



Sand Mining Best Management Practices (BMPs) Guidance Document Stakeholder Meeting

Supplemental to Rule Project No. 2020-048-311-OW

July 20, 2021

*Texas Commission on Environmental Quality
Water Quality Division*

Welcome and Introductions



Welcome

- General announcements and ground rules
- Virtual Meeting Reminders:
 - ✓ This meeting is being audio recorded
 - ✓ Share airtime – allow everyone an opportunity to speak
 - ✓ Options available to provide input during the meeting
 - ✓ “Raise your hand” when you would like to speak – a moderator will unmute your microphone
 - ✓ If you joined via the conference phone line, please say you would like to speak - a moderator will unmute the phone line
 - ✓ Or type questions and comments in the chat box
 - ✓ If you called in, please mute your phone line to minimize background noise



Introductions

- Speakers/Presenters
 - Robert Sadlier, Deputy Director, Water Quality Division
 - Rebecca L. Villalba, Team Leader, Stormwater Team
 - Macayla Coleman, Permit Writer, Stormwater Team
- Petitioners
 - Josh Leftwich, President & CEO, Texas Aggregates and Concrete Association
 - William McCabe, Lake Houston Area Grassroots Flood Prevention Initiative
- Panelist
 - Michael Parr, Attorney, Environmental Law Division



Today's Agenda

Welcome and Introductions	Robert Sadlier (TCEQ, Water Quality Division)
Goals and Objectives	<ul style="list-style-type: none">• Rebecca L. Villalba (TCEQ)• Bill McCabe (Lake Houston Area Grassroots Flood Prevention Initiative)• Josh Leftwich (Texas Aggregates and Concrete Association)
Overview of Rulemaking Timeline and BMPs Guidance Document Timeline	Rebecca L. Villalba
Summary of Proposed Rule Language	Macayla Coleman (TCEQ)
BMPs and Stormwater	Rebecca L. Villalba
Overview of Draft BMPs Guidance Document	Macayla Coleman
BREAK – 10 minutes	
Stakeholder Discussion: Stakeholders' input on the draft guidance document of BMPs	
Summary and Adjournment	Robert Sadlier

Goals and Objectives



Facilitate Stakeholder Participation in
Sand Mining BMPs Guidance Document
Drafting Process



Review Draft BMPs Guidance Document
Vegetative Controls, Structural Controls, Etc.



Gather Stakeholder Input and
Answer Questions



Petitioner Statement

- **Lake Houston Area Grassroots Flood Prevention Initiative**
 - Known as FPI
 - Citizen committee created after Hurricane Harvey
 - Bill McCabe, Initiative Leader



Petitioner Statement

- **Texas Aggregates and Concrete Association**
 - Known as TACA
 - Statewide trade organization whose members supply aggregates, concrete, and other materials to commercial property developers
 - Josh Leftwich, President and CEO



Meeting Outline

Overview of Rulemaking Process & BMPs Guidance Document Timeline

Summary of Proposed Rule Language

BMPs and Stormwater

Overview of Draft BMPs Guidance Document

Stakeholder Discussion and Input



Overview of Rulemaking Process & BMPs Guidance Document Timeline



Recalling the Rulemaking Process

- Two similar petitions submitted to TCEQ
 - TACA filed on June 15, 2020
 - FPI filed on June 23, 2020
- Commissioners' Agenda - Docket No. 2020-0821-PET
 - August 12, 2020
 - Approval to proceed with rulemaking and stakeholder process
- Proposed rule published in the *Texas Register* on June 25, 2021
 - Starts the 30-day public comment period
- Rulemaking website:

<https://www.tceq.texas.gov/permitting/stormwater/sand-mining-rulemaking>



Rulemaking Timeline

STAKEHOLDER

PREVIOUS PHASE

- Stakeholder Meeting and Input
 - Draft Rule
 - Watershed Area
 - BMPs
- Stakeholder Comments Due Dec. 10, 2020
- TCEQ Reviews Comments

