The Texas Commission on Environmental Quality (TCEQ, agency, or commission) adopts amendments to 30 Texas Administrative Code (TAC) §§230.1 - 230.11.

Sections 230.1, 230.3, 230.4, 230.5, 230.8, 230.10, and 230.11 are adopted *with changes* to the proposed text as published in the May 24, 2024, issue of the *Texas Register* (49 TexReg 3696) and will be republished. Sections 230.2, 230.6, 230.7, and 230.9 are adopted *without changes* to the proposed text and will not be republished.

Background and Summary of the Factual Basis for the Adopted Rules

The purpose of this rulemaking adoption is to implement the provisions of Senate Bill (SB) 2440, passed during the 88th Texas Legislature's Regular Session in 2023. Local Government Code (LGC) §212.0101 and §232.0032 establish requirements for groundwater availability certification in the municipal and county plat application and approval process for proposed subdivisions when the groundwater beneath the land serves as the source of water supply. SB 2440 amended §212.0101(a) and §232.0032(a) to make groundwater availability certification a mandatory component of the plat application and approval process. SB 2440 also established specific circumstances under which a municipal or county authority may waive the certification requirement by adding §§212.0101(a)(1) and (a)(2) and §§232.0032(a)(1) and (a)(2). SB 2440 became effective on January 1, 2024, and requires that existing commission rules are continued in effect for plat applications filed before January 1, 2024.

The charge to TCEQ under LGC, §§212.0101(b) and (c) and §§232.0032(b) and (c) is limited to adopting rules that establish the form and content of a groundwater availability certification and require transmittal of specific information to the Texas Water Development Board and the

applicable groundwater conservation district. Currently, 30 TAC §230.1 and §§230.3 - 230.11 include references to applicability and have embedded forms. Since applicability is addressed by LGC §§212.0101(a), (a)(1) and (a)(2) and §§232.0032(a), (a)(1) and (a)(2) and TCEQ is not charged by statute with further defining applicability, the adopted rulemaking replaces applicability provisions with general provisions that identify the purpose of the rule. And since the current rules specify transmittal requirements and groundwater availability certification contents, the adopted rulemaking removes the embedded forms and replace those with references to TCEQ forms so that the format of the forms can be updated as technology changes.

During rule proposal, the commission received several comments relating to waiver requirements. Specifically, stakeholders recommended the commission define the term "credible evidence" in rule. After further evaluation of the statute, the commission concluded that the statute does not charge TCEQ with defining applicability or waiver requirements. Because the statute defines applicability and waiver requirements and "credible evidence" is a part of waiver requirements as defined by LGC §§212.0101(a-1)(1) and 232.0032(a-1)(1), a definition was not included in the rule adoption.

Many comments were received that requested amendments or additions to the rules that are outside of the scope of this rulemaking. Although changes to the rule cannot be made based on these comments, the commission reviewed the merits of the comments, and provided responses where appropriate.

Some commentors requested amendments requiring groundwater district contact information to be submitted as part of the groundwater availability certification. Other comments were

received requesting non-substantive clarifications of proposed and existing rule language. Changes to the rules were made in response to these comments.

Some comments supported the removal of embedded forms from the rule and replacing those with references to TCEQ forms so that the format of the forms can be updated as technology changes. Comments on the new TCEQ forms were also received and, where appropriate, changes to those forms were made in response to those comments.

Section by Section Discussion

§230.1, Applicability

LGC, §§212.0101(b) and (c) and §§232.0032(b) and (c) charge the commission with adopting rules that establish the form and content of a groundwater availability certification and require plat applicants to transmit specific information to the Texas Water Development Board and any applicable groundwater conservation district. TCEQ adopts amendments to this section that eliminate the applicability provisions because those are established by LGC, §§212.0101(a), (a)(1), and (a)(2) and §§232.0032(a), (a)(1), and (a)(2). The adopted rule replaces applicability provisions with general provisions that identify the purpose of the rule consistent with LGC, §§212.0101(b) and (c) and §§232.0032(b) and (c).

The commission also adopts amendments to remove the form embedded at §230.1(c)(2) and instead require submittal of Plat Attesting Form (TCEQ-20983). Removing the form from the rule allows for the format to change with technology over time. Conforming changes are adopted throughout 30 TAC §230.1.

§230.1(a) is adopted with changes to the proposed text to add new language at the end of the

paragraph to clarify the purpose of the rule: ", which requires certification that adequate groundwater is available for a proposed subdivision if groundwater under that land is to be the source of water supply."

§230.2, Definitions

The adopted amendment removes the definition of "executive administrator" at §230.2(6), because "executive administrator" is not used independently from "of the Texas Water Development Board" within the chapter and, therefore, the definition is not necessary.

§230.3, Certification of Groundwater Availability for Platting

The adopted amendment makes conforming changes where these sections reference the provisions modified at §230.1. The adopted amendment also removes the form embedded at §230.3(c) and instead requires submittal of Certification of Groundwater Availability for Platting Form (TCEQ-20982). Removing the form from the rule allows for the format to change with technology over time. Conforming changes are adopted throughout 30 TAC §230.3.

Section 230.3(c) is adopted with changes to the proposed text to add clarifying language following the word "certification": "…of adequacy of groundwater under the subdivision required by this chapter…."

§230.4, Administrative Information

The commission adopts amendments to §230.4 to make a conforming citation where the plat applicant "must" now follow 30 TAC Chapter 230 rules, rather than "may" or "shall" follow 30 TAC Chapter 230 rules. The word "must," now replaces "may" and "shall," throughout §230.4.

Additionally, amendments are adopted that make conforming changes where these sections reference the provisions modified at §230.1 and §230.3.

The commission adopts amendments to require an email address along with the existing contact information required by this section.

Section 230.4 is adopted with changes to the proposed text to add new §230.4(8) to require the name, address, phone number, email address, and facsimile number of the applicable groundwater conservation district(s).

§§230.5 - 230.11

The commission adopts amendments to §§230.5 - 230.11 to make a conforming citation where the plat applicant "must" now follow 30 TAC Chapter 230 rules, rather than "may" or "shall" follow 30 TAC Chapter 230 rules. The word "must," now replaces "may" and "shall," throughout §§230.5 - 230.11. Additionally, the commission adopts amendments that make conforming changes where these sections reference the provisions modified at §230.1 and §230.3.

Section 230.5(6) is adopted with changes to the proposed text to replace "which" with "must."

§230.8(a) is adopted with changes to the proposed text to add the TCEQ form number after the form title.

§230.10(c) is adopted with changes to the proposed text to clarify the information needed to determine the parameters of the aquifer(s) being considered to supply water to the proposed subdivision.

§230.11(b) is adopted with changes to the proposed text to replace "basis" with "conditions."

Final Regulatory Impact Determination

The commission reviewed the adopted rulemaking in consideration of the regulatory analysis requirements of Texas Government Code (TGC), §2001.0225, and determined that the rulemaking is not subject to §2001.0225 because it does not meet the definition of a "Major environmental rule" as defined in the Texas Administrative Procedure Act. A "Major environmental rule" is a rule that is specifically intended to protect the environment or reduce risks to human health from environmental exposure, and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state.

This rulemaking does not meet the statutory definition of a "Major environmental rule" because it is not the specific intent of the rule to protect the environment or reduce risks to human health from environmental exposure. The specific intent of the adopted rulemaking is to implement legislative changes enacted by SB 2440, which requires groundwater certification during the platting process.

In addition, the rulemaking does not meet the statutory definition of a "Major environmental rule" because the adopted rule will not adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, nor the public health and safety of the state or a sector of the state. The cost of complying with the adopted rule is not expected to be significant with respect to the economy.

Furthermore, the adopted rulemaking is not subject to TGC, §2001.0225 because it does not meet any of the four applicability requirements listed in TGC, §2001.0225(a). There are no federal standards governing groundwater certification in the plat application and approval

process. Second, the adopted rulemaking does not exceed an express requirement of state law. Third, the adopted rulemaking does not 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. Finally, the adopted rulemaking is not an adoption of a rule solely under the general powers of the commission, as SB 2440 requires the adopted rules.

The commission invited public comment regarding the Draft Regulatory Impact Analysis Determination during the public comment period. No comments were received on the Draft Regulatory Impact Analysis Determination.

Takings Impact Assessment

The commission evaluated the rulemaking adoption and performed an assessment of whether the adopted rule constitutes a taking under Texas Government Code, Chapter 2007. The specific intent of the adopted rulemaking is to implement legislative changes enacted by SB 2440, which requires groundwater certification during the platting process, with certain exceptions. The adopted rulemaking substantially advances this purpose by amending the Chapter 230 rules to incorporate the new statutory requirements.

Promulgation and enforcement of this adopted rule will be neither a statutory nor a constitutional taking of private real property. The adopted rule does not affect a landowner's rights in private real property because this rulemaking does not relate to nor have any impact on an owner's rights to property. The adopted rule will primarily affect landowners who plan to use only groundwater to supply water for subdivisions. This will not be an effect on real property. Therefore, the adopted rulemaking will not constitute a taking under TGC, Chapter 2007.

Consistency with the Coastal Management Program

The commission reviewed the adopted rules and found that they are neither identified in Coastal Coordination Act Implementation Rules, 31 TAC §§29.11(b)(2) or (4), nor will they affect any action/authorization identified in Coastal Coordination Act Implementation Rules, 31 TAC §29.11(a)(6). Therefore, the adopted rules are not subject to the Texas Coastal Management Program.

The commission invited public comment regarding the Consistency with the Coastal Management Program during the public comment period. No comments were received on the Consistency with the Coastal Management Program.

Public Comment

The commission held a public hearing on June 24, 2024 and the comment period closed on June 25, 2024. The commission received comments from Approach Environmental (Approach), Bluebonnet Groundwater Conservation District (GCD), CenterPoint Committee for Growth and Progress (CPCGP), Clearwater Underground Water Conservation District (CUWCD), Environmental Defense Fund (EDF), Greater Edwards Aquifer Alliance (GEAA), Headwaters GCD, Hill Country Alliance (HCA), Kerr County Engineering (Kerr County), Middle Trinity GCD (MTGCD), Northern Trinity GCD (NTGCD), Parker County Commissioners Court (Parker County), Prairielands GCD, Texas Alliance of Groundwater Districts (TAGD), Texas Association of Builders (TAB), Texas Groundwater Association (TGWA), Texas Rural Water Association (TRWA), Upper Trinity GCD (UTGCD), and Wise County Commissioners Court (Wise County).

Response to Comments

Miscellaneous

COMMENT 1

TAGD, Upper Trinity GCD, and Prairielands GCD expressed their support for removing the form content language from the rule and providing a separate form that can be updated.

RESPONSE 1

The commission acknowledges this comment.

COMMENT 2

Prairielands GCD requested the rule set out the waiver criteria within the language of the rule, commenting that many platting authorities, applicants, and technical professionals will only look at the rule for guidance rather than the statute.

RESPONSE 2

The commission disagrees with this comment. The commission amended this section to eliminate the applicability provisions because those are established by Local Government Code (LGC), §§212.0101(a), (a)(1), and (a)(2) and §§232.0032(a), (a)(1), and (a)(2). The statute only identifies two charges for TCEQ: develop rules to establish the form and content of a certification to be attached to a plat application; and require a plat applicant to transmit certain information to the Texas Water Development Board and any applicable groundwater conservation district(s). Therefore, it is appropriate to reference the LGC in the rule rather than including specific applicability criteria in the rule. Additionally, since the waiver criteria are set out in the statute, it is appropriate that the rule reference the LGC rather than include specific

criteria. No change was made in response to this comment.

COMMENT 3

Prairielands GCD commented that the rule should clarify that a waiver for subdivisions supplied with groundwater from the Gulf Coast Aquifer or the Carrizo-Wilcox Aquifer must be determined based on the boundaries of those aquifers as delineated by TWDB.

RESPONSE 3

The commission disagrees with this comment. As discussed in Response 2, the waiver requirements in the statute are part of the applicability requirements that were removed from the rule, as the statute only directs the commission to develop a rule establishing the form and content of the groundwater availability certification form. No change was made in response to this comment.

