

Meeting Minutes
Surface Water Quality Standards Advisory Workgroup Meeting
March 28, 2012

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Location: Building F, Second Floor, Room 2210

Time: 9:00 am – 2:30 pm

9:00 a.m. Welcome and Workgroup Introductions, presented by Jill Csekitz

- General welcome and introduction
- Call to order, initial welcome, introduction of Kelly Holligan, Water Quality Planning Division Director and Clyde Bohmfalk, Nonpoint Source Team
- Welcoming remarks (Kelly Holligan and Clyde Bohmfalk)
- Introduction of Water Quality Standards Group staff and workgroup members

Jim Davenport

Laurie Eng Fisher

Jason Godeaux

Joe Martin

Debbie Miller

- Went over facilities, general safety information, sign in, and list serve.

Comments to the workgroup from Kelly Holligan

He didn't want to take valuable time from the group, but Kelly did want to take a moment to thank all for attending and participating in the workgroup.

Comments on the history of WQS by Clyde Bohmfalk

Water Quality Standards are the foundation of water quality management for the state. The Water Quality Standards team was previously known as the Water Quality Board. During the first attempt at instituting standards, the Board had issues with implementation. The only standard implemented initially was dissolved oxygen in the Houston Ship Channel. In 1972, with the passage of the Clean Water Act, the amendments which were adopted included technology requirements (for waste water treatment plants) which were established as state standards in 1973. Initially, no advisory group was consulted. This lack of involvement from interested parties resulted in issues during the public hearing in which the standards were issued; for example, EPA set a temperature standard for water of 90°F, which is not likely to be attainable in Texas portions of Texas where ambient temperatures are typically above 90°F during the summer. EPA declared this data 'historical' and not relevant, so the temperature standard was not altered.

The issues facing WQS have changed over the years and now include establishing standards for, among other things, nutrients and bacteria.

Clyde recognized Ken Kramer, of the Sierra Club, who is retiring.

9:15 a.m. Update of EPA Approval of 2010 WQS and Topics for 2013 Revision, presented by Jill Csekitz

Handouts: Summary of EPA Action on the 2010 Surface Water Quality Standards

2010 Key Standards Revisions

The major changes in the 2010 triennial revision included changes to toxic criteria, recreational and site-specific standards, and adoption of numeric criteria for nutrients.

Changes to 307.9

Changes to the section describing determination of standards attainment included language:

- identifying non-representative data, particularly at high flows
- specifying that dissolved solids and human health criteria are based on long-term mean according to procedures described in *TCEQ Guidance for Assessing and Reporting Surface Water Quality in Texas* as amended
- specifying standards attainment for contact recreation must not be based upon samples collected during extreme hydrologic conditions
- specifying standards attainment for contact recreation is based on the long-term geometric mean, unless evaluated for purposes of swimmer safety notification and wastewater permit compliance.
- allowing for deferment of listing status on the Clean Water Act 303(d) List until a Use Attainability Analysis could be performed on water bodies with presumed aquatic life uses.

2010 EPA Action

EPA took action on the 2010 revisions in a June 20, 2011 letter outlining five types of actions:

- Revisions approved
- Revisions approved subject to completion of consultation under Endangered Species Act
- Revisions disapproved
- Revisions not considered water quality standards under Clean Water Act (CWA)
- Revisions still under review by EPA

A summary of EPA action on 2010 revisions is provided below:

The following revisions were approved by EPA:

- Revisions to numeric criteria for 99 potentially toxic substances for the protection of human health (all revisions were approved except for mercury)
- Expanded recreation use criteria categories (primary, secondary contact 1, secondary contact 2, noncontact) and their definitions
- Provision to use only the long-term geometric mean criteria when assessing recreation standards compliance, so that “single sample” criteria for bacteria will no longer be used in the assessment

- Partial approval of the majority of site-specific revisions in Appendices A (classified water site-specific uses & criteria), C (segment descriptions), D (unclassified water site-specific uses & criteria), and E (site-specific toxic criteria)
- Numerous revisions to the main standards text in §§307.1 – 307.3, §307.5
- Appendix B (new list of sole source water supplies as required by state legislation)
- Approval of Appendix G (site-specific recreation standards), which included assigning a secondary 1 recreation use to three streams in the Houston area

The following revisions were approved but are subject to consultation with USFWS on Endangered Species Act review:

- Site Specific Uses and Criteria for Classified Segments
 - 7 classified water bodies for revised aquatic life uses and D.O. criteria – Appendix A
 - TCEQ can use these criteria now, until UFSWS formally contacts EPA with a request to take action on the criteria
- Site-Specific Uses and Criteria for Unclassified Segments
 - 16 unclassified water bodies for revised aquatic life use and D.O. criteria – Appendix D
 - TCEQ can use these criteria now, until UFSWS formally contacts EPA with a request to take action on the criteria

The following proposed Revisions were disapproved by EPA:

- Human Health criterion for Methylmercury of 0.7 milligrams per kilogram
 - EPA has a 2001 criterion of 0.3 milligrams per kilogram
 - EPA: TCEQ may choose to adopt a different criterion than EPA, but must demonstrate that it is scientifically defensible and protective of human health
 - Previously approved criteria for mercury remains in effect
 - “If Texas does not adopt a revised mercury human health criterion that is scientifically defensible and protective of human health, in an expeditious manner, EPA may promulgate the agency’s criterion recommendation.”
 - EPA requested a timeline for adoption of a revised criterion with the assumption that the process will take less than three years.
- High Flow Exemption for Bacteria
 - Proposed revision exempted data collected during or 24 hrs after high flow events (90th percentile flow) for determining compliance with the bacteria criteria
 - EPA: no assurance recreation would not occur during these flows
 - EPA: on smaller streams contact recreation more likely to occur during these flows
 - EPA: disapproved because it does not protect the designated or presumed recreation use that applies at all times
 - EPA: TCEQ may correct this deficiency by removing it from SWQS or amending the regulation to require to require that the use be assessed with samples from all flows

The following Revisions were not considered by EPA to be water quality standards under the CWA:

- 307.6 – Toxic Materials

- EPA taking *no action* on provisions related biomonitoring testing and TREs
- EPA: “Although these provisions were arguably covered by, but not specifically mentioned in, EPA’s previous approval actions, EPA does not considered them to be water quality standards...”
- “Thus EPA hereby clarifies that the Agency did not take CWA...action on [these provisions] in its action letters dated June 29, 1988, September 24, 1991, March 11, 1998, and August 6, 2008.”
- Main issue related to when a facility must conduct a TRE
- Diazinon Provisions
 - Removed provision regarding diazinon and TRE requirements
 - EPA taking *no action* for the same reasons listed above
- Low Flow Criteria
 - Revision removed 7Q2 and Harmonic Mean table for stream flows
 - EPA taking no action for the same reasons listed above
- No Action
 - Not defined in the CWA or EPA regulations
 - Likely means that EPA does not consider themselves to be bound by these provisions because they have not been approved or disapproved and are not considered water quality standards
 - Definition of Surface Water in the State
 - Revision referenced SWQS definition to the Texas Water Code definition which includes an area 10.36 miles off-shore into the Gulf of Mexico
 - EPA: Texas does not have CWA jurisdiction to establish water quality standards more than three nautical miles from the coast
 - Red River and Lake Texoma waters not under Texas jurisdiction are also with no action

The following revisions are still under review by EPA and cannot be used for CWA activities:

- Provision for assigning a presumed use of secondary contact recreation 1 to an unclassified water body
- Numeric nutrient criteria for 75 reservoirs in Appendix F
- Site-specific aquatic life uses and dissolved oxygen criteria for seven specific segments, and revised criteria for minerals, pH and temperature in numerous segments in Appendix A
- Segment description for two segments in Appendix C
- Site-specific aquatic life uses and dissolved oxygen criteria for three unclassified water bodies in Appendix D
- All aquatic life numeric criteria in Table 1

General Discussion

Participant: Are there any ideas that TCEQ or EPA has identified regarding more options which may be considered for high flow exemptions and is there any room for maneuvering?

