

BILL ANALYSIS

C.S.H.B. 340
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Natural Resources
Committee Report (Substituted)

BACKGROUND AND PURPOSE

Interested parties note that certain water that has been physically, chemically, or biologically altered is currently prohibited from being injected either into or through the Edwards Aquifer in certain locations and that such prohibition does not take into account whether the water in the aquifer in those locations is fresh water or brackish water. The parties further note that this prohibition was put into place several years ago to protect the freshwater in the aquifer and that the prohibition was not intended to be applicable to the brackish water zones. C.S.H.B. 340 seeks to address this issue by establishing provisions relating to the power of the Texas Commission on Environmental Quality to authorize certain injection wells that transect or terminate in the Edwards Aquifer in order to allow certain desalination and aquifer storage and recovery projects.

RULEMAKING AUTHORITY

It is the committee's opinion that rulemaking authority is expressly granted to the Texas Commission on Environmental Quality in SECTION 1 of this bill.

ANALYSIS

C.S.H.B. 340 amends the Water Code to generally prohibit the Texas Commission on Environmental Quality (TCEQ) from authorizing by rule or permit an injection well that transects or terminates in the Edwards Aquifer but authorizes TCEQ by rule to authorize the following:

- the injection of fresh water withdrawn from the Edwards Aquifer into a well that transects or terminates in the Edwards Aquifer for the purpose of providing additional recharge; or
- the injection of rainwater, storm water, flood water, or groundwater into the Edwards Aquifer by means of an improved natural recharge feature such as a sinkhole or cave located in a karst topographic area for the purpose of providing additional recharge.

The bill authorizes TCEQ by general permit to authorize the following:

- such injection of fresh water or injection of rainwater, storm water, flood water, or groundwater;
- an injection well that transects and isolates the saline portion of the Edwards Aquifer and terminates in a lower aquifer for the purpose of injecting concentrate from a desalination facility or fresh water as part of an engineered aquifer storage and recovery facility;
- an injection well that terminates in that part of the saline portion of the Edwards Aquifer that has a total dissolved solids concentration of more than 10,000 milligrams per liter for the purpose of injecting into the saline portion of the Edwards Aquifer concentrate from a desalination facility, provided that the injection well must be at least three miles from the closest outlet of Barton Springs or fresh water as part of an engineered aquifer and

storage recovery facility, provided that each well used for injection or withdrawal from the facility must be at least three miles from the closest outlet of Barton Springs; or

- an injection well that transects or terminates in the Edwards Aquifer for aquifer remediation, for the injection of a nontoxic tracer dye as part of a hydrologic study, or for another beneficial activity that is designed and undertaken for the purpose of increasing protection of an underground source of drinking water from pollution or other deleterious effects.

The bill requires TCEQ to hold a public meeting before issuing a general permit under the bill's provisions.

C.S.H.B. 340 requires rules adopted or a general permit issued under the bill's provisions to do the following:

- require that an injection well authorized by the rules or permit be monitored by means of a monitoring well operated by the injection well owner if TCEQ determines that there is an underground source of drinking water in the area of review that is potentially affected by the injection well or, if TCEQ does not make such determination, by means of a monitoring well operated by a party other than the injection well owner, provided that all results of monitoring are promptly made available to the injection well owner;
- ensure that an authorized activity will not result in the waste or pollution of fresh water;
- require any authorization granted to be renewed at least as frequently as every 10 years;
- require that certain authorized injection wells be monitored on an ongoing basis by or in coordination with the well owner and that the well owner file monitoring reports with TCEQ at least as frequently as every three months; and
- ensure that any injection well authorized for the purpose of injecting concentrate from a desalination facility does not transect the fresh water portion of the Edwards Aquifer.

The bill prohibits the rules adopted or a general permit issued under the bill's provisions from authorizing certain injection wells unless the well is initially associated with a small-scale research project designed to evaluate the long-term feasibility and safety of the injection of concentrate from a desalination facility or of an aquifer storage and recovery project.