PROPOSAL

CURRENT PHASE

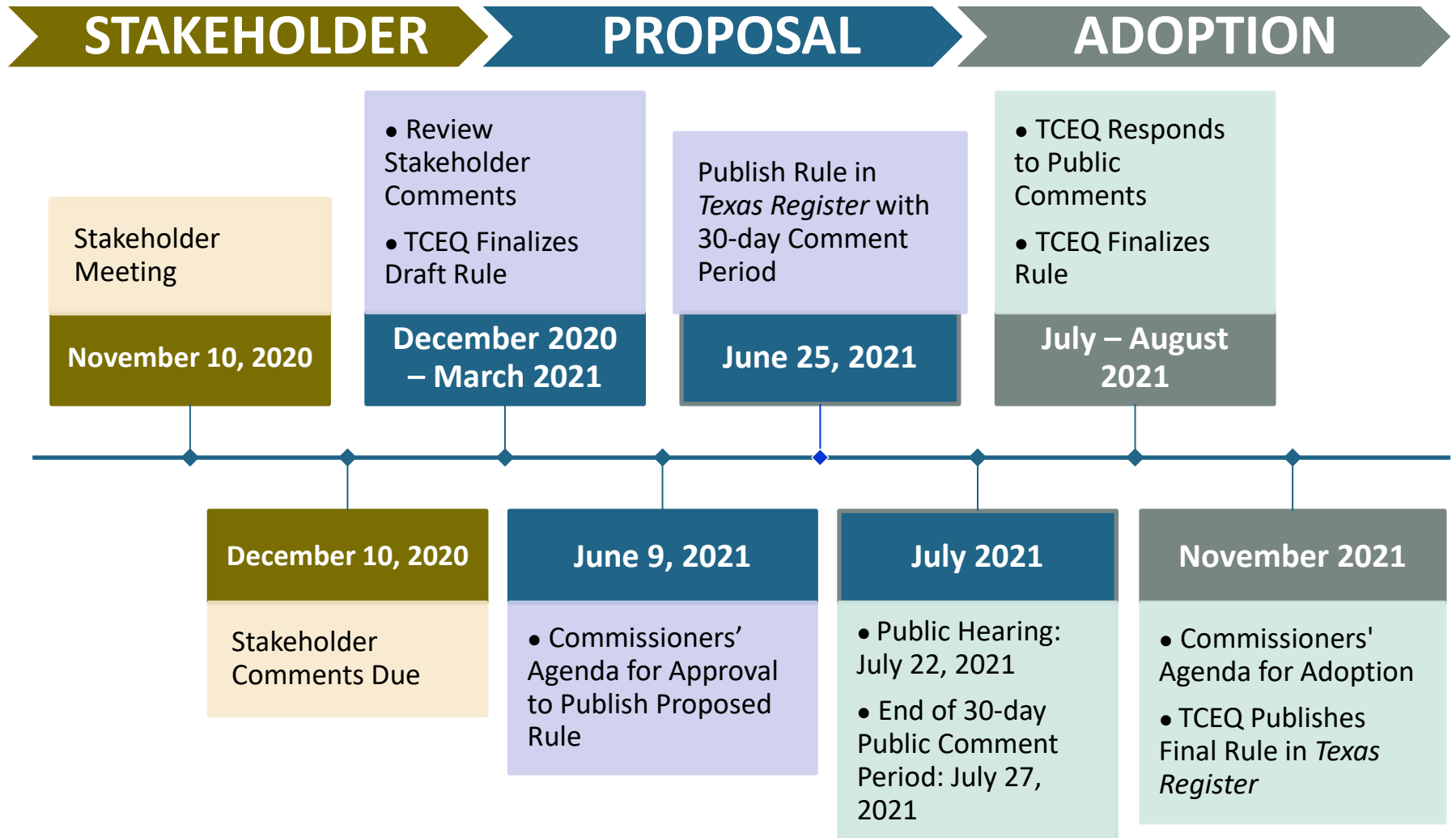
- TCEQ Finalizes Draft Rule
- Commission Approval to Publish
- TCEQ Publishes Proposed Rule in *Texas Register*
- **30-day Formal Public Comment Period**
- **Public Hearing**

ADOPTION

FINAL PHASE

- TCEQ Prepares
 - Response to Public Comments
 - Final Rule
- Commission Adopts Rule
- Adopted Rule Published in *Texas Register*
- Effective Date will be 20 calendar after filing

Rulemaking Timeline



BMPs Guidance Document

- A separate and parallel process to the ongoing rulemaking
 - TCEQ developed a 27-page draft Regulatory Guidance Document considering
 - Preliminary petitioners' requests
 - Stakeholder input
 - Internal agency review
 - A separate timeline was developed to present, collect feedback, and update the Guidance Document based on stakeholder feedback.



BMPs Guidance Document Timeline

PHASE 1

CURRENT PHASE

- TCEQ Develops Guidance Document
- 1st Stakeholder Meeting Held and Input is Collected
- **Stakeholder Comments Due August 19, 2021**
- TCEQ Reviews Comments

