

**Fact Sheet and Executive Director's Preliminary Decision
TPDES General Permit No. TXG500000**

For proposed Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXG500000 to authorize the discharges from Quarries in the John Graves Scenic Riverway into surface water in the state.

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Permit Action: Reissuance of General Permit TXG500000

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I. Summary

The Texas Commission on Environmental Quality (TCEQ) is proposing the renewal with amendments of TPDES general permit TXG500000 authorizing discharges of process wastewater, mine dewatering, stormwater associated with industrial activity, construction stormwater, and certain non-stormwater discharges from quarries located greater than one mile from a water body within a water quality protection area in the John Graves Scenic Riverway. This area is that portion of the Brazos River Basin, and its contributing watershed, located downstream of the Morris Shepard Dam on the Possum Kingdom Reservoir in Palo Pinto County and extending to the county line between Parker and Hood Counties. This general permit has been developed to comply with Texas Water Code (TWC) Chapter 26, Subchapter M and 30 Texas Administrative Code (TAC) Chapter 311, Subchapter H resulting from passage of Senate Bill (SB) 1354 of the 79th Legislative Session. Specifically, TWC §26.553(b) requires quarries greater than one mile from a water body to obtain a general permit.

The principal change to the existing John Graves Scenic Riverway (JGSR) General Permit (GP) includes an added provision that prohibits the discharge of certain sources of wastewater and a pollution prevention measure to minimize exposure of various onsite materials from precipitation and stormwater based on the new federal Construction and Development Effluent Limitation Guidelines (ELGs) at 40 Code of Federal Regulations (CFR) Part 450 (promulgated December 1, 2009). No numeric effluent limits are included. The TCEQ believes that the proposed general permit meets or exceeds the remainder of the other effluent limitations guidelines for regulated construction sites included in the federal ELGs at 40 CFR §§450.21 which consist of a series of Best Management Practices (BMPs).

II. Executive Director's Recommendation

The executive director has made a preliminary decision that this general permit, if issued, meets all statutory and regulatory requirements. It is proposed that the general permit be issued to expire five years from the effective date in accordance with the requirements of 30 TAC §205.5(a).

III. Permit Applicability

A. Discharges Authorized by TXG500000

This general permit authorizes the discharge of process wastewater, mine dewatering, stormwater associated with industrial activity, construction stormwater, and certain non-stormwater discharges from quarries located greater than one mile from a water body within a water quality protection area in the John Graves Scenic Riverway. The permit specifies which facilities may be authorized under this general permit and those which must be authorized by individual permit.

B. This general permit does not apply to:

1. A quarry located outside a water quality protection area within the John Graves Scenic Riverway.

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2. A quarry located within one mile from a water body within a water quality protection area in the John Graves Scenic Riverway. Quarries within one mile of a water body are required to obtain an individual TPDES permit.
 3. A quarry or associated processing plant located greater than one mile from a water body within a water quality protection area that mines clay and shale for use in manufacturing structural clay products; or since on or before January 1, 1994, has been in regular operation without cessation of operation for more than 30 consecutive days and under the same ownership.
 4. The construction or operation of a municipal solid waste facility regardless of whether the facility includes a pit or quarry that is associated with past quarrying.
 5. Return flows from mining operations authorized by the US Army Corps of Engineers under 33 CFR §323.2(d)(1)(iii).
 6. Discharges that are regulated by the Railroad Commission of Texas.
- C. The following discharges are not eligible for general permit coverage:
1. Discharges of the constituent(s) of concern to impaired water bodies for which there is a total maximum daily load (TMDL) implementation plan (I-P) are not eligible for this permit unless they are consistent with the approved TMDL and TMDL I-P. The executive director may amend this general permit or develop a separate general permit for discharges to these water bodies. For discharges not eligible for coverage under this general permit, the discharger must apply for and receive an individual or other applicable general permit prior to discharging.
 2. Discharges that do not maintain existing uses of receiving waters, as determined by the executive director.
 3. Discharges that would adversely affect a listed endangered or threatened species or its critical habitat. Federal requirements related to endangered species apply to all TPDES permitted activities, and site-specific controls may be required to ensure that protection of endangered or threatened species is achieved.
 4. Sites that are classified as unsatisfactory performers as required under 30 TAC §60.3(a)(3)(A)(i).

