



NATIONAL ASSOCIATION OF MARINE LABORATORIES

BIENNIAL MEETING, OCT. 26-27, 2021

UNIVERSITY OF TEXAS MARINE SCIENCE INSTITUTE



research | education | public outreach





*Port Street
Campus*

*Channel View Drive
Campus*





ORGANIZATION

*University of Texas at Austin
College of Natural Sciences*

Marine Science Institute at Port Aransas

Education and Research:

*Department of
Marine Science*

*National Estuarine
Research Reserve*

*Beaufort
Lagoon
Ecosystem LTER*

*Fisheries &
Mariculture
Laboratory*

*Center for
Coastal Ocean
Science*

Public Outreach and Ocean Literacy:

*Patton Marine
Science
Education
Center*

*Wetlands
Education Center*

*Bay Education Center
at Rockport*

*Fennessey Ranch
at Refugio*

Response:

*Amos Rehabilitation Keep &
GLO Oiled Wildlife Facility*

Faculty, Graduate Students & Staff ~130

- 6 Leadership positions
- 20 Administrative, Communications & Professional Staff Service (IT, Buyer, HR etc.)
- 13 Research Scientists, Associates & Fellows
- 21 Faculty
- 15 Ancillary Service (Cook, Guard, Etc.)
- 22 Graduate Students
- 9 Maintenance
- 52 *Volunteers*



Undergraduate Students

For AY 2020-2021 (fall 2020, spring 2021 & summer 2021):

~145 lower division undergraduates in Austin.

~174 upper division undergraduates in Austin.

~319 Undergraduate students studied Marine Science in Austin



“Semester by the Sea” undergraduates this spring (8 in residence / 18 in Austin)

“Intersession” undergraduates this summer (17 in residence)



Discovery Starts Here

from Polar Oceans to Tropical Seas



Significant Research Programs

The National Science Foundation “Beaufort Sea Lagoons” Long-Term Ecological Research awarded in 2018

The National Oceanic and Atmospheric Administration Mission-Aransas National Estuarine Research Reserve, awarded in 2006, celebrating its 15th year

Smithsonian Marine Global Earth Observatory network awarded in 2019 in partnership with TAMU-CC



DISCOVERIES

Erosion releases ancient carbon from Arctic permafrost

Changing the Code: New Taxonomic System for Microbes

Deep sea viruses infect Asgard Archaea, related to eukaryotes

Comprehensive study of fish assemblages near oil platforms

Using lipids to understand food chains

Membrane steroid receptor involved in treatment of epilepsy

Weddell seals primarily use sight to find obscure breathing holes

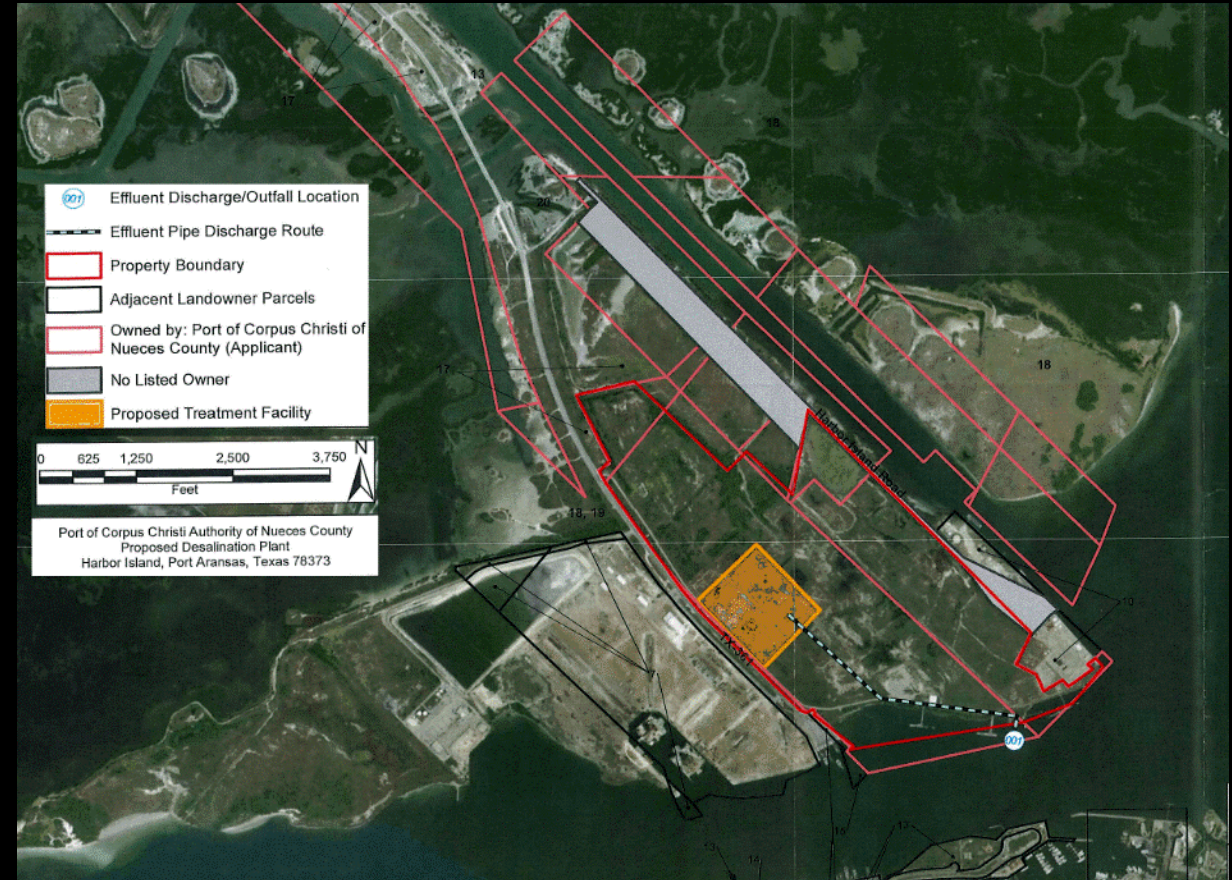
Two Major Reviews – Archaea & Red Snapper Fishery