COMMENT 4

UTGCD requested that TCEQ correct a statement in the "Background and Summary of the Factual Basis for the Proposed Rules" section of the rulemaking to remove the term "primary" from the phrase "when the groundwater beneath the land serves as the primary source of water supply."

RESPONSE 4

The commission agrees with this comment and removed the word "primary" to be consistent with the language in LGC §§212.0101(a) and 232.0032(a).

COMMENT 5

Approach Environmental requested TCEQ add the constant drawdown pumping test method to the rule, which currently includes only a constant rate pumping test. The commentor stated that the constant drawdown method may be especially useful in low yield formations, fractured rock, or where the available drawdown is limited.

RESPONSE 5

Modification of this technical requirement is outside of the scope of this rulemaking. No changes were made in response to this comment. However, the commission did review the references provided and notes that in a constant drawdown aquifer test, the transmissivity estimate is within an order of magnitude; and the determination of the coefficient of storage cannot be accepted as it is highly sensitive to experimental error. The constant drawdown aquifer test would not be an appropriate method to add to the rule.

COMMENT 6

Bluebonnet GCD and GEAA requested the rule incorporate the latest TWDB-approved groundwater availability model. Bluebonnet GCD stated that the recent models incorporate the best available science and are beneficial because they account for a longer time span of 50 years, as opposed to 30 years described in 30 TAC Chapter 230. In addition, the Bluebonnet GCD stated that these models should be recognized within the rule or on the Groundwater Availability Certification form. GEAA stated they strongly support using the best available science within the Groundwater Availability Certification process and recommended TCEQ insert language requiring the use of the most current TWDB-approved groundwater availability

model during the certification process, prior to approval.

RESPONSE 6

Adding this technical requirement is outside of the scope of this rulemaking. No changes were made in response to this comment. When developing the Groundwater Availability Certification, the licensed professional engineer or licensed professional geoscientist should determine which available information should be included.

COMMENT 7

Two commentors requested changes to the rule to assess cumulative impacts to groundwater:

Bluebonnet GCD requested that the rule require applicants to identify the cumulative impact of single wells on multiple subdivision lots as part of the Groundwater Availability Certification. Examples of cumulative impacts include drawdown, well interference, and subsidence, which could result in a need to tie into a PWS or find a new water supply. The commentor mentioned the Wilmeth Plat Analysis as an example that could be used on any scale of subdivision, stating that it includes common practices and techniques of professional engineers and professional geoscientists and relies on readily available data from groundwater availability models, which are not recognized in the current rule.

GEAA recommended TCEQ require a cumulative impacts assessment during the Groundwater Availability Certification process, prior to approval. GEAA stated that this impacts assessment should include an analysis of the cumulative impact of single wells across multiple subdivision lots and the impact of residential and non-residential development outside of the proposed subdivision on the availability of groundwater supplies.

RESPONSE 7

Adding this technical requirement is outside of the scope of this rulemaking. No changes were made in response to this comment. The commission recognizes that cumulative impacts are a concern and encourages GCDs and TWDB to monitor incoming Groundwater Availability Certifications submitted by licensed professional engineers (PEs) or licensed professional geoscientists (PGs).

COMMENT 8

Clearwater UWCD requested TCEQ remove the requirement for drilling and completing an observation well from §230.8(c).

RESPONSE 8

Removing this requirement from the rule is outside of the scope of this rulemaking. No change was made in response to this comment. The commission disagrees with this requested amendment because an observation well is needed to determine the coefficient of storage. Estimating the coefficient of storage for a Groundwater Availability Certification is not sufficient.

COMMENT 9

EDF and HCA commented that given the increased pressure on groundwater resources in rural Texas and the fact that groundwater is often the only source of water for many rural communities as well as for agriculture, it is critical that the Groundwater Availability Certification rules be strengthened to provide local governments and developers with accurate

groundwater data and information to make informed decisions about whether there is sufficient groundwater to accommodate development.

RESPONSE 9

The scope of this rulemaking was limited to the implementation of SB 2440, 88th Texas Legislature, and these comments are outside of the scope of this rulemaking. No changes were made in response to this comment. The commission recognizes the importance of groundwater in rural Texas and asserts that the existing requirements are sufficient for the licensed professional engineer or geoscientist to determine if sufficient groundwater is available. The commission encourages platting authorities and developers to work with applicable local groundwater conservation districts, TWDB, the licensed PE or PG, and other professionals to determine whether there is sufficient groundwater available for the subdivision.

COMMENT 10

EDF recommended that counties, especially those in PGMAs, be allowed in this rule to require new developments to prove long-term groundwater sustainability, not just 30-year water availability, so that the groundwater resources of Texas, and the unique communities that rely on them, can be preserved for multiple generations to come.

RESPONSE 10

Adding this technical requirement is outside of the scope of this rulemaking. No changes were made in response to this comment.

COMMENT 11

Several commentors requested changes to the existing rule to reflect that the rule is no longer optional but required. Examples are to replace "shall" with "must," where appropriate; and to remove the phrase "if required by the municipal or county authority" when referring to delivery of the groundwater availability certification or supporting data.

RESPONSE 11

The commission acknowledges these comments and notes that the proposed rule package replaced "shall" with "must" throughout. No additional changes were made to the adopted rule package.

COMMENT 12

EDF suggested clarifying that all data, calculations, and information shall be provided in a format that allows for the replication of results (§§230.1(c), 230.6(d), and §230.8(d)).

RESPONSE 12

Adding this requirement is outside of the scope of this rulemaking. No changes were made in response to this comment. The rule (§230.3) requires that a licensed professional geoscientist or licensed professional engineer prepare and sign the Certification of Groundwater Availability for Platting, which effectively attests to the accuracy and replicability of the information.

COMMENT 13

CPCGP commented that "full build out" assumptions are likely to be inadequate if focused only on the new subdivision and not the broader existing subdivision in which the new subdivision is located. For example, if every owner in an existing subdivision were to further subdivide their

lots, then "full build out" would look quite different. At a minimum, CPCGP stated that this should be addressed in the assumptions where new development is the result of subdividing existing development.

RESPONSE 13

Adding this technical requirement is outside of the scope of this rulemaking. No changes were made in response to this comment. The commission understands that in some cases the full build-out assumptions may be inadequate for the reasons listed. However, this issue is site-specific and should be resolved by the applicant, the platting authority, and the licensed professional engineer or licensed professional geoscientist who certifies the Groundwater Availability Certification.

COMMENT 14

CPCGP requested that TCEQ clarify how the proposed rules relate to a public water system (PWS). The commentor stated that some developers are avoiding the requirements with "workarounds," using historical, non-site specific, and irrelevant data; and stated that a groundwater availability study under 30 TAC Chapter 230 should be prepared for all PWSs.

RESPONSE 14

A change to this requirement is outside of the scope of this rulemaking. No changes were made in response to this comment.

To clarify, 30 TAC §230.10(c), requires subdivisions utilizing individual water wells on individual lots to meet the requirements described in §230.8, relating to Obtaining Site-Specific

Groundwater Data; but §230.8 also states that if the proposed method of water distribution is expansion of an existing PWS or installation of a new PWS, then site specific groundwater data must be developed under the requirements of 30 TAC Chapter 290, Subchapter D. The requirement to follow 30 TAC Chapter 290, Subchapter D rules for PWSs are in lieu of – and not in addition to - 30 TAC Chapter 230.

Regarding the request to require a study under 30 TAC Chapter 230 for all public water systems, the commission recognizes that PWSs have different requirements than private well owners. 30 TAC Chapter 290 requires that PWS wells meet strict well construction guidelines. In addition, the rules require each proposed new PWS to submit an engineering report describing the project and how the PWS plans to meet TCEQ's required minimum water system capacities. PWSs are also subject to periodic inspections by TCEQ, which includes verifying well conditions and capacity.

COMMENT 15

CPCGP commented that TCEQ could ask TWDB to keep a database of all groundwater availability studies, which could be used for planning and for use by developers to support new subdivisions where relevant provisions apply.

RESPONSE 15

This request is outside of the scope of this rulemaking. No changes were made in response to this comment. TCEQ forwarded this comment and request to TWDB.

§230.1.

COMMENT 16

TAGD, Middle Trinity GCD, and Northern Trinity GCD suggested TCEQ add language to this subsection regarding obtaining a waiver.

RESPONSE 16

See Response 2. No change was made in response to this comment.

COMMENT 17

Middle Trinity GCD requested TCEQ add "Purpose and…" before the word "Applicability" to the title of this section.

RESPONSE 17

In the rule proposal, the commission removed the specific applicability requirements and updated the title of this section to be "General." A subsection entitled "Purpose" was added to §230.1(a) during the rule proposal. No changes were made in response to this comment.

COMMENT 18

CPCGP recommended that in §230.1, the following language be used:

> *"(a) Purpose. This chapter establishes the form and content of a certification to be attached to a plat application ~~under Texas Local Government Code, §212.0101 or §232.0032~~ that requires certification that adequate groundwater is available for a proposed subdivision if groundwater under that land is to be the source of water supply."*

RESPONSE 18

The commission agrees that adding language from the statute in this introductory paragraph would add clarity, and has updated §230.1(a) as follows:

> *"(a) Purpose. This chapter establishes the form and content of a certification to be attached to a plat application under Texas Local Government Code, §212.0101 or §232.0032, which requires certification that adequate groundwater is available for a proposed subdivision if groundwater under that land is to be the source of water supply."*

COMMENT 19

Texas Rural Water Association (TRWA) requested that §230.1(b) be revised to add §230.1(b)(3), to require that copies of any information provided to TWDB and applicable GCD(s) must also be provided to the applicable water utility. TRWA comments that developers do not routinely consult with the water utilities regarding groundwater availability and accessibility, and that the utilities need sufficient notice of a possible increase in groundwater demand. TRWA also requested that TCEQ add §230.1(c)(3) to require the plat attesting form be submitted to the applicable water utility.

RESPONSE 19

Adding this requirement is outside of the scope of this rulemaking. No changes were made in response to this comment. The commission encourages the commentor to work with TWDB, applicable groundwater conservation districts, platting authorities, and utilities to share information.

COMMENT 20

TAGD requested edits to §230.1(b), relating to "Use of this chapter," including removing the phrase "If required by the municipal or county authority," from the first sentence and adding to the end of the last sentence the phrase "which may include, among other things, production limitations and well spacing requirements."

RESPONSE 20

In the rule proposal, the commission removed the applicability provisions described in §230.1(b) and instead referred to the LGC. No changes were made in response to this comment.

COMMENT 21

TAGD requested that TCEQ revise §230.1(c) (§230.1(b)) in the proposed rule) to include "Verification and" before the phrase "Transmittal of data."

RESPONSE 21

The commission disagrees with this comment. The commission asserts that adding the phrase "verification and" does not add clarity to the rule and therefore no change was made.

COMMENT 22

TAGD, Middle Trinity GCD, and Northern Trinity GCD requested that §230.1(c)(2) (§230.1(b)(2) in the proposed rule) be revised to require the plat applicant to attest that the information provided to meet the rule requirements is accurate and that a completed copy of the form must be submitted as part of an applicant’s plat application and submitted to the platting authority

prior to approval of the plat application.

RESPONSE 22

The commission disagrees with this comment. The rule at §230.1(c) requires the Plat Attesting Form (TCEQ-20983) be submitted with the groundwater availability certification. The current form requires the plat applicant to attest that the required information has been provided in accordance with 30 TAC Chapter 230. This form does not currently have a location for a signature, so for clarity the Plat Attesting Form (TCEQ-20983) will be updated to include a location for the plat applicant's signature following the certification statement. The commission notes that a Texas licensed professional engineer or licensed professional geoscientist must sign the Groundwater Availability Certification for Platting form (TCEQ-20982), which effectively attests to the accuracy of the information. No additional changes were made in response to the comment.

§230.2.

