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AROUND THE BEND

News of the
Coastal Bend's Bays & Estuaries

Vol. 2, No. 3 - Summer 1996



Government Publications
Texas State Documents

SEP 17 1996

Developing the Coastal Bend Bays Plan

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Readers may recall the Program's first Action Planning Workshop held last January, where representatives from 165 stakeholder groups participated on Task Forces to develop action agendas for each of 13 bay management issues. Each Task Force developed a problem statement and general goals, and then generated a list of potential management actions to address the defined problem. At this early stage of Plan development, the management actions were generated (during brainstorming sessions) without regard to feasibility, cost, acceptability, or other constraining conditions. This and other information about the timeframe and process for developing the Plan, were compiled and distributed to Management Conference and Task Force members as a working document for the next phase of Plan development.

In early June, the 13 Action Plan Task Forces began the next, intensive phase by selecting which of the potential management actions are worthy of further design. Over the next several months, leading up to the March 1997 All-Conference Workshop, the Task Forces will work to further define the specific goals and objectives that will tie each management action back to the Problem Statement, and a measurable outcome that can be assessed during Plan implementation. Task Force Team Leaders, Program staff, and Conference committees will also work to involve additional stakeholder groups that have thus far not been available to participate in the planning

process.

"It is critical to this collaborative process that invited stakeholder groups make every attempt to provide a representative to the appropriate Task Forces", said Program Director, Richard Volk. "Between now and next March, we'd like to have input from all groups that will either be affected by proposed management actions, or that will be involved in Plan implementation. Our goal is to complete a draft Coastal Bend Bays Plan for public review and comment by September 1997, and we want to achieve the broadest base of support for the Plan from all stakeholders."

For those of you who missed the previous newsletter articles, the 13 Action Plan Task Forces are named in the box below. Additional information regarding the key resource management themes assigned to each Task Force, may be obtained by calling the Program office.

- Ecotourism/Recreational Uses
- Public Health
- Bay Debris
- Brown Tide/Harmful Blooms
- Habitat/Living Resources
- Dredging
- Freshwater Resources/Diversion
- Water/Sediment
- Point Sources
- Urban Runoff
- Agricultural Runoff
- Maritime Issues
- Public Outreach

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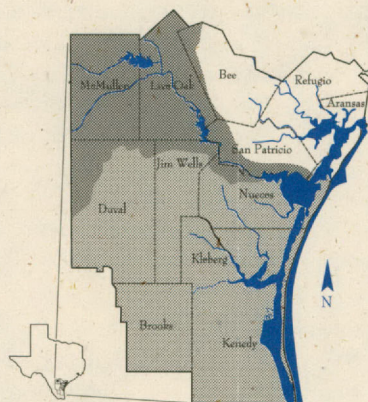
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Corpus Christi Bay National
Estuary Program Study Area



A Look at Next Year's Characterization Projects

After substantial time and effort on the part of the Management Conference committees, six characterization projects have been selected for the coming fiscal year. Since FY97 will be the last year (during the Program's planning phase) to perform characterization studies, it was especially difficult to select from dozens of project ideas. As in previous years, the information from these projects will be valuable in assessing the need for and focus of management actions.

Sediment Quality Assessment of Storm Drain Out-falls and Other Sites in the CCBNEP Study Area

The project will collect and analyze sediment samples with emphasis on areas where storm drains empty into the bays. The samples will be analyzed for toxicity and selected contaminant. In addition, the organisms in the sediment samples will be identified.

Current Status and Historical Trends of Selected Estuarine and Coastal Habitats in the CCBNEP Study Area

Using current aerial photography, this project will determine the extent of five important estuarine/coastal habitats; freshwater and saltwater wetlands, natural and dredged material islands, riparian wooded wetlands, natural and hardened shorelines and tidal flats. The project will use historical aerial photography to detect spatial trends in these habitats and explore the probable cause(s) of observed trends.

Identification of Tidal Flat Alterations (Natural and Human-induced Physical Changes) and Determination of Effects on Biological Productivity and Functioning of These Habitats

Tidal flats cover about 60 square miles in the CCBNEP study area and may play an important role in estuarine nutrient dynamics especially in

Laguna Madre. Furthermore, tidal flats are an essential foraging ground for many shorebirds including the endangered Piping Plover and threatened Reddish Egret. Despite its importance, little is known about this unusual habitat. This project will bring together existing information and closely look at the effects of natural and human alterations on tidal flats. A major component of the project will be the development of a protocol to monitor tidal flats.

