

2023 California Environmental Assembly

Aquifers & Water Law Q&A – both panels

Question Details

#	Question	Asker Name	Asker Email	Answer	Question Time	Answered Time	Answer Name
---	----------	------------	-------------	--------	---------------	---------------	-------------

1	Hi, Julie, fellow wildlife-lover/biologist(ish) here. In our industry we widely cite the "98% wetland habitat lost" figure, but I've never found the original source of that information. Would you happen to have the original paper/report that created that estimate?	Keiko Mertz	Friends of the River	'-	"Hi Keiko, Yes, this is a fun question that we all debate a lot. My colleague John Cain likes to quote larger numbers than I do. My recent favorite sources are these: https://www.centralvalleyjointventure.org/assets/pdf/CVJV_2020_Implementation_Plan.pdf		
---	--	-------------	----------------------	----	---	--	--

Warmer RE, Hendrix KM. 1985. Riparian resources of the Central Valley and California desert. California Department

of Fish and Game

	https://databasin.org/datasets/53783ba3685642509030100ae9a221d1/				2/9/2023 9:17		
		2/9/2023 9:33	Julie Renter				

2	test q&a	Johnnie tablet	'-		2/9/2023 9:18		
---	----------	----------------	----	--	---------------	--	--

3	Is there a tradeoff between infiltration recharge and the evapotranspiration from restored habitat vegetation? If so, how strike a balance?	Anonymous Attendee			Great question! We have studied this for habitats using the same consumptive use models that are used in ag. There is variation across habitat types, but generally riparian vegetation transpires less water than irrigated crops, and is more flexible in demand, requiring less water in drought years and using more water in wet years. We have a petition in front of the water board currently that demonstrates this in a public conversation: https://riverpartners.org/news/restoration-conserves-freshwater/	2/9/2023 9:24	
		2/9/2023 9:37	Julie Renter				

4	Thanks for this great presentation. I'm curious how the expanded flood plains withstand periods of extreme drought and is there data about whether they are more resilient? Are there unintended impacts like increased dust/particulate matter pollution during extreme drought when the water dries up?	Anonymous Attendee		"Where we have been able to restore perennial vegetation, the drought does not induce dust issues, our native vegetation (and associated native wildlife) has evolved to be resilient to periods of dry and periods of wet.			
---	---	--------------------	--	---	--	--	--

We are quite concerned about retiring irrigated ag lands without restoration (to reduce demand) exacerbating dust issues. To contribute to a solution, we are doing a big push right now with many partners to create native grass seed quantities sufficient to transition those lands into a perennial

vegetation that is less susceptible to wind erosion and more drought-resilient. Other watersheds in the US have gone through ""buy and dry"" programs without this effort and the resulting vegetation on formerly irrigated lands is sparse and does not support soil conservation. We are hoping we can make enough suitable grass seed to preclude that fate for retired irrigated lands in the CV." 2/9/2023 9:26
2/9/2023 9:46 Julie Renter

5 Did you all measure the contaminant flows with recharge on ag lands and their impacts on water quality in the aquifers? Chris Brown '-' 2/9/2023 9:45

6 How much will recharge depend on ASR wells (and energy use) instead of infiltration? Is ASR cost effective, e.g., is there willingness to pay for it? Anonymous Attendee 2/9/2023 9:46

7 Thanks so much Julie. I'll save these. :) Keiko Mertz | Friends of the River '-'
2/9/2023 9:53

8 RE The Merced Watershed Study & "Fiscal incentives to landowners for environmental GW recharge --- I am glad you spoke to the hyporheic zones of rivers. How can DWR and the SWRCB protect these rewatered zones from ground water harvesting by pumps adjacent to these rivers & streams? Anonymous Attendee live answered 2/9/2023 10:03 2/9/2023 10:20 Ajay Goyal# DWR

8 RE The Merced Watershed Study & "Fiscal incentives to landowners for environmental GW recharge --- I am glad you spoke to the hyporheic zones of rivers. How can DWR and the SWRCB protect these rewatered zones from ground water harvesting by pumps adjacent to these rivers & streams? Anonymous Attendee GSAs will need to keep an account of recharged water and pumped water, and ensure we leave behind the water that was recharge to provide public benefits (including ecosystem benefits) 2/9/2023 10:03 2/9/2023 10:21 Ajay Goyal# DWR

9 What happens when the FIRO dumps aren't refilled because the forecast future storm doesn't deliver? Anonymous Attendee It will be best if we are able to direct the FIRO dumps into groundwater storage. 2/9/2023 10:09 2/9/2023 10:25 Ajay Goyal# DWR

10 "FIRO seems really attractive but in the light of near-failure events like Oroville the risks of getting it wrong seem substantial.