IV. Permit Effluent Limitations

- A. Discharged Effluent Limits
Effluent discharged under the authority of this general permit must meet the following effluent limitations on the following table:

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Table 1 - Effluent Limits

<i>Parameter</i>	<i>Daily Average Limitations</i>	<i>Daily Maximum Limitations</i>	<i>Sample Type</i>	<i>Monitoring Frequency</i>
Flow	Report MGD ³	N/A	Estimate	One/day
Total Suspended Solids	45 mg/L ⁴	NA	Grab	One/day ^{1, 2}
pH	6.0-9.0 su	N/A	Grab	One/day ^{1, 2}
Arsenic, Total	0.1 mg/L	0.3 mg/L	Grab	One/year ¹
Barium, Total	1.0 mg/L	4.0 mg/L	Grab	One/year ¹
Cadmium, Total	0.05 mg/L	0.15 mg/L	Grab	One/year ¹
Chromium, Total	0.5 mg/L	5.0 mg/L	Grab	One/year ¹
Copper, Total	0.04 mg/L	0.09 mg/L	Grab	One/year ¹
Lead, Total	0.35 mg/L	0.75 mg/L	Grab	One/year ¹
Manganese, Total	1.0 mg/L	3.0 mg/L	Grab	One/year ¹
Mercury, Total	0.002 mg/L	0.004 mg/L	Grab	One/year ¹
Nickel, Total	1.0 mg/L	3.0 mg/L	Grab	One/year ¹
Selenium, Total	0.02 mg/L	0.04 mg/L	Grab	One/year ¹
Silver, Total	0.03 mg/L	0.05 mg/L	Grab	One/year ¹
Zinc, Total	0.31 mg/L	0.66 mg/L	Grab	One/year ¹

1. When discharging.
2. Not applicable to discharges resulting from a rainfall event greater than the 25-year, 24-hour rainfall event. Monitoring is required when discharges result from a rainfall event greater than the 25-year, 24-hour event; however compliance with effluent limitations is not required.
3. Million Gallons per Day (MGD)
4. Milligram per Liter (mg/L)

B. Best management practices (BMPs) and other non-numerical conditions/requirements
The following BMPs and other non-numerical conditions/requirements are included in the draft general permit:

1. Quarries authorized under this general permit must develop a pollution prevention plan (P3) that covers the entire quarry. The P3 is required to be submitted along with the Notice of Intent (NOI) for review and approval. Minimum contents of the P3 include establishing a pollution prevention team with associated training, a description

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of potential pollutant sources, a description of management controls to regulate pollutants in discharges (including good housekeeping measures, preventative measures, and spill prevention and response procedures), erosion and sediment controls (including structural controls, stabilization practices, permanent stormwater controls, other controls, and maintenance), and inspections and compliance evaluations.

2. Specifically under the requirements of the P3, runoff control berms are required to be constructed to direct runoff from quarrying activities into sedimentation ponds prior to discharge.
3. Specifically under the requirements of the P3, a sedimentation pond(s) is required to be constructed upgradient of each discharge point/outfall to allow for retention of the sediment at the quarry. A sedimentation pond(s) must be designed to retain the 25-year, 24-hour storm event.
4. Quarries authorized under this general permit must submit a restoration plan with the NOI. Minimum requirements of the restoration plan include identifying receiving waters at risk of unauthorized discharges, documenting background conditions of receiving waters, identifying potential environmental impacts to receiving waters from unauthorized discharges, identifying goals and objectives of potential restoration actions, identifying a range of restoration alternatives, monitoring of the effectiveness of restoration activities, identifying a process for public involvement in restoration activities, and providing cost estimates for restoration.
5. Quarries authorized under this general permit must submit proof of financial assurance for restoration with the NOI and maintain proof of financial assurance for restoration until quarry operation is terminated and the site has been restored according the restoration plan.
6. Quarries authorized under this general permit must submit a final stabilization report with the notice of termination (NOT) when quarrying activities are completed.

V. Changes from Existing General Permit

1. Part I Definitions

- Added definition “Impaired Water: A surface water body that is identified on the latest approved CWA §303(d) List as not meeting applicable state water quality standards. Impaired waters include waters with approved or established total maximum daily loads (TMDLs) and those where a TMDL has been proposed by TCEQ but has not yet been approved or established.”
- Added the following language to the definition of “Quarry” in order to clarify the meaning of a responsible party: “For purposes of this definition, a ‘responsible party’ is any owner, operator, lessor, or lessee who is primarily responsible for overall function and operation of a quarry located in the water quality protection area as defined in this general permit.”
- Deleted definition of “Responsible Party” because the only time this term is used is in the definition of “Quarry” and has been added to that definition.
- Deleted definition of “Reportable Quantity Spill” because this term is not used in this general permit.

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2. To be consistent with TXR150000, modified Part III Section B. Limitations on Coverage to read as follows:

“3. Impaired Receiving Waters and Total Maximum Daily Load (TMDL) Requirements

New sources or new discharges of the pollutants of concern to impaired waters are not authorized by this permit unless otherwise allowable under 30 TAC Chapter 305 and applicable state law. Impaired waters are those that do not meet applicable water quality standards and are listed on the EPA approved Clean Water Act (CWA) §303(d) List. Pollutants of concern are those for which the water body is listed as impaired.

