SGMA Implementation / GSA Formation in Sonoma County Process Proposal

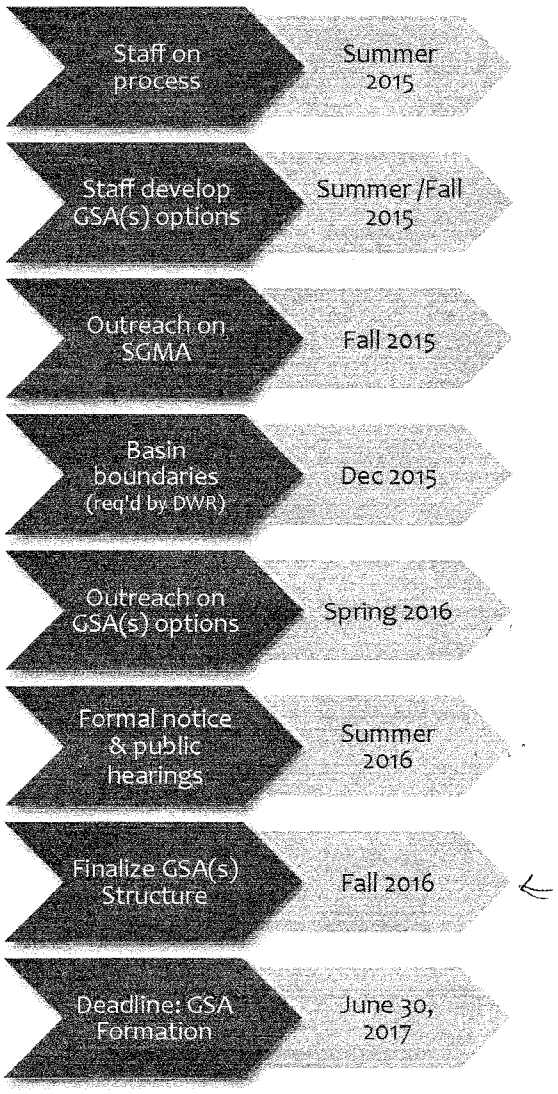
Developed by Gina Bartlett, Consensus Building Institute, in consultation with the SCWA-County Work Group and GSA-Eligible Entities[1]

Version 7/22/2015 updated with meeting dates

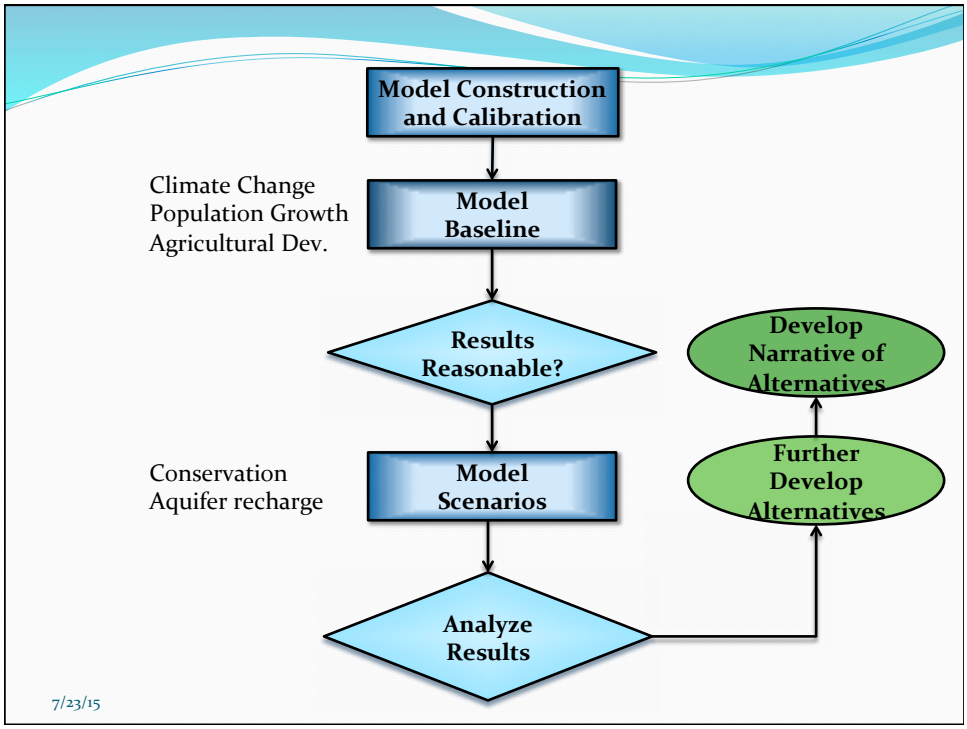
Anticipated Discussion Topics for Decision-Making on GSA Formation

