

EXECUTIVE SUMMARY

INTRODUCTION

The *1994 Regional Assessment of Water Quality* for the Sabine River Basin, Texas, is being provided to the Governor, Texas Natural Resource Conservation Commission (TNRCC), and Texas Parks and Wildlife Department (TPWD), as well as municipalities, industries, and citizens throughout the Sabine River Basin. This report is the second in an ongoing series of biennial assessment reports prepared in cooperation with the (TNRCC) under the authorization of the Texas Clean Rivers Act.

The Texas Clean Rivers Act was enacted by Senate Bill 818 in 1991 by the 72nd Legislature to ensure the comprehensive regional assessment of water quality in each watershed and river basin of the State. The then Texas Water Commission (TWC) adopted rules (Texas Water Code §§ 320.1-320.9) regarding implementation of the program on December 4, 1991. The Sabine River Authority of Texas (SRA) delivered its first assessment report, the *1992 Regional Assessment of Water Quality*, to the Governor, TWC, and the (TPWD) on October 1, 1992, as required by these program rules.

The 1994 Assessment Report represents an extensive cooperative effort between SRA, TNRCC, TPWD, the Texas Clean Rivers Program (TCRP) partners, and other federal and state agencies, local entities, and individuals. SRA appreciates all the contributions these organizations and individuals have made for this assessment of water quality in the Sabine Basin.

The SRA, created by an act of the Legislature in 1949, was established with the responsibilities to develop, conserve and protect the water resources within the Sabine Basin of Texas. The SRA, as an agency of the State, receives no appropriations and is not empowered to levy or collect any kind of taxes. Operating funds are primarily derived from the sale of raw and treated water, hydro-electric power, water quality services, and recreational and land use permit fees.

The boundaries established by the Act of the Legislature comprise all of the area lying within the watershed of the Sabine River and its tributary streams within the State of Texas. The watershed area in Texas includes all or parts of twenty-one counties. The State of Texas has jurisdiction to the midstream boundary for the stateline portion of the Sabine River.

The SRA is governed by a nine-member Board of Directors, who serve six-year terms, with three members being appointed by the Governor of Texas every two years. Directors are required to reside within a county situated wholly or partially within the watershed of the Sabine River.

The SRA has taken an active role in water quality matters since initial operational activities began in 1954, and over the years has expanded to meet increasing needs throughout the Sabine River Basin.

The SRA reaffirmed this commitment to water quality protection when it constructed, equipped, and staffed a water quality testing laboratory in 1967. In 1969, the laboratory began providing water quality testing services to municipal and

industrial customers when the SRA was requested by the Texas Water Quality Board (now TNRCC) to assist permit holders in meeting their requirements under the newly established self-reporting system for wastewater discharges to Texas surface waters.

This initial program was expanded in 1972 to include the establishment of a Basin-wide Water Quality Monitoring Program. These water quality laboratory and field monitoring programs have evolved into the present Environmental Services Division (ESD) which operates a modern, well-equipped water quality testing laboratory as well as a biomonitoring laboratory at its offices near Orange. In June 1993, an Upper Basin Field Office (UBFO) was established at SRA's Lake Fork Division offices to better serve the needs for water quality monitoring in the upper Sabine Basin. As a revenue based agency, SRA provides these services because they fulfill demonstrated needs and have proven to be beneficial for the SRA and its customers in managing and protecting the water resources in the Sabine Basin.

Senate Bill 818 and the Program Rules require SRA to organize and lead a Sabine Basin Steering Committee to assist in the coordination and development of the Assessment Report. The role of the Steering committee has expanded to include input on the entire TCRP planning effort.

The Sabine Basin Steering Committee has 25 members representing a broad range of organizations and interests including: state agencies; regional and local government; an environmental group; industry; and an

advisory member from the State of Louisiana.

SRA holds periodic Steering Committee Meetings to allow a forum for input and discussion regarding various phases of the assessment process. In addition, SRA periodically provides Steering Committee members information concerning water quality issues within the Basin and provides opportunity for comments.

