



Image: Lane Lefort Photography

SUSTAINED RECOGNITION AND CITIZEN INVOLVEMENT

Community, Civic, & Media Engagement

The Sustained Recognition (SR) and Citizen Involvement and Participation (CI) Action Plans maintain a strategy to build public stewardship of the estuary, encourage strong, informed public involvement in estuarine planning, and motivate the public to action. Towards this end, these Action Plans concentrate on issues such as providing for a mechanism for organized public involvement, increasing the opportunities and activities available to the public, and developing methods through which the public can become directly involved in the protection of the estuary. In addition, BTNEP has become increasingly more visible at events throughout the BTES, ensuring that information about the program is available to the public.

Citizen engagement and participation is imperative in developing and maintaining healthy ecosystem characteristics. These plans aim to build and develop a grassroots movement by which active engagement, education, and volunteerism implements restoration, protection and stewardship initiatives throughout the BTES. Through these Action Plans, groups of stakeholders will ascertain if the original BTNEP MC decisions truly reflect the will of the public. These Action Plans provide two-way communication with valuable feedback in order to give the BTNEP MC continual input about the value of CCMP implementation. These plans keep communications open so that a shared vision for

CATEGORY 3

restoration which respects multiple viewpoints can move the program forward through consensus.

Education, both formal and informal, is an important component of this CCMP. For citizens to form and change opinions and become advocates for conservation, preservation, and restoration, they must have a reliable source of information. The education action plans provide these resources. BTNEP materials provide science-based, consensus-driven accurate, technical, and up-to-date information about the BTES and its CCMP goals.

The ultimate aim is that through the distribution of this information, the BTES will have the same level of recognition and urgency as other nationally

significant estuaries, such as the Everglades and the Chesapeake Bay.

The final component of this suite of Action Plans is cultural heritage and lifeways. Because of the strong ties between the cultural heritage of the BTES and the area's natural resources and the imminent land loss, adapting to risks and fostering collective and individual resiliency is paramount to helping humans deal with the ever changing environment of the BTES. BTNEP will continue to provide for its citizens a coalition of partners to preserve the culture and lifeways of its vanishing people.

The goal of this group of Action Plans is to remind everyone that we are saving this estuary for the



Houseboats near Bayou Felix. Image: Keri Turner



people who live here and the nation who needs us.

SR-1 Community Engagement

OBJECTIVE

To develop educated, informed stakeholders who are willing to become active participants in outreach, restoration, preservation, and protection activities in the BTES to include:

- citizen monitoring.
- vegetative planting.
- storm drain stenciling.
- data collection and mapping (inserting waypoints, photos, etc. on Google maps to create reference points for restoration efforts).
- community outreach and social media (“Pic on a Post” and social media hashtag photo reference points for restoration works).

BACKGROUND/MAJOR ISSUES

This Action Plan is the result of combining four separate Action Plans from the original CCMP, (namely SR-1 – Community Sectors and Leader Teams, SR-3 – Citizen Involvement Programs and Activities, SR-4 – Citizen Monitoring Program, and SR-7 – Storm Drain Stenciling) which were all designed to encourage and enhance citizen education, engagement, and active volunteer participation in hands-on activities which support the overarching goal of BTNEP, which is to preserve, protect, and restore the BTES.

Citizen engagement and participation is imperative

in developing and maintaining healthy ecosystem characteristics. The SR-1 Community Engagement Action Plan aims to build and develop a grass-roots movement by which active engagement, education, and volunteerism implements restoration, protection, and stewardship initiatives throughout the BTES. These initiatives include but are not limited to citizen monitoring, vegetative planting, storm drain stenciling, observational data collection, and community outreach.

DESCRIPTION

The BTNEP staff will craft and collate educational materials for stakeholders, foster relationships with residents and non-residents alike, and encourage them to become active participants in restoration and other related activities. The BTPO staff will also leverage volunteer and financial resources from BTNEP MC members, corporate and government entities, educational groups, community and civic organizations, mission groups, and other stakeholders and partners. Observational data can be collected and reported to relevant agency partners.

LEAD AGENCY RESPONSIBLE FOR IMPLEMENTATION

The primary implementer for this Action Plan will continue to be the BTNEP staff. The BTNEP MC and BTPO will continue these efforts, coordinating all education and outreach efforts. BTNEP will include individual BTNEP MC members, consultants, and community leaders as possible leads and partners in this Action Plan.

TIMELINES AND MILESTONES

These efforts will be ongoing throughout the program life. Each project will have different achievements

and milestones. Project milestones will be reported to the BTNEP MC, EPA, invested partners, and the community through various media sources.

POSSIBLE RANGE OF COSTS AND SOURCES OF FUNDING

Total range of funding necessary annually for SR-1 is \$250,000 to \$500,000 which includes but is not limited to:

- salaries.
- operating services.
- supplies.
- equipment.

Sources of funding include local, state, federal, individual, industrial, institutional, NGO, and private organizations.