An Economic Valuation of Selected Recreational Uses Within the CCBNEP Study Area

The purpose of this project is to collect economic expenditure data from recreational fishermen, wind surfers, and bird watchers within the study area. Three separate surveys will be performed and analyzed. This information will be used to prioritize the management actions of the Coastal Bend Bays Plan and to better understand the economic benefits of specific management actions.

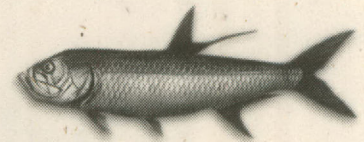
Species-Habitat Relational Database: A Tool for Habitat Management

The 1995 Living Resources Report contained a comprehensive checklist of species present in the CCBNEP study area including each species' relative abundance and typical habitat. This project will use that information to develop an electronic relational database that will allow a user, for example, to search the database for all endangered species by bay area or to determine all the kinds of wading shorebirds that are typically found in a given bay. A user's guide will be written that will allow computer novices to use the data base.

Action Plan Demonstration Project: Evaluation of Shrimp Trawl By-Catch Reduction Devices

Pending availability of funds, the CCBNEP would like to undertake a

project to evaluate three different shrimp trawl by-catch release devices. Standard shrimp trawls catch not only shrimp, but also fish, called "by-catch". This project will be scientifically designed to collect data to determine which device is most effective in reducing by-catch in our local bays, while maintaining economic viability for the shrimping industry. The CCBNEP is currently looking for partners and alternative funding sources to initiate this project.



"Around the Bend" is produced quarterly by the Corpus Christi Bay National Estuary Program with funding from the U.S. Environmental Protection Agency and the Texas Natural Resource Conservation Commission. For more information about the Program, call 512/980-3420.

Contributors to this issue include: Sandra Alvarado, Doug Baker, Meg Conner, Hudson DeYoe, Mercedes Salinas, Richard Volk.

News items, photographs, and letters are welcome and may be submitted to the CCBNEP office, Natural Resources Center, Suite 3300, TAMU-CC, 6300 Ocean Drive, Corpus Christi, Texas 78412. The submission deadline for the next newsletter is August 26, 1996.

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Nonpoint Sources and Loadings Report Available

The CCBNEP report, *Characterization of Nonpoint Sources and Loadings to the Corpus Christi Bay National Estuary Program Study Area* has recently been published. The report culminates a year-long effort by the Natural Resources Conservation Services (NRCS) and the United States Geological Survey (USGS) to compile and summarize historical nonpoint source (NPS) loadings data for the Coastal Bend. The report increases understanding of the relationship between human activity and NPS pollution, and will be used in the development of the Coastal Bend Bays Plan (CBBP).

The report's objective was to define NPS loadings to the CCBNEP study area. Although the data available is not comprehensive, it provides Coastal Bend residents with a report card on NPS pollution contained in regional runoff. As a component of CBBP development, the characterization report lays the scientific groundwork for initial development of management action plans.



Regional Data Makes Contribution Toward Understanding NPS

There are many factors which determine the amount of pollution carried by runoff. Some factors such as climate, soil characteristics and surface topography are beyond the control of human activity. Climactic conditions influence precipitation and the amount of runoff generated. Soil characteristics influence chemical and physical interactions with pollutants. The relatively flat land throughout the Coastal Bend acts to reduce flow velocity in the runoff, reducing the sediment component of NPS pollu-

tion. The other major factor determining NPS pollution is land management which is a controllable human influence. Evidence indicates that land modified by human activity is more likely to increase runoff and that the type of activity influences the pollutants found in the runoff.

Report Results

The report divides Coastal Bend land management into three broad categories; urban, agriculture and undeveloped/open.

Urban NPS data for the report were compiled from the City of Corpus Christi's National Pollutant Discharge Elimination System permit sampling program. For urban NPS pollution in the City of Corpus Christi, the report concludes that:

- Heavy metal concentrations are generally lower than national values.
- Storm drains are relatively free of pesticides and organic compounds.
- Phosphorus and biological oxygen demand (BOD) concentrations are higher than reported in other parts of the country.