RECOMMENDATIONS

The *1994 Assessment Report* has made significant strides since the initial 1992 report in establishing a framework for an ongoing water quality assessment approach in the Sabine Basin. The following related approaches comprise the overall Basin assessment approach:

- *Subwatershed Approach* Allows focus on the cumulative effects of a variety of pollution sources within the context of each subwatershed's natural setting.
- *Biological Screening Approach* To more efficiently utilize available resources, SRA conducts a biological screening process at selected sites throughout the Basin to determine the need for more intensive monitoring.
- *Integrated Data Management Approach* Allows consideration of the complex relationships among the many factors (e.g., point and nonpoint source pollution; runoff; land use patterns) affecting water quality in an integrated fashion.
- *GIS-Centric Approach* The Sabine River Authority's Geographic Information System (GIS) provides graphical integration and representation of the data associated with all work tasks.
- *Interactive Reporting Approach* Providing the assessment report in an updatable interactive,

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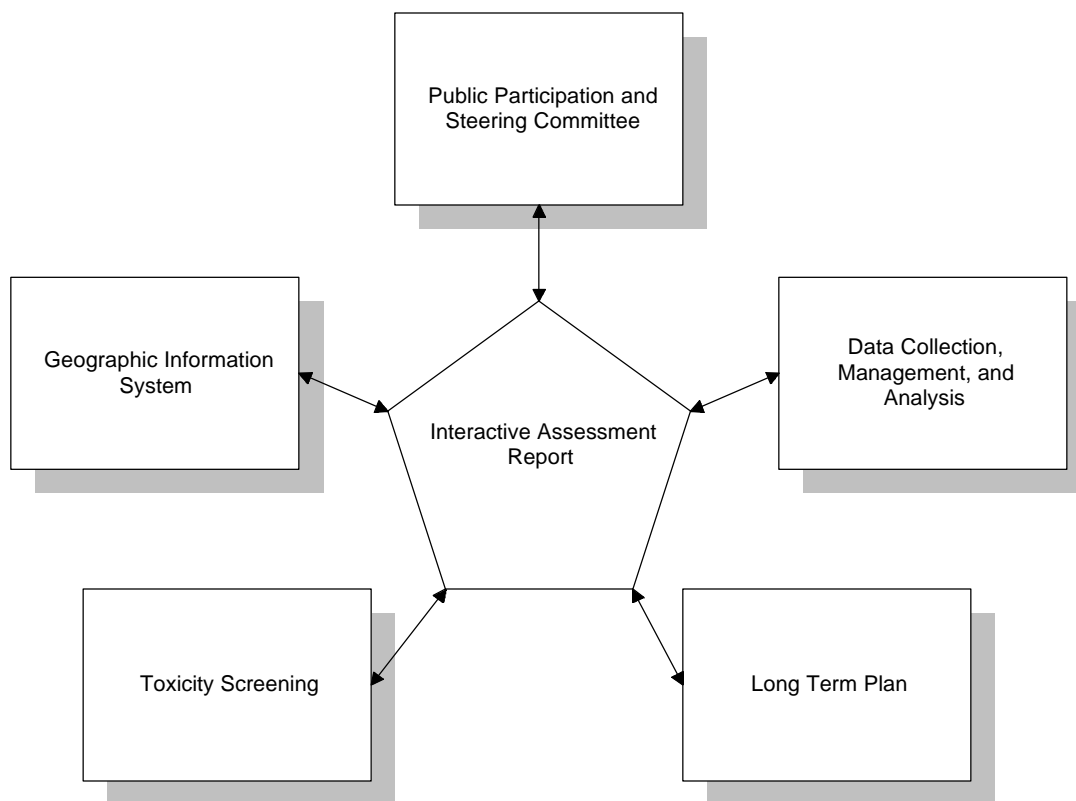
electronic, format overcomes the limitations of traditional, fixed schedule, reporting.