PERFORMANCE MEASURES

Performance measures include:

- # of volunteer hours related to restoration activities
- location of volunteer restoration activities

Data Gathered:

Measures could include:

- # of volunteer hours recorded per year
- # of unique volunteers
- # of volunteer events per year, per region of the BTES
- # of waypoints identified and mapped

Monitoring:

Parties Responsible: BTNEP staff, BTNEP MC members, and partners

Timetable for Gathering Data: quarterly for BTNEP MC and regularly for EPA

How Data is Shared: BTNEP MC quarterly meetings, media reports

Possible Data Gaps: none expected

Additional Funding Needed: always

SR-2 Civic Engagement

OBJECTIVES

- To give the public a continued mechanism for regular and methodical expression of issues, concerns, and possible solutions for the BTES
- To engage the public in the decision making process and possible action items within the BTES
- To provide a public forum for disseminating current information and receiving feedback about issues facing the BTES

BACKGROUND/MAJOR ISSUES

The CCMP, developed by a group of stakeholders including BTNEP MC members, is needed to protect the estuarine system. Public meetings were very important to ascertain if the original BTNEP MC decisions truly reflect the will of the public. These public meetings, special task forces, and focus groups have and continue to provide emphasis on certain proposed actions, valuable feedback, and informed citizens for more than 20 years. Participatory activities are key to conveying to the public the importance of their continual input to implement the CCMP.

DESCRIPTION

Through its quarterly public meetings, the BTNEP MC will provide the key mechanism to implement this Action Plan. Public engagement is provided and



Student volunteers working on vegetative planting. Image: BTNEP

encouraged through this Action Plan. APT meetings, public meetings, and workshops provide other avenues for public forums.

Key to these meetings are:

- shared vision.
- respect for multiple points of view.
- movement to consensus.

The BTNEP MC and the BTPO should mutually agree on the meeting location.

The BTPO will produce and nationally distribute materials from public meetings, APT meetings, and workshops. The BTPO will also monitor all two-way communication (social media, 1-800 number, e-mail, etc.). BTPO staff will train Speakers Bureau participants who will speak on local, regional, state, and possibly national levels.

LEAD AGENCY RESPONSIBLE FOR IMPLEMENTATION

The lead implementer for this Action Plan will be the BTPO, BTNEP MC members, and consultants when necessary. Support implementers will include BTNEP MC members, volunteer speakers, volunteer businesses, agencies, chambers of commerce, economic councils, tourism offices, and other public points-of-interest at the local and state level. The BTPO should also partner with the Nicholls Department of Mass Communication for assistance in creating and disseminating communication, social media strategy and monitoring, and other communication activities. At the national level, agreements will be developed with appropriate federal agencies, nonprofit organizations, and special interest groups to distribute, display, and use BTES informational materials.

TIMELINES AND MILESTONES

Throughout the project life, this Action Plan will:

- continue to identify and create a database of all BTES target audiences. The database should include geographical, educational, socio-economic, and other demographic aspects of target audiences. Building from the community sector approach, the team will determine issues of concern and the educational needs of specific target audiences to include in the database.
- determine the most effective formats (printed, audio, and/or visual) for conveying the overall message and information to each target audience and produce products that align with each.
- create a database to track and evaluate the dissemination campaign including quantities of materials distributed, formats of information distributed, and dissemination methods corresponding to each target audience, dates, and locations.
- enhance two-way communication with the public through marketing of all channels (1-800 number, social media, informational e-mail address, and contact features on website).
- create a social media strategy to reach multiple audiences. This strategy should include all forms of social media and should consider new platforms as they emerge.
- recruit, train, and market the Speakers Bureau. Speakers should be prepared to deliver the overall message of the BTES as well as specialized information for targeted groups.

POSSIBLE RANGE OF COSTS AND SOURCES OF FUNDING

Costs for production and dissemination of information will vary depending on chosen tactics. The Speakers Bureau and two-way communication tactics addressed above are at no cost.

PERFORMANCE MEASURES

Performance measures include:

- BTNEP MC will host public meetings to provide opportunity for civic engagement
- various reports to EPA and BTNEP MC about civic engagement activities

Data Gathered:

- most effective format for conveying the message of the BTES
- number of materials given out at different events/locations
- number of hits on specific web sites or social media posts

Monitoring:

Parties Responsible: BTPO staff

Timetable for Gathering Data: ongoing

How Data is Shared:

- quarterly social media report to BTNEP MC
- track dissemination of materials
- quarterly Speakers Bureau report to BTNEP MC

Possible Data Gaps: none at this time

Additional Funding Needed: as available

SR-3 Media Engagement

OBJECTIVE

To establish a consistent working relationship with local and national media including broadcast, print, digital, and social media in order to elevate community and national awareness about the mission and projects of BTNEP

BACKGROUND/MAJOR ISSUES

Media knowledge and understanding of the work of BTNEP and its importance to the sustainability of the BTES will help generate interest among various media platforms to develop and circulate stories and messaging about BTNEP projects.

DESCRIPTION

In developing a cooperative relationship with the media, editors and reporters should be presented with science-based, credible, reliable, and compelling story ideas. It is also advisable to exercise judgement if not restraint in alerting media to potential story ideas and availability.

