

Great Bay Strategy

Lead high impact restoration initiatives to improve the health & resilience of imperiled & ecologically significant estuarine/marine habitats focused on water quality and habitat degradation.

1. Water quality enhancement
2. Habitat provision resulting in biological production
3. Watershed & coastal connectivity

Research Priorities:

- Water quality conditions near restoration & aquaculture
- Effects of climate change & environmental stressors to the system: precipitation, ocean acidification, SLR
- Oyster larval dynamics & recruitment patterns
- Partnership with farmers to provide oysters for restoration (SOAR)
- Quantify ecosystem services from wild/restored oyster reefs and aquaculture sites (N removal and habitat production)
- Native & restored adult oyster demography: growth, survival, size classes, reproductive output, genetic diversity and disease impacts
- Sedimentation rates & dynamics
- Site specific predation impacts/patterns on restored and wild oyster reefs (drills, crabs, etc.)
- Eelgrass & oyster (native, restored, aquaculture) interaction & synergy
- Fish & invertebrate density & distribution within the Bay (including invasive species): wild/restored oyster reefs, eelgrass beds, aquaculture sites
- Tidal culvert removal & salt marsh dynamics
- Effects of dam removal
- Watershed health & coastal connectivity
- Develop nature-based solutions to further climate adaptation strategies

Engagement Strategy

Research Priorities:

- Gauge and gather firsthand baseline data on current attitudes and awareness levels of residents in the Great Bay watershed including information on how residents think and feel about the watershed and how they think and feel about their impact or lack of impact on it with a water quality lens
- How community engagement with a digestible and relatable science lens can build environmental awareness
- Identify barriers for individuals to be environmentally engaged with the goal of inspiring and empowering stewardship through connecting people with nature
- Analyze the efficacy of different engagement strategies and information sharing in creating change



Contact information

Brianna Group, Great Bay Program Manager

Brianna.group@tnc.org

Kimberly Arlen, Habitat Restoration Coordinator

Kimberly.arlen@tnc.org