

Environmental Advisory Committee

FY 2021 - 2022 Q3 Mtg. Notes

3/18/2022

Virtual Meeting

Bexar County

EAC Attendees:	EAC Absent:
Deepti Kharod	Joe Baker
Wilfred Korth	Stephen Lucke
Annalisa Peace	Bree Jameson
Glynis Strause	Jason Katscmorak
Heather Hansen	
James Dodson	San Antonio River Authority staff attendees:
Janis Bush	Adrian Reyna
Connie Waters	Alicia Ramsey
	Austin Davis
Guests	Brian Mast
Jenna Wadman – TCEQ	Chris Vaughn
	Steve Graham
	Rebecca Reeves
	Jeanette Gonzalez

1. Welcome

Wilfred Korth (WK) called the meeting order and started introduction, followed by committee members, guests, and San Antonio River Authority (River Authority) staff.

2. Approval of December 10, 2021 Minutes

WK calls for approval of minutes.

Janis Bush (JB) made motion to approve the minutes, **Glynis Strause (GS)** seconded motion; **WK** calls for vote, minutes approved by consensus.

3. Clean River Program – Rebecca Reeves (RR)

Heather Hansen (HH) Asked for further explanation of bacterial impairment.

RR TCEQ has a standard for primary contact recreation which includes swimming and wading by children in water. If the river is impaired, it is suggested swimming and wading not be allowed. *E. coli* is an indicator of recent fecal contamination and is what the state uses to determine if an area is acceptable for swimming. There is no enforcement for swimming, but it is a risk-based suggestion. The River Authority samples several sites and results are published weekly for secondary contact recreation activities like kayaking. The concern is how likely someone will

ingest water from the river.

4. **2022 San Antonio River Loop Draining – Chris Vaughn (CV)**

GS Why are apple snails detrimental?

CV Apple snails eat aquatic plants that are the key to success and the nursery habitat for fish and bugs. If we don't have aquatic plants, then the bottom of the food chain falls out and anything that is left will be invasive species. When we are talking about an urban ecosystem, the number of aquatic plants is really pivotal to the success of the system.

DK Is there a correlation/trends in the drop in non-natives removed from the previous river draining?

CV Ultimately, the answer is we do not know. Less non-natives is good, but is it just an artifact that there was more water and we removed more fish. We also saw an equal number of native fish so it may be an indicator of what we saw with the non-natives is a good thing. We will not know until we have more information which means until the next river draining and that will help us draw conclusions.

HH Could it have been due to the freeze from last year having killed off a lot of non-natives?

CV We don't know for sure and could be a possibility. This year's freeze also caused fish kills among non-natives. The default answer is we don't know at this time considering the situation.

DK Are the *E. coli* counts lower than previously?

CV In 2020, of the samples taken only 2 were extremely elevated. This year, we were prepared with partnering agencies to address any elevated levels, but we did not need to.

HH Is the river draining held around the same timeframe when it is scheduled?

CV Yes, January is a generally a good time of the year for the dewaterers because of the weather and there is typically lower tourism. The weather helps to reduce any smells associated with the process.

HH Being that non-natives are sent off and humanely dispatched, are any of them turned into food?

CV That's a tricky question and is something we've talked about, but comes down to a legal issue for us.

5. **River Authority Mussel Efforts in the San Antonio River Basin – Austin Davis (AD)**

GS What is the value of the mussels to the river?

AD Mussels are filter feeders, so they do a fair amount of water filtration. They also make other nutrients available to the benthic communities. Mussels help keep substrates intact so beds don't get scoured out during high flow events. They are also food sources and an indicator species of water quality.

6. River Authority Stormwater Program – Adrian Reyna (AR)

Steve Graham (SG) Added context and information in reference to data informing actions throughout our basin to improve water quality.

Annalisa Peace (AP) Regarding the Low Impact Development (LID) best management practices (BMP) that are being monitored, were those installed by the River Authority team or through a program?

AR Our team installed them and are monitoring them.

AP Have you collected enough data to determine there is a significant improvement?

AR So far there has not been enough data to make a statement on that, but our efforts are working towards that goal.

