

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AGENDA ITEM REQUEST
for Rulemaking Adoption

AGENDA REQUESTED: May 6, 2020

DATE OF REQUEST: April 17, 2020

INDIVIDUAL TO CONTACT REGARDING CHANGES TO THIS REQUEST, IF NEEDED: Kris Hogan, Rule/Agenda Coordinator, (512) 239-6812

CAPTION: Docket No. 2019-0895-RUL. Consideration of the adoption of the amendment to Section 331.19 of 30 TAC Chapter 331, Underground Injection Control.

The adoption will implement Senate Bill (SB) 483 and SB 520 from the 86th Texas Legislature, 2019, Regular Session, relating to certain injection wells in the Edwards Aquifer and injection wells within the boundaries of the Barton Springs Edwards Aquifer Conservation District, including injection wells used for aquifer storage and recovery projects. The proposed rule was published in the December 13, 2019, issue of the *Texas Register* (44 TexReg 7637). (Carol Dye, P.G., Don Redmond) (Rule Project No. 2019-117-331-WS)

Brent Wade
Deputy Director

Ashley Forbes
Division Director

Kristina M. Hogan
Agenda Coordinator

Copy to CCC Secretary? NO X YES

Texas Commission on Environmental Quality

Interoffice Memorandum

To: Commissioners **Date:** April 17, 2020

Thru: Bridget C. Bohac, Chief Clerk
Toby Baker, Executive Director

From: Brent Wade, Deputy Director
Office of Waste

Docket No.: 2019-0895-RUL

Subject: Commission Approval for Rulemaking Adoption
Chapter 331, Underground Injection Control
SB 483 and SB 520: Permits and the Storage and Recovery of Water in a
Portion of the Edwards Aquifer
Rule Project No. 2019-117-331-WS

Background and reason(s) for the rulemaking:

This rulemaking implements Senate Bill (SB) 483 and SB 520, 86th Texas Legislature, 2019, addressing the Texas Commission on Environmental Quality's (commission's, TCEQ's, or agency's) regulation of certain injection wells in portions of the Edwards Aquifer and the storage and recovery of water in portions of the Edwards Aquifer. SB 483 applies additional requirements and restrictions to injection wells within the boundaries of the Barton Springs Edwards Aquifer Conservation District. SB 483 revises the definition of "Edwards Aquifer" for a certain portion of Texas, expands commission authorization mechanisms to include rule and individual permit, adds to the permissible sources of injected water, and revises risk assessment requirements. SB 520 adds to the permissible sources of injected water in certain portions of the Edwards Aquifer and limits injection of those added sources to utilities owned by the City of New Braunfels.

Section 331.19 currently addresses injection into or through the Edwards Aquifer and this rulemaking revises that section to implement the changes enacted by SB 483 and SB 520.

Scope of the rulemaking:

The rulemaking amends existing requirements for certain injection wells in the Edwards Aquifer to add to the permissible sources of injected water, expand commission authorization mechanisms to include rule and individual permit, and, for certain portions of the Edwards Aquifer, revise risk assessment requirements.

A.) Summary of what the rulemaking will do:

The rulemaking amends §331.19 to include new definitions provided in SB 483 and SB 520; add to the permissible sources of injected water; include construction, operation, risk assessment, and reporting requirements; and require commission consideration prior to authorization or renewal of an underground injection well in the geographic area overlying the Edwards Aquifer.

B.) Scope required by federal regulations or state statutes:

The rulemaking is in response to changes made to the Texas Water Code (TWC) by SB 483 and SB 520.

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C.) Additional staff recommendations that are not required by federal rule or state statute:

None.

Statutory authority:

TWC, §5.103, which provides the commission the authority to adopt any rules necessary to carry out its powers and duties under the TWC and other laws of this state; TWC, §5.105, which authorizes the commission to establish and approve all general policy of the commission by rule; TWC, §5.120, which authorizes the commission to administer the law so as to promote the judicious use and maximum conservation and protection of the environment and natural resources of the state; TWC, §27.019, which requires the commission to adopt rules reasonably required for the regulation of injection wells; and TWC, §27.0516(h), which authorizes the commission to adopt rules regarding injection wells in the Edwards Aquifer.

The amended section implements SB 483 and SB 520 and TWC, §27.051 and §27.0516, which establish requirements for certain injection wells in the Edwards Aquifer.

Effect on the:

The rulemaking allows injection activities that were not allowable before.

A.) Regulated community:

Owners and operators will have to comply with the adoption for injection projects that will be implemented under this rule.

B.) Public:

The public will benefit from additional aquifer storage and recovery projects, which will provide alternative water sources for public water systems.

C.) Agency programs:

The Underground Injection Control Program will administer injection of water.

Stakeholder meetings:

No stakeholder meetings were held prior to this rulemaking.

Public comment:

The commission offered a public hearing on January 14, 2020. The comment period closed on January 21, 2020. No comments were received.

Significant changes from proposal:

None.

Potential controversial concerns and legislative interest:

There is legislative interest regarding the implementation of SB 483 and SB 520.

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Does this rulemaking affect any current policies or require development of new policies?

No.

What are the consequences if this rulemaking does not go forward? Are there alternatives to rulemaking?

SB 483 and SB 520 directed the TCEQ to adopt rules relating to the regulation of certain injection wells in portions of the Edwards Aquifer. This rulemaking complies with that directive and there are no alternatives to rulemaking.

Key points in the adoption rulemaking schedule:

***Texas Register* proposal publication date:** December 13, 2019

Anticipated *Texas Register* adoption publication date: May 22, 2020

Anticipated effective date: May 28, 2020

Six-month *Texas Register* filing deadline: June 15, 2020

Agency contacts:

Carol Dye, P.G., Rule Project Manager, Radioactive Materials Division, (512) 239-1504

Don Redmond, Staff Attorney, (512) 239-0612

Kris Hogan, Texas Register Rule/Agenda Coordinator, (512) 239-6812

Attachments:

SB 483

SB 520

cc: Chief Clerk, 2 copies
Executive Director's Office
Jim Rizk
Morgan Johnson
Brody Burks
Office of General Counsel
Carol Dye
Kris Hogan

AN ACT

relating to permits for certain injection wells that transect a portion of the Edwards Aquifer.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Section 27.0516(a)(1), Water Code, is amended to read as follows:

(1) "Edwards Aquifer" means that portion of an arcuate belt of porous, waterbearing limestones composed of the Edwards Formation, Georgetown Formation, Comanche Peak Formation, Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil's River Limestone, Person Formation, Kainer Formation, and Edwards Group, together with the Upper Glen Rose Formation where scientific studies have documented a hydrological connection to the overlying Edwards Group trending from west to east to northeast through Kinney, Uvalde, Medina, Bexar, Kendall, Comal, Hays, Travis, and Williamson Counties. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

SECTION 2. Sections 27.0516(b), (f), (h), (k), and (n), Water Code, are amended to read as follows:

(b) This section applies only to the portion of the Edwards Aquifer that is within the geographic area circumscribed by the

1 external boundaries of the Barton Springs-Edwards Aquifer
2 Conservation District but is not in the jurisdiction [~~that~~
3 ~~district's territory or the territory~~] of the Edwards Aquifer
4 Authority. This section does not apply to a wastewater facility
5 permitted under Chapter 26 or a subsurface area drip dispersal
6 system permitted under Chapter 32.

