MEETING SUMMARY | September 1, 2016
Glenn Sustainable Groundwater Management Act (SGMA) – Governance Workgroup Meeting #4

MEETING RECAP

- The Workgroup discussed general updates regarding Groundwater Sustainability Agency (GSA) formation in Glenn County and the surrounding counties.
- The group discussed the future role of the Private Pumper Advisory Committee (PPAC).
- The group discussed and refined Glenn County Common Principles.
- The group participated in a discussion concerning the current and future groundwater conditions in Glenn County.
- Meeting participants learned about the governance options Colusa has been developing and discussed the potential economic costs of being a GSA member.

MEETING SUMMARY

Introduction

Dave Ceppos (Facilitator) with the Center for Collaborative Policy, explained that Glenn County contains multiple groundwater basins, specifically the Corning, West Butte, and Colusa Sub-Basins. He expressed the importance of understanding groundwater conditions and how they relate to governance formation.

General Updates

The facilitator described GSA formation activities in adjacent counties. In Colusa County, the Private Pumper Advisory Committee (PPAC) met last week to discuss their perspectives on proposed governance options and to further advocate for private pumper representation in governance. The PPAC has also been reaching out to neighbors, which has bolstered meeting attendance. At the last two governance meetings, Colusa County stakeholders constructed two, single multi-agency GSA governance options that will be explored later in this meeting. Overall, they affirmed their desire to establish a county-wide, multi-agency governance structure.

Regarding the West Butte Basin, the Facilitator reached out to the facilitator working in Butte County to initiate coordination activities. West Butte coordination discussions are likely to occur later this fall.

GSA eligible agencies and private pumpers in the Corning Subbasin participated in a planning conference call in August. The participants discussed that the County is the only known eligible agency in the western portion of the Corning Subbasin. There are additional eligible entities in the eastern portion of the Corning Subbasin. The participants discussed outreach needs and future coordination for the Corning Subbasin, within Glenn County and with the Tehama County GSA.

The State Water Resources Control Board (SWRCB) is beginning public workshops on its draft fee assessment program which will apply fees for groundwater extractors in unmanaged areas and probationary basins that do not meet SGMA compliance. The SWRCB is attempting to develop a fee schedule that will incentivize local groundwater management and will help to avoid State intervention.

Glenn County Private Pumpers Advisory Committee (PPAC)
The Facilitator encouraged private pumpers in attendance to discuss how the formation of a Glenn County PPAC could help them meet their interests. At the Board of Supervisors meeting, the formation of a PPAC was approved. The board decided on a seven member committee, one member from each supervisorial district in addition to two at-large members. The Supervisors will identify applicants within their own districts, and confirm them in the coming weeks. The Board of Supervisors' representative explained that it was a fairly concise discussion, and there was agreement on the entire board to form a PPAC. He suggested that any interested private pumpers should contact Lisa Hunter so that a larger list of applicants can be compiled.

The Facilitator then opened the floor to discuss the participants' vision of the PPAC's role.

Comment: Colusa County has had success with their GSA implementation and with promoting the role of private pumpers. Any interested parties could attend the Colusa GSA and PPAC meetings to better understand how that effort is progressing.

Question: Will private pumpers have independent voting rights or will they serve in an advisory role only? Response: For Glenn, we are not there yet. Colusa has identified the desire for private pumpers sit on the governance board and be vested with governance authorities. Attorneys with experience developing Joint Power Agreements (JPAs) have confirmed that non-eligible entities can be appointed to the governing board and be granted the same powers as the eligible entities' representatives. For example, Sacramento Groundwater Authority allows member agencies to make two appointments as codified in the Authority's bylaws. The entities creating the JPA can vest the appointees with as much or as little authority as they want. An appointer can also remove the appointee at any time. In Colusa, there will be private pumpers on the board with some authority; exactly the number of private pumpers and how much authority have yet to be determined.

Comment: The Board of Supervisors identifying private pumper applicants in their districts is a good initial approach, but how will members be selected in the future? The pumpers within that district should appoint their own representative. Private pumper concerns will be put to rest if more of these specifics are solidified. Response: Colusa is leaning towards a Management Area (MA) structure, which is a way of dividing your area into smaller areas. At this small level you will have certain MA committees that would develop a process to select MA committee members. Counties are vested by SGMA with a distinct responsibility to represent any area not within another eligible GSA agencies' service boundaries. Therefore, there has to be some relationship between private pumpers and the County.

Comment: Is the State going to come in and charge so much that we can't irrigate? Did we give up our property rights to use water? Did we compromise ourselves out of business? We have invested money. Has the State invested money?

Comment: A lot of farmers are asking, "What are the consequences of being inactive? Will I have someone telling me I can't farm in two years?" Response: Today's presentation will address a lot of those questions.

Comment: I think that people having an understanding of what they have available in terms of groundwater is crucial to the conversation. Response: There is a Common Principle that we came up with that states, "The GSA should facilitate shared understanding of groundwater authorities and responsibilities under SGMA and consistent with other state laws and regulations."

