

The Texas Commission on Environmental Quality (commission) adopts new §§311.71 - 311.82.

Sections 311.71, 311.72, 311.74, 311.76 - 311.78, 311.81, and 311.82 are adopted *with changes* to the proposed text as published in the March 24, 2006, issue of the *Texas Register* (31 TexReg 2411).

Sections 311.73, 311.75, and 311.79 - 311.80 are adopted *without changes* and the text will not be republished.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED RULES

Senate Bill (SB) 1354, 79th Legislature, 2005, amended Texas Water Code (TWC), Chapter 26 by adding new Subchapter M, Water Quality Protection Areas; specifically §§26.551 - 26.562. The statute addresses permitting, financial responsibility, inspections, water quality sampling, enforcement, cost recovery, and interagency cooperation with regard to quarry operations. The requirements of the statute are applicable to a pilot program in the John Graves Scenic Riverway. The John Graves Scenic Riverway (JGSR) is defined as the Brazos River Basin, and its contributing watershed, located downstream of the Morris Shepard Dam on the Possum Kingdom Reservoir in Palo Pinto County, Texas, and extending to the county line between Parker and Hood Counties, Texas.

Chapter 311, Subchapter H, implements §§26.551 - 26.554 and 26.562. New Subchapter H establishes the permitting and financial assurance requirements for the John Graves Scenic Riverway pilot program. A corresponding rulemaking is published in this issue of the *Texas Register* that includes the addition of Subchapter W, Financial Assurance for Quarries, to 30 TAC Chapter 37, Financial Assurance.

SECTION BY SECTION DISCUSSION

Adopted new §311.71, Definitions, defines the terms used within the subchapter. Definitions for the following terms are consistent with definitions found in SB 1354: aggregates, John Graves Scenic Riverway, operator, overburden, owner, pit, quarry, quarrying, and water body. The following definitions were added to, or modified from, those contained in SB 1354: 25-year, 24-hour rainfall event, aquifer, best management practices, natural hazard lands, navigable, reclamation, restoration, responsible party, structural controls, tertiary containment, and water quality protection area.

Definitions for 25-year, 24-hour rainfall event, aquifer, best management practices, natural hazard lands, structural controls, and tertiary containment are generally consistent with other federal or state rules found in 40 Code of Federal Regulations and 30 TAC, respectively.

Adopted new §311.71(7) defines navigable, for the purposes of this subchapter, as “Designated by the United States Geological Survey (USGS) as perennial on the most recent topographic map(s) published by the USGS, at a scale of 1:24,000.” Providing this definition eliminates much of the potential confusion regarding the term, given the significant variability in scope of other federal and state designations of navigability. This definition establishes the scope of permitting requirements most closely related to perennial water bodies, where impacts to water quality, aquatic life, and navigability are of concern, and allows the commission to focus permitting and enforcement resources in those areas. Additionally, the use of USGS topographic maps as the source for determining navigability provides an easily accessible source and eliminates the interpretation or case-by-case legal or factual analysis necessary to the use of the established definitions intended for the purpose of delineating property ownership.

Adopted new §311.71(14) includes definitions for reclamation and restoration, respectively.

The definition of refuse is deleted from the proposed text at §311.71(15) as the term is not used within the subchapter. Subsequent definitions are renumbered accordingly.

Adopted new §311.71(15) defines responsible party as “Any owner, operator, lessor, or lessee who is primarily responsible for the overall function and operation of a quarry in the water quality protection area defined by §311.71(20).” This definition was modified from the definition found in SB 1354 so that it specifically references quarries located in a water quality protection area, as defined within the subchapter.

New §311.71(16) is adopted with changes to the proposed definition for restoration. The adopted text specifically identifies that restoration includes on- and off-site stabilization to reduce or eliminate an unauthorized discharge, or substantial threat of an unauthorized discharge from the permitted site.

Adopted new §311.71(20) defines a water quality protection area as “For the purposes of this subchapter, the Brazos River and its contributing watershed occurring in Palo Pinto and Parker Counties below the Morris Shepard Dam.” SB 1354 requires the commission to designate water quality protection areas through commission rules. The definition of water quality protection area focuses permitting and enforcement resources within Palo Pinto and Parker Counties, where impacts from quarrying are of concern.

Adopted new §311.72, Applicability, identifies activities regulated by this subchapter and activities specifically excluded from regulation, consistent with SB 1354. Activities regulated by this subchapter include quarrying within a water quality protection area in the John Graves Scenic Riverway, as identified in subsection (a). Subsection (a) is adopted with changes so that it identifies the applicability of this subchapter as a pilot program with an expiration date of September 1, 2025. Activities specifically excluded from regulation are identified in subsection (b)(1) - (4). Paragraphs (1), (4), and (5) exclude, respectively, the following: 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; an activity, facility, or operation regulated under Natural Resources Code, Chapter 134, Texas Surface Coal Mining and Reclamation Act; and quarries mining clay and shale for use in manufacturing structural clay products. Paragraphs (2) and (3) exclude, respectively, the following: a quarry, or associated processing plant, that 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; and the construction or modification of associated equipment located on a quarry site or associated processing plant site identified in §311.72(b)(2). Where facilities are specifically excluded by paragraphs (2) and (3), the exclusion is applicable to operations within the current leasehold or property boundaries. Where these facilities acquire additional leaseholds or property, quarrying in those new areas will be subject to the requirements of this subchapter. Facilities subject to the exclusions provided in subsection (b)(2) and (3) are required to maintain documentation on site to demonstrate the exemption, as provided in subsection (c). Subsection (c) is adopted with changes to require all facilities subject to the exemptions within subsection (b) to maintain documentation on site to demonstrate exemptions. Subsection (c) lists the types of acceptable documentation in demonstrating exemptions. The

responsible party carries the burden of proof in demonstrating that a quarry meets the exclusions listed in subsection (b).

In addition to the exclusion listed in new §311.72(b)(5), quarries mining clay and shale for use in manufacturing structural clay products are also excluded from regulation through the definition of aggregate and quarry in SB 1354 and this subchapter. This exclusion includes current operations, the expansion of current operations on current property, the expansion of current operations to adjacent properties, or new operations.

Adopted new §311.73, Prohibitions, identifies areas within a water quality protection area in the John Graves Scenic Riverway where quarrying is prohibited, consistent with SB 1354. Section 311.73(a) prohibits the construction or operation of any new quarry, or the expansion of an existing quarry, located within 200 feet of any water body, as defined by this subchapter. The construction or operation of any new quarry, or the expansion of an existing quarry, located between 200 feet and 1,500 feet of any water body is prohibited except where the requirements in §§311.75(2), 311.77, and 311.78(b) are met. For the purposes of this subchapter, a new quarry is any quarry that commenced operations after September 1, 2005. An existing quarry is any quarry that was in operation prior to September 1, 2005.

Throughout this subchapter, prohibitions, application requirements, and performance criteria are established based upon the quarry's location relative to a navigable water body (as defined in §311.71). Where location is established as the distance from a water body, the distance is measured from the

gradient boundary. Federal Emergency Management Agency flood hazard maps identify the 100-year floodplain relative to a water body.

In addition to any other required permits, new §311.74, Authorization, requires all responsible parties to seek and obtain permit coverage under 30 TAC Chapters 205 or 305. Section 311.74(b)(1) identifies the requirements of this subchapter applicable to all quarries located within a water quality protection area in the John Graves Scenic Riverway. In addition to the requirements in paragraph (1), paragraph (2) requires individual permits for all quarries located within the 100-year floodplain or within one mile of a water body. The requirements of paragraph (3) are in addition to those found in paragraphs (1) and (2) for quarries located between 200 feet and 1,500 feet of a water body. These locational distinctions are consistent with SB 1354. Paragraphs (4) and (5) address facilities located within multiple applicability zones. The requirements for the more restrictive zone are applicable to the entire quarry, except where the executive director waives, modifies, or otherwise adjusts the requirements for that portion of the quarry located outside of the more restrictive applicability zone. The executive director anticipates waiving, modifying, or otherwise adjusting the requirements for that portion of the quarry located outside of the more restrictive applicability zone where a quarry can demonstrate that the portion of the facility located inside the more restrictive applicability zone will still meet all applicable performance requirements.

Adopted new §311.75, Permit Application Requirements, outlines the permit application requirements for all quarries located within a water quality protection area in the John Graves Scenic Riverway. Section 311.75(1) outlines the permit application requirements for all quarries located within a water

quality protection area in the John Graves Scenic Riverway including requirements for the submission of financial assurance for restoration. Permit application requirements for quarries located between 200 feet and 1,500 feet of a water body within a water quality protection area in the John Graves Scenic Riverway are identified in paragraph (2). Paragraph (3) allows for the executive director to request any additional information necessary for the quarry to demonstrate compliance with TWC, Chapter 26, Subchapter M or this subchapter.

Adopted new §311.76, Restoration Plan, identifies the requirements for the Restoration Plan required in §311.75(1) for all quarries located within a water quality protection area in the John Graves Scenic Riverway. The Restoration Plan provides a proposed plan of action for how the responsible party will restore a water body to background conditions following an unauthorized discharge. Subsection (a)(1) and (2) outline the requirements included in the Restoration Plan enabling the executive director to evaluate the applicant's methodology for determining the physical, chemical, or biological background conditions of each of the water bodies that may be at risk as a result of an unauthorized discharge from a quarry. Since background conditions in a water body may change over time, paragraph (3) is designed to ensure that the determination of background conditions will be completed in a timely manner and reevaluated and updated periodically. Paragraph (4) allows the applicant to consider the unique characteristics of the facility, the receiving waters at risk, and the background conditions of these water bodies and requires the applicant to identify the specific goals and objectives of potential restoration actions based on site-specific qualities of the adjacent water bodies and the facility. Paragraph (5) requires the applicant to include an evaluation of a reasonable range of potential restoration alternatives that may be implemented to achieve the goals and objectives identified in the

Restoration Plan to return affected water bodies to background conditions. It further requires that the applicant identify a preferred restoration alternative that would be implemented in the event of an unauthorized discharge. To ensure the effectiveness and long-term success of the restoration action, paragraph (6) requires the applicant to describe the process that will be used to monitor the effectiveness of the preferred restoration action and identify the performance criteria that will be used to determine the success of the restoration or the need for interim on- and off-site stabilization. To ensure meaningful input from stakeholders on the restoration action that is ultimately implemented to restore the affected water body, paragraph (7) requires the applicant to identify a process for public involvement in the evaluation of the restoration action(s) selected to restore the receiving water body to background conditions. Paragraph (8) requires a detailed estimate of the maximum probable costs required to complete a restoration action used to support the amount of financial assurance required by §311.81(a). Subsection (b) is adopted with changes to require certification, within the appropriate area or discipline, of the Restoration Plan, in whole or by component parts, by a licensed Texas professional engineer or a licensed Texas professional geoscientist.