PHASE 2

NEXT PHASE

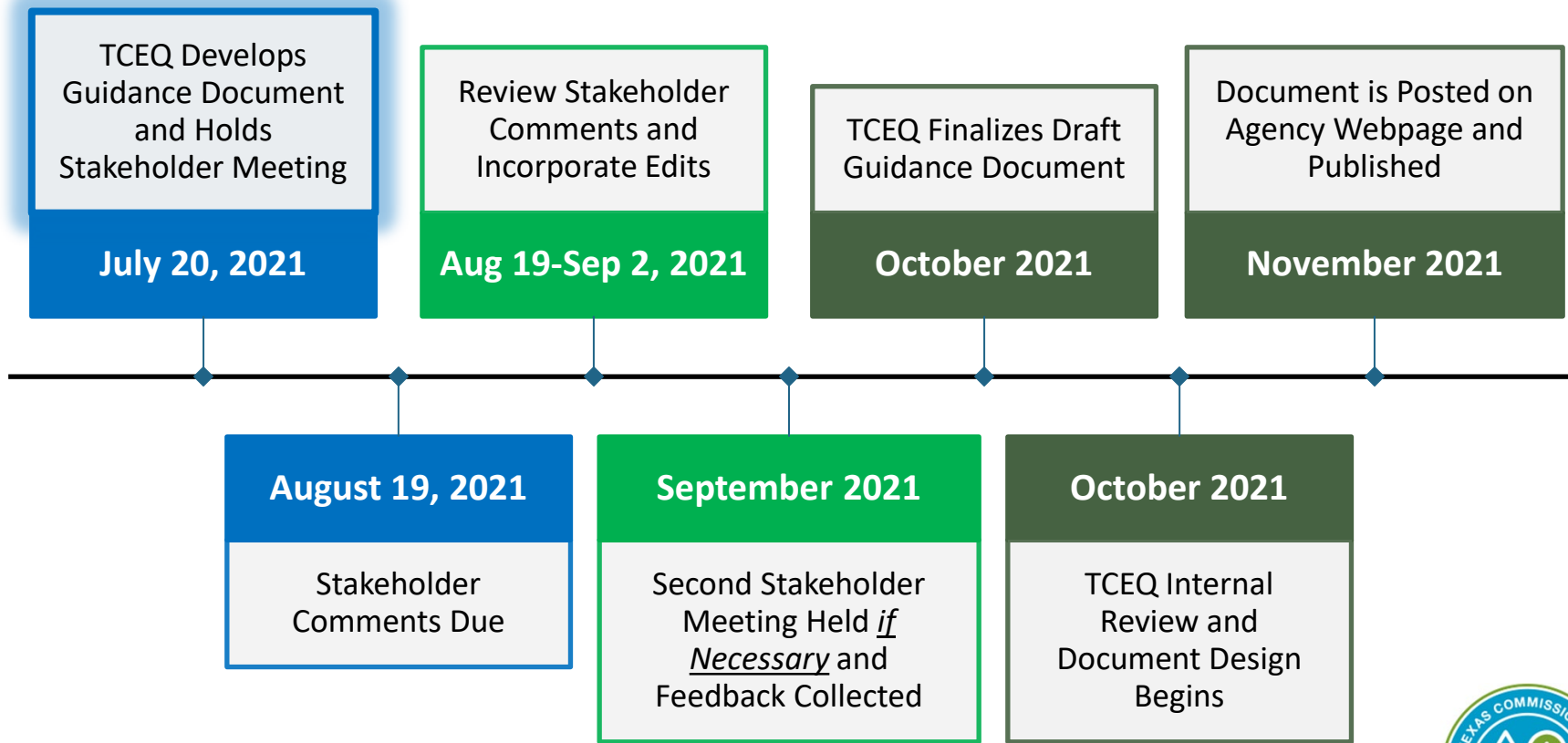
- TCEQ Reviews Stakeholder Comments and Incorporates Edits
- TCEQ evaluates need for a 2nd stakeholder meeting
- 2nd Stakeholder meeting held *if necessary*

ADOPTION

FINAL PHASE

- TCEQ Incorporates Final Edits
- Internal Agency Document Review and Design Process Begins
- Publication is Formally Posted on Agency Website and Published

BMPs Guidance Document Timeline



Summary of Proposed Rule Language



Proposed Sand Mining Rule

Chapter 311 Watershed Protection, Title 30 Texas Administrative Code

- **SUBCHAPTER J: BEST MANAGEMENT PRACTICES FOR AGGREGATE PRODUCTION OPERATIONS WITHIN THE SAN JACINTO RIVER BASIN**



Proposed Rule Language

§311.101. Definitions

The following words and terms, when used in this subchapter, have the following meanings:

- (1) **Aggregate Production Operation (APO)** – as defined in Chapter 342 of this title (relating to Regulation of Certain Aggregate Production Operations).

- (2) **Best management practices (BMPs)** – Schedules of activities, prohibitions of practices, maintenance procedures, and other techniques to control, prevent or reduce the discharge of pollutants into surface water in the state. The BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spills or leaks, sludge or waste disposal, or drainage from raw material storage areas.



Proposed Rule Language

§311.101. Definitions Continued

(3) **Infeasible** - Not technologically possible or not economically practicable and achievable in light of best industry practices.

(4) **Minimize** - To reduce or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practices.

(5) **Operator** – A person responsible for the management of an APO facility subject to the provisions of this subchapter. The APO facility operators include entities with operational control over APO regulated activities, including the ability to modify those activities; or entities with day-to-day operational control of activities at a facility necessary to ensure compliance with this subchapter (e.g., the entity is authorized to direct workers at a facility to carry out activities required by this subchapter).



Proposed Rule Language

§311.101. Definitions Continued

(6) **Sand Mining Facilities** - The APOs engaged in activities described by Standard Industrial Classification codes 1442 and 1446, concerning industrial and construction sand. Additionally, this applies to any other APO that the executive director has determined to be a sand mining facility by sending written notice to the APO operator.



Proposed Rule Language

§311.101. Definitions Continued

(7) **San Jacinto River Watershed** - Those portions of the San Jacinto River Watershed that includes the watersheds of the following and its tributaries:

Figure: 30 TAC §311.101(a)(7)

(A) the East Fork of the San Jacinto River in Montgomery, Harris and Liberty Counties;

(B) Peach Creek in Montgomery County;

(C) Caney Creek in Montgomery and Harris Counties;

(D) the West Fork of the San Jacinto River from the Lake Conroe Dam in Montgomery and Harris Counties to the Lake Houston Dam in Harris County;

