundwater management activities.
- **Provide opportunity for significant public and community engagement** and integrate the perspectives and address the needs of the many diverse users and uses of groundwater resources within the basin.
- **Leverage local resources** through continued regional coordination and information sharing.

GSP Initiation  
March 2018

# Process for Santa Rosa Plain GSP Development

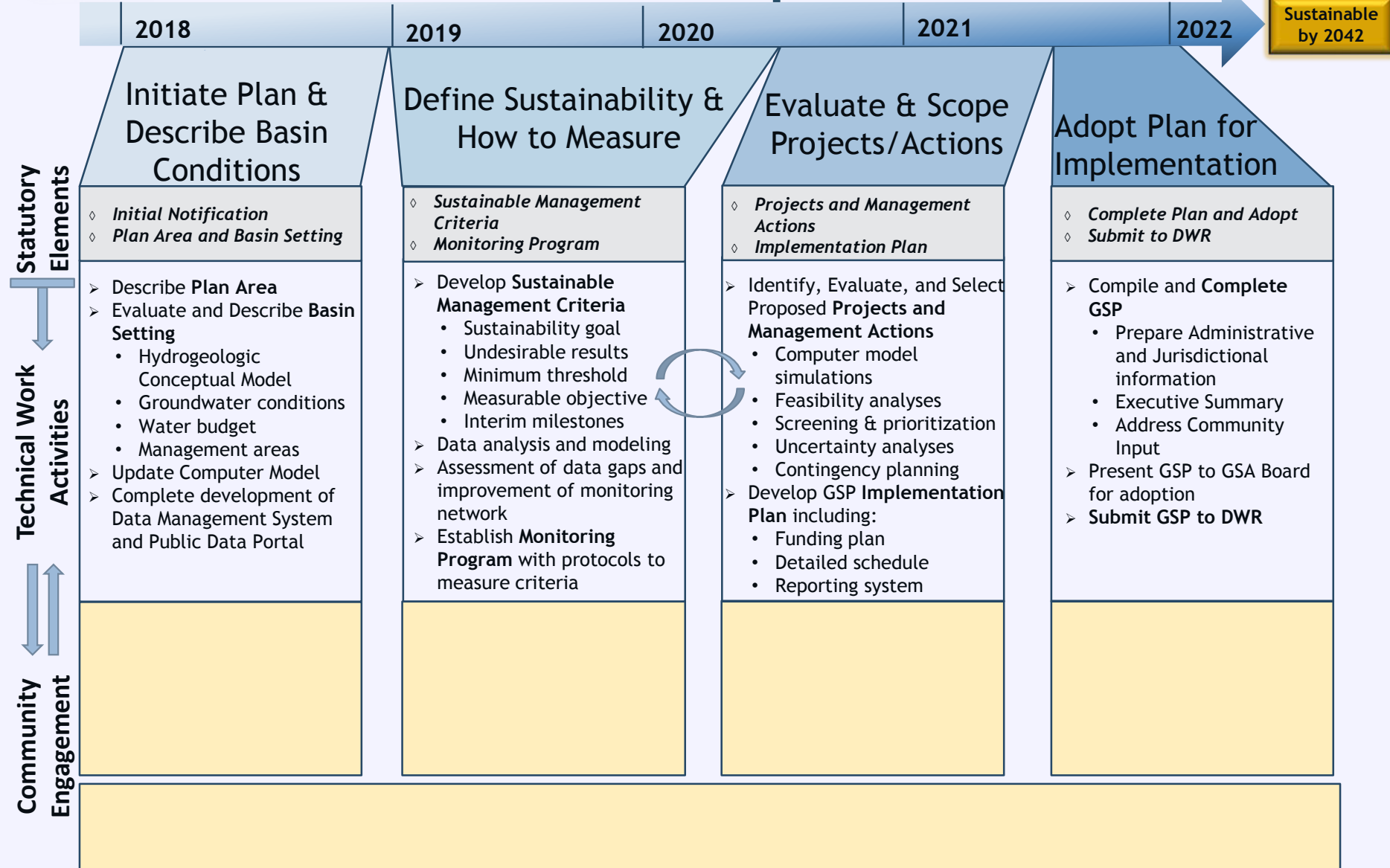
GSP submittal  
January 2022



GSP Initiation  
March 2018

# Process for Santa Rosa Plain GSP Development

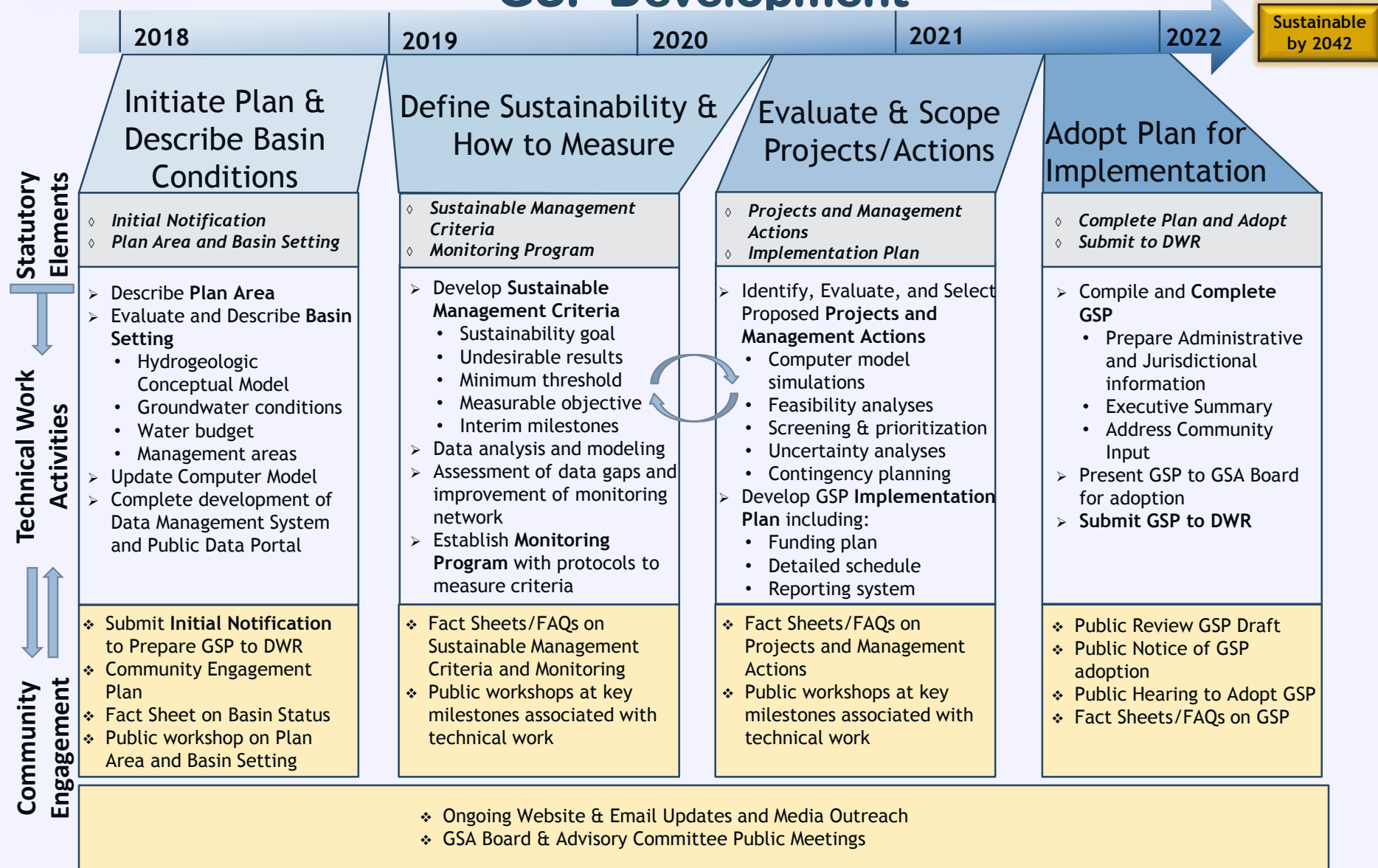
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GSP Initiation  
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# Process for Santa Rosa Plain GSP Development