Comment: The same issues are discussed in Butte County; some people are living in this situation every day. Educational forums are available. I would suggest we start meetings an hour earlier to provide SGMA education for those who may not be up to speed, while allowing the up-to-date group to move forward. Give people the resources so they can learn more about living in the age of SGMA.

Comment: I think that the most groundwater pumped in our basin is by private pumpers. Therefore, I think that private pumpers should have good representation. So I support this group (PPAC) and I think that if we get this group together we can outreach to the people that are actually doing the pumping.

Comment: When lots of folks are harvesting it's hard to get to the meetings, and some can't travel as far. More outreach would be good to provide education and to gather private pumper input.

Comment: I like the idea of the PPAC because there are a lot of different conditions across the county. Getting private pumpers together would be good, because everyone has their own issues. I wouldn't want the County to take over. I would personally like to have a voice.

Comment: The private pumpers are the true stewards of the hydrogeologic data. It will help everyone if they get together and discuss those data, it will flow into the Groundwater Sustainability Plan which will help ensure sound management.

Comment: A lot of information that is passed around regarding wells is hearsay. Wells can get plugged and people will say it has gone dry, but it may not have anything to do with the groundwater table and everything to do with the well itself. So I think the data are very important. Response: I think that some of the parts of the Common Principles will help clarify that.

Question: Didn't the Farm Bureau start an educational process? Response: The Farm Bureau, in coordination with the County, conducted some public workshops when SGMA first came out and many of the details were still unknown. The Farm Bureau expressed that it supports taking on and education and outreach role once again.

Comment: I would like to shed light on where the Board of Supervisors is going with this. I think the entire Board is really coming up to speed with this. The Board acknowledges that we have some advisory committees that are monitoring groundwater, but SGMA is different. If a PPAC is created, it will be directly involved as long as SGMA exists in Glenn County. I have not seen anything in SGMA that implies the State plans to take away our right to pump groundwater for beneficial uses. If we do not comply with SGMA, the State will enforce the regulations. The State wants local agencies to get involved in groundwater and come up with management policies that demonstrate that the basin is sustainable. So with that, I will again ask the private pumpers that are interested to make a major contribution to the County by volunteering.

Comment: I'm one of these people that is afraid that the State will come back twice as hard. I hate getting accused of over drafting. I want the water table to stay high because I'm trying to make a living. It seems like the government is trying to take our rights away.

Comment: If we all come together as a County and make our interests heard then we won't have State intervention.

Revised Common Principles

The facilitator introduced the revised Common Principle document. It's important to document ideals that everyone can share and appreciate. Many different groups can come together and make this document reflect everyone's interests. GSAs are new agencies. They vest themselves with authorities, just like other government agencies do. Think what you would like to create from scratch. In that regard, this idea of Common Principles communicates how you want this new agency to look when nobody in this group will be around? The idea of Common Principles is shared beliefs. At a previous subcommittee meeting, Pete Carr, Anjanette Shadley, Emil Cavagnolo, and Sharron Ellis, with the help of Dave and Lisa as staff, worked to revise these Common Principles and to create a very balanced document. The Facilitator invited the subcommittee members to explain and share their thoughts on the revised document.

Comment: I appreciate that we went through the first draft and eliminated or consolidated things that were superfluous. The second bullet under Principle three is important from the City's perspective: "Regulation of well permits and water extraction will honor protection of all beneficial users." Nobody wants to welcome regulation but recognizing that this will happen and we all have a common interest is important.

Comment: The Common Principles are something to look back on and be mindful of how you treat your neighbors. I think having the beneficial use of water in the Common Principles is

important because that's a legislative term. We have to work with each other if we want to achieve the goals of SGMA.

The Facilitator added that whether we like or dislike SGMA, sustainability is a law now. As goes sustainable groundwater resources in this community, so goes our ability to retain our quality of life and the economic engine of this county.

Comment: I see SGMA as our friend. 87% of the groundwater in California is from north of Sutter Buttes. We don't want to get to the point where we have to consider instituting drastic measures. We have to take measures to keep the water that we have. Of course we need data, and of course that takes time. Because groundwater doesn't have jurisdictions, it affects all of us. It's going to take all of us working together for that Common Principle to protect that common interest.

Comment: We've always been interested in conjunctive use. I wouldn't want to see our groundwater get like down south. Our economy is good, but I think we should think about the big picture and think about what's coming.

Comment: I know there's a lot of focus on the private pumpers but let's make sure that we remember that SGMA is for everybody, it affects everyone.

Comment: In my district we don't have enough water to grow crops solely with surface water. Probably 90% of our landowners use groundwater to some extent. There are solutions that we need to come up with; I think there are ways to protect the groundwater.

The Facilitator then reviewed the Common Principles. He then asked for any comments or suggested refinements from the participants.

Comment: You guys hit a home run here with these principles. I like that you get the opportunity to trust yourself with these decisions. You have to work together.