Each individual approach is directly associated with a specific work task or represents a more general approach that subsumes several work tasks. Integration of the individual approaches provides a Basin Program Infrastructure for meeting the requirements of the TCRP given by SB

818, the Program Rules, and the Long Term Action Plan. The cornerstone of this approach is the Interactive Assessment Report (IAR) process which provides the connective links with the five main components of this integrated and systematic process:

The following schematic shows the Sabine Basin ongoing assessment approach:

Basin Program Infrastructure. *Several key components of the Sabine Basin work effort are closely related to each other (e.g., one component may be related to another by sharing processes or providing input or receiving output) and in turn with the Interactive Assessment Report. This connectedness drives an ongoing assessment approach that provides an integrated and systematic infrastructure for decision making concerning water quality and water quantity issues throughout the Sabine Basin.*



The IAR process has been developed as an ongoing, interactive, electronic format for continuous updating to reflect current

water quality information. The current IAR provides the entire contents of the hard copy assessment report as well as the

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complete appendix. Ultimately, the IAR will also meet a need defined in the report process for providing all Sabine Basin water quality data (including repository data collected by others in the Sabine Basin) to all customers, TCRP fee payers, state agencies, officials, interested citizens, etc., in a standard format. Much work remains to be done in obtaining datasets for the various work tasks which are incomplete at this time and incorporating these into the IAR. This will be a priority task in the next reporting period.

Public participation and education activities along with the Steering Committee's role are the basic building blocks for a successful water quality management program in the Sabine Basin. Future efforts will be directed towards strengthening the activities already initiated as well as evaluating alternatives for improving the program. The IAR should play a strong role in encouraging public participation. SRA believes the IAR will provide a communications link to others throughout the Basin and thereby enable those collecting and/or needing water quality information to avoid duplication of effort and conserve public funds.

It is recognized that the future success of the IAR is dependent on the five components as shown in the Basin Program Infrastructure, above. Together these components provide the infrastructure for meeting the requirements of the Program Rules and Long Term Plan. Each of these components is essential to the success of this assessment approach. It is recommended that each of these be given a high priority in the next report period.

The Long Term Plan establishes a partnership between the TNRCC, the various regional planning agencies, and the public. It defines the mission statement and nine comprehensive program goals with associated strategies and specific actions. It involves:

- Public Participation and Education
- Comprehensive Watershed Planning
- Identify Pollutant Sources
- Provide Scientific Approach to Water Quality Issues
- Focus on Priority Issues
- Prevent and Reduce Pollution at the Source
- Ensure Better Use of Public Funds
- Promote Water Conservation
- Provide Assistance for Local Initiatives

The message provided by the Long Term Plan is very clear. Although we have made significant strides in resolving many water quality problems of the past, there are many pollution sources impacting water quality in our watersheds. We need to take a sound scientific approach to identify these and define the steps needed to prevent pollution at the source.

The Long Term Plan recognizes that an ongoing process such as that provided by the IAR is needed to deal with water quality issues. The bad news is there are numerous water quality problems to be resolved. The good news is the Long Term Plan establishes an effective framework of goals, strategies, and actions to correct these problems.

PUBLIC PARTICIPATION AND EDUCATION

SRA places a high priority on its public awareness and participation work effort and continues to look for ways to improve or enhance this effort. To maximize the

public's involvement with the TCRP within the Sabine Basin, the SRA has a two-part public participation and education work effort: public participation and education; and citizen's monitoring.

Public Awareness and Participation

SRA conducts public meetings and other information and education activities to keep the public informed and involved concerning water quality issues throughout the Basin. Despite increased work effort, public participation in general remains low. The introduction of our new assessment approach utilizing an Interactive Assessment Report process allowing water users throughout the basin and elsewhere to access and participate in the water quality program via the electronic media should provide a strong impetus to public awareness and participation activities.

Citizen's Monitoring

Since becoming a Texas Watch Partner in July 1993, five SRA staff members have become Certified Water Quality Monitors and are nearing completion of the trainer's certification. SRA presents Texas Watch information at public meetings and solicits those citizens who are interested in becoming monitors. SRA's initial monitoring plan is in the process of revision. It is anticipated that the plan will continue to change as our involvement with Texas Watch continues.

REGIONAL ASSESSMENT AND TECHNICAL SUMMARY

Water Quality Monitoring Program

The ESD's current Water Quality Monitoring Program (WQMP) includes 30 active stations with locations in almost every segment. Murvaul Lake (Segment 0509) and Lake Cherokee (Segment 0510) are the only segments currently not being monitored by SRA. Monitoring stations are located in reservoirs, mainstem sites in the river, and on major tributaries. Other monitoring sites are located below point source discharges and areas of suspected nonpoint pollution. This existing SRA program is provided to the TCRP as an in-kind service.

