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The National Coastal Pollutant Discharge Inventory Program

POINT SOURCE DISCHARGES IN COASTAL AREAS OF TEXAS

A Summary by Estuarine Watershed for 1987

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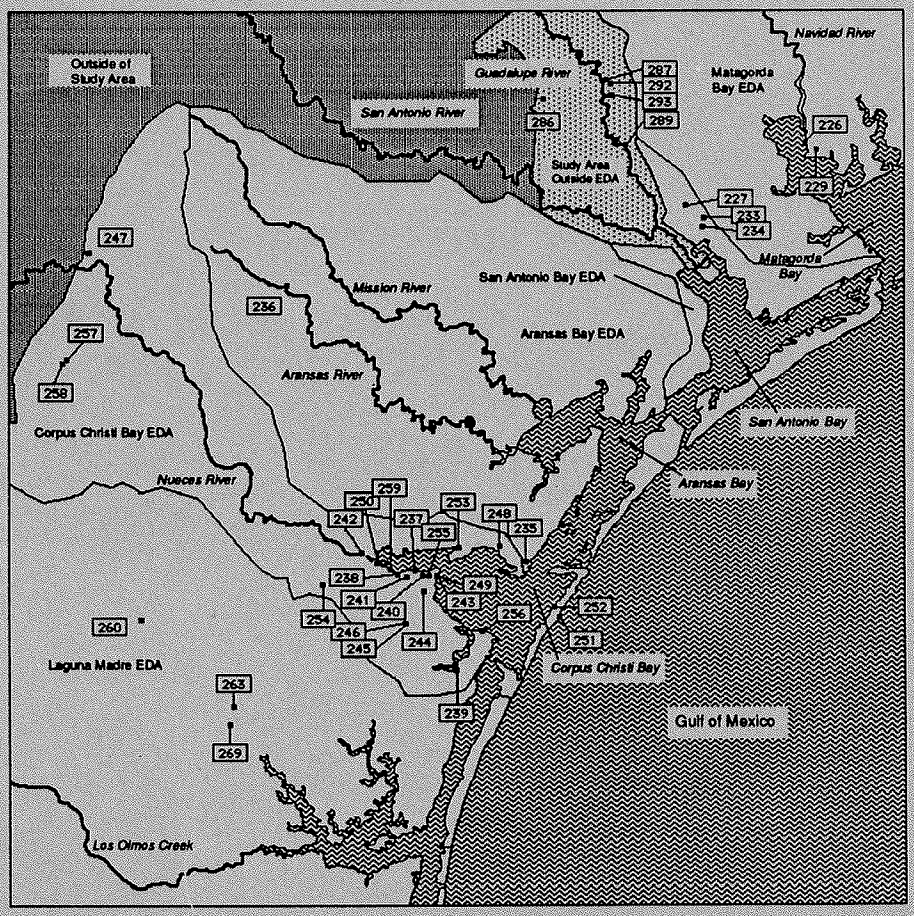

May 1990

U. S. Department of Commerce
National Oceanic and Atmospheric Administration

The National Coastal Pollutant Discharge Inventory Program

The National Coastal Pollutant Discharge Inventory (NCPDI) program is a series of data base development and analytical activities within the National Oceanic and Atmospheric Administration's (NOAA) Strategic Assessment Branch. The cornerstone of the program is a comprehensive data base and computational framework that has been developed over the last eight years. The data base contains pollutant loading estimates for all major categories of point, nonpoint, and riverine sources located in coastal areas that discharge to the estuarine, coastal, and oceanic waters of the contiguous USA (excluding the Great Lakes).

The NCPDI Program is part of NOAA's Strategic Assessment Program of the Nation's coastal and oceanic regions. The goal of this program is to develop information and assessment tools to identify and evaluate existing and future conflicts over the use of resources in the coastal zone. These types of assessments are characterized as "strategic" because they are carried out from a comprehensive perspective that focuses on the Nation as a whole or on large coastal or oceanic regions. They are important because they allow decisionmakers to view resource use problems in the coastal zone at a scale that shows the system and region-wide relationships and impacts. The assessments bridge the gap between the mountains of very detailed data available for some areas (typically hard to reduce and compare from area to area) and the sparse data available for the rest of the Nation's coastal zone.

Discharge estimates are made for eight major source categories and 15 pollutants (see back cover). The estimates were originally made for the base year 1982, but can be considered to approximate pollutant discharge conditions during the period 1980-85. Estimates can be aggregated by county, USGS hydrologic cataloging unit, or estuarine watershed.

Improving the Inventory - A series of projects are currently underway within the NCPDI program to improve and refine the estimates for selected pollutant source categories and coastal areas. These improvements include expanding the study area to include more inland areas within estuarine drainage basins, updating the estimates to a base year of 1987, using improved methods to estimate discharge, and adding a number of toxic pollutants to the inventory. In addition, projects are being undertaken to assess the impact of management practices on nonpoint source pollutant discharges and to develop computer applications that allow a user to better access and query the data base. The main focus of this work during 1989 and 1990 will be to improve the estimates for coastal areas along the Gulf of Mexico.

Using the Point Source Estimates - The inventory of facilities and discharge estimates for Texas point sources presented in this summary are an important part of the overall effort to improve the NCPDI. By themselves, they can be used to better understand the relative contribution of pollutant discharges among point sources and the mix of industrial and municipal activities discharging in the study area. Taken together with the point source estimates for other states and the estimates of nonpoint source and upstream source discharges being compiled for the Gulf Coast region, they can provide resource managers working at the national, regional, state and local levels with insights into where regulatory, management, and monitoring efforts should be focused to more efficiently target and control sources contributing to water quality problems.

For more information on the National Coastal Pollutant Discharge Inventory Program, write to:

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The National Coastal Pollutant Discharge Inventory Program

Point Source Discharges in Coastal Areas of Texas

A Summary by Estuarine Watershed for 1987

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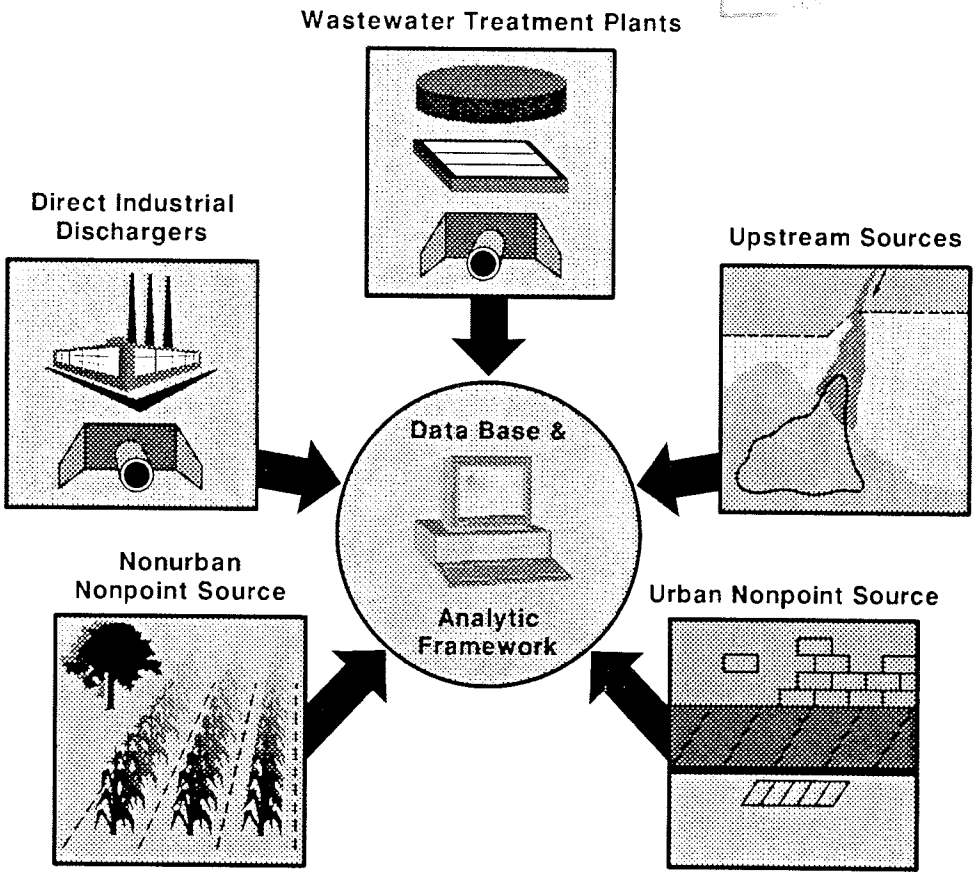

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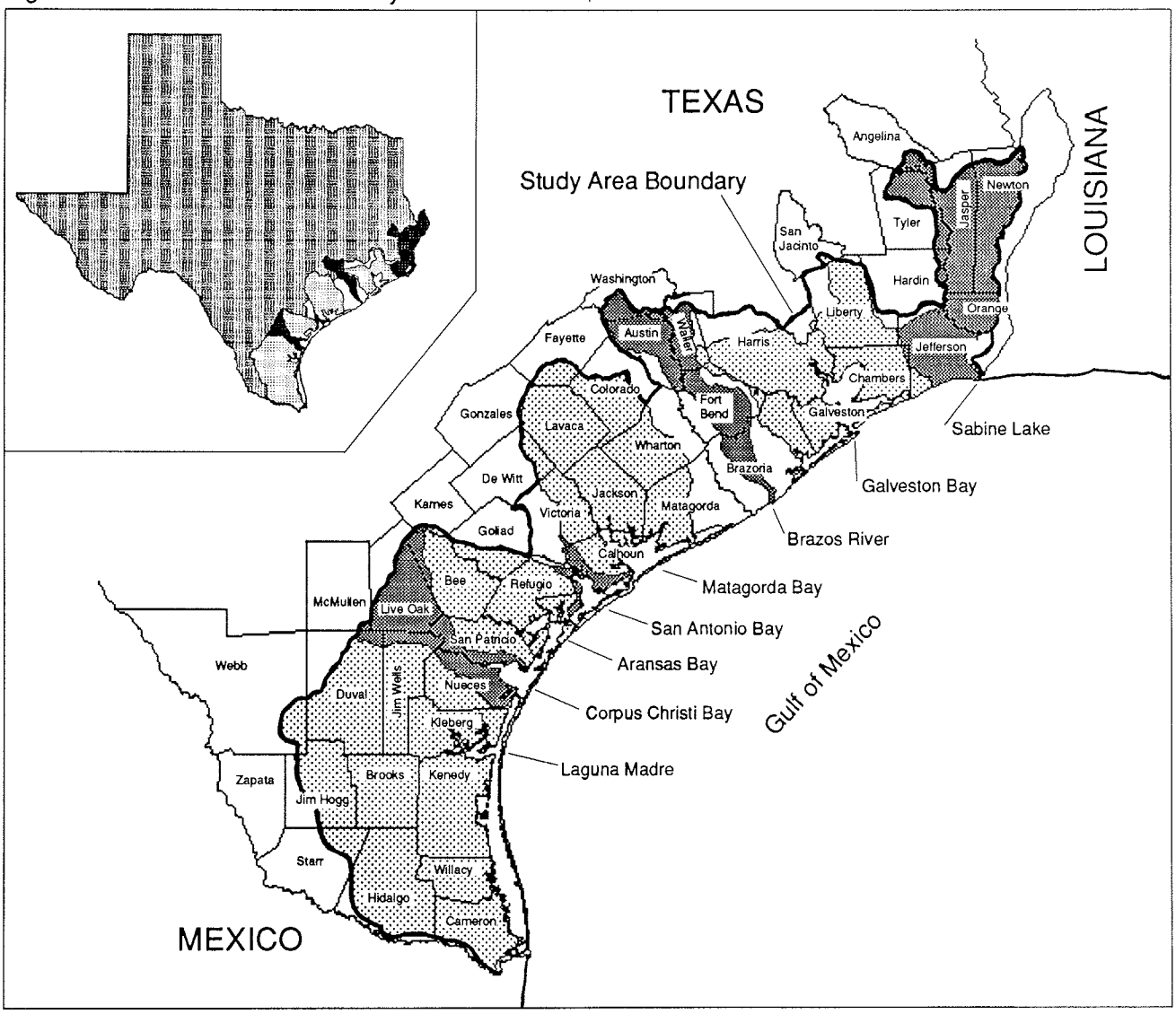
Introduction

This report summarizes annual wastewater and pollutant discharge estimates for 15 pollutants for 306 major and 1,116 minor direct discharging point sources in the National Coastal Pollutant Discharge Inventory (NCPDI) study area in Texas (Figure 1). The estimates reflect discharges between December 1986 and November 1987 (base year 1987), and are organized by the eight estuarine drainage areas (EDAs) in the study area. This report is the third in a series for states bordering the Gulf of Mexico, and is part of an effort to update and improve NCPDI discharge estimates. Because of the number of special terms used in this summary, a glossary has been provided.

Purpose. This report provides a preliminary summary of the revised NCPDI point source inventory for review by the staff of the Texas Water Commission (TWC) and other water resource professionals familiar with dischargers in the study area. Comments from these individuals will help refine and improve the accuracy of the data base and the discharge estimates in it. A final Gulfwide report will be released after this review process. The final report will serve as a convenient summary of the number, type, location, and pollutant discharge characteristics of major dischargers in the study area by watershed. This information will provide resource managers valuable insights into which facilities are important contributors of discharges to the coastal waters of Texas and other Gulf states (see inside cover).