Regional Engagement

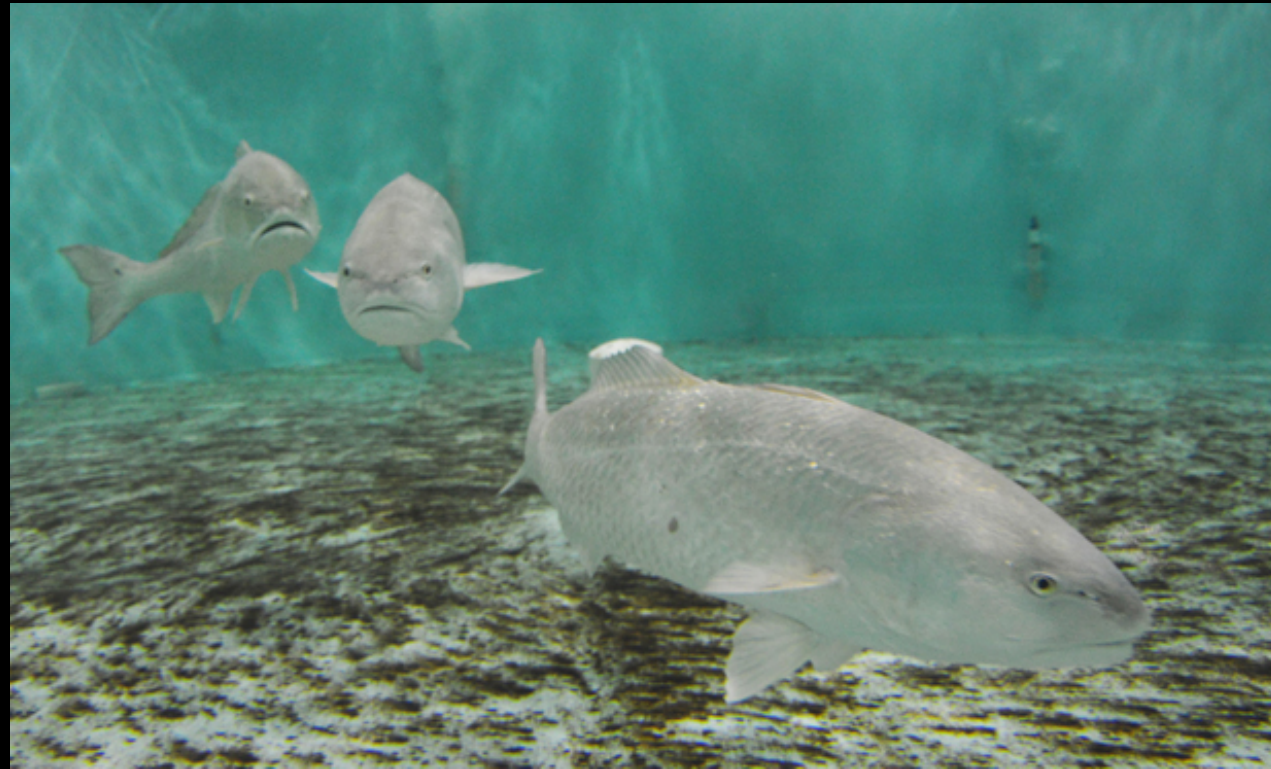
Environmental Impact Studies of Harbor Island Industrial Development