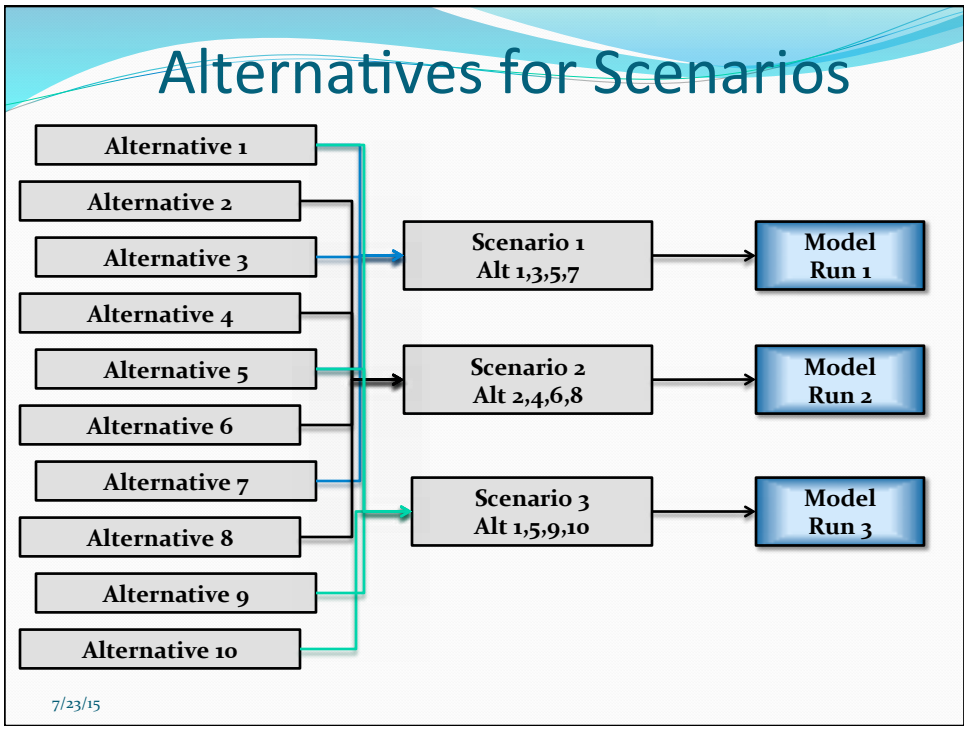
- Decision-making framework
- Principles for developing governance options
- GSA authorities and responsibilities
- Governance structures and options
- Criteria for evaluating options
- Legal documents for GSA formation
- Communication and outreach
- Costs
- Timeframe for GSA formation

Proposed Process Overview



[1] SCWA-County Work Group is made up of staff from SCWA, PRMD, County Administrator, and County Counsel


Model Construction and Calibration
Climate Change
Population Growth
Agricultural Dev.
Model Baseline
Results Reasonable?
Develop Narrative of Alternatives
Conservation
Aquifer recharge
Model Scenarios
Further Develop Alternatives
Analyze Results
7/23/15


Alternatives for Scenarios
Alternative 1
Alternative 2
Alternative 3
Alternative 4
Alternative 5
Alternative 6
Alternative 7
Alternative 8
Alternative 9
Alternative 10
Scenario 1
Alt 1,3,5,7
Scenario 2
Alt 2,4,6,8
Scenario 3
Alt 1,5,9,10
Model Run 1
Model Run 2
Model Run 3
7/23/15

Model Baseline

Demand Changes
Related to population growth and land use

For population and housing growth projections, sources of information used include local general plans, regional agency projections (ABAG, in our case), census data and the state department of finance., using the same incremental growth metric extended out beyond the GP planning horizon.

For land use change, the focus is on potential vineyard growth and sources of information include industry trends, past history and vineyard estimation model (VEM) which is a multiple linear regression model used to predict what land is most likely to become vineyard. Due to a lack of projections in planning documents, a low and high growth rate were used to bracket growth in the baseline.

Assumes ___ percent **population growth** over baseline time period →

Assumes ___ percent **vineyard growth** over baseline time period →

2015 Years 2064

7/23/15

Model Baseline

Climate Variation
Temperature and precipitation variation

Four climate change scenarios will be considered using a low- and a medium-high Greenhouse gas emission scenario combined with (1) The National Oceanic and Atmospheric Administration Geophysical Fluid Dynamics Laboratory (GFDL) Global Climate Model (GCM) and (2) the Parallel Circulation Model (PCM) GCM.