COMMENT 23

Middle Trinity GCD and Northern Trinity GCD requested TCEQ revise the definition of "Applicable groundwater conservation district or districts" to remove (A) related to having authority to regulate well spacing.

RESPONSE 23

The commission disagrees with this comment. The definition for "applicable groundwater conservation district or districts" used in the rule is consistent with the definition for "district"

in the Texas Water Code (TWC), Chapter 36, related to Groundwater Conservation Districts. The statute, TWC §36.001(1), defines "District" as "any district or authority created under Section 52, Article III, or Section 59, Article XVI, Texas Constitution, that has the authority to regulate the spacing of water wells, the production from water wells, or both." No changes were made in response to this comment.

COMMENT 24

TRWA requested TCEQ add the following definition, as part of their general comment to require applicants to submit the groundwater platting application to TWDB and applicable GCDs:

> *"(2) Applicable Water Utility – any entity that has the authority to provide retail water service to any part of the plat applicant's proposed subdivision."*

RESPONSE 24

See response to comment 19. No change was made in response to this comment.

COMMENT 25

TAGD requested that the following language be added to the end of the definition for "Aquifer test" at §230.2(3):

> *"(3) …. <u>All aquifer tests required under this chapter, including the drilling, construction, operation and conversion or closure of any wells used to conduct such aquifer test, must be completed in accordance with the rules of the Texas Department of Licensing and Regulation and the applicable groundwater conservation district or districts</u>."*

Middle Trinity GCD and Northern Trinity GCD also requested TCEQ revise this definition, and requested the following addition:

> *"(3) …. All aquifer tests required under this chapter must be completed in accordance with the rules of the applicable groundwater conservation district or districts."*

RESPONSE 25

Modifying this definition is outside of the scope of this rulemaking. No changes were made in response to this comment. Applicants must follow any relevant rules, including those of the Texas Department of Licensing and Regulation and the applicable GCD(s); but it is not necessary to include such statements in this rule.

COMMENT 26

The following commentors provided specific language for TCEQ to consider as a definition for credible evidence related to obtaining a waiver, referencing §230.1 of the proposed rule: Middle Trinity GCD, Texas Alliance of Groundwater Districts (TAGD), Bluebonnet GCD, Environmental Defense Fund (EDF); Greater Edwards Aquifer Alliance (GEAA), Hill Country Alliance (HCA), Clearwater UWCD, Prairielands GCD, and Northern Trinity GCD.

TAGD, Bluebonnet GCD, EDF, GEAA, HCA, and Northern Trinity GCD requested TCEQ add the following definition:

> *"at a minimum the results of an aquifer test demonstrating sufficient groundwater availability that was completed no more than 3 years before the date of the plat application within a ¼-mile radius of the proposed subdivision and was conducted in*

compliance with any applicable rules of any groundwater conservation district in which the proposed subdivision will be located, and any other information required under the rules of such groundwater conservation district and the municipal or county authority, the municipal or county authority determines that sufficient groundwater is available and will continue to be available to the subdivision tract of land."

In addition, TAGD commented that the proposed definition would ensure the evidence presented for a waiver would be recent and relevant to the specific location of the subdivision. Bluebonnet GCD requested that in the absence of adding a definition for credible evidence, TCEQ provide a list of factors or characteristics that could be considered in determining whether evidence provided by plat applicants is credible. Bluebonnet GCD commented that even a general outline would be useful but maintains some type of framework is important. EDF and HCA also commented that without guidance, counties and municipalities do not have the experience or expertise to evaluate what may constitute credible evidence.

Clearwater UWCD requested TCEQ add the following definition of credible evidence:

"*A written statement from the applicable groundwater conservation district stating "sufficient groundwater is available and will continue to be available to the subdivided tract of land." If the tract is not within a groundwater conservation district, a report on the local groundwater availability prepared by a licensed professional engineer or geoscientist with a conclusion stating "sufficient groundwater is available and will continue to be available to the subdivided tract of land.*"

Middle Trinity GCD requested that credible evidence be defined as follows:

> "*A written statement from the applicable groundwater conservation district confirming that "sufficient groundwater is available and will continue to be available to the subdivided tract of land." If the tract is outside a groundwater conservation district, a report on local groundwater availability prepared by a licensed professional engineer or geoscientist must conclude that "sufficient groundwater is available and will continue to be available to the subdivided tract of land.*"

Prairielands GCD requested that the rule establish a minimum statewide standard for credible evidence and commented that without such a standard, counties and municipalities may be lobbied by plat applicants to bypass costly Groundwater Availability Certification requirements, possibly leaving homeowners without adequate groundwater supplies. They assert that during the legislative process for this rule, the language in the statute was left open-ended to gain consensus, with the expectation that the rulemaking would address such outstanding issues. Prairielands GCD also commented that credible evidence should require, at a minimum, a pump test, conducted on the tract proposed to be subdivided, utilizing a well that is no more than six months old. Similar to the paraments established in §230.8 for conducting aquifer testing, the district stated the rule should establish certain parameters for conducting pump tests and allow the results to be considered as credible evidence of sufficient groundwater availability.

RESPONSE 26

The commission disagrees with these comments. No changes were made in response to this comment. The LGC §§212.0101(a) and 232.0032(a) establish the requirement for plat applicants to include information on groundwater availability as part of their application. LGC §§ 212.0101(a-1) and 232.0032(a-1) provide an option for the platting authority (municipality or

county) to waive the Groundwater Availability Certification requirements in certain cases if, based on credible evidence of groundwater availability in the vicinity of the proposed subdivision, the municipal authority or commissioner's court determines that sufficient groundwater is available and will continue to be available to the subdivided tract of land.

The charge to the commission under LGC §§212.0101(b) and (c) and §§232.0032(b) and (c) is limited to adopting rules that establish the form and content of a Groundwater Availability Certification and that require transmittal of specific information to the Texas Water Development Board and any applicable groundwater conservation district. The statute does not charge the commission with further defining either applicability or waiver requirements, and "credible evidence" is a part of waiver requirements. The platting authority must determine whether a waiver is appropriate, including what constitutes credible evidence.

COMMENT 27

Upper Trinity GCD, Parker County Commissioners Court (PCCC), and Wise County Commissioners Court (WCCC) requested TCEQ provide guidance on how to consider "credible evidence" for the purpose of obtaining a waiver. Upper Trinity GCD additionally encouraged TCEQ to at least outline a few items that could be submitted as credible evidence, believing it would help many people make decisions and would help landowners exercise their property rights and develop their property with the assurance to future purchaser there still is water below the property.

RESPONSE 27

See Response 26. No changes were made in response to this comment.

COMMENT 28

Texas Groundwater Association (TGWA) commented that any statements of credible evidence be addressed by the local GCD, or by TWDB in jurisdictions which do not have a GCD. TGWA commented that they recognize the need for effective groundwater management to ensure future availability and desire that access to groundwater be treated fairly and with minimal government intervention.

RESPONSE 28

See Response 26. No change was made in response to this comment.

COMMENT 29

TAB commented that they oppose including a definition for "credible evidence" and that it is beyond the scope of Texas statutes.

RESPONSE 29

See Response 26. No change was made in response to this comment.

COMMENT 30

Kerry County Engineering requested TCEQ add definitions for "expansion of an existing public water supply system" and "groundwater under the subdivision."

RESPONSE 30

Adding definitions for "expansion of an existing public water supply system" and "groundwater

under the subdivision" is outside of the scope of this rulemaking. No changes were made in response this this comment. 30 TAC Chapter 290, Subchapter D defines public water system (PWS). The commission maintains that an "expansion" of a PWS as well as "groundwater under the subdivision" are self-evident and do not require further definition.

COMMENT 31

Prairielands GCD requested TCEQ add a definition for pump test to the rule:

> "*Pump test – a test in which a well, drilled within 6 months of the date of the plat application on the tract proposed to be subdivided, is pumped at a controlled rate to assess hydraulic properties of an aquifer system, the results of which shall include water-levels prior to pumping and flow rate, drawdown, and recovery conditions at 5 minute increments (or less) for the entirety of the pump test and until water-levels have recovered to at least 95% of static water-levels.*"

RESPONSE 31

Adding a definition for "pump test" is outside of the scope of this rulemaking. No changes were made in response this this comment. The commission asserts that adding and defining the term "pump test" to the current rule is not necessary. The rule includes a definition for aquifer test, which is sufficient for the purpose of this rulemaking.

§230.3.

COMMENT 32

CPCGP recommended the following update to §230.3(c):

"Submission of information. The certification of adequacy of groundwater under the subdivision required by this chapter must be submitted to the following..."

RESPONSE 32

The commission agrees and has added the requested language to §230.3(c).

COMMENT 33

Bluebonnet GCD requested that TCEQ update the Groundwater Availability Certification for Platting form to add "Groundwater Management Area Desired Future Condition adoption, and groundwater availability model" to the note on number 18 of the form: "General Groundwater Resource Information (30 TAC §230.7)."

RESPONSE 33

The Groundwater Availability Certification for Platting form is no longer incorporated into the rule. However, this question on the Groundwater Availability Certification for Platting form includes information that a user may refer to for obtaining aquifer information. The commission agrees that the requested reference could be helpful and therefore it was added as a reference to the note on number 18 of the Groundwater Availability Certification for Platting form (TCEQ-20982). No change was made to the rule in response to this comment.

COMMENT 34

Bluebonnet GCD commented that the general principles in the following sentence from §230.8(c) could be applied within the Groundwater Availability Certification for Platting form: "The aquifer test must provide sufficient information to allow evaluation of each aquifer that is

being considered as a source of residential and non-residential water supply for the proposed subdivision." Bluebonnet GCD encouraged emphasizing and focusing on the evaluation of potential impacts such as drawdown (individually and cumulatively), subsidence, and spring flow; and states that the collection and review of this information in the planning state should provide clarity on the best practice to implement, individual wells and their minimum well depth or centralized distribution system and minimize costly alternative supply installation after the fact.

RESPONSE 34

The Groundwater Availability Certification for Platting form is no longer incorporated into the rule. However, the commission agrees that including the referenced sentence from §230.8(c) may be helpful to include on the form and will update the form to include this information. No change was made to the rule in response to this comment.

COMMENT 35

Related to §230.8(c)(8), Bluebonnet GCD stated that it is critical to adequately review and analyze potential impacts of the proposed subdivision in order to demonstrate groundwater availability. Bluebonnet GCD suggested that their district's guidance documents could provide standards and expectations for the investigations and reports to inform review and analysis. The district commented that these general principles could be applicable and applied within the TCEQ form.

RESPONSE 35

Adding the district's documents is outside the scope of this rulemaking. No change was made

to the form or the rule in response to the comment. TCEQ may develop a list of resources that can be included on its webpage, which could include evaluating and linking existing guidance documents such as the district's.

COMMENT 36

CPCGP and Headwaters GCD commented on the choice of "Yes," "No," and "Not applicable" on the Groundwater Availability Certification for Platting Form (TCEQ-20982). CPCGP noted that in Questions 29 through 35 of the form, a certifying engineer is given the choice to claim either "yes" or "no" (or N/A) when asked if the required aquifer parameters under §230.10(c) have been determined; and commented that the "No" and "N/A" choices should be removed from the form given their comments on §230.10(c), the changes made by TCEQ at §230.7(b), and the groundwater availability requirement that must be determined under §230.10(d) for both individual and PWS. Similarly, Headwaters GCD stated they have seen Table 8 (§230.3) included in water availability studies where the boxes are filled in "not applicable," and state that more site specific and current data is needed on both existing and new PWSs.

RESPONSE 36

The Groundwater Availability Certification for Platting form is no longer incorporated into the rule. However, the commission agrees that the licensed professional engineer or licensed professional geoscientist responsible for the Groundwater Availability Certification should provide an explanation for any question on the form where they answered "No" or "Not Applicable." In response to the comment, the commission will update the Certification of Groundwater Availability Form (TCEQ-20982) to require the answer "No" or "Not Applicable" be explained where appropriate. No changes were made to the rule in response to this comment.

