

## **EXECUTIVE SUMMARY**

The Texas Seagrass Monitoring Program was proposed at a Workshop held in Corpus Christi, Texas, in August 2000 that was attended by some eighty resource managers, estuarine scientists, and environmental representatives dedicated to seagrass conservation and protection. As an outgrowth of this workshop, a Seagrass Monitoring Steering Committee (Workgroup) was formed to guide and coordinate the development of a coastwide Seagrass Monitoring Plan for Texas. This document, the Strategic Monitoring Plan, was produced through consensus of the Workgroup and recommends the conceptual design of the monitoring program that will be sponsored by Texas Parks & Wildlife Department (TPWD), Texas Commission on Environmental Quality (TCEQ), and Texas General Land Office (TGLO) in accordance with Texas' Coastal Management process.

After a review of background information on the need for coastwide seagrass monitoring, the document clarifies appropriate Goals and Objectives for the Texas Program. A thorough understanding of the applications of monitoring data is important for selecting seagrass parameters and for designing a robust sampling scheme for Texas unique bay systems. These applications range from general status and trends information, to specific management programs where water quality degradation or structural habitat disturbance must be assessed.

Two technical sections in the plan offer guidance on potential seagrass health indicators and tentative field methods for their sampling; this includes both ground survey stations and large area landscape analysis by aerial photography. The health indicators thus determined must be based on defined conceptual models of seagrass ecosystem dynamics. The exact indicator parameters will be specifically selected at a later date during the implementation of the Plan by the three State agencies above. At the current time, field studies and data analysis are being performed by researchers to test various techniques and statistical validity; and the final evaluation of protocols must await until complete results are available.

The data collected by aerial monitoring or field surveys will be compiled in specific seagrass-related databases maintained by the three State agencies (TPWD, TCEQ, TGLO) with coastal resource management responsibility. Since these 3 agencies already collect substantial amounts of coastal data, seagrass monitoring is expected to primarily expand on their existing data acquisition programs. A major new component involves development of a data management system, which will consist of a web-based data distribution network using Arc-IMS to link the relevant seagrass and coastal datasets between the 3 agencies and other certified sites. The monitoring program will be initiated under an MOU which will allow the three state agencies to proactively implement the recommendations in this document. Key groups in the three agencies will be designated to work on evaluating and selecting seagrass health indicators upon completion of the R-EMAP study, establishing the distributed web-based seagrass data management system, organizing and funding seagrass sampling surveys, and establishing water quality criteria to protect seagrass propagation (aquatic life use) based on seagrass monitoring data.