Adopted new §311.77, Technical Demonstration, identifies the requirements for the Technical Demonstration required in §311.75(3) for all quarries located within 200 feet to 1,500 feet of a water body within a water quality protection area in the John Graves Scenic Riverway. Requirements for a time schedule for the proposed quarry from initiation to termination of operations, including restoration, are identified in subsection (a)(1). Subsection (a)(2) - (4) provides a description of the geology, quarrying processes, and other operations that would be found on site. Identification of the type, character, and volume of all wastewater and storm water generated at the quarry is required in

paragraph (5). Paragraph (6) requires the submission of a topographic map and lists all items that must be identified on the map. Paragraph (7) defines the minimum requirements for the Surface Water Drainage and Accumulation Plan, required by SB 1354. Paragraph (7)(A) requires a description of the use and monitoring of structural controls and best management practices as identified in the Best Available Technology Evaluation. The minimum items required for identification on a topographic map are listed in subparagraph (B)(i) - (v). Paragraph (8) lists the requirements for the Best Available Technology Evaluation. Paragraph (8)(A) requires that the applicant assess the use of structural controls and best management practices. Certification by a licensed Texas professional engineer is required for the design and construction of all structural controls. Subparagraph (B) requires an evaluation of performance criteria established in §311.79 and §311.80. This evaluation should help ensure that the requirements of §311.79 and §311.80 have been reviewed and will be met by the applicant. Paragraph (9) ensures that the applicant has developed procedures and schedules for the periodic review of the Technical Demonstration for consistency with quarry operations and site conditions. Subsection (b) is adopted with changes to require certification, within the appropriate area or discipline, of the Technical Demonstration, in whole or by component parts, by a licensed Texas professional engineer or a licensed Texas professional geoscientist.

Adopted new §311.78, Reclamation Plan, identifies the requirements for the Reclamation Plan required in §311.75(3) for all quarries located within 200 feet to 1,500 feet of a water body within a water quality protection area in the John Graves Scenic Riverway. The minimum requirements of the Reclamation Plan are listed in subsection (a)(1)(A) - (C). Subparagraph (A) requires the applicant to provide a description of the proposed use of the disturbed area following reclamation. The proposed

use of a reclaimed area will dictate the standards for reclamation, which subparagraph (B) requires the permittee to develop. Standards for reclamation must address removal or final stabilization of all materials, waste, structures, temporary roads/railroads, and equipment; backfilling, regrading, and recontouring; slope stabilization; and the establishment of vegetation, wildlife habitat, drainage patterns, and permanent control structures, as listed in paragraph (1)(B)(i) - (xi). Paragraph (1)(B)(viii) is adopted with changes to remove references to the creation of habitat for endangered/threatened species, as the suggestion in creating habitat for endangered/threatened species has other potential regulatory implications. A description of how reclamation will be conducted and a timetable for the completion of reclamation activities is required in the Reclamation Plan in subparagraph (C). Paragraph (2) requires a detailed estimate of the maximum probable costs required to complete reclamation. Subsection (b) is adopted with changes to require certification, within the appropriate area or discipline, of the Reclamation Plan, in whole or by component parts, by a licensed Texas professional engineer or a licensed Texas professional geoscientist.

Adopted new §311.79, Performance Criteria for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway, outlines the performance criteria applicable to all quarries located within a water quality protection area in the John Graves Scenic Riverway. Section 311.79(1) establishes a 45 milligrams per liter daily average effluent limitation for total suspended solids and a pH range of 6.0 to 9.0 standard units for all discharges to waters in the state. Effluent limitations for total suspended solids are established to reduce sediment loading to receiving water bodies. A daily average concentration of 45 milligrams per liter is achievable when proper best management practices and structural controls are installed and maintained. Effluent limitations for pH are established to

preclude impacts to water quality and are achievable primarily through best management practices, although structural controls or treatment may be necessary. The applicability of total suspended solids and pH effluent limitations are limited in paragraph (2) to discharges resulting from a rainfall event less than the 25-year, 24-hour rainfall event. The 25-year, 24-hour rainfall event has historically been the design standard for water quality applications. Rainfall events beyond the 25-year, 24-hour rainfall event are typically considered an “act of God.” To ensure that the effluent limitations established in paragraphs (1) and (2) are monitored consistently, monitoring frequencies are specified in paragraph (3) at once per day, when discharging. This monitoring schedule provides regular monitoring of discharges, allowing the commission and quarries to monitor the effectiveness of best management practices and structural controls. Paragraph (4) outlines monitoring and reporting requirements for monitoring conducted under paragraph (3). Because paragraph (2) limits the applicability of effluent limitations under severe rainfall conditions, paragraph (5) requires that the permittee install a permanent rain gauge and keep daily records of rainfall and resulting flow.

Adopted new §311.80, Additional Performance Criteria for Quarries Located Between 200 Feet and 1,500 Feet of a Water Body Located Within a Water Quality Protection Area in the John Graves Scenic Riverway, outlines additional performance criteria applicable to all quarries located between 200 feet and 1,500 feet of a water body within a water quality protection area in the John Graves Scenic Riverway. Section 311.80(1)(A) - (F) addresses design and construction requirements for final control structures including: certification of the design and construction, availability of design and construction plans and specifications, slope restrictions, water management capabilities, stabilization, inspection, and buffers. These requirements are established to ensure proper design and construction,

operation, and maintenance of structural controls. Paragraph (2) provides for the proper operation of treatment, detention, and water storage tanks and ponds by requiring a minimum of two feet of freeboard. Paragraph (3) requires a depth marker so that compliance with paragraph (2) can be verified. Impacts to historical resources are addressed in paragraph (4) by requiring compliance with 36 Code of Federal Regulations Part 800 and 9 Texas Natural Resources Code, Chapter 191. Paragraph (5) addresses impacts to federal endangered/threatened, aquatic/aquatic-dependant species/proposed species or their critical habitat. As a measure of protection for water supply wells, paragraph (6) establishes siting restrictions for all waste management units. Paragraph (7) establishes requirements for secondary and tertiary containment of chemicals and fuels to reduce the potential for leaks and spills to contaminate surface or groundwater. Tertiary containment is required where quarry operations overlay aquifer or aquifer recharge areas and sufficient confining layers do not exist to preclude contamination. Secondary containment is required in all instances. Where natural hazards, frequent flooding, or areas of unstable geology exist, paragraph (8) prohibits the location of a quarry operation.

Adopted new §311.81, Financial Responsibility for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway, establishes requirements for financial assurance for restoration and reclamation as required by this subchapter.

Adopted new §311.81(a) requires that the owner or operator of a quarry located in the John Graves Scenic Riverway establish and maintain financial assurance, in an amount determined by the cost estimate within the approved Restoration Plan in §311.76(a)(8), for restoration of a water body that is

affected by an unauthorized discharge. The financial assurance is intended to cover the costs of site stabilization and restoration performed by an independent contractor and include design and engineering fees, costs of repairing failed or impaired structural controls, costs of soil stabilization and erosion control measures necessary to prevent additional releases, and where practicable, removal of excess silt, sediment, rocks, and debris from the affected water body.

Adopted new §311.81(b) requires that the owner or operator of a quarry located in the John Graves Scenic Riverway establish and maintain financial assurance, in an amount determined by the cost estimate within the Reclamation Plan in §311.78(a)(2), for reclamation of the quarry. The financial assurance is intended to cover the costs of reclamation performed by an independent contractor. Costs of reclamation include design and engineering fees; removal or final stabilization of all materials, waste, structures, temporary roads/railroads, and equipment; backfilling, regrading, and recontouring; slope stabilization; and the establishment of vegetation, wildlife habitat, drainage patterns, and permanent control structures.

New §311.82, Existing Quarries, is adopted with changes. In response to public comments on the proposed rules, the commission added language to this section that addresses operational provisions and permit application deadlines for existing quarries. Subsection (a) provides for existing quarries located outside the 100-year floodplain and greater than one mile from a water body to continue operating under the terms of an existing Texas Pollutant Discharge Elimination System Permit or Texas Land Application Permit, provided that the quarry maintains compliance with that permit and submits an application for a general permit issued under Subchapter H as specified in that permit. Subsection

(b) provides for existing quarries located greater than 1,500 feet from a water body to continue operating under the terms of an existing Texas Pollutant Discharge Elimination System Permit or Texas Land Application Permit, provided that the quarry maintains compliance with that permit and submits an application for an individual permit within 180 days of the effective date of the adopted rules. Subsection (c) specifies that quarries located within 200 feet to 1,500 feet of a water body may not operate until the commission issues the quarry a permit under the requirements of this subchapter and requires that these facilities submit an individual permit application within 180 days of the effective date of the adopted rules. In response to separate public comment, the text citing the expiration date of this subchapter proposed at §311.82, was moved to §311.72, Applicability.

FINAL REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the adopted rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the rulemaking is not subject to §2001.0225 because, although the adopted rulemaking meets the definition of a “major environmental rule” as defined in §2001.0225, it does not meet any of the four applicability requirements listed in §2001.0225(a). Texas Government Code, §2001.0225(a), only applies to a major environmental rule, the result of which is to: 1) exceed a standard set by federal law, unless the rule is specifically required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law.

In this case, the adopted rules do not meet any of these four applicability requirements. First, regardless of whether the rules exceed a standard set by federal law, the adopted rules are specifically required to implement state law in SB 1354. Second, the adopted rules do not exceed a requirement of state law, in that they are being adopted to implement specific requirements of SB 1354. Third, the adopted rules do not exceed an express requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program. Fourth, the commission does not adopt these rules solely under the general powers of the agency, but rather under the authority of SB 1354, which directs the commission to implement rules under TWC, Chapter 26.

The commission solicited public comment on the draft regulatory impact analysis in the March 24, 2006, issue of the *Texas Register* (31 TexReg 2411). No comments were received on the draft regulatory impact analysis.

TAKINGS IMPACT ASSESSMENT

The commission evaluated these adopted rules and prepared an assessment of whether the adopted rules constitute a takings under Texas Government Code, Chapter 2007.

The specific purpose of the adopted rules is to implement SB 1354. The adopted rules protect a unique portion of the Brazos River watershed between Possum Kingdom Reservoir in Palo Pinto County and Parker County, Texas, to be known as the John Graves Scenic Riverway, from ongoing mining and

quarrying activities in the proximity of the beds, bottoms, and banks of the river that significantly impair the quality of the water flowing in the river.

These adopted rules implement the requirements for quarries in the John Graves Scenic Riverway that were established in SB 1354. Under SB 1354, the commission may not authorize a quarry within 200 feet of a navigable water body within the John Graves Scenic Riverway. The bill prohibits the commission from authorizing the construction or operation of a new quarry or the expansion of an existing quarry between 200 and 1,500 feet of a navigable waterbody within the John Graves Scenic Riverway, unless certain performance criteria established by rulemaking are satisfied. SB 1354 further establishes that a quarry located or proposed to be located within one mile of a navigable waterbody in the John Graves Scenic Riverway must get an individual permit. Those quarries located or proposed to be located at a distance more than one mile must be covered under a general permit. This adopted rulemaking and related restrictions implement the express requirements of SB 1354.