- Model Salinity Change from Desalination Brine Discharge in Ship Channel
- Investigate Toxicology of Desalination Brine & Anti-Scaling Additive Discharge
- Model Change in Seawater Exchange, Circulation & Larvae Recruitment with Ship Channel Deepening
- Model Change in Storm Surge with Ship Channel Deepening
- Model Impact of Oil Spills at proposed VLCC Terminal



<https://utmsi.utexas.edu/blog/entry/literature-for-desal-deepening>

Fisheries and Mariculture Laboratory (FAML)



NOAA Estuarine Research Center

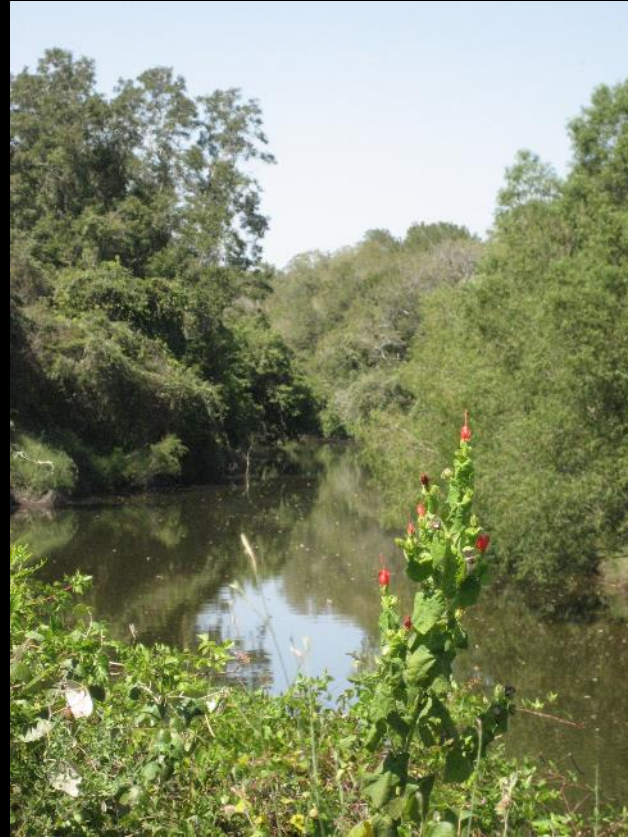


Amos Rehabilitation Keep



Fennessey Ranch, Refugio, TX

3,300 Acre Conservation Easement, Aransas River and Copano Bay



Education and Outreach

K-Grey



2017 Hurricane Harvey Damages



Channel View Drive Campus 2021



Estuarine Research Center and Main Laboratory Labs Reconstructed from floor to ceiling – completed 2018-19