Figure 1. Boundaries of NCPDI study area in Texas.



Contents and Organization. The report is organized into three sections. The first presents the major conclusions resulting from analysis of the pollutant discharge estimates contained in the data base, a description of inventory, the methods used to estimate discharges, and an assessment of data availability, limitations, and accuracy. A discussion of differences between the inventories maintained by the Environmental Protection Agency's (EPA's) Permit Compliance System (PCS) and the TWC is also included. The second section contains six tables and a series of maps summarizing the information for Texas. Discharge estimates are aggregated by estuarine drainage area rather than by county so estimates can be more easily related to water quality impacts in each watershed. The third section contains three appendices that explain in detail the methods used to estimate pollutant discharges.

The tables in the second section show land use and population characteristics of each watershed; present the number and type of facilities in each watershed; summarize, for each watershed, the annual pollutant discharges by major point source category; show the percentage of each pollutant estimate based on monitored versus permit, typical pollutant concentration, and other data; present individual estimates of pollutant discharges for all major facilities in the study area; and list, for each pollutant, the most significant dischargers in the study area in rank order.

Results

The major results drawn from the analysis of the data base are:

- There are a total of 1,422 (306 major and 1,116 minor) facilities in the study area for which estimates are made (Table 2). While there are 2,581 direct discharging facilities in the study area based on EPA's PCS data base, information is not available characterizing the type and/or volume of wastewater discharged for 1,159 of these facilities. Therefore, no discharge estimates could be made. An analysis of the industrial/commercial activities and the volume of flow (when reported) of facilities for which no estimates have been made indicates that the majority of these facilities discharge very small volumes of wastewater. The facility counts presented in the tables in this report are based on the inventory of 1,422 facilities.

- Fifty-seven percent of the facilities (816 out of 1,422) are in the Galveston Bay EDA. No other single EDA accounts for more than nine percent of the facilities. 14 percent of the facilities (199 of 1,422) are in the NCPDI study area, but outside the EDAs (Figure 2 and Table 2).

Figure 2. Number of facilities by Estuarine Drainage Area and major point source category, 1987.

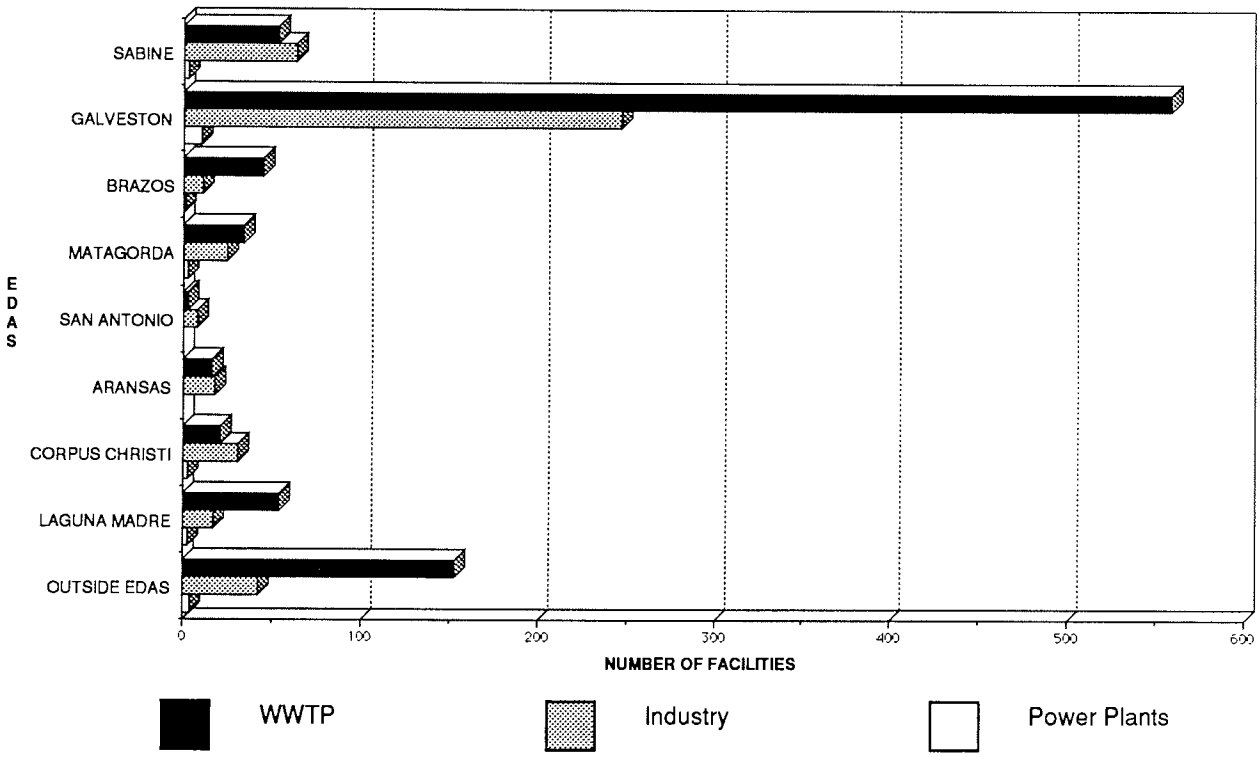
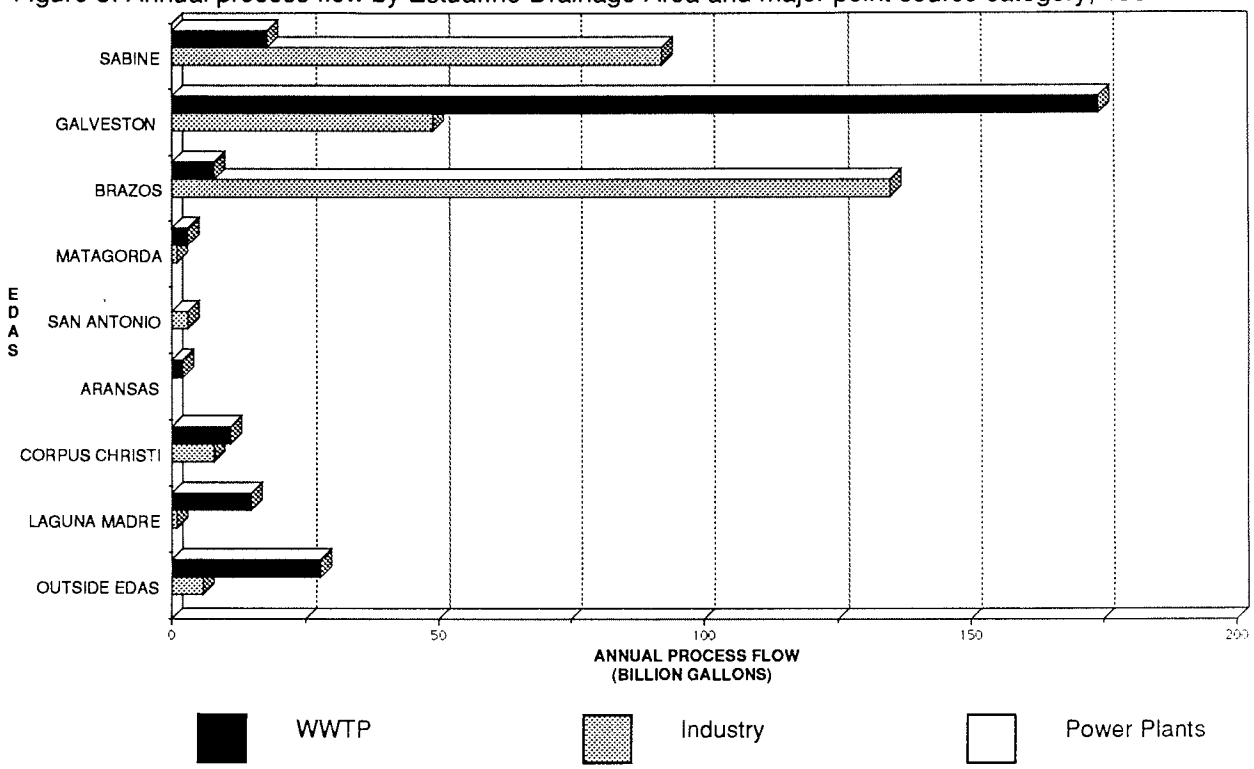


Figure 3. Annual process flow by Estuarine Drainage Area and major point source category, 1987.



- Sixty-six percent of the facilities in the study area (937 out of 1,422) are classified as wastewater treatment plants. Of these, 559—or 60 percent—are in the Galveston Bay EDA (Table 3).

- The Galveston Bay, Brazos River, and Sabine Lake EDAs account for 86 percent of the total process flow volume discharged in the study area (Table 3 and Figure 3). The largest volume of annual process flow for all major point source categories (223 billion gallons) is discharged in the Galveston Bay EDA, primarily by wastewater treatment plants. However, in the Sabine Lake and Brazos River EDAs, major industrial sources account for the largest volume of annual flow (92 billion and 135 billion gallons, respectively).

- Wastewater treatment plants contribute the greatest portion of the total pollutant load discharged in the study area (Table 3). WWTPs account for over 50 percent of the total load discharged for 11 different pollutants (nutrients, all metals with the exception of mercury, oil and grease, and fecal coliform bacteria).

- Industrial facilities are the most important source for several pollutants (Figure 3 and Table 3). They account for over 50 percent of the discharges of process water, biochemical oxygen demand (BOD), total suspended solids (TSS), and mercury (Hg).

- The 23 steam electric power plants contribute about 60 percent of the total flow discharged from all point source categories (table 3). Most of this is once-through cooling water, which has little net addition of pollutants. However, some power plants have process water discharges that are comparable to loads discharged from major industrial facilities.

- The availability of monitored data collected as part of the discharge permit compliance monitoring programs varies by industry type and pollutant (Table 4). Overall, the only pollutants carried in the NCPDI for which permit monitoring data are generally available are wastewater flow, BOD, and TSS.

Data Sources

Information was gathered from a variety of data sources to build the inventory of point source dischargers and to compile the pollutant discharge data needed to make discharge estimates. These sources include: computer data bases maintained by U.S. EPA [the Permit Compliance System (PCS), the Industrial Facility Discharge (IFD) File, and the 1986 Construction

Grants Needs Survey]; hard-copy facility lists and a computerized inventory of facilities and self-monitoring reports provided by the Texas Water Commission; National Pollutant Discharge Elimination System (NPDES) permit files containing monitored data, submitted on the Discharge Monitoring Reports and the NPDES Permit Application forms (the 2C Form); and interviews and discussions with state officials during a field visit to the TWC office in Austin. The field visit to the TWC offices and the processing of the computerized self-monitoring data were critical to the success of the data gathering effort. They allowed collection of actual monitoring data for major and minor facilities, photocopying of permit application files for all major and significant minor facilities and verification of information by the TWC staff.

Differences Between Inventories

A total of 2,581 direct discharging facilities are identified in the study area based on the EPA/PCS data base. Of these, only 1,164 are included in the Texas Water Commission inventory. The difference in facility counts can be attributed to the fact that PCS is required to maintain a record for every facility that discharges or proposes to discharge to surface waters. The TWC only issues a discharge permit to a facility if it determines that the facility has a significant impact on the receiving water. These determinations are made on a case-by-case basis by the TWC.

All 2,581 facilities identified in the study area are carried in the NCPDI inventory of facilities. However, pollutant loading estimates are only made for the 1,422 facilities for which the type of wastewater (process, cooling, etc.) could be identified. Included in this total are the 1,164 facilities from the TWC inventory plus 258 facilities found only in the EPA/PCS data base for which the type of wastewater and the flow volume could be identified.

Figure 4. Daily flow range, facilities with no estimates.

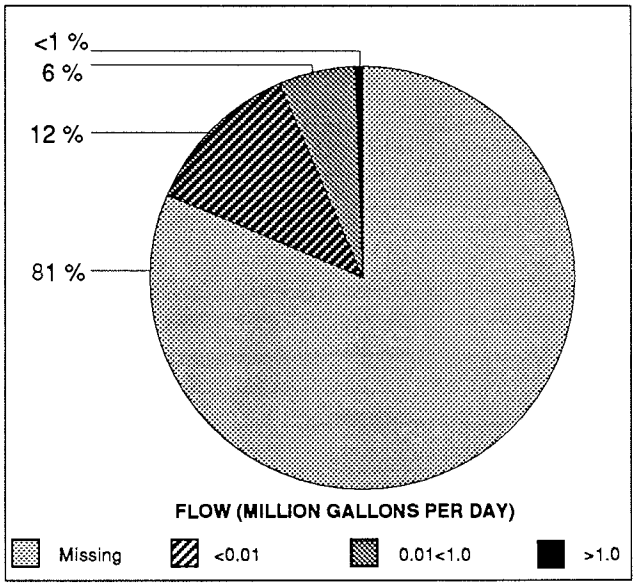
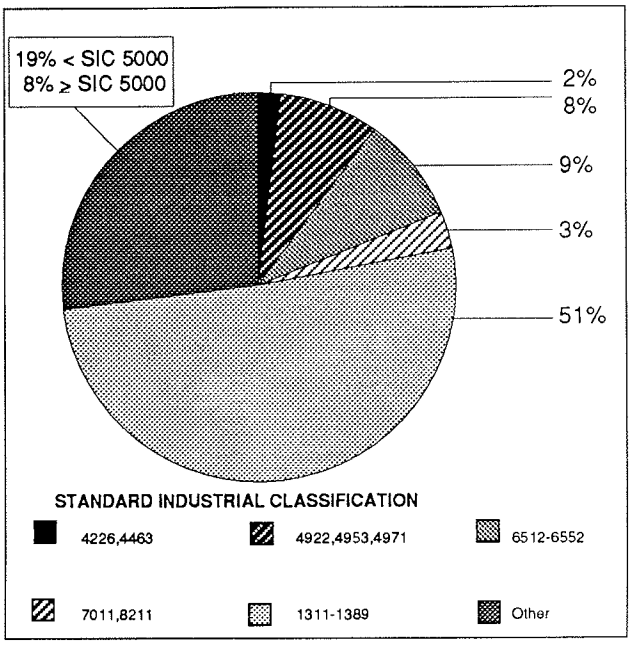


Figure 5. SIC ranges for facilities with no estimates.