EPA representative: The EPA used gauging stations to evaluate at high flows. The results were not clear when assessing impairment assessment at high flows. Difference in assessment between low and high flows is not great.

Participant: I would like to include in the discussion the possibility of redefining use as not occurring during certain flows.

EPA representative: Collection times are included in assessment [referring to safety procedures when collecting samples].

Participant: Will the recreation standards in 2013 consider the publication of new EPA criteria? So this will come up again?

Jill: State standards are already approved [by EPA]

EPA representative: The numbers are not changing in the draft

Next Steps and Future Revisions

While the EPA finalizes review of the 2010 standards, TCEQ has already begun the 2013 triennial revision. TCEQ requested preliminary comments in the June 24, 2011, publication of the Texas Register. TCEQ management has granted approval to begin the rule process. Public workgroups associated with the 2013 revision are planned for the spring and summer of 2012, with this March 28th meeting being the first.

General Discussion

Participant: Any ideas on disposition of EPA?

Jill: EPA asked for data and a list of considerations. They were concerned about suggested limits.

Timeline 2013 WQ Standards Revisions

Major milestones and associated timeline for this revision is as follows:

- Preliminary comments received (July, 2011)
- Advisory Workgroups (March, May, July 2012)
- IP Revisions running concurrently with the WQ standards revisions
- Proposed (April, 2013)
- 45-day public comment period
- Public hearing (June, 2013)
- Comment period ended (June, 2013)
- Adoption Agenda (October, 2013)

2013 Revisions

Key concepts to be included in this revision include:

- Revision of statewide toxic criteria
 - Mercury
 - Reconsider tissue-based human health criteria
- Additional site-specific standards for individual water bodies
 - Appendices A, D, E, and G

2013 Nutrients

Texas is not proposing any additional numerical nutrient criteria during this revision cycle. TCEQ intends to update its Nutrient Criteria Development Plan with participation and input from the stakeholder workgroup. The Nutrient Criteria Development Advisory Workgroup (NCDAWG) last convened in June 20, 2011, and another meeting is planned for Fall 2012. TCEQ will continue progress on the development of numeric criteria for estuaries, streams, and large rivers.

2013 Recreational UAAs

Site specific recreational uses will be considered during this revision, using information documented in Recreational Use Attainability Analyses Studies (RUAAs). These surveys document physical stream characteristics and recreational activities occurring in a water body.

RUAA survey reports are not considered final until completion of a 30 day public comment period, which allows an additional opportunity for the public to provide information to the TCEQ. After a report is considered final, TCEQ may draft recommendations. If a use change is recommended, it will be included in a water quality standards revision cycle which affords the public an opportunity to comment on the use change. All use changes must be approved by EPA to be used for CWA purposes.

General Discussion

Participant: Is the public participation process a separate process from presuming secondary contact?

Jill: Yes it is

Participant: Have you completed public participation process for RUAAs and have they gone to EPA yet?

Jill: No, not for this revision. EPA has approved Appendix G which was added in the 2010 revision.

Participant: So, right now this a technical report?

Jill: The yellow sheet with list of water bodies subject to RUAA evaluation does not include the ones that are already approved (the three water bodies are (2010 edition, page 165) Brook House Gully, and two unnamed tributaries of White Oak Bayou)

Participant: When will TCEQ make and release recommendations on RUAAs?

Jill: ASAP

Participant: Will these be available before next meeting?

Jill: Our goal is to have them by July

Participant: Regarding the list of sites which are awaiting releases of comments... is that document available for viewing now before the 'official' release?

Jill: No, it is not yet available. They will be made available to everyone at the same time.

9:30 a.m. Mercury and Other Fish Tissue-Based Criteria, presented by Debbie Miller

Handouts: Status of Mercury Human Health Criteria; Future Revisions to Fish Tissue-Based Criteria in the 2013 Texas Surface Water Quality Standards; EPA's Compilation of State Adopted Mercury Criteria

2010 Fish Tissue Criteria History

The workgroup was given a brief reminder of the basis for developing fish tissue-based criteria and the basis for the 0.7 milligram per kilogram criterion for mercury adopted in the 2010 WQS.

- EPA finalized a national recommendation of 0.3 milligram per kilogram of methylmercury in fish tissue. This is the first fish tissue-based criterion EPA has ever finalized.
- TCEQ adopted a numeric criterion of 0.7 milligram per kilogram fish tissue after reviewing EPA's criteria document and the results of a Texas Department of State Health Services (DSHS) 2004 study on mercury exposure to residents near Caddo Lake.
- In 2007, staff discussed the possibility of adopting a fish tissue-based criterion for mercury with the workgroup. At that time, the workgroup members asked that we also consider proposing fish tissue-based criteria for other highly bioaccumulative substances. As a result, fish tissue criteria were adopted for DDT, DDE, DDD, PCBs, and dioxins/furans in 2010.
- In June 2011, EPA approved all human health criteria in 2010 water quality standards (WQS) except for mercury.

EPA did not accept the scientific evidence provided by TCEQ as sufficient justification for deviating from the nationally recommended criterion of 0.3 milligram per kilogram;

EPA wants this issue resolved in less than three years or they may promulgate;

EPA requested a response from TCEQ in six months replying to how this will be resolved in a less than three year timeframe.

Mercury Update

TCEQ responded to EPA in a letter dated November 11, 2011. TCEQ disagreed with the disapproval, but believes the issue can be addressed in the 2013 revision of the WQS. However, the topic will need to be discussed with stakeholders before deciding a course of action. For now, the 2000 WQS for mercury (0.0122 microgram per liter in freshwater and 0.0250 microgram per liter in saltwater) remain in effect for CWA purposes, and these water column criteria were designed to protect for the FDA action level of 1 milligram per kilogram in fish tissue. A handout of all states' mercury criteria as of August 17, 2010 was provided and discussed with the group. From this, seven states have adopted the EPA mercury criterion for fish tissue or set a more strict criterion; others are around 0.05 microgram per liter in water or similar to the criteria in the Texas 2000 WQS. Most comments received during the preliminary comment period were to accept EPA's national criterion.

Participant: Current EPA guidelines have revised water column numbers which are now lower/more stringent; current 1 milligram per kilogram guideline is not viable.

Participant advocates fish tissue criteria between 1 and 1.3 nanogram per liter because bioaccumulation and methylation rates. Tissue numbers are appropriate because it integrates what is going on with environment (i.e., includes all variables in habitat); participant believes the real issue is that DSHS and TCEQ do not use the same values in evaluating human health.

