Day 1 - March 31, 2020; Skills Training

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Welcome & Introductions

Jennifer Clary & Danielle Dolan

3:20 - 4:10 PM

Choosing the Right Management Action: The Role of Monitoring Networks and Economics

Coreen Weintraub, UCS
Ellen Bruno, UC Berkeley
Darcy Bostic, UC Davis

Notes:

- **Coreen Weintraub - Sr. Outreach and Campaign Coordinator, Union of Concerned Scientist (cweintraub@ucsusa.org)**
    - Great job connecting the two topics, and looping back to the GTAN!
    - UCSUSA.org/groundwater-technical-assistance-tool
- **Ellen Bruno - Assistant Cooperative Extension Specialist, UC Berkeley (ebruno@berkeley.edu)**
    - From Felice: maximizing net benefits will likely favor some groups over others.
    - Reasons for delayed action
        - Waiting pushes costly adjustments into the future.
            1. Give people an adjustment period to prepare to find restrictions.
    - Making economic arguments for early action → show that benefits of early action outweigh that of delayed action.
        - Uncertainty on both sides of equation
    - What would I want to know? Example
        - "If 10% reduction in groundwater pumping were to happen in 10 yrs instead of this year:
            - How many domestic wells would go dry?
            - When wells go dry, what is alt?
            - Impacts to the environment?
    - In order to weigh tradeoffs of early vs. delayed action, we need to know costs and benefits.

- **Darcy Bostic - MS Candidate in Hydrology, UC Davis**
    - Sustainability Indicators of GSP → measurable objectives(MO) and minimum thresholds (MT)

- Monitoring networks capture basin trends.
    - A subset of the monitoring network where MOs and Mts are set
    - In order to set MOs and MTs you need:
        - Historical record
        - Demonstrate RMP has similar trends to wells nearby
    - Representative MN are not all wells
- What questions should you keep in mind moving forward? Broken into timeframes.
    - Now: Evaluation of available data
        - Does the GSP have a plan to monitor all relevant SI's? Two components:
            - Are they including SW/GW interactions to monitor GDEs?
            - Do they have enough representative monitoring wells to monitor impacts to shallow domestics wells?
        - Asses use of available data
            - Do they list DA / DAC or GDEs in their list of beneficial uses?
            - Are they using pre-existing monitoring networks?
        - If there are data gaps, are there concrete plans to improve monitoring network
    - 1 year update: Progress Check
        - Has the GSP done what they planned
        - Is the RMN actually representative?
    - 5 year update: Threshold assessment
        - Is the new RMN actually representative?

Q&A:

- *For Ellen*
    - Susan F. - For those of us with salmon-bearing streams it's impossible to put a cost on the loss of our fisheries becoming extirpated from GW pumping impacts
        - Impossible to put a true value on a species / losing a fishery
        - Definitely favors some groups over others; esp. Environmental benefits (e.g., fisheries) - but if we don't value it, it doesn't get included in the equation at all, and will usually have worse results
        - Two branches of env benefit valuation - stated preference vs. revealed preference (how behavior reflects their value of ecosystems)
        - Economics is very human-centric; the value of having the fish is as much as we as humans value the fish
            - Susan - I imagine it's as hard to value other beneficial uses as it is to value the salmon. Definitely a challenge. Thanks for working on it!
            - Amanda M. - Can we make them priceless? :P
            - Erik R. - They already are!
    - Raven S. - Is there modeling for estimating costs around the costs associated with no reductions for 10 years? how do they get valued?
    - Angelina C. - Susan - your question is important, especially when the regions contributing water to salmon bearing streams are unregulated under SGMA, unmonitored and unmeasured. When I think of cost benefit analysis of SGMA, it

