



# TCEQ Wastewater Permit Application Review Process and Important Information Needed

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# Permit Application Assembly Line

- Pre-application review
- Application submitted
- Pre-tech reviews
- Administratively complete application
- Standards review
- Critical conditions review
- Dissolved oxygen modeling review
- Biomonitoring review- if applicable
- Pretreatment review- if applicable
- Permit writer drafts permit

# Pre-application Reviews

- Performed for new or permit amendments.
- Determine effluent set needed to meet instream water quality requirements
- Can reveal problematic outfall locations before application submittal, allowing time to look into alternatives.
- Pre-app reviews done in addition to regular workload of administratively complete applications. Not intended for real estate transactions

# Application Submitted

- ▶ Application given an “Application received date”
- ▶ State legislature requires applications to be reviewed and permit issued by set timeframes.
- ▶ Applications should be filled out completely and accurately. Instructions provided on TCEQ web page.
- ▶ Notice of Deficiency
  - ▶ Implemented September 2022.
  - ▶ Request deficient information and deadline given
  - ▶ If deadline not met, application is withdrawn and returned to applicant.

# Pre-tech Reviews Performed

- ▶ New and Permit amendments undergo pre-tech reviews.
- ▶ Ensures outfall coordinates, discharge route, discharge route description, and landowner map and list are correct. If not, applicant is notified that corrections are needed
- ▶ Determine if Receiving Water Assessment (RWA) is needed. If Aquatic Life Uses and associated dissolved oxygen criteria of the receiving waters are not clear, an RWA may be required.
- ▶ Permit writers ensure things like pollutant analysis, special studies, and other necessary items are included in application.

# Administratively Complete Application

Applications Review and Processing Team works with applicant to ensure application meets TCEQ's requirements. Once application meets those requirements, it is deemed "Administratively Complete" and is sent to the Standards Implementation Team for technical review.



# Standards Review

- Standards Implementation Team reviewer looks at application information to determine the precise location of the outfall.
- Identifies the discharge route down to the first classified segment.
- Assigns Aquatic Life Uses and associated dissolved oxygen criteria to the receiving waters based on flow status or other available information per TSWQS 307.4 (h)
- pH, TDS, and Nutrients screens when required. See Procedures To Implement The Texas Surface Water Quality Standards (Ips)
- Assigns toxic criteria (incidental/sustainable fishery, human health, public water supply, etc.
- Endangered species review.
- Identifies any impairments or screening concerns in receiving waters.

# Standards Review – key application information

- Precise Outfall location – with latitude and longitude
- Correct discharge route highlighted for 3 miles downstream.
- Correct landowner map with landowner list (for new and amended permits only)
- Receiving water characteristics worksheets (2.1 in Municipal, 4.1 in industrial) for new outfall locations
- Pollutant analysis
- Supporting information to address amendment requests. WERs, pK studies, TDS Source ID and Reduction studies, etc.



# Critical Conditions

- Critical conditions reviewer plots the location of each outfall.
- Determines effluent percentages based on effluent flow and instream flow during 7Q2 low flow conditions.
- Diffuser reviews.

# Critical Conditions – key application information

- Precise Outfall location – with latitude and longitude
- Correct discharge route highlighted for 3 miles downstream.
- Diffuser information if applicable.

# Dissolved Oxygen Modeling Review

Uses information from previous technical reviews to determine an effluent set (CBOD and NH<sub>3</sub>-N) needed to meet instream DO criteria

Site-specific waterbody information may be needed for certain applications.

# Dissolved Oxygen Modeling Review

## key application information

- Precise Outfall location – with latitude and longitude
- Correct discharge route highlighted for 3 miles downstream.
- Receiving water characteristics worksheets (Municipal Worksheet 2.1, Industrial Worksheet 4.1)
- Diffuser information if applicable.

# Biomonitoring Review

- ▶ Assigns dilutions for required bioassay testing using effluent with receiving water to determine effects on sensitive test organisms.
- ▶ Water flea (*Daphnia pulex*, *Daphnia magna*), fathead minnow (*Pimephales promelas*).
- ▶ Mysid shrimp (*Mysidopsis bahia*), inland silverside (*Menidia beryllina*).
- ▶ Lethality as well as sub-lethal effects
- ▶ Important! -All required data must be submitted for application to be processed.

Permit is now ready to move on to the Permitting Section.

# Pretreatment Review

Pretreatment program looks at industrial waste contributors to municipal wastewater treatment facilities. Ensures industrial contributions are sufficiently pre-treated prior to entering wastewater collection system to ensure it is compatible with the municipal wastewater system.



# Permit Writer

- ▶ Permit writer incorporates all previous technical memos, performs TexTox Screening using information from critical conditions memo, and drafts permit.
- ▶ Assigns TSS and bacteria limits
- ▶ Includes Other Requirements

# Important Application Information

- ▶ Complete application with all required information filled out correctly
- ▶ For technical reviews:
  - Precise Outfall location – with latitude and longitude
  - Correct discharge route highlighted for 3 miles downstream.
  - Correct landowner map with landowner list (for new and amended permits only)
  - Receiving water characteristics worksheets (2.1 in Municipal, 4.1 in industrial) for new outfall locations
  - Pollutant analysis
  - Whole Effluent Toxicity Data- All required data must be submitted for application to be processed.
  - Supporting information to address amendment requests. WERs, pK studies, TDS Source ID and Reduction studies, etc.

# Other duties

- ▶ Public Meetings
- ▶ Response to Comments
- ▶ Hearings
- ▶ Phone Duty

# Antidegradation Review

- Antidegradation reviews are performed for permit actions that have the potential to increase pollutant loading in receiving waters.
- Antidegradation reviews are performed by everyone that reviews a permit application except for the applications review and processing team (admin. Reviewers).
- TCEQ issues permits that do not degrade receiving waters

# Antidegradation review process

- Standards review determines appropriate uses of the receiving waters and screens for dissolved solids, nutrients, and endangered species
- Critical conditions reviewer determines effluent percentages for all major facilities
- Dissolved oxygen modeler determines compliance with instream DO criteria
- Biomonitoring reviewer sets requirements to check for synergistic effects of effluent in the receiving waters
- Permit writer screens for toxic pollutants using critical conditions information and requires disinfection and dechlorination.

# Helpful Web links

- ▶ Wastewater Permitting information:  
<https://www.tceq.texas.gov/permitting/wastewater>
- ▶ Texas Surface Water Quality Standards  
[https://www.tceq.texas.gov/waterquality/standards/eq\\_swqs.html](https://www.tceq.texas.gov/waterquality/standards/eq_swqs.html)
- ▶ Procedures to Implement the Texas Surface Water Quality Standards (IPs)  
<https://www.tceq.texas.gov/permitting/wastewater/implementation/implementing-standards>
- ▶ Texas Integrated Report  
[https://www.tceq.texas.gov/waterquality/assessment/305\\_303.html](https://www.tceq.texas.gov/waterquality/assessment/305_303.html)