2017 Hurricane Harvey Damage

15-acre Port Street Campus



Port Street Campus 2021

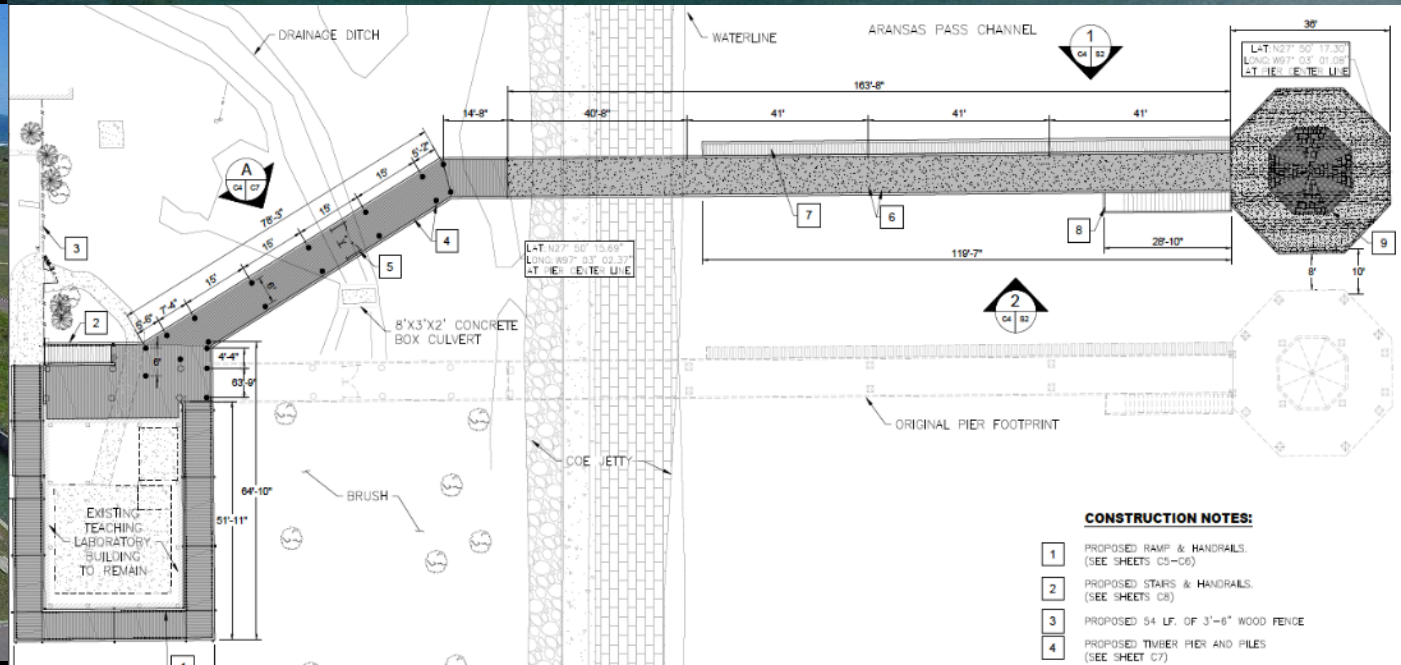


Fisheries and Mariculture Laboratory, Port Street Campus

Large Tank Lab – Ed Rachal Foundation



UTMSI Research Pier – Under construction estimated completion spring 2022



Reconstruction of the UTMSI Boat Basin (Marina) completed 2020



