

SUBJECT: Providing for the diversion, treatment, and use of marine seawater

COMMITTEE: Natural Resources — committee substitute recommended

VOTE: *(On committee substitute:)*  
10 ayes — Keffer, Ashby, D. Bonnen, Burns, Frank, Kacal, T. King,  
Larson, Lucio, Nevárez

0 nays

1 absent — Workman

WITNESSES: *(On committee substitute:)*  
For — Stefan Schuster, James Murphy, and Todd Votteler, Guadalupe-Blanco River Authority; Brian Sledge, STW Resources; Kyle Frazier, Texas Desalination Association; *(Registered, but did not testify:)* Buddy Garcia, Brownsville Public Utilities Board; Mindy Ellmer, Gulf Coast Water Authority, Poseidon Water; Patricia Hayes, Texas Association of Groundwater Owners and Producers; Donald Lee, Texas Conference of Urban Counties; Shanna Igo, Texas Municipal League; Charles Porter)

Against — Myron Hess, National Wildlife Federation; Ken Kramer, Sierra Club - Lone Star Chapter

On — Chloe Lieberknecht, The Nature Conservancy; *(Registered, but did not testify:)* Robert Mace, Texas Water Development Board)

BACKGROUND: Diversion of marine seawater in Texas requires a water use permit from the Texas Commission on Environmental Quality (TCEQ).

The discharge of waste from a seawater desalination process to surface water in the state, including the Gulf of Mexico, requires a wastewater discharge authorization.

Seawater desalination treatment used by public water systems to convert seawater to drinking water requires a pilot study to verify the proposed

treatment will be able to remove the salts adequately. Since 2002, TWDB has funded two seawater desalination plant pilot studies — one with the Brownsville Public Utility Board and one with the Laguna Madre Water District, which serves South Padre Island, Port Isabel and the surrounding area.

DIGEST:

*(This analysis reflects the author's intended floor substitute.)*

The floor substitute for HB 2031 would allow the diversion and use of state marine seawater for beneficial purposes, requiring permits for both the diversion of state marine seawater and the discharge of treated seawater and desalination waste back into surface water sources. Both actions would be prohibited from occurring within coastal bays and estuaries. The bill also would require a joint study between the Texas Parks and Wildlife Department (TPWD) and the General Land Office (GLO) to identify diversion and discharge zones and provide recommendations on where intake and discharge structures could be permitted by the Texas Commission on Environmental Quality (TCEQ). The bill would provide for notice requirements, as well as opportunity for public hearings and contested case hearings for any project within three miles of the coast.

**Diversion and use of marine seawater.** A person could divert and use state marine seawater for any beneficial purpose as long as the seawater was treated according to TCEQ rules. Treatment requirements could differ depending on use.

The point of diversion of marine seawater could not be in a bay or estuary. A person would be required to obtain a permit if the point of diversion was within three miles of the coast or if the seawater contained a total dissolved solids concentration of less than 20,000 milligrams per liter. Construction of a facility to divert marine seawater could not begin until a yearly average of samples taken monthly determined the total dissolved solids concentration at the water source.

TCEQ, by rule, would have to adopt an expedited permit process, including notice, opportunity to submit written comment, and opportunity

for a contested case hearing. Permits must address the points from which, and the rate at which, a facility could divert marine seawater.

TCEQ also would have to prescribe, by rule, reasonable measures to minimize impingement and entrainment.

**Discharge of treated seawater or the resulting waste.** A person would have to obtain a permit to discharge treated marine seawater into a natural stream, lake, or other impoundment, as well as for the discharge of desalination waste into the Gulf of Mexico. Desalination waste could not be discharged into a bay or estuary.

A person would have to treat marine seawater to at least the same standard as the water quality standards adopted by TCEQ applicable to the receiving stream or impoundment before discharging the treated seawater. They also must comply with state and federal requirements when discharging desalination waste into the Gulf of Mexico.

TCEQ, by rule, would have to adopt an expedited permit process for both the discharge of treated marine seawater into a surface water source and the discharge of desalination waste within three miles of the coast. The rules must provide for notice, an opportunity to submit written comment, an opportunity to request a public meeting, and an opportunity for a contested case hearing.

TCEQ rules for discharge of desalination waste farther than three miles from the coast must provide for notice and an opportunity to submit written comment.