Suggested approaches include but are not limited to:

- scheduling editorial meetings to educate editors and managers about BTNEP and its mission as well as specific projects.
- advancing direct outreach to reporters to provide background information as well as to cultivate personal relationships.
- creating press releases regarding specific projects, progress of projects, individual recognition, and advisories about areas of need, concern, or crisis.
- establishing a ‘stable’ of spokespersons who can become known to media as reliable sources of information. Individuals can be identified to speak in certain areas of expertise, and the media made aware of these potential sources for interviews.



Ben Malbrough, Bayou Lafourche Freshwater District Director and BTNEP MC member, explains the value of restoration to media sources. Image: BTNEP

- training media for selected spokespersons.
- scheduling BTNEP principals and/or selected spokespersons for media appearances for regular segments as well as for specific event appearances.
- producing video segments to be offered to media for use in reports and features.
- maintaining active social media (video streaming) messaging to inform and also to entice consumers to seek more in-depth information about events and projects.

LEAD AGENCY RESPONSIBLE FOR IMPLEMENTATION

The primary implementer for this Action Plan will continue to be the BTNEP staff. The BTNEP MC and

BTPO will continue these efforts, coordinating all education and outreach efforts. BTNEP will include individual members of the BTNEP MC, consultants, and community leaders as possible leads and partners in this Action Plan.

TIMELINES AND MILESTONES

These efforts will be ongoing throughout the program life. Each project will have different achievements and milestones. Project milestones will be reported to the BTNEP MC, EPA, invested partners, and the community through various media sources.

POSSIBLE RANGE OF COSTS AND SOURCES OF FUNDING

The total range of funding necessary annually for SR-3 is \$50,000 to \$100,000, which includes but is



BTNEP scientists and public relations coordinator work with media. Image: Lane Lefort Photography

not limited to the following.

- salaries
- operating services
- supplies
- equipment
- content production and distribution

Sources of funding include local, state, federal, individual, industrial, institutional, NGO, and private organizations.

PERFORMANCE MEASURES

Performance measures include:

- summary of media on quarterly BTNEP MC agenda
- list of all media requests and press releases kept in BTNEP office for one year.

Data Gathered

- level of awareness and interest in BTNEP, its mission, and projects by local and national media
- number of requests for interviews and information from news organizations
- analytics from website and social media sites, number of inquiries, views, etc

Monitoring

Parties Responsible: News coverage can be monitored either by BTNEP staff, BTNEP MC members, and/or paid monitoring services.

Timetable for Gathering Data: Data will be gathered quarterly for BTNEP MC, regularly for EPA, and/or as events occur or projects progress.

How Data is Shared: BTNEP MC quarterly meetings, media reports, and electronically using the most current technologies available. Broadcast video

stories can be archived and uploaded to the BTNEP website and other BTNEP social media sites.

Possible Data Gaps: Rapidly changing technology demands continued research and funding in this area.

Additional Funding Needed: Additional funding is always needed.

SR-4 Public Engagement

OBJECTIVES

- To produce a communications package that provides informational and educational materials about the BTES and CCMP in formats that relate and correspond to identified target audiences
- To develop and implement a well-coordinated, cohesive campaign for distributing informational and educational materials about BTES issues and CCMP actions in BTES businesses and public points of interest
- To provide multiple forums for community engagement including website, social media, e-mail, and 1-800 number
- To effectively and efficiently spread the word about BTNEP throughout the BTES by using the expertise of the BTNEP MC members and volunteers in the form of a Speakers Bureau

BACKGROUND/MAJOR ISSUES

For citizens to form or change opinions and become advocates of CCMP actions, they must be informed and educated about the BTES and CCMP goals. Communication packages that are tailored to specific target audiences will increase the likelihood of the audience's acceptance of the material. Targeting information to the audience is more appealing and gains the interest of the reader, listener, or viewer.

It presents a direct link between the audience and the BTES. Throughout the distribution campaign, information must appear and be provided where the people live, work, recreate, and visit in ways that relate to public needs. This kind of dissemination is essential in order to gain recognition for the BTES as a nationally significant area of the country.

DESCRIPTION

This action will develop sets of educational materials tailored to BTES target audiences that provide science-based, consensus-driven, accurate, technical, and up-to-date information about the BTES and CCMP actions. All materials will be part of a communication package and will share a consistent message. Materials will be developed in a cohesive manner by building on the overall message. Using this consistent message, materials will be presented in various formats—printed, audio, and visual—specific to the target audiences’ needs. Additionally, this Action Plan will involve a massive,

targeted distribution of information to educate and influence BTES citizens about the BTES and CCMP actions. The distribution will be coordinated to reach local, state, and national target audiences in an appropriate manner with interesting, credible materials. A Speakers Bureau program will also assist in disseminating this important information to civic groups, schools, parish and city governments, and the like.

To facilitate a true understanding of the BTES and the program’s message, the public must have an opportunity to participate in two-way communication. The BTPO has used a 1-800 number in the past to serve this end. New tactics such as website features, social media, and a designated e-mail address will be used.

The BTPO staff will produce and nationally distribute materials. The BTPO will also monitor all two-way communication (social media, 1-800 number, e-mail, etc.). Speakers Bureau participants will be prepared



BTNEP scientists discuss the value of healthy bird habitat with media. Image: Lane Lefort Photography

by BTPO staff and will speak on local, regional, state, and possibly national levels.