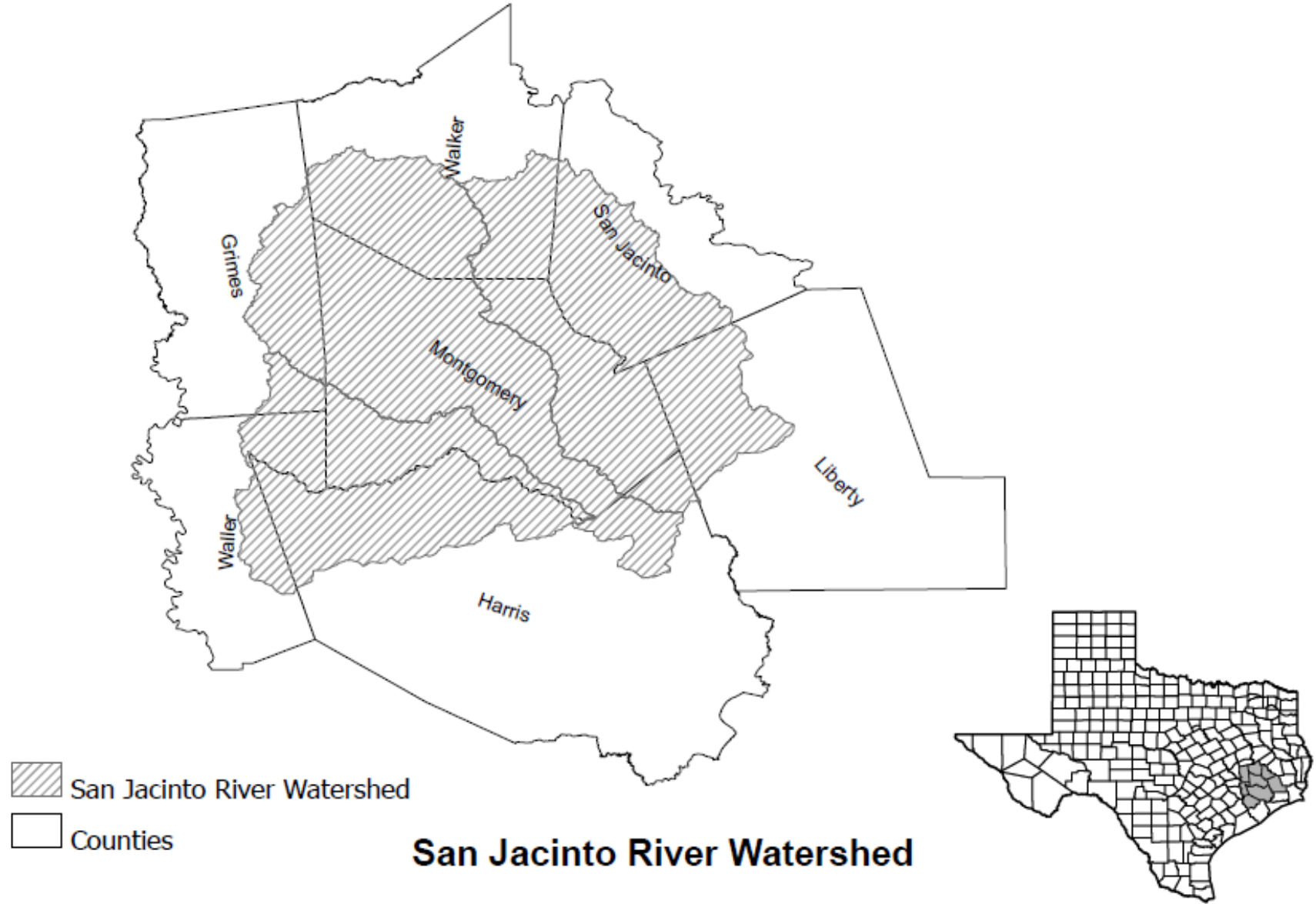
(E) Lake Creek in Montgomery and Grimes Counties;

(F) Spring Creek in Montgomery and Harris Counties; and

(G) Cypress Creek in Harris and Waller Counties.



Figure §311.101(a)(7)



San Jacinto River Watershed

Proposed Rule Language

§311.101. Definitions Continued

(8) **Storm Event** - A precipitation event that results in a measurable amount of precipitation.



Proposed Rule Language

§311.102. Scope and Applicability

(a) The purpose of this chapter is to regulate, through BMPs, sand mining facilities, which have the potential to adversely impact water quality within the San Jacinto River Watershed as defined in this subchapter.

(b) This subchapter applies to sand mining facilities located in the San Jacinto River Watershed.

(c) The executive director shall develop and maintain a guidance document of BMPs to minimize water pollution from sand mining facilities regulated by this subchapter. The BMPs shall be based on technically supported information that is generally relied upon by professionals within the appropriate environmental area or discipline. The BMPs guidance document shall be updated on a frequency determined by the executive director to allow for technological advancements and improved practices.



Proposed Rule Language

§311.103. General Requirements

(a) **Vegetative Controls.** The operators shall develop and implement all vegetative BMPs identified in the guidance document developed by the executive director for the appropriate phases of the sand mining facility's operation.

(b) **Structural Controls.** The operator shall develop and implement all structural BMPs identified in the guidance document developed by the executive director for the appropriate phases of the sand mining facility's operation.