In the New Years Eve/New Years Day flood event this year, the CNRFC NOAA forecast was off for peak South Fork American Flow by about 50% (low) 12 hours prior. Can someone speak to model accuracy in the face of climate change/Atmospheric River events and implications for FIRO?" Jeff Venturino '-' 2/9/2023 10:09

11 can you identify a primer on FIRO suitable for the meanest intellect interested in advocacy of better reservoir operations (e.g., an attorney)? Anonymous Attendee 2/9/2023 10:12

12 To what extent do land use planning decisions conflict with natural infrastructure and does the state need to provide objective standards to protect natural infrastructure potential. Elizabeth Patterson '-' 2/9/2023 10:12

- 13 Recent research indicates that managed aquifer recharge using local water could potentially cover just 3% to 8% of the San Joaquin Valley's groundwater overdraft. How do we prevent the emphasis on groundwater recharge from being used as a pretext to avoid managing demand? Andy Sawyer '- million-dollar question! let's be clear about what is needed - it is a combination of significant demand reduction and recharge/better management of the water system from dams to aquifers. 2/9/2023 10:17 2/9/2023 10:27 Julie Renter
- 14 We have been swimming upstream when it comes to water conservation- it seems like the water saved did not return to the river, but was used to open additional farm acreage or crop conversion to higher-water crops. How will this time be different if the GSP's allow GW agencies to operate between their lowered expectation upper and lower GW level guidelines? Anonymous Attendee We failed to define water conservation appropriately in the past. CVPIA (1992) had a target of 200,000 acre of irrigation retirement. The Farm Bill spent 100s of millions on water conservation through drip irrigation. Neither of these adequately dedicated that conserved water to the environment or non-use. They exacerbated demand by facilitating more acreage of irrigation development. We have a chance to be smarter now with such hindsight. 2/9/2023 10:20 2/9/2023 10:26 Julie Renter
- 15 What legislative actions that promote better water management are ripe for action this session? Sage '- 2/9/2023 10:21
- 16 We need a land use enforcement and oversight agency to enforce General Plans. Elizabeth Patterson '- Hi Elizabeth, yes PCL agrees. There have been a number of conversations on a land use court integrated into the current judicial system as well as a separate system, which would be much more complicated, or at least more education on land use, general plans, and CEQA for judges and the courts. We have kept this toward the top of our land use priorities but it is a very heavy lift politically. Just like the new housing division at the AG's office there is an interest to create something like that or in conjunction with that department on General Plan oversight. Again, another politically heavy lift.... but definitely valuable. 2/9/2023 10:26 2/9/2023 12:06 Howard Penn
- 17 God willing and the SWRCB enforcing. Anonymous Attendee 2/9/2023 10:27
- 18 I agree with your assessment that water rights systems remains outdated, especially with respect to the equity imbalance associated with the establishment of riparian and appropriative rights that only afforded property ownership to a select few. We do however have some underutilized tools (fish and game code 5937, public trust protections, and actual water rights enforcement). How do we expose this antiquated system, utilize the existing tools, and build a coalition that has the political ability to make these changes? How do we influence the governor's office, legislature, and expose this imbalance? Redgie Collins- California Trout (he/him) '- 2/9/2023 11:01
- 19 Please list Michael's affiliation again. I joined late and he wasn't listed in the email about today's session. Jeff Gilman '- Leadership Counsel for Justice and Accountability 2/9/2023 12:04 2/9/2023 12:04 Matt Baker

19 Please list Michael's affiliation again. I joined late and he wasn't listed in the email about today's session. Jeff Gilman - <https://leadershipcounsel.org/about-us/> 2/9/2023 12:04
2/9/2023 12:07 Howard Penn

20 Other state agencies such as HCD are not focused on climate change and putting people at risk but rather focused on housing numbers. There needs to be a stronger directive to HCD to pay attention to this. Elizabeth Patterson - 2/9/2023 12:12