1 – Low emission and GFDL GCM →

2 – Medium high emission and GFDL GCM →

3 - Low emission and PCM GCM →

4 – Medium high emission and PCM GCM →

2015 Years 2064

7/23/15

Preliminary DRAFT Screening Matrix of Proposed Technical Alternatives

Item No.	PROPOSED TECHNICAL ALTERNATIVE	Relative Cost	Readiness to Proceed	Feasibility/Implementability	Leveraging Opportunity	Community & Political Support	Multi-Objective/Supports Watershed Health	Effectiveness Addressing Depletion Areas	Address Impacts/Unintended Consequences	Notes
Increase Conservation & Efficiency to Reduce Groundwater Demand										
1	Option 1 - Increase Rural Area Domestic Conservation	$	H	H	M	H	M	M	L	
2	Option 2 - Increase Rural Area Agricultural Conservation	$	M	M	M	H	M	M	L	
Increase Recycled Water Use to Reduce Groundwater Demand										
3	Option 1 - Agricultural irrigation and commercial landscape irrigation	$$/ $$$	M	H	M	M/H	M	M/H	L	Needs to be split into Phases
Stormwater Capture & Recharge										
4	Option 1 - Medium to large scale project(s) 40 to 100 acres total, 20-50 acres each	$$	L	?	H	?	H	M	?	Technical Feasibility and Locations TBD
5	Option 2 - Agricultural distributed stormwater capture and recharge - ¼ to ½ acre each	$	M	M	M	H	?	L	?	Technical Feasibility and Locations TBD
6	Option 3 - Domestic distributed stormwater capture and recharge (LID approach)	$$	M	M	H	H	H	L	L	
Stormwater Capture and Storage										
7	Option 1 - Small surface storage ponds (No. acre/storage volume) - ¼ to ½ acre each	$	H	H	M	H	H	L	L	
8	Option 2 - Large surface storage ponds (No. acre/storage volume) 40 to 100 acres total, 20-50 acres each	$$	L	?	M	?	M	M	M	
Groundwater Banking										
9	Option 1 - Contractor Facilities - One to two wells each for City of Sonoma and Valley for the Moon Water District	$	M	M	M	M	M	L/M	L	Technical Feasibility TBD
10	Option 2 - Facilities outside Water Contractor areas - One to two wells each for both of the depleted areas	$$$	L	L	L	L	M	H	?	Technical Feasibility TBD/Requires Institutional changes
In Lieu Surface Water Substitution for Groundwater										
11	Option 1 - Rural agricultural and domestic wells replacement with imported surface water	$$$	L	L	M	?	M	H	M	Technical Feasibility TBD/Requires institutional changes/storage
Pumping Redistribution										
12	Option 1 - Rural agricultural and domestic pumpage redistributed from groundwater depletion areas	$$$	L	L	M	L	M	H	H	Technical Feasibility TBD/Requires institutional changes
Salinity Intrusion Mitigation										
13	Option 1 - Replace groundwater wells with imported surface water along southern valley	$$$	L	L	M	?	M	M	H	Requires institutional changes
14	Option 2 - Injection wells along southern valley – recycled water and/or imported water	$$$	L	L	M	?	M	M	M	Technical Feasibility TBD/Requires significant water quality permitting
Desalination										
15	Desalination plant with intake at San Pablo Bay or tidal marshlands area	$$$$	L	L	M	L	L	L	H	Technical Feasibility TBD