Proposed Rule Language

§311.103. General Requirements Continued

(c) **Pre-mining, Mining, and Post-mining.** The operator shall identify, develop and implement all other BMPs identified in the guidance document developed by the executive director for pre-mining, mining, and post-mining phases of the sand mining facility's operation, unless they are infeasible. If a BMP is infeasible, the operator shall use an alternative equivalent BMP and maintain documentation of the reason onsite. The following considerations may be used to determine if a BMP is infeasible:

- | | |
|----------------------------------|--------------------------------|
| (1) financial considerations; | (8) site geometry; |
| (2) health and safety concerns; | (9) site vegetation; |
| (3) local restrictions or codes; | (10) infiltration capacity; |
| (4) site soils; | (11) geotechnical factors; |
| (5) slope; | (12) depth to groundwater; and |
| (6) available area; | (13) other similar |
| (7) precipitation pattern; | considerations. |



Proposed Rule Language

§311.103. General Requirements Continued

(d) **Installation and Maintenance.** The operator shall install and maintain all control measures in accordance with the manufacturer's specifications and good engineering practices.

(e) **Replacement or Modification of Controls.** Following periodic inspections, the operator shall replace or modify controls in a timely manner, but no later than the next anticipated storm event. Periodic inspections include those performed by the operator in compliance with the guidance document of BMPs or permits required by Chapters 205 or 305 of this title (relating to General Permits for Waste Discharges and Consolidated Permits, respectively) or inspections performed by the executive director determine that such measures have been used inappropriately, or incorrectly, or are not adequate.

(f) **Certification of BMPs.** The operator shall obtain certification of the design and installation of all new and existing BMPs, within the appropriate area or discipline, by a licensed Texas professional engineer or a licensed Texas professional geoscientist prior to commencing or continuing regulated activities. The selected BMPs may be independently certified, as appropriate.



Proposed Rule Language

§311.103. General Requirements Continued

(g) Final Stabilization Report.

- (1) The operator shall submit to the executive director a Final Stabilization Report for review and approval prior to operations terminating at the site or portion(s) of the site. This report shall:
 - (A) be developed in accordance with the guidance document of BMPs developed by the executive director;
 - (B) be signed and certified by a Texas licensed professional engineer or a Texas licensed professional geoscientist; and
 - (C) receive executive director approval prior to implementation.
- (2) All required elements of the approved Final Stabilization Report shall be implemented and completed prior to operations terminating at portion(s) of the site or cancelling any permit or authorization required by Chapter 205 or 305 of this title as a result of operations terminating at the site.



Proposed Rule Language

§311.103. General Requirements Continued

(h) **Investigation.** The executive director may conduct an investigation in addition to the review of the Final Stabilization Report, prior to the termination of sand mining facility operations at the site or portion(s) of the site.

(i) **Documentation.** All documentation related to compliance with this subchapter shall be maintained onsite and made readily available for inspection and review upon request by authorized executive director staff as well as local pollution control entities with jurisdiction. The executive director may require any additional information deemed appropriate and necessary to demonstrate compliance with the provisions of Texas Water Code, Chapter 26 or this subchapter.



How To Comment on Proposed Rule

- The rule was published in the *Texas Register* on June 25, 2021
 - The comment period closes on July 27, 2021
- A public hearing will be held on July 22, 2021
- Submittal of Comments
 - Submit written comments to:
Ms. Lee Bellware, MC 205
Office of Legal Services
Texas Commission on Environmental Quality
P.O. Box 13087, Austin, Texas 78711-3087
 - Or fax to fax4808@tceq.texas.gov.
 - Electronic comments may be submitted at:
<https://www6.tceq.texas.gov/rules/ecomments/>.
 - All comments should reference Rule Project Number 2020-048-311-OW



BMPs and Stormwater



What is Stormwater?

- **Stormwater and Stormwater Runoff:** Rainfall runoff, snowmelt runoff, and surface runoff and drainage.
- Stormwater discharges associated with industrial activities, such as sand mining, must be covered by a Texas Pollutant Discharge Elimination System (TPDES) individual or general permit.
- Stormwater permits emphasize pollution prevention and minimizing exposure of pollutants through the implementation of BMPs.



What is a Best Management Practice?

“Schedules of activities, prohibitions of practices, maintenance procedures, and other techniques to control, prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spills or leaks, sludge or waste disposal, or drainage from raw material storage areas.”

Definition from TPDES Multi-Sector General Permit (MSGP) TXR050000



What is a Best Management Practice?

- Procedures, methods, or structures used to address pollution sources and concerns
- Goal to maintain and protect surface water through discharge of clean stormwater
- In support of, or in place of, numeric limits on pollutants
 - *Example of numeric limit:* Lead cannot exceed 1.5 mg/L in stormwater discharge
 - *Example BMP to support numeric limits:* Intermediate product X, that contains lead, is kept under cover and is not exposed to stormwater



What is a Best Management Practice?

- Structural or non-structural control
 - *Structural example:* Silt fence
 - *Non-structural example:* Regular inspections of silt fence
- Must be maintained and used correctly
- May be site-specific
- Must be evaluated and revised or replaced as needed



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Stormwater Pollution Prevention Plan

- Stormwater permits, like the MSGP, require permittees to develop and implement a Stormwater Pollution Prevention Plan (SWP3)
- The SWP3 must:
 - Identify actual and potential sources of pollution at the site
 - establish *practices and any necessary control measures* that will prevent or reduce pollution in stormwater discharges from the site
 - Describe how the practices and controls are appropriate for the site



Stormwater Pollution Prevention Plan

- Stormwater discharges from sand mining facilities permitted under the MSGP must include the following control measures and BMPs in their SWP3
 - Good housekeeping measures
 - Erosion and sediment control
 - Structural controls
 - Employee training
 - Spill prevention and response plan
 - Maintenance program
- Before terminating permit coverage, a sand mining facility must:
 - Achieve final stabilization of the site, or
 - Return the land to an alternative post mining land use



