

Meeting Minutes

Surface Water Quality Standards Advisory Work Group Meeting

March 27, 2025

Location: TCEQ Headquarters, Building F, Second Floor, Room 2210 and Virtual Option on Teams
Time: 9:30 am – 12:00 pm

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9:30 a.m. Welcome, presented by Kelly Mills and Jason Godeaux

- Welcome from Kelly Mills, deputy director of the Water quality Planning Division, and Jason Godeaux, manager of the Monitoring & Assessment Section.
- Housekeeping (restroom locations, fire evacuation route, etc.).

9:45 a.m. Texas Surface Water Quality Standards (TSWQS) Update, presented Sarah Whitley

- Ms. Whitley gave a presentation regarding updates to the TSWQS, including recent EPA action letters and items pending EPA action from the 2010, 2014, 2018, and 2022 triennial revisions. Please see slide show entitled “Current Status of EPA approval of the TSWQS” for details.
- Sarah Whitley contact information: sarah.whitley@tceq.texas.gov; 512-239-5831.

General Discussion: No comments given or questions asked.

10:00 a.m. Salinity Criteria Development Input, presented by Sarah Whitley

- Ms. Whitley discussed current considerations for developing numeric salinity criteria in bays and estuaries, including work on researching historical salinity levels and freshwater inflows.
- Sarah Whitley contact information: sarah.whitley@tceq.texas.gov; 512-239-5831.

General Discussion

ATTENDEE: You mentioned that there will be a separate stakeholder group that will be formed to further discuss the development of salinity criteria in bays and estuaries?

TCEQ: Yes, that is correct.

ATTENDEE: Have you started looking at what other states do?

TCEQ: Yes. No Gulf states have numeric salinity criteria for bays and/or estuaries, and there are not many other states that have criteria in saltwater basin estuaries. I think Massachusetts may along with Guam and Hawaii.

ATTENDEE: I wanted to mention Louisiana. Louisiana uses a narrative, and they look at the species and their tolerances and manage based on that. Is this something that Texas would consider, or are you just developing numeric criteria?

TCEQ: We currently have narrative criteria already for salinity, so that's what permitting currently uses to develop their permit limits.

ATTENDEE: But those permit limits are facility specific. How do we know the long-term or cumulative effects? I think these questions are still not answered with the current permitting process, right? Is that what you are working on?

TCEQ: Yes, I think developing a number will take into consideration everything. So that's what we're going to be working on.

ATTENDEE: Will there be different salinity criteria for each estuary to maintain their unique estuary signature? If so, what will the salinity criteria parameters be? For example, would it be something like long-term average salinity, benthic health, species abundance, freshwater inflows, or average annual air temperatures?

TCEQ: We are looking at developing site-specific criteria for each bay system, and we are considering looking into maybe setting criteria for some of those secondary/tertiary bays as well. It depends on what the literature says and what research we can do to develop site-specific criteria for each of those, but it will be at least on a bay system scale. All the other details we're still working out at this point. We're looking at averages and something like we do for temperature - with a delta change and then also having a maximum. We're still working out all the details, but this is all good information to have to take into consideration. We will be, of course, having our freshwater inflows and Water Availability program helping us with some of that because they have their own limits as well.

ATTENDEE: Can you confirm that you are only doing research for bays and estuaries? Is there an intent to develop salinity criteria that ties back to a use, or is this going to be based on historical data like the freshwater total dissolved solids standards for a segment?

TCEQ: Yes, we are currently focusing on bays and estuaries. We haven't decided for sure, but we might do something similar with the general use and using those historical averages. There are a lot of models done already, so they have a good sense of the historical averages for salinity. That's what we're looking at right now.

ATTENDEE: Can you share what's prompting the need for this?

TCEQ: There's been a lot of stakeholder requests to have it, and it will make permitting a little more straightforward.

ATTENDEE: Will TCEQ create vertical salinity gradient criteria? I ask because there is a fully permitted desalination plant here with an open pipe outfall. City engineers say it will not mix, it will sink to the bottom waters, and will have a vertical salinity gradient of 20 ppt. I'm concerned that significant portions of a water column could be high in salinity and low in dissolved oxygen without exceeding attainable use criteria and could be harmful to aquatic life.

TCEQ: The standards only apply to surface waters in the mixed surface area. We have done vertical profiles, but the numbers that are used in the assessment are only in the ones from the mixed surface layer. Anything on the bottom wouldn't be assessed. I think that we can look at some sort of vertical gradients, but I'm not sure how that would exactly apply to our standards and assessment.