7 (f) The commission by rule, individual permit, or general
8 permit may authorize:

9 (1) an activity described by Subsection (e);

10 (2) an injection well that transects and isolates the
11 saline portion of the Edwards Aquifer and terminates in a lower
12 aquifer for the purpose of injecting:

13 (A) concentrate from a desalination facility; or

14 (B) fresh water as part of an engineered aquifer
15 storage and recovery facility;

16 (3) an injection well that terminates in that part of
17 the saline portion of the Edwards Aquifer that has a total dissolved
18 solids concentration of more than 10,000 milligrams per liter for
19 the purpose of injecting into the saline portion of the Edwards
20 Aquifer:

21 (A) concentrate from a desalination facility,
22 provided that the injection well must be at least three miles from
23 the closest outlet of Barton Springs; or

24 (B) fresh water as part of an engineered aquifer
25 and storage recovery facility, provided that each well used for
26 injection or withdrawal from the facility must be at least three
27 miles from the closest outlet of Barton Springs; [~~or~~]

1 (4) an injection well that transects or terminates in
2 the Edwards Aquifer for:

3 (A) aquifer remediation;

4 (B) the injection of a nontoxic tracer dye as
5 part of a hydrologic study; or

6 (C) another beneficial activity that is designed
7 and undertaken for the purpose of increasing protection of an
8 underground source of drinking water from pollution or other
9 deleterious effects; or

10 (5) the injection of fresh water into a well that
11 transects the Edwards Aquifer provided that:

12 (A) the well isolates the Edwards Aquifer and
13 meets the construction and completion standards adopted by the
14 commission under Section 27.154;

15 (B) the well is part of an engineered aquifer
16 storage and recovery facility;

17 (C) the injected water:

18 (i) is sourced from a public water system,
19 as defined by commission rule, that is permitted by the commission;
20 and

21 (ii) meets water quality standards for
22 public drinking water established by commission rule; and

23 (D) the injection complies with the provisions of
24 Subchapter G that are not in conflict with this section.

25 (h) Rules adopted or a [~~general~~] permit issued under this
26 section:

27 (1) must require that an injection well authorized by

1 the rules or permit be monitored by means of:

2 (A) one or more [~~a~~] monitoring wells [~~well~~]
3 operated by the injection well owner if the commission determines
4 that there is an underground source of drinking water in the area of
5 review that is potentially affected by the injection well; or

6 (B) if Paragraph (A) does not apply, one or more
7 [~~a~~] monitoring wells [~~well~~] operated by a party other than the
8 injection well owner, provided that all results of monitoring are
9 promptly made available to the injection well owner;

10 (2) must ensure that an authorized activity will not
11 result in the waste or pollution of fresh water;

12 (3) may not authorize an injection well under
13 Subsection (f)(2), ~~(3)~~, or (5) unless the well is initially
14 associated with a small-scale research project designed to evaluate
15 the long-term feasibility and safety of:

16 (A) the injection of concentrate from a
17 desalination facility; or

18 (B) an aquifer storage and recovery project;

19 (4) must require any authorization granted to be
20 renewed at least as frequently as every 10 years;

21 (5) must require that an injection well authorized
22 under Subsection (f)(2)(A) or (3)(A) be monitored on an ongoing
23 basis by or in coordination with the well owner and that the well
24 owner file monitoring reports with the commission at least as
25 frequently as every three months; [~~and~~]

26 (6) must ensure that any injection well authorized for
27 the purpose of injecting concentrate from a desalination facility

1 does not transect the fresh water portion of the Edwards Aquifer;
2 and

3 (7) must ensure that an engineered aquifer storage and
4 recovery facility project is consistent with the provisions of
5 Subchapter G that are not in conflict with this section.

6 (k) Notwithstanding Subsection (h)(3), the commission by
7 rule, individual permit, or [a] general permit may authorize the
8 owner of an injection well authorized under Subsection (f)(2), [or]
9 (3), or (5) to continue operating the well for the purpose of
10 implementing the desalination or engineered aquifer storage and
11 recovery project following completion of the small-scale research
12 project, provided that:

13 (1) the injection well owner timely submits the
14 information collected as part of the research project, including
15 monitoring reports and information regarding the environmental
16 impact of the well, to the commission;

17 (2) the injection well owner, following the completion
18 of studies and monitoring adequate to characterize risks to the
19 fresh water portion of the Edwards Aquifer, formations included in
20 the Trinity Group, or [and] other fresh water associated with the
21 continued operation of the well, and at least 90 days before the
22 date the owner initiates commercial well operations, files with the
23 commission a notice of intent to continue operation of the well
24 after completion of the research project; and

25 (3) the commission, based on the studies and
26 monitoring, the report provided by Texas State University--San
27 Marcos under Subsection (1)(2), and any other reasonably available

1 information, determines that continued operation of the injection
2 well as described in the notice of intent does not pose an
3 unreasonable risk to the fresh water portion of the Edwards
4 Aquifer, formations included in the Trinity Group, or other fresh
5 water associated with the continued operation of the well.

6 (n) If the commission preliminarily determines that
7 continued operation of the injection well would pose an
8 unreasonable risk to the fresh water portion of the Edwards
9 Aquifer, formations included in the Trinity Group, or other fresh
10 water associated with the continued operation of the well, the
11 commission shall notify the operator and specify, if possible, what
12 well modifications or operational controls would be adequate to
13 prevent that unreasonable risk. If the operator fails to modify the
14 injection well as specified by the commission, the commission shall
15 require the operator to cease operating the well.

16 SECTION 3. The changes in law made by this Act apply only to
17 an application for an authorization described by Section 27.0516,
18 Water Code, as amended by this Act, filed with the Texas Commission
19 on Environmental Quality on or after the effective date of this Act.
20 An application filed with the Texas Commission on Environmental
21 Quality before the effective date of this Act is governed by the law
22 in effect on the date of filing, and that law is continued in effect
23 for that purpose.

24 SECTION 4. This Act takes effect immediately if it receives
25 a vote of two-thirds of all the members elected to each house, as
26 provided by Section 39, Article III, Texas Constitution. If this
27 Act does not receive the vote necessary for immediate effect, this

1 Act takes effect September 1, 2019.

President of the Senate

Speaker of the House

I hereby certify that S.B. No. 483 passed the Senate on April 17, 2019, by the following vote: Yeas 31, Nays 0; and that the Senate concurred in House amendment on May 25, 2019, by the following vote: Yeas 30, Nays 0.

Secretary of the Senate

I hereby certify that S.B. No. 483 passed the House, with amendment, on May 22, 2019, by the following vote: Yeas 142, Nays 2, two present not voting.

Chief Clerk of the House

Approved:

Date

Governor

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relating to the storage and recovery of water in a portion of the Edwards Aquifer.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Section 1.44, Chapter 626, Acts of the 73rd Legislature, Regular Session, 1993, is amended by amending Subsections (c) and (e) and adding Subsections (c-1) and (e-1) to read as follows:

(c) Except as provided by Subsection (c-1), the [The] political subdivision causing artificial recharge of the aquifer is entitled to withdraw during any 12-month period the measured amount of water actually injected or artificially recharged during the preceding 12-month period, as demonstrated and established by expert testimony, less an amount determined by the authority to:

(1) account for that part of the artificially recharged water discharged through springs; and

(2) compensate the authority in lieu of users' fees.

(c-1) A political subdivision or municipally owned utility causing artificial recharge of a portion of the aquifer that contains groundwater with a total dissolved solids concentration of more than 5,000 milligrams per liter is entitled to withdraw the measured amount of water actually injected or artificially recharged.

(e) The authority may contract for injection or artificial

1 recharge under this section only if provision is made for
2 protecting and maintaining the quality of groundwater in the
3 receiving part of the aquifer, and:

4 (1) the water used for artificial recharge is
5 groundwater withdrawn from the aquifer; [~~or~~]

6 (2) the water is recharged through a natural recharge
7 feature; or

8 (3) the water is injected by a municipally owned
9 utility owned by the City of New Braunfels, and:

10 (A) the water has a total dissolved solids
11 concentration of less than 1,500 milligrams per liter and is not
12 domestic wastewater, municipal wastewater, or reclaimed water as
13 those terms are defined by 30 T.A.C. Chapter 210, effective October
14 31, 2018;

15 (B) the injection well terminates in a portion of
16 the aquifer that contains groundwater with a total dissolved solids
17 concentration of more than 5,000 milligrams per liter; and

18 (C) if the water injected is state water, the
19 utility has a water right or contract for use of the water that does
20 not prohibit use of the water in an aquifer storage and recovery
21 project.

22 (e-1) The injection or withdrawal of water under Subsection
23 (c-1) or (e)(3) must comply with requirements imposed under
24 Subchapter G, Chapter 27, Water Code.