Promulgation and enforcement of these adopted rules would be neither a statutory nor a constitutional taking of private real property, because although the adopted rules do affect private real property, they do not constitute a “taking” as defined by the Private Real Property Rights Preservation Act.

According to the Act, “taking” means a governmental action that affects private real property, in whole or in part or temporarily or permanently, in a manner that requires the governmental entity to compensate the private real property owner as provided by the Fifth and Fourteenth Amendments to the United States Constitution or Texas Constitution, Article I, §17 or §19; or a governmental action that: 1) affects an owner's private real property that is the subject of the governmental action, in whole

or in part or temporarily or permanently, in a manner that restricts or limits the owner's right to the property that would otherwise exist in the absence of the governmental action; and 2) is the producing cause of a reduction of at least 25% in the market value of the affected private real property, determined by comparing the market value of the property as if the governmental action is not in effect and the market value of the property is determined as if the governmental action is in effect.

The Fifth Amendment to the United States Constitution states in relevant part: "Nor shall private property be taken for public use, without just compensation." The takings clause applies to the states by virtue of the Fourteenth Amendment. Similarly, Texas Constitution, Article I, §17 provides: "No person's property shall be taken, damaged or destroyed without adequate compensation being made, unless by the consent of such person; and, when taken, except for the use of the State, such compensation shall be first made, or secured by a deposit of money . . ."

Texas courts have held that takings can be classified as either physical or regulatory. Physical takings occur when the government authorizes an unwarranted physical occupation of an individual's property. The adopted rules do not authorize the physical occupation of any private real property; therefore, they will not result in a physical takings of private real property. A regulatory takings occurs when a regulation does not substantially advance legitimate state interests, or when a regulation either denies a landowner all economically viable use of property, or unreasonably interferes with a landowner's right to use and enjoy that property.

The adopted rules substantially advance a legitimate state interest by implementing SB 1354, relating to the protection of water quality in watersheds threatened by quarry activities; establishing a pilot program in a certain portion of the Brazos River watershed; and providing penalties. The commission is tasked with maintaining the quality of water in the state consistent with the public health and enjoyment, and the propagation and protection of terrestrial and aquatic life. SB 1354 is being implemented to protect the John Graves Scenic Riverway from ongoing mining and quarrying activities in the proximity of the beds, bottoms, and banks of the river that significantly impair the quality of the water flowing in the river.

Determining whether all economically viable use of a property would be denied entails an analysis of whether value remains in property subject to these rules if the rules were adopted. The adopted rules do not prohibit quarrying altogether. While the adopted rules would prohibit quarrying within 200 feet of a navigable water body within the John Graves Scenic Riverway, quarrying would be permitted between 200 feet and 1,500 feet of a water body, provided that certain performance criteria are met. Facilities located more than one mile from a water body may obtain a general permit under TWC, §26.040. In addition, the adopted rules do not restrict other potential uses of property located in the John Graves Scenic Riverway. Therefore, the adopted rules would not deny any landowner all economically viable uses of a property.

Determining whether the adopted rules would unreasonably interfere with a landowner's right to use and enjoy property would require consideration of two factors: 1) the economic impact of the

regulation; and 2) the extent to which the adopted rules interfere with distinct investment-backed expectations. This determination is typically made by courts on a fact-intensive, case-by-case basis.

As previously stated, the adopted rules do not prohibit quarrying altogether; instead, the rules restrict quarrying activities that will protect the quality of the water flowing in the John Graves Scenic Riverway. The commission does not anticipate that the adopted rules will unreasonably interfere with a landowner's investment-backed expectations, nor will the adopted rules be the producing cause of a 25% reduction in the market value of affected private real property.

The commission solicited public comment on the takings impact assessment in the March 24, 2006, issue of the *Texas Register* (31 TexReg 2411). No comments were received on the takings impact assessment.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission reviewed the adopted rulemaking and found that the rules are neither identified in Coastal Coordination Act Implementation Rules, 31 TAC §505.11(b)(2), relating to Actions and Rules Subject to the Coastal Management Program, nor will it affect any action/authorization identified in Coastal Coordination Act Implementation Rules, 31 TAC §505.11(a)(6). Therefore, the adopted rules are not subject to the Texas Coastal Management Program.

PUBLIC COMMENT

The public comment period ended on April 24, 2006, at 5:00 p.m. A public hearing on the proposed rules was held in Mineral Wells on April 6, 2006, at 6:30 p.m. at the Mineral Wells City Hall Annex, Council Chambers, 115 Southwest First Street, Mineral Wells, Texas. Oral comments were received from the Brazos River Conservation Coalition (BRCC). Written comments were received from the BRCC; Hilgers Bell & Richards (Hilgers Bell); Jackson, Sjoberg, McCarthy & Wilson, L.L.P. (McCarthy), on behalf of multiple parties including one individual, the Rocking “W” Ranch, and the BRCC; Harris County Precinct 4 Parks (Harris County); Lloyd Gosselink Blevins Rochelle & Townsend, P.C. (Lloyd Gosselink), on behalf of Southwestern Brick Institute; GEOS Consulting (GEOS); Texas Aggregates and Concrete Association (TACA); the Texas Board of Professional Geoscientists (TBPG); Texas Industries, Inc. (TXI); Vulcan Materials Company (Vulcan); Westward Environmental, Inc. (Westward); and 430 individuals. The comments generally concerned technical issues.

RESPONSE TO COMMENTS

Definitions - Miscellaneous

TXI commented that the definition for “natural hazard lands” found at §311.71(6) should be deleted as the definition is not in SB 1354 and does not further the intent of the legislation.

TWC, §26.553(d)(1)(D) specifies that additional performance criteria established by the commission rule and incorporated into the permit address “whether operations could affect natural hazard lands . . .” These additional performance criteria are established in the proposed rules at §311.80(8). As a result, the commission finds the supporting definition of

natural hazard lands at §311.71(6) necessary, and has retained that definition in the adopted rule text.

TXI commented that the definition for refuse at §311.71(15) should be deleted.

The commission agrees that the term “refuse” should be deleted as the term is not used within this subchapter. The definition has been removed from the adopted text and subsequent definitions have been renumbered accordingly.

In order to more clearly limit the definition for responsible party found at §311.71(16), TXI offered the following: “Any owner, operator, lessor, or lessee who is primarily responsible for overall function and operation of quarry located in the water quality protection area as defined in this section subject to this rule.”

The commission disagrees with adding the language “subject to this rule” to the definition of responsible party. Section 311.71 states that “the following words and terms, when used in the following subchapter, have the following meanings.” This language makes it clear that these definitions are for this subchapter only, so the suggested language by TXI is unnecessary.

TXI commented that the definition for structural controls at §311.71(17) should be deleted, as the term is not defined in SB 1354.

The commission disagrees with removing the definition of structural controls from the subchapter and has retained the definition in the adopted rule text. The definition of structural controls is included in the proposed rules at §311.71(17) to clarify provisions at §311.77(a)(7)(A) and (B)(iv) and (8)(A) and (C), all of which reference structural controls. The provisions proposed at §311.77(a)(7)(A) and (B)(iv) and (8)(A) and (C) are part of the Technical Demonstration that supports the commission finding that additional performance criteria will be met for those quarries authorized to operate within 200 to 1,500 feet of a water body located within a water quality protection area in the John Graves Scenic Riverway.

Definitions - Navigable and Waterbody

The BRCC and McCarthy commented on the proposed definition of navigable at §311.71(7) and the subsequent definition of water body at §311.71(19). The BRCC and McCarthy stated that the proposed definition of navigable is inconsistent with, and a more narrow interpretation of, navigable at law than that found at Texas Natural Resource Code, §21.003(3). Additionally, the BRCC and McCarthy asserted that the definition of navigable, as proposed, does not conform with a “navigable in fact” interpretation of navigability either. BRCC and McCarthy noted the potential for intermittent streams to impact downstream perennial streams and stated that the proposed definition of navigable fails to regulate such intermittent streams. Specifically, the BRCC noted that Grindstone Creek, Turkey Creek, and Rock Creek do not appear to be included within the definitions of navigable and water body.

Westward suggested that the commission designate affected water bodies rather than relying upon the definition of navigable. TXI suggested the following definition for water body: “the area defined by the river and its next order contributing drainage area.”

The objective in establishing a definition of a navigable water body within the John Graves Scenic Riverway was to define the regulatory requirements of SB 1354 in a way that was predictable and readily understandable, by the commission, consultants, applicants, and the public. The commission agrees that the proposed definition of “navigable,” and the related term of “water body,” are not the same as the definition of “navigable stream” under Texas Natural Resources Code, §21.001(3). In Texas, a stream is navigable if it is navigable in fact or navigable by law. The existing definition under the Natural Resources Code exists for the purpose of determining land ownership and the separation of the public domain from private property and does not have a specific basis in hydrology. The commission recognizes the potential benefit in establishing the scope of the rules consistent with the definition of public land and the public domain of streams that are either navigable in fact or navigable by law. However, using the statutory definition in the Natural Resources Code, as opposed to the definition in this subchapter, is a less practical solution to effectively administer the regulatory program authorized under SB 1354.

While current law provides an existing definition of navigability in a different context, applying that definition to this subchapter raises some concerns because questions of law and fact can lead to uncertainty in the administration of these regulations. Ultimately, the question of whether a stream is navigable under the existing statutory definition in the Texas Natural Resources Code,

as recommended in the comments, creates an issue that would need to be determined on a case-by-case basis and potentially require resolution in court, if disputed. It is that uncertainty, and the desire to be able to clearly apply this subchapter, that prompted the commission to propose the use of the USGS designation of perennial streams as a basis for determination.

The commission disagrees with the representation that the definition of navigability within this subchapter will result in some stream segments going unregulated or that the definition will not allow the regulation of quarries or intermittent streams. Under SB 1354 and this subchapter, all quarries and all streams within the designated water quality protection area not expressly exempted by law will be subject to regulation and permitting. Facilities located adjacent to water courses that are non-navigable will be required to obtain authorization under a general permit. The general permit will include performance criteria and require restoration plans and financial assurance. The performance criteria established by this subchapter are intended to control discharges from quarries located anywhere within the designated water quality protection area, including those located, or to be located, adjacent to intermittent streams.

The commission notes that some water courses may not have been accurately represented in maps that were displayed at public hearings on the proposed rules and prepared to show the extent of the water quality protection area. Of the streams specifically referenced by the comments, Grindstone Creek may contain reaches designated as perennial and defined as a water body under this subchapter. The maps were intended to be a general description of the designated water quality protection area and not an official map. It is the responsibility of an applicant to

demonstrate compliance with any requirements that are based on designation of a water body under this subchapter.