Data Management

SRA's data management program has been under development since the initial monitoring program began in 1972. The historical database was transferred to electronic media in 1992. Following the *1992 Assessment Report* the database was converted to a relational database program. A Data Management Plan was then developed to be compatible with the TCRP program guidance. SRA continues to improve its data management strategy as its TCRP work effort progresses.

Data Analysis

Data analysis has been central to the 1994 assessment process. SRA developed an in-house computer program specific for the Sabine Basin. The TNRCC's FY94-95 Program Guidance

was followed for the data analysis protocol in every way possible. TNRCC provided a computer program for data analysis. SRA developed an in-house computer program which provides output compatible with TNRCC guidance and

data needs and, at the same time is capable of looking at the Basin on a subwatershed basis as needed for GIS and the IAR process. Data from 1/1/81 through 12/31/92 have been included for analysis.

Data Analysis Methods and Materials

The basic screening process consists of four steps.

Step 1 Quality Assurance	Data are summarized and checked for unreasonable values.
Step 2 Primary Screening	Data are compared to screening criteria.
Step 3 Evaluation of Sources	Data collected at the same station by two or more sources are compared graphically with box plots and statistically using the Kruskal-Wallis test to compare the medians.
Step 4 Secondary Screening	Data are compared to screening criteria and a conclusion of: Insufficient Data, Possible Concern, Concern, or No Concern is made.

Results of Secondary Screening Process

- ID Insufficient Data
- PC Possible Concern
- C Concern
- NC No Concern

Blank squares indicate a total lack of data for that segment. The XX's indicate that screening for that parameter is not appropriate for that segment (tidally affected).

Segment	Parameter									
	Temperature	pH	TDS	Chloride	Sulfate	Dissolved Oxygen	Fecal Coliform	Nutrients	Metals and Cyanide*	Organics*
0501	NC	NC	XX	XX	XX	NC	NC	NC	ID	ID
0503	NC	NC	C	NC	PC	NC	NC	PC	PC	PC
0504	NC	NC	NC	NC	NC	NC	NC	PC	PC	ID
0505	NC	NC	PC	NC	PC	PC	PC	C	PC	ID
0506	NC	NC	C	C	NC	NC	PC	C	PC	ID
0507	NC	PC	NC	NC	NC	NC	NC	PC	PC	ID
0508	NC	NC	XX	XX	XX	C	PC	C	ID	
0509	NC	NC	NC	NC	NC	NC	NC	NC	ID	
0510	ID	NC	NC	ID	ID	ID	NC	NC		
0511	NC	NC	XX	XX	XX	PC	NC	PC	ID	
0512	NC	NC	NC	NC	NC	NC	NC	NC	C	ID
0513	NC	NC	NC	NC	NC	NC	PC	NC	ID	
0514	NC	NC	NC	NC	NC	NC	PC	PC	PC	ID
0515	NC	NC	NC	PC	NC	NC	NC	NC	ID	ID

*Analysis for metals, cyanide, and organics was done by parameter. In summary form only a PC due to one or more parameters or ID can be shown. For details see the main report.

Interpretation of Data Analysis Results

These results have been interpreted according to the guidance provided by TNRCC in cooperation with the Data Analysis Task Force. The terms “concern”, “possible concern”, “no concern”, and “insufficient data” are used as defined in the methods and materials section according to the guidance. Any interpretation of these results must be made within the context of the definitions. These results are only preliminary and have not been fully investigated to verify their validity. The guidance also specified that nine samples over an 11 year period was adequate to make a conclusion. SRA feels that the validity of results based on nine data points is questionable (especially a conclusion of “no concern”). The information presented here is in accordance with the guidance from the Data Analysis Task Force.

It is important to note that when the concerns for chloride and sulfate were analyzed by subwatershed instead of by segment, the results revealed that the concern for Segment 0507 is entirely due to subwatersheds rather than Lake Tawakoni.