ATTENDEE: Do you plan on factoring into this development some way to allow for the fact that you may see, with additional water use and climate change, reduced flows into estuaries? Also, the fact that having worked in multiple estuaries in the state, they're quite different in terms of the natural range of salinities that we see. I think you're aware of the permits and the issues that have arisen on salinity. We've dealt with the rise over ambient certain distances and then evaluating further afield with those specs. You're talking about a very complex thing, I think. One of the reasons we don't have numeric criteria is that it is so variable in our estuaries and very different from, say, Sabine Lake down to Laguna Madre. It's not going to be one-size-fits-all. And then the last thing I like to add - are you going to look at the Gulf in terms of whether there's going to be any kind of a need for actual numerical criteria because there's going to be discharge there in the future?

TCEQ: At this point, we weren't really considering the Gulf just because of its wave action mixing and circulating all the time. However, it's something to think about, and we'll look into it.

ATTENDEE: A big concern with increasing salinity is a risk of hypoxic conditions. We know as salinity increases, the solubility of oxygen in water decreases. Would these salinity standards consider dissolved oxygen and monitor them both congruently?

TCEQ: When we monitor, we would continue to monitor for dissolved oxygen and salinity. The salinity criteria we set will consider any kind of hypoxic conditions. We're not going to set a number that's going to cause that to happen, and if it does, then you know it'll show up in the assessment as an impairment for that estuary.

ATTENDEE: Will models to project future freshwater inflows be used to anticipate reduced inflows from a) increased demands/use and b) increased drought occurrence and intensity? These impacts should be considered when developing standards.

TCEQ: We don't do the freshwater models, but other programs will and have worked on that. There's been a lot of research and a lot of modeling for freshwater inflows, so we are using the data from those to develop our salinity criteria. However, we're not working on the models ourselves.

ATTENDEE: Will there be criteria developed to determine if current freshwater inflows are meeting their targets? I ask because there is a desalination plant that will discharge into a bay here that receives freshwater inflows, and I'm concerned it will cancel out some of the benefits of those freshwater inflows.

TCEQ: Another TCEQ water program area does have targets for freshwater inflows, and that's why we're working with them to figure out what the appropriate salinity criteria would be to make sure that we're not in conflict with each other. That will be considered, but from another program perspective.

ATTENDEE: What do you expect the timeline for this criteria development to be? Is it at the end of this revision cycle or in the future?

TCEQ: On our current timeline for this revision, we don't have enough time to get criteria in there because we have to have our internal discussions and make sure we're on the same page. We're still working on what numbers would be appropriate for each bay system, and that's going to take a little bit of time just to get that together. Then we'll bring in the stakeholders to have some feedback from everybody. This will have to catch the next revision cycle.

10:30 a.m. Toxic Criteria Revisions, presented by Debbie Miller

Handout: Changes to Toxic Criteria Table 2

- Ms. Miller led a discussion regarding possible revisions to human health criteria located in Table 2 of §307.6(d)(1). The above referenced handout was discussed with the group. No changes to Table 1 of §307.6(c)(1), regarding numeric aquatic life criteria, are currently planned.
- Debbie Miller contact information: debbie.miller@tceq.texas.gov; 512-239-1703.

General Discussion

ATTENDEE: Has anyone ever discharged N-Nitroso-di-n-Butylamine? I can't think of any of my clients who discharge it.

TCEQ: I'm assuming someone does, or we wouldn't have standards for it.

10:40 a.m. Nutrient Criteria Development Update, presented by Myriam Loving

- Ms. Loving gave a presentation summarizing current work regarding nutrient criteria development, including past and current contracts. Please see slide show entitled "Nutrient criteria development update" for details.
- Myriam Loving contact information: myriam.loving@tceq.texas.gov; 512-239-1804.

General Discussion

ATTENDEE: Out of curiosity, are you taking into consideration the commissioners' decision on the limit for the Liberty Hill permit?

TCEQ: Yes, we are considering the new permit limit. Nutrients are a very complicated issue. They're going to have to think about how to meet those limits.

ATTENDEE: Are there any more details on what Tetra Tech is doing?

TCEQ: For the reservoir project, we've developed the work plan for this project. We're waiting to have our kickoff meeting, but it should start soon.

ATTENDEE: Is the work plan available?

TCEQ: Not yet.

11:00 a.m. Site-Specific Criteria Changes, presented by Eloy Montero-Hernandez

Handout: Site-specific changes

- Dr. Montero-Hernandez gave a presentation regarding possible site-specific changes to appendices A, C, and D. The above referenced handout was discussed with the group. Please see slide show entitled “Site-Specific Criteria Changes” for details.
- Eloy Montero-Hernandez contact information: eloy.hernandez@tceq.texas.gov; 512-239-1521.

General Discussion

ATTENDEE: If a discharger is considering proposal of a site-specific standard for a single regulatory segment, is there a preferred schedule for submittal of the use-attainability analysis (UAA) to TCEQ and associated meeting(s) with TCEQ to review the proposal?