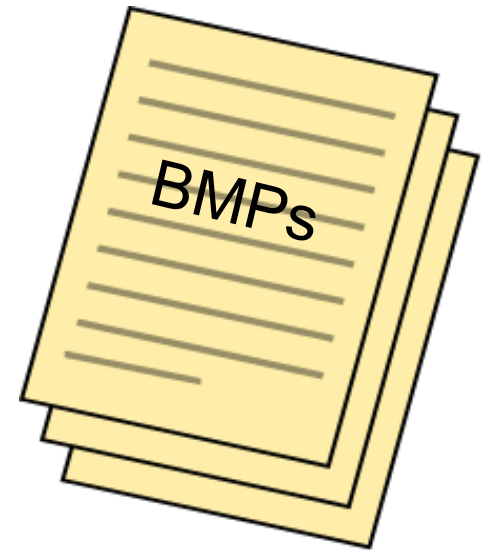
Overview of Draft BMPs Guidance Document



BMPs Guidance Document

Purpose

- Developed in conjunction with the rulemaking to provide the types of BMPs required to be developed and implemented by sand mining operators
- BMPs selected to protect water quality from potential pollutants present at sand mining sites
 - Minimize exposure and prevent erosion
 - Manage runoff



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BMPs Guidance Document

1. Vegetative Controls

An inexpensive and effective way to protect soil from erosion, vegetative stabilization is required using the BMPs below:

1. Vegetative Buffer Zones
2. Sod Stabilization
3. Temporary Seeding
4. Permanent Seeding
5. Mulching
6. Erosion and Sediment Control Blankets
7. Surface Roughening



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BMPs Guidance Document

2. Structural Controls

Structural controls divert flows away from disturbed areas, reduce runoff velocities, filter sediment, and remove sediment by ponding. All structural controls must be in compliance with local rules and permitting requirements.

1. Temporary Structures
2. Permanent Structures
3. Diversion Ridges, Berms, or Channels of Stabilized Soil
4. Silt Fences or Straw Bale Barriers
5. Sediment Basins
6. Riprap Outlet Protection
7. Check Dams
8. Construction Entrance/Exits
9. Housekeeping Practices
10. Post-Construction Stormwater Management Measures

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BMPs Guidance Document

Phase Specific BMPs

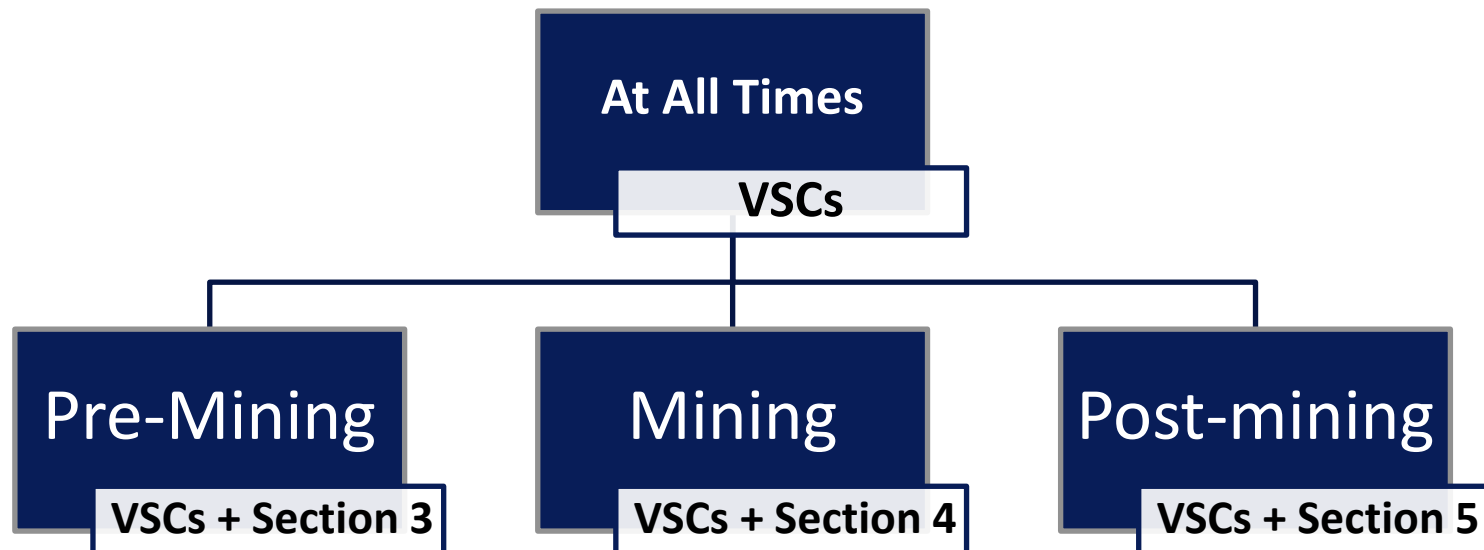
In addition to required vegetative and structural controls that must be implemented site-wide, for each phase of mining there are specific considerations that must be taken.