LEAD AGENCY RESPONSIBLE FOR IMPLEMENTATION

The lead implementer for this action will be the BTPO, BTNEP MC members, EPA, and consultants when necessary. Support implementers will include BTNEP MC members, volunteer speakers, volunteer businesses, agencies, chambers of commerce, economic councils, tourism offices, and other public points-of-interest at the local and state level. The BTPO should also partner with the Nicholls Department of Mass Communication for assistance in creating and disseminating communications, creating strategy for and monitoring social media, and other communication activities. At the national level, partnerships will be developed with appropriate federal agencies, nonprofit organizations, and special interest groups to distribute, display, and use BTES informational materials.

TIMELINES AND MILESTONES

Throughout the project life, this Action Plan will:

- continue to identify and create a database of all BTES target audiences. The database should include geographical, educational, socio-economic, and other demographic aspects of target audiences. Building from the community sector approach, the team will determine issues of concern and the educational needs of specific target audiences to include in the database.
- determine the most effective formats (printed, audio, and/or visual) for conveying the overall message and information to each target audience and produce products that align with each.
- create a database to track and evaluate dissemination campaign including quantities of materials distributed, formats of information distributed, and dissemination methods corresponding to each target audience, dates, and

locations.

- enhance two-way communication with the public through marketing of all channels (1-800 number, social media, informational e-mail address, contact features on website).
- create a social media strategy to reach multiple audiences. This strategy should include all forms of social media and should consider new platforms as they emerge.
- recruit, train, and market the Speakers Bureau. Speakers should be prepared to deliver the overall message of the BTES as well as specialized information for targeted groups or projects.

POSSIBLE RANGE OF COSTS AND SOURCES OF FUNDING

Costs for production and disseminating information will vary depending on chosen tactics. The total range of funding necessary annually for SR-4 is \$75,000 to \$500,000, which includes but is not limited to the following.

- salaries
- operating services
- supplies
- equipment
- content production and distribution

Sources of funding include local, state, federal, individual, industrial, institutional, NGO, and private organizations.

PERFORMANCE MEASURES

Performance measures include:

- communication plan
- publication of materials for easy public access
- sets of materials for target audiences

Data Gathered

- most effective format for conveying the message of the BTES
- number of materials given out at different events/locations
- analytics on specific web sites or social media posts

Monitoring

Parties Responsible: BTNEP staff, BTNEP MC members, and partners

Timetable for Gathering Data: quarterly for BTNEP MC and regularly for EPA

How Data is Shared: BTNEP MC quarterly meetings, media reports

Possible Data Gaps: Rapidly changing technology demands continued research and funding in this area.

Additional Funding Needed: always

an informed citizenry.

Developing 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 is essential. In the last decade, educational programs for teachers have expanded through efforts by LUMCON, Nicholls faculty, South Louisiana Wetlands Discovery Center (SLWDC) staff, Jean Lafitte National Historical Park and Preserve staff, and BTNEP.

Many teachers have taken the opportunity to participate in environmental in-service training such as the Nicholls 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 these programs need to be expanded as funds are available.

DESCRIPTION

This Action Plan will support developing and disseminating 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, developing materials, and disseminating 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 Plan will serve to facilitate developing BTES constituents as stakeholders in the resources of the region. Developing 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

SR-5 Estuarine Curriculum Development

OBJECTIVE

To continue to develop and produce curriculum and instructional materials and programs for estuarine education for the BTES

BACKGROUND/MAJOR ISSUES

An organized effort to enhance education within schools is essential to the long term success of the CCMP. Understanding the major scientific, social, and economics issues of the BTES requires a complex knowledge base. Developing curriculum materials that address these issues will help produce



Public engagement in the field is an important part of outreach and engagement. Image: Lane Lefort Photography

used in estuarine education throughout the nation. Therefore, knowledge and appreciation of the BTES will be increased on a national level.

LEAD AGENCY RESPONSIBLE FOR IMPLEMENTATION

The LDOE develops and provides the framework and standards for estuarine content. The BTNEP Education APT will be the lead implementer. Support implementers will include the BTNEP MC, LEEC, EPA, LDOE, Louisiana Science Teacher's Association (LSTA), Jean Lafitte National Historical Park and Preserve, LUMCON, National Sea Grant, LPBF, National Wildlife Federation (NWF), LDWF, LDEQ, LSU AgCenter (4-H), and/or other informal learning centers.

TIMELINES AND MILESTONES

- Distribute course materials throughout Louisiana

State System through LSTA Newsletter/Website/Annual Conference, Office of Environmental Education, local teachers associations, national associations, and university continuing teacher education courses.

- Develop curricular materials and/or resources for K-16 and systematically integrate curricular materials into the K-16 Program of Studies.
- Review and update curriculum documents as needed.
- Support career and technical education.

POSSIBLE RANGE OF COSTS AND SOURCES OF FUNDING

Range of cost:

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

Sources of funding:

- local, state, federal, industry, institutional, non-governmental organizations, and private
- the BTEF and its partners

The monitoring strategies are intended to serve as mechanisms to assess the effectiveness of projects implemented under the Action Plans. These strategies should be used only 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.