COMMENT 37

CPCGP states that the prior version of the Certification of Groundwater Availability for Platting form asked: "34. Has the anticipated method of water delivery, the annual groundwater demand estimates at full build out, and geologic and groundwater information been considered in making these determinations? Yes/No" and notes that this provision is not included on the new form.

RESPONSE 37

The Groundwater Availability Certification for Platting form is no longer incorporated into the rule. However, the commission acknowledges that this item was unintentionally omitted and has corrected the form to include the original item 34. No changes were made to the rule in response to this comment.

COMMENT 38

CPCGP notes that a correction should be made to question 30 of the [Certification of Groundwater Availability] form, as it refers to items "a. through i. below;" however, the form's questions only go through "h."

RESPONSE 38

The Groundwater Availability Certification for Platting form is no longer incorporated into the rule. However, the commission acknowledges this typographical error and has made the noted correction to question 30 of the Groundwater Availability for Platting Form (TCEQ-20982). No changes were made to the rule in response to this comment.

COMMENT 39

Bluebonnet GCD commented that with respect to §230.10(b), a critical consideration in groundwater availability determinations is the cumulative impact of wells over time and after full build out. Bluebonnet GCD stated that recommending minimum well depth and considering the cumulative impact will minimize the likelihood of well interference, localized drawdown, subsidence, and the need of a centralized distribution system to resolve these impacts in the future. The district also stated that addressing pumping concentration prior to construction would significantly alleviate stress and pressure on the property owner and stated that these general principles could be applicable and applied within the TCEQ form.

RESPONSE 39

Adding these technical requirements is outside of the scope of this rulemaking, and therefore the requirements cannot be included in the form. No changes were made in response to this comment. Also see Response 7.

COMMENT 40

In reference to §§230.10(c) & (d), Bluebonnet GCD commented that defining aquifer parameters is important, both to understanding the susceptibility to impacts in the project area and to assist the municipal or county authority in understanding groundwater availability. Bluebonnet GCD stated that their district guideline documents for preparing hydrogeologic reports could be used as a resource and noted that such an analysis would provide the extent that drawdown would affect all wells and would provide guidance on minimum well depth. Bluebonnet GCD commented that these general principles could be applied within the TCEQ form.

RESPONSE 40

Adding the district's documents is outside the scope of this rulemaking. No change was made to the form or the rule in response to the comment. TCEQ may develop a list of resources that can be included on its webpage, which could include evaluating and linking existing guidance documents such as the district's.

COMMENT 41

Bluebonnet GCD noted the importance of groundwater availability determination, referencing §230.11(b), and stating that properly determining these conditions is very important and reviewing criteria to understand the potential impacts at the plat design phase can significantly reduce time, effort, and costs for construction and application. Bluebonnet GCD also stated that recommending minimum well depth is appropriate and helpful and provided information on their district guidelines on preparing hydrologic reports as a resource for both the platting authority and the developer. The commentor recommended that these general principles could be applied within the TCEQ form.

RESPONSE 41

Adding the district's documents to the form is outside the scope of this rulemaking. No change was made to the form or the rule in response to the comment. The commission notes that the comment appears to be addressing §230.11(a) and recognizes that sensible project development and best management practices are useful to understanding potential impacts of the plat design. TCEQ may develop a list of resources that can be included on its webpage, which could include evaluating and linking existing guidance documents such as the district's.

Also see Response 78 related to a clarification made to the adopted rule language.

§230.4.

COMMENT 42

TAGD, Middle Trinity GCD, and Northern Trinity GCD suggested adding contact information for the GCD to the list of general information that must be provided for a proposed subdivision under this chapter:

> "*(8) the name, address, phone number, and facsimile number of the applicable groundwater conservation district or districts and the name and email address of the general manager(s) of the district(s).*"

RESPONSE 42

The commission agrees to add GCD contact information to the list of general information to be provided, and added the following language to §230.4(8), which differs slightly from the requested language:

> "*(8) the name, address, phone number, email address, and facsimile number of the applicable groundwater conservation district or districts.*"

COMMENT 43

Related to §§230.4(3)-(5), Kerr County questions the necessity of obtaining facsimile (fax) numbers as the industry standard currently is email.

RESPONSE 43

The commission acknowledges that email is a more common communication method and added email addresses in the proposed rule. However, the commission disagrees that facsimile numbers should be removed. The commission acknowledges that communication by fax is infrequent, but the commission will continue to receive such communications and notes that there may be occasion for a platting authority to send or receive information from an applicant by fax. No change was made in response to this comment.

§230.5.

COMMENT 44

Kerr County commented that the word "which" should be deleted from §230.5(6).

RESPONSE 44

The commission agrees and has removed "which" from the sentence in §230.5(6). A comma was also added after "provided."

COMMENT 45

TAGD requested TCEQ add a new §230.5(7) to the list of information that must be provided under this subchapter, and then move the paragraph to a new §230.5(8):

> *"(7) if the anticipated method of water distribution for the proposed subdivision requires a permit or permit amendment under the rules of the applicable groundwater conservation district, a description of how the proposed water supply and method of water distribution complies with Chapter 36, Texas Water Code, and the rules of the applicable groundwater conservation district or districts; and*

(8) any additional information required by the municipal or county authority as part of the plat application."

RESPONSE 45

Adding this requirement is outside of the scope of this rulemaking. No changes were made in response to this comment. The commission agrees that applicants must follow any relevant rules, including those of GCDs. However, as stated in Response 25, the commission maintains that it is not necessary to include such statements in this rule.

§230.6

COMMENT 46

TAGD requested that TCEQ revise §230.6(d) to require that "sources of information used, and calculations performed to determine the groundwater demand estimates as required by this section" be provided to the platting authority rather than just making the information available if requested. Middle Trinity GCD also asked that the phrase "if requested" be removed.

RESPONSE 46

Adding this requirement is outside of the scope of this rulemaking. No changes were made in response to this comment.

§230.7.

COMMENT 47

TAGD requested that the following sentence be added to the beginning of §230.7(b), related to

"Geologic and groundwater information:"

> "*The current groundwater availability model approved by the Texas Water Development Board provides baseline geologic and groundwater information and shall be included, as supplemented by site-specific data, for consideration.*"

RESPONSE 47

Adding this requirement is outside of the scope of this rulemaking. No changes were made in response to this comment. While TWDB groundwater availability models have relevant data that could be used in preparing the Groundwater Availability Certification, the licensed professional engineer or licensed professional geoscientist who certifies the availability of groundwater should determine which available information should be included.

COMMENT 48

Bluebonnet GCD commented on §§230.7(b)(1) - (4) that geologic and groundwater information used in planning and designing the aquifer test should address potential impacts such as drawdown (individually and cumulatively), subsidence, and spring flow where applicable. Bluebonnet GCD recommended a source of this information and impact analysis in the district's *Guidelines for Submitting Data and Information and the Preparation of Hydrogeologic Reports in Support of Applications for the Permitted Use of Groundwater*, which describe a Phase I report that evaluates the impacts of pumping using existing data and the existing regional groundwater flow model of the area for the aquifer in which the well(s) is to be completed.

RESPONSE 48

Adding the district's documents is outside the scope of this rulemaking. No change was made to the rule in response to the comment. TCEQ may develop a list of resources that can be included on its webpage, which could include evaluating and linking existing guidance documents such as the district's. Also see Response 7.

§230.8.

COMMENT 49

Kerr County requested that "(TCEQ-20982)" be added as the second word of §230.8(a) for clarification purposes.

RESPONSE 49

The commission agrees with the comment and added a reference to the form number in §230.8(a).

COMMENT 50

Kerr County asked TCEQ's intent in requiring site-specific groundwater data to be developed under Chapter 290, Subchapter D when an expansion of an existing public water supply system or installation of a new public water supply system is the proposed method of water distribution for the proposed subdivision. The commentor noted that 30 TAC Chapter 290 does not require an observation well, nor are there requirements regarding previous pump tests. Kerr County also stated that while site-specific data generated from a Chapter 290 pump test allows one to calculate a transmissivity value, a storativity value cannot be calculated without an observation well.

RESPONSE 50

The commission acknowledges that the requirements of Chapters 230 and 290 are different; however, making this type of change is outside of the scope of this rulemaking. No changes were made in response to this comment. Also see Response 14.

COMMENT 51

Headwaters GCD commented that groundwater availability has become critical in Kerr County and the county is identified by TCEQ as a Priority Groundwater Management Area (PGMA). As a result, Headwaters GCD requests clarification on the form and content needed regarding existing and new PWSs. Headwaters GCD states that §230.8(a) is not clear as written and asks for confirmation whether the intent is to allow Section 290 Subchapter D in lieu of §230.8, or in addition to it. Headwaters GCD commented that bypassing §230.8 will potentially have a negative effect on Kerr County's groundwater resources.

RESPONSE 51

30 TAC §230.10(c) requires that aquifer parameters be determined under §§230.7 and 230.8 unless the development is going to be a part of a new or existing PWS, in which case 30 TAC Chapter 290 must be met. Also see Response 14. No change was made in response to this comment.

COMMENT 52

TAGD requested TCEQ add language to §230.8(a) as follows:

"(a) Applicability of section. This section is applicable only if the proposed method of water

distribution for the proposed subdivision is individual water wells on individual lots. If expansion of an existing public water supply system or installation of a new public water supply system is the proposed method of water distribution for the proposed subdivision, site-specific groundwater data shall be developed under the requirements of Chapter 290, Subchapter D of this title (relating to Rules and Regulations for Public Water Systems), rules of any applicable groundwater conservation district, and the information developed in meeting these requirements shall be attached to the form required under §230.3 of this title (relating to Certification of Groundwater Availability for Platting)."

RESPONSE 52

See Response 25. No change was made in response to this comment.

COMMENT 53

In §230.8(b), related to the location of existing wells, TAGD requested to remove the word "known" before "existing, abandoned, …" and requested that the following language be added to the end of the paragraph:

"All ~~known~~ existing, abandoned, and inoperative wells within the proposed subdivision shall be identified, located, and mapped by on-site surveys. Existing well locations shall be illustrated on the plat required by the municipal or county authority. Such wells shall be identified with applicable well permit numbers from the applicable groundwater conservation district shall be provided. Any abandoned or inoperative wells must be reported to TDLR."

RESPONSE 53

Adding this requirement is outside of the scope of this rulemaking. No changes were made in response to this comment.

COMMENT 54

In §230.8(c)(1), related to test well and observation well(s): TAGD requested that the following sentence be added to the end of the paragraph:

> "*Test and observation well(s) must be constructed, operated, and subsequently closed or converted in accordance with applicable rules of TDLR and any applicable groundwater conservation district.*"

RESPONSE 54

See Response 25. No change was made in response to this comment.

COMMENT 55

In §230.8(c)(3)(B), TAGD requested TCEQ add the following sentence to the end of the paragraph:

> "*The municipal or county authority may require additional log types to characterize the aquifer(s) for testing purposes.*"

RESPONSE 55

The commission notes that the existing paragraph includes the minimum requirements for a geophysical log, and that the licensed professional engineer or licensed professional geoscientist will be able to determine if additional logs are needed to properly characterize the

aquifer. No change was made in response to this comment.

COMMENT 56

In §230.8(c)(4), related to well development and performance, TAGD and EDF requested TCEQ add the following sentence to the end of the paragraph:

> "*Test and observation well(s) must be constructed, operated, and subsequently closed or converted in accordance with the applicable rules of TDLR and any applicable groundwater conservation district*."

RESPONSE 56

The commission agrees that applicants should comply with relevant rules, including those of TDLR and GCDs. As stated in Response 25, the commission maintains that it is not necessary to include such statements in this rule. No change was made in response to this comment.

COMMENT 57

In §230.8(c)(6), related to the duration of an aquifer test and recovery, TAGD and EDF requested the following sentences added before the final sentence of the paragraph:

> "*Aquifer tests shall be prohibited while nearby wells are pumping and during significant rain or recharge events. To ensure water levels are static, pre-test water-level measurements shall be conducted for at least 7 days prior to commencing an aquifer test under this section.*"

RESPONSE 57

Adding this technical requirement is outside of the scope of this rulemaking. No changes were made in response to this comment.