Comment: Is data or information a better word choice in Theme 3, Principle 5? Response: To clarify, the difference between "data" and "information" is that data are facts and pieces of things, and information is how that data is collected and used.

Comment: At some point we need to make decisions based on the best information that is available now and move forward with urgency. It's important to stress that the information is needed, but continue to move forward with what is currently available. A participant suggested strengthening the wording. An example could be, "ongoing commitment to improve information."

Comment: Under Item 1, beneficial users are a subset of the GSA. The wording could say, "All citizens, beneficial users, and GSAs" Under the second bullet in Item 3, regarding regulation of well permits and water extractions, those regulations should be dependent on groundwater

conditions. It should be consistent with GSPs and the authorities of each GSA. These should be defined as actions and tools in a GSP. Response: That brings up a good point that the GSP can't actually supersede existing ordinances. The statute does have that qualifier.

Comment: Circling back to Theme 3, Principle 5, the addition of best available information derived from best available data might assist with understanding.

Comment: What entity state-wide is farthest along in this process and could provide us with an example? Response: There are 127 basins designated as high or medium priority which have to comply with SGMA. There can be multiple GSAs in each basin. Each is going about governance in sometimes similar, sometimes not similar ways. As far as the redistribution of data, the facilitation team tries to bring new information as they become aware. We will present a sample JPA for a GSA at a later meeting as a potential template.

SGMA Planning/Groundwater Conditions in Glenn County

The Facilitator introduced the presentation that was prepared by Davids Engineering and funded by Colusa County for the Colusa SGMA implementation. SGMA is a linear process. There is a set time to form the GSA and to create the GSP. It's harder in areas like Glenn where there is a complex environment with a lot of different interests and diverse hydrogeological conditions. It's really important that everyone starts speaking in a common language. The responsibility of the GSA is to implement the GSP, whether that is to collect data, to collect fines, or even to do nothing when a basin is already defined as sustainable.

The Facilitator then presented *"Groundwater Sustainability Plan Regulations-GSA Decisions and Responsibilities"* including the key GSA Decisions as listed below.

1. Defining Undesirable Results As Defined by Sustainability Indicators:
    a. Defining Sustainability Indicators:
        i. Chronic Lowering of Groundwater Levels: Results in well stranding, increased well construction costs, and increased pumping costs.
        ii. Seawater Intrusion: Not probable in Glenn
        iii. Reduction in Groundwater Storage: Results in reduced water supply reliability.
        iv. Degraded Water Quality: Results in unsuitable water quality for beneficial uses, reduced crop yield, water treatment costs, and regulatory issues.
        v. Land Subsidence: Results in permanent loss of aquifer storage and damage to overlying surface.
        vi. Surface Water Depletions: Results in reduced water availability to surface water users and groundwater dependent ecosystems.
2. Establishing Minimum Thresholds and Measurable Objectives
3. Defining Projects and Management Actions

While you have overlying land rights, these are not all encompassing. There are always limits to rights. What a GSA will have to start determining is how much of that right you get to exercise,

and if you exercise an unlimited level of your right, is it creating an undue impact on others in your basin? In a high water year these rules may not matter, but in a year like 2016, they will play a role.

We are going to be able to define Management Areas based on some geographic or geological boundary. When you go through the regulations, you see that Management Areas should be defined based on criteria like groundwater excess or need. We are going to be evaluated collectively on a subbasin approach, but conditions may be different in distinct areas and can be managed differently.

The Facilitator then opened the floor for questions and comments regarding groundwater conditions.

Comment: There are a lot of assumptions that we have water problems, and a lot of these comments are hearsay. We should have input from scientists so we can get the data. Yes, I am offended by what is happening and the assumption that we are guilty of over-drafting. We have studied ourselves to death on building dams. We should be putting money in Sites Reservoir to store water, not to store water for fish. Most of us don't need a lecture on "Water 101." We aren't here for that. We want what's best for the community, not what the State is going to shove down our throats.

Comment: How is SGMA different from having the local entities dispute groundwater issues without interference? How will SGMA assist with disputes in a basin? Response: If there are one or more GSAs, the basins should come forth with coordination agreements, which define how they will resolve issues. Some people may legally challenge the State based on SGMA, or there might be a situation where two basins cannot resolve their differences. There is no doubt in my mind that this situation may be litigated. The future will tell.

Comment: In one area in the County developers put almond trees on hills. As a consequence, the hydrographs in those areas changed. The groundwater flows backward into a cone of depression. Based on SGMA there must be some areas you're just going to have to sacrifice. Response: That would be the responsibility of the GSA, to determine what to do with "problem areas."

Comment: If they don't sustain that, the State has the right to intervene? The state is setting us up for failure. That area can never be sustained, so when it fails they are going to take over the whole area, even areas that are sustained. Response: The State will come in if that area is not sustained. So the ideal solution is to deal with that at the local level before that happens.

Comment: One solution could be to take that solution into the planning process. So one solution could be just to pony-up and get water to the area. Or you can just shut it down. Response: There undoubtedly will be "haves and have nots." But there are creative solutions that can be made so that this situation does not occur. The next step is to talk about tools and how to fix this.