PERFORMANCE MEASURES

Performance measures include:

- curricular materials and/or resources for K-16 available to educators
- summary of education activities related to curriculum reported on BTNEP MC agenda

Date Gathered

- quarterly report curriculum activity
- document meetings and activities of the Education APT
- document inventory of existing materials and its presentation to the BTNEP MC
- regularly report to EPA



Teachers and students benefit from BTNEP estuarine curricula. Image: BTNEP



BTNEP staff members participate in a variety of continuing and informal education programs. Image: BTNEP

Monitoring

Parties Responsible: The BTNEP Education APT and the BTNEP MC are the parties responsible for monitoring.

Timetables for Gathering Data: The BTNEP Education APT will report annually, and the BTNEP MC will gather data quarterly.

How Data is Shared: All curriculums are available on the BTNEP website and partner websites.

Possible Data Gaps: The BTNEP Education APT and the BTNEP MC will determine possible data gaps.

Additional Funding Needed: Additional funding is always needed.

SR-6 Continuing Education Programs and Informal Education Programs

OBJECTIVE

To provide opportunities for a comprehensive continuing education program and an informal estuarine education program

BACKGROUND/MAJOR ISSUES

Historically, environmental education courses have been successfully offered at universities. Highly popular workshops have also been held at LUMCON, Jean Lafitte National Historical Park and Preserve, and other sites throughout the basin to allow teachers

to work with and receive curricula and laboratory/field equipment to be used in their classrooms. These program formats can be expanded to reach many other segments of the populace including children and the general public.

People from all age groups and backgrounds must understand that they, as individuals, make a difference in the health and well-being of the BTES. They must be introduced through educational activities about the importance of their action(s) or lack of action(s). They must also learn that each individual has responsibilities for the estuarine system and the extrinsic and intrinsic resources it provides. BTNEP's Rain Barrel Workshops and Native Plant Workshops are examples of this work plan.

DESCRIPTION

This action supports continuing education programs, classes, and events that address environmental issues of the BTES. These programs will provide opportunities that will help the public understand their role in the environment and the value of the environment to them in their health, occupational, and recreational endeavors.

These types of programs provide a means for groups of individuals to gain new knowledge, to interact with others with similar interests, and to be introduced to the BTES issues and challenges. Many offer participants a chance to do hands-on activities in natural environments. These are often relaxed, comfortable, and engaging events which encourage continuing awareness and involvement.

LEAD AGENCY RESPONSIBLE FOR IMPLEMENTATION

The lead implementer for this action will be the BTNEP MC and the BTNEP Education APT. Support implementers will include the LEEC, EPA, LDOE, LSTA, Jean Lafitte National Historical Park and Preserve, LUMCON, Louisiana Sea Grant, LPBF, NWF, LSU AgCenter (4-H), LDWF, LDEQ, and/or other informal learning centers.

TIMELINES AND MILESTONES

- Continue, establish, and strengthen partnerships with stakeholders who have an interest in BTNEP's priority issues.
- Recruit program coordinators, faculty, and partners to propose and implement projects.
- Regularly hold programs in a variety of settings.
- Regularly review program offerings and the relevance and value to the continuing education needs of the BTES.

POSSIBLE RANGE OF COSTS AND SOURCES OF FUNDING

Range of cost:

Total Funding Necessary (Annually): \$300,000 to \$800,000

Sources of funding:

- local, state, federal, industry, institutional, non-governmental organizations, and private
- BTEF and its partners

PERFORMANCE MEASURE

Performance measure includes:

- summary of continuing education and informal education activities or programs on BTNEP MC agenda

Data Gathered

- quarterly report activities to the BTNEP MC
- document meetings and activities of the Education APT
- regularly report to EPA

Monitoring

Parties Responsible: The Education APT and

the BTNEP MC are the parties responsible for monitoring.

Timetables for Gathering Data: The BTNEP Education APT will report annually, and the BTNEP MC will gather data quarterly.

How Data is Shared: All program activities are on the BTNEP website, partner websites, and/or social media outlets.

Possible Data Gaps: The Education APT and BTNEP MC will determine possible data gaps.

Additional Funding Needed: Additional funding is always needed.

SR-7 Financial Support for Educational Initiatives

OBJECTIVE

To garner support and secure financial resources for the implementation of curriculum, professional

development and other estuarine educational initiatives.

BACKGROUND/MAJOR ISSUES

Education has been identified to be a key in sustaining awareness and long-term involvement in stewardship of the estuary. However, funding for these efforts is highly competitive. Seeking funds for estuarine education efforts should be coordinated among partners to maximize impact and prevent duplication.

This action will serve to build support from stakeholders in the BTES who have an interest in education related to the restoration, conservation, and preservation of the estuary's natural and cultural resources and are concerned about the BTES as a national treasure.

Historically, funds that have been secured have funded curriculum development, Environmental Education Symposiums, teacher workshops and other estuarine educational activities. BTNEP recently received a grant from the Louisiana Environmental Education Commission in order to host a WETMAPP Workshop for teachers.