seems protecting source water areas would be a low-cost, high-benefit action. Yet that has been so far completely ignored under SGMA, IRWM, the Resilience Portfolio and every other regulatory vehicle that I can think of in CA .I saw that
    - From Aysha - Ellen, are there ways to "weight" economic impacts to different groups? For instance, people who lose access to water - water costs are notoriously low, yet the impacts to people's lives are significant. Meanwhile, economic costs to ag are huge in comparison. Without weighting, the results would be skewed in ag direction over human access to water.
    - Joseph - negative impacts on SGMA of econ activity in the valley (Blueprint); robust enough study demonstrating econ vitality of protecting / improving environmental services?
        - Ellen - nope; would love to see it
- *For Darcy*
    - Felice - What if the monitoring network is not adequate? The network can be gamed to avoid finding, for example, water quality issues.
        - Nell - Also monitoring wells would ideally not be actively used for pumping.
        - Raven - Also monitoring wells are ideal if they are not being used/pumped...
- *For Coreen*
    - Felice - Is TA available to evaluate adequacy of monitoring networks?
        - Yes! That is something volunteers like Darcy can help with through GTAN, and also Darcy mentioned in her presentation TA and funding for GSAs
        - Felice I think the Union of Concerned Scientists Technical Assistance network has hydrologists on staff

Action Items:

- Share out info on how to get support from GTAN, or become a GTAN provider
- Consider survey of members to determine what type of support from GTAN would be most useful
- Look for / try to commission an economic study of the benefit of restoring or protecting ecosystems

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4:20 - 5:10 PM

EJ & Enviros: What are Our Shared Priorities?

- Focusing on bridging the gap between Ej and Enviro partners
- Comment from Felice - *Our objective should be to integrate, not "bridge"*
    - “Need to bridge the gap to successfully integrate”

Group 1: Coreen Weintraub, Union of Concerned Scientists (Jacqueline reported out)

- EJ Priority:
    - Accessibility & Equity of engagement process in GSP development (the planning process)
    - Bridging the disconnect between implementation and administration
- Unintended consequence:

    - disconnect between EJ and enviros; how this unintended consequence boils down to inequitable practices; lack of representation
- Ideas for collaboration:
    - EJ and enviros come together to bridge threads between groups; hopefully this could help ID mutually beneficial actions and unintended consequences

Group 2: Kristen Dobbin, PhD Candidate, UC Davis

- EJ Priority & Enviro priority are shared:
    - Voting representation on GSA boards
    - Outreach
- Mutually Beneficial Connection:
    - Work together to connect representatives
- Unintended Consequence:
    - Potential tensions around water costs
- Ideas for Collaboration:
    - Advancing equitable representation
    - Working with small farmers - “not all ag is bad”
    - *Could make it MANDATORY to have an EJ & Enviro representative on GSA boards*
    - *P*ush toward stronger mandates for representation
    - Articulate the HRW in SGMA
    - Need FUNDING for representation

Group 3: Suzannah Sosman, AgInnovations (Aysha reported out)

- EJ Priority:
    - Creating an equitable voice for EJ communities; how GSPs/GSAs are dominated by ag; getting a spot at the table is difficult
    - Even with $$ for DAC engagement, didn’t include these voices in discussion; imbalance of power
    - Could get more EJ inclusion through Irrigation Districts; elected by popular vote so can get more ground-level engagement
- Environmental Priority:
    - Don’t want to pit HRW against enviro water needs; need to frame asks in bonds/leg to make sure they’re not exclusive); need to pursue multi-benefit (gwr recharge on floodplains; water quality improvements in ONE project)
- Mutually Beneficial Connection:
    - Looking for improving shallow groundwater (this is an issue area for both enviros and EJ groups) for environment and people
    - Set MTs that benefit all users
    - Incorporate EJ and ENviro into decision making
    - Looking for diversity in small scale ag
- Unintended consequence:
    - Amanda: Irrigation Districts are ONLY land-based votes; doesn’t include renters

Group 4: Joseph McIntyre, AgInnovations

- What's the one thing that's most important in this convo (how to build a bridge and move forward)?
    - MaryElizabeth: increased communication; between DACs and enviros; so that we can join forces together on issues beyond the Tunnel
        - Eg AB 617 process in Stockton; lots of EJ and Enviro's working together
    - Nat: Access to data; neither enviros nor EJs can make good decisions w/o it; representation of EJ communities that are directly impacted by gwr issues; both at GSA level and larger NGO gatherings (like this)
    - Lisa Hunt: address economics of gwr mgmt - lots of messages put out that SGMA is going to have a negative impact on SJV communities; want a more balanced view
    - Pablo O: climate change can be a point to join all of this together; going to affect us ALL (ag, enviros, and EJ groups)
        - E.g. COVID-19: Letter from enviros, social justice groups, and universities - all getting behind a moratorium on water utility shut-offs; in the longer run; climate will bring groups together

Comment from Felice: Those with the power (the landed aristocracy) will try to keep you struggling for "engagement" when the real issue is power. Alliances of e-justice and e-groups will be better able to leverage power, which is what we need to change the outcomes.

