

Dear Mayor McComb,

In response to Corpus Christi's Request for Information on Alternative Water Supplies issued Aug. 15 Seven Seas Water has announced its intention "to build and operate the first municipal seawater desalination facility in Texas" in our back yard on Harbor Island. This came as an unwelcome surprise to us, coming on the heels of the Port of Corpus Christi Authority's (PCCA) announced intention of building another desalination plant on Harbor Island as well as their plans to build a terminal for loading very large crude containers (VLCCs) there with a tank farm to match. Is it any wonder that the citizens of this little (tourist dependent) beach town are concerned they'll be staring at Texas City across the narrow channel from our municipal park?

We have two concerns: the ecological impact of not one but two desalination plants on the estuaries around Harbor Island; and Seven Seas Water's application in particular.

Seven Seas' entire experience is building desalination plants for Caribbean islands, where the intake and outflow are in the open ocean. Harbor Island is surrounded by nursery grounds for brown and white shrimp, red drum, and other commercially important fish. Shrimp drift into the bay as larvae and young shrimp stay in the estuaries, moving out to the Gulf to spawn in response to seasonally lower temperatures.

From an environmental perspective, intake of large volumes of saltwater is potentially problematic because ocean water contains planktonic organisms, including the eggs and larvae of commercially important marine species. Large organisms are trapped against the intake screen (impingement) and smaller ones pass through the screen (entrainment); in either case the larvae are destroyed. Shrimp is Texas' most valuable commercial fishery, to the tune of \$155.7 million in 2016. We feel strongly that a desalination plant at Harbor Island would have a serious impact on the shrimp and fishing industries on which Port Aransas depends and scientific papers posted on our web site (<https://portaransasconservancy.com/desalination-plant>) support that contention.

Seven Seas' CEO Doug Brown betrays his ignorance on the subject, declaring "The design and development of intake systems are non-invasive to the environment. Studies have shown that properly designed intake and discharge have minimal impact on the local ecology." Extensive scientific studies show exactly the opposite. One study done with regard to a proposed desalination plant in Huntington Beach, CA concluded that even a Seafloor Infiltration Gallery (SIG) Intake—considered the gold standard for non-invasive intake systems—located 2,600 feet offshore and buried under 40 feet of sand and gravel would still present a problem. Burying the intakes in a frequently dredged channel is a non-starter—as should be a desalination plant at Harbor Island.

Further displaying his ignorance Brown goes on: "We design intakes so the flow of water is so slow that fish have no problems...swimming away. We also put screens over the pipes. We don't want fish in our pipes. That makes the job harder." Well at least they won't be sucking any tarpons into the plant.

Brown again: “You actually find that marine life likes the brine discharge because there’s a constant flow of water, and they don’t care about salinity.” Really? Well estuaries do. Brine discharges can increase the receiving water’s salinity by as much as 100 percent in a localized region. This drastic increase may stress or even kill local marine populations by changing fish migration patterns, feeding grounds, or critical habitat. Significant increases in salinity have pronounced detrimental impacts on non-migratory species such as oysters. PCCA’s proposed desalination plant alone would dump the equivalent of up to 145 Olympic swimming pools full of brine into the channel every day. There’s no way that wouldn’t be an ecological disaster.

Despite all the happy talk Seven Seas Waters is seriously out of their league for this project, which needs to be located somewhere else in any case. We strongly recommend advertising this opportunity to three firms that are much larger and better qualified than Seven Seas, namely Israel Chemicals ([NASDAQOTH:ISCHY](https://www.nasdaq.com/markets/stocks/ISCHY)), Consolidated Water ([NASDAQ:CWCO](https://www.nasdaq.com/markets/stocks/CWCO)), Veolia Environnement ([NASDAQOTH:VEOEY](https://www.nasdaq.com/markets/stocks/VEOEY)), and Lockheed Martin ([NYSE:LMT](https://www.nyse.com/quote/LMT)). If you need to extend the October 12th deadline for submissions it would behoove you to do so in the interest of a more scientifically based and environmentally sensitive project.

Sincerely,

John Donovan for the Port Aransas Conservancy