



RESEARCH AND MONITORING PRIORITIES

HIGH PRIORITY RESEARCH & MONITORING TOPICS

FINAL RANK	TOPIC	CATEGORY
1	Continue to assess the water quality, sediment quality and habitat of tidal tributaries in Tampa Bay. Build a database on information for smaller tributaries to support existing management strategies.	Existing Priority
2	Implement habitat mitigation & restoration within the watershed that provides multiple benefits. Further assess the effectiveness and functionality of mitigation and restoration projects.	Existing/New Priority
3	Evaluate potential effects of climate change on Tampa Bay's ecology. Identify framework to assess CC impacts and integrate into new management strategies.	Existing Priority
4	Improve monitoring of pollutant loading (particularly nutrients) from the entire watershed (i.e. in both gaged and ungaged basins) to better understand loading contributions. Deploy additional continuous water quality and flow monitors in the watershed, considering new technologies.	Existing Priority
5	Better understand the status, trends and restoration progress of critical coastal habitats currently lacking complete information (e.g. oysters, hard/live bottom, tidal flats, artificial habitats, tidal creeks & coastal uplands).	New Priority
6	Develop & implement a long-term monitoring program to track coastal habitat quantity & quality. Incorporate new technologies, as appropriate, to monitor coastal habitats. Frequent, on-the-ground assessments preferred.	Existing Priority
7	Determine existing and predicted impacts of watershed development on estuarine resources and processes (e.g. hydrological changes, hurricane vulnerability, progress in implementing OneBay initiative, evaluating Ecosystem Services, & coastal habitat change).	Existing Priority
8	Better understand community awareness of the bay's health & recreation, economic & ecological value, to identify & overcome barriers to involvement in bay restoration. Improve the effectiveness of outreach & education products, programs & restoration activities for the bay's inhabitants & visitors.	New Priority
9	Better understand distribution and impacts of septic systems in the Tampa Bay watershed. Identify any nutrient load reduction benefits of septic-sewer conversions in the watershed.	New Priority
9	Better understand & monitor emerging contaminants of concern in groundwater & surface water. (e.g. PAHs from coal-tar based sealants & mobile sources, PPCPs, endocrine disruptors, microplastics, etc.)	New Priority
11	Identify causes of seagrass recovery slowdown or seagrass loss in "problem areas" representing at least 10% of a bay segment.	Existing Priority

12	Better quantify fertilizer use within the watershed and reductions in watershed nitrogen loadings that may result from reduced fertilizer use.	New Priority
13	Better understand the current factors contributing to harmful algal blooms in the bay, and potential problem species in the future due to changing climate. Leverage existing model platforms. Research trophic links with other species, including drift algae, zooplankton, fish & wildlife.	New Priority
14	Better understand the contribution of nutrients from reclaimed water to the bay.	New Priority
15	Better understand the causes of sanitary sewer overflows and other unanticipated releases that occur throughout the watershed. Better estimate the nitrogen loadings that result from these events.	New Priority
16	Better understand the distribution and effectiveness of agricultural BMPs in reducing nutrient loadings throughout the Tampa Bay watershed, including any new urban farming BMPs.	New Priority

MODERATE PRIORITY RESEARCH & MONITORING TOPICS

RANK	TOPIC	CATEGORY
1	Improve linkages between watershed & hydrodynamic models to better predict water quality, hydrology, sediment transport & circulation in the bay and resulting impacts to habitat & biota. Refine for shallow areas.	Existing Priority
2	Facilitate the development of Total Nitrogen TMDLs and BMAPs for waterbodies within the watershed.	Existing Priority
3	Determine the assimilative capacity for nutrients in the Tampa Bay estuary.	Existing Priority
4	Evaluate and monitor living shoreline techniques that potentially improve habitat and ecosystem value of altered Tampa Bay shorelines.	New Priority
5	Better quantify ecosystem services of critical coastal habitats occurring within Tampa Bay, including carbon/nutrient cycling, ecosystem function assessments & biota use.	New Priority
6	Re-evaluate the "Restoring the Balance" paradigm, considering habitat changes from population growth, climate change and sea level rise impacts.	New Priority
6	Quantify ungaged streamflow and groundwater flow to Tampa Bay, and develop estimates of surface and groundwater flux to Tampa Bay.	Existing Priority
6	Determine important resources affected by changes in FW inflow. Mine existing data sources to examine effects of FW inflow changes on fisheries & other biological resources. Assess potential effects of MFLs on habitat & biota.	Existing Priority
9	Better evaluate alternative sediment management/disposal techniques and restoration concepts to identify options for future disposal methods (e.g. dredge hole filling, marsh spraying, etc.).	New Priority
10	Evaluate new on-site disposal system technologies for reducing nutrient loads within the Tampa Bay watershed.	New Priority
11	Develop a best management practices (BMP) document for coastal habitat restoration in Tampa Bay that builds upon the lessons-learned & emerging techniques utilized in coastal habitat restoration projects.	New Priority
12	Conduct early life history studies on important Gulf of Mexico commercial, recreational or priority fishery species (e.g. groupers, snappers, etc.) that utilize Tampa Bay as nursery habitat.	New Priority
13	Build-upon existing hydrodynamic models to estimate and forecast harmful algal bloom dynamics.	New Priority
14	Better understand how coastal development impacts wetland habitat function and quality.	New Priority

15	Better census environmentally sensitive habitats and wildlife for inclusion into baseline databases to improve modeling of spill trajectories for emergency response.	New Priority
15	Better understand the demographics, distribution & magnitude of human recreational use within the bay & watershed. Identify conflicts. If warranted, determine appropriate human access points with minimal impacts to the bay & its watershed.	New Priority
17	Determine other biotic indicators (e.g. sentinel fish or benthic invertebrate communities) that could describe Tampa Bay ecologic/habitat health.	New Priority
18	Evaluate new/alternative technologies that decrease impacts to habitat and wildlife during dredging.	New Priority
19	Improve monitoring, detection & tracking for high-priority existing or potential invasive species (e.g. lionfish, snakehead, pythons, tegu, etc.).	New Priority
20	Determine bay scallop population estimates for Tampa Bay that would lead to sustainable, annual populations occurring in Tampa Bay.	New Priority