Comment: DWR will be working with the local GSAs during the development of the plans and will provide feedback and guidance when the plan is 30%, 60%, and 90% complete. DWR is different than the SWRCB, which is the enforcement arm. SGMA delegated authority to DWR to develop regulations and provide technical assistance. If a plan is deemed inadequate, you still have the opportunity to revisit it. You will be able to rectify it.

Governance Options
The Facilitator introduced the multi-agency governance options Colusa County is in the process of developing.

The first option has four Management Areas and proposes a governing board comprised of the County, other eligible GSA local agencies, two cities, and an undetermined number of private pumpers. The second is an all-inclusive GSA-County implementation. As of late last week, the options have been further developed and include merging the two options, making some additional adjustments which include having five Management Areas, one for each Supervisor District. The PPAC proposes to recommend five private pumper representatives on the governing board and clarification on how those members should be selected. One of the reasons this is an evolving discussion, is because eventually the County needs to know who is in and who is out. This is still embryonic. Having the PPAC is a way to include more local interests. Is it more cumbersome? Yes. But is it helpful? Yes.

Comment: I like that they are talking about the nuts and bolts already because that costs money. One option is a pay-to-play model meaning if an agency is sitting on the GSA board, they have some sort of financial commitment. Are they discussing that at all? Response: No, not in Colusa but in other places like Ventura. There are lots of forms of value, not just money. It could be defined by in-kind services or other compensation. As long as pay to play doesn't mean pay "X" amount of money or you're out, then I think it's a good idea. But that is ultimately a local decision.

Comment: Perhaps a possible Management Area concept could include areas that are not necessarily contiguous such as: the river area, the valley, and the Cities (Orland, Willows, and Hamilton City).

Next Steps
The facilitator encouraged everyone to begin looking into these ideas, such as Management Areas. He encouraged participants to contact Lisa Hunter or himself if there are any questions.

Meeting Participants

➢ Greg Johnson	Western Canal Water District
➢ George Pendell	Stony Creek
➢ Rick Massa	Orland Unit Water Users Association
➢ Rick Martin	Orland Unit Water Users Association
➢ Will Martin	Capay Farms

- Eugene Massa — Colusa Basin Drainage District
- Corey Richards
- Dan Gamon — Kleinfelder
- Anajanette Shadley — Western Canal Water District
- Del Reimers — Land Owner
- Brittany Gladman — Landowner/Whyler Co.
- Marcie Skelton — Ag Commissioner
- Ryan Teubert — Tehama County GSA
- Leigh McDaniel — Glenn County Board of Supervisors
- Pete Knight — Landowner
- Pete Carr — City of Orland
- Thad Bettner — Glenn Colusa Irrigation District
- Emil Cavagnolo — Orland Artois Water District
- Paddy Turnbull — Capay Landowner Association
- Mary Randall — Department of Water Resources
- Ron Stilwell — Private Pumper
- Mike Yalow — Resource Conservation District
- Erin Smith — Department of Water Resources
- Mardy Thomas — Glenn Co. Planning & Public Works
- Kandi Manhart — Glenn Co. Resource Conservation District
- Michael Alves — Kanawha & Glide Water Districts
- Bill Vanderwaal — Provost and Pritchard
- Doug Ross — Valley Mirror Newspaper

Staff

- Lisa Hunter — Glenn County Water Resources Coordinator
- Dave Ceppos — Center for Collaborative Policy

APPENDICES

- Draft Revised Proposed Common Principles
- Glenn County SGMA Regulations Presentation
- Colusa County Governance Options

Glenn County Sustainable Groundwater Management Act Implementation
Revised Common Principles

Introduction

Common principles reflect shared beliefs. They hold Groundwater Sustainability Agencies (GSA) mutually accountable to commitments that are made through the Sustainable Groundwater Management Act (SGMA) process. These principles help participants find common understanding and avoid misconceptions. They help participants create focused and consistent messages that can be communicated to all stakeholders in Glenn County and neighboring areas.

Revised Common Principles

1. **Ensure local control of groundwater resources**
   - All citizens and beneficial users (Water Code §10723.2)* will work collaboratively to comply with SGMA and avoid State intervention.

2. **Foster a partnered approach to groundwater management**
   - Beneficial users and GSAs will seek to pool resources (when feasible) for the common benefit of all.
   - Eligible GSAs will avoid duplication of efforts, limit bureaucracy, and seek efficient ways to implement and fund SGMA implementation.
   - Eligible GSAs will capitalize on skills and strengths of various partners to create and maintain effective and efficient governance.
   - The GSA should facilitate shared understanding of groundwater authorities and responsibilities under SGMA, and consistent with other State laws and regulations.
   - Water abundance should be enjoyed by, and water scarcity must be addressed by all beneficial users and citizens.