C.S.H.B. 340 establishes provisions relating to the authorization for certain monitoring wells to be used for monitoring a saline water production well; the criteria for a project to be considered a small-scale research project; the authorization of a general permit to authorize owners of certain authorized injection wells to continue operating an applicable well for the purpose of implementing a desalination or engineered aquifer storage and recovery project following completion of a small-scale research project; and the ability of TCEQ to require an operator to cease operating certain injection wells.

C.S.H.B. 340 applies only to the portion of the Edwards Aquifer that is within the geographic area circumscribed by the external boundaries of the Barton Springs-Edwards Aquifer Conservation District but is not in that district's territory or the territory of the Edwards Aquifer Authority. The bill specifies that, to the extent of a conflict, its provisions prevail over certain statutory provisions prohibiting TCEQ from authorizing by rule or permit an injection well that transects or terminates in the Edwards Aquifer and authorizing TCEQ by rule to authorize certain injections of water. The bill defines "Edwards Aquifer," "engineered aquifer storage and recovery facility," "fresh water," and "saline portion of the Edwards Aquifer."

EFFECTIVE DATE

September 1, 2013.

COMPARISON OF ORIGINAL AND SUBSTITUTE

While C.S.H.B. 340 may differ from the original in minor or nonsubstantive ways, the following comparison is organized and highlighted in a manner that indicates the substantial differences between the introduced and committee substitute versions of the bill.

INTRODUCED

SECTION 1. Subchapter D, Chapter 27, Water Code, is amended by adding Section 27.0516 to read as follows:

Sec. 27.0516. PERMITS FOR INJECTION WELLS THAT TRANSECT OR TERMINATE IN PORTION OF EDWARDS AQUIFER INSIDE BOUNDARIES OF BARTON SPRINGS-EDWARDS AQUIFER CONSERVATION DISTRICT. (a) In this section:

(1) "Edwards Aquifer" has the meaning assigned by 30 T.A.C. Section 331.19(b) as that subsection existed on September 1, 2013.

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

(3) "Fresh water" means surface water or groundwater, without regard to whether the water has been physically, chemically, or biologically altered, that:

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

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

HOUSE COMMITTEE SUBSTITUTE

SECTION 1. Subchapter D, Chapter 27, Water Code, is amended by adding Section 27.0516 to read as follows:

Sec. 27.0516. PERMITS FOR INJECTION WELLS THAT TRANSECT OR TERMINATE IN PORTION OF EDWARDS AQUIFER WITHIN EXTERNAL BOUNDARIES OF BARTON SPRINGS-EDWARDS AQUIFER CONSERVATION DISTRICT. (a) In this section:

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

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

(3) "Fresh water" means surface water or groundwater, without regard to whether the water has been physically, chemically, or biologically altered, that:

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

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

(4) "Saline portion of the Edwards Aquifer" means the portion of the Edwards Aquifer that contains only groundwater with a total dissolved solids concentration of more than 1,000 milligrams per liter.

(b) This section applies only to the portion of the Edwards Aquifer that is inside the boundaries of the Barton Springs-Edwards Aquifer Conservation District and outside the boundaries of the Edwards Aquifer Authority.

(c) This section prevails over Section 27.051(i) to the extent of a conflict.

(d) Except as otherwise provided by this section, the commission by rule or permit may not authorize an injection well that transects or terminates in the Edwards Aquifer.

(e) The commission by rule may authorize:

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

(A) concentrate from a desalination facility;
or

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

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

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

(B) fresh water as part of an engineered

(4) "Saline portion of the Edwards Aquifer" means the portion of the Edwards Aquifer that contains only groundwater with a total dissolved solids concentration of more than 1,000 milligrams per liter.

(b) This section applies only to the portion of the Edwards Aquifer that is within the geographic area circumscribed by the external boundaries of the Barton Springs-Edwards Aquifer Conservation District but is not in that district's territory or the territory of the Edwards Aquifer Authority.

(c) This section prevails over Section 27.051(i) to the extent of a conflict.

(d) Except as otherwise provided by this section, the commission by rule or permit may not authorize an injection well that transects or terminates in the Edwards Aquifer.