Student volunteers at the BTNEP plant propagation facility. Image: BTNEP

DESCRIPTION

This action will create community support for funding by developing an awareness of the need to invest in environmental education. This plan calls for the strategic development and coordination of support from national and local foundations, from corporations and through legislative action. This includes cooperative efforts with other programs, support of indirect or direct costs from private donations, as well as grants and contracts.

LEAD AGENCY RESPONSIBLE FOR IMPLEMENTATION

The lead implementers for this action will be the BTNEP MC and other stakeholders.

TIMELINES AND MILESTONES

- Identify potential funding sources for new and sustained educational activities.

- Develop strategies for fund raising to support educational activities.
- Leverage partner and program assets.

POSSIBLE RANGE OF COSTS AND SOURCES OF FUNDING

Range of cost:

Total Funding Necessary (Annually): \$5,000 to \$100,000

Sources of funding:

- BTPO
- BTEF, its partners, and its donors
- Local, state, federal, industry, institutional, NGOs, and private

PERFORMANCE MEASURE

Performance measure includes:



Teachers prepare for field session sponsored by BTNEP and LUMCON to learn about water quality. Image: BTNEP/LUMCON



BTNEP provides financial support for informal education and volunteer programs. Image: BTNEP

- summary of successful funding opportunities reported on the BTNEP MC agenda quarterly

Data Gathered

- quarterly reporting of activities to the BTNEP MC
- BTEF quarterly report

Monitoring

Parties Responsible: The BTPO, the BTEF, and the BTNEP MC are the parties responsible for monitoring.

Timetables for Gathering Data: BTEF (quarterly) and the Barataria-Terrebonne National Estuary Program (BTNEP) office (quarterly)

How Data is Shared: All donations and financial support is shared annually at a public meeting.

Possible Data Gaps: NA

Additional Funding: Additional Funding is always needed.

SR-8 Cultural Heritage and Lifeways

OBJECTIVES

- To explore, investigate, and identify the cultural/lifeways connections that improve human resilience due to the vulnerability of the land and water of the BTES
- To protect the rich cultural lifeways that are connected to the natural resources of the BTES
- To educate about the historical interaction of BTES residents and the BTE's resources through active research projects that use maps, film, photos, documentaries, oral histories, and other techniques that will document this interaction to preserve the cultural aspects of the region
- To promote a demand for information that highlights the uniqueness of our cultural heritage through creating and supporting events that attract the attention of scholars, students, and

a public audience for the endangered cultural resources nurtured in the BTES

- To advance greater awareness of the way the lifestyles and unique historical traditions of the BTES are a living classroom that demonstrate the interaction between the region's natural and cultural resources
- To support the complex dynamics of transition through the preservation and memorialization of community histories when those communities must transition from their traditional lands due to coastal land loss or ecological disasters
- To prepare communities to adapt to new coastal lands as successful restoration practices as the natural cycle of delta lobe shifting re-shapes the BTES

BACKGROUND/MAJOR ISSUES

This Action Plan will develop and support a series of activities which protect and educate the public about the cultural richness of the BTES while emphasizing the stewardship of resources for future generations. These proposed activities, sponsored by existing culturally-related organizations, will enhance ongoing cultural awareness efforts, enhance pride in the region, and invite others to visit, study, and participate in our unique and culturally significant events.

Because of the strong ties between the cultural heritage of the BTES and the area's natural resources, the cultural traditions and unique lifestyles of the BTES are threatened as the overall quality of the BTES is diminished. Southern Louisiana has a strong multi-cultural heritage of history, food, music, language, folklore, and lifestyles, all clearly related to the beauty, mystique and richness of the natural resources of the area. Sixty years ago, this was an area characterized by large families, faith, neighbors who stuck together, and people who bartered for food and goods. People depended upon the land and the water for their livelihood.

With the discovery of oil and the changes in industry, many people are no longer directly dependent upon the "land" for their income and do not engage in traditional "ways of doing things" on a full-time basis. Still, many families are engaged in hunting, fishing, shrimping, or crabbing for all or part of their livelihood just like their ancestors, and even more people use these resources for recreation. To maintain this historical tie to the land, we must sustain and maintain the BTES to a productive level that can support the socio-economics and recreational use by coastal communities and the associated cultures that have been a part of the region's economic life for, in many cases, more than 10 generations. Further, we must also look carefully at how cultural and industrial use contributed to degrading this area's resources and find ways to generate stewardship of the BTES using our rich heritage. As one member stated, "People need roots that tie them to their culture and wings that allow them to move forward."

Nationally, people have held a consistently incorrect expectation that the coastal estuaries are sustainable - perhaps that was the case in the mid 1990s and perhaps that is true for certain areas of this geographic province. But as coastal land loss has already decimated many historic communities of the BTES, the role of BTNEP to preserve the stories and oral traditions of this region has become even more essential. We are experiencing a population shift as evidenced by census data. Social services and infrastructure are diminishing. It is only a matter of time before people must resettle to a new location. away from a catastrophic loss of several communities such as those lying closest to the Gulf of Mexico.