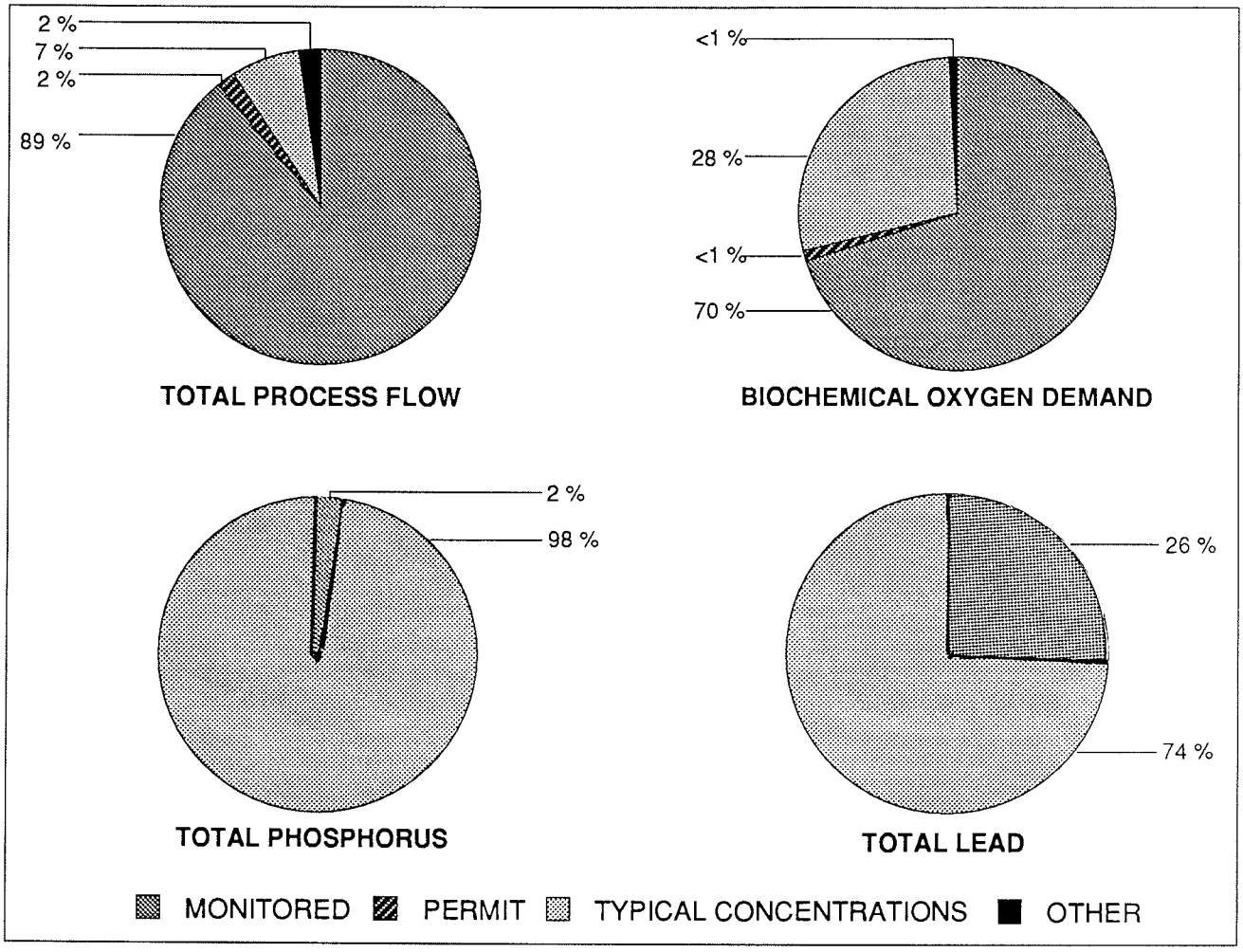
The facilities for which estimates are not made (a total of 1,159) appear to have insignificant load contributions, based on an analysis of flow data (when available for the facility), and the types of industrial/commercial activities in which most are engaged. Figure 4 shows the daily flow range for the facilities for which no estimates are made. Over 99 percent of the facilities either have no flow data or have reported flows less than one million gallons per day.

Figure 5 shows the SIC ranges of the "no estimate" facilities. Over half are production wells engaged in oil or gas extraction (SICs 1311-1389). An additional 20 percent are engaged in commercial, non-manufacturing activities (SICs above 5000). The general conclusion is that the discharge levels for these facilities are very small relative to those of major dischargers.

Availability of Monitored Data

A key component of the point source update was the effort to gather and use as much monitored pollutant discharge data as possible to improve the accuracy of the discharge estimates. The availability of monitored data varies by pollutant, as shown in Figure 6. Monitored data for flow, BOD, and TSS are generally available, while availability of metals data is poor.

Figure 6. Basis of loading estimates for selected pollutants.



There are almost no monitored data available for total nitrogen or total phosphorus. This conclusion is misleading, however, because Texas discharge permits rarely require monitoring for the total form of the nutrient , but do require monitoring for species such as NO3-N, NH3-N, and PO4-P. Follow-up work is being planned to assess the availability of monitored data for these chemical forms, to evaluate the possibility of including estimates of selected chemical species in the NCPDI, and to investigate whether estimates of nutrient loadings reported as species can be adjusted for estimates of total nutrients.

Although efforts were made to collect and use monitored data, the fact that the vast majority of NPDES permits only require monitoring for conventional parameters raises the question of whether monitoring for additional pollutants should be required, at least for the major facilities that contribute the bulk of the pollutant loadings. The estimates in the NCPDI can be used to identify those major facilities for which additional permit requirements should be investigated.

Audit Trail and Data Verification

Certain types of information received special emphasis in the data collection effort. Highest priority was given to collecting data on major facilities. These facilities contribute the greatest amount of pollutant discharges, and more accurate information is generally available for them. A special effort was also made to collect the best available latitude/longitude information for discharge pipes and facilities. The best sources for this information are Texas maps with plotted facilities, and hard copy lists provided by TWC. Finally, emphasis was placed on collecting and verifying monitored pollutant data, because it provides the most reliable basis for making discharge estimates.

Despite the time and effort spent collecting and verifying data from various sources, gaps and inaccuracies remain in the data base. The two most serious problem areas result from the limited availability of monitored pollutant information and the difficulty in obtaining latitude/longitude coordinates, particularly for minor

facilities. Two approaches are used to address these problems. The first is to keep track of the source of all pollutant and latitude/longitude information in the data base by assigning a "data source" code to each entry. By evaluating these codes, a user can gain a better understanding of the relative confidence that can be placed in the data. For example, latitude/longitude coordinates are available for 1,640 of the 2,581 facilities in the EPA inventory. However, only 189 of the 1,640 coordinates are collected from mapped sources which are considered to have the highest degree of accuracy. Coordinates for 386 of the facilities are taken from the IFD, and 809 are taken from the Needs Survey data bases. The accuracy of these two sources can not be directly determined. Of the remainder, 238 are approximated based on the city in which the plant is located, and eight are taken from the PCS.

The second method used to address data deficiencies is to build a data review feedback mechanism into the data collection process. This preliminary report is part of this system. Comments and corrections resulting from its review will be incorporated into the data base. In the future, the goal is to conduct yearly or bi-yearly visits to each coastal state to update estimates for major facilities and to resolve specific data quality questions.

Estimation Methods

Pollutant discharges from point sources vary depending on the raw materials being processed, type of production activities taking place, level of production at the facility, and treatment processes used. Accurately estimating these discharges is difficult without data generated from a detailed effluent monitoring program. In the absence of such data, methods must be used to approximate discharges using the best available information. The methods used in the NCPDI to estimate pollutant discharges are briefly described below. A more detailed description of the methodology is presented in Appendix A. The NPCDI Point Source Methods Document and the NCPDI report entitled *Pollutant Discharge Concentrations for Industrial Point Sources* provide additional background information.

The NCPDI load estimation method makes estimates for each active pipe discharging pollutants to surface water. The pipe-level estimates are summed to generate a facility total. Estimates are based on monitored data when available. The monitored data are taken from NPDES compliance monitoring results, reported in each facility's Discharge Monitoring Reports (DMR). The DMR data can be obtained either from the PCS data base or from state permit files. Data for December 1986 through November 1987 are used for this report. If monitoring data are not available, NPDES permit limits are used. If no monitoring or permit data are available, typical pollutant concentrations (TPC) are used for load estimates. The TPCs are assigned based on the type of industrial or commercial activity taking place at the facility or, if the facility is a wastewater treatment plant, the level of sewage treatment (Appendix B). Daily pollutant discharges are computed, then adjusted to annual discharges by multiplying by the days of discharge, reported on the facility's monthly DMR or assumed for the pipe based on the facility's NCPDI discharge category. Seasonal loads are computed by prorating the annual load using seasonality factors from the reported discharge days per month [discharge days per month/discharge days per year x 100], or, again, assumed based on the NCPDI discharge category.

As with data sources, the degree of confidence that can be placed in the discharge estimate depends on the type of data used. A "computational basis" code is assigned to each discharge estimate in the data base to identify the estimation procedure used and therefore determine the relative confidence that can be placed in the estimates. For example, 81 percent of the estimate for total suspended solids for the entire study area is based on monitored data. In contrast, less than 30 percent of the load estimates for heavy metals is based on monitored values (Table 4). The user should be aware of this difference between pollutants when interpreting the estimates.

How Good is the Inventory?

The NCPDI point source inventory characterizes the number, type, and location of direct discharging facilities in the study area, and provides the best estimates available of the pollutant discharges from these facilities. The value of this information to the user depends on the completeness, timeliness, and accuracy of the data compiled.

Completeness. An extensive effort was made to generate a comprehensive inventory of facilities in the study area. The initial facility list was obtained from a 1988 version of the EPA's PCS data base. The list was checked against a version of PCS maintained by the EPA's Region 6, and was reviewed with members of the TWC staff, with particular emphasis placed on the status of major facilities. Modifications to the list were made based on the TWC review. Given this process, the inventory should be a complete listing of dischargers in the study area. However, it should be understood that compiling a totally accurate and current inventory of facilities is very difficult. In any given time period, some facilities start operations, others cease opera-

tions temporarily or permanently, and some change ownership and name. Resolving discrepancies in the exact number and type of facilities in the study area is time consuming and often unsuccessful. Thus, it is possible that some facilities, primarily minor ones, may have been incorrectly included or omitted.

Timeliness. The data in the inventory were collected for the period December 1986 through November 1987 and are most representative of discharges for this base year. For screening level assessments, loading estimates can be considered reasonably representative of discharges from 1985 to 1990. In general, this assumption is better for discharges from wastewater treatment plants, which vary less over time, than from industrial activities, which are more sensitive to changes in production levels tied to economic conditions. The user should also be aware that much of the data on which the TPC values are based is10 to 15 years old. An assessment has not been made to determine if the typical concentrations are still representative of the discharge category. Because such a large proportion of the discharge estimates are based on typical concentrations, this is a potential source of error.

Accuracy. As discussed above, the capability to generate accurate discharge estimates is limited by the scarcity of monitored data for the majority of pollutants covered in the inventory. As a result, for many pollutants carried in the NCPDI, load estimates depend on assumptions about typical pollutant concentrations in the waste stream, the volume of flow in the pipe, and the type of wastewater (process, cooling, a combination of both, or domestic sewage effluent). These assumptions, while based on best engineering judgement, may result in inaccurate or even totally erroneous estimates in some cases. In addition, there is no way to quantify the error by assigning numerical confidence limits to the estimates. However, by tagging each discharge estimate with a "data source" and "computational basis" code, an effort has been made to provide the user with a means to evaluate the relative confidence that can be placed in the estimate. A future goal is to make more comparisons between NCPDI estimates and monitoring studies of individual plants, as a means of improving the accuracy of the data.

Using the Inventory

The NCPDI data base is intended for use as a screening tool for making region-wide resource allocation decisions. From this perspective, it is not necessary that estimates for individual sources be as accurate as they would have to be for very detailed analyses. The estimates can still be useful in setting priorities regarding how to manage and protect individual estuaries in Texas, and can contribute to a better understanding of the impact that point source discharges have on water quality in the state's coastal areas.