Discharges of the pollutants of concern to impaired water bodies for which there is a TMDL are not eligible for this general permit unless they are consistent with the approved TMDL. Permittees must incorporate the conditions and requirements applicable to their discharges into their P3, in order to be eligible for coverage under this general permit. For consistency with the construction stormwater-related items in an approved TMDL, the P3 must be consistent with any applicable condition, goal, or requirement in the TMDL, TMDL Implementation Plan (I-Plan), or as otherwise directed by the executive director.”

3. Existing permittees that need to continue authorization under this general permit are required to submit an NOI for permit renewal. Language was revised to provide deadline requirements for permittees to submit a renewal NOI in Part III C. Deadlines for Obtaining Authorization Number 1 for Existing Quarries to read as follows:

“Operators of existing quarries TPDES General Permit No. TXG500000 Quarries in the John Graves Scenic Riverway (effective on December 15, 2008), must submit an NOI to renew authorization or a NOT to terminate coverage under this general permit within 90 days of the effective date of this general permit. During this interim period, as a requirement of this TPDES permit, the operator must continue to meet the conditions and requirements of the previous general permit.”

4. Deleted outdated information on obtaining coverage related to existing permit from Part III C.

5. Added to Part III Section D.6.:

“Applicants seeking authorization to discharge to a municipal separate storm sewer system (MS4) must provide a copy of the NOI to the operator of the MS4 at the same time a NOI is submitted to the TCEQ.”

6. In order to make applicants that cannot obtain coverage under the general permit aware of the requirement of and process for obtaining an individual permit, added language to Part III Section F. 1. Alternative TPDES/TLAP Coverage, Individual Permit Alternative:

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“Applications for individual permit coverage should be submitted at least three hundred and thirty (330) days prior to proposed date of commencement of construction activities to ensure timely authorization. No construction may commence until the applicant has been granted permit coverage.”

7. Added the following language to Part III. Section F.2. Alternative TPDES/TLAP Coverage in order to be consistent with 30 TAC §205.4 and TWC §26.040.

“The executive director shall deny or suspend a facility’s authorization for disposal under this general permit based on a rating of “unsatisfactory performer” according to commission rules in 30 TAC §60.3, *Use of Compliance History*. An applicant who owns or operates a facility classified as an “unsatisfactory performer” is entitled to a hearing before the commission prior to having its coverage denied or suspended, in accordance with Tex. Water Code § 26.040(h).”

8. Removed the following language from Part VI Section A. 2.:

“Training for existing employees must occur no later than three months following authorization under this general permit.”

This language was removed because it is not applicable to the draft permit. Because the existing permit required that current employees and new employees be trained, all existing employees have been trained and only new employees need to be trained.

9. Changed Part VI Section D.1(a) last sentence to read:

“Inspections must occur at least once every seven (7) calendar days and must be documented in the P3.”

This was done to be consistent with TXR150000 and eliminate the need to conduct the inspection locked to the same day of the week.

10. Added “All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC § 25, Environmental Testing Laboratory Accreditation and Certification” to Part X Section G. 3.

11. The daily maximum limitation for cadmium and the daily maximum limitation for silver, in Table 1 Effluent Limitation were changed to meet revised water-quality based standards. The daily maximum limitation for cadmium is being changed from 0.2 milligrams per liter (mg/L) to 0.15 mg/L, and the daily maximum limitation for silver is being changed from 0.06 mg/L to 0.05 mg/L.

12. Added to Part X (Standard Permit Conditions) Section G.10.:

“Signatory Requirements for Reports and Certifications

All reports and certifications required in this permit or otherwise requested by the executive director must be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).”

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13. Added language to Part VI Section C.4.(b)(ii) to allow representatives of all involved agencies access to the permittee's P3 and records.

“The following records must be maintained and either attached to or referenced in the P3, and made readily available at the time of an on-site inspection to: the executive director; a federal, state, or local agency approving sediment and erosion plans, grading plans, or stormwater management plans; local government officials; and the operator of a municipal separate storm sewer receiving discharges from the site:

- (1) the dates when major grading activities occur;
(2) the dates when quarry activities temporarily or permanently cease on a portion of the site; and
(3) the dates when stabilization measures are initiated and completed.”

14. Deleted the following language in Part IX Section B.8. regarding 90-day compliance periods for renewal by existing quarries because this has already been discussed in Part III Section C. 1:

“Existing quarries authorized under the Multi-Sector Storm Water General Permit (TXR050000), Construction General Permit (TXR150000), and/or an individual TPDES permit are granted a 90 day compliance period from the date the executive director grants authorization of the NOI to achieve compliance with all terms and conditions of this general permit.”

15. Added the following language to Part IX. Section B. Other Requirements in order to be consistent with Construction and Development ELGs in 40 CFR Part 450:

“10. In accordance with federal Construction and Development Effluent Limitation Guidelines (ELGs) at 40 Code of Federal Regulations (CFR) Part 450:

- (a) The permittee shall minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater; and
(b) Discharges of wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials are prohibited under this general permit.”