Agricultural data was collected from USGS stream gages at Oso Creek, west of Corpus Christi and Seco Creek, northwest of Hondo, Texas. Although Hondo is outside the CCBNEP study area, it is indicative of typical rangeland in the Coastal Bend. The report notes that these data may not be representative of the entire CCBNEP study area, but are representative of the types of agricultural practices in general. The report concludes from the agricultural runoff data that:

- Low levels of pesticides were indicated at the Oso Creek site.
- Nutrient values (nitrogen and phosphorous) at the Oso Creek site are higher than those of similar studies reported from the Galveston Bay area and those of the Trinity

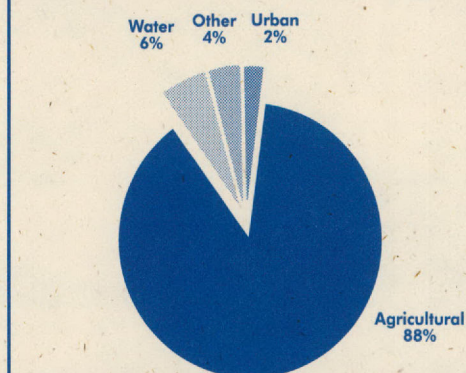
river basin.

• Dissolved solids at the Oso Creek site were between four and six times those reported for other similar watersheds.

• Suspended solids recorded from the Seco Creek site were substantially less than that reported for the Galveston Bay area.

• Biological oxygen demand (BOD) and fecal coliform values at the Seco Creek site were substantially lower than those reported in the Galveston Bay area.

Percent Land Use in the CCBNEP Study Area



This figure indicates relative land use in the Coastal Bend. Land use provides a clue to the types of pollution that could potentially be contained in the runoff. Members of the CCBNEP Management Conference have formed task groups, including one for each urban and agricultural runoff. These Action Plan Task Force groups are currently developing management actions to address NPS pollution in the Coastal Bend.

Although the report enhances our understanding of NPS loadings in the CCBNEP study area, additional studies collecting data from local cropland, will further our knowledge about the condition and practices of the Coastal Bend. The report will be made available to Management Conference members who will use the information when developing the CCMP. For more information, please contact the Program office.





The Corpus Christi Bay National Estuary Program

presents

THE BAY SUMMIT

A Report Card on the State of the Bay System

AND

ENVIRONMENTAL GOALS WORKSHOP

Monday, September 9, (8:30AM - 4:30 PM)

Holiday Inn Emerald Beach in Corpus Christi

Interested citizens are invited to join the CCBNEP Management Conference to hear presentations from more than 25 scientists on their most recent studies of the Coastal Bend bays and estuaries. These studies will provide a sound, technical basis for the Management Actions that will emerge in the **Coastal Bend Bays Plan**.

This is your opportunity to become informed on the various resource management issues which are central to the high quality of life that Coastal Bend residents enjoy.

Registration begins at 8:00 AM on Monday, September 9.

ENVIRONMENTAL GOALS WORKSHOP

You are also invited to attend the **Environmental Goals Workshop** to be held the day following THE BAY SUMMIT.

Tuesday, September 10, (8:30AM - 4:00PM)

Action Planning Task Force members will discuss specific environmental quality goals and objectives which will serve to focus the Coastal bend Bays Plan.

Please note that a Refreshments Charge of five dollars (\$5) per day will be collected at registration. Lunch is on your own.

For more information contact Mercedes Salinas, Outreach Coordinator at 512-980-3420

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THE BAY SUMMIT

AND ENVIRONMENTAL GOALS WORKSHOP

Yes, I would like to attend the Bay Summit! Please reserve a seat for me at the Holiday Inn Emerald Beach Corpus Christi for:
The Bay Summit (Sept. 9)_____ Environmental Goals Workshop (Sept. 10)_____

NAME:_____

AFFILIATION:_____

ADDRESS:_____

CITY:_____ STATE:_____ ZIP:_____

TELEPHONE:_____



NEIGHBORHOOD NEWS



Kingsville Takes Action to Keep City and Water Clean

Kingsville, the second largest city in the CCBNEP study area is home to 26,000 people. With its ever-growing population and fiscal constraints, the City has taken positive steps to manage city services responsibly - both ecologically and economically.

