Preface

Tampa Bay is recognized internationally for its remarkable progress towards recovery since it was pronounced “dead” in the late 1970s. Due to significant efforts by local governments, industries and private citizens throughout the watershed, water clarity in Tampa Bay is now equal to what it was in 1950, when population in the watershed was less than one-quarter of what it is today. Seagrass extent has increased by more than 8,000 acres since the mid-1980s, and fish and wildlife populations are increasing.

Central to this successful turn-around has been the Tampa Bay resource management community’s long-term commitment to development and implementation of strong science-based management strategies. Research institutions and agencies, including Eckerd College, the Florida Wildlife Commission Fish and Wildlife Research Institute, Mote Marine Laboratory, National Oceanic and Atmospheric Administration, the Southwest Florida Water Management District, University of South Florida, U.S. Environmental Protection Agency, U.S. Geological Survey, local and State governments, and private companies contribute significantly to the scientific basis of our understanding of Tampa Bay’s structure and ecological function. Resource management agencies, including the Tampa Bay Regional Planning Council’s Agency on Bay Management, the Southwest Florida Water Management District’s Surface Water Improvement and Management Program, and the Tampa Bay Estuary Program, depend upon this scientific basis to develop and implement regional adaptive management programs.

The importance of integrating science with management has become fully recognized by scientists and managers throughout the region, State and Nation. Scientific studies conducted in Tampa Bay over the past 10–15 years are increasingly diverse and complex, and resource management programs reflect our increased knowledge of geology, hydrology and hydrodynamics, ecology and restoration techniques. However, a synthesis of this research and its integration into resource management has not been prepared for Tampa Bay since the mid-1980s.

The need for an up-to-date synthesis of Tampa Bay science and management has resulted in the production of this document. The U.S. Geological Survey recently completed a 5-year Tampa Bay Integrated Science Study, and the Tampa Bay Estuary Program updated the Comprehensive Conservation and Management Plan for Tampa Bay in 2006. These efforts build upon results of the many research and management studies and programs summarized here.

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Executive Director  
Tampa Bay Estuary Program
Acknowledgments

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Conversion Factors

Inch/Pound to SI

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<th>To obtain</th>
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<td>Length</td>
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<td>foot (ft)</td>
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<td>hectare per year (ha/yr)</td>
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<td>square mile (mi²)</td>
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<td>0.9072</td>
<td>megagram per year (mg/yr)</td>
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Temperature in degrees Fahrenheit (°F) can be converted to degrees Celsius (°C) as follows: 

\[ ^\circ C = \left( ^\circ F - 32 \right)/1.8 \]

Vertical coordinate information is referenced to the North American Vertical Datum of 1988 (NAVD 88).

Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83).

Tide and water depth measurements are given in metric units (meters).
### Abbreviations and Acronyms

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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>BRACE</td>
<td>Bay Regional Atmospheric Chemistry Experiment Study</td>
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<tr>
<td>COC</td>
<td>contaminant of concern</td>
</tr>
<tr>
<td>DDT</td>
<td>dichlorodiphenyltrichloroethane</td>
</tr>
<tr>
<td>EDS</td>
<td>effects dataset</td>
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<tr>
<td>EPCHC</td>
<td>Environmental Protection Commission of Hillsborough County</td>
</tr>
<tr>
<td>DO</td>
<td>dissolved oxygen</td>
</tr>
<tr>
<td>FDACS</td>
<td>Florida Department of Agriculture and Consumer Services</td>
</tr>
<tr>
<td>FDEP</td>
<td>Florida Department of Environmental Protection</td>
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<tr>
<td>FWRI</td>
<td>Florida Fish and Wildlife Conservation Commission Fish and Wildlife Research Institute</td>
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<tr>
<td>FGFWFC</td>
<td>Florida Game and Freshwater Fish Commission</td>
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<td>FOCC</td>
<td>Florida Oceans and Coastal Council</td>
</tr>
<tr>
<td>&gt;</td>
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<tr>
<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<tr>
<td>&lt;</td>
<td>less than</td>
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<tr>
<td>μE m² s⁻¹</td>
<td>microEinsteins, the unit used for photosynthetically active radiation (PAR)</td>
</tr>
<tr>
<td>μg/L</td>
<td>microgram per liter</td>
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<td>micron</td>
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<tr>
<td>mg/L</td>
<td>milligram per liter</td>
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<tr>
<td>Ma</td>
<td>million years ago</td>
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<td>ng</td>
<td>nanogram</td>
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<tr>
<td>NASA</td>
<td>National Aeronautics and Space Administration</td>
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<tr>
<td>N</td>
<td>nitrogen</td>
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<td>NOAA</td>
<td>National Oceanic and Atmospheric Administration</td>
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<td>NRC</td>
<td>National Research Council</td>
</tr>
<tr>
<td>NEDS</td>
<td>no-effects dataset</td>
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<tr>
<td>ppt</td>
<td>parts per thousand</td>
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<tr>
<td>%</td>
<td>per mil</td>
</tr>
<tr>
<td>PPCP</td>
<td>pharmaceutical and personal care products</td>
</tr>
<tr>
<td>P</td>
<td>phosphorus</td>
</tr>
<tr>
<td>PAR</td>
<td>photosynthetically active radiation</td>
</tr>
<tr>
<td>PCB</td>
<td>polychlorinated biphenyl</td>
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<tr>
<td>PAH</td>
<td>polycyclic aromatic hydrocarbon</td>
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<td>PEL</td>
<td>probable effects level</td>
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<tr>
<td>SWFWMD</td>
<td>Southwest Florida Water Management District</td>
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<tr>
<td>SHARQ</td>
<td>submersible habitat for analyzing reef quality</td>
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<tr>
<td>TBBI</td>
<td>Tampa Bay Benthic Index</td>
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<tr>
<td>TBEP</td>
<td>Tampa Bay Estuary Program</td>
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<tr>
<td>TBNP</td>
<td>Tampa Bay National Estuary Program</td>
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<tr>
<td>TBNMC</td>
<td>Tampa Bay Nitrogen Management Consortium</td>
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<tr>
<td>TBRC</td>
<td>Tampa Bay Regional Planning Council</td>
</tr>
<tr>
<td>TBTTRT</td>
<td>Tampa Bay Tidal Tributary Research Team</td>
</tr>
<tr>
<td>TAC</td>
<td>Technical Advisory Committee (of the TBEP)</td>
</tr>
<tr>
<td>ka</td>
<td>thousand years ago</td>
</tr>
<tr>
<td>TEL</td>
<td>threshold effects level</td>
</tr>
<tr>
<td>TMDL</td>
<td>total maximum daily load</td>
</tr>
<tr>
<td>USEPA</td>
<td>U.S. Environmental Protection Agency</td>
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<tr>
<td>USF</td>
<td>University of South Florida</td>
</tr>
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<td>USGS</td>
<td>U.S. Geological Survey</td>
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