**Conveyance of treated marine seawater.** With prior authorization by the TCEQ, as well as a discharge permit, a person could use the bed and banks of any flowing natural stream, or a lake, reservoir, or other impoundment to convey marine seawater that had been treated to meet standards at least as stringent as the water quality standards adopted by the TCEQ applicable to the receiving stream or impoundment. This water could be used only by the person who received the authorization.

TCEQ must provide notice and take written comment regarding commission actions relating to an authorization to use the bed and banks of a flowing natural stream, a lake, reservoir, or other impoundment to convey treated marine seawater. An opportunity for a contested case hearing would be provided only when a lake, reservoir, or other impoundment was involved to convey treated marine seawater but not when using a natural stream.

**Diversion and discharge zones.** The floor substitute for HB 2031 would require the Texas Parks and Wildlife Department and the General Land Office to conduct joint studies to identify zones in the Gulf of Mexico that would be appropriate for the diversion of marine seawater or the discharge of desalination waste, taking into account the protection of marine organisms, and recommend zones for designation by the TCEQ by September 1, 2018. The TCEQ must adopt rules designating appropriate diversion and discharge zones by September 1, 2020.

A facility would not have to use a diversion or discharge zone until TCEQ adopted the applicable rules but would have to consult with TPWD and GLO regarding locations for diverting state marine seawater or discharging desalination waste into the Gulf of Mexico.

**Desalination of marine seawater for drinking water.** The TCEQ must adopt rules allowing marine seawater treated by a desalination facility to be used as public drinking water and ensure that the water met the Health and Safety Code public drinking water requirements.

Construction of a facility that would desalinate marine seawater for drinking water purposes could not begin construction unless approved by TCEQ.

**Regional water planning.** The floor substitute for HB 2031 would require the regional water plans to identify opportunities for and the benefits of developing large-scale desalination facilities for marine seawater that would serve local or regional entities.

**Repealer.** The floor substitute for HB 2031 would repeal Water Code, sec. 16.060, which requires the Texas Water Development Board to participate in research, feasibility and facility planning studies, investigations, and surveys as necessary to further the development of cost-effective water supplies from seawater desalination in the state.

**Effective date.** This bill would take immediate effect if finally passed by a two-thirds record vote of the membership of each house. Otherwise, it would take effect September 1, 2015.

SUPPORTERS  
SAY:

The floor substitute for HB 2031 would streamline the regulatory process and reduce the time required for and cost of marine seawater desalination. Marine seawater is a potential new source for drinking water, and seawater desalination allows for this and other beneficial uses.

The floor substitute for HB 2031 is the product of much stakeholder input to set up a workable permitting process to make use of the vast quantities of marine seawater from the Gulf of Mexico while also protecting the state's bays and estuaries. Marine seawater desalination facilities should be developed in a timely and cost-effective way to help the state meet its current and future water needs.

This bill would provide an expedited and streamlined authorization for marine seawater desalination facilities consistent with appropriate environmental and water rights protections. This would avoid unnecessary costs and delays, while providing the regulatory certainty to encourage the investment of significant resources for the development of such facilities.

Although there are concerns that limiting the permitted area to three miles from the coast would not be protective of bays and estuaries, any farther from the coastline could be cost prohibitive for industry due to the expense of pipelines and other equipment. Three miles from the coastline is well outside any area that would be sensitive to a disruption of the salinity levels, so there would not be a negative impact on the marine ecosystem.

While it is possible that limiting regulations for the period before TCEQ adopted rules could result in a race to start construction, a safeguard was put in place requiring facilities to consult with TPWD and GLO regarding locations for diverting state marine seawater or discharging desalination waste into the Gulf of Mexico. The floor substitute for HB 2031 would allow the time needed for stakeholder involvement to ensure that the rulemaking process was adequately vetted and thorough.

OPPONENTS  
SAY:

The floor substitute for HB 2031 would require a permit for a point of diversion and the discharge of desalination waste if either is done within three miles of the coast. Three miles may not be adequately protective of the bays and estuaries. Extending the permitted area to six miles would be more appropriate because there may be some areas of transition that could be impacted by reduced stream flow due to drought conditions.

The floor substitute for HB 2031 would limit regulations for the time period before TCEQ adopted rules for the designation of diversion and discharge zones. This could set up a race to start construction.

NOTES:

The Senate companion, SB 1738 by Hinojosa, was placed on the Senate intent calendar for April 27 and not again placed on the intent calendar on April 29.