Diverting Waste

Costs of opening and maintaining landfills has increased dramatically throughout the United States. Reducing the amount of material in the waste stream is an effective way to extend the life expectancy of a landfill. In Kingsville, the City and the nonprofit organization EL SOL (Save our Landscape), teamed up to reduce the amount of waste reaching the City's landfill. Using a \$25,000 grant from the Coastal Bend Council of Governments (CBCOG), they were able to improve Kingsville's only recycling drop-off center. The center allows citizens to recycle glass, paper, cardboard, plastics, and metals. Since the center was opened in September 1993, it has diverted over 54 tons of recyclable material from the landfill. The drop-off center is staffed by volunteers and the City's Public Works Department, Kleberg County Precinct 1, and Naval Air Station - Kingsville.

In Texas, residential brush, wood waste, and grass clippings take up about 15 percent of our landfill space. In order to reduce the amount of these materials entering the waste stream, Kingsville participates in a regional brush and wood waste recycling program with the CBCOG. The City has its brush and wood waste ground into a recyclable mulch which is either used on City-owned facilities or given away to the public. Mulch used in landscaping helps to control erosion and weeds, improve soil condition, and reduce irrigation requirements.

Upgrading Wastewater Treatment Plants

On a larger note, Kingsville has just completed approximately \$2 million in improvements to its wastewater treatment plants. These plants release water which eventually reaches Alazan Bay and Baffin Bay.

Kingsville's older chlorine treatment system was upgraded to an ultra-violet (UV) system. Both systems disinfect waste-water, but UV has many distinct advantages. The chlorine system required storage of large amounts of acutely toxic materials. These materials threaten the safety of workers and the environment in the event of a spill. The recent conver-

sion to UV eliminates cost, storage and transport of toxic materials. According to Kingsville's Public Works Director Meg Conner, these changes improve plant efficiency and help the environment. In the first six months of operation, disinfecting costs were reduced over 75 percent at one plant using the UV system. Conner said the City expects to recover the capital expense for the modifications in less than 10 years.

Other improvements at the City's wastewater plants were made to greatly reduce the amount of ammonia nitrogen, organic materials, and solids that were being discharged. "The improvement in the effluent quality has been tremendous and the City is well within discharge limits at both plants. We are proud of our improvements," Conner said. "Kingsville is becoming more and more environmentally conscious in its long-term planning and will continue to look for ways to do its part in taking care of our surroundings."

For more information contact Meg Conner, at (512) 595-8006



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CCBNEP
Natural Resources Center, Suite 3300
TAMU-CC
6300 Ocean Drive,
Corpus Christi, Texas 78412



Calendar of Upcoming Events

July 1	Local Government Advisory Committee
July 8	Citizens Advisory Committee
July 10	Environmental Goals Mini-Workshop II <ul style="list-style-type: none">• Habitat/Living Resources• Dredging• Freshwater Resources• Public Outreach• Agricultural Runoff
July 11	Management Committee
August 1	Environmental Goals Mini-Workshop III <ul style="list-style-type: none">• Public Health• Water/Sediment/Fish Tissue Quality• Point Sources• Urban Runoff
August 8	Management Committee
Sept. 9-10	Bay Summit/Environmental Goals Workshop
Sept. 21-22	Bayfest (see box for details)

For More Information Call: 512/980-3420



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TAMU-CC
6300 Ocean Drive,
Corpus Christi, TX 78412



Volunteers Needed

Mark your calendars and get ready to celebrate the 20th anniversary of Bayfest! Once again, Bayfest will offer something for everyone with an exciting, diverse, fun-filled family style festival set for September 20, 21, & 22. Over the past 20 years Bayfest has grown to attract over 160,000 visitors each year. We need volunteers to help staff the CCBNEP booth! If you wish to help out please call Mercedes Salinas or Doug Baker at 512/980-3420

NEXT NEWSLETTER

- Seagrass Symposium in Corpus Christi
- Summaries of Completed Characterization Studies
- Beneficial Use of Dredge Materials

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