Participant thinks that those numbers should be reconciled. The pressure is on states to look at what are appropriate tissue guidelines that represent effective levels.

General Discussion

Participant: I think there should be a discussion with DSHS about inconsistencies in assessment values.

Debbie: DSHS numbers have different uses; also, difficult to go to another agency and tell them to do their job differently. We will talk more about this in a moment (as presentation continues).

Participant: Voiced concerns about the wholesale changing of numbers. What if you cannot track down the source of mercury in fish, especially in newer reservoirs? There is one case where the source is a dentist; there is no regulation to go after the dentist for contaminating the water. Instead the city gets the violation.

Participant: The Great Lake states which adopted EPA's criterion were forced to adopt a statewide variance which requires point sources to be identified; many waters will exceed this standard. States (OH, MN, IN) adopted variance program so that Point Source groups were not stuck with unattainable goals for WQS.

Participant: I'm worried if we don't take action or have a delayed action. Also, there are other sources for mercury besides the atmosphere.

Participant: I'm concerned about adopting fish tissue standards, determining a water body impaired, and then nothing else is followed up on. Will more fish sampling occur? *(She is from an entity that represents interests for a water body that had a fish advisory issued a few years ago but no one has come back to do more testing)*

Debbie: 13 years is the time table to get the water body off the advisory list. The intention is to increase sampling, but funding is always an issue.

Participant: Does the mercury standard apply for all water bodies, one size fits all?

Debbie: Yes.

Participant: Will the standard include guidelines for number of times a water body has a fish that exceeds the mercury standard before issuing a fish advisory warning?

Jill: An applicability and attainability study will be done; the standards lay the basic groundwork for the assessment, but the SWQM assessment guidance goes into greater detail as to how the standard is assessed.

Participant: When considering old standards, how many water bodies exceed the standard? How many advisories are there based on the current water column criteria? We don't see mercury in water, but we do in fish.

Participant: How many water bodies listed for exceeding mercury guidelines in tissue have been removed from the advisory once listed? None. Putting more on list will make it better?

Other Fish Tissue-Based Criteria Revisions

The TCEQ knew when adopting fish tissue-based criteria that we may be overlapping territory with DSHS since they are the agency responsible for determining if fish caught from a water body are safe for public consumption. However, the TCEQ felt that adopting tissue-based criteria for substances that are highly bioaccumulative made sense because:

- These chemicals are not typically found in the water column. The human health risk lies in consuming fish tissue.
- Impairments on streams for these substances are usually based on high concentrations in fish tissue (fish advisories) – not high concentrations in water

- This approach allowed permittees the option to develop site-specific bioaccumulation factors when translating the fish tissue criterion to a water column number for the purpose of developing permit limits.

DSHS evaluates a water body by developing a Health-Based Assessment Comparison (HAC) value for a chemical. HAC values are inherently different from WQS criteria because:

- HAC values are site-specific. A value determined for a single chemical in one water body may be different than a HAC developed for the same chemical in a different water body. Conversely, WQS criteria are a “one size fits all.” A single WQS criterion has to be deemed protective for all waters in the state. Because of this, there are many more safety factors considered when developing WQS criteria as opposed to developing HAC values.
- HAC values are not meant to represent “good” versus “bad.” Instead, they are meant to be used as a tool by risk managers to make decisions. WQS criteria do set a fine line between acceptable and unacceptable levels.
- When developing WQS criteria, the TCEQ uses a cancer risk ten times greater than DSHS does when developing HAC values, and DSHS assumes a different fish ingestion rate than does the TCEQ.
- DSHS may consider other site-specific factors, such as accessibility to the water body and the likelihood of fishing activity, when developing HAC values.

Because of these reasons, TCEQ fish tissue criteria are more stringent than DSHS’s HAC values. However, during past assessments water bodies are only listed as not meeting WQS criteria when DSHS places a fishing advisory or ban on a water body.

On July 19, 2011, the EPA notified the TCEQ via an e-mail that they expect future 303(d) listings of water bodies to be based not only on where DSHS has issued an advisory but also on the newly approved WQS fish tissue criteria. EPA stated that the TCEQ needs to acquire all of the fish tissue raw data from DSHS and use this in the assessment. Given that WQS fish tissue criteria are more stringent, this leads to the possibility of DSHS stating that fish from a water body are fine to consume while the TCEQ appears to be saying it is not safe to eat fish from the same water body. The following suggestions on how to remedy this issue were presented to the group:

- Revert back to water column-based criteria similar (same approach as in the 2000 WQS).
- Revert back to water column criteria and add language to 307.6(d) to allow for the development of site-specific bioaccumulation factors (similar to the current water-effect ratio approach in 307.6(c)(9)).
- Address the issue of assessment in the *Guidance for assessing and reporting Surface Water Quality in Texas*.

General Discussion

Participant: I like tissue criteria. I would like clarity on what species count for this criteria. What counts for the criteria?

Participant: (Responding to previous participant) edible muscle tissue of fish is what counts for mercury criteria.

Participant: In an assessment like this, what is considered a sample? And individual fish species?

Debbie: Individual samples of edible fish, not all data for a single species.

Participant: Having two different agencies issuing advisories may be ok because if both agencies deem a water body impaired, the perception will be 'it must really be bad then!'

Participant: I think eventually this will go in the direction of how DSHS does things, i.e. discriminate by species and whatever species is commonly consumed.

Participant: Discriminate based on position in food web; bass are generally higher in Hg

10:00 a.m. Update of Nutrient Criteria Development Plan, presented by Jill Csekitz and Laurie Eng-Fisher

Handouts: Recent National Guidance and Policy Documents; Florida Numeric Nutrient Criteria 2012 Update; Selected Nutrient Projects and Related Projects in Texas

Nutrient Criteria Development General – Jill Csekitz

Why Are Nutrient Criteria Difficult

Nutrient criteria are difficult to develop for many reasons. They do not exhibit a typical dose-response relationship in the environment (contrast to toxic criteria). There are multiple approaches to develop criteria, and states have not arrived at a consensus on the best approach. EPA's initial guidance has not been widely adopted into state criteria development programs.

Nutrient Criteria: EPA Guidance

In 1998, EPA mandated that all states have numeric nutrient criteria by 2004. Later they allowed states to develop plans; TCEQ's current plan is from 2006. EPA put out national guidance in 2001 recommending the idea of Aggregate Nutrient Ecoregions. Most states did not adopt this guidance into their criteria development programs. EPA has also promulgated criteria in Florida and required states such as Indiana and Illinois to place limits on permits based on narrative nutrient criteria.

Nutrient Reduction Strategy Memo

On March 16, 2011, EPA sent a national memo that defined eight elements of a process to (1) identify watersheds with relatively high nutrient loads, and (2) establish nutrient reductions in each of these watersheds. The process is akin to a Watershed Action Plan or TMDL for nutrients, and it is similar to EPA plans for reducing nutrients in the Mississippi River watershed. Potentially, this framework establishes a new resource-intensive watershed management program that is dedicated to nutrients. The framework is not currently being required by EPA, but the long-term implications are unclear.