25 SECTION 2. Section 27.051(i), Water Code, is amended to
26 read as follows:

27 (i) For purposes of this subsection, "Edwards Aquifer" has

1 the meaning assigned by Section 26.046(a). Except as otherwise
2 provided by this subsection, the [The] commission may not authorize
3 by rule or permit an injection well that transects or terminates in
4 the Edwards Aquifer. The commission by rule may authorize:

5 (1) injection of groundwater withdrawn from the
6 Edwards Aquifer; ~~or~~

7 (2) injections of storm water, flood water, or
8 groundwater through improved sinkholes or caves located in karst
9 topographic areas; or

10 (3) injections of water made in accordance with
11 Section 1.44(e)(3), Chapter 626, Acts of the 73rd Legislature,
12 Regular Session, 1993. [~~For purposes of this subsection, "Edwards~~
13 ~~Aquifer" has the meaning assigned by Section 26.046(a).~~]

14 SECTION 3. This Act takes effect September 1, 2019.

President of the Senate

Speaker of the House

I hereby certify that S.B. No. 520 passed the Senate on April 17, 2019, by the following vote: Yeas 31, Nays 0; and that the Senate concurred in House amendment on May 25, 2019, by the following vote: Yeas 30, Nays 0.

Secretary of the Senate

I hereby certify that S.B. No. 520 passed the House, with amendment, on May 22, 2019, by the following vote: Yeas 139, Nays 5, two present not voting.

Chief Clerk of the House

Approved:

Date

Governor

The Texas Commission on Environmental Quality (TCEQ, agency, or commission) adopts amended §331.19.

The amendment to §331.19 is adopted *without change* to the proposed text as published in the December 13, 2019, issue of the *Texas Register* (44 TexReg 7637), and, therefore, the text of the rule will not be republished.

Background and Summary of the Factual Basis for the Adopted Rule

This rulemaking implements Senate Bill (SB) 483 and SB 520, 86th Texas Legislature, 2019, addressing the commission's regulation of certain injection wells in portions of the Edwards Aquifer and the storage and recovery of water in portions of the Edwards Aquifer. SB 483 revised the definition of "Edwards Aquifer" for a certain portion of Texas, expanded commission authorization mechanisms to include rule and individual permit, added to the permissible sources of injected water, and revised risk assessment requirements. SB 520 added to the permissible sources of injected water in certain portions of the Edwards Aquifer and limited injection of those added sources to utilities owned by the City of New Braunfels.

Section 331.19 currently addresses injection into or through the Edwards Aquifer and is revised to implement the changes enacted by SB 483 and SB 520.

Section Discussion

In addition to the amendments adopted to implement SB 483 and SB 520, the commission adopts grammatical, stylistic, and various other non-substantive changes to update the rules in accordance with current Texas Register style and format requirements, improve readability, and establish consistency in the rules. These non-substantive changes are not intended to alter the existing rule requirements in any way and are not specifically discussed in this preamble.

§331.19, Injection Into or Through the Edwards Aquifer

The commission adopts §331.19(a)(4) to allow authorization of injection wells operated by a City of New Braunfels-owned utility that inject water meeting certain requirements into a portion of the Edwards Aquifer as established by SB 520 in Texas Water Code (TWC), §27.051(i)(3).

The remaining changes are adopted to implement changes specified in SB 483.

The commission adopts amended §331.19(b) to establish the applicability of the definition of "Edwards Aquifer" within the section.

The commission adopts amended §331.19(c) to describe the geographic area applicable to §331.19(c), as described in TWC, §27.0516(b).

The commission removes Figure: 30 TAC §331.19(c) because illustrating the areas where the requirements of §331.19(c) apply is no longer necessary as SB 483 revised the area to apply to the entire geographic area within the boundaries of the Barton Springs-Edwards Aquifer Conservation District but not within the jurisdiction of the Edwards Aquifer Authority.

The commission adopts §331.19(c)(1), (2), and (3)(A) to incorporate the revisions to authorization mechanisms, exclusions for the geographic area described in §331.19(c), and definition of "Edwards Aquifer," as established in TWC, §27.0516(f); TWC, §27.0516(b); and TWC, §27.0516(a)(1), respectively. As a result, existing paragraphs or subparagraphs are renumbered or re-lettered accordingly.

The commission adopts amended renumbered §331.19(c)(5) to add the authorization mechanisms of "rule" and "individual permit," as established in TWC, §27.0516(f), for the geographic area described in §331.19(c).

The commission adopts §331.19(c)(5)(E)(i) - (v) to provide the detailed requirements, as established in TWC, §27.0516(f)(5), for injection wells that transect and isolate the Edwards Aquifer for the injection of certain water from a public water system as part of an aquifer storage and recovery facility.

The commission adopts amended renumbered §331.19(c)(7)(A)(i) and (ii) to allow

monitoring for the geographic area described in §331.19(c) to be performed by "one or more" monitoring wells, rather than "a monitor well," to conform to TWC, §27.0516(h)(1).

The commission adopts §331.19(c)(8) to provide more details, as established in TWC, §27.0516(k) and (n), of the requirements for the injection projects under §331.19(c)(5)(B), (C), or (E) that may be authorized by rule, individual permit, or general permit.

The commission adopts §331.19(c)(9) to prescribe that authorizations under §331.19(c)(5)(B) or (C) must require monitoring reports be filed with the executive director at least every three months, as established in TWC, §27.0516(h)(5).

Final Regulatory Impact Determination

The commission reviewed the adopted rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the rulemaking is not subject to Texas Government Code, §2001.0225, because it does not meet the definition of a "Major environmental rule" as defined in the statute. "Major environmental rule" means a rule, the specific intent of which is 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. The adopted rulemaking implements SB 483 and SB 520 which revise requirements for certain types of injection in the Edwards Aquifer. The adoption does not meet the definition of "Major environmental rule" because the rulemaking does not affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or public health and safety of the state or a sector of the state. The new requirements for injection wells apply only to a specific geographic area within the state, and no injection well authorized by the commission may allow the movement of fluid that would result in the pollution of an underground source of drinking water.

Furthermore, the adopted rule does not meet any of the four applicability requirements listed in Texas Government Code, §2001.0225(a). The adopted rule does not exceed a standard set by federal law, because there is no comparable federal law regarding injection wells in the Edwards Aquifer. The adopted rule does not exceed an express requirement of state law because it is consistent with the requirements of SB 483 and SB 520 and TWC, §27.051(i) and §27.0516. The adopted rule does not exceed requirements set out in the commission's Underground Injection Control program authorized for the state of Texas under the federal Safe Drinking Water Act. The rulemaking is not adopted under the general powers of the agency and is adopted under the express requirements of TWC, §27.019 and §27.0516(h).

The commission invited public comment regarding the Draft Regulatory Impact

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

Takings Impact Assessment

The commission evaluated the adopted rulemaking and performed a preliminary assessment of whether Texas Government Code, Chapter 2007 is applicable. The adopted rulemaking implements legislative requirements in SB 483 and SB 520, which authorize certain types of injection wells and establish requirements for injection wells within the Edwards Aquifer.

The adopted rule will be neither a statutory nor a constitutional taking of private real property. The adopted rule will allow certain injection wells in the Edwards Aquifer as provided under SB 483 and SB 520. The adopted rule does not affect a landowner's rights in private real property because this rulemaking does not burden (constitutionally), nor restrict or limit, the owner's right to real property and reduce its value by 25% or more beyond which would otherwise exist in the absence of the regulations.

Consistency with the Coastal Management Program

The commission reviewed the adopted rulemaking and found it is neither identified in Coastal Coordination Act implementation rules, 31 TAC §505.11(b)(2) or (4), nor will it affect any action or authorization identified in Coastal Coordination Act

implementation rules, 31 TAC §505.11(a)(6). Therefore, the adopted rulemaking is not subject to the Texas Coastal Management Program (CMP).

The commission invited public comment regarding the consistency with the CMP during the public comment period. No comments were received regarding the CMP.