? Unknown or Significant Uncertainty

Potential Yield in Acre-Feet
20-Year Roll-Out

ALTERNATIVE/YEARS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 - Increase Conservation & Efficiency - *Rural Domestic*																				
Pursue funding/Ramp up	-	-	-	-																
Implementation		10	25	50	100	150	200	250	300	375	375	375	375	375	375	375	375	375	375	375
2 - Increase Conservation & Efficiency - *Agriculture*																				
Pursue funding/Ramp up	-	-	-	-																
Implementation		50	75	100	150	250	400	500	500	500	500	500	500	500	500	500	500	500	500	500
3 - Increase Recycled Water Use - *Agricultural & Commercial Landscape Irrigation*																				
Pursue funding/buildout	-	-	-	-	-	-	-	-	-	-										
Implementation			300	300	300	300	300	300	300	300	500	700	900	1000	1000	1000	1000	1000	1000	1000
4 - Stormwater Capture & Recharge - 2 *to 3 Medium to Large Projects*																				
Studies/EIR	-	-	-	-	-	-	-	-	-											
Implementation										500	500	500	500	500	500	500	500	500	500	500
5 - Stormwater Capture & Recharge - *Agricultural Distributed Small Projects*																				
Pursue funding/Ramp up	-	-	-																	
Implementation				10	10	10	25	25	25	50	50	50	50	100	100	100	100	100	100	100
6 - Stormwater Capture & Recharge - *LID Distributed Projects*																				
Pursue funding/Ramp up	-	-	-	2	2	2	5	5	5	5										
Implementation											10	10	10	10	10	10	10	10	10	10
7 - Stormwater Capture & Storage - Agriculture - Small Ponds																				
Ramp up	-	-	-	10	10	20	20	30	30											
Implementation										50	50	50	50	50	50	50	50	50	50	50
8 - Stormwater Capture & Storage - Agriculture - Medium to Large Ponds																				
Ramp up	-		-	10	10	20	20	30	30	50	50	50	50	50	50	50	50	50	50	50
Implementation																				
9 - Groundwater Banking - Water Contractor Facilities																				
Pilot Testing	-	-	-	-	-	50	50	50	50	50										
Implementation											100	100	100	100	100	500	500	500	500	500
YIELD SUBTOTAL	0	60	400	482	582	802	1020	1190	1240	1880	2135	2335	2535	2685	2685	3085	3085	3085	3085	3085

All Potential Yield Numbers Estimated and Subject to Change

V07222015

Potential Yield in Acre-Feet
20-Year Roll-Out

ASSUMPTIONS

Increase Conservation & Efficiency	
Rural Domestic	30% increase in conservation and efficiency possible - Pacific Institute & NRDC 2014 - 375 afy on 1250 afy demand
Agriculture	Assumes 25% reduction with ith participation ranging from 10-50% over a 20 year timeframe - for a maximum of 500 afy on curr
Expand Recycled Water Use	
Agricultural & Commercial Landscape Irrigation	Expansion in process for completion 2-16/2017 up to 300 afy
	Additional expansion in 2025 for up to additional 1,200 afy
Stormwater Capture & Recharge by Infiltration	
2 to 3 Medium to Large Scale Projects	Maximum yield projected at 500 afy
Stormwater Capture & Recharge by Infiltration	
Agricultural Distributed Small Projects	Maximum yield projected at 100 afy
Stormwater Capture & Recharge by Infiltration	
Urban and Rural Domestic - LID Distributed	Potentital yields of 10 afy
Stormwater Capture & Storage	
Agriculture - Small Ponds	Potentital yields of 50 afy
Stormwater Capture & Storage	
Agriculture - Medium to Large Ponds	Potentital yields of 50-100 afy
Groundwater Banking	
Contractor Facilities	Potentital yields of 500 afy

LEGISLATIVE AND POLICY UPDATE
Tim Parker, Technical Consultant to SRPGMP
July 22, 2015

LEGISLATIVE AND POLICY UPDATE
Tim Parker, Technical Consultant

GOVERNOR PASSES BUDGET AGREEMENT

- June 15th Legislature passed budget
- June 16th Agreement between Governor and Legislature
- June 24th Governor signed budget and trailer bills
- No medical increases – special session on funding health care
- Special session on cap and trade
- How to fund transportation moving forward - gas tax not providing revenue needed – special session
- Pertinent Budget Trailer Bills
  Senate Bill 83
  - Public Well Logs
  - Aquifer Exemption and DOGGR Reporting Requirements
  - Consolidation of water systems in DACs

  Senate Bill 88
  - CEQA Exemption* for Groundwater Replenishment Projects
  - CEQA Exemption* for Well Ordinances and Land Use Changes to Reduce Groundwater Demand
  - CEQA Exemption* for Recycled Water Systems – State Building Standards
  - Requires Additional Diversion Measurement and Reporting (>10AFY)
  - Provides Public Entity Ability to Seek Civil Liabilities for Violation of Water Conservation Programs and Certain Emergency Regulations