No changes to the rules, as proposed, are made in response to these comments. Likewise, no changes are made in response to recommendations that the commission designate affected water bodies rather than rely on a definition of navigability or water bodies be defined as the Brazos River and the next order of streams in the contributing drainage area. Either approach to designating water bodies without some technical or factual basis and without further statutory guidance is inconsistent with the authority provided in SB 1354 and arbitrary.

Applicability

TACA and Lloyd Gosselink requested that the proposed rules identify the subchapter as applying to a pilot program regulating quarrying within a water quality protection area in the John Graves Scenic Riverway. Lloyd Gosselink specifically requests that this text be added at §311.72(a).

The commission has modified the text at §311.72(a) to read: “This subchapter applies to a pilot program regulating quarrying within the water quality protection area designated by this subchapter, in the John Graves Scenic Riverway. This subchapter expires on September 1, 2025.” This modification does not effect a change in the applicability or expiration of this subchapter, but clarifies the application of these rules as a pilot program expiring September 1, 2025, consistent with TWC, §26.552.

The BRCC and McCarthy requested that quarries excluded from regulation under Subchapter H, at §311.72(b)(1), (4), and (5) maintain documentation onsite of their exemption.

The commission agrees with this comment and has revised §311.72(c) to require facilities subject to the exclusions under §311.72(b)(1), (4), and (5) to maintain documentation onsite of their exemption. This documentation includes, but is not limited to: any permit issued by the commission, Railroad Commission of Texas, or the United States Environmental Protection Agency.

TACA commented that the term “cessation of operation,” as used at §311.72(b)(2) and (c)(2) be clarified to mean “cessation of production, sales, or operations altogether for a period of 30 days or more.”

The commission declines to expand upon “cessation of operation.” TWC, §26.552(c)(1) states this subchapter does not apply to a quarry or associated processing plant that since or before January 1, 1994, has been in regular operation in the John Graves Scenic Riverway without cessation of operation for more than 30 consecutive days and under the same ownership. TWC, §26.552(c)(1) provides sufficient clarity. The commission chooses to follow the explicit language of the TWC and not expand on the term “cessation of operation.”

TXI requested that §311.72(b)(2) be revised to read as follows: “A quarry, its owned or leased land, or associated processing plant, that 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 or control.” TXI further requested that §311.72(c)(1) be revised to read as follows: “Documentation demonstrating ownership control includes, but is not limited to: deeds, property tax receipts, leases, or insurance records.”

The commission declines to add the word “control” to the text in §311.72(b)(2) and (c)(1). TWC, §26.552(c)(1) states this subchapter does not apply to a quarry or associated processing plant that since or before January 1, 1994, has been in regular operation in the John Graves Scenic Riverway without cessation of operation for more than 30 consecutive days and under the same ownership. Section 26.552(c)(1) makes no mention of control, but says ownership. Also, the definition of owner in §26.551(5) does not mention control. Since neither the definition of owner nor the exclusion mention “control,” the commission declines to add it to §311.72(b)(2) and (c)(1).

Westward commented that the exclusions available at §311.72(b)(2) and (3) should apply to additional leases or property further from the river than existing operations as they have a lower potential to impact the Brazos River.

Any expansion of an existing quarry located within a water quality protection area in the John Graves Scenic Riverway beyond current leaseholds or property boundaries will require a permit under this subchapter. The commission disagrees that the exclusions at §311.72(b)(2) and (3) should apply to subsequent leaseholds or properties. The commission limited these exclusions to

current leaseholds/property boundaries, consistent with the commission's understanding of legislative intent.

Westward commented that the requirement for demonstrating continuous operation without cessation of operation for more than 30 consecutive days beginning on or before January 1, 1994, at §311.72(b)(2) is excessive.

The commission recognizes that §311.72(b)(2) requires excluded facilities to document continuous ownership over an extended period of time. However, this documentation is necessary to prove a readily available, definitive interpretation on the applicability of this subchapter.

Westward commented that financial assurance should not be required for small operations that mine on private property for the landowner, where the property itself is not within the distance limits of this bill but are in the listed counties; specifically, those that do not affect the John Graves Scenic Riverway.

The commission disagrees with this comment. If a quarry is located in the water quality protection area defined in §311.71, then that quarry will have to maintain financial assurance if the quarry is producing aggregates for commercial sale. The type of financial assurance required depends on the location of the quarry in relation to a designated water body.

Prohibitions

The BRCC comments on the expansion of existing quarries, as discussed in §311.73. Specifically, the BRCC has questioned the preamble discussion regarding expansion, and whether defining expansion as “any change to an existing quarry that results in additional disturbance” is appropriate.

The commission disagrees with this comment. The language regarding an additional disturbance does not appear within the rule itself but in the preamble’s SECTION BY SECTION DISCUSSION. It is the commission’s understanding that SB 1354 precluded quarry operations within 200 feet of a water body. Any operations at an existing quarry will result in an additional disturbance; therefore, existing quarries may not continue to operate within 200 feet.

Authorization

TXI suggested the following text at §311.74(a): “Any responsible party shall obtain a permit subject to the requirements of Chapters 205 and 305 of this title, if applicable.”

The commission designated the applicability of the subchapter at §311.72 and has, therefore, determined the addition of “if applicable” at §311.74(a) is not necessary.

TXI noted that the provision at §311.74(b)(2), relating to the application requirements for quarries located within a water quality protection area in the John Graves Scenic Riverway, has potential adverse effects on future aggregate operators outside the John Graves Scenic Riverway.

The commission disagrees with this comment. The provision found at §311.74(b)(2) specifically states that these requirements are “for discharges from quarries located within a water quality protection area in the John Graves Scenic Riverway.” As written, the provision clearly limits that applicability of this subchapter and will not apply to other facilities or quarries located outside a water quality protection area in the John Graves Scenic Riverway.

Vulcan commented on the requirements for quarries located within multiple applicability zones found at §311.74(b)(4) and (5). Specifically, Vulcan suggested that the commission develop specific criteria for waiving, modifying, or otherwise adjusting the requirements for that portion of the quarry outside the more restrictive applicability zone.

The commission anticipates waiving, modifying, or otherwise adjusting the requirements for that portion of the quarry outside the more restrictive applicability zone where a quarry can demonstrate that the portion of the facility located inside the more restrictive applicability zone will still meet all applicable performance requirements under this subchapter. Action by the commission in this regard will be on a case-by-case basis and determined by site-specific factors. As such, the commission may not anticipate all circumstances under which such action would or would not be appropriate, and declines to do so by establishing criteria.

Restoration and the Restoration Plan

Westward commented that there should not be public involvement in the restoration process as it is detrimental to restoration projects.

The commission has provided for public involvement in the restoration process at §311.76(a)(7) as a way to access the historical knowledge of the local public and ensure transparency of the restoration process to the general public. For these reasons, the commission has retained the text at §311.76(a)(7) without changes at adoption.

The BRCC and McCarthy commented that the definition of restoration at §311.71(16) does not clearly include restoration of the quarried or excavated area, but focuses on the receiving water body. The BRCC and McCarthy proposed the following definition for restoration: “Those actions necessary to change the physical, chemical, or biological qualities of a receiving water body in order to return the water body to its background condition. Restoration includes on- and off-site stabilization to reduce or eliminate an unauthorized discharge, or substantial threat of an unauthorized discharge, from the permitted site.”

The commission agrees that modifying the definition of restoration to include “from the permitted site” at the end of the last sentence improves the rule. The commission has made this change at adoption by adding “from the permitted site” at the end of the last sentence at §311.71(16).

TXI commented that the last sentence in the definition of restoration at §311.71(16) is too broad and should be deleted.

The definition of restoration has been modified at adoption, as discussed previously, to read:

“Those actions necessary to change the physical, chemical, an/or biological qualities of a receiving water body in order to return the water body to its background condition. Restoration includes on- and off- site stabilization to reduce or eliminate an unauthorized discharge, or substantial threat of an unauthorized discharge, from the permitted site.” This definition specifically identifies those items considered within the context of restoration within the subchapter, while still allowing consideration of site-specific factors. The commission declines to further modify or delete this definition.

TXI commented that the requirements for a Restoration Plan found at §311.75(1)(A) and §311.76 are overly prescriptive and inconsistent with legislative intent.

TWC, §26.553(f)(1) requires a responsible party for a quarry located in a water quality protection area to submit a permit application including: “a proposed plan of action for how the responsible party will restore the receiving water body to background condition in the event of an unauthorized discharge that affects the water body . . .” The commission maintains that the provisions of the Restoration Plan found at §311.75(1)(A) and §311.76 are consistent with legislative intent in listing the minimum components of the Restoration Plan.

Westward commented that approval of the Restoration Plan by the commission should not be required.

The commission should only require submission and implementation of the Restoration Plan.

The commission disagrees with this comment. TWC, §26.553(f) requires a quarry to submit a Restoration Plan and provide financial assurance for restoration. The commission has determined that approval of the Restoration Plan is necessary in determining that the Restoration Plan meets the minimum requirements listed at §311.76 and in determining that the quarry has provided the appropriate amount of financial assurance for restoration.

Technical Demonstration

TXI commented that the requirements for a Technical Demonstration at §311.75(2)(A) and §311.77 are overly prescriptive and inconsistent with legislative intent.

The commission disagrees with this comment. TWC, §26.553 prohibits the construction or operation of any new quarry, or the expansion of an existing quarry, located within 1,500 feet of a water body located within a water quality protection area. The statute then creates an exception to this prohibition for quarries located 200 feet and 1,500 feet away, subject to the commission finding that additional performance criteria are met. In order to determine that the applicant has implemented the proper structural controls and best management practices necessary to reasonably meet the additional performance criteria, the commission established additional application requirements in the Technical Demonstration. The Technical Demonstration incorporates a plan for surface water drainage and water accumulation and a best available technology evaluation required by the statute at TWC, §26.553(d)(2) and (3). As the TWC requires a finding that will be supported by the Technical Demonstration, the commission

maintains that the requirements at §311.77 are minimally prescriptive and consistent with legislative intent.

TXI commented that the Best Available Technology Demonstration at §311.77(a)(8) is inconsistent with legislative intent.

The commission disagrees with this comment. TWC, §26.553 provides an exclusion to the operational prohibition for quarries located within 200 feet to 1,500 feet of a water body located within a water quality protection area, subject to the commission finding that the quarry has provided “evidence that, to the extent possible, quarrying will be conducted using the best available technology to . . .” {TWC, §26.553(d)(4)}. The Best Available Technology Demonstration provides a review of existing technologies and selection of the best available technology, consistent with TWC, §26.553(d)(4).

TXI recommends that the requirements found in the Technical Demonstration at §311.77(a)(2) - (5) require general rather than specific descriptions of the type of quarrying, material deposit, other operations, and wastewater.