Next Steps

Facility and pollutant data for the other states in the Gulf of Mexico are currently being compiled. The discharge estimates for these states are expected to be available in the summer of 1990. These estimates will be incorporated into the NCPDI data base along with estimates for nonpoint source discharges and discharges entering the study area from upstream sources. Estimates for these latter two source categories are scheduled to be completed in the fall of 1990. A summary report is planned for the winter of 1991 presenting the results of these updates and assessing the relative contributions among all sources.

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Summary Tables and Figures

Summary Tables and Figures

Table 1. Characteristics of the Estuarine Drainage Areas (EDAs).

This table summarizes population and land use for each EDA, and shows the political and hydrological units comprising the Texas portion of the EDA. This information provides a better understanding of the type and level of human activities in these watersheds.

Table 2 . Number of facilities in Estuarine Drainage Areas by two-digit SIC major group.

This table shows the number of facilities inventoried in the NCPDI data base for each EDA in Texas, aggregated by the two-digit Standard Industrial Classification (SIC) major group code. Fifty-seven percent of the facilities (816 out of 1422) in the study area are in the Galveston Bay EDA . Sixty-eight percent of all facilities (972 out of 1422) in the study area fall into the electrical, gas, and sanitary services group; 937 of these are wastewater treatment plants (Appendix C). Important pollutant-generating industrial activities located in the study area include chemicals and allied products, and petroleum and coal production facilities. For an explanation of the differences between the number of facilities in the NCPDI study area and the total number of facilities, refer to the "Differences Between Inventories" section of this report.

Table 3. Annual pollutant discharges by major source category and percent of total annual discharge by Estuarine Drainage Area, 1987.

This table can be used to assess the relative contributions of pollutant discharges among major point source categories within and between estuarine watersheds. For the entire study area, dischargers in Galveston Bay EDA account for the major portion of loadings for most pollutants. Within this EDA, approximately 78 percent of all process wastewater is discharged by WWTPs and 22 percent is discharged by industries. Among the major point source categories, wastewater treatment plants contribute the greatest portion of the total pollutant load, accounting for over 50 percent of the total discharge for 11 different pollutants (total nitrogen, total phosphorus, all metals except mercury, oil and grease, and fecal coliform bacteria). The industry point source category accounts for over 50 percent of the process flow, biological oxygen demand, total suspended solids, and mercury. Power plants are the largest source of total wastewater flow in the study area (64 percent), but most is once-through cooling water drawn from, and returned to, coastal rivers with little net addition of pollutants.

Table 4. Percent of pollutant discharge estimates based on monitoring (M), permit (P), typical pollutant concentration (T), or other (O) data by major source category and Estuarine Drainage Area, 1987.

This table shows the relative use of different types of data to make the loading estimates. Note that, except for flow, BOD, and TSS, most loading values are based on typical pollutant concentrations; that is, they are considered estimated values. Although every effort was made to collect and use monitored data, the majority of NPDES permits only require monitoring for conventional parameters, thus limiting the ability to base loading estimates for other parameters on monitored data.

Table 5. Facility characteristics, annual flow, annual pollutant load estimates and basis of loading estimates for major facilities, 1987.

This table shows detailed information for each major and significant minor facility in the study area. (Information on significant minor facilities is included because these facilities are on one or more list of the top ten dischargers by pollutant, as shown in Table 6). The facility reference numbers can be used to locate facilities in Figure 3. Note that while estimates for flow and conventional pollutants (BOD, TSS) are primarily based on monitored data, relatively little monitored data were available on which to base estimates for nutrients, metals, and other pollutants of interest. For the 306 major point sources in the study area, only four estimates for total phosphorus, three for arsenic, one for cadmium, 37 for chromium, nine for copper, two for iron, eight for lead, two for mercury, and 19 for zinc could be based entirely on monitoring data.

Table 6. Top ten dischargers by pollutant.

This table shows, in rank order for each pollutant, the ten facilities in the study area with the largest discharges. Wastewater treatment plants dominate the lists. When considered across all pollutants, City of Houston (69th Street) and City of Houston (Southwest) are the most significant municipal facilities. Dow Chemical Co. (Freeport) and U.S. Department of Energy (Big Hill storage complex) are the most significant industrial dischargers, and Houston Lighting and Power Company (P.H. Robinson SES and Cedar Bayou SES) are the most significant power facilities in terms of total flow and the amount of pollutants discharged.

Figure 7. General location of major facilities in the NCPDI study area in Texas.

This figure shows the location of all major facilities in the study area, with the concentration of facilities in the Galveston Bay and Sabine Lake EDAs.

Figures 8a-8g. Detailed location of major facilities in the NCPDI study area in Texas.

These figures show the location of each major facility in more detail. The numbers shown on the map correspond to the map reference numbers in Table 5.

Table 1. Characteristics of the EDAs.

EDA Name (Code)	Population 1980	Land use (sq. mi.)						Fluvial Drainage Area (sq. mi.)	Counties	Cataloging Units
		Urban	Agriculture	Range	Forest	Other	Total			
Sabine Lake (3.16)	427,485	220	641	15	2,885	879	4,640	16,090	Angelina Chambers Hardin Jasper Jefferson Liberty Newton Orange Tyler	12010005 12020003 12040201
Galveston Bay (3.17)	2,730,965	585	1,914	0	773	380	3,652	20,035	Brazoria Chambers Fort Bend Galveston Harris Jefferson Liberty San Jacinto Waller	12030203 12040104 12040202 12040203 12040204
Brazos River (3.18)	113,565	41	1,179	91	256	10	1,577	44,050	Austin Brazoria Fort Bend Waller Washington	12070104
Matagorda Bay (3.19)	110,317	84	3,154	465	947	114	4,764	44,400	Calhoun Colorado De Witt Fayette Gonzales Jackson Lavaca Matagorda Victoria Wharton	12090302 12100101 12100102 12100401 12100402
San Antonio Bay (3.20)	3,022	7	47	103	26	115	298	10,310	Aransas Calhoun Refugio Victoria	12100403 12100404

Table 1. Continued.

EDA Name (Code)	Population 1980	Land use (sq. mi.)						Fluvial Drainage Area (sq. mi.)	Counties	Cataloging Units
		Urban	Agriculture	Range	Forest	Other	Total			
Aransas Bay (3.21)	83,408	91	841	713	726	131	2,502	NA	Aransas	12100405
									Bee	12100406
									Goliad	12100407
									Karnes	
									Live Oak	
									Nueces	
									Refugio	
									San Patricio	
Corpus Christi Bay (3.22)	279,862	99	868	625	188	57	1,837	15,630	Bee	12110111
									Duval	12000201
									Jim Wells	12110202
									Karnes	
									Live Oak	
									Mc Mullen	
									Nueces	
									San Patricio	
Laguna Madre (3.23)	557,645	153	3,305	5,966	457	638	10,519	NA	Brooks	12110203
									Cameron	12110204
									Duval	12110205
									Hidalgo	12110206
									Jim Hogg	12110207
									Jim Wells	12110208
									Kenedy	
									Kleberg	
									Nueces	
									Starr	
									Webb	
									Willacy	
Outside EDAs (9.99)	431,610	175	1,671	320	1,062	262	3,490	NA	Brazoria	12020007
									Calhoun	12040101
									Fort Bend	12040102
									Harris	12040103
									Jefferson	12040205
									Liberty	12090401
									Matagorda	12090402
									Refugio	12100204
									Victoria	12100303
									Wharton	

Abbreviations: EDA, Estuarine Drainage Area; sq. mi., square miles.
Note: The fluvial drainage area is the land and water portion of the entire drainage basin upstream of the EDA.
Outside EDAs means inside the NCPDI study area but not included in any EDA.

Table 2. Number of facilities in Estuarine Drainage Areas by two-digit SIC major group,1987.

SIC Major Group		Estuarine Drainage Areas											
		Sabine Lake (3.16)				Galveston Bay (3.17)				Brazos River (3.18)			
		Major		Minor		Major		Minor		Major		Minor	
Code	Activity	NCPDI	Total	NCPDI	Total	NCPDI	Total	NCPDI	Total	NCPDI	Total	NCPDI	Total
1	Agricultural Production-Crops	-	-	-	-	-	-	-	-	-	-	1	1
2	Agricultural Production-Livestock	-	-	-	-	-	-	-	-	-	-	0	1
7	Agricultural Services	-	-	-	-	-	-	-	-	-	-	-	-
9	Fishing, Hunting, and Trapping	-	-	-	-	-	-	-	-	-	-	-	-
10	Metal Mining	-	-	-	-	-	-	-	-	-	-	-	-
13	Oil and Gas Extraction	-	-	2	54	-	-	41	224	-	-	0	3
14	Nonmetallic Minerals, Except Fuels	-	-	1	3	-	-	1	2	-	-	1	3
15	General Building Contractors	-	-	1	4	-	-	0	25	-	-	-	-
16	Heavy Construction, ex. Building	-	-	-	-	-	-	0	2	-	-	0	2
17	Special Trade Contractors	-	-	-	-	-	-	1	2	-	-	-	-
20	Food and Kindred Products	-	-	-	-	-	-	5	6	-	-	2	4
24	Lumber and Wood Products	-	-	4	4	-	-	1	1	-	-	-	-
26	Paper and Allied Products	3	3	1	1	2	2	1	1	-	-	-	-
28	Chemicals and Allied Products	17	17	3	9	50	50	35	61	-	-	1	1
29	Petrojeum and Coal Products	8	8	2	3	10	10	6	8	-	-	-	-
30	Rubber and Misc. Plastics Products	-	-	-	-	-	-	4	5	-	-	-	-
32	Stone, Clay and Glass Products	-	-	-	-	-	-	5	12	-	-	0	1
33	Primary Metals Industries	1	1	0	1	4	4	2	7	-	-	1	1
34	Fabricated Metal Products	-	-	2	2	1	1	11	21	-	-	-	-
35	Industrial Machinery and Equipment	-	-	-	-	-	-	10	21	-	-	-	-
.36	Electronic & Other Electrical Equipment	-	-	0	2	1	1	0	1	2	2	1	1
37	Transportation Equipment	-	-	1	3	-	-	2	4	-	-	-	-
38	Instruments and Related Products	-	-	-	-	-	-	-	-	-	-	-	-
40	Railroad Transportation	-	-	2	4	-	-	1	2	-	-	-	-
42	Trucking and Warehousing	1	1	2	6	1	1	10	27	-	-	-	-
44	Water Transportation	-	-	4	6	-	-	2	4	-	-	-	-
45	Transportation by Air	-	-	-	-	-	-	-	-	-	-	-	-
46	Pipelines, Except Natural Gas	-	-	-	-	-	-	0	1	-	-	-	-
47	Transportation Services	-	-	-	-	-	-	2	7	-	-	-	-
48	Communications	-	-	-	-	-	-	0	1	-	-	-	-
49	Electrical, Gas, and Sanitary Services	13	13	46	54	102	102	478	511	-	-	39	44
50	Wholesale Trade - Durable Goods	-	-	-	-	-	-	5	13	-	-	-	-
51	Wholesale Trade - Nondurable Goods	-	-	2	5	1	1	6	16	-	-	0	1
53	General Merchandise Stores	-	-	1	1	-	-	-	-	-	-	-	-
54	Food Stores	-	-	-	-	-	-	0	1	-	-	-	-
55	Automotive Dealers & Service Stations	-	-	0	1	-	-	0	1	-	-	-	-
58	Eating and Drinking Places	-	-	0	1	-	-	0	8	-	-	-	-
59	Miscellaneous Retail	-	-	-	-	-	-	-	-	-	-	-	-
62	Security and Commodity Brokers	-	-	-	-	-	-	0	1	-	-	-	-
65	Real Estate	-	-	0	3	-	-	4	75	-	-	0	4
70	Hotels and Other Lodging Places	-	-	0	1	-	-	0	10	-	-	0	1
72	Personal Services	-	-	0	1	-	-	4	5	-	-	-	-
73	Business Services	-	-	1	2	1	1	0	6	-	-	-	-
75	Auto Repair, Services, and Parking	-	-	-	-	-	-	0	2	7	7	-	-
76	Miscellaneous Repair Services	-	-	-	-	-	-	1	2	-	-	-	-
78	Motion Pictures	-	-	-	-	-	-	0	1	-	-	-	-
79	Amusement and Recreation Services	-	-	-	-	-	-	2	6	-	-	1	3
80	Health Services	-	-	-	-	-	-	0	1	-	-	-	-
82	Educational Services	-	-	0	3	-	-	0	7	-	-	0	4
83	Social Services	-	-	-	-	-	-	0	2	-	-	-	-
86	Membership Organizations	-	-	-	-	-	-	0	3	-	-	-	-
88	Private Households	-	-	-	-	-	-	-	-	-	-	-	-
89	Services, NEC	-	-	-	-	-	-	-	-	-	-	-	-
92	Justice, Public Order, and Safety	-	-	0	1	-	-	-	-	-	-	1	1
95	Environmental Quality and Housing	-	-	0	1	-	-	1	2	-	-	-	-
96	Administration of Economic Programs	-	-	-	-	-	-	0	1	-	-	-	-
97	National Security and Intl. Affairs	-	-	-	-	-	-	0	1	-	-	-	-
99	Nonclassifiable Establishments	-	-	-	-	-	-	2	2	-	-	-	-
	TOTAL	43	43	75	176	173	173	643	1,122	9	9	48	76

Abbreviations: SIC, Standard Industrial Classification

Note: • Facility counts under "NCPDI" are the number of facilities for which estimates are made. Facilities for which the type of wastewater (eg. process, cooling, etc.) could not be identified are not included. Facility counts under "Total" include all facilities with NPDES permit numbers listed in the Permit Compliance System.