The results for metals and cyanide as well as organics indicate a lack of sufficient data for most segments and a total lack of data in some subwatersheds.

Summary of Results

The results of the data analysis indicate sufficient data exists for the routine

parameters for SRA reservoirs and mainstem areas in the Sabine Basin to determine the existence of concerns, possible concerns, or no concerns. However, there is not enough toxics data (metals, cyanide and organics) to make firm conclusions about the health of aquatic life or human health protection. When analyzed by subwatershed, the amount of sufficient data available for all parameters diminishes greatly for most tributaries and their subwatersheds.

Geographic Information System

SRA is developing a Geographic Information System (GIS) for all spatial and descriptive data pertaining to water quality and related issues within the Sabine River Basin. GIS development is central to the goal of providing efficient data access and analysis for all water quality concerns in the Sabine Basin.

Baseline data and other mapping functions have been obtained from a number of sources. The Sabine Basin boundary was digitized using TIGER/Line hydrology, U. S. Geological Survey 7.5 minute topological maps, and Texas Department of Transportation maps.

The first priority is to establish the baseline surface water map for depiction of various characteristics and analysis applications. Also, river reaches and subwatershed delineations must be digitized. Water quality issue locations and respective parameters can then be accurately located. Data required to fulfill the TCRP, the Program Rules, and TNRCC Program Guidance will continue

to be accessed. A Global Positioning System (GPS) will also be established as a component to determine accurate locations of map features and to verify existing map accuracy.

Interactive Assessment Report

As an ongoing process, SRA is regularly updating the data and other information used to generate the assessment report's components (text, tables, graphs, figures, and maps). SRA has developed an interactive, electronic format of the *1994 Assessment Report* to better meet the needs of the fee payers, state agencies, the legislature, and the general public. This electronic report will provide a means of continuous updating to reflect current conditions. The Interactive Assessment Report will help facilitate education, reporting, and decision making for watershed management issues by increasing public awareness and involvement.

Ambient Toxicity and Rapid Bioassessment

SRA began implementation of screening studies at the request of TNRCC as a cooperative endeavor to improve water quality monitoring and reduce duplication of effort. These screening studies, comprised of ambient toxicity (AT) samples and rapid bioassessment (RBA) studies, were initiated to determine the potential impacts of toxic and/or nonpoint source pollution.

AT tests were developed following the Toxnet protocols established by the Environmental Protection Agency (EPA) Region 6 and TNRCC. The RBA

protocol was designed as a modified EPA RBA protocol III from *Rapid Bioassessment Protocols for Use in Streams and Rivers: Benthic Macroinvertebrates and Fish* [EPA89].

The results of the AT tests indicate areas of concern at seven of the eleven sites monitored. Monitoring is discontinued after one year of quarterly testing at sites which show no toxicity unless there are specific reasons for continued monitoring in a particular subwatershed. Monitoring efforts are intensified at sites which indicate toxicity. Additional sites are added as the need is indicated by monitoring data or other investigations.

RBA results indicate some impairment of biological conditions at 11 of the 15 sites sampled thus far. However, no serious impairments have been found.

These results represent the first data available from the RBA studies and additional investigations will be conducted in order to provide more complete information on the health of aquatic life in these areas. It is important to note that the SRA as well as other planning agencies are using AT tests and RBA protocols for the first time as screening tools to provide a more efficient, faster, and less costly means of locating water quality problem areas. SRA is confident these screening studies will allow many more subwatersheds (110 subwatersheds have been identified in the Sabine Basin) to be screened for less time and cost than what would be necessary for full scans of water quality toxics tests at these locations. It is recognized that there is a learning curve with this screening process and there may

be a need to make some adjustments in the process as more knowledge of water quality conditions is gathered in the subwatersheds (for example-intermittent vs. permanent stream conditions).

Additional comparisons of the functional feeding groups found at each sampling site were also conducted. Organisms which feed on similar food materials are placed in functional feeding groups. The food resources are classified according to size (coarse or fine) and location (suspended or deposited). Other food classifications include other organisms such as algae or other animals.