The commission determined it necessary to provide detailed descriptions of the type of quarrying, material deposit, other operations, and wastewater for the commission to find that the quarry will meet additional performance criteria established at §311.80 and issue a permit for a quarry

to operate within 200 to 1,500 feet of a water body. The adopted text retains the requirement for specific descriptions of the type of quarrying, material deposit, other operations, and wastewater.

TXI states that information regarding the material deposit, required at §311.77(a)(3), including the type, geographical extent, depth, and volume in addition to a description of the general area geology is proprietary information and should be struck from the rule.

The commission disagrees with this comment and the text remains at adoption. The information required at §311.77(a)(3) can be found within publically available literature and, as such, is not proprietary in nature.

TXI commented that the Surface Water Drainage and Water Accumulation Plan found at §311.77(a)(7) is overly prescriptive for quarries and adds cost for minimum benefit.

TWC, §26.553 provides an exclusion to the operational prohibition for quarries located within 200 feet to 1,500 feet of a water body located within a water quality protection area, subject to the commission finding that the quarry has “provided a plan for the control of surface water drainage and water accumulation. . .” {TWC, §26.553(d)(2)}. Consistent with the intent of controlling surface water drainage and water accumulation, the provisions at §311.77(a)(7) require the quarry to identify the structural controls and best management practices designed to control surface water drainage and water accumulation and identify on a topographic map those structural controls and best management practices. Additionally, the topographic map must

identify physical features that influence storm water. The commission determined these to be the minimum requirements necessary for the commission to find that the quarry has provided an adequate plan for the control of surface water drainage and water accumulation and issue a permit for a quarry to operate within 200 feet to 1,500 feet of a water body located within a water quality protection area in the John Graves Scenic Riverway.

Reclamation and the Reclamation Plan

TXI offered the following definition for reclamation at §311.71(14): “The land treatment processes using best management practices to minimize degradation of water quality and return the land to a beneficial use.”

The definition for reclamation proposed by TXI does not identify the components of reclamation incorporated into the Reclamation Plan. The definition for reclamation proposed by the commission is retained at adoption, without changes, as it is a better representation of reclamation as characterized in this subchapter.

TXI comments that the definition of reclamation found at §311.71(14) and requirements for, and specific provisions of, the Reclamation Plan found at §311.78(a)(1)(B)(i) and (a)(2) are inconsistent with the legislative intent of SB 1354. Westward states that the commission should require submission and implementation of the Reclamation Plan only, as opposed to requiring approval by the commission.

The commission disagrees with this comment. TWC, §26.553 provides an exclusion to the operational prohibition for quarries located within 200 feet to 1,500 feet of a water body located within a water quality protection area, subject to the commission finding that the quarry will meet additional performance criteria established by commission rule that address: “a plan for reclamation of the quarry that is consistent with best management standards and adopted by the commission for quarry reclamation, which may include backfilling, soil stabilization, and compacting, grading erosion control measures, and appropriate revegetation” {TWC, §26.553(d)(3)}. The definition for reclamation, application requirements for submitting a Reclamation Plan, and specific provisions within the Reclamation Plan are included so that the commission is able to make a finding as required by TWC, §26.553(d)(3). In making a finding as required by TWC, §26.553(d)(3), the commission will be providing approval of the Reclamation Plan.

TXI commented that the definition of reclamation at §311.71(14), the requirements for submitting a Reclamation Plan at §311.78(a)(1)(A), and the specific provisions of the Reclamation Plan at §311.78(a)(1)(B)(iii) - (ix) are restrictive of landowners' rights.

The commission disagrees with this comment and the provisions at §311.71(14), and §311.78(a)(1)(A) and (B)(iii) - (ix) are retained without changes in the adopted text. The Reclamation Plan requires a quarry to establish procedures and standards for reclamation based upon the final use of the quarried area. The commission purposefully constructed the Reclamation Plan in such a way as to allow the quarry to designate the final land use and the

procedures and standards necessary to achieve that land use. In doing so, the commission intended to provide for a multitude of acceptable final land uses and preserving the rights of private landowners in establishing that final land use.

Vulcan commented on the requirement within the Reclamation Plan at §311.78(a)(1)(B)(viii) for the establishment of wildlife habitat, giving consideration to creation/expansion of habitat for endangered and threatened species, where applicable. Specifically, Vulcan states that SB 1354 provides protection for endangered species from expansion, but does not refer to creating habitat. Vulcan recommends that regulation of endangered and threatened species be limited to current regulations.

The commission intended to encourage, not mandate, the creation or expansion of habitat for endangered/threatened species, where appropriate. After reviewing this comment, the commission acknowledges that the reference to endangered species within this context could have other unintended regulatory implications and, as a result, has removed the reference to the creation of endangered/threatened species habitat in the adopted rules.

Performance Criteria

TXI comments that the provisions established as performance criteria at §311.79 should be covered under Chapters 205 and 305 and under a general permit for aggregate facilities.

Chapters 205 and 305 contain effluent limitations and other permit requirements applicable to discharges into and adjacent to waters in the state. The performance criteria established at

§311.79 are a more specific application of effluent limits and permit requirements designed to address the potential impacts of discharges to waters into and adjacent to waters in the state from quarries located within a water quality protection area in the John Graves Scenic Riverway. The commission disagrees that the requirements at §311.79 are addressed under Chapters 205 and 305 and has retained §311.79 without changes at adoption.

In accordance with the requirements at TWC, §26.553(b), the commission is developing a general permit that will provide authorization under this subchapter to quarries located outside the 100-year floodplain and greater than one mile from a water body located within a water quality protection area in the John Graves Scenic Riverway. This general permit will incorporate the performance criteria established at §311.79, in addition to any effluent limitations and permit requirements established by another chapter within this title. Quarries within the 100-year floodplain or one mile of a water body will be regulated under an individual permit, consistent with TWC, §26.553(a).

TXI recommended that the monitoring frequencies established for flow, total suspended solids, and pH at §311.79(3) should be once per month, when discharging.

The commission disagrees with this comment. Once per day, when discharging, monitoring frequencies for flow, total suspended solids, and pH is retained in the rule at adoption.

Monitoring frequencies for flow and pH are established consistent with 30 TAC §319.9(b).

Concerns regarding erosion and sedimentation in the John Graves Scenic Riverway prompted the

passage of SB 1354. Total suspended solids is the primary parameter of concern in the discharge from quarries; therefore, the commission established once per day, when discharging, monitoring of this parameter as opposed to once per week as listed at §319.9(b).

Additional Performance Criteria

TXI commented that quarry operators should determine the best way to protect water quality, consistent with legislative intent. The performance criteria established for protecting water quality should identify goals as opposed to the prescriptive requirements found at §311.80. TXI further states that enforcement should be based on failure to meet those goals.

TWC, §26.553 provides an exclusion to the operational prohibition for quarries located within 200 feet to 1,500 feet of a water body located within a water quality protection area, subject to the commission finding that additional performance criteria, as established by commission rule, are met. The commission has established additional performance criteria at §311.80, providing the commission authority to issue permits for quarries within 200 feet to 1,500 feet from a water body, consistent with the requirements of TWC, §26.553 and legislative intent. Although the subchapter defines additional performance criteria, §311.77(a)(8) provides for quarries to determine those structural controls and best management practices that constitute best available technology for their facility and achieve the specific performance criteria at §311.80.

TXI recommends that the final control structure side slopes must not exceed a gradient of 3:1, rather than the 1:3 proposed in the rules at §311.80(1)(B).

The commission disagrees with this comment. The commission has established this additional performance criterion at §311.80(1)(B) which stipulate that final control structure side slopes must not exceed a gradient of 1:3 (vertical:horizontal) or 33%. This criterion is consistent with the design criteria established at 30 TAC §317.4 for embankment walls on wastewater stabilization ponds.

Vulcan commented on the requirement for two feet of freeboard for all treatment, detention, and water storage tanks and ponds found at §311.80(2). Vulcan stated that the commission should clarify that the provision applies to sources that are utilized as control structures and not to water sources in place to support the operations of the quarry.

The requirement for two feet of freeboard for treatment, detention, and water storage tanks and ponds at §311.80(2) is incorporated into the rules to address the potential for overflows from these structures that would impact receiving waters. This provision was incorporated into the proposed rules to preclude overflows from treatment and detention structures containing sediment loadings that would impact receiving waters. Additionally, water storage structures are also included to preclude overflows from water storage structures due to the potential for overflows from these structures, and treatment and detention structures, to impact receiving waters through erosion as these overflows acquire sediment loadings prior to discharge into a receiving water. For this reason, the commission has retained the requirement found at §311.80(2) at adoption, that requires two feet of freeboard for all treatment, detention, and water storage tanks and ponds.

TXI and Vulcan have commented on the requirements for tertiary containment. TXI and Vulcan stated that requirements at §311.80(7) for tertiary containment go beyond federal regulations for spill control. TXI asserted that the protection of aquifers was not directed by SB 1354 and is inconsistent with the legislative intent. TXI requested that definitions for aquifer at §311.71(3) and tertiary containment at §311.71(18) be deleted from the proposed rules. Vulcan states that SB 1354 was intended to be a pilot program for protecting the John Graves Scenic Riverway from erosion and sediment deposition; and, as such, Vulcan asserted that requirements for tertiary containment found at §311.80(7) are not applicable.

The commission disagrees with the comment. Prior to SB 1354, quarries located within a water quality protection area in the John Graves Scenic Riverway were subject to the minimum federal requirements for spill control. TWC, §26.553 provides an exclusion to the operational prohibition for quarries located within 200 feet to 1,500 feet of a water body located within a water quality protection area, subject to the commission finding that additional performance criteria, as established by commission rule, are met. Specifically, TWC, §26.553(d)(1)(C) specifies that additional performance criteria established by the commission rule and incorporated into the permit address: “whether operations could affect renewable resource lands, including aquifers and aquifer recharge areas” Section 311.80(7), with supporting definitions at §311.71(3) and §311.71(18) establishes tertiary containment as that performance criteria. Given the aforementioned, the commission has appropriately established more restrictive requirements (i.e., tertiary containment) for spill control for quarries operating under this exclusion.

Existing Quarries

TACA commented on the lack of specific language relating to the period of time between the effective date of the adopted rules and the amount of time required to submit, process, and issue a wastewater permit under the adopted rules. TACA stated concerns regarding quarries that are currently in compliance with Texas Pollutant Discharge Elimination System Permits that would have to cease operations until a permit is issued under the adopted rules. TACA suggested that existing quarries that have maintained authorization under a Texas Pollutant Discharge Elimination System Permit, and maintained compliance with that permit, should be allowed to remain in operation until a permit under the proposed rules is issued. TACA further stated that the commission should develop a general wastewater permit to authorize wastewater discharges, rather than require an individual permit.

