

KNOW YOUR FACTS

MYTH

» Port of Corpus Christi is ignoring the experts on the environmental consequences of desalination.

» The seawater intake structure for the Harbor Island facility will be located in the Corpus Christi Ship Channel.

» Port of Corpus Christi and the Texas Commission on Environmental Quality (TCEQ) are rushing ahead without time for public comment.

FACT

» Port of Corpus Christi is committed to exceeding environmental standards by engaging local universities and agencies to provide research and input on projects, including entities such as:

- Texas Parks and Wildlife
- The University of Texas Marine Science Institute
- Harte Research Institute at Texas A&M University - Corpus Christi
- Mission Aransas National Estuarine Research Reserve
- Coastal Conservation Association
- Coastal Bend Bays and Estuaries Program
- Texas General Land office

» Port of Corpus Christi has compiled two white papers, one on the discharge and one on the intake. Inquiries have been made to both universities and multiple agencies to determine quantity, type, and seasonality differences of larval fish in and around Harbor Island. Studies are underway through both the University of Texas Marine Science Institute and the Coastal Bend Bays and Estuaries Program.

However, both entities will need years to accumulate the data necessary to identify potential impacts of an intake structure on larval fish in the Corpus Christi Ship Channel. Therefore, the Port determined the most conservative approach was to place it offshore as the conditions of the open Gulf of Mexico are much less detrimental to larval fish than the closed Corpus Christi Ship Channel.

» The first and second public notices have been completed. The permit was submitted two years ago and was open for public comment on July 25, 2018, and didn't close until August 2019, with over 1,000 people contributing comments. The TCEQ public meeting was held on April 8, 2019.

Additionally, Port staff presented at a number of organizational meetings such as Coastal Issues Forums, Port Rappports, Surf Rider, Area City Council and County Commissioner Courts. TCEQ staff successfully responded to comments in a 60-to 90-day window and posted the responses to the comments on July 12, 2019.

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» Desalination plants will release high volumes of brine back into the bay, increasing the salinity of the water and thereby harming the ecosystem.

» The desalination process uses harmful chemicals that will be released into the bay system along with the brine discharge.

» Fresh water coming from the desalination plants will not be given directly to the community.

FACT

» As a part of the application preparation, CorMix modeling, in accordance with TCEQ guidelines, was conducted to evaluate discharge and ensure that the diffuser successfully diffuses the brine discharge to appropriate levels within three different zones – Zone of Initial Dilution, Aquatic Life Mixing Zone, and Human Health Mixing Zone. TCEQ has identified target mixing performances that must be demonstrated through modeling, which are 2.5%, 1.0% and 0.8%, respectively. Diffuser technology will diffuse brine discharge to less than 1 part-per-million above normal salinity of the bay system within 400 feet of the diffuser. This will result in less than 1% of background at 200 feet which is within the Aquatic Life Mixing Zone.

Furthermore, in October 2019, Port of Corpus Christi collaborated with The University of Texas at Austin on an additional modeling project to confirm that the Harbor Island desalination brine discharge, if properly constructed and maintained, will not result in environmental conditions that are damaging to the Corpus Christi Bay ecosystem.

» There are no chemicals added to the reverse osmosis process that are discharged in brine. After reverse osmosis filtration, the only thing added is chlorine disinfectant to keep algal and bacterial growth from occurring, and with that, the water is ready for potable use.

The only accumulation in the brine discharge then is what is already in the seawater. The voluntary biological monitoring that the Port agreed to in the permit application will evaluate the potential for mortality on an immediate basis and over time.

» In a study completed for the City of Corpus Christi, Freese and Nichols, Inc., determined that desalination was an appropriate water source for the area and could be constructed while keeping water supply reasonably priced. Any new uninterrupted water supply means incrementally more potable water available for the community. The Port's involvement in desalination directly supports the City's effort to accommodate future industrial and community need.