Progress Toward Clean Water Act Adopted Numeric Nutrient Criteria

Roughly 25 states have adopted numeric criteria for nitrogen or phosphorus. EPA currently does not credit Texas' progress since adopted reservoir criteria are for chlorophyll *a* concentrations rather than nitrogen or phosphorus.

Maine has recently proposed criteria incorporating a weight of evidence approach (see handouts).

EPA Nutrient Criteria: Florida

EPA was sued by Florida Wildlife Federation and others in 2008 over lack of progress with criteria development in the state. The lawsuit was settled with a consent decree in 2009, when EPA agreed to promulgate criteria development. EPA promulgated criteria for Florida lakes and streams in Nov. 2010, taking effect in March 2012. EPA planned to propose estuarine criteria in March 2012 and finalize criteria in Nov. 2012.

Florida counter-sued EPA in Dec. 2010; this suit was filed by state agriculture and utility groups. Florida also petitioned EPA to withdraw their criteria on April 22, 2011.

Florida Strikes Back – FDEP Rule

Florida sent EPA draft criteria for streams, rivers, and estuaries in October 2011. Lake criteria are based upon groupings of inland lakes according to color and alkalinity; streams and lakes are grouped according to watershed region. Criteria for estuaries are site specific and include total nitrogen and total phosphorus thresholds, with confirmation by and chlorophyll *a*.

Nutrient Regulation Timeline

Nutrient criteria development in Texas was initiated in 2000 in response to an EPA mandate issued in 1998. TCEQ's nutrient criteria development plan was initially sent to EPA in November, 2001. TCEQ revised and updated the plan December 2004. The last update occurred in November 2006.

The Surface Water Quality Standards have undergone major revisions in 2000 and 2010. The 2010 revision adopted by TCEQ in June 2010 included chlorophyll *a* criteria for 75 reservoirs. These criteria are still under review by EPA.

WQ Standards: Now

TCEQ has developed narrative criteria for the control of excessive nutrients from permitted discharges or other controllable sources. This narrative provision provides the framework for issuing permits for nutrients, and states that nutrients must not cause excessive growth of aquatic vegetation that impairs an existing, designated, presumed, or attainable use.

Appendix F – Chlorophyll *a* Criteria

TCEQ originally proposed two numerical criteria options for 96 reservoirs. This proposal was amended, resulting in the adoption of chlorophyll *a* criteria for 75 reservoirs. The chlorophyll *a* criteria were derived from the upper prediction interval of available historical data and are designed to protect existing uses and conditions.

2010 Nutrient Implementation Procedures

Screening tasks described in the IPs are for the evaluation of new or expanding domestic dischargers to reservoirs, streams, and rivers to determine if an effluent limit is needed for total phosphorus or total nitrogen to prevent violation of numerical nutrient criteria and or preclude excessive growth of aquatic vegetation. Permit renewals and industrial discharges may be evaluated for potentially significant concentrations of TP or TN on a case by case basis.

EPA Review

TCEQ adopted the chlorophyll *a* criteria on June 30, 2010, and sent promptly to EPA. On May 17, 2011, EPA requested an extensive data package to support TCEQ's adopted criteria. TCEQ responded to all EPA requests, and EPA is using the information while considering the criteria. These criteria are still in review by EPA.

Updating the Nutrient Criteria Development plan – Laurie Eng Fisher

What Now.... Updating the Plan

EPA has requested the TCEQ update its Nutrient Criteria Development plan in a letter from Jane Watson dated Dec. 20, 2011. The plan was last updated in 2006.

- The needed updates include:
 - Reservoir Chlorophyll *a* Criteria
 - Current studies
 - New methodologies
 - Schedule – Milestones

The plan is broken up into sections, which include general methodologies, water body type (reservoirs, streams and rivers, estuaries, and wetlands), and appendices (including schedule). Each of these major sections will need to be updated in detail. There are also changes to specific information regarding databases, updating the studies, and methodology for criteria development that will need to be made. All of these changes will need to allow flexibility for upcoming work toward nutrient criteria development.

The TCEQ will proceed with updating the plan working with the stakeholder workgroup. New nutrient criteria will not be proposed for the 2013 revision; however, criteria development will continue in the coming two years to be ready for the next revision.

Updating the Plan – Key Steps

The initial step will be working with the workgroup, developing a draft, finalizing the draft with the workgroup, routing the draft for internal TCEQ review, and finalizing the plan with input from the workgroup and EPA.

Major Sections of the Plan

The plan is broken up into major sections, including general methodologies, then specific plans by water body type, and appendices. Each of these sections will need updates.

Obvious Updates

Obvious updates include the schedule, current status of nutrient criteria, changes to current information, and our plans for the upcoming revisions.

Nutrient Criteria Methodologies

The TCEQ would like to refine ways to incorporate weight-of-evidence into nutrient criteria and use multiple parameters.

The 2010 Site Specific Reservoir Chlorophyll *a* criteria may need to be revisited in upcoming criteria development if they are disapproved by EPA.

For upcoming criteria development the TCEQ would like to examine relationships based on stressor/response analyses (which may require more data collection in estuaries), while

maintaining flexibility to use historical conditions either on a site specific basis or reference grouping.

The Road Ahead: Streams and Rivers

For streams and rivers, the TCEQ will continue to pursue logical groupings which may be based on geography, hydrology, and/or chemical similarities. Nutrient criteria values could be developed using stressor response analysis relating total nitrogen and total phosphorus to biological indices, dissolved oxygen, chlorophyll *a*, and attached periphyton if available. However, the TCEQ will maintain the flexibility in the plan to use historical values and examine reference conditions.

Promising Initial Results

Some initial results of the Database Analysis to Support Nutrient Criteria Development project with University of Arkansas have shown groupings of basin and ecoregion by total phosphorus. This project will continue through 2013 and will build upon these initial results. There are other projects that the TCEQ will use and update in the plan to draw from for criteria development and this will be reflected in the plan, such as the Texas Nutrient Data Collection study and increased nutrient data collection by Clean Rivers Program Partners.

The Road Ahead: Estuaries

As with the case for streams, estuary nutrient criteria will continue to pursue logical groupings which may be based on geography, hydrology, and/or chemical similarities. Nutrient criteria values could be developed using stressor response analysis relating total nitrogen and total phosphorus to dissolved oxygen, chlorophyll *a*, and/or transparency if available. However, the available data does not include biological indices and paired data is limited; therefore, more data collection may be required. The TCEQ will maintain the flexibility in the plan to use historical values, examine reference conditions, and/or incorporate nutrient loading/responses.

Research and Coordination: Estuaries

There are numerous research studies and work being done in Texas estuaries, and TCEQ will be examining these in estuary nutrient criteria development.

General Discussion

Participant: I have a question about the Florida Department of Environmental Quality estuary criteria. Could you clarify unit designation 'ton/million'?

Laurie: I am not sure, but I will follow up and check that in the Florida rule. After checking the rule, the values are in tons per million cubic meters of water.

Participant: Has Florida adopted any chlorophyll *a* numbers greater than 20 micrograms per liter?

Laurie: No. Follow up from handout, the annual geometric means for lakes are 6 micrograms per liter for acidic lakes and 20 micrograms per liter for colored lakes and alkaline lakes.

Participant: I have a date clarification. Are you planning to propose stream standards for 2015 and keep the existing criteria for reservoirs?