3. **Achieve sustainable groundwater conditions that support all beneficial uses and users**
   - Honor the common and unique interests of diverse groundwater users.
   - Regulation of well permits and water extraction will honor protection of all beneficial users.
   - All citizens and beneficial users of groundwater have a responsibility to ensure basin-wide sustainable groundwater resources.
   - Groundwater management solutions will vary by location and water year type. While all beneficial users hold a responsibility to achieve sustainability objectives, solutions may differ between various parts of the County and users within those areas.
   - Groundwater decisions will always be driven by best available information and the GSA will simultaneously support the collection of new information.

4. **Preserve and enhance the economic viability of beneficial uses and users**
   - Maintain and support existing surface water rights.
   - Pursue collaborative solutions to increase groundwater availability, recharge through sound groundwater use, and achieve sufficient surface water available at market rates.

*Water Code §10723.2 – Beneficial Users

• All Groundwater Users	• Local Landowners
• Holders of Overlying Rights (agriculture and domestic)	• Disadvantaged Communities
• Municipal Well Operators and Public Water Systems	• Business
• Tribes	• Federal Government
• County	• Environmental Uses
• Planning Departments / Land Use	• Surface Water Users (if connection between surface and ground water)

DRAFT

Groundwater Sustainability Plan Regulations

GSA Decisions and Responsibilities

Presented by the Center for Collaborative Policy using an approach and materials prepared by Davids Engineering as funded by the County of Colusa for Colusa SGMA Implementation

September 1, 2016

Approach

- Governance is all about decision making
  - If important decisions will be made, then governance is important; otherwise, not so much
- What are the key decisions embedded in preparing Groundwater Management Plan (or Plans)?
- "Key decisions" are ones that could affect the availability and/or the cost of groundwater to overlying landowners
- Be thinking about: "How should GSA's be formed to make these key decisions (and many others) appropriately?"

Outline

- Final Groundwater Sustainability Plan (GSP) Regulations
  - Focus on Key Decisions embedded in GSP development
- Thoughts on Delineating Management Areas
- Questions & Answers, Discussion

- *NOTE: Approach and materials in this presentation were prepared by Davids Engineering as funded by the County of Colusa*

GSP Regulations

- Finalized on May 18, 2016
- California Code of Regulations, Title 23. Waters, Division 2, Department of Water Resources, Chapter 1.5, Groundwater Management, Subchapter 2. Groundwater Sustainability Plans
  - Article 1. Introductory Provisions
  - Article 2. Definitions
  - Article 3. Technical and Reporting Standards
  - Article 4. Procedures
  - Article 5. Plan Contents
  - Article 6. Department Evaluation and Assessment
  - Article 7. Annual Reports and Periodic Evaluation by the Agency
  - Article 8. Interagency Agreements
  - Article 9. Adjudicated Areas and Alternatives

Article 5. Plan Contents

- Subarticle 1. Administrative Information
- Subarticle 2. Basin Setting
- Subarticle 3. Sustainable Management Criteria
- Subarticle 4. Monitoring Networks
- Subarticle 5. Projects and Management Actions

Key Decisions Embedded in GSP Development

- **Subarticle 3. Sustainable Management Criteria**
  - Defining "Undesirable Results": do they exist now; will they potentially occur in the future?
  - Establishing "Minimum Thresholds" and "Measureable Objectives" for each Sustainability Indicator (groundwater levels, water quality, land subsidence, etc.)
- **Subarticle 5. Projects and Management Actions**
  - Identifying "Potential Projects and Management Actions" needed to achieve sustainable basin management

Key Decisions: Defining Undesirable Results

- For each Sustainability Indicator, do significant and unreasonable effects currently exist or could they develop in the future?

• Chronic Lowering of GW Levels	• Degraded Water Quality
• Reduction of GW Storage	• Land Subsidence
• Seawater Intrusion	• Depletions of Interconnected Surface Water

- Do not need to address Sustainability Indicators if the GSA can demonstrate that undesirable results are not present and are not likely to occur.

Key Decision: Establishing Minimum Thresholds and Measureable Objectives

- **Numeric, site-specific criteria for each Sustainability Indicator establishing a point at which, if exceeded, significant and unreasonable results may occur.**

• Chronic Lowering of GW Levels	• Degraded Water Quality
• Reduction of GW Storage	• Land Subsidence
• Seawater Intrusion	• Depletions of Interconnected Surface Water

- **Must be established to avoid causing undesirable results in adjoining basins**
- **Must evaluate effects on the interests of beneficial uses and users of groundwater or land uses and property interests**

Key Decision: Defining Projects and Management Actions

- Describe Projects and Management Actions needed to observe Minimum Thresholds and Measureable Objectives
- Describe circumstances under which Projects or Management Actions shall be implemented
- Describe required legal authority and permitting and regulatory process to implement projects
- Explain expected benefits, costs and how costs will be met

Key Decisions by Sustainability Indicator Matrix

Figure 1. Key Decisions Embedded in Preparation of Groundwater Sustainability Plans pursuant to the Sustainable Groundwater Management Act
Prepared by Davids Engineering
July 2016

Groundwater Sustainability Agency

Groundwater Sustainability Plan

Sustainability Goal:
Essentially: Operate the subbasin within sustainable yield, with no Undesirable Results over time.