COMMENT 58

TAGD requested to add the following phrase to the beginning of §230.8(c)(6)(A), related to the duration of aquifer test and recovery: "*Unless expressly provided otherwise by rules of the applicable groundwater conservation district.*" In §§230.8(c)(7)(A) and (B), related to the use of existing wells and aquifer test data, TAGD requested to add the following phrase to the beginning of each paragraph: "*Unless expressly prohibited by rules of the applicable groundwater conservation district.*"

RESPONSE 58

See Response 25. No change was made in response to this comment.

COMMENT 59

EDF, CPCGP, and TAGD provided comments regarding the use of existing aquifer tests:

EDF requested TCEQ add the following language to §230.8(c)(7):

> "*Use of existing aquifer tests and data should be time limited: (ii) the previous test was performed no more than 3 years before the date of the plat application;*" *and (vi) aquifer test data from the pumping well and observation well(s) from the previous test are available and calculations of hydraulic properties can be repeated and verified, which data and calculations shall be provided with the submission in accordance with 230.1(c).*"

CPCGP requested that a new condition be added to the rule to prevent outdated information from being used, and suggested the following language be added as a new item §230.8(c)(7)(v):

> *"(v) the previous date of the TAC 230 test used is no older than 5 years from the anticipated certification date of the current TAC 230 groundwater availability study."*

TAGD requested the following language be added as a new item (ii) under §230.8(c)(7):

> *"(ii) the previous test was performed no more than 3 years before the date of the plat application;"*

RESPONSE 59

Adding these technical requirements is outside of the scope of this rulemaking. No changes were made in response to this comment. The commission recognizes that in most cases, recent tests are necessary to determine groundwater availability. The licensed professional geoscientist or licensed professional engineer is encouraged to use data that matches current groundwater conditions.

COMMENT 60

TAGD requested that TCEQ add a new item §230.8(c)(7)(B)(vi), relating to the use of existing wells and aquifer test data:

> *"(vi) aquifer test data from the pumping well and observation well(s) from the previous test are available and calculations of hydraulic properties can be repeated and verified, which data and calculations shall be provided with the submission in accordance with 230.1(c)."*

RESPONSE 60

Adding this technical requirement is outside of the scope of this rulemaking. No changes were made in response to this comment. The commission understands the benefit of demonstrating why a previous aquifer test may be appropriate but asserts that the licensed professional geoscientist or licensed professional engineer should take the appropriate information into account when preparing the groundwater availability certification for platting.

COMMENT 61

In §230.8(c), TAGD requested that the following language be added to the paragraph on aquifer testing:

> *A municipal or county authority responsible for approving plats is encouraged to consult with any applicable groundwater conservation district in establishing any site-specific aquifer test requirements.*

EDF provided similar comments to encourage applicants to consult with GCDs, noting that GCDs can often provide support.

RESPONSE 61

TCEQ encourages platting authorities to communicate with GCDs and others who may have useful information on reviewing applications related to the certification of groundwater availability; but asserts that it is not necessary to include such statements in this rule. No change was made in response to this comment.

COMMENT 62

TAGD and EDF requested to add the following sentence to the end of §230.8(c)(7):

> "*A municipal or county authority responsible for approving plats is encouraged to consult with any applicable groundwater conservation district, or the TWDB if there is no groundwater conservation district, to determine the suitability of accepting the results of a previous aquifer test in lieu of a new test.*"

RESPONSE 62

See Response 61. No change was made in response to this comment.

COMMENT 63

TAGD, Middle Trinity GCD, and Northern Trinity GCD requested TCEQ update 30 TAC 230.8(c)(7)(A) and (B) to add the following phrase to the beginning of this paragraph:

> *Unless expressly prohibited by rules of the applicable groundwater conservation district….*

RESPONSE 63

See Response 25. No change was made in response to this comment.

COMMENT 64

Regarding §230.8(c)(8), TAGD, Middle Trinity GCD, and Northern Trinity GCD requested TCEQ add a phrase to ensure applicants coordinate with applicable GCDs to determine if additional information is needed. Specifically, the commentors requested the edits to the final sentence of this paragraph as follows:

> *"…To determine if additional information is needed, in coordination with the applicable groundwater conservation district or districts, best professional judgement must be used to consider these assumptions, the site-specific information derived from the aquifer test required by this section, the size of the proposed subdivision, and the proposed method of water delivery."*

RESPONSE 64

See Response 61. No change was made in response to this comment.

COMMENT 65

TAGD, Northern Trinity GCD, Middle Trinity GCD, and EDF requested that §230.8(d) be revised to replace the phrase "made available" with "provided" and to delete the phrase "if requested."

RESPONSE 65

Adding this requirement is outside of the scope of this rulemaking. No changes were made in response to this comment.

§230.9.

COMMENT 66

TAGD requested TCEQ add volatile organic compounds and radionuclides, in counties where testing for naturally occurring radionuclides is required under 30 TAC Chapter 290. Middle Trinity GCD requested TCEQ add testing for total coliform bacteria, benzene, and Northern Trinity GCD asked that benzene be added. In addition, TAGD, Middle Trinity GCD, and Northern

Trinity GCD requested TCEQ add testing for radionuclides in counties where testing for naturally occurring radionuclides is required under 30 TAC Chapter 290.

RESPONSE 66

Adding these technical requirements is outside of the scope of this rulemaking. No changes were made in response to this comment.

COMMENT 67

TAGD, Middle Trinity GCD, and Northern Trinity GCD requested the rule include specific wording as a new §230.9(a)(4) regarding how sampling information should be submitted: including the sample date, collection entity, statement of reliability, and the name of the testing laboratory, if applicable. TAGD requested that the information be submitted in a spreadsheet or table format.

RESPONSE 67

Adding this requirement is outside of the scope of this rulemaking. No changes were made in response to this comment. The commission recognizes that an organized format for the submitted water quality data may assist platting authorities in reviewing applications, and recommends applicants communicate with the platting authority prior to submitting an application to determine how best to submit the required information.

COMMENT 68

TAGD, Northern Trinity GCD, and EDF requested that §230.9(b) be revised to require that the information, data, and calculations required in this section be provided to the platting authority

rather than just making the information available if requested.

RESPONSE 68

Adding this requirement is outside of the scope of this rulemaking. No changes were made in response to this comment.

§230.10.

COMMENT 69

TAGD requested that §230.10(a) be revised to add the underlined phrase to the last sentence of the paragraph:

> *"Groundwater availability shall be determined for ten years, 30 years, the joint planning period for the current adopted desired future conditions for aquifers under Section 36.108 of the Texas Water Code, and for any other time frame(s) required by the municipal or county authority."*

RESPONSE 69

Adding this technical requirement is outside of the scope of this rulemaking. No changes were made in response to this comment.

COMMENT 70

TAGD and Northern Trinity GCD requested that §230.10(c) require the listed aquifer parameters to be provided in a spreadsheet format, and Middle Trinity GCD requested that the information be provided in a spreadsheet or a tabular format.

RESPONSE 70

Adding this requirement is outside of the scope of this rulemaking. No changes were made in response to this comment. The commission recognizes the usefulness of a common format to report aquifer parameters to different entities and encourages the platting authority and licensed professional engineer or licensed professional geoscientist to work with the GCDs and TWDB to determine the best format. The commission also encourages TAGD to work with member districts to develop a format that could be used to report Groundwater Availability Certification data.

COMMENT 71

CPCGP commented that the rule should require current and site-specific data through drilling to determine the status of the aquifer underlying the new subdivision for both individual wells and for PWS. CPCGP stated that they understand developers may desire to avoid drilling a new well but maintains that the rule is a minimum standard requirement that should be applied for development to proceed. CPCGP requests the following clarification to §230.10(c):

> *"Determination of aquifer parameters. The parameters of the aquifer(s) being considered to supply water to the proposed subdivision must be determined utilizing the information considered under 230.7 of this title (relating to General Groundwater Resource Information) and data obtained during the aquifer test required (1) under §230.8 of this title (relating to Obtaining Site-Specific Groundwater Data) for individual water wells or (2) under Chapter 290, Subchapter D of this title (relating to Rules and Regulations for Public Water Systems) for new and existing public water systems; and reported on or attached to the Certification of Groundwater Availability Form (TCEQ-20982)…."*

RESPONSE 71

The commission agrees that updating the referenced paragraph would clarify that determination of aquifer parameters must be made under §§230.7 and 230.8 unless the development is going to be a part of a new or existing PWS. The language of §230.10 was updated as provided, with one change. The commission added the phrase "one of the following" to clarify there are different requirements for subdivisions using individual water wells for each lot versus PWSs. Section §230.10(c) was revised as follows:

> *"Determination of aquifer parameters. The parameters of the aquifer(s) being considered to supply water to the proposed subdivision must be determined utilizing the information considered under §230.7 of this title (relating to General Groundwater Resource Information) and data obtained during the aquifer test required under one of the following: (1) §230.8 of this title (relating to Obtaining Site-Specific Groundwater Data) for individual water wells or (2) ~~under~~ Chapter 290, Subchapter D of this title (relating to Rules and Regulations for Public Water Systems) for new and existing public water systems. The parameters must be ~~and~~ reported on or attached to the Certification of Groundwater Availability Form (TCEQ-20982)…."*

COMMENT 72

CPCGP commented that §230.10(c) is not clear on what "or acceptable modifications thereof" means regarding the determination of aquifer parameters. CPCGP requested the phrase be further clarified or removed.

RESPONSE 72

The commission disagrees with this comment. Licensed professional engineers and licensed professional geoscientists should be aware of groundwater industry standards and the commission asserts that the rule is clear about how and which methods should be used. No changes were made in response to this comment.

COMMENT 73

TAGD requested TCEQ add the underlined language to §230.10(d)(3)(B) related to well interference:

> *"(B) determine a recommended minimum spacing limit between individual wells, minimum well depth, and minimum well yields from the wells that will allow for the continued use of the wells for the time frames identified under subsection (a) of this section."*

RESPONSE 73

Adding this technical requirement is outside of the scope of this rulemaking. No changes were made in response to this comment. The commission agrees that finding and providing the recommended minimum well depth is an important part of designing an efficient well, and that the licensed professional engineer or licensed profession geoscientist preparing the groundwater availability certification should utilize appropriate resources to prevent well interference.

COMMENT 74

TAGD, Middle Trinity GCD, and Northern Trinity GCD requested TCEQ add the following

language as a new paragraph §230.10(f):

> *"(f) Determination of regulatory parameters. Groundwater availability determinations shall take into account the rules of the applicable groundwater conservation district or districts, including but not limited to rules regulating certain aquifer formations, well depth, well spacing, and well permitting to reliably determine whether the available groundwater is in fact accessible under the rules of the applicable groundwater conservation district or districts. If the proposed subdivision is to be located within a designated priority groundwater management area under Chapter 35 of the Texas Water Code, then groundwater availability determinations shall take into account any water availability requirements adopted by the county to prevent current or projected water use in the county from exceeding the safe sustainable yield of the county's water supply pursuant to §35.019 of the Texas Water Code (Water Availability)."*

RESPONSE 74

See Response 25. No change was made in response to this comment.

COMMENT 75

TAGD, Upper Trinity Groundwater Authority, Middle Trinity GCD, EDF, and Northern Trinity GCD requested that §230.10(f) be revised to replace the phrase "made available" with "provided" and to delete the phrase "if requested."

RESPONSE 75

Adding this requirement is outside of the scope of this rulemaking. No changes were made in

response to this comment.

§230.11.

COMMENT 76

TAGD requested §230.11(a) be revised by adding the following underlined language to the existing text:

> *"(a) Groundwater availability and usability statements. Based on <u>and citing to</u> the information developed under § 230.10 of this title (relating to Determination of Groundwater Availability), the following information shall be provided as specified in § 230.3(c) of this title (relating to Certification of Groundwater Availability for Platting):"*

RESPONSE 76

The commission disagrees with this comment. The commission notes that the Groundwater Availability Certification is based on information developed under §230.10, which must be provided to the platting authority as part of the report from the licensed professional engineer or licensed professional geoscientist. The phrase "and citing to" does not provide added clarity. No change was made in response to this comment.

