

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AGENDA ITEM REQUEST
for Proposed Rulemaking

AGENDA REQUESTED: December 9, 2015

DATE OF REQUEST: November 20, 2015

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

CAPTION: Docket No. 2015-0870-RUL. Consideration for publication of, and hearing on, proposed amended Section 39.651 of 30 TAC Chapter 39, Public Notice; the repeal of Sections 295.21 and 295.22, new Section 295.21, and amended Section 295.202 of 30 TAC Chapter 295, Water Rights, Procedural; amended Sections 297.1, 297.13, and 297.19 of Chapter 297, Water Rights Substantive; and amended Sections 331.2, 331.7, 331.11, and 331.181 - 331.186 of 30 TAC Chapter 331, Underground Injection Control.

The proposed rulemaking would implement House Bill 655, 84th Texas Legislature, 2015, Regular Session, relating to criteria for aquifer storage and recovery projects, including injection and recovery of appropriated water. (David Murry, Don Redmond) (Rule Project No. 2015-022-331-WS)

Brent Wade

Deputy Director

Charles Maguire

Division Director

Kristina M. Hogan

Agenda Coordinator

Copy to CCC Secretary? NO X YES

Texas Commission on Environmental Quality

Interoffice Memorandum

To: Commissioners **Date:** November 20, 2015

Thru: Bridget C. Bohac, Chief Clerk
Richard A. Hyde, P.E., Executive Director

From: Brent Wade, Deputy Director
Office of Waste

Docket No.: 2015-0870-RUL

Subject: Commission Approval for Proposed Rulemaking
Chapter 39, Public Notice
Chapter 295, Water Rights, Procedural
Chapter 297, Water Rights, Substantive
Chapter 331, Underground Injection Control
HB 655: Aquifer Storage and Recovery
Rule Project No. 2015-022-331-WS

Background and reason(s) for the rulemaking:

The rulemaking is needed to implement House Bill (HB) 655, which was passed during the 84th Texas Legislature, 2015. HB 655 amended the Texas Water Code (TWC), Chapters 11, 27, and 36 to address requirements for authorization to inject and recover water as part of an aquifer storage and recovery (ASR) project. ASR involves the use of one or more injection wells for the purpose of placing a water supply into a subsurface geologic formation, or aquifer, for storage so that the water may be subsequently recovered and used by the project operator.

The rulemaking also implements a portion of HB 2031, 84th Texas Legislature, 2015. HB 2031 relates to the diversion, treatment, and use of marine seawater and the discharge of treated marine seawater and waste resulting from the desalination of marine seawater. Because the definition section of 30 TAC Chapter 297 will require amendment to implement both HB 655 and HB 2031, this rulemaking is including the definition of "marine seawater" in Section 297.1 to avoid an open section conflict under *Texas Register* publication requirements. The rest of the implementation of HB 2031 is planned as a separate rulemaking.

Scope of the rulemaking:

The rulemaking will amend existing requirements for authorization of an ASR project. Under the revised rules the requirements for a pilot project, followed by a final authorization, is changed to a single authorization for an ASR project.

A.) Summary of what the rulemaking will do:

The rulemaking will amend the following: 30 TAC Chapter 39 to include public notice requirements for applications for Class V Underground Injection Control Wells; 30 TAC Chapter 295 to remove requirements for a two-phase ASR project approval process; 30 TAC Chapter 297 to add definitions for "native groundwater" and "marine seawater" (required to implement portions of HB 2031); and 30 TAC Chapter 331 to include new

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definitions provided in HB 655, remove the requirement that injected water must meet 30 TAC Chapter 290 requirements for a public drinking water supply, include construction, operation, and reporting requirements, and Texas Commission on Environmental Quality (TCEQ or commission) considerations prior to approval of an ASR project.

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

None.

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

None.

Statutory authority:

TWC, §5.103, Rules

TWC, §5.105, General Policy

TWC, §5.120, Conservation and Quality of Environment

TWC, §27.019, Rules, etc.

HB 655

Effect on the:

HB 655 does not create a group of affected persons who were not affected prior to passage of this legislation. Regulatory requirements for testing of injected water are reduced from monthly to annually, which will result in lower costs for ASR project managers.

A.) Regulated community:

Operators of ASR projects will have to comply with the requirements of this legislation. Adoption of specific requirements for ASR, including injection and recovery of appropriated water, will provide regulatory certainty to ASR operators.

B.) Public:

The public will benefit for ASR projects, which provide an alternative water source for public water systems.

C.) Agency programs:

The Underground Injection Program will administer injection of water for ASR; the Water Rights Permitting and Availability Section will be responsible for regulations pertaining to the recovery of appropriated water.

Stakeholder meetings:

No stakeholder meetings were held; however, a public hearing is scheduled for this rulemaking on January 22, 2016, in Austin.

Potential controversial concerns and legislative interest:

Relaxation of current state standard for quality of injected water. HB 655 amended the

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TWC, by adding TWC, §27.154(d), under which the TCEQ may not adopt or enforce groundwater quality protection standards for the quality of water injected into an ASR injection well, if those standards are more stringent than applicable federal standards. Under current §331.184(e) that has been in place since the mid-1990s, water that is injected for aquifer storage must meet the commission's drinking water standards as provided in Chapter 290, concerning primary drinking water standards. Under the current federal rule at 40 Code of Federal Regulations (CFR) §144.12(a), no well operator shall inject any fluids containing any contaminant into an underground source of drinking water if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR Part 142 or may otherwise adversely affect the health of persons. Because the federal rules do not specify that injected water in aquifer storage projects must meet primary drinking water standards, current §331.184(e), may be more stringent than the federal standards and may have to be revised to be consistent with HB 655. This revision applies only to the injected water and does not affect the requirements in Chapter 290.

Will 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?

Under HB 655, Section 6, the TCEQ is directed to adopt rules by May 1, 2016, to implement the sections of TWC amended by HB 655. Adoption of rules in Chapters 39, 295, 297, and 331 are necessary to implement these changes to the TWC.

Key points in the proposal rulemaking schedule:

Anticipated proposal date: December 9, 2015

Anticipated *Texas Register* publication date: December 25, 2015

Anticipated public hearing date (if any): January 22, 2016

Anticipated public comment period: December 25, 2015 - February 8, 2016

Anticipated adoption date: April 27, 2016

Agency contacts:

David Murry, Rule Project Manager, Radioactive Materials Division, (512) 239-6080

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

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

Attachments

HB 655

cc: Chief Clerk, 2 copies
Executive Director's Office

Commissioners
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Re: Docket No. 2015-0870-RUL

Marshall Coover
Stephen Tatum
Jim Rizk
Office of General Counsel
L'Oreal Stepney
David Murry
Kris Hogan

AN ACT

relating to the storage and recovery of water in aquifers; authorizing fees and surcharges; adding provisions subject to a criminal penalty.

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

SECTION 1. Sections 11.153(a), (b), and (c), Water Code, are amended to read as follows:

(a) In this section, "aquifer storage and recovery project" has the meaning assigned by Section 27.151 ~~[The commission shall investigate the feasibility of storing appropriated water in various types of aquifers around the state by encouraging the issuance of temporary or term permits for demonstration projects for the storage of appropriated water for subsequent retrieval and beneficial use].~~

(b) A water right holder or a person who has contracted for the use of water under a contract that does not prohibit the use of the water in an aquifer storage and recovery project may undertake an aquifer storage and recovery project without obtaining any additional authorization under this chapter for the project. A person described by this subsection undertaking an aquifer storage and recovery project must:

(1) obtain any required authorizations under Subchapter G, Chapter 27, and Subchapter N, Chapter 36; and

(2) comply with the terms of the applicable water

1 right [~~A permit described by Subsection (a) must be for only the~~
2 ~~duration of the pilot project to provide the commission and the~~
3 ~~board further opportunity to evaluate the storage of appropriated~~
4 ~~water in aquifers for subsequent retrieval and beneficial use].~~

5 (c) This section does not preclude the commission from
6 considering an aquifer storage and recovery project to be a
7 component of a project permitted under this chapter that is not
8 required to be based on the continuous availability of historic,
9 normal stream flow [~~At the conclusion of a pilot project, a permit~~
10 ~~holder may file an appropriate application for a permit or permit~~
11 ~~amendment. After considering the success of the project and the~~
12 ~~criteria set out in Section 11.154, the commission shall determine~~
13 ~~whether to issue a permit or permit amendment authorizing the~~
14 ~~continued storage of appropriated water in the aquifer].~~

15 SECTION 2. Section 11.155, Water Code, is amended to read as
16 follows:

17 Sec. 11.155. AQUIFER STORAGE AND RECOVERY [~~PILOT PROJECT~~]
18 REPORTS. [~~(a) On completion of each pilot project, the board and~~
19 ~~the commission jointly shall:~~

20 [~~(1) prepare a report evaluating the success of the~~
21 ~~project, and~~

22 [~~(2) provide copies of the report to the governor,~~
23 ~~lieutenant governor, and speaker of the house of representatives.~~

24 [~~(b)~~] The board shall make [~~other~~] studies, investigations,
25 and surveys of the aquifers in the state as it considers necessary
26 to determine the occurrence, quantity, quality, and availability of
27 [~~other~~] aquifers in which water may be stored and subsequently

1 retrieved for beneficial use. The board shall undertake the
2 studies, investigations, and surveys in the following order of
3 priority:

- 4 (1) ~~[the aquifers described in Section 11.153(a),~~
5 ~~(2)]~~ areas designated by the commission as "priority
6 groundwater management areas" under Section 35.008; and
7 (2) ~~(3)]~~ other areas of the state in a priority to be
8 determined by the board's ranking of where the greatest need
9 exists.

10 SECTION 3. Chapter 27, Water Code, is amended by adding
11 Subchapter G to read as follows:

12 SUBCHAPTER G. AQUIFER STORAGE AND RECOVERY PROJECTS

13 Sec. 27.151. DEFINITIONS. In this subchapter:

14 (1) "Aquifer storage and recovery project" means a
15 project involving the injection of water into a geologic formation
16 for the purpose of subsequent recovery and beneficial use by the
17 project operator.

18 (2) "ASR injection well" means a Class V injection
19 well used for the injection of water into a geologic formation as
20 part of an aquifer storage and recovery project.

21 (3) "ASR recovery well" means a well used for the
22 recovery of water from a geologic formation as part of an aquifer
23 storage and recovery project.

24 (4) "Native groundwater" means the groundwater
25 naturally occurring in a geologic formation.

26 (5) "Project operator" means a person holding an
27 authorization under this subchapter to undertake an aquifer storage

1 and recovery project.

2 Sec. 27.152. JURISDICTION. The commission has exclusive
3 jurisdiction over the regulation and permitting of ASR injection
4 wells.

5 Sec. 27.153. AUTHORIZATION FOR USE OF CLASS V INJECTION
6 WELLS. (a) The commission may authorize the use of a Class V
7 injection well as an ASR injection well:

8 (1) by rule;

9 (2) under an individual permit; or

10 (3) under a general permit.

11 (b) In adopting a rule or issuing a permit under this
12 section, the commission shall consider:

13 (1) whether the injection of water will comply with
14 the standards set forth under the federal Safe Drinking Water Act
15 (42 U.S.C. Section 300f et seq.);

16 (2) the extent to which the cumulative volume of water
17 injected for storage in the receiving geologic formation can be
18 successfully recovered from the geologic formation for beneficial
19 use, taking into account that injected water may be commingled to
20 some degree with native groundwater;

21 (3) the effect of the aquifer storage and recovery
22 project on existing water wells; and

23 (4) whether the introduction of water into the
24 receiving geologic formation will alter the physical, chemical, or
25 biological quality of the native groundwater to a degree that
26 would:

27 (A) render the groundwater produced from the

1 receiving geologic formation harmful or detrimental to people,
2 animals, vegetation, or property; or

3 (B) require an unreasonably higher level of
4 treatment of the groundwater produced from the receiving geologic
5 formation than is necessary for the native groundwater in order to
6 render the groundwater suitable for beneficial use.

7 (c) All wells associated with a single aquifer storage and
8 recovery project must be located within a continuous perimeter
9 boundary of one parcel of land, or two or more adjacent parcels of
10 land under common ownership, lease, joint operating agreement, or
11 contract.

12 (d) The commission by rule shall provide for public notice
13 and comment on a proposed general permit authorized under this
14 section. The commission shall require an applicant for an
15 individual permit authorized under this section to provide notice
16 of the application by first class mail to any groundwater
17 conservation district in which the wells associated with the
18 aquifer storage and recovery project will be located and by
19 publishing notice in a newspaper of general circulation in the
20 county in which the wells will be located.

21 Sec. 27.154. TECHNICAL STANDARDS. (a) The commission shall
22 adopt technical standards governing the approval of the use of a
23 Class V injection well as an ASR injection well.

24 (b) This subsection applies only to an aquifer storage and
25 recovery project proposed to be located in a groundwater
26 conservation district or other special-purpose district with the
27 authority to regulate the withdrawal of groundwater. Except as

1 otherwise provided by this section, the commission shall limit the
2 volume of water that may be recovered by an aquifer storage and
3 recovery project to an amount that does not exceed the amount of
4 water injected under the project. If the commission determines that
5 the proposed injection of water into a geologic formation will
6 result in a loss of injected water or native groundwater, the
7 commission shall impose additional restrictions on the amount of
8 water that may be recovered to account for the loss. The commission
9 may not deny a permit based on a determination that a loss described
10 by this subsection will occur. A limitation imposed under this
11 subsection may not prohibit the production of native groundwater by
12 an aquifer storage and recovery project if the production complies
13 with Subchapter N, Chapter 36.

14 (c) The commission by rule shall prescribe construction and
15 completion standards and metering and reporting requirements for
16 ASR injection wells and ASR recovery wells, including for an ASR
17 injection well that also serves as an ASR recovery well.

18 (d) The commission may not adopt or enforce groundwater
19 quality protection standards for the quality of water injected into
20 an ASR injection well that are more stringent than applicable
21 federal standards.

22 Sec. 27.155. REPORTING OF INJECTION AND RECOVERY VOLUMES.

23 (a) A project operator shall install a meter on each ASR injection
24 well and ASR recovery well associated with the aquifer storage and
25 recovery project.

26 (b) Each calendar month, the project operator shall provide
27 to the commission a written or electronic report showing for the

1 preceding calendar month the volume of water:

2 (1) injected for storage; and

3 (2) recovered for beneficial use.

4 Sec. 27.156. REPORTING OF WATER QUALITY DATA. A project
5 operator shall:

6 (1) perform water quality testing annually on water to
7 be injected into a geologic formation and water recovered from a
8 geologic formation as part of the aquifer storage and recovery
9 project; and

10 (2) provide the results of the testing described by
11 Subdivision (1) in written or electronic form to the commission.

12 Sec. 27.157. OTHER LAWS NOT AFFECTED. (a) This subchapter
13 does not affect the ability to regulate an aquifer storage and
14 recovery project as authorized under:

15 (1) Chapter 626, Acts of the 73rd Legislature, Regular
16 Session, 1993, for the Edwards Aquifer Authority;

17 (2) Chapter 8801, Special District Local Laws Code,
18 for the Harris-Galveston Subsidence District;

19 (3) Chapter 8834, Special District Local Laws Code,
20 for the Fort Bend Subsidence District;

21 (4) Chapter 8802, Special District Local Laws Code,
22 for the Barton Springs-Edwards Aquifer Conservation District; or

23 (5) Chapter 8811, Special District Local Laws Code,
24 for the Corpus Christi Aquifer Storage and Recovery Conservation
25 District.

26 (b) This subchapter does not affect the authority of the
27 commission regarding:

1 (1) recharge projects in certain portions of the
2 Edwards underground reservoir under Sections 11.023(c) and (d); or

3 (2) injection wells that transect or terminate in
4 certain portions of the Edwards Aquifer under Section 27.0516.

5 SECTION 4. Chapter 36, Water Code, is amended by adding
6 Subchapter N to read as follows:

7 SUBCHAPTER N. AQUIFER STORAGE AND RECOVERY PROJECTS

8 Sec. 36.451. DEFINITIONS. In this subchapter, "aquifer
9 storage and recovery project," "ASR injection well," "ASR recovery
10 well," and "project operator" have the meanings assigned by Section
11 27.151.

12 Sec. 36.452. APPLICABILITY TO RECOVERY WELLS THAT ALSO
13 FUNCTION AS INJECTION WELLS. Notwithstanding Section 27.152, this
14 subchapter applies to an ASR recovery well that also functions as an
15 ASR injection well.

16 Sec. 36.453. REGISTRATION AND REPORTING OF WELLS. (a) A
17 project operator shall:

18 (1) register the ASR injection wells and ASR recovery
19 wells associated with the aquifer storage and recovery project with
20 any district in which the wells are located;

21 (2) each calendar month by the deadline established by
22 the commission for reporting to the commission, provide the
23 district with a copy of the written or electronic report required to
24 be provided to the commission under Section 27.155; and

25 (3) annually by the deadline established by the
26 commission for reporting to the commission, provide the district
27 with a copy of the written or electronic report required to be

1 provided to the commission under Section 27.156.

2 (b) If an aquifer storage and recovery project recovers an
3 amount of groundwater that exceeds the volume authorized by the
4 commission to be recovered under the project, the project operator
5 shall report to the district the volume of groundwater recovered
6 that exceeds the volume authorized to be recovered in addition to
7 providing the report required by Subsection (a)(2).

8 Sec. 36.454. PERMITTING, SPACING, AND PRODUCTION
9 REQUIREMENTS. (a) Except as provided by Subsection (b), a district
10 may not require a permit for the drilling, equipping, operation, or
11 completion of an ASR injection well or an ASR recovery well that is
12 authorized by the commission.

13 (b) The ASR recovery wells that are associated with an
14 aquifer storage and recovery project are subject to the permitting,
15 spacing, and production requirements of the district if the amount
16 of groundwater recovered from the wells exceeds the volume
17 authorized by the commission to be recovered under the project. The
18 requirements of the district apply only to the portion of the volume
19 of groundwater recovered from the ASR recovery wells that exceeds
20 the volume authorized by the commission to be recovered.

21 (c) A project operator may not recover groundwater by an
22 aquifer storage and recovery project in an amount that exceeds the
23 volume authorized by the commission to be recovered under the
24 project unless the project operator complies with the applicable
25 requirements of a district as described by this section.

26 Sec. 36.455. FEES AND SURCHARGES. (a) A district may not
27 assess a production fee or a transportation or export fee or

1 surcharge for groundwater recovered from an ASR recovery well,
2 except to the extent that the amount of groundwater recovered under
3 the aquifer storage and recovery project exceeds the volume
4 authorized by the commission to be recovered.

5 (b) A district may assess a well registration fee or other
6 administrative fee for an ASR recovery well in the same manner that
7 the district assesses such a fee for other wells registered with the
8 district.

9 Sec. 36.456. DESIRED FUTURE CONDITIONS. A district may
10 consider hydrogeologic conditions related to the injection and
11 recovery of groundwater as part of an aquifer storage and recovery
12 project in the planning for and monitoring of the achievement of a
13 desired future condition for the aquifer in which the wells
14 associated with the project are located.