Key Decisions Determinations that must be made during GSP development per Final GSP Regulations.	Sustainability Indicators					
	#1 - Chronic Lowering of Groundwater Levels	#2 - Reduction of Groundwater Storage	#3 - Seawater Intrusion	#4 - Degraded Water Quality	#5 - Land Subsidence	#6 - Depletions of Interconnected Surface Water
Undesirable Results (§ 354.26) For each Sustainability Indicator, do significant and unreasonable effects currently exist or could they develop in the future?			Not Applicable			
Minimum Threshold (§ 354.28) Numeric, site-specific criteria for each Sustainability Indicator establishing a point at which, if exceeded, significant and unreasonable results may occur.			Not Applicable			
Measureable Objective and 5-Year Interim Milestones (§ 354.44) Numeric, site-specific criteria for each Sustainability Indicator describing prudent operational limits with "reasonable margin of operational flexibility" factored in.			Not Applicable			
Projects and Management Actions (§ 354.44) Descriptions of projects and management actions the GSA has determined will achieve the sustainability goal for the basin.			Not Applicable			

Pre-existing Undesirable Results

- GSPs may, but are not required to, address undesirable results that occurred before, and have not been corrected by, January 1, 2015 (per authorizing legislation; not expressed in GSP regs)

Sustainability Indicator #3: Seawater Intrusion

- Physically impossible; therefore, exempt

Sustainability Indicator #2: Reduction of Groundwater Storage

- Minimum Threshold: "…a total volume of groundwater that can be withdrawn from the basin without causing conditions that may lead to undesirable results." § 354.28 (c) (2)
- Potential Undesirable Results:
  - Reduced water supply reliability (reduced drought reserves)

Sustainability Indicator #4: Degraded Water Quality

- Minimum Threshold: "…degradation of water quality…that may lead to undesirable results." § 354.28 (c) (4)
- Potential Undesirable Results:
  - Unsuitable quality for beneficial uses
    - Agriculture
    - Drinking water
    - Stock water
    - Environmental uses
  - Reduced crop yields
  - Increased water treatment costs
  - Inability to comply with regulatory standards
    - Drinking water regs
    - Basin Water Quality Control Plan

Sustainability Indicator #5: Land Subsidence

- Minimum Threshold: "…the rate and extent of subsidence that substantially interferes with land surface uses and may lead to undesirable results." § 354.28 (c) (5)
- Potential Undesirable Results:
  - Permanent loss of aquifer storage capacity
  - Damage to foundations, roads, bridges, other infrastructure
  - Change in surface topography that reduces conveyance capacities of canals, natural channels, floodplains
  - Other effects

Sustainability Indicator #6
Depletions of Interconnected Surface Water

- Minimum Threshold: "…the rate or volume of surface water depletions caused by groundwater use that has adverse impacts on beneficial uses of surface water and may lead to undesirable results."
- Potential Undesirable Results:
  - Reduced water availability to "Groundwater Dependent Ecosystems" (GDE's) – TNC leading this
  - Reduced water availability to legal users of surface water

Sustainability Indicator #6
Depletions of Interconnected Surface Water

- Unofficial DWR Stance
  - Anticipating that effects on both Groundwater Dependent Ecosystems and streamflow depletion may become significant issues in the Sacramento Valley
  - Let local agencies define the challenges, recognizing that some local agencies might be from outside the Sacramento Valley
  - Working on technical tools to assist local agencies
    - C2VSim Model Update (fine grid)
    - Best Management Practices (BMPs) for local agencies to consider adopting for monitoring and analyzing effects of declining groundwater elevations

Sustainability Indicator #6
Depletions of Interconnected Surface Water

Crystal Ball:

- Potential effects of declining groundwater levels on GDE's and streamflow widely recognized, but physical relationships poorly understood
- Will definitely need to be addressed in GSP
  - TNC developing tools to assist in GSP preparation
- With respect to Sacramento River, potential effects are cumulative among subbasins
- Highly uncertain whether land subsidence will or may pose operational limitations

Sustainability Indicator #1
Chronic Lowering of Groundwater Levels

- Minimum Threshold: "…the groundwater elevation indicating a depletion of supply at a given location that may lead to undesirable results."
- Potential Undesirable Results:
  - Well stranding
  - Increased well construction costs
  - Increased groundwater pumping costs
  - Inelastic land subsidence
  - Streamflow depletion
  - Impacts to Groundwater Dependent Ecosystems
  - Induced water quality degradation
  - Others?