VI. Addresses

- A. Comments on this proposed general permit should be sent to:

Office of the Chief Clerk (MC-105)
TCEQ
P.O. Box 13087
Austin, TX 78711-3087
(512) 239-3300

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- B. Questions concerning this draft general permit should be directed to:
TCEQ Stormwater & Pretreatment Team Leader
Wastewater Permitting Section (MC-148)
Water Quality Division
P.O. Box 13087 Austin, TX 78711-3087
(512) 239-4671
SWGPA@tceq.texas.gov

Supplementary information on this fact sheet is organized as follows:

- VII. Legal Basis
- VIII. Regulatory Background
- IX. Permit Coverage
- X. Technology-based Requirements
- XI. Water Quality-based Requirements
- XII. Monitoring
- XIII. Additional Permit Conditions
- XIV. Procedures for Final Decision
- XV. Administrative Record

VII. Legal Basis

Section 26.121 of the Texas Water Code (TWC) makes it unlawful to discharge pollutants into or adjacent to water in the state except as authorized by a rule, permit, or order issued by the commission. TWC §26.027 authorizes the commission to issue general permits and amendments to permits for the discharge of waste or pollutants into or adjacent to water in the state. TWC §26.040 provides the commission with authority to amend rules adopted under §26.040 prior to amendment of the statute enacted by House Bill (HB) 1542 in 1997, and to authorize waste discharges by general permit. On September 14, 1998, the TCEQ received authority from the United States Environmental Protection Agency (EPA) to administer the Texas Pollutant Discharge Elimination System (TPDES). The TCEQ and the EPA have signed a Memorandum of Agreement, which authorizes the administration of the National Pollutant Discharge Elimination System (NPDES) program by the TCEQ as it applies to the State of Texas. TWC §§26.551-26.562 are specific to water quality protection areas and are applicable to quarrying operations.

CWA §§301, 304, and 401 (33 United States Code (USC) §§1331, 1314, and 1341) include provisions that state that NPDES permits must include effluent limitations requiring authorized discharges to: (1) meet standards reflecting levels of technological capability; (2) comply with EPA-approved state water quality standards; and (3) comply with other state requirements adopted under authority retained by states under CWA §510, and 33 USC §1370.

Two types of technology-based effluent limitations must be included in the general permit. With regard to conventional pollutants, (*i.e.*, pH, biochemical oxygen demand (BOD), oil and grease, total suspended solids (TSS), and fecal coliform bacteria), CWA §301(b)(1)(E) requires effluent limitations based on “best conventional pollutant control technology” (BCT). With regard to nonconventional and toxic pollutants, CWA §301(b)(2)(A), (C), and (D) requires effluent limitations based on “best available technology economically achievable” (BAT), a standard that generally represents the best performing existing technology in an industrial category or subcategory. BAT and BCT effluent limitations may never be less stringent than corresponding

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effluent limitations based on best practicable control technology (BPT), a standard applicable to similar discharges before March 31, 1989 under CWA §301(b)(1)(A).

Frequently, EPA adopts nationally applicable guidelines identifying the BPT, BCT, and BAT standards to which specific industrial categories and subcategories are subject. Until such guidelines are published, however, CWA §402(a)(1) requires that appropriate BCT and BAT effluent limitations be included in permitting actions on the basis of its best professional judgment (BPJ).

On December 1, 2009, the EPA published Construction and Development Effluent Limitations Guidelines (ELGs) and new source performance standards (NSPS) in 40 CFR Part 450, to control the discharge of pollutants from construction sites. All construction sites required to obtain permit coverage were required to implement a range of erosion and sediment controls and pollution prevention measures. On February 16, 2012, the EPA issued their 2012 CGP which includes the new Construction and Development ELGs.

VIII. Regulatory Background

The commission was given authority to issue general permits in place of authorizations by rule through legislation, HB 1542, passed during the 75th Legislative Session. Further clarification of this general permit authority was provided in subsequent legislation, HB 1283, passed during the 76th Legislative Session. 40 CFR §122.26(b)(14) defines categories of industrial activities that must obtain an NPDES permit; quarries are included in this definition. Authorization to discharge stormwater associated with industrial activity was initially provided by EPA in issuance of the NPDES stormwater Multi-Sector General Permit (MSGP) in the *Federal Register*, Volume 60, No. 189, September 29, 1995. The TCEQ (previously the Texas Natural Resource Conservation Commission) was provided authority to administer the NPDES program as the TPDES program on September 14, 1998. TCEQ reissued the MSGP as a TPDES general permit on August 20, 2001. Quarries are regulated under Sector J – Mineral Mining and Dressing. Senate Bill 1354 was passed during the 79th Legislative Session in 2005 and Chapter 26 of the Texas Water Code was amended to include Subchapter M (Water Quality Protection Areas) effective June 17, 2005. This section of the Texas Water Code requires quarries located greater than one mile from a water body to obtain a general permit and identifies specific requirements that were not included in TCEQ's 2001 MSGP. 30 TAC Chapter 311 Subchapter H was effective August 3, 2006. It implements the revisions to the TWC. The MSGP was renewed by TCEQ on August 14, 2011, and Part 5 Section J.5 specifically directs quarries located in the John Graves Scenic Riverway to obtain alternative permit authorizations.