15 Sec. 36.457. OTHER LAWS NOT AFFECTED. This subchapter does
16 not affect the ability to regulate groundwater as authorized under:

17 (1) Chapter 626, Acts of the 73rd Legislature, Regular
18 Session, 1993, for the Edwards Aquifer Authority;

19 (2) Chapter 8801, Special District Local Laws Code,
20 for the Harris-Galveston Subsidence District;

21 (3) Chapter 8834, Special District Local Laws Code,
22 for the Fort Bend Subsidence District;

23 (4) Chapter 8802, Special District Local Laws Code,
24 for the Barton Springs-Edwards Aquifer Conservation District; or

25 (5) Chapter 8811, Special District Local Laws Code,
26 for the Corpus Christi Aquifer Storage and Recovery Conservation
27 District.

1 SECTION 5. The following sections of the Water Code are
2 repealed:

3 (1) Sections 11.153(d) and (e); and

4 (2) Section 11.154.

5 SECTION 6. Not later than May 1, 2016, the Texas Commission
6 on Environmental Quality shall adopt rules to implement Section
7 11.153, Water Code, as amended by this Act, and Subchapter G,
8 Chapter 27, Water Code, as added by this Act.

9 SECTION 7. This Act takes effect immediately if it receives
10 a vote of two-thirds of all the members elected to each house, as
11 provided by Section 39, Article III, Texas Constitution. If this
12 Act does not receive the vote necessary for immediate effect, this
13 Act takes effect September 1, 2015.

President of the Senate

Speaker of the House

I certify that H.B. No. 655 was passed by the House on April 22, 2015, by the following vote: Yeas 142, Nays 2, 2 present, not voting; and that the House concurred in Senate amendments to H.B. No. 655 on May 21, 2015, by the following vote: Yeas 142, Nays 1, 2 present, not voting.

Chief Clerk of the House

I certify that H.B. No. 655 was passed by the Senate, with amendments, on May 18, 2015, by the following vote: Yeas 29, Nays 1.

Secretary of the Senate

APPROVED: _____

Date

Governor

The Texas Commission on Environmental Quality (TCEQ, agency, or commission) proposes to amend §39.651.

Background and Summary of the Factual Basis for the Proposed Rule

This rulemaking implements House Bill (HB) 655, 84th Texas Legislature, 2015, addressing the commission's regulation of aquifer storage and recovery (ASR) projects in Texas. ASR involves the use of one or more injection wells for the purpose of placing a water supply into a subsurface geologic formation, or aquifer, for storage so that the water may be subsequently recovered and used by the project operator. The proposed amendment to §39.651 implements the requirements of HB 655 for providing public notice for an individual injection well permit application for an ASR injection well.

There are no requirements for providing individual public notice on ASR injection wells that are authorized by rule.

In corresponding rulemaking published in this issue of the *Texas Register*, the commission also proposes revisions to 30 TAC Chapter 295, Water Rights, Procedural; Chapter 297, Water Rights, Substantive; and Chapter 331, Underground Injection Control.

Section Discussion

The commission proposes to amend §39.651 to implement the public notice

requirements in Texas Water Code (TWC), §27.153(d). With the proposed revisions, an application for a permit for a Class V injection well, including a Class V permit for an ASR well, would be subject to similar public notice requirements for a nonhazardous Class I or Class III injection well permit. These requirements include providing mailed notice to any groundwater conservation district located in the same county as the proposed injection well and newspaper publication requirements. Section 39.651(c)(4) is proposed to be amended to add "Class V" to include Class V injection well permit applications in the requirements for the Notice of Receipt of Application and Intent to Obtain a Permit. Section 39.651(d)(4) and (6) is proposed to be amended to add "Class V" to include Class V injection well permit applications in the requirements for the Notice of Application and Preliminary Decision. Section 39.651(f)(3)(B) is proposed to be amended to add "Class V" to include Class V injection well permit applications in the requirements for a notice of hearing.

Fiscal Note: Costs to State and Local Government

Jeffrey Horvath, Analyst in the Chief Financial Officer Division, has determined that for the first five-year period the proposed rule is in effect, no significant fiscal implications are anticipated for the agency or for other units of state or local government as a result of the administration or enforcement of the proposed rule.

The proposed rule implements HB 655. HB 655 amended TWC, Chapters 11, 27, and 36,

regarding regulation of ASR projects. In corresponding rulemaking published in this issue of the *Texas Register*, the commission also proposes revisions to 30 TAC Chapters 295, 297, and 331. This fiscal note applies only to the proposed changes to Chapter 39.

ASR involves the use of one or more injection wells for the purpose of placing a water supply into a subsurface geologic formation, or aquifer, for storage so that the water may be subsequently recovered and used by the project operator. ASR allows the operator to utilize an existing aquifer as a storage reservoir rather than using aboveground storage options. The stored water can be available for public or private drinking water supplies, agriculture, or industrial uses. The operator must assure that the aquifer formation receiving the injected water has appropriate geologic and hydrologic properties that are amenable to injection and will allow the control or containment of the injected water. The operator must also assure that the injection will not pollute the native groundwater already in the aquifer or other underground sources of drinking water. TCEQ's Underground Injection Control program regulates the authorization, construction, operation, and closure of the injection wells used for ASR projects.

HB 655 revised TWC statutory provisions under which an application for an individual permit for an ASR project is subject to public notice. The HB 655 requirements are added in the proposed revisions to §39.651 and would now include individual permit

applications for Class V injection wells as being subject to public notice requirements.

The proposed rule would require TCEQ to mail notice of an application for an ASR individual permit to all persons who own property adjacent to the proposed ASR project and to all persons who own mineral rights on property adjacent to the proposed project. TCEQ will bear the costs of mailing these notices. These costs are not anticipated to be significant. ASR projects may also be authorized by rule. Since authorizations by rule do not have public notice requirements and most applicants are expected to apply for an ASR authorization by rule process rather than seek an individual permit, any costs to the agency to implement the proposed rule should be minimal.

Municipalities or other entities providing water supplies that use or intend to use ASR for storage of water may be affected by the changes to Chapter 39. If one of these entities chooses to obtain authorization for an ASR project under an individual permit, they will have to provide the TCEQ with the names and addresses of all adjacent landowners and mineral owners. Obtaining this information would be at some cost, depending on the number of adjacent landowners and mineral owners. However, TCEQ anticipates that this cost will be minimal in relation to the total cost of an ASR project and that most applicants will apply for an ASR authorization by rule process rather than seek an individual permit. Because notice requirements are not associated with authorization-by-rule applications, municipalities or other local governmental entities who apply for

authorization-by-rule would not be affected by the proposed rule.

Public Benefits and Costs

Mr. Horvath has also determined that for each year of the first five years the proposed rule is in effect, the public benefit anticipated from the changes seen in the proposed rule would be compliance with state law and the implementation of a process for authorizing ASR projects which are a recognized strategy for alleviating the effects of prolonged drought and for ensuring adequate water supplies.

No significant fiscal implications are anticipated for businesses or individuals as a result of the administration or enforcement of the proposed rule. Anyone who applies for authorization for an ASR project under an individual permit would have to comply with the proposed notice requirements in §39.651. Compliance would require the applicant to supply to the TCEQ the names and addresses of all persons who own property adjacent to the proposed ASR project, and the names and addresses of all persons who own mineral rights on these adjacent property. Obtaining this information would be at some cost, depending on the number of adjacent landowners and mineral owners. However, TCEQ anticipates that this cost will be minimal in relation to the total cost of an ASR project and that most applicants will apply for an ASR authorization by rule rather than seek an individual permit. Because notice requirements are not associated with authorization-by-rule applications, entities who apply for an authorization-by-rule

would not be affected by the proposed rule.

Small Business and Micro-Business Assessment

No adverse fiscal implications are anticipated for small or micro-businesses as a result of the proposed rule. The proposed rule would have the same effect on a small business as it does on a large business. The proposed rule would require the applicants for an ASR individual permit to supply to the TCEQ the names and addresses of all persons who own property adjacent to the proposed ASR project, and the names and addresses of all persons who own mineral rights on these adjacent property. Obtaining this information would be at some cost, depending on the number of adjacent landowners and mineral owners. However, TCEQ anticipates that most applicants will apply for an ASR authorization by rule rather than seek an individual permit, and because notice requirements are not associated with authorization-by-rule applications, small or micro-businesses are not expected to be affected by the proposed rule.

Small Business Regulatory Flexibility Analysis

The commission has reviewed this proposed rulemaking and determined that a small business regulatory flexibility analysis is not required because the proposed rule is necessary in order to comply with state law and does not adversely affect small or micro-businesses in a material way for the first five years that the proposed rule is in effect.

Local Employment Impact Statement

The commission has 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.

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 legislative requirements in HB 655, which revises the requirements for the commission's regulation of injection wells associated with ASR projects. 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 proposed rule

implements public notice requirements for certain injection well permit applications associated with ASR projects, consistent with the requirements of HB 655.

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 the proposed rule is consistent with applicable federal standards regarding public notice required for injection well permit applications. The proposed rule does not exceed an express requirement of state law because it is consistent with the express requirements of HB 655 and TWC, Chapter 27, Subchapter G. 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 HB 655 and TWC, §§27.019, 27.153, and 27.154.

Written comments on the Draft Regulatory Impact Analysis Determination 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 HB 655, which revises the requirements for the commission's regulation of injection wells associated with ASR projects.

The proposed rule would be neither a statutory nor a constitutional taking of private real property. The proposed rule is procedural and would establish public notice requirement for certain injection well permit applications associated with ASR projects, consistent with the requirements of HB 655. 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 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 that it is neither identified in Coastal Commission Act Implementation Rules, 31 TAC §505.11(b)(2) or (4), nor will 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 22, 2016, 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 Sandy Wong, Office of Legal Services at (512) 239-1802 or 1-800-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: <http://www1.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 2015-022-331-WS. The comment period closes on February 8, 2016. Copies of the proposed rulemaking can be obtained from the commission's website at http://www.tceq.texas.gov/rules/propose_adopt.html. For further information, please contact David Murry, Radioactive Materials Division, (512) 239-6080.

**SUBCHAPTER L: PUBLIC NOTICE OF INJECTION WELL AND OTHER
SPECIFIC APPLICATIONS**

§39.651

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 this code 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, §27.153, which requires the commission to adopt rules for authorization of aquifer storage and recovery injection wells by rule or by permit.

The amended section implements House Bill 655, 84th Texas Legislature, 2015, and TWC, Chapter 27, Subchapter G.

§39.651. Application for Injection Well Permit.

(a) Applicability. This subchapter applies to applications for injection well permits that are declared administratively complete on or after September 1, 1999.

(b) Preapplication local review committee process. If an applicant decides to participate in a local review committee process under Texas Health and Safety Code, §361.063, the applicant shall submit a notice of intent to file an application to the executive director, setting forth the proposed location and type of facility. The applicant shall mail notice to the county judge of the county in which the facility is to be located. In addition, if the proposed facility is to be located in a municipality or the extraterritorial jurisdiction of a municipality, a copy of the notice must be mailed to the mayor of the municipality.

(c) Notice of Receipt of Application and Intent to Obtain Permit.

(1) On the executive director's receipt of an application, or notice of intent to file an application, the chief clerk shall mail notice to the state senator and representative who represent the area in which the facility is or will be located.

(2) After the executive director determines that the application is administratively complete, notice must be given as required by §39.418 of this title (relating to Notice of Receipt of Application and Intent to Obtain [a] Permit). This

notice must contain the text as required by §39.411(b)(1) - (9) and (11) of this title (relating to Text of Public Notice). Notice under §39.418 of this title will satisfy the notice of receipt of application required by §281.17(d) of this title (relating to Notice of Receipt of Application and Declaration of Administrative Completeness).

(3) After the executive director determines that the application is administratively complete, in addition to the requirements of §39.418 of this title, notice must be given to the School Land Board, if the application will affect lands dedicated to the permanent school fund. The notice must be in the form required by Texas Water Code, §5.115(c).

(4) For Notice of Receipt of Application and Intent to Obtain a Permit [notice of receipt of application and intent to obtain a permit] concerning Class I, [or] Class III, or Class V underground injection wells, the chief clerk shall also mail notice to:

(A) persons who own the property on which the existing or proposed injection well facility is or will be located, if different from the applicant;

(B) landowners adjacent to the property on which the existing or proposed injection well facility is or will be located;

(C) persons who own mineral rights underlying the existing or proposed injection well facility;

(D) persons who own mineral rights underlying the tracts of land adjacent to the property on which the existing or proposed injection well facility is or will be located; and

(E) any groundwater conservation district established in the county in which the existing or proposed injection well facility is or will be located.

(5) The chief clerk or executive director shall also mail a copy of the application or a summary of its contents to the mayor and health authority of a municipality in whose territorial limits or extraterritorial jurisdiction the solid waste facility is located and to the county judge and the health authority of the county in which the facility is located.

(6) For Class I underground injection wells, the published notice must be at least 15 square inches (96.8 square centimeters) with a shortest dimension of at least three inches (7.6 centimeters) and the notice must appear in the section of the newspaper containing state or local news items.

(d) Notice of Application and Preliminary Decision. The notice required by §39.419 of this title (relating to Notice of Application and Preliminary Decision) must be published once under §39.405(f)(2) of this title (relating to General Notice Provisions) after the chief clerk has mailed the preliminary decision and the Notice of Application and Preliminary Decision to the applicant. This notice must contain the text as required by §39.411(c)(1) - (6) of this title. In addition to the requirements of §39.405(h) and §39.419 of this title, the following requirements apply.

(1) The applicant shall publish notice at least once in a newspaper of general circulation in each county that is adjacent or contiguous to each county in which the proposed facility is located. One notice may satisfy the requirements of §39.405(f)(2) of this title and of this subsection, if the newspaper meets the requirements of both rules.

(2) For Class I underground injection wells, the published notice must be at least 15 square inches (96.8 square centimeters) with a shortest dimension of at least three inches (7.6 centimeters) and the notice must appear in the section of the newspaper containing state or local news items.

(3) The chief clerk shall mail notice to the persons listed in §39.413 of this title (relating to Mailed Notice) and to local governments located in the county of the

facility. "Local governments" have the meaning as defined in Texas Water Code, Chapter 26.

(4) For Notice of Application and Preliminary Decision concerning Class I, or Class III, or Class V underground injection wells, the chief clerk shall also mail notice to:

(A) persons who own the property on which the existing or proposed injection well facility is or will be located, if different from the applicant;

(B) landowners adjacent to the property on which the existing or proposed injection well facility is or will be located;

(C) persons who own mineral rights underlying the existing or proposed injection well facility;

(D) persons who own mineral rights underlying the tracts of land adjacent to the property on which the existing or proposed injection well facility is or will be located; and

(E) any groundwater conservation district established in the county in which the existing or proposed injection well facility is or will be located.

(5) If the application concerns a hazardous waste facility, the applicant shall broadcast notice under §39.503(d)(2) of this title (relating to Application for Industrial or Hazardous Waste Facility Permit).

(6) The deadline for public comments on industrial solid waste, [or] Class III, or Class V injection well permit applications will be not less than 30 days after newspaper publication, and for hazardous waste applications, not less than 45 days after newspaper publication.

(e) Notice of public meeting.

(1) If an application for a new hazardous waste facility is filed:

(A) before September 1, 2005, the agency shall hold a public meeting in the county in which the facility is proposed to be located to receive public comment concerning the application; or

(B) on or after September 1, 2005, the agency:

(i) may hold a public meeting under §55.154 of this title (relating to Public Meetings) in the county in which the facility is proposed to be located to receive public comment concerning the application; but

(ii) shall hold a public meeting under §55.154 of this title in the county in which the facility is proposed to be located to receive public comment concerning the application:

(I) on the request of a member of the legislature who represents the general area in which the facility is proposed to be located; or

(II) if the executive director determines that there is substantial public interest in the proposed facility.

(2) If an application for a major amendment to or a Class 3 modification of an existing hazardous waste facility permit is filed:

(A) before September 1, 2005, the agency shall hold a public meeting in the county in which the facility is located to receive public comment on the application if a person affected files with the chief clerk a request for a public meeting

concerning the application before the deadline to file public comment or to file requests for reconsideration or hearing; or

(B) on or after September 1, 2005, the agency:

(i) may hold a public meeting under §55.154 of this title in the county in which the facility is located to receive public comment on the application; but

(ii) shall hold a public meeting under §55.154 of this title in the county in which the facility is located to receive public comment concerning the application:

(I) on the request of a member of the legislature who represents the general area in which the facility is located; or

(II) if the executive director determines that there is substantial public interest in the facility.

(3) For purposes of this subsection, "substantial public interest" is demonstrated if a request for a public meeting is filed by:

(A) a local governmental entity with jurisdiction over the location in which the facility is located or proposed to be located by formal resolution of the entity's governing body;

(B) a council of governments with jurisdiction over the location in which the facility is located or proposed to be located by formal request of either the council's solid waste advisory committee, executive committee, or governing board;

(C) a homeowners' or property owners' association formally organized or chartered and having at least ten members located in the general area in which the facility is located or proposed to be located; or

(D) a group of ten or more local residents, property owners, or businesses located in the general area in which the facility is located or proposed to be located.

(4) A public meeting is not a contested case proceeding under the Administrative Procedure Act. A public meeting held as part of a local review committee process under subsection (a) of this section meets the requirements of this subsection if public notice is provided in accordance with this subsection.

(5) The applicant shall publish notice of the public meeting once each week during the three weeks preceding a public meeting under §39.405(f)(2) of this title. The published notice must be at least 15 square inches (96.8 square centimeters) with a shortest dimension of at least three inches (7.6 centimeters).

(6) The chief clerk shall mail notice to the persons listed in §39.413 of this title.

(f) Notice of contested case hearing.

(1) Applicability. This subsection applies if an application is referred to the State Office of Administrative Hearings for a contested case hearing under Chapter 80 of this title (relating to Contested Case Hearings).

(2) Newspaper notice.

(A) If the application concerns a facility other than a hazardous waste facility, the applicant shall publish notice at least once in a newspaper of general circulation in the county in which the facility is located and in each county and area that is adjacent or contiguous to each county in which the proposed facility is located.

(B) For Class I underground injection wells, the published notice must be at least 15 square inches (96.8 square centimeters) with a shortest dimension of at least three inches (7.6 centimeters) and the notice must appear in the section of the newspaper containing state or local news items.

(C) If the application concerns a hazardous waste facility, the hearing must include one session held in the county in which the facility is located. The applicant shall publish notice of the hearing once each week during the three weeks preceding the hearing under §39.405(f)(2) of this title. The published notice must be at least 15 square inches (96.8 square centimeters) with a shortest dimension of at least three inches (7.6 centimeters). The notice must appear in the section of the newspaper containing state or local news items. The text of the notice must include the statement that at least one session of the hearing will be held in the county in which the facility is located.

(3) Mailed notice.

(A) For all applications concerning underground injection wells, the chief clerk shall mail notice to persons listed in §39.413 of this title.

(B) For notice of hearings concerning Class I, [or] Class III, or Class
V underground injection wells, the chief clerk shall also mail notice to:

(i) persons who own the property on which the existing or proposed injection well facility is or will be located, if different from the applicant;

(ii) landowners adjacent to the property on which the existing or proposed injection well facility is or will be located;

(iii) persons who own mineral rights underlying the existing or proposed injection well facility;

(iv) persons who own mineral rights underlying the tracts of land adjacent to the property on which the existing or proposed injection well facility is or will be located; and

(v) any groundwater conservation district established in the county in which the existing or proposed injection well facility is or will be located.