Laurie: For the 2013 revisions of the standards we will keep the chlorophyll *a* criteria in Appendix F and move forward for adopting nutrient criteria for streams and estuaries in 2016.

Participant: The focus is on the streams/reservoir/estuaries; not an integrated watershed focus. Might bringing these together be beneficial?

Laurie: The Working Partnership - Stoner Memo Jill talked about earlier addresses integration of watershed approaches for nutrient reduction.

Participant: Regarding the Working Partnership – EPA memo. It has information about analysis/assessment which lays out science for criteria development; does TCEQ have a position on the other 7 steps of the memo?

Laurie: TCEQ has responded to the Stoner Memo.

Jim: The memo's approach for nutrient reduction strategies is flexible regarding how to go about analysis.

Participant: When will EPA give feedback on reservoir data?

EPA Representative: Response target is May 2012.

Participant: I would like see addressed, the watershed concept, take into account downstream effects and look at interconnected water body approach. EPA recognizes Texas' work on this and realizes this is difficult science. I take issue with developing criteria for chlorophyll *a* because it is a response variable of total nitrogen and total phosphorus.

Participant: I have an issue with the idea that any response is bad; for example, in low nutrient lakes any high concentration is bad, but in lakes with high nutrient loads there may not be adverse response.

Participant: (addressing previous participant) It all depends on what use is being protected; i.e. fishing versus skiing.

Participant: Texas should continue using determined recreational use in the assessment of the affects to a use when developing nutrient criteria.

Participant: The response variable chlorophyll *a* may miss the increase in a nutrient until there is already a negative an effect.

Participant: (addressing previous participant) Texas regulates dissolved oxygen; not biological oxygen demand. Define the criteria then define what uses are met.

Participant: I like that use as taken into consideration when setting criteria.

Laurie: There are gaps in total nitrogen and total phosphorus data which makes analysis complicated and difficult, which is why would like to use a weight of evidence approach for nutrient criteria.

Participant: Comment about “The Road Ahead: Streams and Rivers” slide; option 1. There is concern about emphasis on nitrogen and phosphorus and looking at historical data in the west where more recent flows are mostly effluent dominated stream. Criteria could be impossible to meet under those conditions.

Laurie: We share that concern, in those states with criteria or working on criteria, implementation of those criteria from other states is unclear. The goal is to reach nutrient criteria that are implementable and makes sense for Texas waters.

Participant: Clarifying that options for stream criteria may include: threshold analysis and use of multiple parameters to determine the criteria (State of Maine is an example).

Participant: Domestic wastewater treatment plants have a perfect storm for growing algae. As a result for concerns over potential nutrient criteria, municipalities are trying to reuse water. This issue related to the expense of updating plants that remove nutrients will result in more water being diverted from the stream.

Laurie: All of these are recurring themes which is why there is no movement on criteria at this point.

Participant: What is the timeline for the plan development.

Laurie: General plan (from slide) is probably this summer; in fall, start to present implementation proposal and plans for adoption.

Jill: A major part of the plan is developing milestones.

1:00 p.m. Implementation Procedures Update, presented by David Galindo, Mike Pfeil, Brittany Lee, and Peter Schaefer

Handouts: None

2012 IPs Background and Next Steps – David Galindo

The IPs are a regulatory guidance document explaining how the Texas Surface Water Quality Standards are implemented within Texas Pollutant Discharge Elimination System Permits. They cover a broad range of water quality permitting toxics such as antidegradation, dissolved oxygen modeling, how to translate water quality criteria into permit limitations, procedures for calculating site specific criteria, and how to request a variance from a water quality standard and more.

The current IPs were issued in 2003. In accordance with the continuing planning process (CPP), the IPs must be approved by EPA prior to their use in the development of TPDES permits.

The 2010 version of the IPs were developed with Stakeholder input along with 2010 Texas Surface Water Quality Standards. Both were approved by the Commission at the June 30th, 2010 agenda.

The target date for bringing the IPs before the Commissioners is May 16, 2012; however, it looks like that date may need to be pushed back. Once the Commissioners do approve the IPs, the document will then be sent up for EPA approval.

2012 IPs Proposal for WET – Michael Pfeil

TCEQ staff recognizes the value of WET testing to address effluent toxicity and support the development of a effective and practical approach to evaluating Reasonable Potential (RP). Over the past few years, EPA has objected to the issuance of TPDES permits based on their finding of RP for WET. In response TCEQ has developed our preferred approach to WET RP which EPA has not approved. Although staff is comfortable with our approach, we know that many of you have concerns and alternative approaches you would like us to consider.

In November of 2004, the EPA issued new draft guidance for WET testing. Instead of every EPA region doing things differently, the guidance's ultimate goal is for every Region and every State to run the same program.

The guidance refers to NPDES “regulatory compliance,” which means compliance with 40 CFR 122.44(d), specifically in regard to Reasonable Potential (RP) determinations.

This new guidance also emphasizes “Existing guidance,” which means to use the statistical methodology of the non-promulgated (i.e., guidance, not rule) Technical Support Document.

EPA Region 6 WET policy followed shortly after and includes sublethal RP determination and WET limits. These do not apply above 80 percent for sublethal effects.

40 CFR 122.44 (dd)

- Must determine whether the discharge causes, has reasonable potential to cause, or contributes to non-attainment of the narrative criterion in the water quality standards for WET.
- Requires an RP determination, but does not require the use of a specific procedure
- If the determination is positive, species specific WET limits must be included in the permit.
- The narrative criterion refers to the “no toxics in toxic amounts” section of the TSWQS.

This section of 40 CFR has not changed since being issued. What has changed is the way EPA has interpreted its implementation. Historically, WET testing has been treated differently than other WQBELs, since whole effluent toxicity is nothing that can necessarily be anticipated, as are other individual constituents that are directly measured and evaluated during the application process. Since WET can’t be treated until one knows the toxicant, WET testing had previously been a permit monitoring requirement, with TRE triggers and specific TRE requirements to be followed during the permit term, with the opportunity to identify the toxicant and receive a chemical-specific limit. With a chemical-specific limit, the permittee could target a treatment process that removes or reduces the specific toxicant. Without knowing a specific toxicant, there may be no sure way to address the toxicity and thus comply with a WET limit. Thus, an RP determination was not previously performed, instead relying on re-opening the permit after a TRE is performed.

Under current EPA practice, a permittee could enter into a TRE and, if their permit immediately comes up for renewal, get a WET limit based on an RP determination with no opportunity to complete the TRE.

RP will be performed for both lethal and sublethal endpoints, which means WET limits for lethal and sublethal endpoints for any species that meets the RP criterion.

Sublethal Endpoints

Historically, neither the EPA nor TCEQ have included sublethal endpoints in TPDES permits or required TREs for sublethal failures. The problem with performing a RP determination on WET is that it is not the same thing as chemical-specific limits. If one detects a metal in the effluent screenings during the permit renewal process that merits a limit, one can look at a means of reducing that metal entering the plant or look at a treatment process to meet the permit limit. But with a WET limit, all one knows is that one has toxicity, and there is no way to try to meet the limit until one knows what the toxicant is. The fact that there are over 65 permits with WET limits means there have been over 65 unsuccessful TREs. And this was for the lethal endpoint. With sublethal endpoints soon to be subject to WET limits, especially after an RP determination, we can expect many WET limits for unknown sources of toxicity.