Sustainability Indicators Summary "Risk Assessment"

- Will or may be able to remove from consideration:
  - Seawater Intrusion (#3)
- Will need to address but unlikely to pose operational constraints, at least in near term:
  - To Be Determined
- "Wildcards" with known, significant potential for undesirable effects but highly uncertain operational implications:
  - To Be Determined
- Significant risk of imposing operational constraints:
  - To Be Determined

Thoughts on Management Areas

Management Areas Described Differently in the Regs

- "…an area within a basin for which the Plan may identify different minimum thresholds, measureable objectives, monitoring or projects and management actions based on water use sector, water source type, geology, aquifer characteristics, or other factors." § 351 (r)
- "Each Agency may define one or more management areas within a basin if the Agency has determined that creation of management areas will facilitate implementation of the plan."

Potential Themes for Delineating Management Areas

- Similar institutional factors
- Physical connectedness
  - Upslope-downslope groundwater flow
- Shared groundwater challenges and similar likelihood that potential projects or management actions will be needed
  - Areas where Measureable Objectives may not be met
- Relative benefit from GW use

Note: Delineation of Management Areas does not preclude coordinated actions across Management Area boundaries.

Discussion

Proposed Governance Options for Consideration by the Colusa County GSA Workgroup on August 24, 2016

Please note:

- The following two governance options were developed at the first meeting of the Colusa County GSA Workgroup Subcommittee.
- The Governance Subcommittee's role is to generate ideas for governance options to take to the larger GSA Workgroup for consideration.
- The Governance Subcommittee is not a decision-making body.
- These options are being presented for discussion purposes only and in no way constitute a final decision on SGMA Governance for Colusa County.

Proposed Governance Criteria:

1. Develop a manageable sized governance board (multi-agency GSA)

2. Governance board must have balanced representation

3. All areas of the county must be represented

Option #1: Multi Agency GSA, covers entire county; 4 Management Areas

GSA (SGMA Authorities and Responsibilities)

Proposed Governance Criteria: Manageable Size, Balanced Representation, All County Areas Represented

Each Management Area has representation; PPAC has representation; County covers non-participating agencies

MA #1	MA #2	MA #3	MA #4	County	Private Pumper(s)

** Board to include, but not be limited to, the noticed Agencies: County of Colusa, CCWD, GCID, RD108, Princeton/Provident, RD 1004, City of Williams*

GSP

Management Areas

Implement GSP, implement projects, fund activities, engage locals

MA #1 (NW – north of hwy 20, west of West Butte subbasin)
County (filed as GSA)
GCID (filed as GSA)
Princetont/Provident ID (filed as GSA)
City of Williams (filed as GSA)
Maxwell ID
City of Colusa
Colusa Drain Mutual WC
Willow Creek Mutual
Non-participating:
Holthouse WD, 4M WD, LaGrande WD, Glenn Valley WD, Davis WD, Princeton Waterworks, Maxwell PUD

MA #2 (NE – West Butte subbasin)
County (filed as GSA)
RD 1004 (filed as GSA)
Non-participating:
Eastside Mutual WC
Butte Creek Farms
Roberts Ditch Irrigation Co.
Carter Mutual WC

MA #3 (SW – south of hwy 20, west of Colusa Drain)
County (filed as GSA)
GCID (filed as GSA)
CCWD (filed as GSA)
City of Williams (filed as GSA)
Colusa Drain Mutual WC
Non-participating:
Westside WD, Arbuckle PUD
Cortina WD

MA #4 (SE – south of hwy 20, east of Colusa Drain)
County (filed as GSA)
RD 108 (filed as GSA)
City of Colusa
RD 479
CC Waterworks #1 - Grimes
Colusa Drain Mutual WC

Advisory Committees

PPAC	Non-participating Agencies	Federal Agencies? (Tribes, Refuges)	Other?

See next slide for Pros, Cons, Key Questions

Option #1: Multi Agency GSA, covers entire county; 4 Management Areas

GSA (SGMA Authorities and Responsibilities)

Proposed Governance Criteria: Manageable Size, Balanced Representation, All County Areas Represented

Each Management Area has a representative; PPAC is represented; County covers non-participating agencies

MA #1	MA #2	MA #3	MA #4	County	Private Pumper(s)

** Board to include, but not be limited to, the noticed Agencies: County of Colusa, CCWD, GCID, RD108, Princeton/Provident, RD 1004, City of Williams*

GSP

Management Areas

Implement GSP, implement projects, fund activities, engage locals

- **MA #1 (NW – north of hwy 20, west of West Butte subbasin)**
- **MA #2 (NE – West Butte subbasin)**
- **MA #3 (SW – south of hwy 20, west of Colusa Drain)**
- **MA #4 (SE – south of hwy 20, east of Colusa Drain)**

Advisory Committees

- PPAC
- Non-participating Agencies
- Federal Agencies? (Tribes, Refuges)
- Other?