At All Times: Vegetative and Structural Controls (VSCs)

Pre-Mining: VSCs + Section 3 of BMPs Guidance Document

Mining: VSCs + Section 4 of BMPs Guidance Document

Post-Mining: VSCs + Section 5 of BMPs Guidance Document

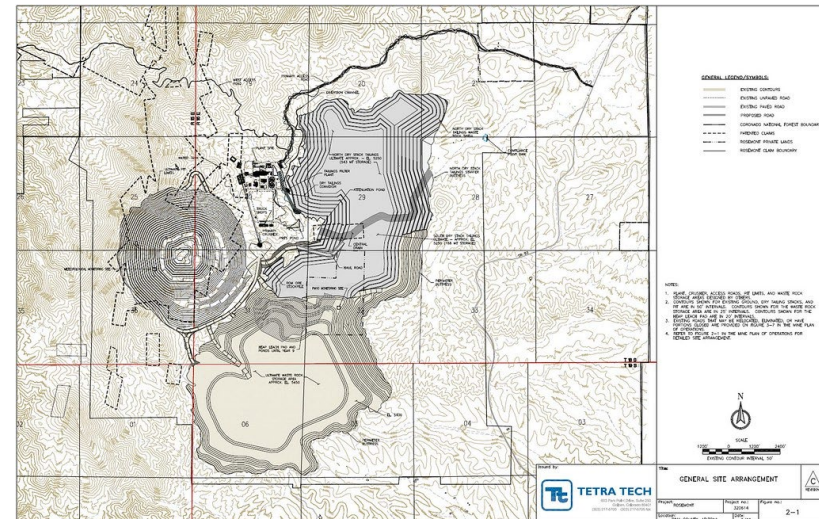


BMPs Guidance Document

3. Pre-Mining Phase

The pre-mining phase of a project requires advanced planning of the mining process itself and consideration of post-closure options for the site.

- Site Evaluation
 - Evaluated in terms of how the overall mining process will take place, including mining sequence
 - USDA soil maps available to understand surrounding soils and characteristics
- Understanding Site Drainage
 - Surface Water Flow
 - Identify receiving waterbodies and any associated impairments



"Rosemont Mine Plan - Schematic Diagram, February 2008" by SkyTruth is licensed under [CC BY-NC-SA 2.0](https://creativecommons.org/licenses/by-nc-sa/2.0/)



BMPs Guidance Document

3. Pre-Mining Phase Continued

- Site Preparation Continued
 - Land Clearing and Grubbing Activities
 - Install/construct sediment holding basins prior to major grading
 - Divert water upslope around planned area of disturbance
 - Stripping Activities
 - Controls must be implemented to control runoff from stockpiles
 - Must leave an undisturbed buffer as determined by licensed profession certifying BMPs at the site



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BMPs Guidance Document

4. Mining Phase

Additional efforts during the mining phase to reduce and eliminate pollutant discharge should occur in the following areas:

- Dredging Activities
- Aggregate Wash Plant Area (Wet Processing)
 - Proper berming/ditching of pump water from dredge to wash plant and back into open pit
 - Runoff from stockpiles is controlled and routed to open pit
- Aggregate Processing Plant Area (Dry Processing)



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BMPs Guidance Document

4. Mining Phase Continued

- Maintenance Area(s)
 - Spill Prevention Control & Countermeasures Plan must be in place
 - Fuel & oil storage must be located away from main sediment and wash water retention facility
 - All facilities must have containment, monitoring, and collection systems
 - Runoff from adjacent surfaces must be routed to monitored retention pond
- Petroleum Product Storage & Handling Areas
 - Petroleum Storage Tanks (PSTs) must be registered with TCEQ in accordance with 30 TAC §334
 - Secondary containment, proper signage, pollution prevention equipment and regular inspections must occur and be documented



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BMPs Guidance Document

5. Post-Mining Phase

Requirements to be followed during the final phase of mining:

- Site Stabilization
 - Slope stability
 - Cut and fill slopes not to exceed 2:1
 - Diversions
 - Installed at top of slopes to divert runoff from slope banks to stable outlet
 - Chutes
 - Aggregate lined to concentrate flow to outlets
 - Soil Conservation
 - Reclamation of abandoned roadways
 - Removal of structures (bridges, culverts, cattleguards, and signs)
 - Bare ground is seeded



BMPs Guidance Document

5. *Post-Mining Phase Continued*

- Debris and Vegetative Waste Removal
 - May be placed into minded portion and covered with overburden material or burned in accordance with 30 TAC §111.201 - §111.202
 - All waste disposal from site is completed in accordance with TCEQ Municipal Solid Waste Rules
- Property Grading
 - Must be completed to minimize stormwater pollution from impacting receiving waterbodies



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BMPs Guidance Document

6. Final Stabilization Report

The Final Stabilization Report must, at a minimum, include and demonstrate that the items described below have been addressed.