EPA objection to 2010 IPs

EPA stated there was a lack of defined Reasonable Potential determination process for WET limits within IPs. TCEQ understands the need for clear and consistent implementation of regulations. We agree that it is important that the public and regulated communities are able to read the fact sheet and determine how the RP decision was reached. However, at the time the IPs were proposed, TCEQ and EPA had not reached an agreement on WET RP. Therefore, there was no RP process to include within the IPs. Since then, TCEQ's approach to RP has evolved to the risk based approach presented today.

EPA Region 6 has been unwilling to clearly outline an acceptable RP determination.

Technical Support Document

Initially, EPA stated that TCEQ must follow the 1991 Technical Support Document (TSD) approach. This approach was designed for toxic pollutants and required ten or more samples. The fundamental assumption of the TSD procedure, that the lognormal distribution fits WET test results calculated as toxicity units, has never been demonstrated and can be shown to be wrong for almost all WET data (survival or sub-lethal).

TCEQ has concerns with the TSD. A critical dilution can never be higher than 100. If a test fails once at the critical dilution of 100, it can never be compliant with a WET limit for that reporting period since, no matter how many passing tests are performed, the average will always be below 100.

Additionally, there is nothing equivalent to the "daily maximum" value in permits as there are for other limits - where a value can exceed the daily average but still be compliant for the month when, if averaged, is below the daily maximum.

EPA Region 6 is now requiring a modified 1991 TSD approach, meaning two or more failures equals RP.

TCEQ RP Approach

TCEQ advocated:

- Use RP decision tree
- More than 3 failures in past five years, or 3 failures with 2 in the past three years, equals RP
- 1 or more failures in past five years, but less than above, requires a BPJ approach
- BPJ approach uses "weight of evidence" approach, accounting for duration and magnitude of test failures

EPA later revised their TSD mandate to suggest a "modified" version of the TSD, but would not place this proposal in writing.

Over the past few years, EPA has objected to the issuance of TPDES permits based on their finding of RP but have not shared with us the methodology which they've employed. In response, TCEQ has developed a weight of evidence approach which takes into account the history of WET test failures and the duration and magnitude of those failures. EPA contends that this approach is unacceptable and has continued to object to its use. However, EPA has allowed issuance of TPDES permits with WET limitations where the same conclusion was reached by each independent method.

Evaluating Test Results

TCEQ looked at perhaps using the South Carolina method which looks at percent effect:

- IC25 limits (the concentration that results in a 25% inhibition of response) rather than the No Observed Effect Concentration
- Test of Significant Toxicity

EPA Region 6 has strongly objected to the use of the South Carolina method in Texas

Representative Data

TCEQ is currently making RP determinations based WET data 5 years prior to the date the application was received. For example, if an application was received on April 5, 2011, we would evaluate WET test results beginning on April 5, 2006 up to the date of application receipt.

EPA has expressed concern that the current RP language in the IPs will allow data that has been submitted for purposes of NPDES compliance to be subsequently disqualified.

TCEQ practice is to use all data that has been submitted for purposes of permit compliance for the RP determination. TCEQ also acknowledges that there will be instances where data, although determined to meet WET test acceptability criteria, may not be representative of facility operations. TCEQ feels that it is appropriate to consider a permittee's request that non-representative data be excluded from the RP determination. This could be data submitted during periods of facility construction, upgrades, or consideration of passing results following an implementation of Best Management Practices or a pretreatment program.

Any such request will be submitted to EPA for agreement before any data is excluded from the RP determination. The Fact Sheets will clarify that all data was used for the determination or justification will be provided for the omission of non-representative data.

Toxicity Reduction Evaluations (TREs)

TREs are no longer mandatory within the Texas Surface Water Quality Standards. TCEQ has long supported the use of TREs to determine the causative agent of toxicity.

TCEQ's use of TREs and TRE triggers were in accordance with EPA's earlier policies and TCEQ's 2003 EPA approved IPs. WET testing was intended as a monitoring process that required TREs when persistent significant lethality was demonstrated (i.e., a failure followed by one of two retest failures). The permittee was allowed 28 months to pursue the TRE before submitting a TRE final report, at which time a toxicity control measure would be proposed for the permit. However, EPA began withholding approval of TPDES permits for permittees going through the TRE process based on a TSD-based finding of RP.

TRE triggers give the regulated community the false impression that if they are not required to perform a TRE then they will not be subject to a WET limit. Failures that would not trigger a TRE may still result in a finding of RP and thus a WET limit. By making it clear in the IPs what will lead to RP, the permittee has the option to pursue a TRE on their own. TCEQ feels that having TRE requirements based on triggers in the permit is not acting in good faith when the permittee is not allowed the allotted time to perform the TRE and that permittees may receive WET limits based on RP without ever having triggered the TRE requirements.

It is important to note that without persistent and significant test failures, both a TRE and a meaningful RP determination are unlikely to be valuable in addressing toxicity. TCEQ's preferred RP approach allows consideration of both persistence and magnitude of test failures.

Compliance Periods

Texas Surface Water Quality Standards allow compliance periods of up to 3 years. EPA has objected to default 3 year compliance periods for WET.

In order to issue permits with WET limitations, EPA has required compliance permit language which include enforceable interim milestones and restricted the time period to 34 months or less. TCEQ has no objection to the use of reasonable milestones, however we believe it is appropriate to allow the full allowable period of 3 years to address WET, especially when attempting to identify sporadic sublethal toxicity.

EPA's suggested compliance period language also includes toxicity identification and reduction steps similar to the TRE process. However, there permittee no longer has the opportunity to demonstrate through accelerated testing and compliance that toxicity is not present and the TRE may be ceased.

WET Enforcement

EPA wants one failure to require issuance of a notice of enforcement.

TCEQ respectfully disagrees that a single sublethal test failure violates the state's narrative standard. Additionally, as noted by an EPA paper titled "A Review of Single Species Toxicity Test: Are the Tests Reliable Predictors of Aquatic Ecosystem Community Response? (EPA 600/R-97/114)", results of a single WET test should not be characterized as a violation of an effluent permit limit or water quality standard since the test was intended to be an early warning signal of biological community impacts (page 2, part 2.0).

TCEQ feels that it is imperative that persistence be demonstrated in order to determine noncompliance.

WET Limit Removal

The 2012 IPs propose removal of WET limits following ten passing tests which is consistent with the ten data points needed to make an RP decision using EPA's TSD RP methodology. EPA Region 6 commented that 12 tests are insufficient to remove a WET limit and that it is inappropriate to mention criteria for the removal of a WET limit. However, EPA Region 6's written WET policy allows the removal of a WET limit after 5 years of testing after the limit becomes effective. TCEQ is unaware of EPA's basis for allowing the removal of a WET limit after 5 years of testing. TCEQ's proposal for three years of data was proposed so that the limit could conceivably be removed following one five year permit cycle.

Additionally, determining whether or not a WET limit should be removed is essentially an RP determination to evaluate whether or not the effluent continues to have the RP to violate water quality. EPA's assertion that 12 data points are insufficient conflicts with their support of the TSD which only requires 10 data points to assess RP.