Table 2. Continued.

SIC Major Group		Estuarine Drainage Areas											
		Matagorda Bay (3.19)				San Antonio Bay (3.20)				Aransas Bay (3.21)			
		Major		Minor		Major		Minor		Major		Minor	
Code	Activity	NCPDI	Total	NCPDI	Total	NCPDI	Total	NCPDI	Total	NCPDI	Total	NCPDI	Total
1	Agricultural Production-Crops	-	-	0	1	-	-	-	-	-	-	-	-
2	Agricultural Production-Livestock	-	-	0	5	-	-	-	-	-	-	0	1
7	Agricultural Services	-	-	-	-	-	-	-	-	-	-	-	-
9	Fishing, Hunting, and Trapping	-	-	-	-	-	-	-	-	-	-	-	-
10	Metal Mining	-	-	-	-	-	-	-	-	-	-	-	-
13	Oil and Gas Extraction	-	-	9	66	-	-	3	11	-	-	6	82
14	Nonmetallic Minerals, Except Fuels	-	-	-	-	-	-	-	-	-	-	-	-
15	General Building Contractors	-	-	0	1	-	-	-	-	-	-	-	-
16	Heavy Construction, ex. Building	-	-	-	-	-	-	-	-	-	-	0	1
17	Special Trade Contractors	-	-	-	-	-	-	-	-	-	-	-	-
20	Food and Kindred Products	-	-	5	6	-	-	2	2	-	-	10	10
24	Lumber and Wood Products	-	-	-	-	-	-	-	-	-	-	-	-
26	Paper and Allied Products	-	-	-	-	-	-	-	-	-	-	-	-
28	Chemicals and Allied Products	3	3	3	3	1	1	-	-	-	-	0	1
29	Petroleum and Coal Products	-	-	-	-	1	1	-	-	-	-	1	1
30	Rubber and Misc. Plastics Products	-	-	-	-	-	-	-	-	-	-	-	-
32	Stone, Clay and Glass Products	-	-	-	-	-	-	-	-	-	-	-	-
33	Primary Metals Industries	2	2	-	-	-	-	-	-	-	-	-	-
34	Fabricated Metal Products	-	-	-	-	-	-	-	-	-	-	-	-
35	Industrial Machinery and Equipment	-	-	-	-	-	-	1	1	-	-	-	-
36	Electronic & Other Electrical Equipment	-	-	-	-	-	-	-	-	-	-	-	-
37	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-
38	Instruments and Related Products	-	-	-	-	-	-	-	-	-	-	-	-
40	Railroad Transportation	-	-	-	-	-	-	-	-	-	-	-	-
42	Trucking and Warehousing	-	-	0	4	-	-	-	-	-	-	0	1
44	Water Transportation	-	-	-	-	-	-	-	-	-	-	0	1
45	Transportation by Air	-	-	-	-	-	-	-	-	-	-	0	1
46	Pipelines, Except Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-
47	Transportation Services	-	-	0	1	-	-	-	-	-	-	-	-
48	Communications	-	-	-	-	-	-	-	-	-	-	-	-
49	Electrical, Gas, and Sanitary Services	2	2	34	42	-	-	2	2	2	2	14	16
50	Wholesale Trade - Durable Goods	-	-	-	-	-	-	-	-	-	-	-	-
51	Wholesale Trade - Nondurable Goods	-	-	0	2	-	-	0	1	-	-	0	1
53	General Merchandise Stores	-	-	0	1	-	-	-	-	-	-	-	-
54	Food Stores	-	-	0	1	-	-	-	-	-	-	-	-
55	Automotive Dealers & Service Stations	-	-	-	-	-	-	-	-	-	-	-	-
58	Eating and Drinking Places	-	-	-	-	-	-	-	-	-	-	-	-
59	Miscellaneous Retail	-	-	-	-	-	-	-	-	-	-	-	-
62	Security and Commodity Brokers	-	-	-	-	-	-	-	-	-	-	-	-
65	Real Estate	-	-	0	3	-	-	-	-	-	-	0	1
70	Hotels and Other Lodging Places	-	-	-	-	-	-	-	-	-	-	-	-
72	Personal Services	-	-	2	2	-	-	-	-	-	-	1	1
73	Business Services	-	-	-	-	-	-	-	-	-	-	-	-
75	Auto Repair, Services, and Parking	-	-	-	-	-	-	-	-	-	-	-	-
76	Miscellaneous Repair Services	-	-	-	-	-	-	-	-	-	-	-	-
78	Motion Pictures	-	-	-	-	-	-	-	-	-	-	-	-
79	Amusement and Recreation Services	-	-	1	1	-	-	-	-	-	-	-	-
80	Health Services	-	-	-	-	-	-	-	-	-	-	-	-
82	Educational Services	-	-	-	-	-	-	-	-	-	-	-	-
83	Social Services	-	-	-	-	-	-	-	-	-	-	-	-
86	Membership Organizations	-	-	-	-	-	-	-	-	-	-	-	-
88	Private Households	-	-	-	-	-	-	-	-	-	-	-	-
89	Services, NEC	-	-	-	-	-	-	-	-	-	-	-	-
92	Justice, Public Order, and Safety	-	-	-	-	-	-	-	-	-	-	-	-
95	Environmental Quality and Housing	-	-	0	2	-	-	-	-	-	-	-	-
96	Administration of Economic Programs	-	-	-	-	-	-	-	-	-	-	-	-
97	National Security and Intl. Affairs	-	-	-	-	-	-	-	-	-	-	-	-
99	Nonclassifiable Establishments	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL	7	7	54	141	2	2	8	17	2	2	32	118

Table 2. Number of facilities in Estuarine Drainage Areas by two-digit SIC major group,1987 (Continued).

SIC Major Group		Estuarine Drainage Areas											
		Corpus Christi Bay (3.22)				Laguna Madre (3.23)				Outside EDAs (9.99)			
		Major		Minor		Major		Minor		Major		Minor	
Code	Activity	NCPDI	Total	NCPDI	Total	NCPDI	Total	NCPDI	Total	NCPDI	Total	NCPDI	Total
1	Agricultural Production-Crops	-	-	-	-	-	-	-	-	-	-	-	-
2	Agricultural Production-Livestock	-	-	1	3	-	-	0	9	-	-	0	1
7	Agricultural Services	-	-	-	-	-	-	0	1	-	-	-	-
9	Fishing, Hunting, and Trapping	-	-	0	1	-	-	0	1	-	-	0	2
10	Metal Mining	2	2	-	-	-	-	0	1	-	-	-	-
13	Oil and Gas Extraction	-	-	8	130	-	-	1	56	-	-	13	49
14	Nonmetallic Minerals, Except Fuels	-	-	2	3	-	-	-	-	-	-	1	3
15	General Building Contractors	-	-	0	1	-	-	0	4	-	-	0	4
16	Heavy Construction, ex. Building	-	-	0	1	-	-	-	-	-	-	-	-
17	Special Trade Contractors	-	-	-	-	-	-	-	-	-	-	-	-
20	Food and Kindred Products	-	-	0	1	-	-	5	5	-	-	3	3
24	Lumber and Wood Products	-	-	-	-	-	-	-	-	-	-	0	1
26	Paper and Allied Products	-	-	-	-	0	1	-	-	-	-		
28	Chemicals and Allied Products	3	3	0	1	2	2	-	-	7	7	3	4
29	Petroleum and Coal Products	5	5	3	4	-	-	2	2	1	1	-	-
30	Rubber and Misc. Plastics Products	-	-	-	-	-	-	-	-	-	-	-	-
32	Stone, Clay and Glass Products	-	-	-	-	-	-	-	-	-	-	0	1
33	Primary Metals Industries	1	1	-	-	-	-	-	-	1	1	-	-
34	Fabricated Metal Products	1	1	-	-	-	-	-	-	-	-	1	2
35	Industrial Machinery and Equipment	-	-	-	-	-	-	0	1	-	-	-	-
36	Electronic & Other Electrical Equipment	-	-	-	-	-	-	-	-	-	-	0	1
37	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-
38	Instruments and Related Products	-	-	-	-	-	-	-	-			0	1
40	Railroad Transportation	-	-	-	-	-	-	-	-	1	1	-	-
42	Trucking and Warehousing	-	-	2	4	-	-	-	-	-	-	0	1
44	Water Transportation	-	-	-	-	-	-	0	9	-	-	4	6
45	Transportation by Air	-	-	-	-	-	-	-	-	-	-	-	-
46	Pipelines, Except Natural Gas	-	-	-	-	-	-	-	-	-	-	0	1
47	Transportation Services	-	-	-	-	-	-	-	-	-	-	-	-
48	Communications	-	-	-	-	-	-	-	-	-	-	-	-
49	Electrical, Gas, and Sanitary Services	10	10	13	25	16	16	44	61	19	19	138	150
50	Wholesale Trade - Durable Goods	-	-	-	-	-	-	-	-	-	-	-	-
51	Wholesale Trade - Nondurable Goods	-	-	1	3	-	-	0	6	-	-	-	-
53	General Merchandise Stores	-	-	-	-	-	-	-	-	-	-	-	-
54	Food Stores	-	-	-	-	-	-	0	1	-	-	-	-
55	Automotive Dealers & Service Stations	-	-	-	-	-	-	-	-	-	-	-	-
58	Eating and Drinking Places	-	-	-	-	-	-	-	-	-	-	0	1
59	Miscellaneous Retail	-	-	-	-	-	-	-	-	-	-	-	-
62	Security and Commodity Brokers	-	-	-	-	-	-	-	-	-	-	-	-
65	Real Estate	-	-	-	-	-	-	1	2	-	-	0	18
70	Hotels and Other Lodging Places	-	-	0	1	-	-	0	3	-	-	1	3
72	Personal Services	-	-	-	-	-	-	-	-	-	-	-	-
73	Business Services	-	-	-	-	-	-	-	-	-	-	-	-
75	Auto Repair, Services, and Parking	-	-	-	-	-	-	-	-	-	-	1	3
76	Miscellaneous Repair Services	-	-	-	-	-	-	-	-	-	-	-	-
78	Motion Pictures	-	-	-	-	-	-	-	-	-	-	-	-
79	Amusement and Recreation Services	-	-	1	1	-	-	-	-	-	-	-	-
80	Health Services	-	-	-	-	-	-	-	-	-	-	0	2
82	Educational Services	-	-	-	-	-	-	-	-	-	-	0	8
83	Social Services	-	-	0	1	-	-	-	-	-	-	-	-
86	Membership Organizations	-	-	-	-	-	-	-	-	-	-	0	1
88	Private Households	-	-	-	-	-	-	-	-	-	-	-	-
89	Services, NEC	-	-	-	-	-	-	0	1	-	-	-	-
92	Justice, Public Order, and Safety	-	-	-	-	-	-	-	-	-	-	4	9
95	Environmental Quality and Housing	-	-	0	1	-	-	1	2	-	-	-	-
96	Administration of Economic Programs	-	-	-	-	-	-	-	-	-	-	-	-
97	National Security and Intl. Affairs	-	-	0	1	-	-	1	1	-	-	1	1
99	Nonclassifiable Establishments	1	1	-	-	-	-	-	-	-	-	-	-
	TOTAL	23	23	31	182	18	19	55	166	29	29	170	276

Abbreviations: SIC, Standard Industrial Classification

Note: • Facility counts under "NCPDI" are the number of facilities for which estimates are made. Facilities for which the type of wastewater (eg. process, cooling, etc.) could not be identified are not included. Facility counts under "Total" include all facilities with NPDES permit numbers listed in the Permit Compliance System.

Table 2. Continued.