Group 5: Nell Green Nylen, Wheeler Water Institute, Berkeley Law (Darcy Report back)

- EJ Priority:
    - GSPs show an understanding and incorporation of water quality and quantity that DACs face
- Environmental Priority:
    - GSPs show inclusion of GDE's and interconnected SW
- Mutually Beneficial Connection:
    - Climate change connection
    - Shared history of land use and water mgmt practices that impact both EJ and enviro communities
- Unintended consequence:
    - Ag can degrade water quality
    -
- Collaboration:
    - Multi-ben: land fallowing can provide benefit that supports both groups
    - Water quality and water levels are links; when both improved; benefits everyone
    - Kaweah RCS program - fallowing land in an enviro friendly way
    - Continue to include EJ priorities in environmental negotiations

        - People are having a hard time finding an EJ or enviro voice to join discussion; GWC could prep info/ed materials that shows connections between 2 groups and small farmers do ppl understand the mutual benefits
    - Need a clear theme that EJ and enviros can get behind w/ one voice and include the economic argument in this theme

Group 6: Mike Myatt, Water Foundation

- EJ Priority:
    - Ensuring groundwater for DACs and rural communities
- Environmental Priority:
    - Depletion of interconnected SW; GSA's need to IDENTIFY GDE's in their plans (this is a basic thing excluded)
- Mutually Beneficial Connection:
    - Recognition that gwr levels going to low is bad for everyone (water quality and GDE's) - work together to avoid this
- Unintended consequence:
    - Having a shared interest and being in the room on discussions
        - If we don't join forces; it's a missed opportunity
- Collaboration:
    - Basin scale & GWC: messaging and shared talking points - as we're meeting w/ stakeholders need to reinforce messaging
    - Deepening relationships; get report outs on meetings that you can't attend in-person

Group 7: Alesandra Najera, Water Foundation (Daniel Mountjoy Reported out)

- EJ Priority:
    - Addressing dw needs (quant and qual) through increased engagement of communities
    - Absence need for translation services (not just spanish); not just for GSP development but for on-going engagement
- Environmental Priority:
    - Long term avail for gwr for all beneficial uses
    - Ensure consideration of all stakeholders;
        - Eg streamflow; translation;
- Mutually Beneficial Connection:
    - Water quality planning - not coordinated - shuffled under other efforts at SWB
    - Engagement of stakeholders is a common issue - can work together on common concerns for water
- Unintended consequence:
    - Influential role of consultants in SGMA; not listening to all needs in the area; varies by consultant; not encouraging wider engagement if they don't consider it a priority under SGMA leg

- Collaboration:
    - Consistent messaging: insufficient water quality planning in GSPs
    - Recognize that gwr depletion can impacts GDE's before wells are impacted (good indicator)
    - We can better write grants and demonstrate collaborative efforts if we work together
    - Working together to provide public education in the community - come together as a collective voice

From Felice: Here's a question I hope we will get to tomorrow: Many GSPs are and will plan to use flood and seasonally high flows to recharge groundwater, that is, to address the overallocation of groundwater and resultuing impacts. But what happens when a year comes that there are no flood flows, that is, a year like 1977. Because ag production (and maybe drinking water wells) will then be dependent on that winter water, there will be tremendous pressure to take water anyway. What sort of provisions in GSPs are needed to address that likely future situation? One idea: do not allow GSPs to manage for minimums, that is, include a margin of safety for future years, a water bank for years that do not produce flood flows.

5:45 PM

HH: Local Challenges & Resources