(C) If the applicant proposes a new solid waste management facility, the applicant shall mail notice to each residential or business address, not listed

under subparagraph (A) of this paragraph, located within 1/2 mile of the facility and to each owner of real property located within 1/2 mile of the facility listed in the real property appraisal records of the appraisal district in which the facility is located. The notice must be mailed to the persons listed as owners in the real property appraisal records on the date the application is determined to be administratively complete. The notice must be mailed no more than 45 days and no less than 30 days before the contested case hearing. Within 30 days after the date of mailing, the applicant shall file with the chief clerk an affidavit certifying compliance with its obligations under this subsection. Filing an affidavit certifying facts that constitute compliance with notice requirements creates a rebuttable presumption of compliance with this subparagraph.

(4) Radio broadcast. If the application concerns a hazardous waste facility, the applicant shall broadcast notice under §39.503(d)(2) of this title.

(5) Deadline. Notice under paragraphs (2)(A), (3), and (4) of this subsection must be completed at least 30 days before the contested case hearing.

(g) Approval. All published notices required by this section must be in a form approved by the executive director prior to publication.

The Texas Commission on Environmental Quality (TCEQ, agency, or commission) proposes the repeal of §295.21 and §295.22; new §295.21; and amendment to §295.202.

Background and Summary of the Factual Basis for the Proposed Rules

This rulemaking implements House Bill (HB) 655, 84th Texas Legislature, 2015, addressing the commission's regulation of aquifer storage and recovery (ASR) projects in Texas. ASR involves the use of one or more injection wells for the purpose of placing a water supply into a subsurface geologic formation, or aquifer, for storage so that the water may be subsequently recovered and used by the project operator. The proposed revisions to Chapter 295 implement amendments to Texas Water Code (TWC), §11.153 and the repeal of TWC, §11.154 under HB 655. HB 655 eliminated the requirement that ASR projects using appropriated water must first develop a pilot project. The proposed revisions in this chapter implement HB 655 by removing the requirements that an ASR project using surface water under a water right develop the project in separate phases. HB 655 states that a water right holder or a person who has contracted for the use of water under a contract that does not prohibit the use of the water in an ASR project may undertake an ASR project without obtaining any additional authorization under the water rights program. An ASR project must comply with applicable requirements under TWC, Chapters 27 and 36.

In corresponding rulemaking published in this issue of the *Texas Register*, the

commission also proposes amendments to 30 TAC Chapter 39, Public Notice; Chapter 297, Water Rights, Substantive; and Chapter 331, Underground Injection Control.

Section by Section Discussion

§295.21, Aquifer Storage and Retrieval Projects

The commission proposes to repeal and replace §295.21. Existing §295.21 includes the requirements for water rights permitting from TWC, §11.153(d) and (e). HB 655 amended TWC, §11.153, to remove subsections (d) and (e); therefore, the commission proposes to delete the corresponding requirements in §295.21.

§295.21, Aquifer Storage and Recovery Projects

HB 655 also amended TWC, §11.153(a) - (c), to allow a water right holder or a person who has contracted for the use of water under a contract that does not prohibit the use of the water in an ASR project to undertake an ASR project without obtaining any additional authorization under TWC, Chapter 11. However, TWC, §11.153, as amended by HB 655, requires the applicant to obtain any necessary authorizations for an ASR project under TWC, Chapter 27, Subchapter G, and TWC, Chapter 36, Subchapter N. The commission proposes new §295.21 to incorporate these changes to the TWC.

Proposed new §295.21 would allow a water right holder or contractee to undertake an ASR project without obtaining any additional authorization under TWC, Chapter 11, for

the project. In addition, proposed new §295.21 would specify that a person undertaking an ASR project must obtain any required authorizations under TWC, Chapter 27, Subchapter G, and TWC, Chapter 36, Subchapter N and comply with the terms of the applicable water right.

Current TCEQ rules in 30 TAC §297.42(d) allow the commission to consider water availability on a case-by-case basis for projects, including ASR projects, that are not based on continuous availability of historical streamflow. Proposed new §295.21(b) is included to allow TCEQ to continue to consider ASR projects under this rule even though the ASR project does not require a water rights permit.

§295.22, Additional Requirements for the Underground Storage of Surface Water for Subsequent Retrieval and Beneficial Use

The commission proposes to repeal §295.22. This section contains additional requirements for the underground storage of surface water for subsequent retrieval and beneficial use associated with Phase I and II ASR projects. These requirements are from TWC, §11.154. HB 655 repealed TWC, §11.154; therefore, the commission proposes to repeal this corresponding rule section.

§295.202, Reports

The commission proposes to delete subsection (e). This subsection contains

requirements for operations reports for ASR projects. HB 655 amended TWC, §11.153(a) - (c), to allow a water right holder or contractee to undertake an ASR project without obtaining any additional authorization under TWC, Chapter 11, for the project. In addition, HB 655 repealed TWC, §11.153(d) and (e), and TWC, §11.154, which pertained to ASR projects; therefore, the commission proposes to delete subsection (e).

Fiscal Note: Costs to State and Local Government

Jeffrey Horvath, Analyst in the Chief Financial Officer Division, has determined that for the first five-year period the proposed rules are in effect, no significant fiscal implications are anticipated for the agency or for other units of state or local government as a result of the administration or enforcement of the proposed rules.

The proposed rules implement HB 655. HB 655 amended TWC, Chapters 11, 27, and 36, regarding regulation of ASR projects. In corresponding rulemaking published in this issue of the *Texas Register*, the commission also proposes amendments to Chapters 39, 297, and 331. This fiscal note applies only to the proposed revisions to Chapter 295.

The proposed rules would implement HB 655 and are intended to encourage the development of ASR projects, which could provide a significant portion of the storage needed to meet future demand for water. ASR involves the use of one or more injection wells for the purpose of placing a water supply into a subsurface geologic formation, or

aquifer, for storage so that the water may be subsequently recovered and used by the project operator. ASR allows the operator to utilize an existing aquifer as a storage reservoir rather than using aboveground storage options. The stored water can be available for public or private drinking water supplies, agriculture, or industrial uses. The operator must assure that the aquifer formation receiving the injected water has appropriate geologic and hydrologic properties that are amenable to injection and will allow the control or containment of the injected water. The operator must also assure that the injection will not pollute the native groundwater already in the aquifer or other underground sources of drinking water. TCEQ's Underground Injection Control program regulates the authorization, construction, operation, and closure of the injection wells used for ASR projects.

HB 655 eliminated the requirement that ASR projects using appropriated water must first develop a pilot project. The proposed rules in this chapter implement HB 655 by removing the requirements that an ASR project using surface water under a water right develop the project in separate phases. HB 655 states that a water right holder or a person who has contracted for the use of water under a contract that does not prohibit the use of the water in an ASR project may undertake an ASR project without obtaining any additional authorization under the Water Rights program. However, an ASR project must comply with applicable requirements under TWC, Chapters 27 and 36.

In general, the proposed rules would implement HB 655 through the repeal of requirements for water rights permitting and requirements for operations reports for ASR projects. However, HB 655 established other permitting and reporting requirements in TWC, Chapter 27, Subchapter G, and TWC, Chapter 36, Subchapter N. Therefore, regulatory requirements for ASR projects are not expected to change significantly and any costs or cost savings for governmental entities with current ASR projects, or for those planning future projects, are not anticipated to be significant.

Public Benefits and Costs

Mr. Horvath has also determined that for each year of the first five years the proposed rulemaking is in effect, the public benefit anticipated from the changes seen in the proposed rules would be compliance with state law and the implementation of a process for authorizing ASR projects which are a recognized strategy for alleviating the effects of prolonged drought and for ensuring adequate water supplies.

No fiscal implications are anticipated for businesses or individuals as a result of the administration or enforcement of the proposed rules. The proposed rules would implement HB 655 through the repeal of requirements for water rights permitting and requirements for operations reports for ASR projects. However, HB 655 established other permitting and reporting requirements in TWC, Chapter 27, Subchapter G, and TWC, Chapter 36, Subchapter N. Therefore, regulatory requirements for ASR projects

are not expected to change significantly and any costs or cost savings for entities with current ASR projects, or for those planning future projects, are not anticipated to be significant.

Small Business and Micro-Business Assessment

No adverse fiscal implications are anticipated for small or micro-businesses as a result of the proposed rules. The proposed rules would have the same effect on a small business as it does on a large business. The proposed rules would implement HB 655 and are intended to encourage the development of ASR projects, which could provide a significant portion of the storage needed to meet future demand for water. The administration or enforcement of the proposed rules is not expected to result in fiscal implications for small or micro-businesses.

Small Business Regulatory Flexibility Analysis

The commission has reviewed this proposed rulemaking and determined that a small business regulatory flexibility analysis is not required because the proposed rulemaking is necessary in order to comply with state law and does not adversely affect small or micro-businesses in a material way for the first five years that the proposed rulemaking is in effect.

Local Employment Impact Statement

The commission has reviewed this proposed rulemaking and determined that a local employment impact statement is not required because the proposed rulemaking does not adversely affect a local economy in a material way for the first five years that the proposed rulemaking is in effect.

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 legislative requirements in HB 655, which revises the requirements for the commission's regulation of injection wells associated with ASR projects and associated water rights. 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 proposed rules implement the statutory repeal of the requirement to establish a pilot project for an ASR project under HB 655.

Furthermore, the proposed rules do not meet any of the four applicability requirements listed in Texas Government Code, §2001.0225(a). The proposed rules do not exceed a standard set by federal law, because there are no federal standards regarding Texas water rights. The proposed rules do not exceed an express requirement of state law because the rules are consistent with the express requirements of HB 655 and TWC, §11.153. The proposed rules do not exceed requirements of a federal delegation agreement or contract because there is no federal delegation or contract for the Texas Water Rights program. The rulemaking is not proposed under the general powers of the agency and is proposed under the express requirements of HB 655, Section 6.

Written comments on the Draft Regulatory Impact Analysis Determination 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 HB 655, which revises the

requirements for the commission's regulation of water rights associated with ASR projects.

The proposed rules would be neither a statutory nor a constitutional taking of private real property. The proposed rules eliminate a requirement that ASR projects first establish a pilot project and develop the project in phases consistent with the requirements of HB 655. The proposed rules do 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 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 rulemaking and found the proposal is a rulemaking identified in the Coastal Coordination Act Implementation Rules, 31 TAC §505.11(b)(4), relating to rules subject to the Texas Coastal Management Program (CMP), and will, therefore, require that goals and policies of the CMP be considered during the rulemaking process.

The commission reviewed this rulemaking for consistency with the CMP goals and policies in accordance with the regulations of the Coastal Coordination Advisory Committee and determined that the rulemaking is procedural in nature and will have no

substantive effect on commission actions subject to the CMP and is, therefore, consistent with CMP goals and policies.

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 22, 2016, 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 Sandy Wong, Office of Legal Services at (512) 239-1802 or 1-800-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: <http://www1.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 2015-022-331-WS. The comment period closes on February 8, 2016. Copies of the proposed rulemaking can be obtained from the commission's website at http://www.tceq.texas.gov/rules/propose_adopt.html. For further information, please contact David Murry, Radioactive Materials Division, (512) 293-6080.

SUBCHAPTER A: REQUIREMENTS OF WATER RIGHTS APPLICATIONS
GENERAL PROVISIONS
DIVISION 2: ADDITIONAL REQUIREMENTS FOR THE STORAGE OF
APPROPRIATED SURFACE WATER IN AQUIFERS
[\$295.21, §295.22]

Statutory Authority

The repeal 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 this code 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; and House Bill (HB) 655, Section 6, 84th Texas Legislature, 2015.

The repeal of the sections implement HB 655, TWC, §11.153, and the repeal of TWC, §11.154.

[\$295.21. Aquifer Storage and Retrieval Projects.]

[(a) Except as provided by subsection (b) of this section, an applicant shall file the appropriate application and obtain the issuance of the following:]

[(1) a temporary or term permit under Chapter 297 of this title (relating to Water Rights, Substantive) and the necessary authorization under Chapter 331 of this title (relating to Underground Injection Control) prior to commencement of construction of Phase I of an aquifer storage and retrieval project, as defined in §297.1 of this title (relating to Definitions); or]

[(2) a permit under §297.11 of this title (relating to General Authorization to Divert, Store, or Use State Water, Texas Water Code, §11.121) and the necessary authorization under Chapter 331 of this title (relating to Underground Injection Control) prior to actual storage of state water for underground storage and retrieval for purposes other than a Phase I project.]

[(A) An application for permit under paragraph (2) of this subsection will not be accepted for processing by the executive director until such time as the applicant has obtained the necessary authorizations and successfully completed a Phase I project.]

[(B) The commission will only issue a final order granting a water right under §297.11 of this title (relating to General Authorization to Divert, Store, or Use State Water, Texas Water Code §11.121) or an amendment to an existing water right

authorizing that storage of state water in an aquifer for subsequent retrieval and beneficial use where completed pilot projects or historically demonstrated projects have been shown to be feasible.]

[(b) A water right permit is not required for Phase I of an aquifer storage and retrieval project that proposes the temporary storage of appropriated surface water in an aquifer for testing and subsequent retrieval and beneficial use if the diversion and purpose of use (e.g., municipal, industrial, etc.) of the surface water is covered by an existing water right. The water right holder or person holding a valid contract with a water right holder shall notify the executive director, in writing, of the proposed temporary storage and shall submit the information required by §295.22 of this title (relating to Additional Requirements for Storage of Surface Water for Subsequent Retrieval and Beneficial Use) with the written notification not later than 60 days prior to the proposed temporary storage of water in an applicable aquifer. Upon completion of Phase I of the project, an amendment to the existing water right is required for permanent authorization to store appropriated surface water in an aquifer for subsequent retrieval and beneficial use.]

[(c) This section does not apply to any existing permit or permit amendment issued by the commission or to any administratively complete application for a permit or permit amendment filed with the commission prior to June 5, 1995.]

[\S295.22. Additional Requirements for the Underground Storage of Surface Water for Subsequent Retrieval and Beneficial Use.]

[(a) Phase I projects. In addition to the applicable information required by Subchapter A of this chapter (relating to Requirements of Water Right Application), the appropriate application must include:]

[(1) all information sufficient to demonstrate compliance with Chapter 331, Subchapter K of this title (relating to Additional Requirements for Class V Aquifer Storage Wells) and those portions of Chapter 331, Subchapters A and H of this title (relating to General Provisions and Standards for Class V Wells, respectively) which relate to aquifer storage injection wells;]

[(2) a map or plat showing the proposed depth and location of all injection facilities, retrieval wells, and the aquifer in which the water will be stored; and]

[(3) if applicable, the application for storage of surface water in a groundwater reservoir or a subdivision of a groundwater reservoir, as defined by Chapter 35 of the Texas Water Code, that is under the jurisdiction of a groundwater conservation district, must include:]

[(A) evidence of service, by certified mail, of a copy of the application or notification submitted in accordance with §295.21 of this title (relating to Aquifer Storage and Retrieval Projects) to the groundwater water conservation district having jurisdiction over the aquifer; and]

[(B) a copy of an agreement, if any, reached by the applicant with the groundwater water conservation district reflecting the applicant's consent to cooperate in the development of, and abidance with, the rules governing the injection, storage, or retrieval of appropriated surface water in the underground water reservoir or a subdivision thereof.]

[(b) Phase II projects. In addition to the information required by subsection (a) of this section, the appropriate permit application must include:]

[(1) a copy of the final report on the Phase I project required under §331.185(b) of this title (relating to Monitoring and Reporting Requirements);]

[(2) an operations plan for the life of the project detailing the following:]

[(A) injection rates and volumes;]

[(B) frequency of injection periods;]

[(C) retrieval rates and volumes;]

[(D) frequency of retrieval periods;]

[(E) radial distances of travel from the injection wells on an annual basis;]

[(F) maximum extent of travel for the life of the project; and]

[(G) location of all injection, retrieval and monitoring wells.]

[(3) a report identifying any potential impacts to artificial penetrations within one-quarter mile of the perimeter of the buffer zone, as described in subsection (e) (5) of this section;]

[(4) a proposed monitoring plan which would address the quality of water injected and retrieved and the water levels of the receiving body of underground water within the perimeter of the buffer zone and within one-quarter mile of the perimeter of

the buffer zone. In addition, the proposed monitoring plan shall describe how waters injected and retrieved will be measured and reported;]

[(5) other information as determined by the executive director as necessary for the protection of underground sources of drinking water.]

[(c) Control of Stored State Water. If the applicant does not have the power of condemnation and proposes to store state water in and withdraw it from underneath or to place any installation upon the land of another, the name(s) and address(es) of such landowner(s) shall be given. A copy of a duly acknowledged written easement, consent, or license from the landowner(s) or of a written lease or other evidence of agreement between the landowner(s) and the applicant shall be filed with the application.]

[(d) Map Requirements. All maps, plats and drawings accompanying the application shall be submitted in accordance with §§295.121-295.123 of this title (relating to Requirements, Drawings Not To Be Folded and Content Requirements of Maps, respectively).]

[(e) Additional Map Requirements. In addition to the preceding requirements, maps or plats submitted with the application for an aquifer storage and retrieval project shall include the following, if applicable:]

[(1) an overall plan of the project area showing the locations and extent of the proposed works and the locations of all pertinent features, including structures, pipelines, roads, natural springs, artesian wells and property lines. Also, such plan shall include all proposed or existing injection and retrieval facilities, by course and distance from a corner of an original land survey and/or other survey point of record, associated with the aquifer storage and retrieval project;]

[(2) name(s) and location(s) of the underground formation(s) in which state water will be stored for later retrieval and the general direction of flow indicated;]

[(3) cross sections and profiles of the underground formation(s) into which water will be injected and stored, any underground formation which confines the injection interval, any underground formation(s) located between the storage area and the land surface and the actual and/or proposed operating depths of all planned injection and retrieval facilities;]

[(4) if applicable, the location of any area or areas proposed for underground storage which would be within any part or portion of a critical area designated or proposed for designation by the commission under Chapter 294 of this title (relating to Underground Water Management Areas);]

[(5) for Phase II projects, the location of a buffer zone surrounding the land surface area under which the underground storage of state water will occur and beyond which pumpage by other wells will not interfere or significantly affect the movement or storage of the state water;]

[(6) for Phase II projects, the location and ownership of all existing domestic, public water supply, irrigation, or commercial wells within one-quarter mile of the perimeter of the buffer zone described in this subsection, indicated by appropriate symbols to differentiate these works from the proposed works;]

[(7) all elevations shall be referred to mean sea level datum;]

[(8) any additional information the executive director may require to determine the feasibility of the project.]

**SUBCHAPTER A: REQUIREMENTS OF WATER RIGHTS APPLICATIONS
GENERAL PROVISIONS**

**DIVISION 2: ADDITIONAL REQUIREMENTS FOR THE STORAGE OF
APPROPRIATED SURFACE WATER IN AQUIFERS**

§295.21

Statutory Authority

The new 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 this code 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; and House Bill (HB) 655, Section 6, 84th Texas Legislature, 2015.

The new section implements HB 655, TWC, §11.153, and the repeal of TWC, §11.154.

§295.21. Aquifer Storage and Recovery Projects.