SIC Major Group		Total					
		Major		Minor		All Facilities	
Code	Activity	NCPDI	Total	NCPDI	Total	NCPDI	Total
1	Agricultural Production-Crops	0	0	1	2	1	2
2	Agricultural Production-Livestock	0	0	1	20	1	20
7	Agricultural Services	0	0	0	1	0	1
9	Fishing, Hunting, and Trapping	0	0	0	4	0	4
10	Metal Mining	2	2	0	1	2	3
13	Oil and Gas Extraction	0	0	83	675	83	675
14	Nonmetallic Minerals, Except Fuels	0	0	6	14	6	14
15	General Building Contractors	0	0	1	39	1	39
16	Heavy Construction, ex. Building	0	0	0	6	0	6
17	Special Trade Contractors	0	0	1	2	1	2
20	Food and Kindred Products	0	0	32	37	32	37
24	Lumber and Wood Products	0	0	5	6	5	6
26	Paper and Allied Products	5	6	2	2	7	8
28	Chemicals and Allied Products	83	83	45	80	128	163
29	Petroleum and Coal Products	25	25	14	18	39	43
30	Rubber and Misc. Plastics Products	0	0	4	5	4	5
32	Stone, Clay and Glass Products	0	0	5	14	5	14
33	Primary Metals Industries	9	9	3	9	12	18
34	Fabricated Metal Products	2	2	14	25	16	27
35	Industrial Machinery and Equipment	0	0	11	23	11	23
36	Electronic & Other Electrical Equipment	3	3	1	5	4	8
37	Transportation Equipment	0	0	3	7	3	7
38	Instruments and Related Products	0	0	0	1	0	1
40	Railroad Transportation	1	1	3	6	4	7
42	Trucking and Warehousing	2	2	14	43	16	45
44	Water Transportation	0	0	10	26	10	26
45	Transportation by Air	0	0	0	1	0	1
46	Pipelines, Except Natural Gas	0	0	0	2	0	2
47	Transportation Services	0	0	2	8	2	8
48	Communications	0	0	0	1	0	1
49	Electrical, Gas, and Sanitary Services	164	164	808	905	972	1069
50	Wholesale Trade - Durable Goods	0	0	5	13	5	13
51	Wholesale Trade - Nondurable Goods	1	1	9	35	10	36
53	General Merchandise Stores	0	0	1	2	1	2
54	Food Stores	0	0	0	3	0	3
55	Automotive Dealers & Service Stations	0	0	0	2	0	2
58	Eating and Drinking Places	0	0	0	10	0	10
59	Miscellaneous Retail	0	0	0	0	0	0
62	Security and Commodity Brokers	0	0	0	1	0	1
65	Real Estate	0	0	5	106	5	106
70	Hotels and Other Lodging Places	0	0	1	19	1	19
72	Personal Services	0	0	7	9	7	9
73	Business Services	1	1	1	8	2	9
75	Auto Repair, Services, and Parking	7	7	1	5	8	12
76	Miscellaneous Repair Services	0	0	1	2	1	2
78	Motion Pictures	0	0	0	1	0	1
79	Amusement and Recreation Services	0	0	5	11	5	11
80	Health Services	0	0	0	3	0	3
82	Educational Services	0	0	0	22	0	22
83	Social Services	0	0	0	3	0	3
86	Membership Organizations	0	0	0	4	0	4
88	Private Households	0	0	0	0	0	0
89	Services, NEC	0	0	0	1	0	1
92	Justice, Public Order, and Safety	0	0	5	11	5	11
95	Environmental Quality and Housing	0	0	2	8	2	8
96	Administration of Economic Programs	0	0	0	1	0	1
97	National Security and Intl. Affairs	0	0	2	4	2	4
99	Nonclassifiable Establishments	1	1	2	2	3	3
	TOTAL	306	307	1,116	2,274	1,422	2,581

Table 3. Annual pollutant discharges by major source category and percent of annual total discharge by Estuarine Drainage Area,1987.

EDA (Code) Point Source Category	No. of facilities (NCPDI)	Total Flow (billion gal.)		Process Flow (billion gal.)		BOD (1000 lbs)		TSS (1000 lbs)		TN (1000 lbs)		TP (1000 lbs)		As (10 lbs)		Cd (10 lbs)	
Sabine Lake (3.16)																	
WWTP	53	18	(.7)	18	(3.2)	2,317	(4.7)	2,200	(2.8)	1,661	(5.5)	1,038	(5.9)	479	(6.2)	168	(5.5)
Industry	63	165	(6.1)	92	(16.7)	14,718	(29.8)	15,643	(19.8)	2,146	(7.1)	671	(3.8)	68	(.9)	165	(5.4)
Power Plants	2	1	(<0.1)	0	(0)	0	(0)	33	(<0.1)	0	(0)	0	(0)	0	(0)	0	(0)
All Categories	118	184	(6.8)	110	(19.9)	17,036	(34.5)	17,877	(22.6)	3,807	(12.5)	1,709	(9.8)	547	(7.0)	333	(10.9)
Galveston Bay (3.17)																	
WWTP	559	174	(6.4)	174	(31.4)	13,527	(27.4)	17,100	(21.6)	16,236	(53.5)	10,080	(57.6)	4,682	(60.2)	1,638	(53.5)
Industry	247	128	(4.7)	49	(8.9)	7,950	(16.1)	18,315	(23.2)	3,044	(10.0)	1,464	(8.4)	466	(6.0)	250	(8.2)
Power Plants	10	914	(33.9)	<1	(<0.1)	<1	(<0.1)	122	(.2)	4	(<0.1)	2	(<0.1)	10	(.1)	2	(<0.1)
All Categories	816	1,218	(45.0)	223	(40.3)	21,477	(43.5)	35,537	(45.0)	19,284	(63.5)	11,546	(66.0)	5159	(66.3)	1,890	(61.8)
Brazos River (3.18)																	
WWTP	45	8	(.3)	8	(1.4)	919	(1.9)	921	(1.2)	726	(2.4)	456	(2.6)	209	(2.7)	76	(2.5)
Industry	11	398	(14.8)	135	(24.3)	1,722	(3.5)	7,858	(9.9)	35	(.1)	16	(<0.1)	3	(<0.1)	1	(<0.1)
Power Plants	1	393	(14.6)	<1	(<0.1)	0	(0)	424	(.5)	0	(0)	0	(0)	4	(<0.1)	7	(.2)
All Categories	57	799	(29.6)	143	(25.7)	2,641	(5.3)	9,202	(11.6)	762	(2.5)	472	(2.7)	215	(2.8)	84	(2.7)
Matagorda Bay (3.19)																	
WWTP	34	3	(.1)	3	(.6)	412	(.8)	419	(.5)	321	(1.1)	201	(1.1)	93	(1.2)	32	(1.1)
Industry	25	3	(.1)	1	(.1)	67	(.1)	6,912	(8.7)	34	(.1)	11	(<0.1)	12	(.2)	5	(.2)
Power Plants	2	53	(2.0)	<1	(<0.1)	1	(<0.1)	2	(<0.1)	1	(<0.1)	1	(<0.1)	<1	(<0.1)	<1	(<0.1)
All Categories	61	59	(2.2)	4	(.8)	480	(1.0)	7,334	(9.3)	356	(1.2)	213	(1.2)	105	(1.3)	38	(1.2)
San Antonio Bay (3.20)																	
WWTP	2	<1	(<0.1)	<1	(<0.1)	5	(<0.1)	3	(<0.1)	5	(<0.1)	3	(<0.1)	1	(<0.1)	1	(<0.1)
Industry	8	4	(.1)	3	(.5)	563	(<0.1)	342	(.4)	1	(<0.1)	0	(0)	0	(0)	<1	(<0.1)
Power Plants	0	0	(0)	<1	(<0.1)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)
All Categories	10	4	(.1)	3	(.5)	568	(1.1)	345	(.4)	5	(<0.1)	3	(<0.1)	1	(.0)	1	(<0.1)
Aransas Bay (3.21)																	
WWTP	16	2	(<0.1)	2	(.4)	187	(.4)	282	(.4)	191	(.6)	119	(.7)	55	(.7)	19	(.6)
Industry	18	<1	(<0.1)	<1	(<0.1)	6	(<0.1)	5	(<0.1)	2	(<0.1)	1	(<0.1)	<1	(<0.1)	<1	(<0.1)
Power Plants	0	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)
All Categories	34	2	(.1)	2	(.4)	193	(.4)	287	(.4)	193	(.6)	121	(.7)	55	(.7)	19	(.6)

Table 3. Continued.

EDA (Code) Point Source Category	No. of facilities (NCPDI)	Total Flow (billion gal.)		Process Flow (billion gal.)		BOD (1000 lbs)		TSS (1000 lbs)		TN (1000 lbs)		TP (1000 lbs)		As (10 lbs)		Cd (10 lbs)	
Corpus Christi Bay (3.22)																	
WWTP	21	11	(.4)	11	(2.1)	1,172	(2.4)	656	(.8)	1,071	(3.5)	669	(3.8)	309	(4.0)	108	(3.5)
Industry	31	9	(.3)	8	(1.4)	391	(.8)	655	(.6)	313	(1.0)	33	(.2)	154	(2.0)	123	(4.0)
Power Plants	2	143	(5.3)	0	(0)	0	(0)	17	(<0.1)	0	(0)	0	(0)	0	(0)	0	(0)
All Categories	54	164	(6.1)	19	(3.5)	1,563	(3.2)	1,326	(1.7)	1,384	(4.6)	702	(4.0)	463	(6.0)	232	(7.6)
Laguna Madre (3.23)																	
WWTP	54	15	(.5)	15	(2.7)	2,372	(4.8)	2,348	(3.0)	1,411	(4.6)	902	(5.2)	399	(5.1)	176	(5.7)
Industry	17	2	(<0.1)	1	(.3)	83	(.2)	395	(.5)	9	(<0.1)	5	(<0.1)	<1	(<0.1)	<1	(<0.1)
Power Plants	2	1	(<0.1)	0	(0)	0	(0)	274	(.3)	0	(0)	9	(<0.1)	0	(0)	0	(0)
All Categories	73	17	(.6)	18	(2.9)	2,455	(5.0)	3,017	(3.8)	1,420	(4.7)	916	(5.2)	399	(5.1)	176	(5.7)
Outside EDAs (9.99)																	
WWTP	153	28	(1.0)	28	(5.1)	1,869	(3.8)	2,141	(2.7)	2,627	(8.6)	1,635	(9.3)	758	(9.7)	265	(8.7)
Industry	42	10	(.4)	6	(1.0)	1,136	(2.3)	1,973	(2.5)	537	(1.8)	181	(1.0)	78	(1.0)	23	(.8)
Power Plants	4	217	(8.0)	0	(0)	<1	(<0.1)	6	(<0.1)	0	(0)	0	(0)	<1	(<0.1)	<1	(<0.1)
All Categories	199	255	(9.4)	34	(6.1)	3,005	(6.1)	4,120	(5.2)	3,164	(10.4)	1,816	(10.4)	835	(10.7)	289	(9.4)
Total																	
WWTP	937	259	(9.6)	259	(46.8)	22,780	(46.1)	26,071	(33.0)	24,250	(79.8)	15,104	(86.3)	6,985	(89.8)	2,482	(81.1)
Industry	462	719	(26.6)	295	(53.2)	26,637	(53.9)	52,097	(65.9)	6,121	(20.1)	2,382	(13.6)	781	(10.0)	569	(18.6)
Power Plants	23	1,721	(63.8)	0	(0)	1	(<0.1)	679	(1.1)	4	(<0.1)	12	(<0.1)	14	(.2)	9	(.3)
All Categories	1,422	2,700	(100.0)	554	(100.0)	49,417	(100.0)	79,047	(100.0)	30,378	(100.0)	17,498	(100.0)	7,780	(100.0)	3,060	(100.0)

Abbreviations: EDA, Estuarine Drainage Area; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O&G, Oil and Grease; FCB, Fecal Coliform Bacteria; M, monitored data; P, permit data; T, data derived from typical pollutant concentrations; O, other data from IFD and/or Needs Survey databases; No., number; WWTP, wastewater treatment plant; -, indicates that either there were no estimates for that parameter or there were no facilities in that point source category in the EDA.

Note:
- Values in parenthesis represent the percentage of the load contributed by point source category, compared to the total for all sources in the study area.
- "Outside EDAs" means facilities inside the NCPDI study area but outside of an estuarine drainage area.
- Facility counts under NCPDI are the number of facilities for which estimates are made. Facilities for which the type of wastewater (eg. process, cooling, etc.) could not be identified are not included. For the total number of facilites with NPDES permit numbers included in the Permit Compliance System, refer to Table 2.

Table 3. Annual pollutant discharges by major source category and percent of annual total discharge by Estuarine Drainage Area, 1987 (Continued).