SG For that data, what we're finding out is that we need a significant number of rainfall and we need enough rain events to happen. On average that is 3-5 years to get a statistically significant number of events where we can say from a scientific standpoint there is a benefit. Our best management practices are the same as the rest of the U.S.

AP Once there is sufficient data, will these techniques be included in San Antonio's MS4 permits?

STG We are currently advocating for that, and the City of San Antonio is requesting the data to confirm it works in San Antonio. We have not stopped trying to push that if these are installed and managed and maintained correctly then absolutely.

AP What are you monitoring on that non sampling monitoring station?

AR We are monitoring field parameters on a continual basis including devices and instruments that assists in the modeling for the engineers.

SG One point to make about the Clean Rivers Program is random sampling throughout the year, regardless of rain. The stormwater program collects samples when it rains no matter the time. That is where these automatic samplers are important and cost effective.

RR To bring this around, one of the pictures shown in this presentation is a station at the San Juan Remnant. There are mussels here and we monitor in the summer for dissolved oxygen. Because this is an engineered area there are stop logs that our WPO team can remove so that there's more flow to protect our mussels making the monitoring stations very useful.

HH Regarding the Elmendorf Lake BMP and the amazing reduction in *E. coli* that was shown, what happens to the *E. coli* between the inlet & outlet. Does it get trapped, does it get killed?

AR It gets trapped in the bioretention once the water filters through because the media is good for trapping and attaching itself to the bacteria.

SG Scientific research shows that there is a certain amount of die off, especially once the media dries out a lot of *E. coli* will die. There can be a bio accumulation and is why a lot of the BMP's media needs to be replaced every 5-10 years. It doesn't typically get reintroduced back to the environment on the outlet side.

Alicia Ramsey (AR1) Another benefit of the bioretention features, is that even if there is leeching, it is still on a tiny scale. And if it came back later it is not impeding the system all at once and seeing a reduction over time so that the river system wherever it's draining into can still have time to react favorably and bounce back.

SG *E. coli* bacteria attaches itself to very small particles of silt and sediment. That's why Total Suspended Solids (TSS) is so important, *E. coli* is often associated with TSS because it serves as an attachment. We know we're stopping the sediment in these basins and if TSS is a surrogate for bacteria, it's stopping the sediment.

HH Is this information given to developers when encouraging them to do bioretention and is there information about the maintenance for them.

SG The maintenance is communicated but we don't get into the science of it.

7. Future meeting dates and items for future consideration

GS Karnes Co Local Emergency Planning Committee meeting was held in Kenedy yesterday. From other counties' perspective, is there an increase in dumping along the river of household goods and furniture or is this something that has become a real problem in Karnes County.

Brian Mast (BM) Anecdotally we're not receiving additional calls from the community in regard to dumping, but we do know it occurs. We do see spikes. We do have upcoming spring time HHW collection events in the southern basin counties.

GS Do you take furniture like recliners and couches? The trash truck program is amazing and walking around there was a lot of furniture.

BM Unfortunately, we do not. Collection includes electronics, tires off the rim, paint, prescribed drugs, etc. We have heard furniture and mattresses are an issue but right now we do not have the capacity.

GS Regarding the trash initiative, is public outreach active in Karnes County?

BM Ads are running along with social media and when we have the opportunity we use billboards. It is a continuing effort and multi-year campaign.

Jeanette Gonzalez (JG) The messaging in the southern basin counties is specific to illegal dumping whereas Bexar county has a focus on litter.

SG We can speak to the commissioners court to further support the effort.

GS People don't want to pay to take it to the dump, and is easier to dump it.

BM I will touch base with Commissioner Dupnik to see what solution we can come up with.

Discussion regarding in person meeting:

Discussion ensued between members regarding the location being in the upper San Antonio Bay, Seadrift or Port O'Conner.

JD Spoke on timing to coincide with the San Antonio Bay Partnership Clean Up in September. The meeting can be arranged as a field trip event in the lower basin.

JG Will provide a doodle poll for all members to vote on preferred date.

Future items discussion:

AP Update on Regional Flood Planning Group.

HH In agreement of RFPG update.

Meeting adjourned at 11:59.