Center for Coastal Ocean Science, Port Street Campus

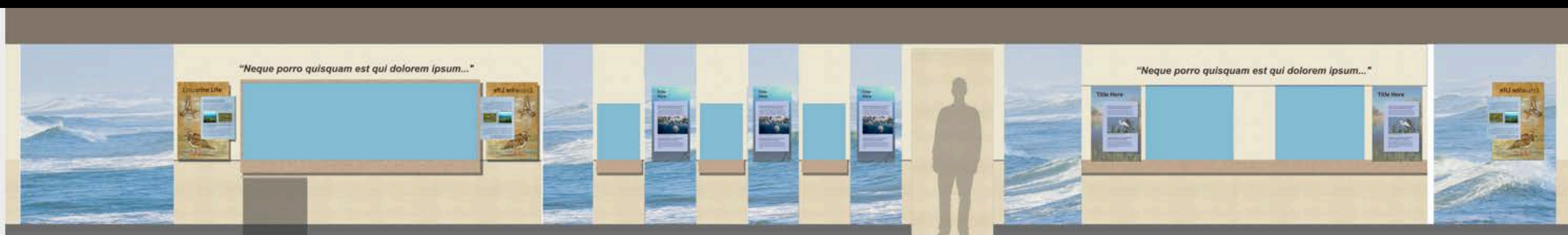
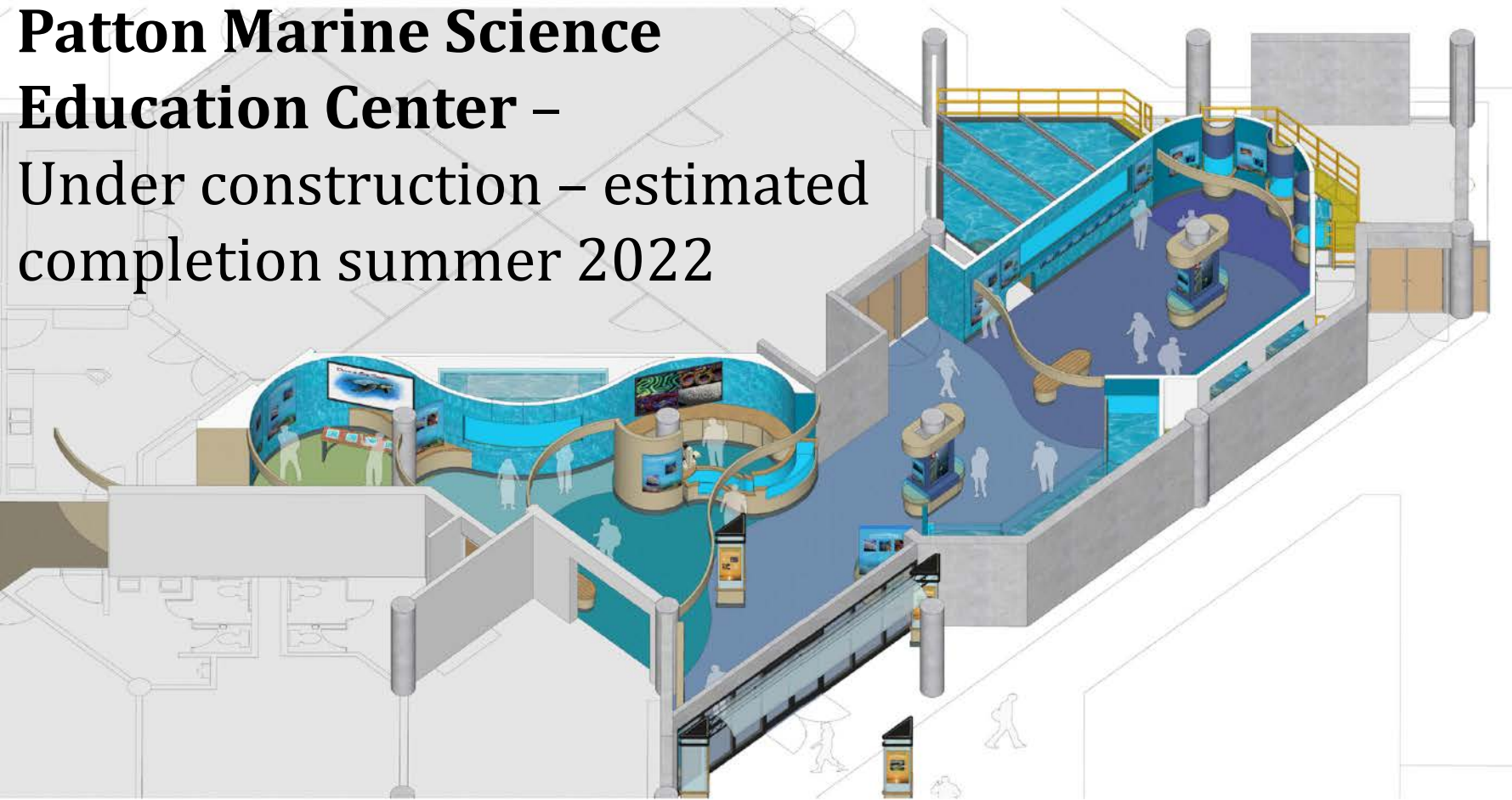
Rebuild supported by the Dept. of Commerce, Economic Development Administration





PATTON MARINE SCIENCE EDUCATION CENTER

Patton Marine Science Education Center – Under construction – estimated completion summer 2022



