



BROOKSHIRE-KATY DRAINAGE DISTRICT POLICY, PROCEDURES AND REQUIREMENTS FOR COMMERCIAL MINING & PUMPING OPERATIONS

On April 22, 2024, at a regularly held meeting of the Brookshire-Katy Drainage District (District) Board of Supervisors, the following Policy was adopted and shall become effective April 22, 2024.

SECTION 1 - GENERAL INFORMATION

- All new developments within the District that include proposed commercial mining activity (such as, but not limited to, sand, fill, aggregate, and similar materials) shall be governed by and meet the requirements stated herein. This Policy does not apply to **detention or mass grading projects** as those would follow the District's Rules, Regulations, and Guidelines (for subdivisions).
- This Policy and procedures include the **minimum requirements** for mining and associated groundwater (and surface water) pumping on those sites. Additional requirements may be imposed or waived as deemed necessary based on the complexity and scale of the operation.
- In addition to these requirements, all mining operations are subject to the District's Rules, Regulations, and Guidelines.

SECTION 2 – PROCEDURE AND PENALTY

- A pre-development (pre-mining) meeting shall be held with the District Staff and Engineer prior to initiating the design and preparing engineering drawings for the proposed mining operation.
- The Applicant's Engineer is responsible for initiating the preparation of the design and construction plans in compliance with the latest District Rules, Regulations, and Guidelines for review and approval. The District recognizes that for certain less complex operations, engineering drawings may not be mandatory; however, any alternative approaches desired by the Applicant must be coordinated with, reviewed, and approved in writing by the District Engineer.
- Applicant (or Agent) must coordinate all appropriate review processes with the appropriate agencies, such as the Texas Commission on Environmental Quality (TCEQ) and other agencies with jurisdictional authority (i.e., Flood Plain Administrator, TxDOT, others) and provide the District with proof of such coordination and/or Permit. When applicable, the Applicant must:
 - Obtain approval or a letter of no objection from the Floodplain Administrator. This approval will be required prior to the Board's approval and issuance of the Permit.
 - Provide the following Texas Commission on Environmental Quality (TCEQ) related items.
 - A copy of the Storm Water Permit and the TCEQ Aggregate Production Operation (APO) Registration form with the assigned APO number. <https://www.tceq.texas.gov/permitting/registration/aggregates>.
 - A copy of the approved Texas Commission on Environmental Quality (TCEQ) Storm Water Permit. <https://www.tceq.texas.gov/permitting/stormwater>.
- Applicant (or Agent) follows the DISTRICT'S process for application submittal, review, and approval.



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- Upon approval of the Permit Application by the Board of Supervisors, the District shall sign the Permit Application granting the Applicant approval for the **Commercial Mining & Pumping Operations Permit**. The Applicant shall maintain a signed copy of the approved Permit and drawings on the project site.
- If an Applicant significantly **CHANGES** (alters land use, increases impervious coverage, makes modifications to drainage/detention, etc.) after the Board approves a permit application, the review process shall start over with the submittal of a new permit application package and payment of associated fees following the DISTRICT'S latest Rules & Regulations.
- No construction or mining-related excavation activities shall begin until the project receives Board approval and the **Commercial Mining & Pumping Operations Permit** has been issued. Failure to obtain a permit prior to construction will be subject to compliance in accordance with the provisions of the District's current Rules and Regulations.