IX. Permit Coverage

The purpose of this general permit is to regulate the surface discharges of process wastewater, mine dewatering, stormwater associated with industrial activity, construction stormwater, and certain non-stormwater discharges into or adjacent to water in the state from quarries located greater than one mile from a water body within a water quality protection area in the John Graves Scenic Riverway. To obtain authorization to discharge under this general permit, an applicant will need to use the following guidelines.

Applicants seeking authorization to discharge under this general permit must submit a completed NOI on a form approved by the executive director. The NOI shall, at a minimum, include: the legal

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name and address of the owner and operator, the facility name and address, and the location of the quarry. This general permit also requires the submittal of technical documents for review and approval by the executive director, including a pollution prevention plan, proof of financial assurance, and a restoration plan.

- A. An existing quarry operating under the MSGP must submit a NOI within 90 days of issuance of this general permit to continue quarry activities. A new quarry must submit a NOI and obtain authorization prior to commencing quarry activities, including construction activities at the quarry location.
- B. Submission of a NOI is an acknowledgment that the conditions of this general permit are applicable to the proposed discharge, and that the applicant agrees to comply with the conditions of this general permit. The NOI must be submitted to the address indicated on the NOI form. Following review of the NOI, the executive director shall confirm coverage by providing a notification and an authorization number to the applicant, or notify the applicant that coverage under this general permit is denied. Applicants seeking authorization to discharge to a municipal separate storm sewer system (MS4) must provide a copy of the NOI to the operator of the MS4 at the same time a NOI is submitted to the TCEQ.
- C. Authorization under this general permit is not transferable. If the owner or operator of the regulated entity changes, the present owner and operator must submit a Notice of Termination (NOT) and the new owner and operator must submit a NOI. The NOT and NOI must be submitted not later than 10 days before the change. Permittees discharging to a MS4 must submit a copy of the NOT to the operator of the MS4 at the same time the NOT is submitted to the TCEQ.
- D. If the owner or operator becomes aware that it failed to submit any relevant facts or submitted incorrect information in a NOI, the correct information must be provided to the executive director in a Notice of Change (NOC) within 14 days after discovery. If relevant information provided in the NOI changes (e.g., telephone number or P.O. Box number) an NOC must be submitted within 14 days after the change. Permittees discharging to a MS4 must submit a copy of any NOC to the operator of the MS4 at the same time the NOC is submitted to the TCEQ.

X. Technology-Based Requirements

The limitations and conditions of the general permit have been developed to comply with the technology-based standards of the Clean Water Act. Except for the Construction and Development ELGs and new source performance standards (NSPS) in 40 CFR Part 450, to control the discharge of pollutants from construction sites, there are currently no nationally applicable effluent limitation guidelines in 40 CFR Chapter I Subchapter N that identifies the best practicable control technology currently available (BPT), best conventional pollutant control technology (BCT), and best available technology economically achievable (BAT standards). National effluent limitation guidelines at 40 CFR Part 436, Subpart B (Crushed Stone Subcategory), Subpart C (Construction Sand and Gravel Subcategory), and Subpart D (Industrial Sand Subcategory) were considered when establishing technology-based limitations in this general permit. Technology-based effluent limitations included in this general permit are based on BPJ and rules included at 30 TAC §311.79 and §319.22. The parameters selected for BCT/BAT limits are the primary pollutants of concern for discharges authorized in the general permit. The limitations for these parameters are: 45 mg/L

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total suspended solids and between 6.0 to 9.0 standard units pH as established at 30 TAC §311.79. Additionally, technology-based limitations are included for arsenic, barium, cadmium, chromium, lead, manganese, and nickel as established at 30 TAC §319.22. These effluent limitations are economically achievable based on inclusion in current state regulations.

On December 1, 2009, the EPA published Construction and Development ELGs, 40 CFR §§450.21, 450.23, and 450.24. Technology-based effluent limitations must be included in the proposed general permit. With regard to conventional pollutants, CWA §301 (b)(2)(E) requires effluent limitations based on “best conventional pollution control technology” (BCT). The BCT effluent limitations may never be less stringent than corresponding effluent limitations based on best practicable control technology (BPT), a standard applicable to similar discharges before March 31, 1989 under CWA §301(b)(1)(A).

The general permit includes a requirement for construction operators to comply with the new federal construction and development ELGs outlined in 40 CFR §§450.21, 450.23, and 450.24. TCEQ adopted these guidelines by reference in 30 TAC §305.541.

The BPT effluent limitations (40 CFR §450.21) and BCT effluent limitations (40 CFR §450.23) are narrative in nature and are achieved through the implementation of BMPs.