EDA (Code) Point Source Category	No. of facilities (NCPDI)	Cr (10 lbs)		Cu (10 lbs)		Fe (10 lbs)		Pb (10 lbs)		Hg (10 lbs)		Zn (10 lbs)		O&G (1000 lbs)		FCB (billion cells)	
Sabine Lake (3.16)																	
WWTP	53	636	(3.6)	552	(4.1)	10,383	(6.0)	663	(4.1)	4	(2.8)	2,449	(4.9)	1,661	(5.8)	134,564	(4.3)
Industry	63	3,740	(21.3)	1,211	(9.0)	6,795	(3.9)	3,391	(20.9)	47	(29.2)	6,907	(13.9)	1,434	(5.0)	86,956	(2.7)
Power Plants	2	0	(0)	1	(<0.1)	0	(0)	0	(0)	0	(0)	0	(0)	18	(.1)	0	(0)
All Categories	118	4,376	(24.9)	1,764	(13.1)	17,178	(9.9)	4,054	(25.0)	51	(32.0)	9356	(18.8)	3,113	(10.8)	221,520	(7.0)
Galveston Bay (3.17)																	
WWTP	559	6,219	(35.4)	5,393	(39.9)	101,476	(58.3)	6,480	(40.0)	43	(27.1)	23,934	(48.1)	16,236	(56.2)	1,315,112	(41.6)
Industry	247	3,562	(20.3)	1,553	(11.5)	10,909	(6.3)	2,775	(17.1)	34	(21.4)	5,774	(11.6)	2,487	(8.6)	205,159	(6.5)
Power Plants	10	9	(<0.1)	759	(5.6)	256	(.1)	3	(<0.1)	0	(.1)	99	(.2)	25	(.1)	297	(<0.1)
All Categories	816	9,790	(55.8)	7,705	(57.0)	112,642	(64.7)	9,258	(57.2)	78	(48.6)	29,807	(59.9)	18,748	(64.9)	1,520,568	(48.1)
Brazos River (3.18)																	
WWTP	45	280	(1.6)	247	(1.6)	4,633	(2.7)	290	(1.8)	2	(1.2)	1,087	(2.2)	734	(2.5)	112,296	(3.5)
Industry	11	19	(.1)	557	(4.1)	147	(0)	7	(<0.1)	0	(<0.1)	23	(<0.1)	12	(<0.1)	1,011	(<0.1)
Power Plants	1	37	(.2)	41	(.3)	400	(.2)	43	(.3)	<1	(<0.1)	78	(<0.1)	28	(.1)	0	(0)
All Categories	57	337	(1.9)	845	(6.3)	5,180	(3.0)	339	(2.1)	2	(1.4)	1,189	(2.4)	774	(2.7)	113,307	(3.6)
Matagorda Bay (3.19)																	
WWTP	34	123	(.7)	107	(.8)	2,007	(1.2)	128	(.8)	1	(.5)	473	(1.0)	321	(1.1)	26,006	(<0.1)
Industry	25	84	(.5)	28	(.2)	115	(<0.1)	20	(.1)	1	(.6)	85	(.2)	42	(.1)	1,477	(<0.1)
Power Plants	2	<1	(<0.1)	88	(.7)	5	(<0.1)	0	(0)	0	(.0)	1	(0)	1	(0)	67	(<0.1)
All Categories	61	207	(1.2)	223	(1.6)	2,127	(1.2)	149	(.9)	2	(1.1)	560	(1.1)	364	(1.3)	27,550	(<0.1)
San Antonio Bay (3.20)																	
WWTP	2	2	(<0.1)	2	(<0.1)	31	(<0.1)	2	(<0.1)	<1	(<0.1)	7	(<0.1)	5	(<0.1)	398	(<0.1)
Industry	8	1	(<0.1)	4	(<0.1)	1	(<0.1)	0	(<0.1)	<1	(<0.1)	1	(<0.1)	8	(<0.1)	0	(0)
Power Plants	0	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)
All Categories	10	3	(<0.1)	5	(<0.1)	32	(<0.1)	2	(<0.1)	0	(<0.1)	8	(<0.1)	13	(<0.1)	398	(<0.1)
Aransas Bay (3.21)																	
WWTP	16	73	(.4)	63	(.5)	1,194	(.7)	76	(.5)	1	(.3)	282	(.6)	191	(.7)	15,475	(<0.1)
Industry	18	1	(<0.1)	1	(<0.1)	11	(<0.1)	1	(<0.1)	0	(.0)	2	(<0.1)	2	(<0.1)	148	(<0.1)
Power Plants	0	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)
All Categories	34	74	(.4)	64	(.5)	1,206	(.7)	77	(.5)	1	(.3)	283	(.6)	193	(.7)	15,623	(.5)

Table 3. Continued.

EDA (Code) Point Source Category	No. of facilities (NCPDI)	Cr (10 lbs)		Cu (10 lbs)		Fe (10 lbs)		Pb (10 lbs)		Hg (10 lbs)		Zn (10 lbs)		O&G (1000 lbs)		FCB (billion cells)	
Corpus Christi Bay (3.22)																	
WWTP	21	410	(2.3)	356	(2.6)	6,692	(3.8)	427	(2.6)	3	(1.8)	1,578	(3.2)	1,071	(3.7)	86,733	(2.7)
Industry	31	228	(1.3)	336	(2.5)	598	(.3)	68	(.4)	9	(5.7)	317	(.6)	230	(.8)	4,490	(<0.1)
Power Plants	2	0	(0)	239	(1.8)	0	(0)	0	(0)	0	(0)	0	(0)	0	(<0.1)	0	(0)
All Categories	54	638	(3.6)	931	(6.9)	7,290	(4.2)	495	(3.1)	12	(7.5)	1,896	(3.8)	1,301	(4.5)	91,223	(2.9)
Laguna Madre (3.23)																	
WWTP	54	570	(3.2)	550	(4.1)	10,138	(5.8)	562	(3.5)	4	(2.5)	2,317	(4.7)	1,517	(5.3)	874,706	(27.7)
Industry	17	26	(.2)	16	(.1)	50	(<0.1)	4	(<0.1)	<1	(<0.1)	8	(<0.1)	38	(.1)	83,385	(2.6)
Power Plants	2	0	(0)	1	(<0.1)	0	(0)	0	(0)	0	(0)	0	(0)	5	(<0.1)	0	(0)
All Categories	73	596	(3.4)	568	(4.2)	10,188	(5.9)	566	(3.5)	4	(2.5)	2,325	(4.7)	1,560	(5.4)	958,091	(30.3)
Outside EDAs (9.99)																	
WWTP	153	1,006	(5.7)	873	(6.5)	16,422	(9.4)	1,049	(6.5)	7	(4.4)	3,873	(7.8)	2,627	(9.1)	212,820	(6.7)
Industry	42	519	(3.0)	174	(1.3)	1,821	(1.0)	198	(1.2)	4	(2.3)	487	(1.0)	193	(.7)	2,918	(.1)
Power Plants	4	2	(<0.1)	364	(2.7)	20	(<0.1)	2	(<0.1)	<1	(<0.1)	3	(0)	0	(<0.1)	0	(0)
All Categories	199	1,527	(8.7)	1,411	(10.4)	18,263	(10.5)	1,249	(7.7)	11	(6.7)	4,364	(8.8)	2,821	(9.8)	215,738	(8.8)
Total																	
WWTP	937	9,320	(53.1)	8,142	(60.2)	152,976	(87.9)	9,677	(59.8)	65	(40.6)	36,001	(72.3)	24,364	(84.3)	2,778,110	(87.8)
Industry	462	8,179	(46.6)	3,880	(28.7)	20,448	(11.7)	6,465	(39.9)	95	(59.3)	13,605	(27.3)	4,447	(15.4)	385,544	(12.2)
Power Plants	23	49	(.3)	1,493	(11.0)	682	(.4)	48	(.3)	0	(.1)	181	(.4)	78	(.3)	364	(<0.1)
All Categories	1,422	17,547	(100.0)	13,515	(100.0)	174,105	(100.0)	16,191	(100.0)	160	(100.0)	49,787	(100.0)	28,887	(100.0)	3,164,018	(100.0)

Abbreviations: EDA, Estuarine Drainage Area; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O&G, Oil and Grease; FCB, Fecal Coliform Bacteria; M, monitored data; P, permit data; T, data derived from typical pollutant concentrations; O, other data from IFD and/or Needs Survey databases; No., number; WWTP, wastewater treatment plant; -, indicates that either there were no estimates for that parameter or there were no facilities in that point source category in the EDA.

Note:
- Values in parenthesis represent the percentage of the load contributed by point source category, compared to the total for all sources in the study area.
- "Outside EDAs" means facilities inside the NCPDI study area but outside of an estuarine drainage area.
- Facility counts under NCPDI are the number of facilities for which estimates are made. Facilities for which the type of wastewater (eg. process, cooling, etc.) could not be identified are not included. For the total number of facilites with NPDES permit numbers included in the Permit Compliance System, refer to Table 2.

Table 4. Percent of pollutant discharge estimates based on monitored (M), permit (P), typical pollutant concentration (T) or other (O) data, by major source category and Estuarine Drainage Area,1987.

EDA (Code)	No. of facilities	Total Flow				Process Flow				BOD				TSS				TN				TP				As				Cd			
Point Source Category	(NCPDI)	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O
Sabine Lake (3.16)																																	
WWTP	53	95	0	5	0	95	0	5	0	92	0	8	0	93	0	7	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Industry	63	100	0	0	0	100	0	0	0	89	0	11	0	99	0	<1	0	0	0	100	0	0	0	100	0	0	0	100	0	81	0	19	0
Power Plants	2	100	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
All Facilities	118	99	0	<1	0	99	0	<1	0	90	0	10	0	99	0	<1	0	0	0	100	0	0	0	100	0	0	0	100	0	40	0	60	0
Galveston Bay (3.17)																																	
WWTP	559	78	4	16	2	78	4	16	2	45	0	55	0	59	0	41	0	0	0	100	0	27	0	100	0	0	0	100	0	0	0	100	0
Industry	247	99	0	0	<1	97	1	0	2	82	<1	17	0	86	0	13	0	0	0	100	0	0	0	100	0	5	0	95	0	9	0	91	0
Power Plants	10	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
All Facilities	816	96	<1	2	<1	82	3	13	2	58	<1	41	0	74	0	26	0	0	0	100	0	3	0	100	0	<1	0	99	0	2	0	98	0
Brazos River (3.18)																																	
WWTP	45	66	3	29	<1	66	4	29	<1	43	0	57	0	48	0	52	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Industry	11	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Power Plants	1	100	0	0	0	100	0	0	0	0	0	0	0	50	0	50	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	100	0
All Facilities	57	99	<1	<1	<1	98	<1	1	<1	80	0	20	0	92	0	8	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Matagorda Bay (3.19)																																	
WWTP	34	64	0	30	6	64	0	30	6	40	0	60	0	45	0	57	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Industry	25	98	0	0	2	96	0	0	4	88	0	12	0	100	0	0	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Power Plants	2	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
All Facilities	61	97	0	2	<1	70	0	25	5	46	0	54	0	97	0	3	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
San Antonio Bay (3.20)																																	
WWTP	2	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Industry	8	100	0	0	0	100	0	0	0	46	0	54	0	1	0	99	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0
Power Plants	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Facilities	10	100	0	0	0	100	0	0	0	47	0	53	0	2	0	98	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0

Table 4. Continued.

EDA (Code) Point Source Category	No. of facilities (NCPDI)	Total Flow				Process Flow				BOD				TSS				TN				TP				As				Cd			
		M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O
Aransas Bay (3.21)																																	
WWTP	16	74	0	26	0	74	0	26	0	44	0	56	0	66	0	34	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Industry	18	2	0	0	98	3	0	0	97	0	0	100	0	30	0	70	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Power Plants	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Facilities	34	73	0	25	2	74	0	25	<1	43	0	57	0	65	0	35	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Corpus Christi Bay (3.22)																																	
WWTP	21	95	4	<1	0	95	4	1	0	89	0	11	0	82	0	18	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Industry	31	99	<1	0	0	100	0	0	0	73	0	27	0	80	0	20	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	92	0
Power Plants	2	100	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
All Facilities	54	99	<1	<1	0	97	2	<1	0	85	0	15	0	81	0	19	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	98	0
Laguna Madre (3.23)																																	
WWTP	54	85	0	7	8	85	0	7	8	83	0	12	5	84	0	11	5	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Industry	17	33	0	0	67	24	0	0	76	64	2	34	0	21	1	78	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Power Plants	2	100	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0
All Facilities	73	81	0	6	13	80	0	7	13	82	<1	12	5	78	<1	18	3	0	0	100	0	<1	0	98	0	0	0	100	0	0	0	100	0
Outside EDAs (9.99)																																	
WWTP	153	69	14	16	<1	69	14	16	<1	48	0	52	0	59	0	40	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Industry	42	99	<1	0	0	100	0	0	0	45	0	0	0	48	0	52	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Power Plants	4	100	0	0	0	0	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	100	0
All Facilities	199	96	2	1	<1	75	11	13	<1	47	0	32	0	54	0	46	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Total																																	
WWTP	937	78	5	15	2	78	5	15	2	56	<1	43	<1	64	<1	35	<1	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0
Industry	462	99	<1	<1	<1	99	<1	<1	<1	84	<1	15	<1	92	<1	8	<1	0	0	100	0	17	0	83	0	3	0	97	0	39	0	71	0
Power Plants	23	99	<1	<1	<1	100	<1	<1	<1	100	<1	0	<1	76	<1	24	<1	0	0	100	0	76	0	24	0	0	0	100	0	0	0	100	0
All Facilities	1422	98	<1	1	<1	89	2	7	2	70	<1	28	<1	81	<1	18	<1	0	0	100	0	2	0	98	0	<1	0	99	0	5	0	95	0

Abbreviations: EDA, Estuarine Drainage Area; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O&G, Oil and Grease; FCB, Fecal Coliform Bacteria; M, monitored data; P, permit data; T, data derived from typical pollutant concentrations; O, other data from IFD and/or Needs Survey databases; No., number; WWTP, wastewater treatment plant; -, indicates that either there were no estimates for that parameter or there were no facilities in that point source category in the EDA.

Note:
- "Outside EDAs" means facilities inside the NCPDI study area but outside of an estuarine drainage area.
- Facility counts under NCPDI are the number of facilities for which estimates are made. Facilities for which the type of wastewater (eg. process, cooling, etc.) could not be identified are not included. For the total number of facilites with NPDES permit numbers included in the Permit Compliance System, refer to Table 2.

Table 4. Percent of pollutant discharge estimates based on monitored (M), permit (P), typical pollutant concentration (T) or other (O) data, by major source category and Estuarine Drainage Area,1987 (Continued).