SECTION 3 – REQUIREMENTS

- Drainage calculations shall be in conformance with the District's Rules, Regulations, and Guidelines. At a minimum, the proposed disturbed area, plans, and calculations shall show the existing and proposed 2-year, 10-year, and 100-year run-on and runoff. This will include an analysis of off-site flows which drain toward the subject tract. The calculations shall show no adverse impact on neighboring tracts as a result of the proposed mining and/or pumping operation.
- A Detention Facilities Maintenance Agreement (DFMA) between the owner and DISTRICT will be required. Please refer to the DISTRICT website and contact the DISTRICT Legal Counsel for all details and required information.
- Dewater Pumping
 - Calculations shall show that no net increase in water leaving the site will occur as a result of rainfall and/or pumping operations.
 - Pumping rates shall not exceed the site's pre-developed 2-year and 100-year discharge runoff rates or create a rise in water surface elevation within the receiving waterway.
 - Suppose it is determined that pumping discharge from the site promotes drainage-related concerns upstream or downstream of the discharge point. The pumping discharge shall be further assessed and may require modifications to ensure no adverse impacts.
 - Pumping shall discontinue during rain events and when rainfall is imminent.
 - Pumping from the site to a roadside ditch shall only be allowed during periods of no rainfall and the receiving ditch is in excess of 75%. *Notes to this effect must be included in the plans.
 - Pumping from the site to a District easement/channel shall only be allowed during periods of no rainfall and the receiving channel is in excess of 50%. *Notes to this effect must be included in the plans.



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- The plans shall include stormwater quality features to meet TCEQ regulations and properly control sediment from pumped water such that it does not enter any adjacent properties and facilities located downstream or upstream facilities prior to discharge from the site.
- Settling calculations must be included in the plans, demonstrating how the proposed development will protect adjacent properties and facilities located downstream or upstream from silt and sediment. These calculations must adhere to the following minimum criteria:
 - Provide the flow velocity across the cross-section of each settling ditch and sedimentation basin.
 - Velocities in settling ditches shall not exceed 0.1 feet per second (fps).
 - Velocities in sedimentation basins shall not exceed 0.01 fps.
 - The cross-sections used in these calculations shall account for sediment accumulation prior to cleaning.
 - Provide the settling time for each settling ditch and sedimentation basin.
 - The minimum treatment time for settling ditches shall be 5 hours.
 - The minimum treatment time for sedimentation basins shall be 10 hours.
 - The total treatment time before the site's release shall be no less than 15 hours.
 - All transitions between pumps, ditches, basins, and the outfall point shall be manufactured conduit, reinforced, or concrete lined to prevent erosion and resuspension of sediment.
- Any final excavation shall be no closer than **twenty (20) feet plus twice the depth** from any property line.

SECTION 4 – PERMIT and RENEWAL(s)

- Upon the Board's approval of the **Commercial Mining & Pumping Operations Permit Application**, the Permit remains **valid for twenty-four (24) months from the approval date**. Should the Applicant fail to initiate construction of an approved project within this timeframe, such inaction will render the approvals null and void. All fees paid will be forfeited and will not be refunded to the Applicant.
- The District Board reserves the right to grant **extensions** for the Permit, each not exceeding a duration of **twenty-four (24) months**. The granting of each extension depends on the Applicant providing an **Annual Inspection Certificate** (refer to the District website), which must be signed and sealed by a Texas Registered Professional Engineer to prove progress and that the initial plan concept is still being followed. Furthermore, **all extension requests must be submitted prior to the current Permit's expiration date**.



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SECTION 5 – END OF OPERATIONS REQUIREMENTS

Remediation and Post-Operation Responsibilities – The cessation of commercial mining and pumping operations marks the beginning of a critical phase that ensures the long-term sustainability and safety of the site and surrounding areas. The Applicant must undertake comprehensive remediation efforts to restore the land to a stable and environmentally sound condition. Additionally, measures must be implemented to prevent any adverse impacts within the existing drainage infrastructure and waterways, adjacent properties, or downstream facilities. This section outlines the essential responsibilities and requirements that the Applicant must fulfill to achieve these objectives, ensuring that the legacy of mining activities does not negatively affect the environment or the local community.

1. Site Remediation:

Upon completion of the commercial mining and pumping operations, the Applicant must undertake comprehensive site remediation. This includes:

- Regrading and reshaping the land to a stable and safe condition.
- Replacing topsoil and promoting vegetation growth to prevent erosion.
- Removing all equipment, structures, and debris associated with the operation.
- Restoring the site to a condition consistent with the intended future use of the land.