Public Comment

The commission offered a public hearing on January 14, 2020. The comment period closed on January 21, 2020. No comments were received regarding the rulemaking.

SUBCHAPTER A: GENERAL PROVISIONS

§331.19

Statutory Authority

The amended section is adopted under the Texas Water Code (TWC), §5.103, which provides the commission the authority to adopt any rules necessary to carry out its powers and duties under the TWC and other laws of this state; TWC, §5.105, which authorizes the commission to establish and approve all general policy of the commission by rule; TWC, §5.120, which authorizes the commission to administer the law so as to promote the judicious use and maximum conservation and protection of the environment and natural resources of the state; TWC, §27.019, which requires the commission to adopt rules reasonably required for the regulation of injection wells; and TWC, §27.0516(h), which authorizes the commission to adopt rules regarding injection wells in the Edwards Aquifer.

The amended section implements Senate Bill (SB) 483 and SB 520, 86th Texas Legislature, 2019, and TWC, §27.051 and §27.0516, which establish requirements for certain injection wells in the Edwards Aquifer.

§331.19. Injection Into or Through the Edwards Aquifer.

(a) Except as authorized in subsection (c) of this section, for applications submitted on or after September 1, 2001, injection wells that transect or terminate in the Edwards Aquifer may be authorized by rule under §331.9 of this title (relating to Injection Authorized by Rule) or by permit only as follows:

(1) wells that inject groundwater withdrawn from the Edwards Aquifer may be authorized only if:

(A) the groundwater is unaltered physically, chemically, or biologically; or

(B) the groundwater is treated in connection with remediation that is approved by state or federal order, authorization, or agreement and does not exceed the maximum contaminant levels for drinking water contained in §290.104 of this title (relating to Summary of Maximum Contaminant Levels, Maximum Residual Disinfectant Levels, Treatment Techniques, and Action Levels);

(2) wells that inject non-toxic tracer dyes into the Edwards Aquifer for the purpose of conducting scientific studies to determine hydrologic flowpaths may be authorized if the owner or operator is a federal or state agency, county, municipality, river authority, or groundwater district; [or]

(3) improved sinkholes or caves located in karst topographic areas that inject storm water, flood water, or groundwater may be authorized; and [.]

(4) wells that terminate in a portion of the Edwards Aquifer that contains groundwater with a total dissolved solids (TDS) concentration of more than 5,000 milligrams per liter, and:

(A) the water is injected by a utility owned by the City of New Braunfels;

(B) the injected water has a TDS of less than 1,500 milligrams per liter and is not domestic wastewater, municipal wastewater, or reclaimed water as defined by Chapter 210 of this title (relating to Use of Reclaimed Water);

(C) if the injected water is state water, the utility has a water right or contract for use of the water that does not prohibit use of the water in an aquifer storage and recovery project; and

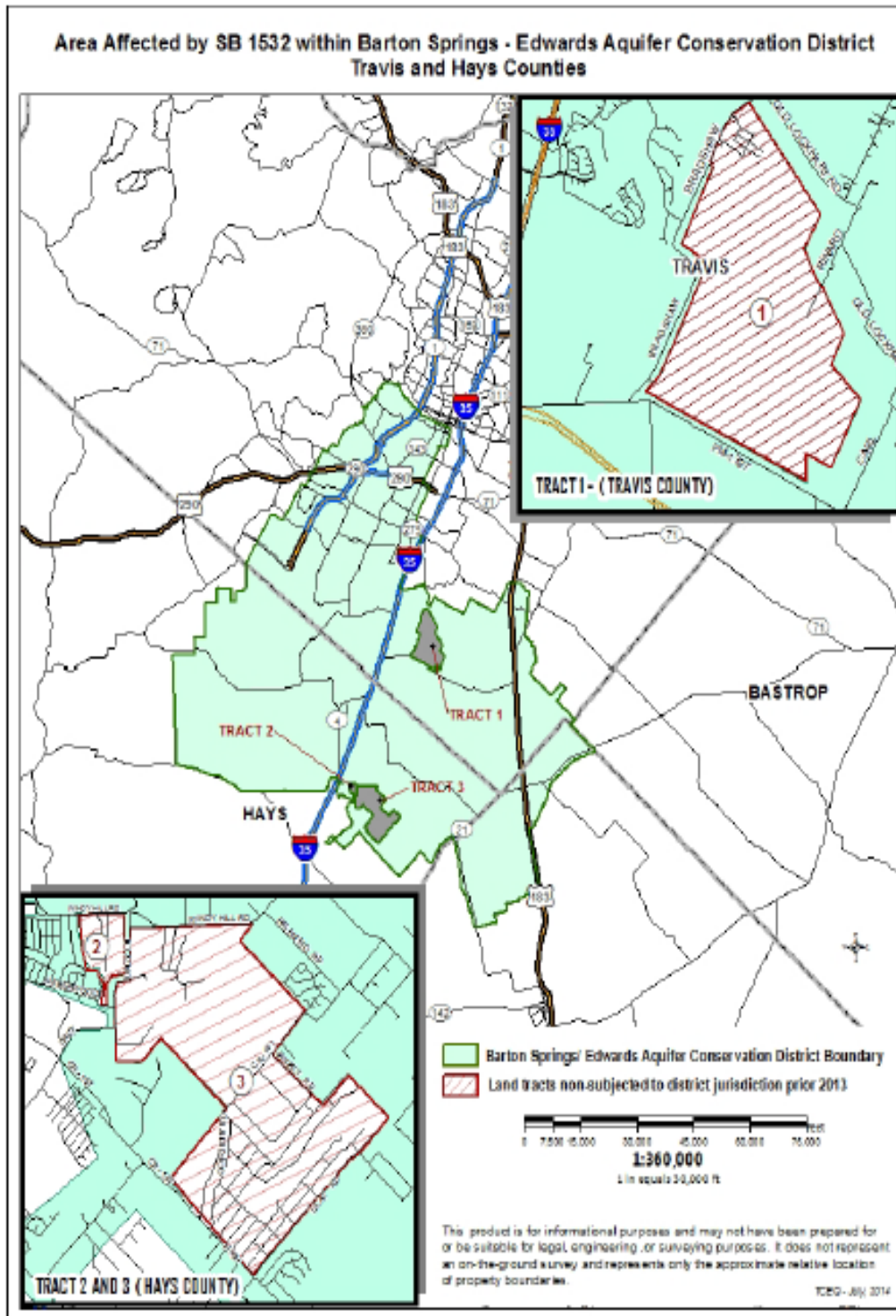
(D) the injection of the water complies with the requirements of Subchapter K of this chapter (relating to Additional Requirements for Class V Injection Wells Associated With Aquifer Storage and Recovery Projects).

(b) For the purposes of subsection (a) of this section, Edwards Aquifer means that portion of an arcuate belt of porous, water-bearing limestones composed of the Edwards Formation, Georgetown Formation, Comanche Peak Formation, Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil's River Limestone, Person Formation, Kainer Formation, and Edwards Group trending from west to east to northeast through Kinney, Uvalde, Medina, Bexar, Kendall, Comal, Hays, Travis, and Williamson Counties. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

(c) This subsection applies only to the portion of the Edwards Aquifer that is within the geographic area circumscribed by the external boundaries of the Barton Springs-Edwards Aquifer Conservation District [(BSEACD)] but is not in the jurisdiction [that district's territory or the territory] of the Edwards Aquifer Authority. [The jurisdictional boundaries of the BSEACD are delineated in orders of the commission dated November 19, 1986 and April 18, 1988; in two subsequent orders of the BSEACD dated August 13, 1987; three orders of the BSEACD dated January 24, 2002; an order of the BSEACD canvassing the returns and declaring the results of a special election, dated November 12, 2002; and in a resolution of the BSEACD adopted June 23, 2011. A general depiction of the geographic area affected by this subsection is shown in the figure in this subsection. Unless authorized by rule as provided in paragraph (2) of this

subsection or authorized by a general permit issued by the commission as provided in paragraph (3) of this subsection, all injection wells within the geographic area described in this subsection are prohibited.]