- Report Requirements:
 - Vegetative Cover has been established in all areas
 - Except those containing ponds, highwalls, permanent structures, or paved areas
 - Vehicle Equipment Storage and Maintenance Areas
 - Remove fluids and batteries
 - Clean all equipment and vehicles remaining on-site
 - All fuel and chemicals removed from maintenance areas
 - Structural Controls
 - Temporary controls removed
 - Permanent controls adequate to manage remaining on-site drainage



BMPs Guidance Document

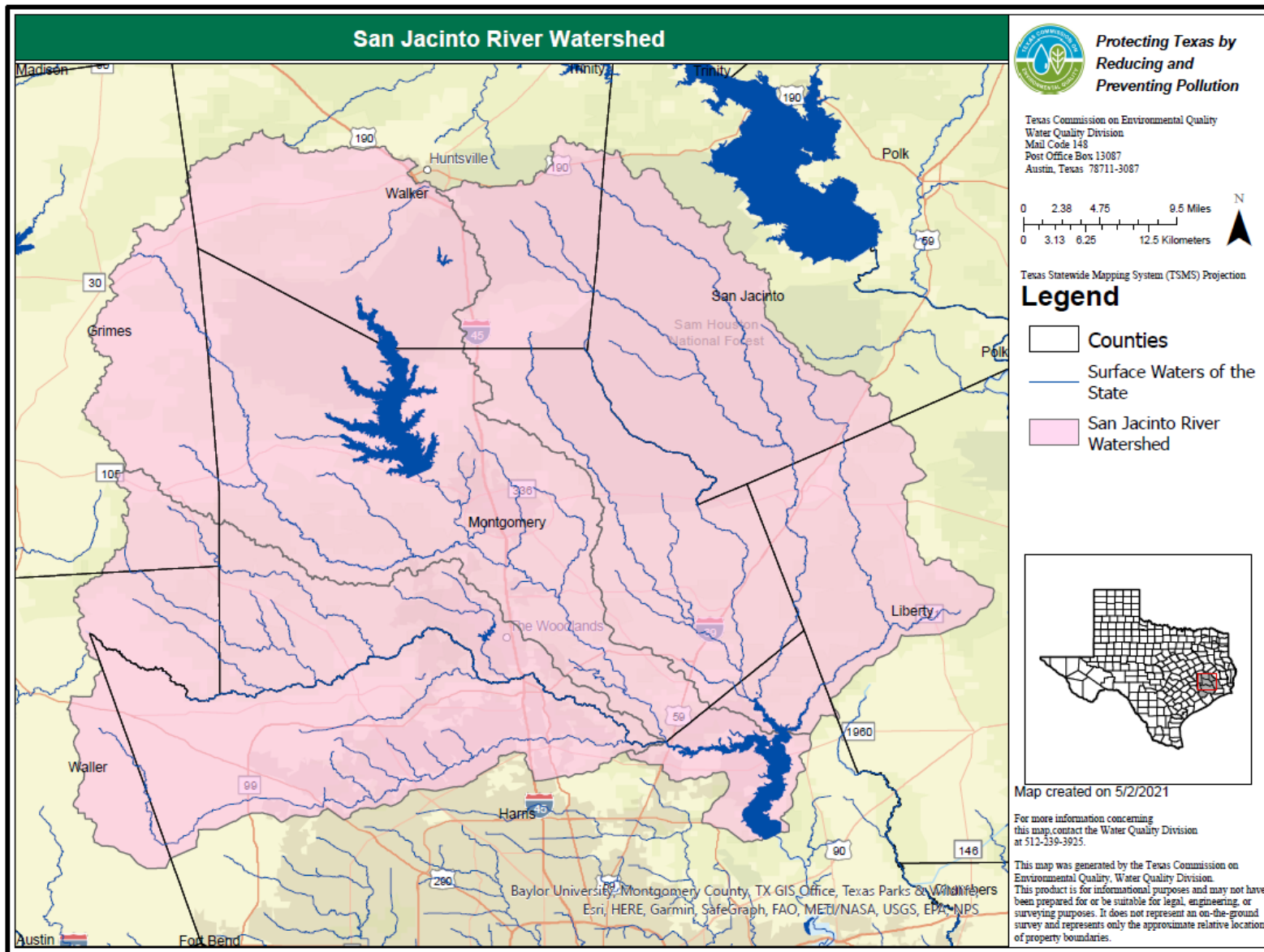
6. Final Stabilization Report

- Final Stabilization Report Requirements (Continued)
 - Highwalls
 - Demonstrated to be stable and safe
 - Waste
 - All waste removed from site in accordance with applicable rules
 - Landowner Agreement
 - If applicable, copy of agreement with landowner regarding stabilization of site must be included
 - Certifications
 - Final Report must be signed from Texas licensed Professional Engineer or licensed Professional Geoscientist



BMPs Guidance Document

Appendix A – San Jacinto River Watershed Map



Stakeholder Discussion and Input



Stakeholder Discussion Items

- Need input from stakeholders on BMPs Guidance Document
 - Required vegetative and structural controls
 - Phase specific considerations
 - Final Stabilization Report
 - Other input



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Stakeholder Comments for BMPs Guidance Document

- **Stakeholder Comments Due August 19, 2021**
- Send comments via email to:
Macayla.Coleman@tceq.texas.gov
- Include e-mail subject **“BMPs Guidance Document”**



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Summary and Adjournment



Summary of Today's Meeting

- Reviewed propose rule language
- Reviewed rulemaking and BMPs Guidance document timelines
- Reviewed BMPs Guidance Document and its requirements



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Updates Available Online

- For updates on this rulemaking project and access to the summary, agenda, and handouts from this meeting, visit the following webpage:
<https://www.tceq.texas.gov/permitting/stormwater/sand-mining-rulemaking>
- An audio recording of this meeting will be available after the meeting at the following link:
<https://www.youtube.com/user/TCEQNews>





Thank you!