XI. Water Quality-Based Requirements

The Texas Surface Water Quality Standards found at 30 TAC Chapter 307 state that “surface waters will not be toxic to man, or to terrestrial or aquatic life.” The methodology outlined in the *Procedures to Implement the Texas Surface Water Quality Standards*, RG-194 (January 2012) is designed to insure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to insure that no source will be allowed to discharge any wastewater or stormwater that: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.

TPDES permits contain technology-based effluent limits reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity data bases to determine the adequacy of technology-based permit limits and the need for additional water-quality based controls. A review by the TCEQ's Water Quality Standards Team determined that the proposed technology-based and water quality-based effluent limits are protective of water quality. Water quality based effluent limits for copper, mercury, selenium, silver, and zinc, which are more stringent than the technology-based limitations at 30 TAC §319.22, are established in this general permit.

The daily average and daily maximum effluent limitations for cadmium (daily max only), copper, mercury, selenium, silver, and zinc were developed based on the protection for acute freshwater aquatic life toxicity in situations where little or no dilution occurs. Chronic aquatic life and human health evaluation was not required based on the restriction of this general permit only applying to discharges greater than one mile from a waterbody, e.g., discharges may only occur to intermittent streams and discharges would likely only occur during and following significant rainfall events. Water quality-based effluent limitations were evaluated for protection of receiving water bodies in

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Segment Nos. 1205 and 1206 of the Brazos River Basin, the two segments that have the potential to receive discharges authorized under this general permit.

Water quality based effluent limitations for these five metals are calculated in Appendix 1 of this fact sheet.

In order to achieve compliance with Texas Surface Water Quality Standards, permittees must meet the following narrative water quality requirements:

1. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
2. Concentration of taste and odor producing substances shall not interfere with the production of potable water by reasonable water treatment methods, impart unpalatable flavor to food fish including shellfish, result in offensive odors arising from the waters, or otherwise interfere with the reasonable use of the water in the state.

The Texas Surface Water Quality Standards also require that discharges must not be acutely toxic to aquatic life, as determined by requiring greater than 50% survival in 100% effluent using a 24-hour acute toxicity test. This requirement is typically only required for continuously flowing discharges or discharges with the potential to exert toxicity in the receiving stream, according to the state's implementation procedures.

The discharges authorized under this general permit are not typically continuous flowing discharges and the limitations for pollutants of concern in the permit should preclude toxicity instream.

There are no TMDLs in the permit watershed. Lake Granbury (Segment No. 1205) and Brazos River Below Possum Kingdom Lake (Segment No. 1206) are not currently listed on the State's inventory of impaired and threatened waters or the 2012 CWA Section 303 (d) list (approved by EPA on May 9, 2013).

XII. Monitoring

Monitoring is required by 40 CFR §122.44(i) for each pollutant limited in a permit to ensure compliance with the permit limits. The general permit has the following criteria established for monitoring.

A. Permittee Responsibilities

The permittee shall ensure that properly trained and authorized personnel monitor and sample the discharge.

B. Sampling Location

The sampling point must be downstream of any treatment unit or technique.

C. Sample Collection

All samples must be collected according to the latest edition of *Standard Methods for the Examination of Water and Wastewater* (prepared and published jointly by the American Public Health Association, the American Waterworks Association, and the Water Pollution Control Federation), EPA's *Methods for Chemical Analysis of Water and Wastes* (1979),

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or EPA's *Biological Field and Laboratory Methods for Measuring the Quality of Surface Waters and Effluents* (1973).

D. Sampling

Sample containers, holding times, preservation methods, and analytical methods shall either follow the requirements in 40 CFR Part 136, or *Standard Methods for the Examination of Water and Wastewater*.

E. All analytical results shall be reported on a Discharge Monitoring Report (DMR) (EPA Form 3320-1) that is signed and certified as required by Part X.G.10 of the permit. The analytical results must be submitted to the TCEQ's Enforcement Division (MC-224) on a monthly basis. The self-report form for any given month must be due by the 20th day of the following month for each discharge that is described by this permit whether or not a discharge is made for the month. If noncompliance with a discharge limitation occurs, the permittee shall provide notification according to Part IX.D.7 of the permit.

F. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

XIII. Additional Permit Conditions

Additional permit conditions are proposed in this draft general permit for the purpose of water quality protection and compliance with enacted legislation and associated revisions to the TWC and TAC applicable to quarries in the John Graves Scenic Riverway.

A pollution prevention plan (P3) is required to be developed and implemented by permittees authorized under this general permit. The P3 is structured similar to the stormwater pollution prevention plan (SWP3) required in the MSGP and the Construction General Permit, however the conditions in this general permit are tailored specifically to quarry operations in the John Graves Scenic Riverway. Specific best management practices (BMPs) and structural controls are proposed as part of the P3 to address the prevention of unauthorized discharges and to retain sediment onsite. Runoff control berms are required to be installed around the entire perimeter of the active quarry to direct stormwater runoff into sedimentation pond(s). The sedimentation pond(s) must be sized to capture the resulting runoff from the 25-year 24-hour storm event. These requirements should ensure that all runoff containing sediment and other pollutants will be controlled and treated to remove sediment prior to controlled releases into receiving waters and will assist in discharges complying with the total suspended solids and other effluent limitations proposed in the general permit.