A balanced ecosystem should have an even distribution of functional feeding groups. An overabundance of a particular food source or the presence of toxic materials affecting a particular group may be indicated when a particular feeding group is more prevalent than others. Comparisons of the functional feeding groups within each ecoregion correlated well with the integrated assessments of the habitat and biological comparisons.

Subwatershed Evaluation

There are 14 designated segments in the Sabine Basin established by the Texas Surface Water Quality Standards (TSWQS) with segment specific criteria for their protection. Any non-designated waterbody in the Basin falls under the general criteria for all surface waters throughout the state. The concentration of most sampling programs focused on the defined segments which has left many unclassified areas of the basin without water quality monitoring stations. As a result there is a lack of information in many areas of the Sabine Basin.

SRA has determined the subwatershed approach is the best way to address water quality questions within the Sabine Watershed. The Basin was divided into subwatersheds based on the tributaries and their watersheds as defined by the area's natural topography. Subwatersheds were then organized into seven reaches based on similarity of hydrology as defined in the table on the next page.

Reaches of the Sabine River

Reach	Description	River Miles		Number of Subwatersheds	Number of Stations *	Permitted Outfalls	
		Start	End			Industrial	Domestic
1	Sabine River, from Sabine River Confluence into Sabine Lake to Morgan Bluff in Orange County	0	25.1	14	28	31	25
2	From Morgan Bluff to a point which includes Caney Creek in Newton County	25.1	95.24	9	9	6	2
3	From Above Caney Creek Confluence to Toledo Bend Dam	95.24	156.45	8	7	1	0
4	Toledo Bend Reservoir - From Toledo Bend Dam to a point which includes Murvaul Creek Confluence	156.45	291.2	21	20	2	16
5	From above Murvaul Creek Confluence in Panola County to a point which includes Glade Creek Confluence in Gregg County	291.2	397.95	24	40	55	28
6	Sabine River Below Lake Tawakoni - From above Glade Creek Confluence in Gregg County to Iron Bridge Dam	397.95	514.5	27	25	8	39
7	From Iron Bridge Dam (Lake Tawakoni) to Sabine River Watershed Divide Near Celeste	514.5	579.4	7	16	7	21

NOTE: Reach 6 also has 10 dairies and 2 swine operations with permits that are not included on this table.

* The number of stations includes all stations monitored over the past 10 years regardless of current status or the frequency of measurement (many stations were only monitored 1 time).

This approach allows for water quality monitoring to be focused for each subwatershed based on the factors in that subwatershed which can potentially impact water quality. This provides for a more efficient use of limited resources, and subwatersheds can then be prioritized for water quality monitoring. This approach is being implemented by SRA using GIS.

SRA is in the initial steps of defining layers of information such as soil types and land use data on a subwatershed basis. Other factors that can potentially impact water quality include nonpoint sources such as agricultural/silvicultural activities, septic tank areas, oil wells, solid waste sites, mining areas, etc. SRA is in the process of developing a report card for each subwatershed. This will

allow pollution prevention efforts to focus on specific defined problems in these subwatersheds.

BASIN LONG TERM PLAN

SRA's Basin planning effort since delivery of the *1992 Assessment Report* [SRA92c] has focused on implementing an infrastructure for accomplishing the long term goals of the Clean Rivers Program. During the 1993-1994 assessment period a task force comprised of TNRCC staff, representatives from each program partner, and other interested parties developed a Clean Rivers Program Long Term Action Plan (LTAP). This plan specifies the mission statement, nine comprehensive program goals with associated strategies and specific actions to move towards these goals. Each action has an aggressive time schedule. The mission statement of the Clean Rivers Program is:

The Goal of the Clean Rivers Program is to maintain and improve the quality of water resources within each river basin in Texas through an ongoing partnership involving the Texas Natural Resource Conservation Commission, other agencies, river authorities, regional entities, local governments, industry, and citizens. The program will use a watershed management approach to identify and evaluate water quality issues, establish priorities for corrective action, and work to implement those actions.

The sections below describe how the Sabine Basin planning effort is consistent with each of the nine program goals.