[Figure: 30 TAC §331.19(c)]



(1) Unless authorized by rule as provided in paragraph (4) of this subsection or authorized by rule, individual permit, or general permit issued by the commission as provided in paragraph (5) of this subsection, all injection wells within the geographic area described in this subsection are prohibited.

(2) This subsection does not apply to a wastewater facility permitted under Texas Water Code (TWC), Chapter 26 or a subsurface area drip dispersal system permitted under TWC, Chapter 32.

(3) [(1)] Definitions. For the purposes of this subsection:

(A) Edwards Aquifer--That portion of an arcuate belt of porous, water-bearing limestones composed of the Edwards Formation, Georgetown Formation, Comanche Peak Formation, Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil's River Limestone, Person Formation, Kainer Formation, and Edwards Group, together with the Upper Glen Rose Formation where scientific studies have documented a hydrological connection to the overlying Edwards Group trending from west to east to northeast through Kinney, Uvalde, Medina, Bexar, Kendall, Comal, Hays, Travis, and Williamson Counties. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

(B) [(A)] Engineered aquifer storage and recovery facility--A facility with one or more wells that is located, designed, constructed, and operated for the purpose of injecting fresh water into a subsurface permeable stratum and storing the water for subsequent withdrawal and use for a beneficial purpose.

(C) [(B)] Fresh water--Surface water or groundwater, without regard to whether the water has been physically, chemically, or biologically altered, that:

(i) contains a total dissolved solids concentration of not more than 1,000 milligrams per liter; and

(ii) is otherwise suitable as a source of drinking water supply.

(D) [(C)] Saline portion of the Edwards Aquifer--The portion of the Edwards Aquifer that contains groundwater with a total dissolved solids concentration of more than 1,000 milligrams per liter.

(4) [(2)] Injection wells authorized by rule. Injection wells within the geographic area described within this subsection may be authorized by rule under §331.9 of this title for:

(A) the injection of fresh water withdrawn from the Edwards Aquifer into a well that transects or terminates in the Edwards Aquifer for the purpose of providing additional recharge; or

(B) the injection of rainwater, storm water, flood water, or groundwater into the Edwards Aquifer by means of an improved natural recharge feature such as a sinkhole or cave located in a karst topographic area for the purpose of providing additional recharge.

(5) [(3)] Injection wells authorized by rule, individual permit, or general permit. Injection wells within the geographic area described in this subsection may be authorized under a rule, individual permit, or general permit issued by the commission. A rule, individual permit, or general permit under this paragraph may authorize:

(A) an activity described under paragraph (4) [(2)] of this subsection;

(B) an injection well that transects and isolates the saline portion of the Edwards Aquifer and terminates in a lower aquifer for the purpose of injecting:

(i) concentrate from a desalination facility; or

(ii) fresh water as part of an engineered aquifer storage and recovery facility;

(C) an injection well that terminates in that part of the saline portion of the Edwards Aquifer that has a TDS [total dissolved solids] concentration of more than 10,000 milligrams per liter for the purpose of injecting into the saline portion of the Edwards Aquifer:

(i) concentrate from a desalination facility, provided that the injection well must be at least three miles from the closest outlet of Barton Springs; or

(ii) fresh water as part of an engineered aquifer and storage recovery facility, provided each well used for injection or withdrawal from the facility must be at least three miles from the closest outlet of Barton Springs; [or]

(D) an injection well that transects or terminates in the Edwards Aquifer for:

(i) aquifer remediation;

(ii) the injection of a nontoxic tracer dye as part of a hydrologic study; or

(iii) another beneficial activity that is designed and undertaken for the purpose of increasing protection of an underground source of drinking water from pollution or other deleterious effects; or [.]

(E) an injection well that transects the Edwards Aquifer for the purpose of injecting fresh water provided that:

(i) the well isolates the Edwards Aquifer and meets the construction standards in §331.183 of this title (relating to Construction and Closure Standards);

(ii) the well is part of an engineered aquifer storage and recovery facility;

(iii) the injected water is sourced from a public water system, as defined in §290.38 of this title (relating to Definitions), that is permitted by the commission;

(iv) the injected water meets water quality standards for

public drinking water established in Chapter 290 of this title (relating to Public Drinking Water); and

(v) the injection complies with the provisions of Subchapter K of this chapter that are not in conflict with this section.

(6) [(4)] The commission must hold a public meeting before issuing a general permit under this section.

(7) [(5)] Special requirements for all injection wells subject to this subsection.

(A) Monitoring wells. An injection well subject to this subsection must be monitored by means of:

(i) one or more [a] monitoring wells [well] operated by the injection well owner if the executive director determines that there is an underground source of drinking water in the area of review that is potentially affected by the injection well; or

(ii) if clause (i) of this subparagraph does not apply, one or more [a] monitoring wells [well] operated by a party other than the injection well

owner, provided that all results of monitoring are promptly made available to the injection well owner.

(iii) A monitoring well described under this subparagraph, if properly sited and completed, may also be used for monitoring a saline water production well.

(B) An injection well subject to this subsection:

(i) must not result in the waste or pollution of fresh water;
and

(ii) may be authorized for a term not to exceed ten years,
and the authorization for the injection well may be renewed.

(8) An authorization by rule, individual permit, or general permit under paragraph (5)(B), (C), or (E) of this subsection:

(A) must initially be associated with a small-scale research project designed to evaluate the long-term feasibility of the injection of concentrate from a desalination facility; or an aquifer storage and recovery project;

(B) may be continued following completion of the research project

if:

(i) the research project information is submitted to the commission in a timely schedule;

(ii) adequate characterization of risks to the fresh water portion of the Edwards Aquifer, the fresh water portion of formations in the Trinity Group or other fresh water demonstrates to the commission's satisfaction that continued operation or continued operations with commission-approved well modifications or operational controls does not pose unreasonable risk to the fresh water portion of the Edwards Aquifer, the fresh water portion of formations in the Trinity Group, or other fresh water; and

(iii) the commission receives a notice of intent to continue operation at least 90 days before initiation of commercial well operations.

(9) Authorization under paragraph (5)(B) or (C) of this subsection must require monitoring reports be filed with the executive director at least every three months.

- (2) the effect of the AR project on existing water wells;
 - (3) the effect of the AR project on existing springs and other surface features that connect to the injection interval; and
 - (4) whether the introduction of water into the receiving geologic formation will alter the physical, chemical, or biological quality of the native groundwater to a degree that would:
 - (A) render the groundwater produced from the receiving formation harmful or detrimental to people, animals, vegetation, or property; or
 - (B) require an unreasonably higher level of treatment of the groundwater produced from the receiving geologic formation than is necessary before AR project initiation for the native groundwater to render the groundwater suitable for beneficial use.
- (b) Upon completion of an AR injection well, the following information, as applicable, shall be submitted to the executive director within 30 days of receipt of the results of all analyses and test results:
- (1) as-built drilling and completion data on the well;
 - (2) all logging and testing data on the well;
 - (3) formation fluid analyses;
 - (4) injection fluid analyses;
 - (5) injectivity and pumping tests determining well capacity and reservoir characteristics;
 - (6) hydrogeologic modeling, with supporting data, predicting the results of injection fluid interaction with the receiving formation and the native groundwater, and predicting injection fluid movement; and
 - (7) other information as determined by the executive director as necessary for the protection of underground sources of drinking water.

The agency certifies that legal counsel has reviewed the proposal and found it to be within the state agency's legal authority to adopt.

Filed with the Office of the Secretary of State on November 22, 2019.

TRD-201904448
 Robert Martinez
 Director, Environmental Law Division
 Texas Commission on Environmental Quality
 Earliest possible date of adoption: January 12, 2020
 For further information, please call: (512) 293-1806



CHAPTER 331. UNDERGROUND INJECTION CONTROL

SUBCHAPTER A. GENERAL PROVISIONS

30 TAC §331.19

The Texas Commission on Environmental Quality (TCEQ, agency, or commission) proposes to amend §331.19.