The commission agrees with this comment and has added text at §311.82 to address existing quarries. In accordance with the requirements at TWC, §26.553(b), the commission is developing a general permit that will provide authorization under this subchapter to quarries located outside the 100-year floodplain and greater than one mile from a water body located within a water quality protection area in the John Graves Scenic Riverway.

Professional Certification

GEOS, one individual, TBPG, and TXI have commented on the professional certification requirements for the Restoration Plan, Technical Demonstration, and Reclamation Plan. TBPG recommended changes to the rule text that would allow a licensed Texas professional geoscientist to certify those aspects of the Restoration Plan, Technical Demonstration, and Reclamation Plan that are geoscience in

nature. GEOS stated and provided supporting examples that many of the components of the Restoration Plan, Technical Demonstration, and Reclamation Plan require the expertise of a geoscientist or other professional. GEOS commented that those aspects of the Restoration Plan, Technical Demonstration, and Reclamation Plan should be completed under the responsible charge of and certified by a licensed Texas professional geoscientist. One individual stated that the components of the Restoration Plan, Technical Demonstration, and Reclamation Plan require the expertise of geologists and soil scientists, both of which are licensed in the State of Texas, and should provide for those professionals to certify appropriate components of the Restoration Plan, Technical Demonstration, and Reclamation Plan. TXI comments on the lack of necessity for the certification of the Technical Demonstration or Reclamation Plan by a licensed Texas professional engineer.

The commission revised the rule text and allows, within the appropriate area or discipline, for certification of the Restoration Plan, Technical Demonstration, and Reclamation Plan by a licensed Texas professional engineer or a licensed Texas professional geoscientist. Component parts of the Restoration Plan, Technical Demonstration, and Reclamation Plan may be independently certified by these professionals.

Investigations, Compliance, and Enforcement

The BRCC commented that twice annual inspection of the John Graves Scenic Riverway is insufficient for adequate oversight and that the success of the 20-year pilot project on the John Graves Scenic Riverway will be dictated by the effectiveness of inspection and enforcement actions.

The commission agrees that inspection and enforcement activities will play an important role in the success of the 20-year pilot project on the John Graves Scenic Riverway. The statutory requirement to inspect the John Graves Scenic Riverway twice a year both by the air and boat is in addition to existing storm water requirements and any other investigation programs that the commission administers. The commission has the ability to focus resources to address problems that may develop along the John Graves Scenic Riverway. The ability to focus agency resources was clearly demonstrated during the 2004 quarry initiative where investigations were conducted at over 300 mining operations in a month, resulting in 127 Notices of Violation, 38 Notices of Enforcement, and six referrals to the Texas Office of the Attorney General. The commission has staff in the Dallas-Fort Worth Office that will be conducting routine inspections, as necessary, at quarries. Dallas-Fort Worth Office staff are also able to respond to complaints. The commission maintains that the mandatory inspections, coupled with our ability to respond to complaints in a timely manner and focus resources as necessary, will be sufficient to detect any developing problems along the John Graves Scenic Riverway.

The BRCC noted that compliance with the new rules for small or micro-businesses will be limited at best.

The commission recognizes that many of the quarries within a water quality protection area in the John Graves Scenic Riverway are small or micro-businesses. The majority of these quarries currently maintain authorization to discharge under the multi-sector industrial storm water permit (MSGP). Under the MSGP, quarries are required to develop a storm water pollution

prevention plan and utilize best management practices. The proposed rules establish additional requirements for quarries in the John Graves Scenic Riverway which build upon the MSGP requirements. In order to continue operating, these quarries will have to seek and obtain authorization under the adopted rules. The commission is conducting outreach within the John Graves Scenic Riverway and developing guidance regarding the Restoration Plan, Technical Demonstration, and Reclamation Plan in an effort to assist quarries in complying with the adopted rules. The commission will also continue to inspect and respond to complaints regarding quarries to ensure compliance.

The BRCC stated that enforcement of the proposed regulations will be extremely difficult.

The TCEQ disagrees with this comment. The proposed rules have several requirements that will aid TCEQ inspectors in determining compliance with the adopted rules such as: maintenance of depth markers and rain gauges, operating distance requirements, and recordkeeping requirements.

Fiscal Impacts and Funding

The BRCC and Vulcan have commented on the financial assessment of the proposed rules.

Specifically, the BRCC and Vulcan question how these proposed rules will have no significant fiscal implications for the commission or other state and local governmental entities.

The commission reviews, primarily, those fiscal implications realized in the implementation and ongoing management of adopted rules for the commission and other state and local governmental entities. The commission is the primary governmental entity charged with the implementation and management of programs associated with the adopted rules. In reviewing the fiscal implications for the commission, the resources committed through the 2004 quarry initiative and SB 1354 rulemaking efforts were considered. The allocation of these resources was realized through prioritizing activities associated with the 2004 quarry initiative and SB 1354 rulemaking efforts. The effectiveness of this prioritization was realized in the 2004 quarry initiative, which produced 127 Notices of Violation, 38 Notices of Enforcement, and six referrals to the Texas Office of the Attorney General from investigations at over 300 mining operations conducted within a month. Based on this demonstrated ability to dedicate resources through prioritization, the commission determined that there were no significant fiscal implications.

The BRCC commented on the lack of additional funding provided for implementing the proposed rules. The BRCC recommended changes to wastewater permitting fees to specifically provide funding for the implementation and enforcement of these rules. Additionally, the BRCC recommended that all wastewater permits be renewed annually, with fees assessed likewise.

The commission currently assesses an annual Consolidated Water Quality Fee for all wastewater permits. The Consolidated Water Quality Fee is determined based upon the type of permit, permitted flow, potential toxicity, and other factors. Consolidated Water Quality Fees range from a minimum of \$100 to a maximum of \$75,000. The commission is currently evaluating the

Consolidated Water Quality Fee structure to determine adequacy in the support of water quality monitoring, permitting, inspection, enforcement, and other commission activities. Wastewater permits subject to the adopted rules may be considered for increased fees due to the additional permit application review involved with the Restoration Plan, Technical Demonstration, and Reclamation Plan. The commission renews Texas Pollutant Discharge Elimination System Permits at a maximum of every five years in accordance with §305.71, and Texas Land Application Permits at a maximum of every ten years.

Miscellaneous

Four hundred twenty-nine individuals commented that sand mining is not regulated in Texas, specifically expressing concerns over the impact of sand mining on the San Jacinto River. These individuals state that establishing this pilot program within a water quality protection area in the John Graves Scenic Riverway is a step towards protecting all Texas rivers, including the San Jacinto River, from the effects of sand mining.

The proposed subchapter implements TWC, §26.552. This statute expressly limits its application to the John Graves Scenic Riverway. The commission appreciates this comment, but the provisions of the subchapter are not applicable to the San Jacinto River, and the comment is outside the scope of this rulemaking.

Harris County commented that regulations exist to prevent erosion and storm water runoff that are not enforced and noted specific impacts from these violations on the San Jacinto River.

The proposed subchapter implements TWC, §26.552. This statute expressly limits its application to the John Graves Scenic Riverway. The commission appreciates this comment, but the provisions of the subchapter are not applicable to the San Jacinto River, and the comment is outside the scope of this rulemaking.

Four hundred twenty-nine individuals stated general support for the proposed rules. Hilgers Bell stated support for the discussion within the preamble regarding expansions of facilities excluded from this subchapter at §311.72(b)(2) and (3). Lloyd Gosselink stated general support for the proposed rules, citing consistency with the language of the statute and legislative intent. Lloyd Gosselink also stated support for the definitions of quarry and aggregate, §311.72(b)(2) and (5), and preamble discussion regarding the exclusion for quarries mining clay and shale for use in manufacturing structural clay products. TXI stated support for the inclusion of the definition of 25-year, 24-hour rainfall event at §311.71(1).

The commission acknowledges these comments in support of the rules.

**SUBCHAPTER H: REGULATION OF QUARRIES IN THE
JOHN GRAVES SCENIC RIVERWAY**

§§311.71 - 311.82

STATUTORY AUTHORITY

The new rules are adopted under TWC, §5.013, which establishes the general jurisdiction of the commission over other areas of responsibility as assigned to the commission under the TWC and other laws of the state; §5.102, which establishes the commission's general authority necessary to carry out its jurisdiction; §5.103 and §5.105, which authorize the commission to adopt rules and policies necessary to carry out its responsibilities and duties under TWC, §5.013; §5.120, which states the commission shall administer the law so as to promote the judicious use and maximum conservation and protection of the quality of the environment and the natural resources of the state; §26.011, which provides the commission with authority to adopt any rules necessary to carry out its powers, duties, and policies and to protect water quality in the state; and §26.027, which authorizes the commission to issue permits and amendments to permits for the discharge of waste or pollutants into or adjacent to water in the state. Rulemaking authority is expressly granted to the commission to adopt rules under TWC, Chapter 26 as amended by SB 1354, §2.

The adopted new rules implement SB 1354, which creates TWC, Chapter 26, new Subchapter M. SB 1354, §2, expressly requires the commission to adopt rules adequate to protect the water resources in a water quality protection area for inclusion in any authorization, including an individual or general permit.

§311.71. Definitions.

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

(1) **25-year, 24-hour rainfall event**--The maximum rainfall event with a probable recurrence interval of once in 25 years, with a duration of 24 hours, as defined by the National Weather Service and Technical Paper Number 40, "Rainfall Frequency Atlas of the U.S.," May 1961, and subsequent amendments; or equivalent regional or state rainfall information.

(2) **Aggregates**--Any commonly recognized construction material originating from a quarry or pit by the disturbance of the surface, including dirt, soil, rock asphalt, granite, gravel, gypsum, marble, sand, stone, caliche, limestone, dolomite, rock, riprap, or other nonmineral substance. The term does not include clay or shale mined for use in manufacturing structural clay products.

(3) **Aquifer**--A saturated permeable geologic unit that can transmit, store, and yield to a well, the quality and quantities of groundwater sufficient to provide for a beneficial use. An aquifer can be composed of unconsolidated sands and gravels; permeable sedimentary rocks, such as sandstones and limestones; and/or heavily fractured volcanic and crystalline rocks. Groundwater within an aquifer can be confined, unconfined, or perched.

(4) **Best management practices**--Any prohibition, management practice, maintenance procedure, or schedule of activity designed to prevent or reduce the pollution of water in the state.

Best management practices include treatment, specified operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.

(5) **John Graves Scenic Riverway**--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, Texas, and extending to the county line between Parker and Hood Counties, Texas.

(6) **Natural hazard lands**--Geographic areas in which natural conditions exist that pose or, as a result of quarry operations, may pose a threat to the health, safety, or welfare of people, property, or the environment, including areas subject to landslides, cave-ins, large or encroaching sand dunes, severe wind or soil erosion, frequent flooding, avalanches, and areas of unstable geology.