Enhance Public Participation and Education

The use of the current version of the IAR at public meetings and steering committee meetings allows meeting attendees to view the sections of the report containing information concerning their particular interests or questions. Frequent updates of the report ensures that SRA provides the most current information at each meeting.

Local concerns can be quickly addressed through the Subwatershed Approach, GIS-Centric Approach, and Interactive Reporting Approach by focusing on the results of the data analysis and other information available for any particular area of concern.

Eventually a computer bulletin board system could allow the Interactive Assessment Report to be available to any computer user with a modem and Microsoft® Windows 3.1™, including individuals, schools, libraries, and city halls or county courthouses. By providing direct access to the report, we should foster a sense of ownership to the general public as well as the opportunity for active participation.

Encourage Comprehensive Watershed Planning

SRA has worked toward the goal of comprehensive State-wide watershed planning by laying the ground work for comprehensive subwatershed planning within the Sabine Basin. This effort has utilized several tactics for this goal as follows:

- Forge a partnership between state agencies, regional planning agencies, local

governments and regulated entities and the public.

- Link water supply, water conservation, and water quality issues.
- Foster greater cooperation with neighboring states.

Identify Pollutant Sources

SRA's planning effort has instituted several tactics to address this objective in its assessment approach as follows:

- Identify priority areas by determining specific water quality problems and then trace them to their source.
- Detect potential threats and known impacts to water quality from point and nonpoint pollution sources.
- Determine existing or potential threats to ground water resources.

Provide a Scientific Approach to Water Quality Issues

SRA's planning effort has developed the following strategies for achieving this goal:

- Analyze data to identify trends and cumulative impacts.
- Examine complex issues such as nonpoint source pollution, toxic materials and nutrients and evaluate their effect on water quality and the health of aquatic life.
- Evaluate the relation of standards to site-specific waters.
- Study the impacts of pollution on public health and safety.

Focus on Priority Issues

SRA will identify and prioritize water quality concerns through the following:

- Focus resources on problem areas through the screening studies.
- Prioritize and rank water quality concerns by a basin-wide subwatershed approach.

Prevent and Reduce Pollution at the Source

SRA will use the following measures to accomplish this goal:

- Work with regional and local entities to identify and implement best management practices and preventive or remedial measures.
- Enlist public support for the voluntary adoption of preventive measures through public education campaigns.
- Report findings and make recommendations to the governor, legislature and appropriate agencies.

The Basin Program Infrastructure will provide a baseline of information for cities in the basin for identifying nonpoint source pollution problems in their subwatersheds. The GIS-Centric Approach and Biological Screening Approach will facilitate defining the significance of urban nonpoint source pollution as related to §26.177, stormwater runoff programs, for all the cities in the Sabine Basin with over 5,000 population.

Ensure Better Use of Public Funds

Cost reductions include: report distribution (due to Interactive Assessment Report); map preparation (due to in-house mapping capabilities provided by the Geographic Information System); toxicity testing (due to the Biological Screening Approach). Other ways SRA will achieve this goal include:

- Increase cooperation among natural resource agencies to address priority issues in a coordinated manner.
- Minimize duplication by providing a unified monitoring effort to gather and organize water quality information.
- Identify and encourage voluntary efforts that can minimize costs.

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Promote Water Conservation

The key to accomplishing water conservation remains aggressive public

Provide Assistance for Local Initiatives

The Integrated Data Management Approach establishes a data depository for the Sabine Basin. The data component of the IAR will ultimately provide user friendly access to most datasets within the depository. Larger datasets will be available via the Internet (world-wide collection of interconnected computer networks) or by computer tape upon request.

CONCLUSIONS

The Sabine River Authority of Texas' *1994 Assessment of Water Quality* reflects the

education as to the benefits of preserving and protecting water resources throughout the Basin.

significant strides made since the *1992 Assessment Report* both State-wide and Basin-wide. Increased cooperation, planning efforts, and use of available technology provide an infrastructure for meeting the Program Rules and the aggressive goals of the Texas Clean Rivers Program Long Term Action Plan. The ongoing assessment process provided by the Basin Program Infrastructure will ensure the SRA, in cooperation with TNRCC, meets the Program Goal of maintaining and improving the quality of water resources in the Sabine Basin.