Background and Summary of the Factual Basis for the Proposed Rule

This rulemaking implements Senate Bill (SB) 483 and SB 520, 86th Texas Legislature, 2019, addressing the commission's

regulation of certain injection wells in portions of the Edwards Aquifer and the storage and recovery of water in portions of the Edwards Aquifer. SB 483 revises the definition of "Edwards Aquifer" for a certain portion of Texas, expands commission authorization mechanisms to include rule and individual permit, adds to the permissible sources of injected water, and revises risk assessment requirements. SB 520 adds to the permissible sources of injected water in certain portions of the Edwards Aquifer and limits injection of those added sources to utilities owned by the City of New Braunfels.

Section 331.19 currently addresses injection into or through the Edwards Aquifer and must be revised to implement the changes enacted by SB 483 and SB 520.

Section Discussion

In addition to adopting amendments to implement SB 483 and SB 520, the commission adopts grammatical, stylistic, and various other non-substantive changes to update the rules in accordance with current *Texas Register* style and format requirements, improve readability, and establish consistency in the rules. These non-substantive changes are not intended to alter the existing rule requirements in any way and are not specifically discussed in this preamble.

§331.19, *Injection Into or Through the Edwards Aquifer*

The commission proposes §331.19(a)(4) to allow authorization of Class V wells operated by a City of New Braunfels-owned utility that inject water meeting certain requirements into a portion of the Edwards Aquifer as established by SB 520 in Texas Water Code (TWC), §27.051(i)(3).

The remaining changes are proposed to implement changes specified in SB 483.

The commission proposes to amend §331.19(b) to establish the applicability of the definition of "Edwards Aquifer" within the section.

The commission proposes to amend §331.19(c) to describe the geographic area applicable to §331.19(c), as described in TWC, §27.0516(b).

The commission proposes to remove Figure: 30 TAC §331.19(c) because illustrating the areas where the requirements of §331.19(c) apply is no longer necessary as SB 483 revised the area to apply to the entire geographic area within the boundaries of the Barton Springs-Edwards Aquifer Conservation District but not within the jurisdiction of the Edwards Aquifer Authority.

The commission proposes §331.19(c)(1), (2), and (3)(A) to incorporate the revisions to authorization mechanisms, exclusions for the geographic area described in §331.19(c), and definition of "Edwards Aquifer", as established in TWC, §27.0516(f); TWC, §27.0516(b); and TWC, §27.0516(a)(1), respectively. As a result, existing paragraphs or subparagraphs are proposed to be renumbered or re-lettered accordingly.

The commission proposes to amend renumbered §331.19(c)(5) to add the authorization mechanisms of "rule" and "individual permit," as established in TWC, §27.0516(f), for the geographic area described in §331.19(c).

The commission proposes §331.19(c)(5)(E)(i) - (v) to provide the detailed requirements, as established in TWC, §27.0516(f)(5), for injection wells that transect and isolate the Edwards Aquifer for the injection of certain water from a public water system as part of an aquifer storage and recovery facility.

The commission proposes to amend renumbered §331.19(c)(7)(A)(i) and (ii) to allow monitoring for the geographic area described in §331.19(c) to be performed by "one or more" monitoring wells, rather than "a monitor well," to conform to TWC, §27.0516(h)(1).

The commission proposes §331.19(c)(8) to provide more details, as established in TWC, §27.0516(k) and (n), of the requirements for the injection projects under §331.19(c)(5)(B), (C), or (E) that may be authorized by rule, individual permit, or general permit.

The commission proposes §331.19(c)(9) to prescribe that authorizations under §331.19(c)(5)(B) or (C) must require monitoring reports be filed with the executive director at least every three months, as established in TWC, §27.0516(h)(5).

Fiscal Note: Costs to State and Local Government

Jené Bearse, Analyst in the Budget and Planning Division, determined that for the first five-year period the proposed rule is in effect, no fiscal implications are anticipated for the agency or for other units of state or local government as a result of administration or enforcement of the proposed rule.

This rulemaking is required to comply with the changes to state law which address injection into or through the Edwards Aquifer.

Public Benefits and Costs

Ms. Bearse determined that for each year of the first five years the proposed rule is in effect, the public benefit anticipated will be compliance with state law and the possibility for an encouraging effect on the initiation of aquifer storage and recovery projects in the region. It expands the range of allowable injection projects in the Edwards Aquifer geographic area, but it does not require injection projects to be initiated.

The proposed rulemaking is not anticipated to result in adverse fiscal implications for businesses or individuals.

Local Employment Impact Statement

The commission reviewed this proposed rulemaking and determined that a Local Employment Impact Statement is not required because the proposed rule does not adversely affect a local economy in a material way for the first five years that the proposed rule is in effect.

Rural Communities Impact Assessment

The commission reviewed this proposed rulemaking and determined that the proposed rule does not adversely affect rural communities in a material way for the first five years that the proposed rule is in effect. The affected geographic area includes all or part of the following counties: Bexar, Comal, Hays, Kendall, Kinney, Medina, Travis, Uvalde, and Williamson.

Small Business and Micro-Business Assessment

No adverse fiscal implications are anticipated for small or micro-businesses due to the implementation or administration of the proposed rule for the first five-year period the proposed rule is in effect.

The proposed rule would allow the commission to authorize underground injection that is currently prohibited. The commission is not aware of any known small or micro-businesses performing injections at the present time.

Small Business Regulatory Flexibility Analysis

The commission reviewed this proposed rulemaking and determined that a Small Business Regulatory Flexibility Analysis is

not required because the proposed rule does not adversely affect a small or micro-business in a material way for the first five years the proposed rule is in effect.

Government Growth Impact Statement

The commission prepared a Government Growth Impact Statement assessment for this proposed rulemaking. The proposed rulemaking does not create or eliminate a government program and would not require an increase or decrease in future legislative appropriations to the agency. The proposed rule does not require the creation of new employee positions, eliminate current employee positions, nor require an increase or decrease in fees paid to the agency. The proposed rulemaking does expand an existing regulation by allowing the commission to authorize the underground injection as authorized by state law and would increase the number of individuals subject to its applicability. During the first five years, the proposed rule should not significantly impact positively or negatively the state's economy.

Draft Regulatory Impact Analysis Determination

The commission reviewed the proposed rulemaking action in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the action is not subject to Texas Government Code, §2001.0225, because it does not meet the definition of a "Major environmental rule" as defined in the statute. "Major environmental rule" means a rule, the specific intent of which is 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. The proposed action implements SB 483 and SB 520 which revise requirements for certain types of injection in the Edwards Aquifer. The proposal does not meet the definition of "Major environmental rule" because the rulemaking does not affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or public health and safety of the state or a sector of the state. The new requirements for injection wells apply only to a specific geographic area within state, and no injection well authorized by the commission may allow the movement of fluid that would result in the pollution of an underground source of drinking water.

Furthermore, the proposed rule does not meet any of the four applicability requirements listed in Texas Government Code, §2001.0225(a). The proposed rule does not exceed a standard set by federal law, because there is no comparable federal law regarding injection wells in the Edwards Aquifer. The proposed rule does not exceed an express requirement of state law because it is consistent with the requirements of SB 483 and SB 520 and TWC, §27.051(i) and §27.0516. The proposed rule does not exceed requirements set out in the commission's Underground Injection Control program authorized for the state of Texas under the federal Safe Drinking Water Act. The rulemaking is not proposed under the general powers of the agency and is proposed under the express requirements of TWC, §27.019 and §27.0516(h).

Written comments on the Draft Regulatory Impact Analysis may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

Takings Impact Assessment

The commission evaluated this rulemaking action and performed a preliminary assessment of whether Texas Government Code, Chapter 2007 is applicable. The proposed action implements legislative requirements in SB 483 and SB 520, which authorizes certain types of injection wells and establishes requirements for injection wells within the Edwards Aquifer.