(a) A water right holder or a person who has contracted for the use of water under a contract that does not prohibit the use of the water in an aquifer storage and recovery project may undertake an aquifer storage and recovery project without obtaining any

additional authorization under Texas Water Code (TWC), Chapter 11, for the project. A person, as described in this section, undertaking an aquifer storage and recovery project must:

(1) obtain any required authorizations under TWC, Chapter 27,

Subchapter G, and TWC, Chapter 36, Subchapter N; and

(2) comply with the terms of the applicable water right.

(b) This section does not preclude the commission from considering an aquifer storage and recovery project to be a component of a project permitted under TWC, Chapter 11, that is not required to be based on the continuous availability of historic, normal stream flow.

SUBCHAPTER F: MISCELLANEOUS

§295.202

Statutory Authority

The amendment 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 this code 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; and House Bill (HB) 655, Section 6, 84th Texas Legislature, 2015.

The proposed amendment implements HB 655, TWC, §11.153, and the repeal of TWC, §11.154.

§295.202. Reports.

(a) Annual reports. Every person who takes water from a stream or reservoir during the preceding calendar year shall submit a written report to the commission. Blank forms for recording the information required by the Texas Water Code, §11.031 and §11.032(a), shall be mailed to all surface water users during January of each year.

Water use report forms shall be furnished to anyone on request. In completing the reports, a water user shall fill in the blanks to the best of his ability in accordance with the instructions that accompany each form. The report must be returned to the executive director not later than March 1 of each year to avoid the penalties prescribed by the Texas Water Code, §11.031(b). Water users under the jurisdiction of the Rio Grande Watermaster shall return their annual reports to the Rio Grande Watermaster so that office can prepare and submit water use data covering the area of watermaster control. No report is required to be filed by persons who divert water solely for domestic and livestock purposes.

(b) Reports by temporary permit holders. Upon the expiration of the period for which a temporary permit is granted, the appropriator shall cease diverting water and file a written report with the executive director, stating the amount of water and the date of cessation of use.

(c) Report on time limitations for construction. Within 10 days after beginning construction or installation of diversion and distribution facilities, a permittee shall file a statement with the executive director showing that work was begun within the time limit allowed. Immediately upon completion of the project, a similar statement must be filed with the executive director showing that the work was completed within the specified time limitations.

(d) Report of contractual sales.

(1) The purchaser under a contract to supply state water shall submit annual written reports to the executive director in accordance with subsection (a) of this section indicating the total amount of water diverted each month and the total amount diverted each week. Purchasers diverting from the perimeter of a reservoir need to report only monthly diversions.

(2) The supplier shall submit annual written reports to the executive director in accordance with subsection (a) of this section indicating the total amount of water diverted and used each month for each purpose and the total amount released downstream each week to each purchaser under the storage water right specified in the contract. A separate reporting of the amount of water estimated for transmission losses shall be made.

(3) These reporting requirements shall apply to all contractual permits and water supply contracts.

(4) For purposes of this subchapter, a week is the period from Saturday midnight to Saturday midnight.

[(e) Operations report for aquifer storage and retrieval projects.]

[(1) On the five-year anniversary date of the issuance of the permit or permit amendment, and every ten years thereafter or upon a more frequent schedule established by the executive director, the permittee shall provide the executive director with an operations report describing what efforts the permittee has made to:]

[(A) protect the state water stored in the receiving aquifer from unauthorized withdrawals; and]

[(B) maximize the retrieval and beneficial use of the stored water without experiencing unreasonable losses of state water.]

[(2) The operations report shall identify and provide:]

[(A) any potential or real impacts identified during the operation of the project;]

[(B) a summary of all data, information and analyses associated with any monitoring during the operation of the project;]

[(C) a comparison of actual movement of injected state water with the modeling predictions submitted with the application for permit under Chapter 295 of this title (relating to Water Rights, Procedural);]

[(D) an assessment of the project in terms of the protection of ground water quality; and]

[(E) any additional information the executive director determines is necessary for the protection of underground sources of drinking water.]

[(3) The executive director shall review the report described in this subsection. If the executive director determines that the circumstances, under which the permit was granted, have significantly changed, the executive director may pursue an amendment to such permit in accordance with §297.61 of this title (relating to Amendments by Executive Director).]

The Texas Commission on Environmental Quality (TCEQ, agency, or commission) proposes to amend §§297.1, 297.13, and 297.19.

Background and Summary of the Factual Basis for the Proposed Rules

This rulemaking implements House Bill (HB) 655, 84th Texas Legislature, 2015, addressing the commission's regulation of aquifer storage and recovery (ASR) projects in Texas. ASR involves the use of one or more injection wells for the purpose of placing a water supply into a subsurface geologic formation, or aquifer, for storage so that the water may be subsequently recovered and used by the project operator. The proposed amendments to Chapter 297 implement amendments to Texas Water Code (TWC), §11.153 and the repeal of TWC, §11.154 under HB 655 regarding the storage of appropriated water in ASR projects.

The 84th Texas Legislature also passed HB 2031. HB 2031 relates to the diversion, treatment, and use of marine seawater and the discharge of treated marine seawater and waste resulting from the desalination of marine seawater. HB 2031 created TWC, Chapter 18, to address marine seawater desalination projects. New TWC, §18.001, added a definition for "Marine seawater." The commission intends to implement statutory requirements for desalination in a separate rulemaking project (Rule Project Number 2015-029-295-OW). Because the commission is proposing changes to definitions in §297.1 to implement HB 655, the commission is also proposing changes to this section

to include a definition from HB 2031 to avoid open section conflicts under *Texas Register* publication requirements when the rest of HB 2031 is implemented in the separate rulemaking project.

In corresponding rulemaking published in this issue of the *Texas Register*, the commission also proposes revisions to 30 TAC Chapter 39, Public Notice; Chapter 295, Water Rights, Procedural; and Chapter 331, Underground Injection Control.

Section by Section Discussion

In addition to proposing amendments to implement HB 655 and HB 2031, the commission proposes 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.

§297.1, Definitions

The commission proposes to amend §297.1(5) and to add §297.1(30). The commission proposes to amend the definition of "Aquifer Storage and Retrieval Project" in §297.1(5). HB 655 created new TWC, Chapter 27, Subchapter G, which contains a definition of "Aquifer storage and recovery project." The commission proposes to amend the existing

term and definition in §297.1(5) to bring it into agreement with "Aquifer storage and recovery project" as defined in the amendments to the TWC made by HB 655.

The commission also proposes to add a definition for "Marine seawater" in proposed §297.1(30). HB 2031 created TWC, Chapter 18, to address marine seawater desalination projects. New TWC, §18.001, added a definition for "Marine seawater." Because the commission has opened §297.1 to amend the definition of "Aquifer Storage and Retrieval Project," the commission also proposes to simultaneously add the definition of "Marine seawater" to §297.1(30) to avoid a potential open section conflict with another agency rulemaking. Additionally, the commission proposes to renumber the existing definitions to accommodate adding proposed §297.1(30).

§297.13, Temporary Permit under the Texas Water Code, §§11.138 and 11.153 - 11.155

The proposed amendment would revise the title of §297.13 to remove the TWC reference to TWC, §§11.153 - 11.155, because a temporary permit is no longer required for an ASR project under TWC, Chapter 11. HB 655 amended TWC, §11.153(a) - (c), to allow a water right holder or a person who has contracted for the use of water under a contract that does not prohibit the use of the water in an ASR project to undertake an ASR project without obtaining any additional authorization under TWC, Chapter 11. However, TWC, §11.153, as amended by HB 655, requires the applicant to obtain any necessary authorizations for an ASR project under TWC, Chapter 27, Subchapter G, and TWC,

Chapter 36, Subchapter N. In addition, HB 655 repealed TWC, §11.153(d) and (e), and TWC, §11.154, which included the repeal of Phase I ASR projects. The commission proposes to amend §297.13(a), which includes a description of the types of projects a temporary permit is designed for, by deleting, "evaluation of Phase I of an aquifer storage and retrieval project" since HB 655 repealed Phase I ASR projects.

§297.19, Term Permit under Texas Water Code, §§11.1381 and 11.153 - 11.155

The proposed amendment would revise the title of §297.19 to remove the TWC reference to TWC, §§11.153 - 11.155, and delete §297.19(d) because the term permit is no longer required for an ASR project under TWC, Chapter 11, as amended by HB 655.

Fiscal Note: Costs to State and Local Government

Jeffrey Horvath, Analyst in the Chief Financial Officer Division, has determined that for the first five-year period the proposed rules are in effect, no fiscal implications are anticipated for the agency or for other units of state or local government as a result of the administration or enforcement of the proposed rules.

The proposed rules implement HB 655. HB 655 amended TWC, Chapters 11, 27, and 36, regarding regulation of ASR projects. In corresponding rulemaking published in this issue of the *Texas Register*, the commission also proposes revisions to 30 TAC Chapters 39, 295, and 331. This fiscal note applies only to the proposed amendments to Chapter

297.

ASR involves the use of one or more injection wells for the purpose of placing a water supply into a subsurface geologic formation, or aquifer, for storage so that the water may be subsequently recovered and used by the project operator. ASR allows the operator to utilize an existing aquifer as a storage reservoir rather than using aboveground storage options. The stored water can be available for public or private drinking water supplies, agriculture, or industrial uses. The operator must assure that the aquifer formation receiving the injected water has appropriate geologic and hydrologic properties that are amenable to injection and will allow the control or containment of the injected water. The operator must also assure that the injection will not pollute the native groundwater already in the aquifer or other underground sources of drinking water. TCEQ's Underground Injection Control program regulates the authorization, construction, operation, and closure of the injection wells used for ASR projects.

HB 655 repealed the requirement that a pilot project be part of the ASR authorization process. HB 655 also provided a definition for "aquifer storage and recovery project" and in this definition removed the reference to the requirement for a pilot project. The commission proposes to amend the existing term and definition in §297.1(5) to bring it into agreement with "aquifer storage and recovery project" as defined by HB 655. The

proposed rules also remove reference to TWC, §§11.153 - 11.155 because the requirement for a temporary or term permit was repealed under HB 655.

The proposed rules also add the definition of "Marine seawater." Addition of this definition is necessary to address changes to TWC, §18.001 from the passage of HB 2031. This definition is added as part of this rulemaking to avoid a potential open section conflict with another rulemaking.

The proposed revisions for the definition of "Aquifer Storage and Recovery Project" and the addition of the definition for "Marine seawater" are not expected to result in fiscal implications for the agency or for any other units of state or local government. Removal of the requirement for a temporary or term permit for a pilot project simplifies the ASR authorization process because now only one authorization is required. Prior to passage of HB 655, a pilot project was required as part of the ASR approval process. One of the requirements of the pilot project was that the applicant had to obtain either a temporary or term water rights permit for the volume of water that would be injected and recovered as part of the pilot project. Fees associated with the permit are \$1.00 per acre-foot and are assessed on a one-time basis. Associated notice fees could be up to \$1,200. Injected and recovered volumes associated with pilot projects are generally less than 1,000 acre-feet. Based on these assumptions, the estimated savings to an ASR applicant would be about \$2,000, which is not a significant portion of the costs to establish an

ASR project.

Public Benefits and Costs

Mr. Horvath has also determined that for each year of the first five years the proposed rulemaking is in effect, the public benefit anticipated from the changes seen in the proposed rulemaking would be compliance with state law and the implementation of a process for authorizing ASR projects which are a recognized strategy for alleviating the effects of prolonged drought and for ensuring adequate water supplies.

No fiscal implications are anticipated for businesses or individuals as a result of the administration or enforcement of the proposed rules. The proposed revisions for the definition of "Aquifer Storage and Recovery Project" and the addition of the definition for "Marine seawater" are not expected to result in fiscal implications for any affected businesses or individuals. Removal of the requirement for a temporary or term permit for a pilot project simplifies the ASR authorization process because now only one authorization is required and is not expected to result in significant cost savings for applicants.

Small Business and Micro-Business Assessment

No adverse fiscal implications are anticipated for small or micro-businesses as a result of the proposed rules. The proposed rules would have the same effect on a small

business as it does on a large business. The proposed revisions for the definition of "Aquifer Storage and Recovery Project" and the addition of the definition for "Marine seawater" are not expected to result in fiscal implications for any small or micro-business. Removal of the requirement for a temporary or term permit for a pilot project simplifies the ASR authorization process because now only one authorization is required.

Small Business Regulatory Flexibility Analysis

The commission has reviewed this proposed rulemaking and determined that a small business regulatory flexibility analysis is not required because the proposed rulemaking is necessary in order to comply with state law and does not adversely affect a small or micro-businesses in a material way for the first five years that the proposed rulemaking is in effect.

Local Employment Impact Statement

The commission has reviewed this proposed rulemaking and determined that a local employment impact statement is not required because the proposed rulemaking does not adversely affect a local economy in a material way for the first five years that the proposed rulemaking is in effect.

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 legislative requirements in HB 655, which revises the requirements for the commission's regulation of injection wells associated with ASR projects and associated water rights; and implements HB 2031, by adding a definition of "Marine seawater." 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 proposed rules implement the statutory repeal of the requirement to establish a pilot project for an ASR project under HB 655 by removing rule requirements for temporary and term permits for ASR projects and amends definitions consistent with HB 655 and HB 2031.

Furthermore, the proposed rules do not meet any of the four applicability requirements listed in Texas Government Code, §2001.0225(a). The proposed rules do not exceed a standard set by federal law, because there are no federal standards regarding Texas water rights. The proposed rules do not exceed an express requirement of state law because the rules are consistent with the express requirements of HB 655; TWC, §11.153; the repeal of TWC, §11.154; and TWC, §18.001, as established in HB 2031. The proposed rules do not exceed requirements of a federal delegation agreement or contract because there is no federal delegation or contract for the Texas Water Rights program. The rulemaking is not proposed under the general powers of the agency and is proposed under the express requirements of HB 655, Section 6.

Written comments on the Draft Regulatory Impact Analysis Determination 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 HB 655, which revises the requirements for the commission's regulation of water rights associated with ASR projects; and implements HB 2031 by adding a definition of "Marine seawater."

The proposed rules would be neither a statutory nor a constitutional taking of private real property. The proposed rules eliminate requirements for temporary or term permits because ASR projects do not have to establish a pilot project or develop the project in phases under the requirements of HB 655. The proposed rules also amend definitions to implement HB 655 and HB 2031. The proposed rules do 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 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 rulemaking and found the proposal is a rulemaking identified in the Coastal Coordination Act Implementation Rules, 31 TAC §505.11(b)(4), relating to rules subject to the Texas Coastal Management Program (CMP), and will, therefore, require that goals and policies of the CMP be considered during the rulemaking process.

The commission reviewed this rulemaking for consistency with the CMP goals and policies in accordance with the regulations of the Coastal Coordination Advisory Committee and determined that the rulemaking is procedural in nature and will have no substantive effect on commission actions subject to the CMP and is, therefore, consistent with CMP goals and policies.

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 22, 2016, 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 Sandy Wong, Office of Legal Services at (512) 239-1802 or 1-800-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: <http://www1.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 2015-022-331-WS. The comment period closes on February 8, 2016. Copies of the proposed rulemaking can be obtained from the commission's website at http://www.tceq.texas.gov/rules/propose_adopt.html. For further information, please contact David Murry, Radioactive Materials Division, (512) 239-6080.

SUBCHAPTER A: DEFINITIONS AND APPLICABILITY
§297.1

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 this code 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; and House Bill (HB) 655, Section 6, 84th Texas Legislature, 2015.

The amended section implements HB 655, TWC, §11.153, and the repeal of TWC, §11.154; and HB 2031, 84th Texas Legislature, 2015, and TWC, §18.001.

§297.1. Definitions.

The following words and terms, when used in this chapter and in Chapters 288 and 295 of this title (relating to Water Conservation Plans, Drought Contingency Plans,

Guidelines and Requirements; and Water Rights, Procedural, respectively), shall have the following meanings, unless the context clearly indicates otherwise.

(1) Agriculture or agricultural--means any of the following activities:

(A) cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers;

(B) the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or non-soil media by a nursery grower;

(C) raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value;

(D) raising or keeping equine animals;

(E) wildlife management;

(F) planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure; and

(G) aquaculture as defined in Texas Agriculture Code, §134.001, which reads "'aquaculture' or 'fish farming' means the business of producing and selling cultured species raised in private facilities. Aquaculture or fish farming is an agricultural activity."

(2) Agricultural use--Any use or activity involving agriculture, including irrigation.

(3) Appropriations--The process or series of operations by which an appropriative right is acquired. A completed appropriation thus results in an appropriative right; the water to which a completed appropriation in good standing relates is appropriated water.

(4) Appropriative right--The right to impound, divert, store, take, or use a specific quantity of state water acquired by law.

(5) Aquifer Storage and Recovery [Retrieval] Project--A project involving the injection of water into a geologic formation for the purpose of subsequent recovery and beneficial use by the project operator. [with two phases that anticipates the use of a Class V aquifer storage well, as defined in §331.2 of this title (relating to Definitions), for injection into a geologic formation, group of formations, or part of a formation that is capable of underground storage of appropriated surface water for subsequent retrieval and beneficial use. Phase I of the project requires commission authorization by a temporary or term permit to determine feasibility for ultimate storage and retrieval for beneficial use. Phase II of the project requires commission authorization by permit or permit amendment after the commission has determined that Phase I of the project has been successful.]

(6) Baseflow or normal flow--The portion of streamflow uninfluenced by recent rainfall or flood runoff and is comprised of springflow, seepage, discharge from artesian wells or other groundwater sources, and the delayed drainage of large lakes and swamps. (Accountable effluent discharges from municipal, industrial, agricultural, or other uses of ground or surface waters may be included at times.)

(7) Beneficial inflows--Freshwater inflows providing for a salinity, nutrient, and sediment loading regime adequate to maintain an ecologically sound environment in the receiving bay and estuary that is necessary for the maintenance of

productivity of economically important and ecologically characteristic sport or commercial fish and shellfish species and estuarine life upon which such fish and shellfish are dependent.

(8) Beneficial use--Use of the amount of water which is economically necessary for a purpose authorized by law, when reasonable intelligence and reasonable diligence are used in applying the water to that purpose and shall include conserved water.

(9) Certificate of adjudication--An instrument evidencing a water right issued to each person adjudicated a water right in conformity with the provisions of Texas Water Code, §11.323, or the final judgment and decree in State of Texas v. Hidalgo County Water Control and Improvement District No. 18, 443 S.W.2d 728 (Texas Civil Appeals - Corpus Christi 1969, writ ref. n.r.e.).

(10) Certified filing--A declaration of appropriation or affidavit which was filed with the State Board of Water Engineers under the provisions of the 33rd Legislature, 1913, General Laws, Chapter 171, §14, as amended.

(11) Claim--A sworn statement filed under Texas Water Code, §11.303.

(12) Commencement of construction--An actual, visible step beyond planning or land acquisition, which forms the beginning of the on-going (continuous) construction of a project in the manner specified in the approved plans and specifications, where required, for that project. The action must be performed in good faith with the bona fide intent to proceed with the construction.

(13) Conservation--Those practices, techniques, and technologies that will reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, or increase the recycling and reuse of water so that a water supply is made available for future or alternative uses.

(14) Conserved water--That amount of water saved by a water right holder through practices, techniques, or technologies that would otherwise be irretrievably lost to all consumptive beneficial uses arising from the storage, transportation, distribution, or application of the water. Conserved water does not mean water made available simply through its non-use without the use of such practices, techniques, or technologies.