COMMENT 77

TAGD, Northern Trinity GCD, and Middle Trinity GCD suggested specific language be added as a new §230.11(a)(6):

> *"<u>(6) other parameters necessary to ensure compliance with the rules of the applicable</u>*

groundwater conservation district(s) or groundwater availability rules adopted by a county in a designated priority groundwater management area."

RESPONSE 77

See Response 25. No change was made in response to this comment.

COMMENT 78

CPCGP recommends that §230.11(b) be revised with the following language in order that engineers specifically address development from an area outside the small new subdivision that cannot be predicted that will affect the storage of water in the aquifer, as well as short-term and long-term impacts from climatic variations (e.g., droughts, severity of droughts, etc.) on the aquifer:

"*These basis ~~may~~ must include, but are not limited to, uncontrollable and unknown factors such as:*"

RESPONSE 78

The commission asserts that the licensed professional engineer or licensed professional geoscientist preparing and certifying the Groundwater Availability Certification would be able to make the proper determinations. No change was made in response to this comment; however, the term "basis" was changed to "conditions" for clarification.

COMMENT 79

TAGD, Northern Trinity GCD, and Middle Trinity GCD requested TCEQ revise the last

paragraph, §230.11(c), related to Certification, to add the underlined language:

> *"(c) Certification. Based on best professional judgement, current groundwater conditions, applicable groundwater conservation district regulations, and the information developed and presented in the form specified by §230.3(c) of this title, the licensed professional engineer or licensed professional geoscientist certifies by signature, seal, and date that adequate groundwater is available from the underlying aquifer(s) and accessible under the rules of the groundwater conservation district(s), if applicable, to supply the estimated demand of the proposed subdivision."*

RESPONSE 79

See Response 25. No change was made in response to this comment.

RULE §§230.1 - 230.11:

Statutory Authority

These amendments are adopted under Texas Water Code (TWC), §5.102, which establishes the commission's general authority necessary to carry out its jurisdiction; TWC, §5.103, which establishes the commission's general authority to adopt rules; and TWC, §5.105, which establishes the commission's authority to set policy by rule. In addition, Local Government Code, §212.0101(b) and §232.0032(b) require the commission to promulgate rules that establish the appropriate form and content of a certification to be attached to a plat application.

The adopted amendments implement the language set forth in Senate Bill 2440 from the 88th Texas Legislature.

§230.1. General [Applicability].

(a) Purpose. This chapter establishes the form and content of a certification to be attached to a [Subdivisions utilizing groundwater as the source of water supply. In the] plat application [and approval process, municipal and county authorities may require certification that adequate groundwater is available for a proposed subdivision if groundwater under that land is to be the source of water supply. The municipal or county authority is not required to exercise their authority] under Texas Local Government Code, §212.0101 or §232.0032, which requires certification that adequate groundwater is available for a proposed subdivision if groundwater under that land is to be the source of water supply. [However, if they do exercise their authority, the form and content of this chapter must be used.]

[(b) Use of this chapter. If required by the municipal or county authority, the plat applicant and the Texas licensed professional engineer or the Texas licensed professional geoscientist shall use this chapter and the attached form to certify that adequate groundwater is available under the land of a subdivision subject to platting under Texas Local Government Code, §212.004 and §232.001.] These rules do not replace:

(1) other state and federal requirements applicable to public drinking water supply systems; [. These rules do not replace]

(2) the authority of counties within designated priority groundwater management areas under Texas Water Code, §35.019;[,] or

(3) the authority of groundwater conservation districts under Texas Water Code, Chapter 36.

(b) [(c)] Transmittal of data. Copies [If use of this chapter is required by the municipal or county authority, the plat applicant shall:]

[(1) provide copies] of the information, estimates, data, calculations, determinations, statements, and certification required by §230.8 of this title (relating to Obtaining Site-Specific Groundwater Data), §230.9 of this title (relating to Determination of Groundwater Quality), §230.10 of this title (relating to Determination of Groundwater Availability), and §230.11 of this title (relating to Groundwater Availability and Usability Statements and Certification) must be provided with the certification to:

(1) the executive administrator of the Texas Water Development Board, and

(2) [to] the applicable groundwater conservation district or districts. [; and]

(c) [(2)] Plat Attesting Form. The Plat Attesting Form (TCEQ-20983) must be submitted with the certification, attesting [using the attached form, attest] that copies of the information, estimates, data, calculations, determinations, statements, and the certification have been provided to:

(1) the executive administrator of the Texas Water Development Board, and

(2) the applicable groundwater conservation district or districts.

[The executive director may make minor changes to this form that do not conflict with the requirements of these rules.]

[Figure: 30 TAC §230.1(c)(2)]

[TRANSMITTAL OF DATA

Use of this form: If required by a municipal authority pursuant to Texas Local Government Code, §212.0101, or a county authority pursuant to Texas Local Government Code, §232.0032 the plat applicant shall use this form to attest that information has been provided in accordance with the requirements of Title 30, TAC, Chapter 230. This form shall be provided to the municipal or county authority, the executive administrator of the Texas Water Development Board, and the applicable groundwater conservation district or districts.

Name of Proposed Subdivision:

_____

Property Owner's Name(s):

Address:

Phone:

Fax:

Plat Applicant's Name:

Address:

Phone:

Fax:

I, _____, the Plat Applicant, attest that the following

information has been provided in accordance with Title 30, TAC, Chapter 230.

Has the Certification of Groundwater Availability for Platting Form (Figure: 30 TAC §230.3(c)) been provided to the:	(Please Circle One)	
1. Municipal or County authority?	Yes	No
2. Executive administrator of the Texas Water Development Board?	Yes	No
3. Applicable Groundwater Conservation District or Districts?	Yes	No
Name of Groundwater Conservation District or Districts:		
Have copies of the information, estimates, data, calculations, determinations, and statements been provided to the:		

4. Executive administrator of the Texas Water Development Board?	Yes	No
5. Applicable Groundwater Conservation District or Districts?	Yes	No
Name of Groundwater Conservation District or Districts:		

Note: Mail the required information to the executive administrator of the Texas Water Development Board at the following address:

Executive Administrator

Texas Water Development Board

Groundwater Resources Division

P.O. Box 13231

Austin, Texas 78711-3231

Contact and other information for the Groundwater Conservation Districts within the state may be accessed on the following Internet pages:

http://www.tceq.state.tx.us/permitting/water_supply/groundwater/districts.html

http://www.twdb.state.tx.us/GwRD/pages/gwrdindex.html

http://www.texasgroundwater.org/index.htm]

§230.2. Definitions.

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise. If a word or term used in this chapter is not contained in this section, it shall have the same definition and meaning as used in the practices applicable to hydrology and aquifer testing.

(1) Applicable groundwater conservation district or districts--Any district or authority created under Texas Constitution, Article III, Section 52, or Article XVI, Section 59, that:

(A) has the authority to regulate the spacing of water wells, the production from water wells, or both, and

(B) which includes within its boundary any part of the plat applicant's proposed subdivision.

(2) Aquifer--A geologic formation, group of formations, or part of a formation that contains water in its voids or pores and may be used as a source of water supply.

(3) Aquifer test--A test involving the withdrawal of measured quantities of water from or addition of water to a well and the measurement of resulting changes in water level in the aquifer both during and after the period of discharge or addition for the purpose of determining the characteristics of the aquifer. For the purposes of this chapter, bail and slug tests are not considered to be aquifer tests.

(4) Certification--A written statement of best professional judgement or opinion submitted [as attested to] on the Certification of Groundwater Availability for Platting Form (TCEQ-20982) and attested to on the Plat Attesting Form (TCEQ-20983) [contained under §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting)].

(5) Drinking water standards--As defined in commission rules covering drinking water standards contained in Chapter 290, Subchapter F of this title (relating to Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Systems).

[(6) Executive administrator--The executive administrator of the Texas Water Development Board.]

(6) [(7)] Full build out--The final expected number of residences, businesses, or other dwellings in the proposed subdivision.

(7) [(8)] Licensed professional engineer--An engineer who maintains a current license through the Texas Board of Professional Engineers in accordance with its requirements for professional practice.

(8) [(9)] Licensed professional geoscientist--A geoscientist who maintains a current license through the Texas Board of Professional Geoscientists in accordance with its requirements for professional practice.

(9) [(10)] Plat applicant--The owner or the authorized representative or agent seeking approval of a proposed subdivision plat application pursuant to municipal or county authority.

(10) [(11)] Requirements applicable to public drinking water supply systems--The requirements contained in commission rules covering public drinking water supply systems in Chapter 290, Subchapter D of this title (relating to Rules and Regulations for Public Water Systems).

§230.3. Certification of Groundwater Availability for Platting.

(a) Preparation of the certification [Certification]. The certification required by this chapter must be prepared by a Texas licensed professional engineer or a Texas licensed professional geoscientist.

(b) Certification Requirements. The certification must meet the requirements of §§230.4 - 230.11 (relating to Certification of Groundwater Availability for Platting, Administrative Information, Proposed Subdivision Information, Projected Water Demand Estimate, General Groundwater Resource Information, Obtaining Site-Specific Groundwater Data, Determination of Groundwater Quality, Determination of Groundwater Availability, and Groundwater Availability and Usability Statements and Certification) of this chapter.

(c) [(b)] Submission of information. The certification of adequacy of groundwater under the subdivision required by this chapter must be submitted [The plat applicant shall provide] to the following:

(1) the municipal or county authority,

(2) the executive administrator of the Texas Water Development Board, and

(3) the applicable groundwater conservation district or districts [the certification of adequacy of groundwater under the subdivision required by this chapter].

(d) [(c)] Form required. The certification required by this chapter must be submitted on the Certification of Groundwater Availability for Platting Form (TCEQ-20982). [This chapter and the following form shall be used and completed if plat applicants are required by the municipal or county authority to certify that adequate groundwater is available under the land to be subdivided. The executive director may make minor changes to this form that do not conflict with the requirements of these rules.]

[Figure: 30 TAC §230.3(c)]

[CERTIFICATION OF GROUNDWATER AVAILABILITY FOR PLATTING FORM

Use of this form: If required by a municipal authority pursuant to Texas Local Government Code, §212.0101, or a county authority pursuant to §232.0032, Texas Local Government Code, the plat applicant and the Texas licensed professional engineer or Texas licensed professional geoscientist shall use this form based upon the requirements of Title 30, TAC, Chapter 230 to certify that adequate groundwater is available under the land to be subdivided (if the source of water for the subdivision is groundwater under the subdivision) for any subdivision subject to platting under Texas Local Government Code, §212.004 and §232.001.The form and Chapter 230 do not replace state requirements applicable to public drinking water supply systems or the authority of counties or groundwater conservation districts under either Texas Water Code, §35.019 or Chapter 36.

Administrative Information (30 TAC §230.4)
1. Name of Proposed Subdivision:
2. Any Previous Name Which Identifies the Tract of Land:
3. Property Owner’s Name(s):

Address:
Phone:
Fax:
4. Plat Applicant's Name:
Address:
Phone:
Fax:
5. Licensed Professional Engineer or Geoscientist:
Name:
Address:

Phone:
Fax:
Certificate Number:
6. Location and Property Description of Proposed Subdivision:
7. Tax Assessor Parcel Number(s).
Book:
Map:
Parcel:

Proposed Subdivision Information (30 TAC §230.5)		
8. Purpose of Proposed Subdivision (single family/multi-family residential, non-residential, commercial):		
9. Size of Proposed Subdivision (acres):		
10. Number of Proposed Lots:		
11. Average Size of Proposed Lots (acres):		
12. Anticipated Method of Water Distribution.		
Expansion of Existing Public Water Supply System?	Yes	No
New (Proposed) Public Water Supply System?	Yes	No
Individual Water Wells to Serve Individual Lots?	Yes	No

Combination of Methods?	Yes	No
Description (if needed):		
13. Additional Information (if required by the municipal or county authority): Note: If public water supply system is anticipated, written application for service to existing water providers within a 1/2-mile radius should be attached to this form (30 TAC §230.5(f) of this title).		