GSP submittal  
January 2022



# Key Data Needs and Challenges

- **Improved water use estimates** for rural groundwater users (rural domestic and agriculture), which comprise an estimated 80% of the total groundwater use.
- **Depth-dependent water level and water quality data** to improve understanding of the hydrogeology and better define relationships between the shallow and deeper aquifer systems.
- **Improved information is needed about well location, lithology and construction** to better understand Basin hydrogeology and improve the groundwater model.
- **Additional modeling of future projected conditions** that simulate the impacts of climate change, land use changes, hydrology, and changes in demands.

# Key Data Needs and Challenges

- **More information to address potential depletion of interconnected surface water from groundwater pumping** – unique challenge for Santa Rosa Plain due to strong interconnection between surface water and groundwater and the many related policies, regulatory programs and diverse interests.
- **Identifying undesirable results** as defined in SGMA and **establishing quantifiable thresholds.**
- Transitioning from a voluntary groundwater management plan to a new plan with regulatory authority will require **extensive public outreach and community engagement.**

# Proposed Budget for GSP Development Prop 1 Grant Application

Project Title: Santa Rosa Plain Groundwater Sustainability Plan Project						
Project serves the need of a DAC?: Yes						
Cost Share Waiver request?: Yes						
Tasks		Requested Grant Amount	(a)	(b)	(c)	(d)
			Historical Cost Share: Non-State Fund Source	Future Cost Share: GSA-Funded	Total Cost Share	Total Project Cost
Task 1	Formation of GSA & Establishment of Governance Structure		\$ 182,266	\$ -	\$ 182,266	\$ 182,266
Task 2	Public Outreach/Community Engagement	\$213,124			\$ -	\$ 213,124
Task 3	GSP Development	\$786,876		\$ 106,898	\$ 106,898	\$ 893,774
	<i>Phase I - Prepare and Submit Initial Notification of GSP Preparation</i>	\$3,260				\$ 3,260
	<i>Phase II - Define Plan Area and Basin Setting</i>	\$115,932		\$ 106,898		\$ 222,830
	<i>Phase III - Develop Sustainable Management Criteria</i>	\$262,430				\$ 262,430
	<i>Phase IV - Design Sustainability Progress Monitoring Program</i>	\$133,670				\$ 133,670
	<i>Phase V - Identify and Evaluate Projects and Management Actions</i>	\$157,590				\$ 157,590
	<i>Phase VI - Develop GSP Implementation Program, Costs, Detailed Schedule and Reporting</i>	\$74,450				\$ 74,450
	<i>Phase VII - Compile Complete GSP for Adoption by GSA</i>	\$39,540				\$ 39,540
Task 4	Project Management & Grant Administration			\$ 44,150	\$ 44,150	\$ 44,150
	<b>Grand Total</b>	<b>\$ 1,000,000</b>	<b>\$ 182,266</b>	<b>\$ 151,048</b>	<b>\$ 333,314</b>	<b>\$ 1,333,314</b>

# Grant Application Status

- Proposition 1 Grant Application submitted in December 2017 for GSP Development
- DWR issued Draft funding recommendations February 2018 to fully fund the requested \$1 Million to the Santa Rosa Plain GSA for GSP development
- Public Comment Period closed February 28, 2018
- Final Notification of \$1 Million in funding to the SRP GSA from DWR received on April 4, 2018



# Next Steps

## April:

- **Begin contracting with DWR for grant funding(?)**
- **Develop Detailed Schedule/Activities for initial draft GSP sections (Plan Area and Basin Setting, including Hydrogeologic Conceptual Model and Groundwater Conditions)**
- **Begin drafting initial GSP sections/materials**

## May/June:

- **Contracting with DWR for grant funding(?)**
- **Advisory Committee begin review of initial draft GSP materials and data**

# Questions and Discussion



<http://www.sonomacountygroundwater.org>