(15) Dam--Any artificial structure, together with any appurtenant works, which impounds or stores water. All structures which are necessary to impound a single body of water shall be considered as one dam. A structure used only for diverting water from a watercourse by gravity is a diversion dam.

(16) Diffused surface water--Water on the surface of the land in places other than watercourses. Diffused water may flow vagrantly over broad areas coming to rest in natural depressions, playa lakes, bogs, or marshes. (An essential characteristic of diffused water is that its flow is short-lived.)

(17) District--Any district or authority created by authority of the Texas Constitution, either Article III, §52, (b), (1) and (2), or Article XVI, §59.

(18) Domestic use--Use of water by an individual or a household to support domestic activity. Such use may include water for drinking, washing, or culinary purposes; for irrigation of lawns, or of a family garden and/or orchard; for watering of domestic animals; and for water recreation including aquatic and wildlife enjoyment. If the water is diverted, it must be diverted solely through the efforts of the user. Domestic use does not include water used to support activities for which consideration is given or received or for which the product of the activity is sold.

(19) Drought of record--The historic period of record for a watershed in which the lowest flows were known to have occurred based on naturalized streamflow.

(20) Firm yield--That amount of water, that the reservoir could have produced annually if it had been in place during the worst drought of record. In performing this simulation, naturalized streamflows will be modified as appropriate to account for the full exercise of upstream senior water rights is assumed as well as the passage of sufficient water to satisfy all downstream senior water rights valued at their full authorized amounts and conditions as well as the passage of flows needed to meet all applicable permit conditions relating to instream and freshwater inflow requirements.

(21) Groundwater--Water under the surface of the ground other than underflow of a stream and underground streams, whatever may be the geologic structure in which it is standing or moving.

(22) Habitat Mitigation--Actions taken to off-set anticipated adverse environmental impacts from a proposed project. Such actions and their sequence include:

(A) avoiding the impact altogether by not taking a certain action or parts of an action or pursuing a reasonably practicable alternative;

(B) minimizing impacts by limiting the degree or magnitude of the action and its implementation;

(C) rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

(D) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the project; and

(E) compensating for the impact by replacing or providing substitute resources or environments.

(23) Hydropower use--The use of water for hydroelectric and hydromechanical power and for other mechanical devices of like nature.

(24) Industrial use--The use of water in processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, including the development of power by means other than hydroelectric, but does not include agricultural use.

(25) Instream use--The beneficial use of instream flows for such purposes including, but not limited to, navigation, recreation, hydropower, fisheries, game preserves, stock raising, park purposes, aesthetics, water quality protection, aquatic and riparian wildlife habitat, freshwater inflows for bays and estuaries, and any other instream use recognized by law. An instream use is a beneficial use of water. Water necessary to protect instream uses for water quality, aquatic and riparian wildlife habitat, recreation, navigation, bays and estuaries, and other public purposes may be reserved from appropriation by the commission.

(26) Irrigation--The use of water for the irrigation of crops, trees, and pasture land, including, but not limited to, golf courses and parks which do not receive water through a municipal distribution system.

(27) Irrigation water efficiency--The percentage of that amount of irrigation water which is beneficially used by agriculture crops or other vegetation relative to the amount of water diverted from the source(s) of supply. Beneficial uses of water for irrigation purposes include but are not limited to evapotranspiration needs for vegetative maintenance and growth and salinity management and leaching requirements associated with irrigation.

(28) Livestock use--The use of water for the open-range watering of livestock, exotic livestock, game animals or fur-bearing animals. For purposes of this definition, the terms livestock and exotic livestock are to be used as defined in Texas Agriculture Code, §142.001 [of the Agriculture Code], and the terms game animals and fur-bearing animals are to be used as defined in Texas Parks and Wildlife Code, §63.001 and §71.001, respectively[, of the Parks and Wildlife Code].

(29) Mariculture--The propagation and rearing of aquatic species, including shrimp, other crustaceans, finfish, mollusks, and other similar creatures in a controlled environment using brackish or marine water.

(30) Marine seawater--Water that is derived from the Gulf of Mexico.

(31) [(30)] Mining use--The use of water for mining processes including hydraulic use, drilling, washing sand and gravel, and oil field repressuring.

(32) [(31)] Municipal per capita water use--The sum total of water diverted into a water supply system for residential, commercial, and public and institutional uses divided by actual population served.

(33) [(32)] Municipal use--

(A) The use of potable water within a community or municipality and its environs for domestic, recreational, commercial, or industrial purposes or for the watering of golf courses, parks and parkways, other public or recreational spaces; or

(B) the use of reclaimed water in lieu of potable water for the preceding purposes; or

(C) the use of return flows authorized pursuant to Texas Water Code, §11.042, in lieu of potable water for the preceding purposes. Return flows used for human consumption as defined in §290.38(34) [(32)] of this title (relating to Definitions) must be of a quality suitable for the authorized beneficial use as may be required by applicable commission rules; or

(D) the application of municipal sewage effluent on land, under a Texas Water Code, Chapter 26, permit where:

(i) the application site is land owned or leased by the Chapter 26 permit holder; or

(ii) the application site is within an area for which the commission has adopted a no-discharge rule.

(34) [(33)] Navigable stream--By law, Texas Natural Resources Code, §21.001(3), any stream or streambed as long as it maintains from its mouth upstream an average width of 30 feet or more, at which point it becomes statutorily nonnavigable.

(35) [(34)] Nursery grower--A person engaged in the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, who grows more than 50% of the products that the person either sells or leases, regardless of the variety sold, leased, or grown. For the purpose of this definition, grow means the actual cultivation or propagation of the product beyond the mere holding or maintaining of the item prior to sale or lease and typically includes activities associated with the production or multiplying of stock such as the development of new plants from cuttings, grafts, plugs, or seedlings.

(36) [(35)] One-hundred-year flood--The flood peak discharge of a stream, based upon statistical data, which would have a 1.0% chance of occurring in any given year.

(37) [(36)] Permit--The authorization by the commission to a person whose application for a permit has been granted. A permit also means any water right issued, amended, or otherwise administered by the commission unless the context clearly indicates that the water right being referenced is being limited to a certificate of adjudication, certified filing, or unadjudicated claim.

(38) [(37)] Pollution--The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of any water in the state that renders the water harmful or detrimental to humans, animal life, vegetation, or property, or the public health, safety or welfare, or impairs the usefulness of the public enjoyment of the waters for any lawful or reasonable purpose.

(39) [(38)] Priority--As between appropriators, the first in time is the first in right, Texas Water Code, §11.027, unless determined otherwise by an appropriate court or state law.

(40) [(39)] Reclaimed water--Municipal or industrial wastewater or process water that is under the direct control of the treatment plant owner/operator, or agricultural tailwater that has been collected for reuse, and which has been treated to a quality suitable for the authorized beneficial use.

(41) [(40)] Recreational use--The use of water impounded in or diverted or released from a reservoir or watercourse for fishing, swimming, water skiing, boating, hunting, and other forms of water recreation, including aquatic and wildlife enjoyment, and aesthetic land enhancement of a subdivision, golf course, or similar development.

(42) [(41)] Register--The *Texas Register*.

(43) [(42)] Reservoir system operations--The coordinated operation of more than one reservoir or a reservoir in combination with a direct diversion facility in order to optimize available water supplies.

(44) [(43)] Return water or return flow--That portion of state water diverted from a water supply and beneficially used which is not consumed as a consequence of that use and returns to a watercourse. Return flow includes sewage effluent.

(45) [(44)] Reuse--The authorized use for one or more beneficial purposes of use of water that remains unconsumed after the water is used for the original purpose of use and before that water is either disposed of or discharged or otherwise allowed to flow into a watercourse, lake, or other body of state-owned water.

(46) [(45)] River basin--A river or coastal basin designated by the Texas Water Development Board as a river basin under Texas Water Code, §16.051. The term does not include waters originating in bays or arms of the Gulf of Mexico.

(47) [(46)] Runoff--That portion of streamflow comprised of surface drainage or rainwater from land or other surfaces during or immediately following a rainfall.

(48) [(47)] Secondary use--The reuse of state water for a purpose after the original, authorized use.

(49) [(48)] Sewage or sewage effluent--Water-carried human or animal wastes from residences, buildings, industrial establishments, cities, towns, or other places, together with any groundwater infiltration and surface waters with which it may be commingled.

(50) [(49)] Spreader dam--A levee-type embankment placed on alluvial fans or within a flood plain of a watercourse, common to land use practices, for the purpose of overland spreading of diffused waters and overbank flows.

(51) [(50)] State water--The water of the ordinary flow, underflow, and tides of every flowing river, natural stream, and lake, and of every bay or arm of the Gulf of Mexico, and the stormwater, floodwater, and rainwater of every river, natural stream, and watercourse in the state. State water also includes water which is imported from any source outside the boundaries of the state for use in the state and which is transported through the beds and banks of any navigable stream within the state or by utilizing any facilities owned or operated by the state. Additionally, state water injected into the ground for an aquifer storage and recovery project remains state water. State water does not include percolating groundwater; nor does it include diffuse surface rainfall runoff, groundwater seepage, or springwater before it reaches a watercourse.

(52) [(51)] Stormwater or floodwater--Water flowing in a watercourse as the result of recent rainfall.

(53) [(52)] Streamflow--The water flowing within a watercourse.

(54) [(53)] Surplus water--Water taken from any source in excess of the initial or continued beneficial use of the appropriator for the purpose or purposes authorized by law. Water that is recirculated within a reservoir for cooling purposes shall not be considered to be surplus water.

(55) [(54)] Unappropriated water--The amount of state water remaining in a watercourse or other source of supply after taking into account complete satisfaction of all existing water rights valued at their full authorized amounts and conditions.

(56) [(55)] Underflow of a stream--Water in sand, soil, and gravel below the bed of the watercourse, together with the water in the lateral extensions of the water-bearing material on each side of the surface channel, such that the surface flows are in contact with the subsurface flows, the latter flows being confined within a space reasonably defined and having a direction corresponding to that of the surface flow.

(57) [(56)] Waste--The diversion of water if the water is not used for a beneficial purpose; the use of that amount of water in excess of that which is economically reasonable for an authorized purpose when reasonable intelligence and reasonable diligence are used in applying the water to that purpose. Waste may include, but not be limited to, the unreasonable loss of water through faulty design or negligent operation of a water delivery, distribution or application system, or the diversion or use of water in any manner that causes or threatens to cause pollution of water. Waste does not include the beneficial use of water where the water may become polluted because of the nature of its use, such as domestic or residential use, but is subsequently treated in accordance with all applicable rules and standards prior to its discharge into or adjacent to water in the state so that it may be subsequently beneficially used.

(58) [(57)] Water conservation plan--A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for preventing or reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate planning document or may be contained within another water management document(s).

(59) [(58)] Water in the state--Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

(60) [(59)] Watercourse--A definite channel of a stream in which water flows within a defined bed and banks, originating from a definite source or sources. (The water may flow continuously or intermittently, and if the latter with some degree of regularity, depending on the characteristics of the sources.)

(61) [(60)] Water right--A right or any amendment thereto acquired under the laws of this state to impound, divert, store, convey, take, or use state water.

(62) [(61)] Watershed--A term used to designate the area drained by a stream and its tributaries, or the drainage area upstream from a specified point on a stream.

(63) [(62)] Water supply--Any body of water, whether static or moving, either on or under the surface of the ground, available for beneficial use on a reasonably dependable basis.

(64) [(63)] Wetland--An area (including a swamp, marsh, bog, prairie pothole, playa, or similar area) having a predominance of hydric soils that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and that under normal circumstances supports the growth and regeneration of hydrophytic vegetation. The term "hydric soil" means soil that, in its undrained condition is saturated, flooded, or ponded long enough during a growing season to develop an anaerobic condition that supports the growth and regeneration of hydrophytic vegetation. The term "hydrophytic vegetation" means a plant growing in water or a substrate that is at least periodically deficient in oxygen during a growing season as a result of excessive water content. The term "wetland" does not include:

(A) irrigated acreage used as farmland;

(B) man-made wetlands of less than one acre; or

(C) man-made wetlands not constructed with wetland creation as a stated objective, including, but not limited to, impoundments made for the purpose of soil and water conservation which have been approved or requested by soil and water conservation districts. This definition does not apply to man-made wetlands described under this subparagraph constructed or created on or after August 28, 1989. If this definition conflicts with the federal definition in any manner, the federal definition prevails.

SUBCHAPTER B: CLASSES OF WATER RIGHTS
§297.13, §297.19

Statutory Authority

The amended sections are 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 this code 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; and House Bill (HB) 655, Section 6, 84th Texas Legislature, 2015.

The amended sections implement HB 655, TWC, Chapter 11, §11.153, and the repeal of TWC, §11.154.

§297.13. Temporary Permit under the Texas Water Code, [§]§11.138 [and 11.153-11.155].

(a) A commissioner may authorize temporary permits under this section for beneficial purposes to the extent that they do not interfere with or adversely affect prior

appropriations or vested rights on a stream from which water is to be diverted under such temporary water rights or environmental flow needs. A temporary permit is primarily designed for those persons who require state water for highway construction, oil or gas well drilling projects, [evaluation of Phase I of an aquifer storage and retrieval project,] hydro-static tests for pipelines, and other types of short duration projects.

(b) A temporary permit may not be granted for a period of time exceeding three years and shall be junior to all affected prior appropriations and vested rights on a stream. This permit does not vest in the holder any permanent right to the use of state water and expires in accordance with its terms and may be suspended upon notice by the executive director or watermaster, as applicable, in order to protect senior water rights. The permit may also have conditions for the protection of instream uses, water quality, aquatic and wildlife habitat, and freshwater inflows to bays and estuaries.

(c) The period of time to use water authorized by a temporary permit which was initially granted for a period of less than three years may be extended by the commission upon written request by the permittee, but in no event shall the entire period including the initial period as well as any extension exceed three years nor shall an extension of time seek a change of diversion rate, diversion point, or additional water.

(d) A temporary permit for the use of ten acre-feet or less for a period of one calendar year or less may be authorized without notice and hearing upon the 30th [thirtieth] day after a registration and fee as provided by §295.132 of this title (relating to Filing, Recording, and Notice Fees) is filed with the TCEQ [TNRCC] regional director or the watermaster, as applicable, unless the applicant is notified by the regional director or watermaster within the thirty day period that the registration is denied for failure to meet the requirements of this section. The registration must contain a sworn statement by the applicant containing the following minimum information:

(1) the name, mailing address and telephone number of the applicant;

(2) the diversion point and location of use as indicated on a United States Geological Survey [USGS] 7.5 minute map(s);

(3) the purpose of use, as authorized under Texas Water Code, §11.023;

(4) the proposed maximum diversion rate;

(5) amount of water to be diverted not to exceed ten acre-feet per year; and

(6) the period for which the water is to be used, not to exceed one year from the [thirtieth (]30th[)] day from the date the registration is filed with the TCEQ regional director or watermaster, as applicable.

§297.19. Term Permit under Texas Water Code, [§]§11.1381 [and 11.153-11.155].

(a) The commission may issue a permit for a term of years for the use of unused appropriated water when there is insufficient unappropriated water in the source of supply to satisfy the application.

(b) An application for a term permit under this section shall be denied if:

(1) the commission finds there is a substantial likelihood that the issuance of the term permit will jeopardize financial commitments made for water projects that have been built or that are being built to optimally develop the water resources in the area;

(2) if the holder of an affected unused appropriation can demonstrate that the issuance of the permit would prohibit the holder from beneficially using the water right during the term of the permit. Such demonstration may be made by using water

use projections contained in the state or regional water plans, economic indicators, population growth projections, electrical generation needs, or other reasonable projections based on accepted methods;

(3) the proposed permit is not intended for a beneficial use; or

(4) the proposed permit would be detrimental to the public welfare.

(c) A term permit is subordinate to any vested or senior appropriative water right. Additionally, conditions may be placed in the permit as necessary to protect instream uses and freshwater inflows to bays and estuaries.

[(d) The commission may grant a permit under this section for an aquifer storage and retrieval project as defined in §297.1 of this title (relating to Definitions).]

The Texas Commission on Environmental Quality (TCEQ, agency, or commission) proposes amendments to §§331.2, 331.7, 331.11, and 331.181 - 331.186.

Background and Summary of the Factual Basis for the Proposed Rules

This rulemaking implements House Bill (HB) 655, 84th Texas Legislature, 2015, addressing the commission's regulation of aquifer storage and recovery (ASR) projects in Texas. ASR involves the use of one or more injection wells for the purpose of placing a water supply into a subsurface geologic formation, or aquifer, for storage so that the water may be subsequently recovered and used by the project operator. ASR allows the operator to utilize an existing aquifer as a storage reservoir rather than using aboveground storage options. The stored water can be available for public or private drinking water supplies, agriculture, or industrial uses. The operator must assure that the aquifer formation receiving the injected water has appropriate geologic and hydrologic properties that are amenable to injection and will allow the control or containment of the injected water. The operator must also assure that the injection will not pollute the native groundwater already in the aquifer or other underground sources of drinking water. TCEQ's Underground Injection Control program regulates the authorization, construction, operation, and closure of the injection wells used for ASR projects. Because ASR injection wells inject fluids into a formation that is considered an underground source of drinking water, ASR injection wells are classified as Class V injection wells. Other TCEQ regulatory programs, such as the Water Rights program or the Public Drinking Water program, may also be involved with ASR projects, depending on the original source of the injected water or the

final use of the recovered water. Projects situated within a groundwater conservation district may be subject to the requirements of that district as provided in HB 655.

HB 655 amended Texas Water Code (TWC) to revise the requirements that apply to authorization for ASR projects. TWC, §11.153 was amended to allow the injection of appropriated water for an ASR project without obtaining any additional authorizations under TWC, Chapter 11, and to specify that commission approval of an ASR project is not contingent on the continuous availability of historic, normal stream flow. TWC, §11.155 was amended to remove the requirement for a pilot project prior to approval of an ASR project. TWC, Chapter 27 was amended to add TWC, Chapter 27, Subchapter G, Aquifer Storage and Recovery Projects, §§27.151 - 27.157. Under new TWC, §27.151, definitions were provided for the following terms: "aquifer storage and recovery project," "aquifer storage and recovery injection well," "aquifer storage and recovery production well," "native groundwater," and "project operator." Under new TWC, §27.152, the commission is granted exclusive jurisdiction over the regulation and permitting of ASR injection wells. Under new TWC, §27.153, the commission may authorize the use of a Class V ASR injection well by rule, individual permit, or under a general permit. Under new TWC, §27.153(b), in adopting rules or when issuing a permit for an ASR injection well, the commission shall consider if the injection of water will comply with the standards of the federal Safe Drinking Water Act, the amount of injected water that can be recovered, the effect of the ASR project on existing water wells, and the effect of the injected water on the physical, chemical, or biological quality of the native groundwater that would render the

water produced harmful or detrimental to people, vegetation, or property. All wells associated with a single ASR project must be located within a continuous perimeter boundary. The commission is required to provide for public notice and comment on a proposed general permit, and the applicant for an individual permit is required to provide first class mailed notice to any groundwater conservation district in which the ASR wells will be located, and is required to publish notice in a newspaper of general circulation in the county in which the well will be located. Under new TWC, §27.154, the commission is directed to adopt technical standards governing the approval of the use of a Class V injection well as an ASR injection well. For an ASR project located within the jurisdiction of a groundwater conservation district or other special purpose district with authority to regulate groundwater withdrawal, the volume of groundwater recovered at an ASR project is limited to the volume of water injected. If the commission determines that a loss of injection water or loss of native water will occur, the commission shall impose additional restrictions on the amount of water that may be recovered to account for the loss. The commission may not deny a permit based on a determination that such a loss will occur. The commission shall prescribe by rule construction and completion standards, metering, and reporting requirements for ASR injection and recovery wells. The commission may not adopt or enforce groundwater protection standards for the quality of water injected that are more stringent than federal standards. New TWC, §27.155 requires an ASR project operator to install a meter on each ASR injection and recovery well associated with the ASR project. The project operator also must provide monthly reports to the commission on the volume of water injected, and the volume of water recovered for beneficial use. New

TWC, §27.156 requires an ASR recovery operator to perform annual water quality testing on water to be injected and on recovered water, and to provide testing results to the commission. New TWC, §27.157 provides that new TWC, Chapter 27, Subchapter G does not affect regulation of an ASR project under specific legislation applicable to the Edwards Aquifer Authority, the Harris-Galveston Subsidence District, the Fort Bend, Subsidence District, and the Barton Springs Edwards Aquifer Conservation District. New TWC, Chapter 27, Subchapter G, does not affect the commission's authority regarding recharge projects in certain portions of the Edwards underground reservoir under TWC, §11.023 or injection wells that transect or terminate in certain portions of the Edwards Aquifer under TWC, §27.0516.