Further, in coastal Louisiana, subsidence and sea level rise combine to create one of the highest rates of relative sea level and coastal land loss ever measured on the planet. This relative sea level rise has an acute effect on coastal communities in the BTES particularly those made up of indigenous peoples and historical communities that are intricately tied to their surrounding aquatic habitats like the many underserved, underrepresented, and Native

communities that exist in the BTES. As relative sea level rise changes the environment, affecting the land, resources, and livelihoods in the communities that make the coast their home, the number of individuals at risk increases exponentially. Many at-risk BTES communities and their citizens deal with this and other environmental changes in their ecosystem-dependent livelihood on a daily basis. For more than two centuries, these wetland inhabitants have adapted and continue to try to mitigate these changes in order to continue to thrive in their coastal homeland. However, the changes are becoming increasingly severe so that modifications in coastal existence become more and more challenging. It is valuable, therefore, to maintain; we must protect the cultural/lifeways and traditional ecological knowledges.

However, adapting to the risks that these BTES communities experience is their collective and individual resiliency and their inherent ability to deal with environmental change. This adaptive capacity can come from both the environment and the people. For example, many communities in the region's

bayou-based communities plant food crops instead of relying on grocery stores. In addition, community members often take it upon themselves to repair the landscape through placement of rocks or small levees and/or elevating their homes. Further, many BTES communities have close social networks stemming from familial connections and ancestral lands. Like other tightly knit communities (*gemeinschaft*) such as the Amish, the members of these communities look after one another, providing help and resources to other members of the community when needed. All of these community traits contribute to the ability to adapt and to mitigate to the environmental hazards; however, as the community is diminished, their existence becomes more and more tenuous.

The adaptive capacity of these communities has been honed over many generations of living and working in this dynamic and ever changing environment. Consequently, the regional geography and geology, particularly the health of barrier islands, breadth of protective marshes and swamps, and the ecological integration and maintenance of the natural levees, often promote or add to the overall resilience of



Volunteer groups work to protect barrier shorelines that also help protect culture. Image: BTNEP

their community. Resilience emerges from local knowledge and informed hazard mitigation planning by local government. Informed planning comes from a blending or integration of local knowledge and science. Since this local knowledge is the basis for how these people interact and depend upon the land and the water for their livelihood and recreation, this information is at the heart of the region's cultural heritage. Therefore, by integrating science with local knowledge to inform hazard mitigation and restoration planning, we are promoting and enhancing sustainability and resiliency by leveraging the rich cultural heritage that exists in the BTES. Systematic methods are being developed to best integrate science and traditional local knowledge. BTNEP can use aspects of these methods to effectively promote the region's resiliency through its cultural heritage and to better understand the area's environmental subtleties through the individuals who live and work in the area daily. Moreover, because Louisiana Sea Grant

is a BTNEP partner, their staff could help facilitate education and outreach activities associated with this plan by implementing the latest developments in research associated with traditional ecological knowledge. This approach could easily serve as a template for many other NEP's ability to advance the understanding of their citizens' adaptive capacity and of each coastal community's understanding of resiliency.

Many opportunities exist to highlight a linkage between the environment and the culture of the BTES. Largescale agency projects, collegiate academic research, parish libraries, regional schools, and summer camps offer the most logical means to organize and publicize culturally-based activities. Each has a number of resources including collections, archives, film, and others that could form the basis for developing activities. In addition, the schools and locally-based cultural organizations (i.e., the USNPS, the Nicholls Center for Bayou Studies, historical



Teachers learn that environmental subtleties affect individuals who live and work in the area daily. Image: LUMCON



Traditional offshore shrimp boat. Image: Keri Turner

and genealogical societies, arts councils, and crafts guilds) could also organize activities such as art shows or photography exhibits in local museums, malls, or festivals and other community events.

Also, numerous existing activities, such as fairs, festivals, Pow-wows, dances, and other special events could be used to highlight the important relationship between the environment and the culture. Numerous historical and archeological sites and landscapes exist in the BTES that could be the focus of research, preservation, and special events through a framework based on traditional ecological knowledge. Finally, organizations such as the Louisiana Historical Society and the LDCRT could provide valuable support in organizing and publicizing activities. In addition, Louisiana Public Broadcasting (LPB), Louisiana Endowment for the Humanities (LEH), or other outlets can assist in attracting professional/amateur documentary film makers and photographers to document these activities.

DESCRIPTION

This Action Plan calls for several distinct components that support and leverage the partners' existing activities. This Action Plan could:

- create a Cultural/Lifeways Heritage APT.
- explore gaps in knowledges and avenues to improve human resilience.
- use the BTNEPMC to explore gaps in knowledges and avenues to improve human resilience.
- develop tie-ins with local, regional, and international festivals to broadcast the cultural uniqueness, significance, and joie de vivre of the BTES.
- encourage each participating organization within the coalition to host at least one annual event dedicated to the stewardship of the BTES or as a component of stewardship in their event.