Projected Water Demand Estimate (30 TAC §230.6)
14. Residential Water Demand Estimate at Full Build Out (includes both single family and multi-family residential).
Number of Proposed Housing Units (single and multi-family):

Average Number of Persons per Housing Unit:
Gallons of Water Required per Person per Day:
Water Demand per Housing Unit per Year (acre feet/year):
Total Expected Residential Water Demand per Year (acre feet/year):
15. Non-residential Water Demand Estimate at Full Build Out.
Type(s) of Non-residential Water Uses:
Water Demand per Type per Year (acre feet/year):
16. Total Water Demand Estimate at Full Build Out (acre feet/year):
17. Sources of Information Used for Demand Estimates:

General Groundwater Resource Information (30 TAC §230.7)
18. Identify and describe, using Texas Water Development Board names, the aquifer(s) which underlies the proposed subdivision: Note: Users may refer to the most recent State Water Plan to obtain general information pertaining to the state's aquifers. The State Water Plan is available on the Texas Water Development Board's Internet website at: www.twdb.state.tx.us

Obtaining Site-Specific Groundwater Data (30 TAC §230.8)		
19. Have all known existing, abandoned, and inoperative wells within the proposed subdivision been located, identified, and shown on the plat as required	Yes	No

under §230.8(b) of this title?		
20. Were the geologic and groundwater resource factors identified under §230.7(b) of this title considered in planning and designing the aquifer test required under §230.8(c) of this title?	Yes	No
21. Have test and observation wells been located, drilled, logged, completed, developed, and shown on the plat as required by §230.8(c)(1) – (4) of this title?	Yes	No
22. Have all reasonable precautions been taken to ensure that contaminants do not reach the subsurface environment and that undesirable groundwater has been confined to the zone(s) of origin (§230.8(c)(5) of this title)?	Yes	No
23. Has an aquifer test been conducted which meets the requirements of §230.8(c)(1) and (6) of this title?	Yes	No
24. Were existing wells or previous aquifer test data	Yes	No

used?		
25. If yes, did they meet the requirements of §230.8(c)(7) of this title?	Yes	No
26. Were additional observation wells or aquifer testing utilized?	Yes	No
Note: If expansion of an existing public water supply system or a new public water supply system is the anticipated method of water distribution for the proposed subdivision, site-specific groundwater data shall be developed under the requirements of 30 TAC, Chapter 290, Subchapter D of this title (relating to Rules and Regulations for Public Water Systems) and the applicable information and correspondence developed in meeting those requirements shall be attached to this form pursuant to §230.8(a) of this title.		

Determination of Groundwater Quality (30 TAC §230.9)		
27. Have water quality samples been collected as required by §230.9 of this title?	Yes	No

28. Has a water quality analysis been performed which meets the requirements of §230.9 of this title?	Yes	No

Determination of Groundwater Availability (30 TAC §230.10)		
29. Have the aquifer parameters required by §230.10(c) of this title been determined?	Yes	No
30. If so, provide the aquifer parameters as determined.		
Rate of yield and drawdown:		
Specific capacity:		
Efficiency of the pumped well:		
Transmissivity:		

Coefficient of storage:		
Hydraulic conductivity:		
Were any recharge or barrier boundaries detected?	Yes	No
If yes, please describe:		
Thickness of aquifer(s):		
31. Have time-drawdown determinations been calculated as required under §230.10(d)(1) of this title?	Yes	No
32. Have distance-drawdown determinations been calculated as required under §230.10(d)(2) of this title?	Yes	No
33. Have well interference determinations been made as required under §230.10(d)(3) of this title?	Yes	No

34. Has the anticipated method of water delivery, the annual groundwater demand estimates at full build out, and geologic and groundwater information been taken into account in making these determinations?	Yes	No
35. Has the water quality analysis required under §230.9 of this title been compared to primary and secondary public drinking water standards as required under §230.10(e) of this title?	Yes	No
Does the concentration of any analyzed constituent exceed the standards?	Yes	No
If yes, please list the constituent(s) and concentration measure(s) which exceed standards:		

Groundwater Availability and Usability Statements (30 TAC §230.11(a) and (b))
36. Drawdown of the aquifer at the pumped well(s) is estimated to be _____ feet over a

10-year period and _____ feet over a 30-year period.
37. Drawdown of the aquifer at the property boundary is estimated to be _____ feet over a 10-year period and _____ feet over a 30-year period.
38. The distance from the pumped well(s) to the outer edges of the cone(s)-of-depression is estimated to be _____ feet over a 10-year period and _____ feet over a 30-year period.
39. The recommended minimum spacing limit between wells is _____ feet with a recommended well yield of _____ gallons per minute per well.
40. Available groundwater is / is not (circle one) of sufficient quality to meet the intended use of the platted subdivision.
41. The groundwater availability determination does not consider the following conditions (identify any assumptions or uncertainties that are inherent in the groundwater availability determination):

Certification of Groundwater Availability (30 TAC §230.11(c)) Must be signed by a Texas Licensed Professional Engineer or a Texas Licensed Professional Geoscientist.
42. I, _____, Texas Licensed Professional Engineer or Texas Licensed Professional Geoscientist (circle which applies), certificate number _____, based on best professional judgment, current groundwater conditions, and the information developed and presented in this form, certify that adequate groundwater is available from the underlying aquifer(s) to supply the anticipated use of the proposed subdivision.
Date: (affix seal)

]

§230.4. Administrative Information.

At a minimum, the following general administrative information [as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting),] must [shall] be provided for a proposed subdivision for which groundwater under the land will be the source of water supply:

(1) the name of the proposed subdivision;

(2) any previous or other name(s) which identifies the tract of land;

(3) the name, address, phone number, email address, and facsimile number of the property owner or owners;

(4) the name, address, phone number, email address, and facsimile number of the person submitting the plat application;

(5) the name, address, phone number, email address, facsimile number, and registration number of the licensed professional engineer or the licensed professional geoscientist preparing the certification as required in this chapter;

(6) the location and property description of the proposed subdivision; [and]

(7) the tax assessor parcel number(s) by book, map, and parcel; and

(8) the name, address phone number, email address, and facsimile number of the applicable groundwater conservation district or districts.

§230.5. Proposed Subdivision Information.

At a minimum, the following information pertaining to the proposed subdivision must [shall] be provided [as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting)]:

(1) the purpose of the proposed subdivision, for example, single family residential, multi-family residential, non-residential, commercial, or industrial;

(2) the size of the proposed subdivision in acres;

(3) the number of proposed lots within the proposed subdivision;

(4) the average size (in acres) of the proposed lots in the proposed subdivision;

(5) the anticipated method of water distribution to the proposed lots in the proposed subdivision including, but not limited to:

(A) an expansion of an existing public water supply system to serve the proposed subdivision (if groundwater under the subdivision is to be the source of water supply);

(B) a new public water supply system for the proposed subdivision;

(C) individual water wells to serve individual lots; or

(D) a combination of methods;

(6) if the anticipated method of water distribution for the proposed subdivision is from an expansion of an existing public water supply system or from a proposed public water supply system, evidence required under §290.39(c)(1) of this title (relating to Rules and

Regulations for Public Water Systems) ~~which~~ must [shall] be provided demonstrating that written application for service was made to the existing water providers within a 1/2-mile radius of the subdivision; and

(7) any additional information required by the municipal or county authority as part of the plat application.

§230.6. Projected Water Demand Estimate.

(a) Residential water demand estimate. Residential water demand estimates at full build out must [shall] be provided [as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting)]. Residential demand estimates must [shall], at a minimum, be based on the current demand of any existing residential well including those identified under §230.8(b) of this title (relating to Obtaining Site-Specific Groundwater Data), or §290.41(c) of this title (relating to Rules and Regulations for Public Water Systems), and:

(1) the number of proposed housing units at full build out;

(2) the average number of persons per housing unit;

(3) the gallons of water required per person per day;

(4) the water demand per housing unit per year (acre feet per year); and

(5) the total expected residential water demand per year for the proposed subdivision (acre feet per year).

(b) Non-residential water demand estimate. Water demand estimates at full build out must [shall] be provided for all non-residential uses [as specified in §230.3(c) of this title]. Non-residential uses must [shall] be specified by type of use and groundwater demand per year (acre feet per year) for each type of use. The estimate must [shall] also include the existing non-residential demand of any well including those identified under §230.8(b) of this title or §290.41(c) of this title.

(c) Total annual water demand estimate. An estimate of the total expected annual groundwater demand, including residential and non-residential estimates at full build out (acre feet per year), must [shall] be provided [as specified in §230.3(c) of this title].

(d) Submission of information. The sources of information used and calculations performed to determine the groundwater demand estimates as required by this section must [shall] be made available to the municipal or county authority if requested. The plat applicant must [shall] provide any additional groundwater demand information required by the municipal or county authority as part of the plat application.

§230.7. General Groundwater Resource Information.

(a) Aquifer identification. Using Texas Water Development Board aquifer names, the aquifer(s) underlying the proposed subdivision which is planned to be used as the source of water for the subdivision must [shall] be identified and generally described [as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting)].

(b) Geologic and groundwater information. To meet the requirements of this chapter, the following geologic and groundwater information must [shall] be considered in planning and

designing the aquifer test [under §230.8(c) of this title (relating to Obtaining Site-Specific Groundwater Data)]:

(1) the stratigraphy of the geologic formations underlying the subdivision;

(2) the lithology of the geologic strata;

(3) the geologic structure;

(4) the characteristics of the aquifer(s) and their hydraulic relationships;

(5) the recharge to the aquifer(s), and movement and discharge of groundwater from the aquifer(s); and

(6) the ambient quality of water in the aquifer(s).

§230.8. Obtaining Site-Specific Groundwater Data.

(a) Applicability of section. This section is applicable only if the proposed method of water distribution for the proposed subdivision is individual water wells on individual lots. If expansion of an existing public water supply system or installation of a new public water supply system is the proposed method of water distribution for the proposed subdivision, site-specific groundwater data must [shall] be developed under the requirements of Chapter 290, Subchapter D of this title (relating to Rules and Regulations for Public Water Systems) and the information developed in meeting these requirements must [shall] be attached to the [form required under §230.3 of this title (relating to] Certification of Groundwater Availability for Platting Form (TCEQ-20982)[)].

(b) Location of existing wells. All known existing, abandoned, and inoperative wells within the proposed subdivision must [shall] be identified, located, and mapped by on-site surveys. Existing well locations must [shall] be illustrated on the plat required by the municipal or county authority.

(c) Aquifer testing. Utilizing the information considered under §230.7(b) of this title (relating to General Groundwater Resource Information), an aquifer test must [shall] be conducted to characterize the aquifer(s) underlying the proposed subdivision. The aquifer test must provide sufficient information to allow evaluation of each aquifer that is being considered as a source of residential and non-residential water supply for the proposed subdivision. Appropriate aquifer testing must [shall] be based on typical well completions. An aquifer test conducted under this section utilizing established methods must [shall] be reported [as specified in §230.3(c) of this title] and must [shall] include, but not be limited to, the following items.

(1) Test well and observation well(s). At a minimum, one test well (i.e., pumping well) and one observation well, must [shall] be required to conduct an adequate aquifer test under this section. Additional observation wells must [shall] be used for the aquifer test if it is practical or necessary to confirm the results of the test. The observation well(s) must [shall] be completed in the same aquifer or aquifer production zone as the test well. The locations of the test and observation well(s) must [shall] be shown on the plat required by the municipal or county authority.

(2) Location of wells. The test and observation well(s) must be placed within the proposed subdivision and must [shall] be located by latitude and longitude. The observation

well(s) must [shall] be located at a radial distance such that the time-drawdown data collected during the planned pumping period fall on a type curve of unique curvature. In general, observation wells in unconfined aquifers should be placed no farther than 300 feet from the test well, and no farther than 700 feet in thick, confined aquifers. The observation well should also be placed no closer to the test well than two times the thickness of the aquifer's production zone. The optimal location for the observation well(s) can be determined by best professional judgement after completion and evaluation of the test well as provided in paragraph (4) of this subsection.