In corresponding rulemaking published in this issue of the *Texas Register*, the commission also proposes revisions to 30 TAC Chapter 39, Public Notice; Chapter 295, Water Rights, Procedural; and Chapter 297, Water Rights, Substantive.

Section by Section Discussion

In addition to proposing amendments to implement HB 655, the commission proposes 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.

§331.2, Definitions

The commission proposes to amend §331.2 to implement HB 655 new definitions established in TWC, §27.151. Section 331.2 is proposed to be amended to add definitions for the following terms: "Aquifer storage and recovery injection well," "Aquifer storage and recovery production well," "Aquifer storage and recovery project," "Native groundwater," and "Project operator." The existing definition for the term "Aquifer storage well" is proposed to be amended to "Aquifer storage and recovery," as the proposed definitions for the terms "Aquifer storage and recovery injection well" and "Aquifer storage and recovery production well" now supersede the existing definition for "Aquifer storage well." Existing definitions in this section are renumbered accordingly.

§331.7, Permit Required

The commission proposes to amend §331.7 to add subsection (h), under which a Class V injection well associated with an ASR project may be authorized by permit, general permit, or permit-by-rule. Proposed §331.7(h) implements TWC, §27.153(a). The commission expects that most ASR projects can be authorized by rule as provided in HB 655 and as allowed for Class V injection wells under the commission's Underground Injection Control program approved by the United States Environmental Protection Agency under the federal Safe Drinking Water Act. Under existing authority in §331.9(c), the executive director may require the owner or operator of an injection well otherwise authorized by rule to apply for and obtain an injection well permit. The executive director may use this authority, on a case-by-case basis, to require that an owner or operator of ASR project seek

authorization under a permit rather than by rule. Because the commission expects that most ASR projects can be authorized by rule, the commission does not plan to develop a general permit for ASR at this time.

§331.11, Classification of Injection Wells

The commission proposes to amend §331.11 to revise existing subsection (a)(4)(L), aquifer storage wells, to refer to wells used for the injection of water for storage and subsequent retrieval for beneficial use as part of an ASR project. Revision of the description of this type of Class V well addresses the new definition for the term "Aquifer storage and recovery injection well" in proposed §331.2(9).

Subchapter K, Additional Requirements for Class V Aquifer Storage Wells

The commission proposes to revise the title of Subchapter K from "Additional Requirements for Class V Aquifer Storage Wells" to "Additional Requirements for Class V Injection Wells Associated with Aquifer Storage and Recovery Projects." This proposed revision is necessary for consistency with the proposed new definition for the term "Aquifer storage and recovery injection well."

§331.181, Applicability

The commission proposes to amend §331.181 to refer to "Class V aquifer storage and recovery injection wells" instead of "aquifer storage wells" to be consistent with the proposed definition for "Aquifer storage and recovery injection well" at §331.2(9) and with

the proposed amendment to §331.11(a)(4)(L) regarding the classification of Class V wells used for ASR.

§331.182, Area of Review

The commission proposes to amend §331.182 to remove the area of review determination for a Phase I Class V aquifer storage well, as the requirement for a pilot project (Phase I) was repealed from TWC, §11.153(b) and (c) under HB 655. The area of review requirements that applied to the Phase II aquifer storage well is retained and will apply to an ASR project. The commission proposes §331.182(4) to require an applicant for an authorization to provide all of the information to the executive director that is required under proposed §331.186(a) to implement TWC, §27.153(b), as amended by HB 655.

§331.183, Construction and Closure Standards

The commission proposes to amend §331.183 to refer to "aquifer storage and recovery injection wells" rather than "aquifer storage wells" to be consistent with the proposed definition for "Aquifer storage and recovery injection wells" at §331.2(9) and with the proposed amendment to §331.11(a)(4)(L) regarding the classification of Class V injection wells used for ASR. The commission also proposes to amend this section to revise the term "operator" to "project operator" to be consistent with the latter term as it is defined in proposed §331.2(92). Lastly, the commission proposes paragraphs (4) and (5). Under proposed paragraph (4), an ASR injection well may be used as an ASR production well, as specified in TWC, §27.154(c), as added by HB 655. To maintain consistency with existing

30 TAC §290.41, which applies to water wells that are used to supply water to a public water system, proposed paragraph (4) includes the requirement that an ASR injection well that also is used as an ASR production well must be constructed and operated in accordance with the requirements in §290.41 if the recovered water will serve a public water system. Proposed paragraph (5) addresses TWC, §27.153(c), as added by HB 655, under which all wells associated with an ASR project must be within a continuous perimeter boundary of one parcel of land, or within two or more parcels of land under the common ownership, lease, joint operating agreement, or contract.

§331.184, Operating Requirements

The commission proposes to amend §331.184 to refer to "aquifer storage and recovery injection wells" rather than "aquifer storage wells" to be consistent with the proposed definition for "Aquifer storage and recovery injection wells" at §331.2(9) and with the proposed amendment to §331.11(a)(4)(L) regarding the classification of Class V wells used for ASR. The commission proposes to amend §331.184(e) to remove the requirement that water injected for storage and subsequent recovery for beneficial use must meet the water quality standards in 30 TAC Chapter 290, Public Drinking Water, and to require that injected water does not result in pollution, as defined in renumbered §331.2(86).

Additionally, the commission proposes to revise subsection (e) to require treatment of injected water when such treatment is necessary to avoid pollution of native groundwater or an underground source of drinking water. Lastly, the commission proposes to revise subsection (e) to require that water that will be recovered from an ASR and provided to a

public water system be subject to applicable requirements of Chapter 290.

These proposed revisions are necessary to address the requirements of TWC, §27.154(d), as added by HB 655, under which the quality of the injected water may not exceed applicable federal standards. In this case, the applicable federal standard is at 40 Code of Federal Regulations (CFR) §144.12(a), under which injection is prohibited if it may cause violation of a primary drinking water regulation under 40 CFR Part 142. The existing requirement under §331.184(e) that injected water must meet the water quality standards in Chapter 290 could be interpreted to exceed the federal standard at 40 CFR §144.12(a). First, the existing requirement at §331.184(e) includes secondary water quality standards, whereas the federal rule references only primary drinking water standards. Second, under the federal rule, injected water does not have to meet primary drinking water standards if injection of that water will not result in pollution of an underground source of drinking water. The federal protection standard, like the state protection standard in §331.5, is a performance measure that prohibits injection that pollutes groundwater rather than establishing limits in rule for the concentrations of specific constituents in the injected fluids. Therefore, §331.184 is proposed to be revised to require that injection of water will not result in pollution of native groundwater or an underground source of drinking water.

Section 331.184(e) is also proposed to be amended to require appropriate treatment of the injected water when the injected water comes from a source other than groundwater.

Contemplated ASR projects may involve a variety of source waters, including groundwater,

surface water, or water from produced innovative technologies involving recycling, reuse, or special treatment of wastewater. Non-groundwater sources that are injected into an aquifer for storage could introduce pathogens or other organisms that would not otherwise be present in the native groundwater. This proposed requirement is to ensure that the injected water contains no pathogens or other organisms that may result in pollution of native groundwater. Native groundwater typically does not contain pathogens. The commission also proposes to amend §331.184(e) to state that water recovered from an ASR project that is provided to a public water system is subject to all applicable requirements that apply under Chapter 290. An ASR operator that is intending to use the recovered water for a public water system is encouraged to coordinate the planning of those activities with both the TCEQ's Underground Injection Control program and Public Drinking Water program.

The commission proposes to add §331.184(f), under which all ASR injection and production wells must be installed with a flow meter for measuring the volume of water injected and the volume of the water recovered or produced. Section 331.184(f) implements TWC, §27.155(a), as added by HB 655.

The commission proposes to add §331.184(g) to address the requirements of TWC, §27.154(b), as added by HB 655. Under proposed §331.184(g), the requirements of TWC, Chapter 36, Subchapter N apply to an ASR project that is within the jurisdiction of a groundwater conservation district or other special-purpose district with the authority to

regulate the withdrawal of groundwater. For ASR projects located within the jurisdiction of a district, the commission will not authorize the recovery of a volume of water that exceeds the volume of water injected as provided in TWC, §27.154(b). Under TWC, Chapter 36, Subchapter N, an ASR operator is subject to a district's requirements for registration and reporting of ASR production wells; reporting of injection and production volumes; reporting of volume of water produced that exceeds the volume injected; district permitting, spacing, and production requirements for volume of produced water that exceeds the volume of water injected; and the district's requirements regarding fees and surcharges, as they apply to the volume of water produced that exceed the volume of water injected.

§331.185, Monitoring and Reporting Requirements

The commission proposes to amend §331.185(a) to replace the requirement for quarterly reporting to the TCEQ with monthly reporting. The commission proposes to amend subsection (a) to include requirements for reporting of the volume of water injected for storage, and for the reporting of the volume of water produced for beneficial use, as required under TWC, §27.155, as added by HB 655. Reporting of monthly average injection pressures and reporting of other information, as required by the executive director, necessary for protection of underground sources of drinking water are retained. The commission proposes to remove the existing requirement in §331.185(a)(4) for monthly reporting of water quality analyses of injected water. TWC, §27.156, added by HB 655, requires water quality testing on an annual basis, which is now required under proposed

amendment to §331.185(b), discussed in this Section by Section Discussion.

The commission proposes to amend §331.185(b) to remove reference to the report required for Phase I of an ASR project, as this requirement has been removed from TWC, §11.153(b) and (c). The commission also proposes to amend §331.185(b) to require annual water quality testing and reporting as required under TWC, §27.156, as added by HB 655.

§331.186, Additional Requirements Necessary for Final Project Authorization

Existing requirements for regulating an ASR project in two phases (initial and final) was removed from TWC, §11.153(b) and (c) under HB 655. TCEQ now can authorize by rule, or issue individual or general permit for an ASR project without requiring a pilot project (Phase I). For this reason, the commission proposes to amend the title of §331.186 and delete the requirement in §331.186 for submission of the information obtained during the first phase of an ASR project. The commission also proposes to revise §331.186 to refer to "aquifer storage and recovery injection wells" rather than "aquifer storage wells" to be consistent with the proposed definition for "Aquifer storage and recovery injection wells" at §331.2(9) and with the proposed amendment to §331.11(a)(4)(L) regarding the classification of Class V injection wells used for ASR. The commission proposes to reorganize the sequence of existing §331.186 so that the information that was previously required to be provided after Phase I is now provided to the executive director after the completion of the injection well in proposed §331.186(b).

The commission proposes to amend §331.186 by creating a subsection (a) to include factors the TCEQ shall consider when issuing a new permit for an ASR project. The commission must consider whether the injection of the water will comply with the standards set forth in the federal Safe Drinking Water Act; the extent to which the cumulative volume of water injected for storage can be recovered; the effect of the ASR project on existing water wells; and whether the introduction of water in the subsurface will alter the physical, chemical or biological quality of the native groundwater to a degree that would render produced water harmful or detrimental, or would require an unreasonable higher level of treatment to render the produced water suitable for beneficial use. Proposed §331.186(a) implements TWC, §27.153(a) and (b), as added by HB 655.

Fiscal Note: Costs to State and Local Government

Jeffrey Horvath, Analyst in the Chief Financial Officer Division, has determined that for the first five-year period the proposed rules are in effect, no significant fiscal implications are anticipated for the agency or for other units of state or local government as a result of the administration or enforcement of the proposed rules.

The proposed rules implement HB 655. HB 655 amended TWC, Chapters 11, 27, and 36, regarding regulation of ASR projects. In corresponding rulemaking published in this issue of the *Texas Register*, the commission also proposes revisions to 30 TAC Chapters 39, 295, and 297. This fiscal note applies only to the proposed amendments to Chapter 331.

The proposed rules would implement HB 655 and are intended to encourage the development of ASR projects, which could provide a significant portion of the storage needed to meet future demand for water. ASR involves the use of one or more injection wells for the purpose of placing a water supply into a subsurface geologic formation, or aquifer, for storage so that the water may be subsequently recovered and used by the project operator. ASR allows the operator to utilize an existing aquifer as a storage reservoir rather than using aboveground storage options. The stored water can be available for public or private drinking water supplies, agriculture, or industrial uses. The operator must assure that the aquifer formation receiving the injected water has appropriate geologic and hydrologic properties that are amenable to injection and will allow the control or containment of the injected water. The operator must also assure that the injection will not pollute the native groundwater already in the aquifer or other underground sources of drinking water. TCEQ's Underground Injection Control program regulates the authorization, construction, operation, and closure of the injection wells used for ASR projects.

HB 655 removed provisions that require a pilot project to be authorized and completed prior to the issuance of the final ASR authorization. This removal allows for a single authorization for an ASR project thereby simplifying the permitting process. HB 655 also provided language to allow an ASR project to be authorized under a general permit, authorized by rule, or by an individual permit.

HB 655 and the proposed rules reduce monitoring and reporting requirements for water quality testing from a monthly basis to an annual basis. In addition, the proposed rulemaking provides that the injection of appropriated water for an ASR does not require any additional water right permit authorization beyond the original general permit, permit-by-rule, or individual permit issued for the project.

HB 655 required the TCEQ to adopt technical standards governing the use of Class V injection wells as ASR injection wells. Under the bill, the TCEQ cannot adopt or enforce groundwater quality protection standards for injected water that is more stringent than applicable federal standards. These provisions will be implemented by the agency using existing resources.

ASR injection and recovery wells located in a groundwater conservation district would have to be registered with the groundwater conservation district and would be subject to regular well registration fees.

TCEQ would be required to limit the amount of water that could be recovered by a project to the total amount that was injected and further limit that amount to account for loss of native groundwater due to displacement. If the project produced more water than the amount authorized for withdrawal by TCEQ, the project operator would be required to report the excess volume to the groundwater conservation district. A groundwater conservation district's spacing, production, and permitting rules and fees would apply only

to the withdrawals above the amount authorized rather than on the total volume of water produced as was the case before the passage of HB 655. Water supply companies that have an ASR project that is within the jurisdiction of one of these districts would also be affected by the proposed rules.

Municipalities or other entities providing water supplies that use or intend to use ASR for storage of water may be affected by new rule requirements for ASR. Currently, the City of Kerrville, and the San Antonio Water System (SAWS), which is owned by the City of San Antonio operate ASR projects. The City of Kerrville operates an ASR within the jurisdiction of the Headwaters Underground Water Conservation District (UWCD). While the commission's proposed rules do not impose fees for the production of water at an ASR project, under TWC, §36.455, a groundwater district may assess production fees, transportation fees, or export fees or surcharges for groundwater recovered from an ASR recovery well that exceeds the volume authorized by the commission. At this time, agency staff is not able to determine if there will be a decrease in fee revenue for the UWCD.

Both Kerrville and SAWS will be affected in that HB 655 reduces the monitoring and reporting requirements with regards to the quality of water managed by ASR. These requirements have been reduced from monthly to annual. The reduction in monitoring cost (estimated to be a one time savings of approximately \$4,400) is expected to be minimal and not significant.

Public Benefits and Costs

Mr. Horvath has also determined that for each year of the first five years the proposed rulemaking is in effect, the public benefit anticipated from the changes seen in the proposed rules would be compliance with state law and the implementation of a process for authorizing ASR projects which are a recognized strategy for alleviating the effects of prolonged drought and for ensuring adequate water supplies.

No fiscal implications are anticipated for businesses or individuals as a result of the administration or enforcement of the proposed rules. Any new ASR project would be required to comply with the proposed rules. The proposed rules are intended to encourage the development of ASR projects and not increase the regulatory requirements for these projects. Entities authorized for an ASR project must apply for the appropriate authorization, comply with requirements for the testing of injected water, monitor the volume of water injected and produced, and provide for well construction and operation. ASR projects within the jurisdictions of a groundwater conservation district or other special-purpose district with the authority to regulate the withdrawal of groundwater are subject to the district requirements. Water supply companies that have an ASR project that is within the jurisdiction of one of these districts would also be affected by the proposed rules. Currently, only the City of Kerrville and SAWS operate ASR projects.

Small Business and Micro-Business Assessment

No adverse fiscal implications are anticipated for small or micro-businesses as a result of

the proposed rules. The proposed rulemaking would have the same effect on a small business as it does on a large business. The proposed rules would implement HB 655 and are intended to encourage the development of ASR projects, which could provide a significant portion of the storage needed to meet future demand for water. Currently, only the City of Kerrville and SAWS operate ASR projects. Water supply companies that have an ASR project that is within the jurisdiction of a groundwater conservation district or other special-purpose district with the authority to regulate the withdrawal of groundwater would also be affected by the proposed rules.

Small Business Regulatory Flexibility Analysis

The commission has reviewed this proposed rulemaking and determined that a small business regulatory flexibility analysis is not required because the proposed rulemaking is necessary in order to comply with state law and does not adversely affect a small or micro-businesses in a material way for the first five years that the proposed rulemaking is in effect.

Local Employment Impact Statement

The commission has reviewed this proposed rulemaking and determined that a local employment impact statement is not required because the proposed rulemaking does not adversely affect a local economy in a material way for the first five years that the proposed rulemaking is in effect.

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 legislative requirements in HB 655, which revises the requirements for the commission's regulation of injection wells associated with ASR projects. The proposal does not meet the definition of "major environmental rule" because the rulemaking does not adversely 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. Prior to the enactment of HB 655, the commission had previously authorized only two ASR projects and does not expect a great number of new projects. The proposed rules implement the legislative directives of HB 655 and do not impose additional regulatory burdens that would affect the economy or a sector of the economy in a material way.

Furthermore, the proposed rules do not meet any of the four applicability requirements listed in Texas Government Code, §2001.0225(a). The proposed rules do not exceed a

standard set by federal law, because the proposed rules are consistent with applicable federal standards for Class V ASR injection wells. The proposed rules do not exceed an express requirement of state law because the proposed rules are consistent with the express requirements of HB 655 and TWC, Chapter 27, Subchapter G. The proposed rules do 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, but is proposed under the express requirements of HB 655 and TWC, §§27.019, 27.153, and 27.154.