- develop a cultural/history curriculum.
- host a set of annual BTES related cultural events and invite the organizers of these events to the BTNEP MC to make sure that they understand that they are part of a larger process and a larger effort to preserve cultural heritage.
- host volunteers and educational groups to preserve the wealth of folk-ways and traditions as well as to attract visitors from all over the world who are interested in learning, preserving, and participating in our unique cultural practices.
- develop a manual to act as a resource guide for creating stewardship of culture and the BTES.
- compile and share information.
- create best principles for mitigation and adaptation strategies for cultures and communities.

This Action Plan calls for the coordination of many groups to realize the objectives and develop the suggested components. The groups forming this team are represented in the basin. This is consistent with the grassroots approach taken by the original CCMP.

LEAD AGENCY RESPONSIBLE FOR IMPLEMENTATION

Lead implementers will include parish libraries, local and parish historical societies and museums, BTES schools, the USNPS and Cultural Resources Climate Change Strategy, the NSU Center for Bayou Studies, Louisiana Sea Grant, the Lowlanders Center, universities, genealogical societies, arts councils, tourist commissions, local and regional governments, and other individuals and organizations presently involved in culturally-based activities. The support implementer for this Action Plan will be the BTNEP MC and the BTPO.

TIMELINES AND MILESTONES

The team will immediately hold meetings with libraries, educators, museums, and cultural

ambassadors to provide continued support for objectives as well as to brainstorm new goals.

The following focus on establishing a Cultural Organization APT could include the lead and support team implementers with support from others to educate and inform citizens, to explore funding sources, and to create a cultural/environmental manual. Specific plans could include:

- inviting parish library directors and other organizations to an informational meeting about CCMP at the BTPO.
- conducting meetings to explore issues and plan activities (BTPO/ libraries, National Park).
- establishing a team to advance objectives.
- exploring funding sources and preparing grant applications.
- maintaining an online calendar with a schedule of activities.
- creating online resources.
- encouraging each participating organization to host at least one event dedicated to the stewardship of the BTES.
- partnering with state and federal agencies with access to the public to produce and create interpretive signage about folkways and natural and cultural resources throughout the BTES.
- developing campaign slogan(s) to encourage preservation of the BTES and to encourage local professionals such as local artists to become active stewards of BTNEP.
- initiating oral history/storytelling projects that focus on local knowledge transfer (shrimpers, oystermen, businessmen, boat builders, market hunters, cattlemen, duck carvers, net makers, former cannery workers, recreation guides, crabbers, seafood dealers, retired trappers, and those surviving individuals whose first language

is French).

- working to create updated films on issues facing the BTES.
- holding small events and enrichment workshops such as boatbuilding, carving, music, food, etc. in conjunction with partners.
- supporting research related to culture and ecosystem.

Other plans call for the coalition to expand and maintain an awareness of the role of the BTES culture in preserving the BTES. These activities may include the following.

- developing a volunteer travel program for adults and family to come to learn about the BTES
- supporting immersion programs

- helping to support eco-tourism/eco-adventures throughout the BTES that enable both locals and visitors to immerse themselves
- supporting a cultural history curriculum
- establishing tie-ins with festivals such as the New Orleans Jazz and Heritage Festival, Festival Internationale, the annual T-Bois Blues festival, Swamp Stomp and/or similar type events as part of the BTNEP outreach
- creating a best principles document for cultural resources

POSSIBLE RANGE OF COSTS AND SOURCES OF FUNDING

Range of Cost:

Total Funding Necessary (Annually): \$30,000 to \$100,000



Traditional Cajun cottage. Image: Keri Turner



College students participate in restoration activities and learn that protecting ecosystems protects cultures
Image: BTNEP

Sources of Funding:

- local, state, federal, industry, institutional, NGOs, and private
- BTEF and its partners

PERFORMANCE MEASURE

Performance measure includes:

- summary of cultural heritage and lifeways activities reported on the BTNEP MC agenda quarterly

Data Gathered

- quarterly report activities to the BTNEP MC
- document meetings and activities related to Cultural Heritage in the BTES
- regularly report to EPA

Monitoring

Parties Responsible: The BTNEP MC and the BTPO are responsible for monitoring.

Timetables for Gathering Data: The BTNEP MC could report quarterly.

How Data is Shared: All program activities are on the BTNEP website, partner websites, and/or social media outlets.

Possible Data Gaps: The BTNEP MC will determine possible data gaps.

Additional Funding Needed: Additional funding is always needed.

What Can YOU Do to Protect Estuaries?

Estuaries are found where rivers meet the sea. Clean estuaries sustain vibrant economies and healthy coastal communities.

AT HOME



-  Reduce, reuse, and recycle plastic packaging
-  Have your septic system inspected
-  Choose non-toxic products for household use

IN THE COMMUNITY



-  Help plant trees to reduce stormwater pollution
-  Volunteer at a local clean-up to pick up trash
-  Don't dump chemicals or trash down storm drains

IN THE YARD



-  Pick up your pet's waste and dispose of it properly
-  Plant a rain garden or install a rain barrel
-  Limit use of fertilizers and pesticides on your yard

ON THE WATER



-  Use designated sewage pump-out stations
-  Keep your boat out of seagrass beds
-  Respect wildlife and keep your distance

Learn more about protecting estuaries: epa.gov/nep