WET Summary 2012 IPs

- EPA denied approval of 2010 IPs due to WET RP
- TCEQ proposed 2012 IPs to address EPA objections
- 2012 IPs outline method for RP determinations
- 2012 IPs scheduled for adoption on
- Followed by EPA review

General Discussion

Participant: What if an error was made (human error), do you get a WET limit exemption?

Mike Pfeil: If housekeeping methods or BMP failed? Probably not. But, as in an example, what if a pump failure caused a WET limit to be implemented? The fact sheet is altered and WET limit removed because the sample taken at the time was not representative. You must report the incident in the DMR (because you know what caused the problem). In this example, the participants issue in this circumstance was that it lacked proper documentation for EPA approval of exception.

Participant: New implementation date?

Mike Pfeil: June 16th 2012

Dechlorination – Brittany Lee

Dechlorination

First and foremost, TCEQ does not dispute that chlorine causes toxicity, which is why TCEQ proposed a reasonable step forward. Although EPA Region 6 contends that the current proposal of requiring dechlorination requirements for new and expanding domestic discharges with design flows of 0.5 MGD to 1.0 MGD only addresses a relatively small portion of the minor domestic discharge universe, this minor portion makes up approx 90% of the entire flow from municipal facilities. Staff considered factors specific to smaller domestic wastewater treatment plants including safety, operation, and environmental concerns when determining which additional plants would now also be subject to dechlorination requirements.

The IPs follow the Texas Surface Water Quality Standards triennial review process. We have already noticed to solicit comments on the next revision in order to maintain this schedule. It is important that regulated entities, specifically the smaller domestic treatment facilities, be noticed of TCEQ's intent to require retrofitting of existing facilities.

EPA comments that TPDES permits typically require the facility's effluent to "...contain a chlorine residual of between 1.0 milligrams per liter and 4.0 milligrams per liter after a detention time of at least 20 minutes (based on peak flow). This technology based requirement is intended to ensure adequate disinfection of domestic wastewater within the chlorine contact chamber.

IPs Dechlorination

Implementation challenges include:

- Health, Safety, and Environmental Concerns
- Operations and Management
- Associated Costs and Fiscal Implications

EPA recognizes that this requirement will impact many minor POTWs and is willing to assist TCEQ in prioritizing a phased implementation plan (i.e., discharges with the most significant environmental impacts first, etc.) that will result in appropriate chlorine controls for a significantly greater number of minor POTWs in the near future.

There is potential for compliance period for retrofitting existing facility.

2012 IPs Additional Revisions – Peter Schaefer

Additional minor corrections will be necessary to correct typographical errors.

The date of compliance for the updated minimum analytical levels (MALs) will be extended to one year following Commission approval of the Implementation Procedures or upon EPA approval, whichever comes later.

Why control Nutrients?

The control of elevated nutrients within wastewater is necessary to preclude excessive growth of aquatic vegetation, including: phytoplankton algae in open water, attached algae, floating algae, and other rooted vegetation. Excessive vegetation impacts the aesthetic effects on recreational use. It also affects drinking water uses due to potential increases in trihalomethanes, a water disinfection by product. Excessive nutrients can impact taste and odor of drinking water.

Excessive vegetation also impacts aquatic life by causing fluctuations in available habitat, decreases dissolved oxygen at night, decreases species diversity, and other impacts to fisheries.

IPs – Nutrient Narrative Criteria

As stated within the Texas Surface Water Quality regulations at Title 30, Chapter 307.4(e), “Nutrients...shall not cause excessive growth of aquatic vegetation which impairs an existing, attainable, or designated use.”

The proposed implementation procedures include new nutrient screening procedures to assess attainment with the existing narrative criteria stated above and new numeric criteria for reservoirs within the recently adopted Texas Surface Water Quality Standards.

Reservoirs – Local Screening Factors

- Size of discharge (quantitative)
- Distance from reservoir (quantitative)
- Sensitivity: water clarity (quantitative or qualitative)
- Sensitivity: observed vegetation responses
- Sensitivity: shading by brush and trees
- Consistency with similar permits (qualitative)
- Local dispersion, mixing (quantitative or qualitative)
- Impact on main pool (quantitative)

Screening Factor Example: Water Clarity

For example, the concern level would be low for water bodies which were turbid (Secchi depth of less than 0.75 meters), but concerns would be high if a water body was very transparent (Secchi depth greater than 1.28 meters).

Streams – Nutrient Screening Factors

- Size of discharge (quantitative)
- Instream dilution (quantitative)
- Sensitivity: type of bottom (qualitative)
- Sensitivity: depth (qualitative)
- Sensitivity: water clarity
- Sensitivity: observations of aquatic vegetation
- Sensitivity: shading by tree canopy (qualitative)
- Streamflow sustainability (qualitative)
- Extent of pools and impoundments (qualitative)

- Consistency with other permits (qualitative)

Nutrients – Typical TP Limits

For permitted flows of less than 1.0 MGD, a typical permit limit is 1.0 milligrams per liter. As the flow increases to 0.5 – 3.0 MGD, limits are usually 1.0-0.5 MGD. For permitted flows of 3.0 MGD or greater, limits are usually closer to 0.5 milligrams per liter.

Nutrients – Nitrogen Limitations

Total nitrogen limits are usually considered in coastal systems to prevent impacts to seagrass communities. Site specific conditions that influence the need for nitrogen limits includes: hydrologic mixing, alignment of water body with prevailing winds, tidal flushing, depth, and freshwater inflows.

Evaluation of discharge volume in relation to the proximity of seagrasses to outfall: Typically, a small discharge volume that is far from seagrass beds may not pose a problem, whereas a large discharge volume near seagrass beds may pose a problem that requires nitrogen limits or relocation of the outfall. There are no standard criteria for determining when the volume of discharge versus distance of the outfall may cause problems to a seagrass community. Consideration of the factors listed above could result in a recommendation for controls on a relatively small volume discharge if the discharge is into a water body with little tidal flushing and freshwater inflow.

Additional consideration may be given to the presence of other dischargers/cumulative pollutant loading to the same water body, and (if available) historic and background concentrations of nutrients, total suspended solids, and turbidity measurements.

In the absence of numeric criteria for nutrients, nitrogen limit recommendations are based on best professional judgment considering technologically achievable treatment levels, the above mentioned factors, previous permitting experience, and any available site specific data. This process is consistent with our approach for controlling nutrients (total phosphorus) within freshwater systems and protection of narrative nutrient criteria.

Nutrients Limits in Texas Permits

- Total phosphorus:
 - Less than 1 milligrams per liter - 6 permits
 - 1.0 milligrams per liter - 39 permits
 - 0.5 milligrams per liter - 7 permits
 - One with 0.15 milligrams per liter
- Total nitrogen:
 - Two with 6 milligrams per liter
 - One with 8 milligrams per liter

Nutrients Summary 2010 IPs

- TCEQ adopted numeric criteria (chlorophyll *a*) for 75 reservoirs, but EPA has not yet approved criteria
- TCEQ will implement reservoir criteria and screening when/if approved
- Screening for compliance with narrative criteria is currently being implemented

General Discussion

Participant: Is TCEQ still doing basin permitting as it has been implemented elsewhere?

TCEQ Staff: Yes

Participant: Have you made changes to standards language as you go through screening factors?