Written comments on the Draft Regulatory Impact Analysis Determination 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 of HB 655, which revises the requirements for the commission's regulation of injection wells associated with ASR projects.

The proposed rules would be neither a statutory nor a constitutional taking of private real property. The proposed rules would establish conditions and requirement for certain injection activities associated with ASR projects, consistent with the requirements of HB

655. The proposed rulemaking 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 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 rules and found that they are neither identified in Coastal Commission Act Implementation Rules, 31 TAC §505.11(b)(2) or (4), nor will they affect any action/authorization identified in Coastal Coordination Act Implementation Rules, 31 TAC §505.11(a)(6). Therefore, the proposed rules are 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 22, 2016, 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 Sandy Wong, Office of Legal Services at (512) 239-1802 or 1-800-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:

<http://www1.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 2015-022-331-WS. The comment period closes on February 8, 2016. Copies of the proposed rulemaking can be obtained from the commission's website at *http://www.tceq.texas.gov/rules/propose_adopt.html*. For further information, please contact David Murray, Radioactive Materials Division, (512) 239-6080.

SUBCHAPTER A: GENERAL PROVISIONS

§§331.2, 331.7, 331.11

Statutory Authority

The amended sections are proposed under 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 this code 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; TWC, §27.153, which requires the commission to adopt rules for authorization of aquifer storage and recovery injection wells by rule or by permit; and TWC, §27.154, which requires the commission to adopt technical standards for aquifer storage and recovery injection wells.

The amended sections implement House Bill 655, 84th Texas Legislature, 2015, and TWC, Chapter 27, Subchapter G, which confers commission jurisdiction and establishes requirements for injection wells associated with aquifer storage and recovery projects.

§331.2. Definitions.

General definitions can be found in Chapter 3 of this title (relating to Definitions).
The following words and terms, when used in this chapter, have the following meanings.

(1) Abandoned well--A well which has been permanently discontinued from use or a well for which, after appropriate review and evaluation by the commission, there is no reasonable expectation of a return to service.

(2) Activity--The construction or operation of any of the following:

(A) an injection well for disposal of waste;

(B) an injection or production well for the recovery of minerals;

(C) a monitor well at a Class III injection well site;

(D) pre-injection units for processing or storage of waste; or

(E) any other class of injection well regulated by the commission.

(3) Affected person--Any person who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the proposed injection operation for which a permit is sought.

(4) Annulus--The space in the wellbore between the injection tubing and the long string casing and/or liner.

(5) Annulus pressure differential--The difference between the annulus pressure and the injection pressure in an injection well.

(6) Aquifer--A geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

(7) Aquifer restoration--The process used to achieve or exceed water quality levels established by the commission for a permit/production area.

(8) Aquifer storage and recovery [well]--The [A Class V injection well used for the] injection of water into a geologic formation, group of formations, or part of a formation that is capable of underground storage of water for later retrieval and beneficial use.

(9) Aquifer storage and recovery injection well--A Class V injection well used for the injection of water into a geologic formation as part of an aquifer storage and recovery project.

(10) Aquifer storage and recovery production well--A well used for the production of water from a geologic formation as part of an aquifer storage and recovery project.

(11) Aquifer storage and recovery project--A project involving the injection of water into a geologic formation for the purpose of subsequent recovery and beneficial use by the project operator.

(12) [(9)] Area of review--The area surrounding an injection well described according to the criteria set forth in §331.42 of this title (relating to Area of Review) or in the case of an area permit, the project area plus a circumscribing area the width of which is either 1/4 mile or a number calculated according to the criteria set forth in §331.42 of this title.

(13) [(10)] Area permit--A permit that authorizes the construction and operation of two or more similar injection, production, or monitoring wells used in operations associated with Class III well activities within a specified area.

(14) [(11)] Artificial liner--The impermeable lining of a pit, lagoon, pond, reservoir, or other impoundment, that is made of a synthetic material such as butyl rubber, chlorosulfonated polyethylene, elasticized polyolefin, polyvinyl chloride (PVC), other manmade materials, or similar materials.

(15) [(12)] Baseline quality--The parameters and their concentrations that describe the local groundwater quality of an aquifer prior to the beginning of injection operations.

(16) [(13)] Baseline well--A well from which groundwater is analyzed to define baseline quality in the permit area (regional baseline well) or in the production area (production area baseline well).

(17) [(14)] Bedded salt--A geologic formation, group of formations, or part of a formation consisting of non-domal salt that is layered and may be interspersed with non-salt sedimentary materials such as anhydrite, shale, dolomite, and limestone. The salt layers themselves often contain significant impurities.

(18) [(15)] Bedded salt cavern disposal well--A well or group of wells and connecting storage cavities which have been created by solution mining, dissolving or excavation of salt bearing deposits or other geological formations and subsequently developed for the purpose of disposal of nonhazardous drinking water treatment residuals.

(19) [(16)] Blanket material or blanket pad--A fluid placed within a salt cavern that is lighter than the water in the cavern and will not dissolve the salt or any mineral impurities that may be contained within the salt. The function of the blanket is to

prevent unwanted leaching of the salt cavern roof, prevent leaching of salt from around the cemented casing, and to protect the cemented casing from internal corrosion. Blanket material typically consists of crude oil, mineral oil, or some fluid possessing similar noncorrosive, nonsoluble, low density properties. The blanket material is placed between the salt cavern's outermost hanging string and innermost cemented casing.

(20) [(17)] Buffer area--The area between any mine area boundary and the permit area boundary.

(21) [(18)] Caprock--A geologic formation typically overlying the crest and sides of a salt stock. The caprock consists of a complex assemblage of minerals including calcite (CaCO_3), anhydrite (CaSO_4), and accessory minerals. Caprocks often contain lost circulation zones characterized by rock layers of high porosity and permeability.

(22) [(19)] Captured facility--A manufacturing or production facility that generates an industrial solid waste or hazardous waste that is routinely stored, processed, or disposed of on a shared basis in an integrated waste management unit owned, operated by, and located within a contiguous manufacturing complex.

(23) [(20)] Casing--Material lining used to seal off strata at and below the earth's surface.

(24) [(21)] Cement--A substance generally introduced as a slurry into a wellbore which sets up and hardens between the casing and borehole and/or between casing strings to prevent movement of fluids within or adjacent to a borehole, or a similar substance used in plugging a well.

(25) [(22)] Cementing--The operation whereby cement is introduced into a wellbore and/or forced behind the casing.

(26) [(23)] Cesspool--A drywell that receives untreated sanitary waste containing human excreta, and which sometimes has an open bottom and/or perforated sides.

(27) [(24)] Commercial facility--A Class I permitted facility, where one or more commercial wells are operated.

(28) [(25)] Commercial underground injection control (UIC) Class I well facility--Any waste management facility that accepts, for a charge, hazardous or nonhazardous industrial solid waste for disposal in a UIC Class I injection well, except a captured facility or a facility that accepts waste only from other facilities owned or effectively controlled by the same person.

(29) [(26)] Commercial well--An underground injection control Class I injection well which disposes of hazardous or nonhazardous industrial solid wastes, for a charge, except for a captured facility or a facility that accepts waste only from facilities owned or effectively controlled by the same person.

(30) [(27)] Conductor casing or conductor pipe--A short string of large-diameter casing used to keep the top of the wellbore open during drilling operations.

(31) [(28)] Cone of influence--The potentiometric surface area around the injection well within which increased injection zone pressures caused by injection of wastes would be sufficient to drive fluids into an underground source of drinking water or freshwater aquifer.

(32) [(29)] Confining zone--A part of a formation, a formation, or group of formations between the injection zone and the lowermost underground source of drinking water or freshwater aquifer that acts as a barrier to the movement of fluids out of the injection zone.

(33) [(30)] Contaminant--Any physical, biological, chemical, or radiological substance or matter in water.

(34) [(31)] Control parameter--Any physical parameter or chemical constituent of groundwater monitored on a routine basis used to detect or confirm the presence of mining solutions in a designated monitor well. Monitoring includes measurement with field instrumentation or sample collection and laboratory analysis.

(35) [(32)] Desalination brine--The waste stream produced by a desalination operation containing concentrated salt water, other naturally occurring impurities, and additives used in the operation and maintenance of a desalination operation.

(36) [(33)] Desalination concentrate--Same as desalination brine.

(37) [(34)] Desalination operation--A process which produces water of usable quality by desalination.

(38) [(35)] Disposal well--A well that is used for the disposal of waste into a subsurface stratum.

(39) [(36)] Disturbed salt zone--Zone of salt enveloping a salt dome cavern, typified by increased values of permeability or other induced anomalous conditions relative to undisturbed salt which lies more distant from the salt dome cavern, and is the result of mining activities during salt dome cavern development and which may vary in extent through all phases of a cavern including the post-closure phase.

(40) [(37)] Drilling mud--A heavy suspension used in drilling an injection well, introduced down the drill pipe and through the drill bit.

(41) [(38)] Drinking water treatment residuals--Materials generated, concentrated or produced as a result of treating water for human consumption.

(42) [(39)] Drywell--A well, other than an improved sinkhole or subsurface fluid distribution system, completed above the water table so that its bottom and sides are typically dry except when receiving fluids.

(43) [(40)] Enhanced oil recovery project (EOR)--The use of any process for the displacement of oil from the reservoir other than primary recovery and includes the use of an immiscible, miscible, chemical, thermal, or biological process. This term does not include pressure maintenance or water disposal projects.

(44) [(41)] Excursion--The movement of mining solutions, as determined by analysis for control parameters, into a designated monitor well.

(45) [(42)] Existing injection well--A Class I well which was authorized by an approved state or United States Environmental Protection Agency-administered program before August 25, 1988, or a well which has become a Class I well as a result of a change in

the definition of the injected waste which would render the waste hazardous under §335.1 of this title (relating to Definitions).

(46) [(43)] Fluid--Material or substance which flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state.

(47) [(44)] Formation--A body of rock characterized by a degree of lithologic homogeneity which is prevailing, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.

(48) [(45)] Formation fluid--Fluid present in a formation under natural conditions.

(49) [(46)] Fresh water--Water having bacteriological, physical, and chemical properties which make it suitable and feasible for beneficial use for any lawful purpose.

(A) For the purposes of this chapter, it will be presumed that water is suitable and feasible for beneficial use for any lawful purpose only if:

(i) it is used as drinking water for human consumption; or

(ii) the groundwater contains fewer than 10,000 milligrams per liter (mg/L) total dissolved solids; and

(iii) it is not an exempted aquifer.

(B) This presumption may be rebutted upon a showing by the executive director or an affected person that water containing greater than or equal to 10,000 mg/L total dissolved solids can be put to a beneficial use.

(50) [(47)] General permit--A permit issued under the provisions of this chapter authorizing the disposal of nonhazardous desalination concentrate and nonhazardous drinking water treatment residuals as provided by Texas Water Code, §27.023.

(51) [(48)] Groundwater--Water below the land surface in a zone of saturation.

(52) [(49)] Groundwater protection area--A geographic area (delineated by the state under federal Safe Drinking Water Act, 42 United States Code, §300j-13) near and/or surrounding community and non-transient, non-community water systems that use groundwater as a source of drinking water.

(53) [(50)] Hazardous waste--Hazardous waste as defined in §335.1 of this title (relating to Definitions).

(54) [(51)] Improved sinkhole--A naturally occurring karst depression or other natural crevice found in carbonate rocks, volcanic terrain, and other geologic settings which has been modified by man for the purpose of directing and emplacing fluids into the subsurface.

(55) [(52)] Individual permit--A permit, as defined in the Texas Water Code (TWC), §27.011 and §27.021, issued by the commission or the executive director to a specific person or persons in accordance with the procedures prescribed in the TWC, Chapter 27 (other than TWC, §27.023).

(56) [(53)] Injection interval--That part of the injection zone in which the well is authorized to be screened, perforated, or in which the waste is otherwise authorized to be directly emplaced.

(57) [(54)] Injection operations--The subsurface emplacement of fluids occurring in connection with an injection well or wells, other than that occurring solely for construction or initial testing.

(58) [(55)] Injection well--A well into which fluids are being injected.

Components of an injection well annulus monitoring system are considered to be a part of the injection well.

(59) [(56)] Injection zone--A formation, a group of formations, or part of a formation that receives fluid through a well.

(60) [(57)] In service--The operational status when an authorized injection well is capable of injecting fluids, including times when the well is shut-in and on standby status.

(61) [(58)] Intermediate casing--A string of casing with diameter intermediate between that of the surface casing and that of the smaller long-string or production casing, and which is set and cemented in a well after installation of the surface casing and prior to installation of the long-string or production casing.

(62) [(59)] Large capacity cesspool--A cesspool that is designed for a flow of greater than 5,000 gallons per day.

(63) [(60)] Large capacity septic system--A septic system that is designed for a flow of greater than 5,000 gallons per day.

(64) [(61)] 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.

(65) [(62)] Liner--An additional casing string typically set and cemented inside the long string casing and occasionally used to extend from base of the long string casing to or through the injection zone.

(66) [(63)] Long string casing or production casing--A string of casing that is set inside the surface casing and that usually extends to or through the injection zone.

(67) [(64)] Lost circulation zone--A term applicable to rotary drilling of wells to indicate a subsurface zone which is penetrated by a wellbore, and which is characterized by rock of high porosity and permeability, into which drilling fluids flow from the wellbore to the degree that the circulation of drilling fluids from the bit back to ground surface is disrupted or "lost."

(68) [(65)] Mine area--The area defined by a line through the ring of designated monitor wells installed to monitor the production zone.

(69) [(66)] Mine plan--A plan for operations at a mine, consisting of:

(A) a map of the permit area identifying the location and extent of existing and proposed production areas; and

(B) an estimated schedule indicating the sequence and timetable for mining and any required aquifer restoration.

(70) [(67)] Monitor well--Any well used for the sampling or measurement with field instrumentation of any chemical or physical property of subsurface strata or their contained fluids. The term "monitor well" shall have the same meaning as the term "monitoring well" as defined in Texas Water Code, §27.002.

(A) Designated monitor wells are those listed in the production area authorization for which routine water quality sampling or measurement with field instrumentation is required.

(B) Secondary monitor wells are those wells in addition to designated monitor wells, used to delineate the horizontal and vertical extent of mining solutions.

(C) Pond monitor wells are wells used in the subsurface surveillance system near ponds or other pre-injection units.

(71) [(68)] Motor vehicle waste disposal well--A well used for the disposal of fluids from vehicular repair or maintenance activities including, but not limited to, repair and maintenance facilities for cars, trucks, motorcycles, boats, railroad locomotives, and airplanes.

(72) Native groundwater--Groundwater naturally occurring in a geologic formation.

(73) [(69)] New injection well--Any well, or group of wells, not an existing injection well.

(74) [(70)] New waste stream--A waste stream not permitted.

(75) [(71)] Non-commercial facility--A Class I permitted facility which operates only non-commercial wells.

(76) [(72)] Non-commercial underground injection control (UIC) Class I well facility--A UIC Class I permitted facility where only non-commercial wells are operated.

(77) [(73)] Non-commercial well--An underground injection control Class I injection well which disposes of wastes that are generated on-site, at a captured facility or from other facilities owned or effectively controlled by the same person.

(78) [(74)] Notice of change (NOC)--A written submittal to the executive director from a permittee authorized under a general permit providing changes to information previously provided to the agency, or any changes with respect to the nature or operations of the facility, or the characteristics of the waste to be injected.

(79) [(75)] Notice of intent (NOI)--A written submittal to the executive director requesting coverage under the terms of a general permit.

(80) [(76)] Off-site--Property which cannot be characterized as on-site.

(81) [(77)] On-site--The same or geographically contiguous property which may be divided by public or private rights-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing, as opposed to going along, the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which the owner controls and to which the public does not have access, is also considered on-site property.

(82) [(78)] Out of service--The operational status when a well is not authorized to inject fluids, or the well itself is incapable of injecting fluids for mechanical reasons, maintenance operations, or well workovers or when injection is prohibited due to the well's inability to comply with the in-service operating standards of this chapter.

(83) [(79)] Permit area--The area owned or under lease by the permittee which may include buffer areas, mine areas, and production areas.

(84) [(80)] Plugging--The act or process of stopping the flow of water, oil, or gas into or out of a formation through a borehole or well penetrating that formation.

(85) [(81)] Point of injection--For a Class V well, the last accessible sampling point prior to fluids being released into the subsurface environment.

(86) [(82)] Pollution--The contamination of water or the alteration of the physical, chemical, or biological quality of water:

(A) that makes it harmful, detrimental, or injurious:

(i) to humans, animal life, vegetation, or property; or

(ii) to public health, safety, or welfare; or

(B) that impairs the usefulness or the public enjoyment of the water for any lawful and reasonable purpose.

(87) [(83)] Pre-injection units--The on-site above-ground appurtenances, structures, equipment, and other fixtures including the injection pumps, filters, tanks, surface impoundments, and piping for wastewater transmission between any such facilities and the well that are or will be used for storage or processing of waste to be injected, or in conjunction with an injection operation.

(88) [(84)] Production area--The area defined by a line generally through the outer perimeter of injection and recovery wells used for mining.

(89) [(85)] Production area authorization--An authorization, issued under the terms of a Class III injection well area permit, approving the initiation of mining activities in a specified production area within a permit area, and setting specific conditions for production and restoration in each production area within an area permit.

(90) [(86)] Production well--A well used to recover uranium through in situ solution recovery, including an injection well used to recover uranium. The term does not include a well used to inject waste.

(91) [(87)] Production zone--The stratigraphic interval extending vertically from the shallowest to the deepest stratum into which mining solutions are authorized to be introduced.

(92) Project operator--A person holding an authorization by rule, individual permit, or general permit to undertake an aquifer storage and recovery project.

(93) [(88)] Public water system--A system for the provision to the public of water for human consumption through pipes or other constructed conveyances as defined in §290.38 of this title (relating to Definitions).

(94) [(89)] Radioactive waste--Any waste which contains radioactive material in concentrations which exceed those listed in 10 Code of Federal Regulations Part 20, Appendix B, Table II, Column 2, and as amended.

(95) [(90)] Registered Well--A well registered in accordance with the requirements of §331.221 of this title (relating to Registration of Wells).

(96) [(91)] Restoration demonstration--A test or tests conducted by a permittee to simulate production and restoration conditions and verify or modify the fluid handling values submitted in the permit application.

(97) [(92)] Restored aquifer--An aquifer whose local groundwater quality, within a production area, has, by natural or artificial processes, returned to the restoration table values established in accordance with the requirements of §331.107 of this title (relating to Restoration).

(98) [(93)] Salt cavern--A hollowed-out void space that has been purposefully constructed within a salt formation, typically by means of solution mining by circulation of water from a well or wells connected to the surface.

(99) [(94)] Salt cavern disposal well--For the purposes of this chapter, regulations of the commission, and not to underground injection control (UIC) Class II or UIC Class III wells in salt caverns regulated by the Texas Railroad Commission, a salt cavern disposal well is a type of UIC Class I injection well used:

(A) to solution mine a waste storage or disposal cavern in naturally occurring salt; and/or

(B) to inject nonhazardous, industrial, or municipal waste into a salt cavern for the purpose of storage or disposal of the waste.

(100) [(95)] Salt dome--A geologic structure that includes the caprock, salt stock, and deformed strata surrounding the salt stock.