The proposed rule would be neither a statutory nor a constitutional taking of private real property. The proposed rule would allow certain injection wells in the Edwards Aquifer as provided under SB 483 and SB 520. The proposed rule does not affect a landowner's rights in private real property because this rulemaking action does not burden (constitutionally), nor restrict or limit, the owner's right to real property and reduce its value by 25% or more beyond which would otherwise exist in the absence of the regulations.

Consistency with the Coastal Management Program

The commission reviewed the proposed rule and found it is neither identified in Coastal Coordination Act implementation rules, 31 TAC §505.11(b)(2) or (4), nor would it affect any action/authorization identified in Coastal Coordination Act implementation rules, 31 TAC §505.11(a)(6). Therefore, the proposed rule is not subject to the Texas Coastal Management Program.

Written comments on the consistency of this rulemaking may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

Announcement of Hearing

The commission will hold a public hearing on this proposal in Austin on January 14, 2020, at 10:00 a.m. in Building E, Room 201S, at the commission's central office located at 12100 Park 35 Circle. The hearing is structured for the receipt of oral or written comments by interested persons. Individuals may present oral statements when called upon in order of registration. Open discussion will not be permitted during the hearing; however, commission staff members will be available to discuss the proposal 30 minutes prior to the hearing.

Persons who have special communication or other accommodation needs who are planning to attend the hearing should contact Ms. Sandy Wong, Office of Legal Services, at (512) 239-1802 or (800) RELAY-TX (TDD). Requests should be made as far in advance as possible.

Submittal of Comments

Written comments may be submitted to Ms. Kris Hogan, MC 205, Office of Legal Services, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087, or faxed to (512) 239-4808. Electronic comments may be submitted at: <https://www6.tceq.texas.gov/rules/ecomments/>. File size restrictions may apply to comments being submitted via the eComments system. All comments should reference Rule Project Number 2019-117-331-WS. The comment period closes on January 21, 2020. Copies of the proposed rulemaking can be obtained from the commission's website at https://www.tceq.texas.gov/rules/propose_adopt.html. For further information, please contact Carol Dye, Underground Injection Control Permits Section, at (512) 239-1504.

Statutory Authority

The amended section is proposed under the Texas Water Code (TWC), §5.103, which provides the commission the authority to adopt any rules necessary to carry out its powers and duties under the TWC and other laws of this state; TWC, §5.105,

which authorizes the commission to establish and approve all general policy of the commission by rule; TWC, §5.120, which authorizes the commission to administer the law so as to promote the judicious use and maximum conservation and protection of the environment and natural resources of the state; TWC, §27.019, which requires the commission to adopt rules reasonably required for the regulation of injection wells; and TWC, §27.0516(h), which authorizes the commission to adopt rules regarding injection wells in the Edwards Aquifer.

The amended section implements Senate Bill (SB) 483 and SB 520, 86th Texas Legislature, 2019, and TWC, §27.051 and §27.0516, which establish requirements for certain injection wells in the Edwards Aquifer.

§331.19. *Injection Into or Through the Edwards Aquifer.*

(a) Except as authorized in subsection (c) of this section, for applications submitted on or after September 1, 2001, injection wells that transect or terminate in the Edwards Aquifer may be authorized by rule under §331.9 of this title (relating to Injection Authorized by Rule) or by permit only as follows:

(1) wells that inject groundwater withdrawn from the Edwards Aquifer may be authorized only if:

(A) the groundwater is unaltered physically, chemically, or biologically; or

(B) the groundwater is treated in connection with remediation that is approved by state or federal order, authorization, or agreement and does not exceed the maximum contaminant levels for drinking water contained in §290.104 of this title (relating to Summary of Maximum Contaminant Levels, Maximum Residual Disinfectant Levels, Treatment Techniques, and Action Levels);

(2) wells that inject non-toxic tracer dyes into the Edwards Aquifer for the purpose of conducting scientific studies to determine hydrologic flowpaths may be authorized if the owner or operator is a federal or state agency, county, municipality, river authority, or groundwater district; [ø]

(3) improved sinkholes or caves located in karst topographic areas that inject storm water, flood water, or groundwater may be authorized; and [-]

(4) wells that terminate in a portion of the Edwards Aquifer that contains groundwater with a total dissolved solids (TDS) concentration of more than 5,000 milligrams per liter, and:

(A) the water is injected by a utility owned by the City of New Braunfels;

(B) the injected water has a TDS of less than 1,500 milligrams per liter and is not domestic wastewater, municipal wastewater, or reclaimed water as defined by Chapter 210 of this title (relating to Use of Reclaimed Water);

(C) if the injected water is state water, the utility has a water right or contract for use of the water that does not prohibit use of the water in an aquifer storage and recovery project; and

(D) the injection of the water complies with the requirements of Subchapter K of this chapter (relating to Additional Requirements for Class V Injection Wells Associated With Aquifer Storage and Recovery Projects).

(b) For the purposes of subsection (a) of this section, Edwards Aquifer means that portion of an arcuate belt of porous, water-bearing limestones composed of the Edwards Formation, Georgetown Formation, Comanche Peak Formation, Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil's River Limestone, Person

Formation, Kainer Formation, and Edwards Group trending from west to east to northeast through Kinney, Uvalde, Medina, Bexar, Kendall, Comal, Hays, Travis, and Williamson Counties. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

(c) This subsection applies only to the portion of the Edwards Aquifer that is within the geographic area circumscribed by the external boundaries of the Barton Springs-Edwards Aquifer Conservation District [(BSEACD)] but is not in the jurisdiction [that district's territory or the territory] of the Edwards Aquifer Authority. [The jurisdictional boundaries of the BSEACD are delineated in orders of the commission dated November 19, 1986 and April 18, 1988; in two subsequent orders of the BSEACD dated August 13, 1987; three orders of the BSEACD dated January 24, 2002; an order of the BSEACD canvassing the returns and declaring the results of a special election, dated November 12, 2002; and in a resolution of the BSEACD adopted June 23, 2011. A general depiction of the geographic area affected by this subsection is shown in the figure in this subsection. Unless authorized by rule as provided in paragraph (2) of this subsection or authorized by a general permit issued by the commission as provided in paragraph (3) of this subsection, all injection wells within the geographic area described in this subsection are prohibited.]
[Figure: 30 TAC §331.19(e)]

(1) Unless authorized by rule as provided in paragraph (4) of this subsection or authorized by rule, individual permit, or general permit issued by the commission as provided in paragraph (5) of this subsection, all injection wells within the geographic area described in this subsection are prohibited.

(2) This subsection does not apply to a wastewater facility permitted under Texas Water Code (TWC), Chapter 26 or a subsurface area drip dispersal system permitted under TWC, Chapter 32.

(3) [(4)] Definitions. For the purposes of this subsection:

(A) Edwards Aquifer--That portion of an arcuate belt of porous, water-bearing limestones composed of the Edwards Formation, Georgetown Formation, Comanche Peak Formation, Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil's River Limestone, Person Formation, Kainer Formation, and Edwards Group, together with the Upper Glen Rose Formation where scientific studies have documented a hydrological connection to the overlying Edwards Group trending from west to east to northeast through Kinney, Uvalde, Medina, Bexar, Kendall, Comal, Hays, Travis, and Williamson Counties. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

(B) [(A)] Engineered aquifer storage and recovery facility--A facility with one or more wells that is located, designed, constructed, and operated for the purpose of injecting fresh water into a subsurface permeable stratum and storing the water for subsequent withdrawal and use for a beneficial purpose.

(C) [(B)] Fresh water--Surface water or groundwater, without regard to whether the water has been physically, chemically, or biologically altered, that:

(i) contains a total dissolved solids concentration of not more than 1,000 milligrams per liter; and

(ii) is otherwise suitable as a source of drinking water supply.

(D) [(C)] Saline portion of the Edwards Aquifer--The portion of the Edwards Aquifer that contains groundwater with a total dissolved solids concentration of more than 1,000 milligrams per liter.