The proposed general permit includes the requirement for permittees to develop a restoration plan that would be implemented should unauthorized discharges occur from the quarry that impact receiving waters. The restoration plan is required under TWC §26.553(f)(1) and 30 TAC § 311.76. The proposed general permit includes the requirement for permittees to maintain proof of financial assurance for restoration. This is required in TWC §26.553(f)(2) and 30 TAC §311.81(a) and Chapter 37, Subchapter W.

A final stabilization report is required to be submitted with the notice of termination (NOT) for review and approval by the executive director. The purpose of the stabilization report is to ensure

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that the quarry location does not continue to be a source of pollution after quarrying activities have ceased and requires the permittee to maintain compliance with the conditions of the general permit until the plan is approved.

XIV. Procedures for Final Decision

The memorandum of agreement between the EPA and TCEQ provides that EPA has 90 days to comment, object, or make recommendations to the general permit before it is published in the *Texas Register*. According to 30 TAC Chapter 205, when the draft general permit is proposed, notice must be published, at a minimum, in a newspaper of general circulation. The commission may also publish notice in one or more additional newspapers of statewide or regional circulation. Mailed notice must also be provided to the following:

1. The county judge of the county or counties in which the discharges under the general permit could be located;
2. if applicable, state and federal agencies for which notice is required in 40 CFR §124.10(c);
3. persons on a relevant mailing list kept under 30 TAC §39.407, relating to Mailing Lists; and
4. any other person the executive director or chief clerk may elect to include.

After notice of the general permit is published in the *Texas Register* and the newspaper(s), the public will have 30 days to provide public comment on the proposed permit.

Any person, agency, or association may make a request for a public comment meeting on the proposed general permit to the executive director of the TCEQ before the end of the public comment period. A public comment meeting will be granted when the executive director or commission determines, on the basis of requests that a significant degree of public interest in the draft general permit exists. A public comment hearing is intended for the taking of public comment, and is not a contested case proceeding under the Administrative Procedure Act. The executive director may call and conduct public meetings in response to public comment.

If the executive director calls a public meeting, the commission will give a minimum of 30 days public notice in the *Texas Register* of the date, time, and place of the meeting, as required by commission rules. The public notice for the draft general permit and for the public meeting(s) may be combined. The public comment is automatically extended until the conclusion of all public meetings on the draft general permit. The executive director shall prepare a response to all significant public comments on the draft general permit raised during the public comment period. The proposed general permit will then be filed with the commission to consider final authorization of the permit. The executive director's response to public comment will be made available to the public and filed with the chief clerk at least ten days before the commission acts on the proposed general permit.

Once the draft permit and response to comment are completed, they are sent to the Office of the Chief Clerk of the TCEQ. The draft permit is set on a Commission's agenda for adoption. For additional information about this general permit, contact the Stormwater & Pretreatment Team at (512) 239-4671.

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XV. Administrative Record

The following section is a list of the fact sheet citations to applicable statutory or regulatory provisions and appropriate supporting references.

A. 40 CFR Citations

40 CFR Part 122
40 CFR Part 124
40 CFR Part 136
40 CFR Part 436
40 CFR Chapter I Subchapter N, Part 436, Subparts B, C, and D
40 CFR Part 450, Subpart B

B. TCEQ Rules

30 TAC Chapter 311, Subchapter H – Regulation of Quarries in the John Graves Scenic Riverway
30 TAC Chapter 37, Subchapter W – Financial Assurance for Quarries
30 TAC Chapters 39, 60, 205, 281, 305, 307, 309, 319, 321, 331, and 335

C. Letters/Memoranda/Records of Communication

Memo from the TCEQ's Water Quality Assessment Team dated April 26, 2013
Memo from TCEQ's from Total Maximum Daily Load Team dated April 26, 2013

D. Permits

TPDES General Permit TXR050000 – Multi-Sector General Permit, effective August 14, 2011
TPDES General Permit TXR150000 – Construction General Permit, effective March 5, 2013

E. Miscellaneous

Texas Surface Water Quality Standards, 30 TAC §§307.1 – 307.10
Texas Water Code Chapter 26, Subchapter M
Senate Bill 1354, 79th Legislative Session
Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, RG 194, June 2010.