(7) **Navigable**--Designated by the United States Geological Survey (USGS) as perennial on the most recent topographic map(s) published by the USGS, at a scale of 1:24,000.

(8) **Operator**--Any person engaged in or responsible for the physical operation and control of a quarry.

(9) **Overburden**--All materials displaced in an aggregates extraction operation that are not, or reasonably would not be expected to be, removed from the affected area.

(10) **Owner**--Any person having title, wholly or partly, to the land on which a quarry exists or has existed.

(11) **Pit**--An open excavation from which aggregates have been, or are being, extracted with a depth of five feet or more below the adjacent and natural ground level.

(12) **Quarry**--The site from which aggregates for commercial sale are being, or have been, removed or extracted from the earth to form a pit, including the entire excavation, stripped areas, haulage ramps, and the immediately adjacent land on which the plant processing the raw materials is located. The term does not include any land owned or leased by the responsible party not being currently used in the production of aggregates for commercial sale or an excavation to mine clay or shale for use in manufacturing structural clay products.

(13) **Quarrying**--The current and ongoing surface excavation and development without shafts, drafts, or tunnels, with or without slopes, for the extraction of aggregates for commercial sale from natural deposits occurring in the earth.

(14) **Reclamation**--The land treatment processes designed to minimize degradation of water quality, damage to fish or wildlife habitat, erosion, and other adverse effects from quarries.

Reclamation includes backfilling, soil stabilization and compacting, grading, erosion control measures, appropriate revegetation, or other measures, as appropriate.

(15) **Responsible party**--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 section.

(16) **Restoration**--Those actions necessary to change the physical, chemical, and/or biological qualities of a receiving water body in order to return the water body to its background condition. Restoration includes on- and off-site stabilization to reduce or eliminate an unauthorized discharge, or substantial threat of an unauthorized discharge from the permitted site.

(17) **Structural controls**--Physical, constructed features that prevent or reduce the discharge of pollutants. Structural controls include, but are not limited to, sedimentation/detention ponds; velocity dissipation devices such as rock berms, vegetated berms, and buffers; and silt fencing.

(18) **Tertiary containment**--A containment method by which an additional wall or barrier is installed outside of the secondary storage vessel or other secondary barrier in a manner designed to prevent a release from migrating beyond the tertiary wall or barrier before the release can be detected.

(19) **Water body**--Any navigable watercourse, river, stream, or lake within the water quality protection area.

(20) **Water quality protection area**--The Brazos River and its contributing watershed within Palo Pinto and Parker Counties, Texas, downstream from the Morris Shepard Dam, and extending to the county line between Parker and Hood Counties, Texas.

§311.72. Applicability.

(a) This subchapter applies to a pilot program regulating quarrying within the water quality protection area designated by this subchapter, in the John Graves Scenic Riverway. This subchapter expires on September 1, 2025.

(b) This subchapter does not apply to:

(1) 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;

(2) a quarry, or associated processing plant, that 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;

(3) the construction or modification of associated equipment located on a quarry site or associated processing plant site described in paragraph (2) of this subsection;

(4) an activity, facility, or operation regulated under Natural Resources Code, Texas Surface Coal Mining and Reclamation Act, Chapter 134; or

(5) quarries mining clay and shale for use in manufacturing structural clay products.

(c) Operations or facilities to which this subchapter does not apply under subsection (b) of this section, must maintain adequate documentation on site sufficient to demonstrate their exclusions.

(1) Documentation demonstrating ownership includes, but is not limited to: deeds, property tax receipts, leases, or insurance records.

(2) Documentation demonstrating continuous operation without cessation of operation for more than 30 consecutive days beginning on or before January 1, 1994, includes, but is not limited to: production records, sales receipts, payroll records, sales tax records, income tax records, or financial statements/reports.

(3) Documentation demonstrating the construction or operation of a municipal solid waste facility, an activity, facility, or operation regulated under Natural Resources Code, Texas Surface Coal Mining and Reclamation Act, Chapter 134; or quarries mining clay and shale for use in

manufacturing structural clay products includes, but is not limited to: any permit issued by the commission, Railroad Commission of Texas, or United States Environmental Protection Agency.

§311.73. Prohibitions.

(a) The construction or operation of any new quarry, or the expansion of any existing quarry, within 200 feet of any water body located within a water quality protection area in the John Graves Scenic Riverway is prohibited.

(b) Unless authorized under this subchapter, the construction or operation of any new quarry, or the expansion of an existing quarry, located between 200 feet and 1,500 feet of any water body located within a water quality protection area in the John Graves Scenic Riverway is prohibited.

§311.74. Authorization.

(a) Any responsible party shall seek and obtain a permit subject to the requirements of Chapters 205 and 305 of this title (relating to General Permits for Waste Discharges and Consolidated Permits).

(b) The following additional requirements imposed through this subchapter for discharges from quarries located within a water quality protection area in the John Graves Scenic Riverway are based on the location of the quarry.

(1) In addition to the requirements of Chapters 205 and 305 of this title, a quarry located within a water quality protection area in the John Graves Scenic Riverway must meet the following requirements:

(A) §311.75(1) of this title (relating to Permit Application Requirements);

(B) §311.79 of this title (relating to Performance Criteria for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway); and

(C) §311.81(a) of this title (relating to Financial Responsibility for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway).

(2) In addition to the requirements of Chapters 205 and 305 of this title and paragraph (1) of this subsection, any quarry located within the 100-year floodplain or within one mile of a water body within a water quality protection area in the John Graves Scenic Riverway must obtain an individual permit.

(3) In addition to the requirements of Chapters 205 and 305 of this title and paragraphs (1) and (2) of this subsection, all quarries located within 200 feet to 1,500 feet of a water body within a water quality protection area in the John Graves Scenic Riverway, and subject to the prohibition under §311.73(b) of this title (relating to Prohibitions), must meet the following requirements:

(A) §311.75(2) of this title;

(B) §311.80 of this title (relating to Additional Performance Criteria for Quarries Located Between 200 Feet and 1,500 Feet of a Water Body Located Within a Water Quality Protection Area in the John Graves Scenic Riverway); and

(C) §311.81(b) of this title.

(4) For any quarry subject to the provisions of paragraph (2) of this subsection , a part of which is also located outside of the 100-year floodplain of, or beyond one mile from, a water body, the requirements of paragraph (2) of this subsection are applicable to the entire quarry. The executive director may waive, modify, or otherwise adjust these requirements for that portion of the quarry located outside of the 100-year floodplain of, or beyond one mile from, a water body.

(5) For any quarry subject to the provisions of paragraph (3) of this subsection , a part of which is also located more than 1,500 feet from a water body, the requirements of paragraph (3) of this subsection will be applicable to the entire quarry. The executive director may waive, modify, or otherwise adjust these requirements for that portion of the quarry located more than 1,500 feet from a water body.

§311.75. Permit Application Requirements.

Any responsible party who is required to obtain a permit, or who requests an amendment, modification, or renewal of a permit, shall complete, sign, and submit an application to the executive director, according to the provisions in Chapters 205 and 305 of this title (relating to General Permits for Waste Discharges and Consolidated Permits). Quarries located in the John Graves Scenic Riverway must submit additional information based on the location of the quarry.

(1) A quarry located within a water quality protection area in the John Graves Scenic Riverway must submit the following:

(A) a Restoration Plan as outlined in §311.76 of this title (relating to Restoration Plan); and

(B) evidence of sufficiently funded bonding or proof of financial resources to mitigate, remediate, and correct any potential future effects on a water body by an unauthorized discharge to a water body in an amount no less than that specified in §311.81(a) of this title (relating to Financial Responsibility for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway).

(2) In addition to the permit application requirements specified in paragraph (1) of this section, all applications for quarries located within 200 feet to 1,500 feet of any water body within a water quality protection area in the John Graves Scenic Riverway must include:

(A) a Technical Demonstration as outlined in §311.77 of this title (relating to Technical Demonstration); and

(B) a Reclamation Plan as outlined in §311.78 of this title (relating to Reclamation Plan).

(3) In addition to the permit application requirements in paragraphs (1) and (2) of this section, the executive director may require any additional information deemed appropriate and necessary to demonstrate compliance with the provisions of Texas Water Code, Chapter 26, Subchapter M or this subchapter.

§311.76. Restoration Plan.

(a) The Restoration Plan must include a proposed plan of action for how the responsible party will restore the receiving waters to background conditions in the event of an unauthorized discharge that affects those receiving waters. The Restoration Plan, at a minimum, must:

(1) identify receiving waters at risk of an unauthorized discharge from the quarry;

(2) describe the process to be used in documenting the existing physical, chemical, and/or biological background conditions of each of the adjacent receiving waters;

(3) provide a schedule for completing the determination of background conditions of each of the receiving waters and for updating background conditions in the future, as appropriate;

(4) identify the goals and objectives of potential restoration actions;

(5) provide a reasonable range of restoration alternatives and the preferred restoration alternative that may be implemented to return the affected waters to background conditions in the event of an unauthorized discharge;

(6) describe the process for monitoring the effectiveness of the preferred restoration action, including performance criteria, that will be used to determine the success of the restoration or need for interim site stabilization;

(7) identify a process for public involvement in the selection of the restoration alternative to be implemented to restore the receiving waters to background conditions; and

(8) provide a detailed estimate of the maximum probable costs required to complete a restoration action, given the size, location, and description of the quarry and the nature of the receiving waters. The maximum probable cost must be based on the costs to a third party conducting the action without a financial interest or ownership in the quarry.

(b) Certification of the Restoration Plan must be provided, within the appropriate area or discipline, by a licensed Texas professional engineer or a licensed Texas professional geoscientist. Components of the Restoration Plan may be independently certified, as appropriate.

§311.77. Technical Demonstration.