2. Drainage Impact Mitigation:

The Applicant must ensure that the post-operation site does not cause any adverse impacts within the existing drainage infrastructure and waterways, adjacent properties, or downstream facilities. Specific measures must include:

- Conducting a thorough assessment of the potential drainage impacts resulting from the operations.
- Implementing engineering solutions such as drainage channels, retention ponds, or other necessary infrastructure to manage stormwater and prevent runoff.
- Ensuring that the area's natural hydrology is preserved or restored to pre-operation conditions.
- Regularly monitor and maintain the implemented drainage solutions to ensure their effectiveness over time.

3. Compliance and Reporting:

- The Applicant must submit a detailed remediation and drainage impact mitigation plan to the DISTRICT for approval prior to the commencement of site remediation.
- Regular progress reports must be submitted during the remediation process, documenting the steps taken and the site's current status.
- A final report must be submitted upon completion of remediation, including certification from a qualified environmental engineer that all remediation and drainage impact mitigation measures have been successfully implemented.



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SECTION 6 - FEES

- The Permit Application fee is as indicated on the Fee Schedule Worksheet. Fees are payable by cash or check and shall be submitted using the District Permit Application Form. This fee shall provide for two (2) reviews of the complete Permit Application. The review fees for any additional reviews shall be as indicated on the Fee Schedule Worksheet, and the fees shall be submitted with the revised Permit Application package.

SECTION 7 – SUBMITTAL REQUIREMENTS

One (1) complete set of construction plans and supporting documentation containing the following items shall be submitted to the District office.

- Provide a complete set of plans for the proposed mining operation signed and sealed by a Professional Engineer registered in the State of Texas. The plans shall include, at a minimum:
 - Cover sheet including a vicinity map.
 - General construction notes, including the District Standard Notes.
 - Topographic survey prepared by a Professional Land Surveyor registered in the State of Texas and including actual on-the-ground survey collected within the last year.
 - Overall layout showing the ultimate excavation, stormwater outfall, and other pertinent improvements.
 - Drainage Plan showing how on-site and off-site runoff will be managed without an adverse impact on site or to neighboring property.
 - Plan and profile drawing showing the outfall per District requirements and details.
 - Detailed drawings and cross-sections for mining areas, settling ditches, and sedimentation basins.
 - Drainage, pumping, and settling calculations.
 - Technical specifications for the pumping equipment to be used on-site, including pump curves and other data to substantiate the actual pumping rates.
 - Construction details.
 - When required by TCEQ:
 - Storm Water Pollution Prevention Plan (SWPPP) showing the temporary erosion control measures to prevent sediment-laden stormwater from leaving the site during the initial disturbance and setup of the mining operation. This plan would typically include but is not limited to, a reinforced filter fabric fence, diversion swales, stabilized construction entrance, and concrete truck washout. This plan must include procedures for maintaining erosion control measures and requirements for regular record-keeping regarding rainfall and maintenance events on-site.



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- Storm Water Quality Management Plan (SWQMP) showing the permanent measures that will be put in place to remove sediment prior to discharge as water is pumped from the excavation area. This plan would typically include settling ditches, sedimentation basins, and other anti-scour erosion control measures. This plan must also include an operations manual for maintaining and cleaning permanent stormwater control measures on-site. Records shall be kept on-site for all maintenance and cleaning activities. The manual and records shall be made available to the District upon request.
- A Geotechnical Report prepared by a Professional Engineer registered in the State of Texas.
- When applicable, the Applicant must provide permits from other agencies with jurisdiction (i.e., TCEQ, Flood Plain Administrator, TxDOT, and others).
- Additional paperwork and documentation as required by District Staff and Engineer.

A handwritten signature in red ink, appearing to read "Stan Kitzman", is written over the printed name.

Stan Kitzman, General Manager
Brookshire-Katy Drainage District