TCEQ: If anyone at any point in time is interested in having a UAA performed on a segment that they discharge to, the door is always open. We would strongly suggest that you come in sooner rather than later to discuss it not only with us, but also with the permit writers in TCEQ’s Water Quality Division (WQD). We’d all need to agree that a UAA would help in your specific situation, and we could talk then about a timeline for potential adoption of the UAA results into the TSWQS.

11:20 a.m. Recreational Use Changes, presented by Bonnie Evans

Handout: Recreational Use Changes

- Ms. Evans discussed possible revisions to Appendix G of the TSWQS based on recent recreational UAA studies. The above referenced handout was discussed with the group. Please see slide show entitled “Recommendations for Recreational Use Changes” for details.
- Bonnie Evans contact information: bonnie.evans@tceq.texas.gov; 512-239-3148.

General Discussion: No comments given or questions asked.

11:40 a.m. Primary Contact Recreation 2 (PCR 2) Updated Framework, presented by Bonnie Evans

- Ms. Evans discussed a possible framework to assign a contact recreation use of PCR 2 to waterbodies. Please see slide show entitled “Updated Primary Contact Recreation 2 Framework” for details.
- Bonnie Evans contact information: bonnie.evans@tceq.texas.gov; 512-239-3148.

General Discussion: No comments given or questions asked.

General Water Quality Standards Questions

ATTENDEE: For the 2026 revision of the standards, is there a concurrent draft for new implementation procedures? This will be important to those working on wastewater permits.

TCEQ: We used to run edits with the implementation procedures hand in hand with changes to the TSWQS, and yes, we have gotten off cycle from each other. The last time the implementation procedures were reviewed and adopted by the commission was in 2010, and WQD are currently working on trying to update those procedures. WQD has a draft timeline and are hoping to get these to agenda in September of this year and then out for formal comments shortly after that.

ATTENDEE: During the last revision cycle, you had proposed language for preproduction plastic. There were some standards already shaping up, but that proposed language eventually got removed. I was wondering if in this revision cycle, should we expect the inclusion of preproduction plastics language again.

TCEQ: Comments received when we proposed the prohibition on the discharge of preproduction plastic in our last revision cycle included remarks pointing out that the TSWQS even permit things like carcinogens to be discharged at some amount, albeit very small amounts. Complications with how to assess water bodies and how to enforce the prohibition in permitting were also brought to light. Therefore, we are not currently considering any plastic prohibition language for this revision. Any restrictions or limits regarding preproduction plastic discharges can be handled in individual permits on a case-by-case basis.

ATTENDEE: Will there be considerations for produced water? Two months ago, Jim Wright suggested sending produced water to Corpus Christi to help us with our drought, and I'm concerned about the possible impacts since the science on produced water is still being worked out.

TCEQ: You are correct. It is still being worked out. Texas and New Mexico both are really interested in finding as much water from as many sources for all sorts of uses, including dust suppression, crop irrigation, and perhaps even as drinking water. There is consortium of people in both New Mexico and Texas that are working on it, including looking at pilot projects for treatment, and both states are communicating with each other. We've started to come up with a list of constituents that we think may be produced water. The TCEQ Offices of Water and our toxicology staff are working jointly on a contract with a consulting firm, ToxStrategies, to come up with some values that we can use in permitting to evaluate these substances in case they show up in a facility's effluent. It's still early days, and there is also a lot of legislation that has recently been filed in this legislative session. We'll see if any of that legislation passes, continue to work with our contractor to develop values to use in permitting, and move forward from there.

ATTENDEE: I've heard that there are already six to eight permits to discharge preproduction water in house. My concern is that the science on this is still evolving.

We don't know what's in it. We don't know how to treat it. We don't know the long-term effects of those constituents on the environment or public health. Would it be safe to say that TCEQ will not approve any of those permits until we know what we're doing?

TCEQ: We have the same concerns, and we don't want to issue a permit and then find out there are issues. We're taking a very cautious approach to it and trying to go in with our eyes wide open. We're not rushing to permit any of those until we feel confident in the permit review process and any limits that may be included in a permit.

ATTENDEE: How will the TCEQ address cumulative salinity increases from wastewater discharges? There are four desalination plants being developed here with partial or full permits that will increase the average long-term salinity for the Corpus Christi Bay by 0.5 ppt each, giving a total combined increase of 2 ppt. Will there be an overall limit on cumulative salinity increases from permitted discharges?

TCEQ: We're looking at those case-by-case and permit-by-permit, but part of the process is to have the applicants provide modeling that shows any expected increase from the discharge model, such as on a bay-wide scale. That is something that we're looking at as far as what can be allowed without causing an overall increase in salinity in the bay.

12:00 p.m. Adjourn