Bay Education Center, Rockport – K-12, Public Education - Completed 2021

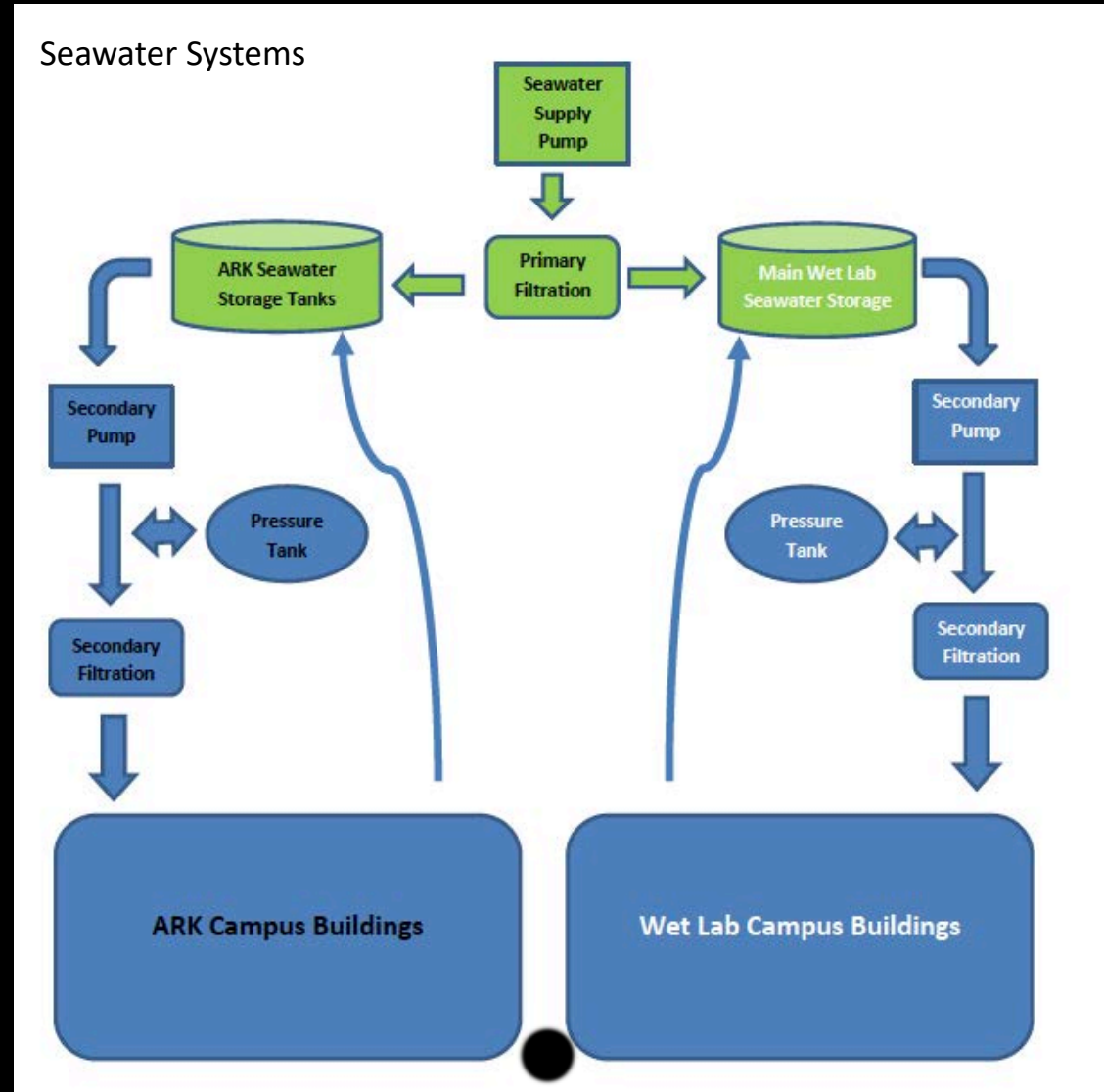


Wetlands Education Center – K-12, Public Education Completed 2020



Seawater supply, filtration & distribution systems

Freshwater (rain) capture and distribution system



Estuarine Research Center Dormitory in Bidding / Contract Phase



Residential Housing – 30 Students & Postdocs

In bidding/contract phase



FLOOR PLAN - DOUBLE UNIT
UNIVERSITY OF TEXAS MARINE SCIENCE INSTITUTE



Lund House Visiting Scientist Residence

Under construction and near completion fall 2021



Monument Sign Cotter Avenue Entrance – Completed fall 2021

7' Bronze Marlin Sculpture donated by Kent Ullberg

Monument costs donated by MSAC members



Monument Sign Port Street Entrance

6' Bronze Sailfish Sculpture donated by Kent Ullberg

Monument costs donated by MSAC members



utmsi.utexas.edu
missionaransas.org
ble.lternet.edu
scienceandthesea.org

Transition to presentation on thoughts about dealing with adversity >>

2020 COVID UPDATE – MSI ALL-HANDS

MSI is working at 40% capacity with rotating shifts to maintain continuity of research operations.

We are operating under a firm COVID-19 daily protocol to reduce risk using self-health assessments, staggered entry, hand sanitation, masking, gloving and body temperature checks. Daily, our support staff sanitize all high touch surfaces and

MSI provides disinfectant and PPE supplies to maintain our safety posture.

MSI campuses and facilities will remain closed to the general public and all public-facing programs and activities remain suspended until further notice.