**SR-5 Estuarine Curriculum Development**

A. OBJECTIVES

1. To continue to develop and produce curriculum and instructional materials and programs for estuarine education for the Barataria-Terrebonne Estuary System (BTES).

B. BACKGROUND/MAJOR ISSUES

An organized effort to enhance education within schools is essential to the long term success of the CCMP. The understanding of the major issues including scientific, social, and economics of the BTES is based on a complex knowledge base. The development of curriculum materials that address these concepts and issues will help produced an informed citizenry.

There is a need to develop knowledge, appreciation, and value for the BTES as a national treasure and depository of cultural and natural resources important to the State of Louisiana, the United States and the global economy. In the last decade, educational programs for teachers have expanded through efforts by the Louisiana Universities Marine Consortium (LUMCON), faculty at Nicholls State University (NSU), South Louisiana Wetlands Discovery Center (SLWDC) staff, Jean Lafitte National Historical Park and Preserve staff and the BTNEP.

Many teachers have taken the opportunity to participate in environmental in-service training such as the Nicholls State University workshop on the BTES priority problems or the Louisiana Coastal Wetlands Workshops at LUMCON and Jean Lafitte National Historical Park and Preserve. Teachers learn critical science information and hands-on activities to bring back into the classrooms. Moving forward teacher education programs such as these need to continue and be expanded as funds are available.

C. DESCRIPTION

This action will support the development and dissemination of curriculum and instructional materials and programs to support estuarine education at the K-16 (kindergarten through college) formal and informal levels. This includes a review of available curriculum materials, decisions on where gaps exist, development of materials and dissemination of materials into state and/or national curriculum frameworks. These materials will focus on the environment as well as the cultural heritage of the BTES.

This action will serve to facilitate the development of BTES constituents as stakeholders in the resources of the region. The development of stakeholders will produce an informed, concerned and responsible citizenry, from children to adults, within the BTES. The population will become more literate in estuarine issues (i.e. climate change) as voters, harvesters and developers. The educational programs will be recognized and used in estuarine education throughout the nation. Therefore, knowledge and appreciation of the BTES will be increased on a national level.

D. LEAD AGENCY RESPONSIBLE FOR IMPLEMENTATION

The Department of Education develops and provides the framework and standards for estuarine content. The BTNEP Education Action Plan Team will be the lead implementer. Support implementers will include the Management Conference, the Louisiana Environmental Education Commission, the Environmental Protection Agency (EPA), the Louisiana Department of Education (LDOE), the Louisiana Science Teachers Association (LSTA), Jean Lafitte National Historical Park and Preserve, Louisiana University Marine Consortium (LUMCON), National Sea Grant, Lake Pontchartrain Basin Foundation, National Wildlife Federation, Louisiana Department of Wildlife and Fisheries, Louisiana Department of Environmental Quality, LSU AgCenter (4-H), and/or other informal learning centers.

E. TIMELINES AND/OR MILESTONES

1. Distribute course materials throughout Louisiana state system through Louisiana Science Teachers Association Newsletter/Website/Annual Conference, Office of Environmental Education, local teachers associations, national associations and university continuing teacher education courses.
2. Develop curricular materials and/or resources for K-16 and systematically integrate curricular materials into the K-16 Program of Studies.
3. Review and update curriculum documents as needed.
4. Support career and technical education.

F. POSSIBLE RANGE OF COSTS AND SOURCES OF FUNDING

***Range of cost:***

Total Funding Necessary (Annually): $300,000-$500,000

***Sources of funding:***

1. Local, State, Federal, Industry, Institutional, Non-Governmental Organizations, and Private
2. Barataria-Terrebonne Estuary Foundation and its partners.

G. PERFORMANCE MEASURES

The monitoring strategies are intended to serve as mechanisms to assess the effectiveness of projects implemented under the action plans. These strategies should only be used as a guide, not as a requirement. It must be recognized that the monitoring strategies will be expensive to implement and that, because all levels of government and much of the private sector currently have severe funding restraints, they may not be affordable without significant modification. The monitoring strategies do not override or replace project monitoring that would be done by an agency related to specific agency-sponsored projects.

***Possible Data Gathered***

1. Quarterly reporting of curriculum activity.
2. Document meetings and activities of the Education Action Plan Team.
3. Document inventory of existing materials and its presentation to the Management Conference.
4. Regularly Reports to EPA

***Monitoring***

1. Parties Responsible - The BTNEP Education Action Plan Team and the Barataria-Terrebonne National Estuary Program (BTNEP) Management Conference are the parties responsible for monitoring.
2. Timetables for gathering data- BTNEP Education Action Plan Team (annually) and the Barataria-Terrebonne National Estuary Program (BTNEP) Management Conference (quarterly)
3. How data is shared – All curriculums are available on the BTNEP website and partner websites.
4. Possible Data Gaps –The BTNEP Education Action Plan Team and BTNEP MC will determine possible data gaps
5. Additional Funding is always needed.