(3) Lithologic and geophysical logs. The test and observation wells must [shall] be lithologically and geophysically logged to map and characterize the geologic formation(s) and the aquifer(s) in which the aquifer test(s) is to be performed.

(A) A lithologic log must [shall] be prepared showing the depth of the strata, their thickness and lithology (including size, range, and shape of constituent particles as well as smoothness), occurrence of water bearing strata, and any other special notes that are relevant to the drilling process and to the understanding of subsurface conditions.

(B) Geophysical logs must [shall] be prepared which provide qualitative information on aquifer characteristics and groundwater quality. At a minimum, the geophysical logs must [shall] include an electrical log with shallow and deep-investigative curves (e.g., 16-inch short normal/64-inch long normal resistivity curves or induction log) with a spontaneous potential curve.

(C) The municipal or county authority may, on a case-by-case basis, waive the requirement of geophysical logs as required under this section if it can be adequately demonstrated that the logs are not necessary to characterize the aquifer(s) for testing purposes.

(4) Well development and performance. The test and observation well(s) must [shall] be developed prior to conducting the aquifer test to repair damage done to the aquifer(s) during the drilling operation. Development must [shall] ensure [insure] that the hydraulic properties of the aquifer(s) are restored as much as practical to their natural state.

(A) Well development procedures applied to the well(s) may vary depending on the drilling method used and the extent of the damage done to the aquifer(s).

(B) During well development, the test well must [shall] be pumped for several hours to determine the specific capacity of the well, the maximum anticipated drawdown, the volume of water produced at certain pump speeds and drawdown, and to determine if the observation well(s) are suitably located to provide useful data.

(C) Water pumped out of the well during well development must [shall] not be allowed to influence initial well performance results.

(D) Aquifer testing required by this section must [shall] be performed before any acidization or other flow-capacity enhancement procedures are applied to the test well.

(5) Protection of groundwater. All reasonably necessary precautions must [shall] be taken during construction of test and observation wells to ensure that surface contaminants do not reach the subsurface environment and that undesirable groundwater (water that is

injurious to human health and the environment or water that can cause pollution to land or other waters) if encountered, is sealed off and confined to the zone(s) of origin.

(6) Duration of aquifer test and recovery. The duration of the aquifer test depends entirely on local and geologic conditions. However, the test must [shall] be of sufficient duration to observe a straight-line trend on a plot of water level versus the logarithm of time pumped. Water pumped during the test must [shall] not be allowed to influence the test results. Aquifer testing must [shall] not commence until water levels (after well development) have completely recovered to their pre-development level or at least to 90% of that level.

(A) At a minimum, a 24-hour uniform rate aquifer test must [shall] be conducted. Testing must [shall] continue long enough to observe a straight-line trend on a plot of water level versus the logarithm of time pumped. If necessary, the duration of the test should be extended beyond the 24-hour minimum limit until the straight-line trend is observed.

(i) If it is impractical to continue the test until a straight-line trend of water level versus the logarithm of time pumped is observed within the 24-hour limit, the test must [shall] continue at least until a consistent pumping-level trend is observed. In such instances, failure to observe the straight-line trend must [shall] be recorded.

(ii) If the pumping rates remain constant for a period of at least four hours and a straight-line trend is observed on a plot of water level versus the logarithm of time pumped before the 24-hour limit has been reached, the pumping portion of the test may be terminated.

(iii) The frequency of water level measurements during the aquifer test must [shall] be such that adequate definition of the time-drawdown curve is made available. As much information as possible must [shall] be obtained in the first ten minutes of testing (i.e., pumping).

(B) Water-level recovery data must [shall] be obtained to verify the accuracy of the data obtained during the pumping portion of the test. Recovery measurements must [shall] be initiated immediately at the conclusion of the pumping portion of the aquifer test and must [shall] be recorded with the same frequency as those taken during the pumping portion of the aquifer test. Time-recovery measurements must [shall] continue until the water levels have recovered to pre-pumping levels or at least to 90% of that level. If such recovery is not possible, time-recovery measurements should continue until a consistent trend of recovery is observed.

(7) Use of existing wells and aquifer test data.

(A) An existing well may be utilized as an observation well under this section if sufficient information is available for that well to demonstrate that it meets the requirements of this section.

(B) The municipal or county authority may accept the results of a previous aquifer test in lieu of a new test if:

(i) the previous test was performed on a well located within a 1/4-mile radius of the subdivision;

(ii) the previous test fully meets all the requirements of this section;

(iii) the previous test was conducted on an aquifer which is being considered as a source of water supply for the proposed subdivision; and

(iv) aquifer conditions (e.g., water levels, gradients, etc.) during the previous test were approximately the same as they are presently.

(8) Need for additional aquifer testing and observation wells. Best professional judgement must [shall] be used to determine if additional observation wells or aquifer tests are needed to adequately demonstrate groundwater availability. The Theis and Cooper-Jacob nonequilibrium equations, and acceptable modifications thereof, are based on well documented assumptions. To determine if additional information is needed, best professional judgement must [shall] be used to consider these assumptions, the site-specific information derived from the aquifer test required by this section, the size of the proposed subdivision, and the proposed method of water delivery.

(d) Submission of information. The information, data, and calculations required by this section must [shall] be made available to the municipal or county authority, if requested, to document the requirements of this section as part of the plat application.

§230.9. Determination of Groundwater Quality.

(a) Water quality analysis. Water samples must [shall] be collected near the end of the aquifer test for chemical analysis. Samples must [shall] be collected from each aquifer being considered for water supply for the proposed subdivision and reported on or attached to the

Certification of Groundwater Availability Form (TCEQ-20982) [as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting)].

(1) For proposed subdivisions where the anticipated method of water delivery is from an expansion of an existing public water supply system or a new public water supply system, the samples must [shall] be submitted for bacterial and chemical analysis as required by Chapter 290, Subchapter F of this title (relating to Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements For Public Water Systems).

(2) For proposed subdivisions where the anticipated method of water delivery is from individual water supply wells on individual lots, samples must [shall] be analyzed for the following:

(A) chloride;

(B) conductivity;

(C) fluoride;

(D) iron;

(E) nitrate (as nitrogen);

(F) manganese;

(G) pH;

(H) sulfate;

(I) total hardness;

(J) total dissolved solids; and

(K) presence/absence of total coliform bacteria.

(3) Conductivity and pH values may be measured in the field, and the other constituents must [shall] be analyzed in a laboratory accredited by the agency according to Chapter 25, Subchapters A and B of this title (relating to General Provisions and Environmental Testing Laboratory Accreditation, respectively) or certified by the agency according to Chapter 25, Subchapters A and C of this title (relating to General Provisions and Environmental Testing Laboratory Certification, respectively).

(b) Submission of information. The information, data, and calculations required by this section must [shall] be made available to the municipal or county authority, if requested, to document the requirements of this section as part of the plat application.

§230.10. Determination of Groundwater Availability.

(a) Time frame for determination of groundwater availability. At a minimum, both a short- and long-term determination of groundwater availability must [shall] be made, each considering the estimated total water demand at full build out of the proposed subdivision. Groundwater availability must [shall] be determined for ten years and 30 years and for any other time frame(s) required by the municipal or county authority.

(b) Other considerations in groundwater availability determination. Groundwater availability determinations must [shall] take into account the anticipated method of water

delivery as identified under §230.5 of this title (relating to Proposed Subdivision Information) and will be compared to annual demand estimates at full build out as determined under §230.6 of this title (relating to Projected Water Demand Estimate).

(c) Determination of aquifer parameters. The parameters of the aquifer(s) being considered to supply water to the proposed subdivision must [shall] be determined utilizing the information considered under §230.7 of this title (relating to General Groundwater Resource Information) and data obtained during the aquifer test required under one of the following: (1) §230.8 of this title (relating to Obtaining Site-Specific Groundwater Data) for individual water wells or (2) ~~under~~ Chapter 290, Subchapter D of this title (relating to Rules and Regulations for Public Water Systems) for new and existing public water systems. The parameters must be ~~and~~ reported on or attached to the Certification of Groundwater Availability Form (TCEQ-20982) [as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting)]. The time-drawdown and time-recovery data obtained during the aquifer test must [shall] be used to determine aquifer parameters utilizing the nonequilibrium equations developed by Theis or Cooper-Jacob, or acceptable modifications thereof. The following aquifer parameters must [shall] be determined:

(1) rate of yield and drawdown;

(2) specific capacity;

(3) efficiency of the pumped (test) well;

(4) transmissivity;

(5) coefficient of storage;

(6) hydraulic conductivity;

(7) recharge or barrier boundaries, if any are present; and

(8) thickness of the aquifer(s).

(d) Determination of groundwater availability. Using the information and data identified and determined in subsections (b) and (c) of this section, the following calculations must [shall] be made.

(1) Time-drawdown. The amount of drawdown at the pumped well(s) and at the boundaries of the proposed subdivision must [shall] be determined for the time frames identified under subsection (a) of this section.

(2) Distance-drawdown. The distance(s) from the pumped well(s) to the outer edges of the cone(s)-of-depression must [shall] be determined for the time frames identified under subsection (a) of this section.

(3) Well interference. For multiple wells in a proposed subdivision, calculations must [shall] be made to:

(A) determine how pumpage from multiple wells will affect drawdown in individual wells for the time frames identified under subsection (a) of this section; and

(B) determine a recommended minimum spacing limit between individual wells; and well yields from the wells that will allow for the continued use of the wells for the time frames identified under subsection (a) of this section.

(e) Determination of groundwater quality. The water quality analysis required under §230.9 of this title (relating to Determination of Groundwater Quality) must [shall] be compared to primary and secondary public drinking water standards and the findings documented on or attached to the Certification of Groundwater Availability Form (TCEQ-20982) [as specified in §230.3(c) of this title].

(f) Submission of information. The information, data, and calculations required by this section must [shall] be made available to the municipal or county authority, if requested [required], to document the requirements of this section as part of the plat application.

§230.11. Groundwater Availability and Usability Statements and Certification.

(a) Groundwater availability and usability statements. Based on the information developed under §230.10 of this title (relating to Determination of Groundwater Availability), the following information must [shall] be provided on or attached to the Certification of Groundwater Availability Form (TCEQ-20982) [as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting)]:

(1) the estimated drawdown of the aquifer at the pumped well(s) over a ten-year period and over a 30-year period;

(2) the estimated drawdown of the aquifer at the subdivision boundary over a ten-year period and over a 30-year period;

(3) the estimated distance from the pumped well(s) to the outer edges of the cone(s)-of-depression over a ten-year period and over a 30-year period;

(4) the recommended minimum spacing limit between wells and the recommended well yield; and

(5) the sufficiency of available groundwater quality to meet the intended use of the platted subdivision.

(b) Groundwater availability determination conditions. The assumptions and uncertainties that are inherent in the determination of groundwater availability must [should] be clearly identified [as specified in §230.3(c) of this title]. These conditions must be identified to adequately define the basis[bases] for the availability and usability statements. These conditions ~~basis~~[bases] may include, but are not limited to, uncontrollable and unknown factors such as:

(1) future pumpage from the aquifer or from interconnected aquifers from area wells outside of the subdivision or any other factor that cannot be predicted that will affect the storage of water in the aquifer;

(2) long-term impacts to the aquifer based on climatic variations; and

(3) future impacts to usable groundwater due to unforeseen or unpredictable contamination.

(c) Certification. Based on best professional judgement, current groundwater conditions, and the information developed and presented on or attached to the Certification of Groundwater Availability Form (TCEQ-20982), [in the form specified by §230.3(c) of this title], the licensed professional engineer or licensed professional geoscientist must certify [certifies]

by signature, seal, and date that adequate groundwater is available from the underlying aquifer(s) to supply the estimated demand of the proposed subdivision.