(e) The commission by rule may authorize:

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

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

(f) The commission by general permit may authorize:

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

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

(A) concentrate from a desalination facility;
or

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

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

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

(B) fresh water as part of an engineered

aquifer and storage recovery facility, provided that each well used for injection or withdrawal from the facility must be at least three miles from the closest outlet of Barton Springs;

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

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

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

(A) aquifer remediation;

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

(C) another beneficial purpose that the commission determines will protect an underground source of drinking water from pollution or other deleterious effects.

No equivalent provision.

No equivalent provision.

aquifer and storage recovery facility, provided that each well used for injection or withdrawal from the facility must be at least three miles from the closest outlet of Barton Springs; or

No equivalent provision.

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

(A) aquifer remediation;

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

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

(g) The commission must hold a public meeting before issuing a general permit under this section.

(h) Rules adopted or a general permit issued under this section:

(1) must require that an injection well authorized by the rules or permit be monitored by means of:

(A) a monitoring well operated by the injection well owner if the commission determines that there is an underground source of drinking water in the area of review that is potentially affected by the injection well; or

(B) if Paragraph (A) does not apply, a monitoring well operated by a party other than the injection well owner, provided that all results of monitoring are promptly made available to the injection well owner;

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

(3) may not authorize an injection well under Subsection (f)(2) or (3) unless the

well is initially associated with a small-scale research project designed to evaluate the long-term feasibility and safety of:

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

(B) an aquifer storage and recovery project;

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

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

(6) must ensure that any injection well authorized for the purpose of injecting concentrate from a desalination facility does not transect the fresh water portion of the Edwards Aquifer.

No equivalent provision.

(i) A monitoring well described by Subsection (h)(1), if properly sited and completed, may also be used for monitoring a saline water production well.

No equivalent provision.

(j) A project is considered to be a small-scale research project for purposes of Subsection (h)(3) if the project consists of one production well and one injection well that are operated on a limited scale to provide requisite scientific and engineering information. Such a project is considered to be a small-scale research project regardless of the borehole size of the wells or the equipment associated with the wells or whether the wells are subsequently incorporated into a larger-scale commercial facility.

No equivalent provision.

(k) Notwithstanding Subsection (h)(3), a general permit may authorize the owner of an injection well authorized under Subsection (f)(2) or (3) to continue operating the well for the purpose of implementing the desalination or engineered aquifer storage and recovery project following completion of the small-scale research project, provided that:

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

commission;

(2) the injection well owner, following the completion of studies and monitoring adequate to characterize risks to the fresh water portion of the Edwards Aquifer and other fresh water associated with the continued operation of the well, and at least 90 days before the date the owner initiates commercial well operations, files with the commission a notice of intent to continue operation of the well after completion of the research project; and

(3) the commission, based on the studies and monitoring, the report provided by Texas State University--San Marcos under Subsection (1)(2), and any other reasonably available information, determines that continued operation of the injection well as described in the notice of intent does not pose an unreasonable risk to the fresh water portion of the Edwards Aquifer or other fresh water associated with the continued operation of the well.

No equivalent provision.

(1) Before the commission makes a determination under Subsection (k)(3):

(1) the commission, not later than the 15th day after the date of receipt of the results of the studies and monitoring, must provide the information received to Texas State University--San Marcos; and

(2) Texas State University--San Marcos, not later than the 60th day after the date of receipt of the information, must review and analyze the information and report its findings to the commission.

No equivalent provision.

(m) The commission shall make the information provided by the owner of the injection well under Subsection (k)(1) and the report provided by Texas State University--San Marcos under Subsection (1)(2) easily accessible to the public in a timely manner. The permit may authorize the owner of the well to continue operating the well following completion of the research project pending the determination by the commission.

No equivalent provision.

(n) If the commission preliminarily determines that continued operation of the injection well would pose an unreasonable risk to the fresh water portion of the Edwards Aquifer or other fresh water associated with the continued operation of

the well, the commission shall notify the operator and specify, if possible, what well modifications would be adequate to prevent that unreasonable risk. If the operator fails to modify the injection well as specified by the commission, the commission shall require the operator to cease operating the well.

SECTION 2. This Act takes effect September 1, 2013.

SECTION 2. Same as introduced version.