(101) [(96)] Salt dome cavern confining zone--A zone between the salt dome cavern injection zone and all underground sources of drinking water and freshwater aquifers, that acts as a barrier to movement of waste out of a salt dome cavern injection

zone, and consists of the entirety of the salt stock excluding any portion of the salt stock designated as an underground injection control (UIC) Class I salt dome cavern injection zone or any portion of the salt stock occupied by a UIC Class II or Class III salt dome cavern or its disturbed salt zone.

(102) [(97)] Salt dome cavern injection interval--That part of a salt dome cavern injection zone consisting of the void space of the salt dome cavern into which waste is stored or disposed of, or which is capable of receiving waste for storage or disposal.

(103) [(98)] Salt dome cavern injection zone--The void space of a salt dome cavern that receives waste through a well, plus that portion of the salt stock enveloping the salt dome cavern, and extending from the boundaries of the cavern void outward a sufficient thickness to contain the disturbed salt zone, and an additional thickness of undisturbed salt sufficient to ensure that adequate separation exists between the outer limits of the injection zone and any other activities in the domal area.

(104) [(99)] Salt stock--A geologic formation consisting of a relatively homogeneous mixture of evaporite minerals dominated by halite (NaCl) that has migrated from originally tabular beds into a vertical orientation.

(105) [(100)] Sanitary waste--Liquid or solid waste originating solely from humans and human activities, such as wastes collected from toilets, showers, wash basins,

sinks used for cleaning domestic areas, sinks used for food preparation, clothes washing operations, and sinks or washing machines where food and beverage serving dishes, glasses, and utensils are cleaned.

(106) [(101)] Septic system--A well that is used to emplace sanitary waste below the surface, and is typically composed of a septic tank and subsurface fluid distribution system or disposal system.

(107) [(102)] Stratum--A sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock or material.

(108) [(103)] Subsurface fluid distribution system--An assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground. This definition includes subsurface area drip dispersal systems as defined in §222.5 of this title (relating to Definitions).

(109) [(104)] Surface casing--The first string of casing (after the conductor casing, if any) that is set in a well.

(110) [(105)] Temporary injection point--A method of Class V injection that uses push point technology (injection probes pushed into the ground) for the one-time injection of fluids into or above an underground source of drinking water.

(111) [(106)] Total dissolved solids--The total dissolved (filterable) solids as determined by use of the method specified in 40 Code of Federal Regulations Part 136, as amended.

(112) [(107)] Transmissive fault or fracture--A fault or fracture that has sufficient permeability and vertical extent to allow fluids to move between formations.

(113) [(108)] Underground injection--The subsurface emplacement of fluids through a well.

(114) [(109)] Underground injection control--The program under the federal Safe Drinking Water Act, 42 United States Code, Part C, including the approved Texas state program.

(115) [(110)] Underground source of drinking water--An "aquifer" or its portions:

(A) which supplies drinking water for human consumption; or

(B) in which the groundwater contains fewer than 10,000 milligrams per liter total dissolved solids; and

(C) which is not an exempted aquifer.

(116) [(111)] Upper limit--A parameter value established by the commission in a permit/production area authorization which when exceeded indicates mining solutions may be present in designated monitor wells.

(117) [(112)] Verifying analysis--A second sampling and analysis or measurement with instrumentation of control parameters for the purpose of confirming a routine sample analysis or measurement which indicated an increase in any control parameter to a level exceeding the upper limit. Mining solutions are assumed to be present in a designated monitor well if a verifying analysis confirms that any control parameter in a designated monitor well is present in concentration equal to or greater than the upper limit value.

(118) [(113)] Well--A bored, drilled, or driven shaft whose depth is greater than the largest surface dimension, a dug hole whose depth is greater than the largest surface dimension, an improved sinkhole, or a subsurface fluid distribution system but does not include any surface pit, surface excavation, or natural depression.

(119) [(114)] Well injection--The subsurface emplacement of fluids through a well.

(120) [(115)] Well monitoring--The measurement by on-site instruments or laboratory methods of any chemical, physical, radiological, or biological property of the subsurface strata or their contained fluids penetrated by the wellbore.

(121) [(116)] Well stimulation--Several processes used to clean the well bore, enlarge channels, and increase pore space in the injection interval, thus making it possible for fluid to move more readily into the formation including, but not limited to, surging, jetting, and acidizing.

(122) [(117)] Workover--An operation in which a down-hole component of a well is repaired, the engineering design of the well is changed, or the mechanical integrity of the well is compromised. Workovers include operations such as sidetracking, the addition of perforations within the permitted injection interval, and the addition of liners or patches. For the purposes of this chapter, workovers do not include well stimulation operations.

§331.7. Permit Required.

(a) Except as provided in §331.9 of this title (relating to Injection Authorized by Rule) and by subsections (d) - (f) of this section, all injection wells and activities must be authorized by an individual permit.

(b) For Class III in situ uranium solution mining wells, Frasch sulfur wells, and other Class III operations under commission jurisdiction, an area permit authorizing more than one well may be issued for a defined permit area in which wells of similar design and operation are proposed. The wells must be operated by a single owner or operator. Before commencing operation of those wells, the permittee may be required to obtain a production area authorization for separate production or mining areas within the permit area.

(c) The owner or operator of a large capacity septic system, a septic system which accepts industrial waste, or a subsurface area drip dispersal system, as defined in §222.5 of this title (relating to Definitions) must obtain a wastewater discharge permit in accordance with Texas Water Code, Chapter 26 or Chapters 26 and 32, and Chapter 305 of this title (relating to Consolidated Permits), and must submit the inventory information required under §331.10 of this title (relating to Inventory of Wells Authorized by Rule).

(d) Pre-injection units for Class I nonhazardous, noncommercial injection wells and Class V injection wells permitted for the disposal of nonhazardous waste must be either authorized by a permit issued by the commission or registered in accordance with §331.17 of this title (relating to Pre-Injection Units Registration). The option of registration provided by this subsection shall not apply to pre-injection units for Class I injection wells used for the disposal of byproduct material, as that term is defined in Chapter 336 of this

title (relating to Radioactive Substance Rules). Pre-injection units for Class I wells authorized to inject only nonhazardous desalination concentrate or nonhazardous drinking water treatment residuals are not subject to authorization by registration but are subject to authorization by an individual permit or under the general permit issued under Subchapter L of this chapter (relating to General Permit Authorizing Use of a Class I Injection Well to Inject Nonhazardous Desalination Concentrate or Nonhazardous Drinking Water Treatment Residuals).

(e) The commission may issue a general permit under Subchapter L of this chapter. The commission may determine that an injection well and the injection activities are more appropriately regulated under an individual permit than under a general permit based on findings that the general permit will not protect ground and surface fresh water from pollution due to site-specific conditions.

(f) Notwithstanding subsection (a) of this section, an injection well authorized by the Railroad Commission of Texas to use nonhazardous desalination concentrate or nonhazardous drinking water treatment residuals as an injection fluid for enhanced recovery purposes does not require a permit from the commission. The use or disposal of radioactive material under this subsection is subject to the applicable requirements of Chapter 336 of this title.

(g) Permits issued before September 1, 2007 for Class III wells for uranium mining will expire on September 1, 2012 unless the permit holder submits an application for permit renewal under §305.65 of this title (relating to Renewal) before September 1, 2012. Any holders of permits for Class III wells for uranium mining issued before September 1, 2007 who allow those permits to expire by not submitting a permit renewal application by September 1, 2012 are not relieved from the obligations under the expired permit or applicable rules, including obligations to restore groundwater and to plug and abandon wells in accordance with the requirements of the permit and applicable rules.

(h) Class V injection wells associated with an aquifer storage and recovery project may be authorized by permit, general permit, or by permit-by-rule.

§331.11. Classification of Injection Wells.

(a) Injection wells within the jurisdiction of the commission are classified as follows.

(1) Class I:

(A) wells used by generators of hazardous wastes or owners or operators of hazardous waste management facilities to inject hazardous waste, other than Class IV wells;

(B) other industrial and municipal waste disposal wells which inject fluids beneath the lower-most formation which within 1/4 mile of the wellbore contains an underground source of drinking water (USDW); and

(C) radioactive waste disposal wells which inject fluids below the lower-most formation containing a USDW within 1/4 mile of the wellbore.

(2) Class III. Wells which are used for the extraction of minerals, including:

(A) mining of sulfur by the Frasch process; and

(B) solution mining of minerals which includes sodium sulfate, sulfur, potash, phosphate, copper, uranium and any other minerals which can be mined by this process.

(3) Class IV. Wells used by generators of hazardous wastes or of radioactive wastes, by owners or operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites to dispose of hazardous wastes or radioactive wastes into or above a formation which within 1/4 mile of the wellbore contains a USDW.

(4) Class V. Class V wells are injection wells not included in Classes I, II, III, or IV. Generally, wells covered by this paragraph inject nonhazardous fluids into or above

formations that contain USDWs. Except for Class V wells within the jurisdiction of the Railroad Commission of Texas, all Class V injection wells are within the jurisdiction of the commission and include, but are not limited to:

(A) air conditioning return flow wells used to return to the supply aquifer the water used for heating or cooling in a heat pump;

(B) closed loop injection wells which are closed system geothermal wells used to circulate fluids including water, water with additives, or other fluids or gases through the earth as a heat source or heat sink;

(C) large capacity cesspools or other devices that receive greater than 5,000 gallons of waste per day, which have an open bottom and sometimes have perforated sides;

(D) cooling water return flow wells used to inject water previously used for cooling;

(E) drainage wells used to drain surface fluid, primarily storm runoff, into a subsurface formation;

(F) drywells used for the injection of wastes into a subsurface formation;

(G) recharge wells used to replenish the water in an aquifer;

(H) salt water intrusion barrier wells used to inject water into a freshwater aquifer to prevent the intrusion of salt water into the fresh water;

(I) sand backfill wells used to inject a mixture of water and sand, mill tailings, or other solids into mined out portions of subsurface mines;

(J) septic systems designed to inject greater than 5,000 gallons per day of waste or effluent;

(K) subsidence control wells (not used for the purpose of oil or natural gas production) used to inject fluids into a non-oil or gas producing zone to reduce or eliminate subsidence associated with the overdraft of fresh water;

(L) [aquifer storage] wells used for the injection of water for storage and subsequent retrieval for beneficial use as part of an aquifer storage and recovery project;

(M) motor vehicle waste disposal wells which are used or have been used for the disposal of fluids from vehicular repair or maintenance activities, such as an automotive repair shop, auto body shop, car dealership, boat, motorcycle or airplane dealership, or repair facility;

(N) improved sinkholes;

(O) aquifer remediation wells, temporary injection points, and subsurface fluid distribution systems used to inject nonhazardous fluids into the subsurface to aid in the remediation of soil and groundwater; and

(P) subsurface fluid distribution systems.

(b) Class II wells and Class III wells used for brine mining fall within the jurisdiction of the Railroad Commission of Texas.

(c) Baseline wells and monitor wells associated with Class III injection wells within the jurisdiction of the commission are also subject to the rules specified in this chapter.

(d) The commission has jurisdiction over the injection of carbon dioxide produced by a clean coal project into a zone that is below the base of usable quality water and that is not productive of oil, gas, or geothermal resources.

SUBCHAPTER K: ADDITIONAL REQUIREMENTS FOR CLASS V INJECTION

WELLS ASSOCIATED WITH AQUIFER STORAGE AND

RECOVERY PROJECTS [WELLS]

§§331.181 - 331.186

Statutory Authority

The amended sections are 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 this code 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; TWC, §27.153, which requires the commission to adopt rules for authorization of aquifer storage and recovery injection wells by rule or by permit; and TWC, §27.154, which requires the commission to adopt technical standards for aquifer storage and recovery injection wells.

The amended sections implement House Bill 655, 84th Texas Legislature, 2015, and TWC, Chapter 27, Subchapter G, which confers commission jurisdiction and establishes requirements for injection wells associated with aquifer storage and recovery projects.

§331.181. Applicability.

In addition to the requirements of Subchapter H of this chapter (relating to Standards for Class V Wells), the requirements of this subchapter apply to all Class V aquifer storage and recovery injection wells.

§331.182. Area of Review.

The area of review for an aquifer storage and recovery project [a Phase I Class V aquifer storage well is the area determined by a radius of 1/4 mile from the proposed or existing wellbore. The area of review for a Phase II Class V aquifer storage well] is the area determined by a radius of 1/4 mile from the perimeter of a buffer zone surrounding the land surface area under which the underground storage of state water will occur and beyond which pumpage by other wells will not interfere or significantly affect the movement or storage of the water [as described under §295.22(e)(5) of this title (relating to Additional Requirements for the Underground Storage of Surface Water for Subsequent Retrieval and Beneficial Use)]. In the application for authorization, the applicant shall provide information on the activities within the area of review including the following factors and their adverse impacts, if any, on the injection operation:

(1) location of all artificial penetrations that penetrate the interval to be used for aquifer storage and recovery, including but not limited to: water wells and abandoned

water wells from commission well files or ground water district files; oil and gas wells and saltwater injection wells from the Railroad Commission of Texas files; and waste disposal wells/other injection wells from the commission disposal well files;

(2) completion and construction information, where available, for identified artificial penetrations; [and]

(3) site specific, significant geologic features, such as faults and fractures; and
[.]

(4) all information required for the consideration of an aquifer storage and recovery injection well under §331.186(a) of this title (relating to Additional Requirements).

§331.183. Construction and Closure Standards.

All Class V aquifer storage and recovery (ASR) injection wells shall be designed, constructed, completed, and closed to prevent commingling, through the wellbore and casing, of injection waters with other fluids outside of the authorized injection zone; mixing through the wellbore and casing of fluids from aquifers of substantively different water quality; and infiltration through the wellbore and casing of water from the surface into ground water zones.

(1) Plans and specifications. Except as specifically required in the terms of the Class V injection [aquifer storage] well authorization, the drilling and completion of a Class V ASR injection [aquifer storage] well shall be done in accordance with the requirements of §331.132 of this title (relating to Construction Standards) and the closure of a Class V ASR injection [aquifer storage] well shall be done in accordance with the requirements of §331.133 of this title (relating to Closure Standards for Injection Wells).

(A) If the project operator proposes to change the injection interval to one not reviewed during the authorization process, the project operator shall notify the executive director immediately. The project operator may not inject into any unauthorized zone.

(B) The executive director shall be notified immediately of any other changes, including but not limited to, changes in the completion of the well, changes in the setting of screens, and changes in the injection intervals within the authorized injection zone.

(2) Construction materials. Casing materials for Class V ASR injection [aquifer storage] wells shall be constructed of materials resistant to corrosion.

(3) Construction and workover supervision. All phases of any ASR injection [aquifer storage] well construction, workover or closure shall be supervised by qualified individuals who are knowledgeable and experienced in practical drilling engineering and who are familiar with the special conditions and requirements of injection well and water well construction.

(4) An ASR injection well that is also serving as an ASR production well and is providing water to a public water system must comply with the applicable requirements for groundwater sources in §290.41 of this title (relating to Water Sources).

(5) All ASR injection wells and all ASR production wells associated with a single ASR project must be located:

(A) within a continuous perimeter boundary of one parcel of land; or

(B) within two or more adjacent parcels of land under the common ownership, lease, joint operating agreement, or contract.

§331.184. Operating Requirements.

(a) All Class V aquifer storage and recovery (ASR) injection wells shall be operated in such a manner that they do not present a hazard to or cause pollution of an underground source of drinking water.

(b) Injection pressure at the wellhead shall not exceed a maximum which shall be calculated so as to assure the pressure in the injection zone does not cause movement of fluid out of the injection zone.

(c) The owner or operator of an ASR injection [aquifer storage] well that has ceased operations for more than two years shall notify the executive director 30 days prior to resuming operation of the well.

(d) The owner or operator shall maintain the mechanical integrity of all wells operated under this section.

(e) Water injected into an ASR injection well must be of a quality that does not result in pollution of native groundwater or an underground source of drinking water. If the injected water comes from a source other than groundwater, such as surface water or treated wastewater, the project operator must demonstrate that the water to be injected has been processed using appropriate treatment techniques to remove pathogens and other organisms that are not present in the native groundwater. Water recovered from an ASR project that is provided to a public water system is subject to all applicable

requirements, maximum contaminant levels, and treatment techniques under Chapter 290 of this title (relating to Public Drinking Water).

[(e) The quality of water to be injected must meet the criteria prescribed by the commission's drinking water standards as provided in Chapter 290 of this title (relating to Water Hygiene).]

(f) All ASR injection and ASR production wells must be installed with a flow meter for measuring the volume of water injected and the volume of the water recovered.

(g) This subsection only applies to an ASR project that is located within the jurisdiction of a groundwater conservation district or other special-purpose district with the authority to regulate the withdrawal of groundwater.

(1) An authorization or permit issued under this chapter may not authorize a volume of water to be recovered that exceeds the volume of water that is injected;

(2) The requirements of Texas Water Code, Chapter 36, Subchapter N apply to the volume of water recovered from an ASR project that exceeds the volume of water that is injected; and

(3) A project operator of an ASR project may be subject to registration, reporting, fee or other requirements of a groundwater conservation district or other special-purpose district with the authority to regulate the withdrawal of groundwater.

§331.185. Monitoring and Reporting Requirements.

(a) An aquifer storage and recovery (ASR) project operator shall monitor each ASR injection well and each ASR production well associated with an ASR project. Each calendar month the project operator shall provide the executive director either a written or electronic report of the following information for the previous month [The following must be monitored at the required frequency, and reported to the executive director on a quarterly basis or a schedule to be agreed upon by the executive director]:

(1) the volume of water injected for storage;

(2) the volume of water recovered for beneficial use;

[(1) monthly average injection rates;]

[(2) monthly injection and retrieval volumes;]

(3) monthly average injection pressures; and

[(4) monthly water quality analyses of injected water; and]

(4) [(5)] other information as determined by the executive director as necessary for the protection of underground sources of drinking water.

(b) On an annual basis, an ASR project operator shall perform water quality testing on water to be injected at an ASR project and on water that is recovered from that project. The ASR project operator shall provide the executive director either a written or electronic report of the results of this testing. The report shall include the test results for all water quality parameters identified in the permit, general permit, or authorization.

[(b) A final report for Phase I of an aquifer storage and retrieval project or a feasibility study of any other aquifer storage project must be submitted to the executive director within 45 days of the completion of such projects addressing items in 331.186 of this title (relating to Additional Requirements Necessary for Final Project Authorization).]

§331.186. Additional Requirements [Necessary for Final Project Authorization].

(a) The commission shall consider the following before issuing an individual or general permit for an aquifer storage and recovery (ASR) injection well:

(1) whether the injection of water will comply with the standards set forth under the federal Safe Drinking Water Act (42 United States Code, §§300f, *et seq*):

(2) the extent to which the cumulative volume of water injected for storage in the receiving geologic formation can be successfully recovered from the geologic formation for beneficial use, taking into account that the injected water may be comingled to some degree with native groundwater;

(3) the effect of the ASR project on existing water wells; 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 for the native groundwater in order to render the groundwater suitable for beneficial use.

(b) Upon completion of an ASR injection [the aquifer storage] well, the following information shall be submitted to the executive director within 30 days of receipt of the results of all analyses and test results [obtained during the first phase of the project and submitted along with the application for final authorization]:

- (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 mixing zone characteristics and injection fluid movement and quality; and

(7) other information as determined by the executive director as necessary for the protection of underground sources of drinking water.