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Appendix 1

TEXTOX MENU #1 Intermittent Stream

The water quality-based effluent limitations developed below are calculated using:
Table 1, 2012 Texas Surface Water Quality Standards (30 TAC 307) for Freshwater Aquatic Life
*Procedures to Implement the Texas Surface Water Quality Standards, Appendix D, Texas
Commission on Environmental Quality, January 2012.*

PERMIT INFORMATION

TPDES Permit No: TXG500000
Permittee Name: NA
Outfall No: NA
Prepared By: David James
Date: April 3, 2013

Discharge Information

Intermittent Receiving Waterbody: Lake Granbury & Brazos River below Possum Kingdom Lake
Segment Numbers: 1205 and 1206 (using the lowest TSS, pH, Hardness, and Chloride values)

Parameter	Value
TSS (mg/L)	4
pH (Standard Units)	7.8
Hardness (mg/L as CaCO ₃)	230
Chloride (mg/L)	692
Effluent Flow for Aquatic Life (MGD)	NA
Critical Low Flow [7Q2] (cfs):	0
Percent Effluent for Acute Aquatic Life	100

Table 3. CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE)

<i>Stream/ River Metal</i>	<i>Intercept (b)</i>	<i>Slope (m)</i>	<i>Partition Coefficient (Kp)</i>	<i>Dissolved Fraction (Cd/Ct)</i>		<i>Water Effect Ratio (WER)</i>	
Aluminum	N/A	N/A	N/A	1.00	Assumed	1	Assumed
Arsenic	5.68	-0.73	173978.75	0.59		1	Assumed
Cadmium	6.60	-1.13	831136.22	0.23		1	Assumed
Chromium (Total)	6.52	-0.93	912187.69	0.22		1	Assumed
Chromium (+3)	6.52	-0.93	912187.69	0.22		1	Assumed
Chromium (+6)	N/A	N/A	N/A	1.00	Assumed	1	Assumed
Copper	6.02	-0.74	375383.87	0.40		1	Assumed
Lead	6.45	-0.80	929719.64	0.21		1	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1	Assumed
Nickel	5.69	-0.57	222241.83	0.53		1	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1	Assumed
Silver	6.38	-1.03	575278.59	0.30		1	Assumed
Zinc	6.10	-0.70	477043.53	0.34		1	Assumed

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Table 4. AQUATIC LIFE

Parameter	CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS				
	FW Acute Criteria n (ug/L)	WLAa	LTAa	Daily Avg. (ug/L)	Daily Max. (ug/L)
Aldrin	3	3	1.72	2.53	5.35
Aluminum	991	991	568	835	1766
Arsenic	340	576.6111	330.39816	485.68	1027.54
Cadmium	19.27503	83.35571	47.762824	70.21	148.54
Carbaryl	2	2	1.15	1.68	3.56
Chlordane	2.4	2.4	1.38	2.02	4.28
Chlorpyrifos	0.083	0.083	0.048	0.070	0.148
Chromium (+3)	1127.067	5239.453	3002.2067	4413.24	9336.86
Chromium (+6)	15.7	15.7	9.00	13.2	28.0
Copper	31.12889	77.87002	44.619523	65.59	138.77
Cyanide	45.8	45.8	26.2	38.6	81.6
4,4'-DDT	1.1	1.1	0.630	0.927	1.96
Demeton	N/A	N/A	N/A	N/A	N/A
Diazinon	0.17	0.17	0.097	0.143	0.303
Dicofol	59.3	59.3	34.0	49.9	106
Dieldrin	0.24	0.24	0.138	0.202	0.428
Diuron	210	210	120	177	374
Endosulfan I (alpha)	0.22	0.22	0.126	0.185	0.392
Endosulfan II (beta)	0.22	0.22	0.126	0.185	0.392
Endosulfan sulfate	0.22	0.22	0.126	0.185	0.392
Endrin	0.086	0.086	0.049	0.072	0.153
Guthion	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.52	0.52	0.298	0.438	0.927
Hexachlorocyclohexane (Lindane)	1.126	1.126	0.645	0.948	2.01
Lead	157.8515	744.8822	426.81747	627.42	1327.402
Malathion	N/A	N/A	N/A	N/A	N/A
Mercury	2.4	2.4	1.38	2.02	4.28
Methoxychlor	N/A	N/A	N/A	N/A	N/A
Mirex	N/A	N/A	N/A	N/A	N/A
Nickel	947.2974	1789.414	1025.3341	1507.24	3188.79
Nonylphenol	28	28	16.0	23.6	49.9
Parathion (ethyl)	0.065	0.065	0.037	0.055	0.116
Pentachlorophenol	19.49192	19.49192	11.169	16.418	34.735
Phenanthrene	30	30	17.2	25.3	53.5
Polychlorinated Biphenyls (PCBs)	2	2	1.15	1.68	3.56
Selenium	20	20	11.5	16.8	35.6
Silver (free ion)	0.8	29.40579	16.84952	24.769	52.402
Toxaphene	0.78	0.78	0.447	0.657	1.39
Tributyltin (TBT)	0.13	0.13	0.074	0.110	0.232
2,4,5 Trichlorophenol	136	136	77.9	115	242
Zinc	237.327	690.1883	395.47788	581.35	1229.94