Pros/Merits:

- Flexibility
- Practical – workable on the ground
- Management Areas aid outreach and education

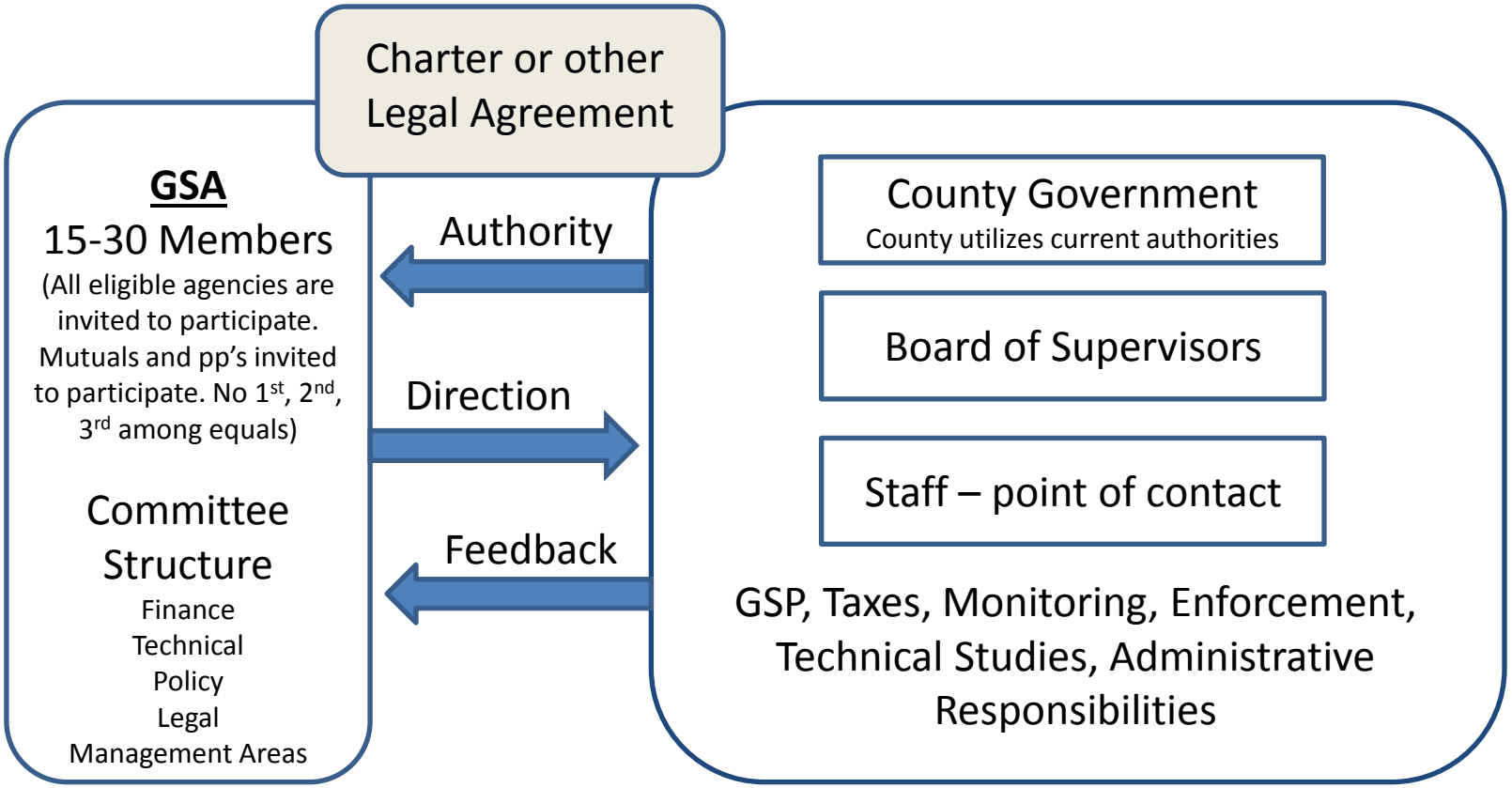
Cons/Concerns:

- Non-elected board

Key Questions:

- What size is the GSA Board? (Subcommittee agreed that it should be manageable)
- Who sits on GSA Board? (Noticed GSAs, Private Pumper(s), Other?)
- How many private pumpers on the board?
- How will board members be chosen?
- Who has management responsibilities – what are the respective roles, responsibilities, authorities of the GSA Board vs. Management Areas?
- Define Private Pumpers, White Areas and Pumpers within Districts:
  - Private Pumper: Ag well operator outside of a water district
  - White Area: Areas of the county that are not covered by a GSA
  - GW Pumpers within Districts are not Private Pumpers
- What is the County's role – coordination? Point of contact? White Area rep.
- How do we distribute agencies representing M.A.s on the GSA Board?
- How is this organization funded and how do we ensure it is proportional and fair?

Option #2: All-inclusive GSA; County Implementation



Pros/Merits:
- Local Engagement
- Landowners are accustomed to County taking on this role
- Allows everyone to participate, on equal footing – eliminates 1st, 2nd, 3rd among equals

Cons/Concerns:
- County bears responsibilities/costs – GSA instructs County, County takes the action
- Staff Capacity (County)
- Staff/Technical Consultants – County bears costs
- County leads politicized process (potentially)

Key Questions:
- What kind of Legal Agreement?