(4) [(2)] Injection wells authorized by rule. Injection wells within the geographic area described within this subsection may be authorized by rule under §331.9 of this title for:

(A) the injection of fresh water withdrawn from the Edwards Aquifer into a well that transects or terminates in the Edwards Aquifer for the purpose of providing additional recharge; or

(B) the injection of rainwater, storm water, flood water, or groundwater into the Edwards Aquifer by means of an improved natural recharge feature such as a sinkhole or cave located in a karst topographic area for the purpose of providing additional recharge.

(5) [(3)] Injection wells authorized by rule, individual permit, or general permit. Injection wells within the geographic area described in this subsection may be authorized under a rule, individual permit, or general permit issued by the commission. A rule, individual permit, or general permit under this paragraph may authorize:

(A) an activity described under paragraph (4) [(2)] of this subsection;

(B) an injection well that transects and isolates the saline portion of the Edwards Aquifer and terminates in a lower aquifer for the purpose of injecting:

(i) concentrate from a desalination facility; or

(ii) fresh water as part of an engineered aquifer storage and recovery facility;

(C) an injection well that terminates in that part of the saline portion of the Edwards Aquifer that has a TDS [total dissolved solids] concentration of more than 10,000 milligrams per liter for the purpose of injecting into the saline portion of the Edwards Aquifer:

(i) concentrate from a desalination facility, provided that the injection well must be at least three miles from the closest outlet of Barton Springs; or

(ii) fresh water as part of an engineered aquifer and storage recovery facility, provided each well used for injection or withdrawal from the facility must be at least three miles from the closest outlet of Barton Springs; [ø]

(D) an injection well that transects or terminates in the Edwards Aquifer for:

(i) aquifer remediation;

(ii) the injection of a nontoxic tracer dye as part of a hydrologic study; or

(iii) another beneficial activity that is designed and undertaken for the purpose of increasing protection of an underground source of drinking water from pollution or other deleterious effects; or [-]

(E) an injection well that transects the Edwards Aquifer for the purpose of injecting fresh water provided that:

(i) the well isolates the Edwards Aquifer and meets the construction standards in §331.183 of this title (relating to Construction and Closure Standards);

(ii) the well is part of an engineered aquifer storage and recovery facility;

(iii) the injected water is sourced from a public water system, as defined in §290.38 of this title (relating to Definitions), that is permitted by the commission;

(iv) the injected water meets water quality standards for public drinking water established in Chapter 290 of this title (relating to Public Drinking Water); and

(v) the injection complies with the provisions of Subchapter K of this chapter that are not in conflict with this section.

(6) [(4)] The commission must hold a public meeting before issuing a general permit under this section.

(7) [(5)] Special requirements for all injection wells subject to this subsection.

(A) Monitoring wells. An injection well subject to this subsection must be monitored by means of:

(i) one or more [a] monitoring wells [well] operated by the injection well owner if the executive director determines that there is an underground source of drinking water in the area of review that is potentially affected by the injection well; or

(ii) if clause (i) of this subparagraph does not apply, one or more [a] monitoring wells [well] operated by a party other than the injection well owner, provided that all results of monitoring are promptly made available to the injection well owner.

(iii) A monitoring well described under this subparagraph, if properly sited and completed, may also be used for monitoring a saline water production well.

(B) An injection well subject to this subsection:

(i) must not result in the waste or pollution of fresh water; and

(ii) may be authorized for a term not to exceed ten years, and the authorization for the injection well may be renewed.

(8) An authorization by rule, individual permit, or general permit under paragraph (5)(B), (C), or (E) of this subsection:

(A) must initially be associated with a small-scale research project designed to evaluate the long-term feasibility of the injection of concentrate from a desalination facility; or an aquifer storage and recovery project;

(B) may be continued following completion of the research project if:

(i) the research project information is submitted to the commission in a timely schedule;

(ii) adequate characterization of risks to the fresh water portion of the Edwards Aquifer, the fresh water portion of formations in the Trinity Group or other fresh water demonstrates to the commission's satisfaction that continued operation or continued operations with commission-approved well modifications or operational controls does not pose unreasonable risk to the fresh water portion of the Edwards Aquifer, the fresh water portion of formations in the Trinity Group, or other fresh water; and

(iii) the commission receives a notice of intent to continue operation at least 90 days before initiation of commercial well operations.

(9) Authorization under paragraph (5)(B) or (C) of this subsection must require monitoring reports be filed with the executive director at least every three months.

The agency certifies that legal counsel has reviewed the proposal and found it to be within the state agency's legal authority to adopt.

Filed with the Office of the Secretary of State on November 22, 2019.

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Robert Martinez

Director, Environmental Law Division

Texas Commission on Environmental Quality

Earliest possible date of adoption: January 12, 2020

For further information, please call: (512) 239-6812

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CHAPTER 352. COAL COMBUSTION
RESIDUALS WASTE MANAGEMENT

The Texas Commission on Environmental Quality (TCEQ, agency, or commission) proposes new §§352.1 - 352.6, 352.101, 352.111, 352.121, 352.131, 352.141, 352.201, 352.211, 352.221, 352.231, 352.241, 352.251, 352.261, 352.271, 352.281, 352.291, 352.301, 352.311, 352.401, 352.411, 352.421, 352.431, 352.441, 352.451, 352.461, 352.471, 352.481, 352.601, 352.611, 352.621, 352.631, 352.641, 352.701, 352.711, 352.721, 352.731, 352.741, 352.801, 352.811, 352.821, 352.831, 352.841, 352.851, 352.901, 352.902, 352.911, 352.931, 352.941, 352.951, 352.961, 352.971, 352.981, 352.991, 352.1101, 352.1111, 352.1200, 352.1201, 352.1211, 352.1221, 352.1231, 352.1241, 352.1301, 352.1311, 352.1321, 352.1401, 352.1421, and 352.1431.

Background and Summary of the Factual Basis for the Proposed Rules

The purpose of this rulemaking is to create a program to regulate owners and operators of landfills and surface impoundments used for the disposal or management of coal combustion residuals (CCR), a nonhazardous industrial solid waste generated from the combustion of coal by electric utilities and independent power producers. If adopted, these rules would be eligible for United States Environmental Protection Agency (EPA) approval and would operate in Texas in lieu of the EPA CCR program. The EPA promulgated self-implementing requirements for the regulation of CCR disposed of or managed in certain landfills and surface impoundments, under the United States Resource Conservation and Recovery Act, 40 Code of Federal Regulations (CFR) Part 257, Subpart D (Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments). After the effective date of 40 CFR Part 257, Subpart D, the United States Congress passed the Water Infrastructure for Improvements to the Nation (WIIN) Act in December 2016. The WIIN Act provides that states may create a permitting program or other system of prior approval that, if approved by the EPA, would operate in lieu of the new federal CCR rule. The commission proposes new Chapter 352 to create a state program eligible for EPA approval to operate in lieu of federal CCR requirements, as provided in the WIIN Act.

The 85th Texas Legislature passed the Texas General Appropriations Act (Act) on June 12, 2017. The Act contained a rider to fund four new full-time equivalent (FTE) employee positions for the commission to create and implement a CCR program.

Texas Commission on Environmental Quality



ORDER ADOPTING AMENDED RULE

Docket No. 2019-0895-RUL

Rule Project No. 2019-117-331-WS

On May 6, 2020, the Texas Commission on Environmental Quality (Commission) adopted amended § 331.19 in 30 Texas Administrative Code Chapter 331, concerning Underground Injection Control. The proposed rule was published for comment in the December 19, 2019, issue of the *Texas Register* (44 TexReg 7637).

IT IS THEREFORE ORDERED BY THE COMMISSION that the amended rule is hereby adopted. The Commission further authorizes staff to make any non-substantive revisions to the rule necessary to comply with *Texas Register* requirements. The adopted rule and the preamble to the adopted rule is incorporated by reference in this Order as if set forth at length verbatim in this Order.

This Order constitutes the Order of the Commission required by the Administrative Procedure Act, Tex. Gov't Code Ann., Chapter 2001 (West 2016).

If any portion of this Order is for any reason held to be invalid by a court of competent jurisdiction, the invalidity of any portion shall not affect the validity of the remaining portions.

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

Jon Niermann, Chairman

Date Signed