TCEQ Staff: The screening procedure has been in use by staff for several years. In 2010, staff decided this process needed to be described in the IPs for the purpose of being as transparent as possible. This is not a new procedure.

Participant: Does that [screening process] go in the permit file? Is it available to the public?

TCEQ Staff: We have on hand, can be given upon request

Participant: Is this being implemented at least informally? Thought 2010 [numeric criteria] was not approved by EPA and therefore not being used yet.

TCEQ Staff: EPA is pleased with narrative nutrient criteria which has been in effect for several years now. Only the numeric criteria are still pending EPA approval.

Participant: Are there any cases yet where TP/TN limits are included together in permits?

TCEQ Staff: There are in central Texas, but not in Houston yet.

Participant: During the renewal evaluation, how much is put on changes [in water quality] using before and after [points around a site]? In a renewal situation, can upstream versus downstream anti-degradation affects be taken into account?

TCEQ Staff: Yes, it can.

TCEQ pH and Temperature Criteria and EPA permit objections - David Galindo

Application of temperature criteria; two types of temperature criteria (maximum and rise over ambient)

There are about 15 discharge permits (from power plants) which are being held up until an approach can be addressed to deal with temperature issue; EPA has interim proposal; proposal will be included in next IP

Regarding the pH criteria issue: current technology based requirement of 6-9 units; sometimes discharge does not match up. Propose using a mixing zone approach; proposal will be ready for next meeting

General Discussion

Participant: *bacterial related comment/question*

When a new permit is issued for bacteria (as in the example of Plum Creek), the writers of the permit only use Category 5 when checking for 303(d) listings. I suggest the applicant and permit writers look at Category 4b. The Plum Creek applicant was questioned about whether there will be discharge into an impaired water body. The applicant answered 'no' because, according to Category 5, the answer is 'no,' but according to Category 4b, the answer is 'yes.'

The applicant was made aware that the discharge was into an impaired water body.

TCEQ Staff: Applicant should receive applicable limitations

Participant: Ok, so team is not just taking applicants' word for it?

Participant: At a coordination management meeting, we discussed inland water bodies. The process used in making a decision to use an E. coli permit on freshwater is not clear.

Participant: Nutrient question... we did WQM on Plum Creek in development of a watershed protection plan and showed nutrient criteria limits are not necessary when elevated/high flow. We want to get a limit based on using flow from USGS gaging stations. Is there any help available for permittees to show nutrient limits only need to be imposed with low flows?

TCEQ Staff: We may consider seasonal issues.

Participant: It is difficult for some systems to meet low nutrient criteria.

Participant: Bosque looked at upgrading facilities and found that more would be accomplished regarding nutrient removal from waste water if small facilities gave funds to larger facilities to help with the larger facilities upgrades and not upgrade the small facilities.

2:15 p.m. Upcoming Site-Specific Criteria (Appendices A, D, and G), presented by Jason Godeaux and Joe Martin

Handouts: Site-Specific Standards Revisions Under Evaluation (related to UAAs); Site-Specific Standards Revisions Under Evaluation (related to RUAs)

Use-Attainability Analysis (UAA)

A UAA is a study that is conducted to determine the most appropriate use for a particular water body and is needed to change any existing use or criteria or to add these in the standards. A UAA collects both physical and biological data, and this data is used to support the change of a use to the most appropriate attainable use.

When is a UAA appropriate?

Most UAAs are now done in response to listing on the 303(d) list but they can also be done for other reasons as well. These studies can also be used to add a use that is not currently assigned to a water body or if the use is a presumption.

Update on RUAs – Joe Martin

The RUA handouts have all RUAs broken down into three groups:

- The reports that have been released for public comment are ready to make recommendations on and will be considered for the 2013 standards revision.
- The reports that are in house but have not been released for public comment need to be released for comment before any recommendations can be made. We hope to get these reports released soon so they may be considered for the 2013 standards revision.
- The last group of reports are in progress. They are in varying degrees of completion. Most of these are ongoing projects and will most likely not be considered for the 2013 standards revision.

General Discussion

Participant: Is there a way we can find out prior to EPA submission, what TCEQ intention is for a given water body?

Joe: Public comment is done to gather any info (possible to miss information on how a water body is used by the local population). 'in house' standards revisions are drafted, more comments are collected, and then submitted to EPA.

Participant: Do you have a document available that states how you are evaluating these?

Joe: We just looking at this water body by water body and taking into account recreational uses

Participant: Is the recreational use assumed? If so, do you assume primary contact?

Jill: Primary contact is assumed, we must provide evidence that it is not

Participant: The procedure to these being?

Joe: 303d list names taken and issued questionnaires to gather info from people who are familiar with recreational uses of body

Participant: When is this to be released for public comment?

Joe: We don't have an exact date; maybe in next 3 months.

Update on UAAs – Jason Godeaux

ALU and DO

Lists were presented of possible changes to the Aquatic Life Uses and DO criteria.

Dissolved Solids Criteria

A list was presented of possible changes to the dissolved solids criteria. It was developed by using recommendations from other entities and 303d list; doesn't mean anything will change just because it is on list (may not warrant a standards revision).

pH

A list was presented of possible changes to the pH criteria.

Segment Description Changes

A list was presented of possible changes to the segment descriptions. Most of these will not affect how the standards are applied and are mostly clerical in nature. They tend to corrections of typos or clarifications.

Miscellaneous changes

A list was presented of other miscellaneous changes to the standards, such as developing new segments for requested water bodies.

General Discussion

Participant: (referring to TDS changes) One item that has come up is that there are a high number of changes (such as due to basin transfers or waste water transfer) with no biological basis for the change. Is there a procedure for the process to make changes standard?

Jason: We have no plans to develop a new procedure for TDS changes at this time. There is an example of a waterbody that has been changed with support for biological data. The City of Cleburne changed their makeup water to a downstream reservoir. Biological samples were taken to show that the fish assemblage was the same as the in both the receiving water and the downstream reservoir. So, we felt confident in changing the criteria to match the reservoir.

Participant: Is there or will there be a procedure to make the process more orderly [for making changes]?

Jason: The selection is driven by the 303(d) list as well as suggestions from other stakeholders.

Participant: How do you choose to do a UAA?

Jason: The selection is driven by the 303(d) list also. If a water body has a presumed aquatic life use we may do a UAA on the water body to set the most appropriate use.

Participant: Is it possible to have site specific TDS/pH/DO information on criteria done by next meeting?

Jason: Possibly, I hope to have the TDS and pH done by the next meeting and probably several of the UAAs.

Participant: Follow up question on bacteria. You now have four categories of use, based on assessment of criteria for 'change in use' designation, how will you recommend one of the other three categories?

Joe: We have to use one of the six reasons listed in CFR §131.10(g).

2:45 p.m. Next Meeting Date, presented by Debbie Miller

Before concluding the meeting, it was asked if there was a topic not discussed today that anyone had interest in seeing in the 2013 revision

Participant: What is the status of the seagrass project?

Laurie: Seagrass group about to publish information.

Participant: Do you have suggestions on where folks who don't want to speak up at meeting can communicate any other ideas/thoughts to you?

Debbie: Anyone can feel free to call or e-mail any of us as well as send comments to our STANDARDS e-mail box.

The group was asked if there were any known conflicts with our next meeting date being on May 9th. No major conflicts with this date were identified.