(a) The Technical Demonstration must include, at a minimum:

(1) a time schedule for the proposed quarry from initiation to termination of operations, including reclamation;

(2) a detailed description of the type of quarrying to be conducted, including the processes/methods employed (e.g., pit mining where blasting is employed);

(3) a geological description of the quarry area, including a detailed description of the material deposit: type, geographical extent, depth, and volume; and a description of the general area geology;

(4) identification and a detailed description of any other operations on site, including raw-material processing and/or secondary products (e.g., cement) processing;

(5) identification and a detailed description of type, character, and volume of wastewater and storm water generated on site;

(6) a topographic map, at a scale appropriate to represent the quarry operation and all of the following within the boundaries of the quarry:

(A) waterbodies;

(B) existing and proposed roads including quarry access roads;

(C) existing and proposed railroads;

(D) the 100-year floodplain boundaries, if applicable;

(E) structures (e.g., office buildings);

(F) the location of all known wells including, but not limited to, water wells, oil wells, and unplugged and abandoned wells;

(G) active, post, and reclaimed quarrying areas;

(H) buffer areas;

(I) raw material, intermediate material, final product, waste product, byproduct, and/or ancillary material storage and processing areas;

(J) chemical and fuel storage areas;

(K) vehicle/equipment maintenance, cleaning, and fueling areas;

(L) vehicle/equipment loading and unloading areas;

(M) baghouses and other air treatment units exposed to precipitation; and

(N) waste disposal areas;

(7) a Surface Water Drainage and Water Accumulation Plan. The Surface Water Drainage and Water Accumulation Plan must be designed to prevent damage to fish, wildlife, and fish/wildlife habitat from erosion, siltation, and runoff from quarry operations. The Surface Water Drainage and Water Accumulation Plan must, at a minimum:

(A) describe the use and monitoring of structural controls and best management practices as identified in paragraph (8) of this subsection designed to control erosion, siltation, and runoff; and

(B) provide a topographic map, at a scale appropriate to represent the quarry operation and all of the following within the boundaries of the quarry:

- (i) the location of each process wastewater and/or storm water outfall;
- (ii) an outline of the drainage area that contributes storm water to each outfall;
- (iii) treatment, detention, and water storage tanks and ponds;
- (iv) structural controls for managing storm water and/or process wastewater; and
- (v) physical features of the site that would influence storm water runoff or contribute a dry weather flow; and

(8) a Best Available Technology Evaluation. The Best Available Technology Evaluation assists staff in reviewing and determining the best available technology designed to control erosion, siltation, and runoff from the quarry to minimize disturbance and adverse effects to fish, wildlife, and related environmental resources. Where practical, the Best Available Technology Evaluation must assist staff in reviewing and determining best available technology designed to enhance fish, wildlife, and related environmental resources.

(A) The Best Available Technology Evaluation must assess the use of structural controls and best management practices.

(B) The Best Available Technology Evaluation must evaluate performance criteria outlined in §311.79 and §311.80 of this title (relating to Performance Criteria for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway and Additional Performance Criteria for Quarries Located Between 200 Feet and 1,500 Feet of a Water Body Located Within a Water Quality Protection Area in the John Graves Scenic Riverway).

(C) Structural control design and construction must be certified by a licensed Texas professional engineer. Design and construction plans/specifications must be maintained on site and made available at the request of the executive director; and

(9) a procedure and schedule for reviewing the Technical Demonstration for consistency with quarry operations and site conditions and effectiveness in controlling erosion, siltation, and runoff.

(b) Certification of the Technical Demonstration must be provided, within the appropriate area or discipline, by a licensed Texas professional engineer or a licensed Texas professional geoscientist. Components of the Technical Demonstration may be independently certified, as appropriate.

§311.78. Reclamation Plan.

(a) The Reclamation Plan establishes procedures and standards for reclamation of the quarry.

(1) The Reclamation Plan must, at a minimum:

(A) provide a description of the proposed use of the disturbed area following reclamation;

(B) develop site-specific standards for reclamation appropriate to the end use proposed in subparagraph (A) of this paragraph that addresses the following:

(i) removal or final stabilization of all raw material, intermediate material, final product, waste product, byproduct, and/or ancillary material;

(ii) removal of waste or closure of all waste disposal areas;

(iii) removal of structures, where appropriate;

(iv) removal and reclamation of all temporary roads and/or railroads;

(v) backfilling, regrading, and recontouring;

(vi) slope stability for remaining highwalls and detention ponds;

(vii) revegetation of the reclaimed area giving consideration to species diversity and the use of native species;

(viii) establishment of wildlife habitat;

(ix) establishment of drainage patterns;

(x) establishment of permanent control structures (e.g., retention ponds), where necessary, to address erosion, siltation, and runoff from post quarrying and reclaimed areas; and

(xi) removal of all equipment;

(C) provide a description of how reclamation will be conducted (e.g., phased reclamation) and a timetable for the completion of reclamation activities.

(2) The Reclamation Plan must include a detailed estimate of the maximum probable cost required to complete and implement the plan. The maximum probable cost must be based on the cost to a third party conducting the reclamation without a financial interest or ownership in the quarry operation.

(b) Certification of the Reclamation Plan must be provided, within the appropriate area or discipline, by a licensed Texas professional engineer or a licensed Texas professional geoscientist. Components of the Reclamation Plan may be independently certified, as appropriate.

§311.79. Performance Criteria for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway.

The following performance criteria are applicable to quarries located within a water quality protection area in the John Graves Scenic Riverway.

(1) Discharges from quarries shall meet the following effluent limitations.

Figure: 30 TAC §311.79(1)

Parameter	Daily Average Limitation
Total Suspended Solids	45 milligrams per liter
pH	Between 6.0 and 9.0 standard units

(2) Discharges from quarries resulting from a rainfall event greater than the 25-year, 24-hour rainfall event are not subject to effluent limitations in paragraph (1) of this section.

(3) Discharges from quarries shall be monitored as follows.

Figure: 30 TAC §311.79(3)

<u>Parameter</u>	<u>Monitoring Frequency</u>
<u>Total Suspended Solids</u>	<u>1/day, when discharging</u>
<u>pH</u>	<u>1/day, when discharging</u>

(4) Results of analysis for monitoring conducted as specified in §311.75(3) of this title (relating to Permit Application Requirements) shall be submitted monthly on approved self-report forms. Monitoring and reporting records, including strip charts and records of calibration and maintenance, shall be retained on site, or shall be readily available for review by a commission representative for a period of three years from the date of the record or sample, measurement, or report.

(5) The permittee shall install a permanent rain gauge at the plant site and keep daily records of rainfall and the resulting flow. Monitoring records shall be retained on site, or shall be readily available for review by a commission representative for a period of three years from the date of the record.

§311.80. Additional Performance Criteria for Quarries Located Between 200 Feet and 1,500 Feet of a Water Body Located Within a Water Quality Protection Area in the John Graves Scenic Riverway.

Authorizations to discharge from quarries located between 200 feet and 1,500 feet of a water body within a water quality protection area in the John Graves Scenic Riverway require the permittee to satisfy the following performance criteria. An evaluation of these performance criteria must be incorporated into the Technical Demonstration, as required in §311.77 of this title (relating to Technical Demonstration).

(1) The down-gradient perimeter of the quarry must include a final control structure to manage the discharge of wastewater and/or storm water. The final control structure must be designed and constructed as follows.

(A) Certification of the final control structure design and construction must be provided by a licensed Texas professional engineer. Design and construction plans and specifications must be maintained on site and made available at the request of the executive director.

(B) The final control structure side slopes must not exceed a gradient of 1:3 (33%).

(C) The final control structure must be designed to impound, at minimum, the volume of water resulting from a 25-year, 24-hour rainfall event for the final control structure drainage area.

(D) The final control structures must be properly stabilized (via use of vegetation, riprap, and/or other acceptable technique) to prevent the final control structure from being a source of pollution and/or to prevent structural failure.

(E) The final control structure must be inspected once every 14 calendar days and within 24 hours of any rainfall event totaling 0.5 inches or greater. Where an inspection identifies failure and/or problems with the final control structure, corrections must be made within seven calendar days of the inspection. Records of these inspections and any site stabilizations must be maintained on site for a period of three years and made available to the executive director, upon request.

(F) A minimum 200-foot vegetative buffer must be maintained between the final control structure and any water body.

(2) All treatment, detention, and water storage tanks and ponds must be operated to maintain a minimum freeboard of two feet.

(3) A permanent depth marker shall be installed and maintained on all treatment, detention, and water storage tanks and ponds. The depth marker shall identify the volume required for the design rainfall event, as specified in paragraph (1)(C) of this section, and freeboard.

(4) The quarry operation must demonstrate compliance with all the requirements of 36 Code of Federal Regulations Part 800 (Protection of Historic Properties) and 9 Texas Natural Resources Code, Chapter 191 (Antiquities Code).

(5) The quarry operation must not have a detrimental effect on any federal endangered/threatened, aquatic/aquatic-dependent species/proposed species; or their critical habitat.

(6) Waste management units must be located a minimum horizontal distance from water wells, in accordance with 16 TAC Chapter 76 (relating to Water Well Drillers and Water Well Pump Installers), or where those regulations do not apply, the minimum distance to a water well must be 500 feet.

(7) Secondary containment of chemical and fuel storage is required. Where quarry operations overlay aquifer and/or aquifer recharge areas and sufficient confining layers do not exist to preclude contamination of groundwater, tertiary containment is required for all chemical and fuel storage.

(8) Quarry operations must not be located on natural hazard land, areas subject to frequent flooding, or in areas of unstable geology.

§311.81. Financial Responsibility for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway.

(a) An owner or operator of a quarry located within a water quality protection area in the John Graves Scenic Riverway shall establish and maintain financial assurance for restoration in accordance with Chapter 37, Subchapter W of this title (relating to Financial Assurance for Quarries). The amount of financial assurance must be no less than the amount determined by the executive director as sufficient to meet the requirements of the Restoration Plan in §311.76(a)(8) of this title (relating to Restoration Plan).

(b) An owner or operator of a quarry located between 200 feet and 1,500 feet of a water body within a water quality protection area in the John Graves Scenic Riverway shall establish and maintain financial assurance for reclamation in accordance with Chapter 37, Subchapter W of this title. The amount of financial assurance must be no less than the amount determined by the executive director as sufficient to meet the requirements of the Reclamation Plan in §311.78(a)(2) of this title (relating to Reclamation Plan).

§311.82. Existing Quarries.

(a) Existing quarries required to seek and obtain authorization in accordance §311.74(b)(1) of this title (relating to Authorization), must submit a Notice of Intent as required by a commission-issued general permit, in accordance with §311.74(b)(1) of this title. Subject to the provisions of this subsection and maintaining compliance, existing quarries subject to the requirements of §311.74(b)(1) of this title that have authorization under a Texas Pollutant Discharge Elimination System Permit or Texas Land Application Permit issued under Chapters 205 and 305 of this title (relating to General Permits for Waste Discharges and Consolidated Permits), may continue to operate under the terms of that permit until the commission issues or denies authorization under this subchapter.

(b) Existing quarries required to seek and obtain authorization in accordance with §311.74(b)(2) of this title must submit an individual Texas Pollutant Discharge Elimination System or Texas Land Application Permit application not later than 180 days following the effective date of this subchapter. Subject to the provisions of this subsection and maintaining compliance, existing quarries subject to the requirements of §311.74(b)(2) of this title that have authorization under a Texas Pollutant Discharge Elimination System Permit or Texas Land Application Permit issued under Chapters 205 and 305 of this title, may continue to operate under the terms of that permit until the commission issues or denies authorization under this subchapter.

(c) Existing quarries required to seek and obtain authorization in accordance with §311.74(b)(3) of this title must submit an individual Texas Pollutant Discharge Elimination System or Texas Land Application Permit application not later than 180 days following the effective date of this

subchapter. An existing quarry may not operate until the commission issues authorization under this subchapter.