  ** - CEQA Exemptions are emergency drought related actions and effective until July 1, 2017.*

SGMA UPDATE

DWR Webpage at http://www.water.ca.gov/groundwater/sgm/index.cfm

- GSA Formation Notifications - 36 Notifications have been received by 15 agencies
  http://www.water.ca.gov/groundwater/sgm/gsa_table.cfm
- DWR Advisory Groups - DWR continues to meet with advisory groups to help provide input on regulations for Basin Boundary revisions and Groundwater Sustainability Plans other DWR mandates in SGMA
  http://www.water.ca.gov/groundwater/sgm/advisory.cfm
- DWR Water Management Planning Tool online:
  http://www.water.ca.gov/groundwater/boundaries.cfm

SWRCB Actions

- SWRCB has continued moving forward with curtailments, including Russian River emergency actions to protect threatened fish with increased conservation and water use reporting of 13,000 properties, and includes Mark West Creek Watershed.
  http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/water_action_russianriver.shtml
- Adopted requirements for groundwater monitoring in areas of oil and gas well stimulation. http://www.waterboards.ca.gov/water_issues/programs/groundwater/sb4/index.shtml

BILL LIST – Friday is last day for bills to make it through policy committees or die or become two years bills. http://leginfo.legislature.ca.gov/faces/billSearchClient.xhtml

AB 453 Bigelow – Groundwater Management – Provides specific carve outs for SGMA activities for SGMA generated fees in the Water Rights Fund – in Appropriations.
AB454 Bigelow – Sustainable Groundwater Management – Adds one year to each of the deadlines for forming a management agency under the Sustainable Groundwater Management Act (SGMA) and adopting a plan – died in Assembly Appropriations.
AB617 Perea – Groundwater – Modifies multiple portions of last year's Sustainable Groundwater Management Act (SGMA), including authorizes a GSA to enter into agreements and funding with private parties to implement groundwater sustainability plans, and permit the groundwater sustainability agency to file notice with state agencies not working cooperatively with the GSA – In Senate Appropriations.
AB647 Eggman – Beneficial Use: Storing of Water Underground – Adds to the legal definition of what constitutes a beneficial use of water by including water that is stored unground, under specified conditions – pulled by author – now a 2-year bill.
AB935 Salas – Water Projects; DWR funding – Requires the DWR to provide funds Reverse Flow Pump-back Facilities on the Friant-Kern Canal Restoration Project and San Joaquin River Recapture at Patterson Irrigation District Conveyed through Delta-Mendota Canal to San Luis Reservoir Project – in Appropriations.
AB937 Salas – Groundwater Planning-Technical Assistance-Disadvantaged Communities – Requires DWR to provide technical assistance to DACs so they may participate in groundwater planning including groundwater banking with local agencies – in Appropriations.
AB938 Salas – Groundwater: Basin Reprioritization - Amends SGMA to specify if the DWR reclassifies a basin such that it becomes subject to SGMA then not just a local agency overlying a groundwater basin subject to SGMA would be entitled to additional time to comply with SGMA but also if there is a combination of local agencies overlying a groundwater basin they would be entitled to additional time – moved into AB 939.
AB939 Salas – Groundwater sustainability Agency: Financial Authority - Extends the time period during which data for setting fees under the Sustainable Groundwater Management Act (SGMA) be publically available from 10 days to 20 - In Senate.
AB1242 Gray – Water Quality: Groundwater Impacts - Requires the State Water Resources Control Board, when adopting or approving a Water Quality Control Plan (WQCP), to take into consideration EQA and any applicable GSPs and alternative plans - in Appropriations.
AB1390 Alejo – Groundwater: Adjudication - Streamlines legal processes used to assign water rights in a groundwater basin- in Appropriations.
SB13 Pavley – Groundwater - Makes numerous technical and clarifying amendments to the Sustainable Groundwater Management Act (SGMA) and related sections of the Water Code – to Floor Consent Calendar.
SB20 Pavley – Well Reports Public Availability - Requires the Department of Water Resources (DWR) to make well log reports for water wells available to the public – superseded by Governor's trailer bill SB83.
SB226 Pavley – Sustainable Groundwater Management Act - Establishes special procedures for courts use in determining rights to groundwater under the Sustainable Groundwater Management Act (SGMA) - in Appropriations.
SB248 Pavley – Oil & Gas – Requires the Division of Oil, Gas, and Geothermal Resources in the Department of Conservation to update its regulations, improve O&G operations data collection-transparency-reporting, and revised & update Class II injection well regulations with require injection wells be brought into compliance by 2020 - in Appropriations.
SB664 Hertzberg – Water: Urban Water Management Planning - Requires an urban water supplier to include a seismic risk assessment and mitigation plan for their water system in their urban water management plan – in Appropriations Suspense File.