EDA (Code) Point Source Category	No. of facilities (NCPDI)	Cr				Cu				Fe				Pb				Hg				Zn				O&G				FCB			
		M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O
Sabine Lake (3.16)																																	
WWTP	53	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0
Industry	63	55	0	45	0	36	0	64	0	0	0	100	0	89	0	11	0	74	0	26	0	0	0	0	0	96	0	4	0	0	0	100	0
Power Plants	2	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0
All Facilities	118	47	0	53	0	25	0	75	0	0	0	100	0	74	0	26	0	67	0	33	0	0	0	0	0	44	0	56	0	0	0	100	0
Galveston Bay (3.17)																																	
WWTP	559	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0
Industry	247	65	0	25	0	9	0	91	0	0	0	100	0	43	0	57	0	31	0	69	0	38	0	62	0	63	0	37	0	28	0	76	0
Power Plants	10	0	0	100	0	2	0	98	0	51	0	49	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	100	0
All Facilities	816	24	0	76	0	2	0	98	0	<1	0	99	0	13	0	87	0	14	0	86	0	38	0	62	0	8	0	92	0	3	0	97	0
Brazos River (3.18)																																	
WWTP	45	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0
Industry	11	72	0	28	0	0	0	100	0	47	0	53	0	0	0	100	0	0	0	100	0	0	0	0	0	14	0	86	0	0	0	100	0
Power Plants	1	0	0	100	0	8	0	92	0	6	0	94	0	0	0	100	0	0	0	100	0	0	0	0	0	100	0	0	0	0	0	0	0
All Facilities	57	4	0	96	0	< 1	0	99	0	1	0	99	0	0	0	100	0	0	0	100	0	0	0	0	0	4	0	96	0	0	0	100	0
Matagorda Bay (3.19)																																	
WWTP	34	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0
Industry	25	88	0	12	0	0	0	100	0	1	0	99	0	0	0	100	0	95	0	5	0	0	0	0	0	34	0	66	0	0	0	0	0
Power Plants	2	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	9	0	91	0	0	0	100	0
All Facilities	61	35	0	65	0	0	0	100	0	<1	0	99	0	0	0	100	0	50	0	50	0	0	0	0	0	4	0	96	0	0	0	100	0
San Antonio Bay (3.20)																																	
WWTP	2	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0
Industry	8	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	100	0	0	0	0	0	0	0
Power Plants	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Facilities	10	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	63	0	37	0	0	0	100	0

Table 4. Continued.

EDA (Code) Point Source Category	No. of facilities (NCPDI)	Cr				Cu				Fe				Pb				Hg				Zn				O&G				FCB			
		M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O	M	P	T	O
Aransas Bay (3.21)																																	
WWTP	16	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0
Industry	18	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0
Power Plants	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Facilities	34	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0
Corpus Christi Bay (3.22)																																	
WWTP	21	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0
Industry	31	83	0	17	0	0	0	100	0	0	0	100	0	9	0	91	0	0	0	100	0	0	0	0	0	96	0	4	0	[illegible]	0	96	0
Power Plants	2	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0
All Facilities	54	30	0	70	0	0	0	100	0	0	0	100	0	2	0	98	0	0	0	100	0	0	0	0	0	17	0	83	0	<1	0	99	0
Laguna Madre (3.23)																																	
WWTP	54	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0
Industry	17	79	9	12	0	81	0	19	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	73	0	27	0	0	0	100	0
Power Plants	2	0	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0
All Facilities	73	4	<1	95	0	<1	0	99	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	2	0	98	0	0	0	100	0
Outside EDAs (9.99)																																	
WWTP	153	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0
Industry	42	45	0	55	0	0	0	100	0	0	0	100	0	19	0	81	0	0	0	100	0	0	0	100	0	80	0	20	0	0	0	100	0
Power Plants	4	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	0	100	0	0	0	0	0	100	0
All Facilities	199	15	0	85	0	0	0	100	0	0	0	100	0	3	0	97	0	0	0	100	0	0	0	100	0	6	0	94	0	0	0	100	0
Total																																	
WWTP	937	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	0	<1	0	100	0	<1	0	100	0
Industry	462	60	<1	40	0	15	0	85	<1	<1	0	100	<1	66	0	34	<1	49	0	51	0	24	0	76	0	76	0	24	<1	12	0	88	0
Power Plants	23	0	0	100	0	1	0	99	<1	23	0	77	<1	0	0	100	0	0	0	100	0	0	0	100	0	99	0	1	0	0	0	100	0
All Facilities	1422	28	<1	72	0	4	0	96	<1	<1	0	99	<1	26	0	74	<1	29	0	71	0	6	0	94	0	12	0	88	<1	2	0	98	0

Abbreviations: EDA, Estuarine Drainage Area; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O&G, Oil and Grease; FCB, Fecal Coliform Bacteria; M, monitored data; P, permit data; T, data derived from typical pollutant concentrations; O, other data from IFD and/or Needs Survey databases; No., number; WWTP, wastewater treatment plant; -, indicates that either there were no estimates for that parameter or there were no facilities in that point source category in the EDA.

Note:
- "Outside EDAs" means facilities inside the NCPDI study area but outside of an estuarine drainage area.
- Facility counts under NCPDI are the number of facilities for which estimates are made. Facilities for which the type of wastewater (eg. process, cooling, etc.) could not be identified are not included. For the total number of facilites with NPDES permit numbers included in the Permit Compliance System, refer to Table 2.

Table 5. Facility characteristics, annual pollutant load estimates, and basis of loading estimates for major and significant minor facilities,1987.

Facility Characteristics								Annual Flow						
Map Ref. Num.	EDA (Code) Facility Name	NPDES Number	Texas State Permit Number	SIC Code	Latitude	Longitude	Receiving Water	Total (million gal.)	Process (million gal.)		BOD (1000 lbs)		TSS (1000 lbs)	
	Sabine Lake (3.16)													
1	ALLIED-SIGNAL, INC.-ORANGE	TX0007897	WQ0000670	2821	30°02'10"	93°45'20"	COW BAYOU TIDAL	205.0	102.5	M	16.0	M	16.0	M
2	AMERIPOL SYNPOL O.-DIV. OF UNI	TX0087602	WQ0002487	2822	29°58'30"	93°56'00"	NECHES RIVER TIDAL	21.9	.0	M	-		-	
3	BEAUMONT, CITY OF (HILLEBRANDT	TX0046990	WQ0010501-020	4952	30°04'59"	94°06'00"	JCDD II HILLBRANDT BAY	8,183.0	8,183.0	M	1,118.1	M	1,099.0	M
4	BRIDGE CITY, CITY OF	TX0025500	WQ0010051-101	4952	30°01'10"	93°51'00"	UNNAMED COW BAYOU TIDAL	359.4	359.4	M	14.5	M	14.6	M
5	BROWNING-FERRIS IND-JEFFERSON	TX0083909	WQ0002517	4226	29°57'00"	94°02'30"	RHODAIR GULLY/TAYLOR BAYOU	22.9	.0	M	-		-	
6	CALABRIAN CHEMICALS CORP	TX0062448	WQ0001857	2869	29°57'50"	93°55'20"	TEXACO CHEMICAL COMPANY	1.4	.0	M	-		-	
7	CHEMICAL WASTE MANAGEMENT INC-	TX0083810	WQ0002409	4953	29°52'30"	94°05'00"	TAYLOR BAYOU-ABOVE TIDAL	.0	.0	M	-		8.6	M
8	CHEVRON CHEMICAL CO.-ORANGE	TX0004839	WQ0000359	2821	30°02'43"	93°46'41"	COW BAYOU TIDAL	914.9	914.9	M	19.6	M	173.1	M
9	CHEVRON U.S.A. INC.-PORT ARTHU	TX0005991	WQ0000309	2911	29°51'40"	93°58'38"	INTRACOASTAL WATERWAY	7,034.5	1,758.6	M	1,867.8	B	293.8	B
10	E I DUPONT DE NEMOURS-BEAUMONT	TX0004669	WQ0000473	2869	30°01'08"	94°01'20"	NECHES RIVER TIDAL	2,455.5	1,227.7	M	74.0	M	151.0	M
11	E I DUPONT DE NEMOURS-ORANGE	TX0006327	WQ0000475	2869	30°01'57"	93°44'20"	SABINE RIVER TIDAL	46,116.1	23,058.0	M	582.0	M	1,114.6	M
12	EQUITABLE BAG CO. INC.	TX0006637	WQ0000727	2621	30°05'14"	93°44'44"	ADAMS BAYOU TIDAL	338.1	210.7	M	13.7	B	49.9	B
13	FINA OIL & CHEMICAL CO.-PORT A	TX0004201	WQ0000491	2911	29°58'07"	93°53'10"	NECHES RIVER	9,748.6	658.7	M	42.5	B	99.5	B
14	FIRESTONE SYN RUBBER-ORANGE	TX0002968	WQ0000454	2822	30°02'41"	93°47'17"	COW BAYOU TIDAL	255.0	.0	M	10.3	M	44.9	M
15	GOODYEAR TIRE & RUBBER CO.-BEA	TX0005061	WQ0000519	2822	29°58'00"	94°13'10"	KIDD GULLY	661.7	661.7	M	149.1	M	164.2	M
16	GREAT LAKES CARBON CORP-PORT A	TX0068781	WQ0001914	2999	29°48'50"	93°57'30"	WEST TURNING BASIN	48.9	48.9	M	5.5	B	17.5	M
17	GROVES, CITY OF (STP #0001)	TX0024643	WQ0010094-001	4952	29°55'40"	93°52'40"	SABINE-NECHES CANAL	508.4	508.4	M	68.8	M	57.8	M
18	GULF STATES UTILITIES-NECHES	TX0006700	WQ0001581	4911	30°04'15"	94°02'45"	NECHES RIVER TIDAL	154.1	.0	M	.0	T	.8	M
19	GULF STATES UTILITIES-SABINE	TX0006696	WQ0000336	4911	29°59'30"	93°58'30"	NECHES RIVER TIDAL	493.9	.0	M	.0	T	32.3	M
20	INDEPENDENT REFINING-HOUSTON	TX0007862	WQ0000778	2911	29°50'20"	94°20'30"	TAYLOR BAYOU-ABOVE TIDAL	7.6	7.6	M	.4	M	1.6	M
21	INLAND CONTAINER CORPORATION	TX0003158	WQ0001185	2631	30°12'02"	93°43'01"	SABINE RIVER TIDAL	9,021.3	9,021.3	M	6,892.6	M	7,203.3	M
22	JASPER, CITY OF	TX0024368	WQ0010197-001	4952	30°52'59"	94°00'00"	SANDY CREEK	514.8	514.8	M	55.0	M	88.5	M
23	LOWER NECHES VALLEY AUTH-BEAUM	TX0062677	WQ0001727	4953	30°04'15"	94°03'14"	NECHES RIVER TIDAL	5,253.3	2,626.7	M	444.6	M	690.4	M
24	LUMBERTON MUD	TX0068535	WQ0011709-001	4952	30°04'59"	94°04'59"	VILLAGE SLOUGH PINE ISLAND BAY	294.0	294.0	M	6.1	M	7.9	M
25	MOBIL CHEM-LDPE PLANT-BEAUMONT	TX0068934	WQ0002029	2821	30°04'12"	94°13'10"	WILLOW MARSH BAYOU	112.7	112.7	M	7.9	M	17.9	M
26	MOBIL CHEMICAL CO-BEAUMONT	TX0004227	WQ0000462	2911	30°03'20"	94°01'47"	NECHES RIVER	.0	.0	M	-		-	
27	NEDERLAND, CITY OF	TX0026476	WQ0010483-002	4952	29°57'00"	94°00'00"	J.C.P.D. A3-MAIN A-TAYLORS BAY	952.8	952.8	M	71.5	M	110.1	M
28	NORTH STAR STEEL TEXAS INC.	TX0067695	WQ0001975	3312	30°04'30"	94°04'40"	NECHES RIVER	242.5	242.5	M	.2	B	28.7	M
29	OLIN CORP-BEAUMONT	TX0006726	WQ0000647	2819	30°02'47"	94°04'02"	NECHES RIVER TIDAL	21.9	.0	M	-		-	
30	ORANGE, CITY OF-JACKSON ST WWT	TX0073423	WQ0010626-001	4952	30°07'00"	93°45'00"	ADAMS BAY	1,238.6	1,238.6	M	284.5	M	148.0	M
31	PD GLYCOL & PPG IND.INC,JOINT	TX0008931	WQ0000490	2869	30°03'23"	94°02'40"	NECHES RIVER TIDAL	.0	.0	M	-		-	
32	PENNWALT CORP-BEAUMONT	TX0052825	WQ0001872	2819	30°04'30"	94°03'40"	OLD RIVER	4.3	4.3	M	.8	M	1.1	M
33	POLYSAR GULF COAST INC.	TX0003654	WQ0001167	2822	30°02'00"	93°45'54"	COW BAYOU TIDAL	533.3	533.3	M	10.2	M	46.6	M
34	PORT ARTHUR, CITY OF (MAIN)	TX0047589	WQ0010364-001	4952	29°55'18"	93°52'58"	SABINE NECHES CNL	2,033.9	2,033.9	M	266.6	M	215.7	M
35	PORT NECHES, CITY OF	TX0022926	WQ0010477-004	4952	29°57'11"	93°56'21"	JCDD 7 A-3 MAIN OUTFALL	631.4	631.4	M	80.2	M	65.1	M
36	QUANTUM CHEMICAL CORPORATION	TX0006297	WQ0000765	2821	29°51'40"	93°56'30"	INTRACOASTAL WATERWAY	499.9	250.0	M	31.1	M	207.8	M
37	SANDOZ CROP PROTECTION CORP.	TX0003671	WQ0001169	2879	29°58'30"	94°03'10"	TAYLOR BAYOU-ABOVE TIDAL	58.3	.0	M	-		-	
38	TEMPLE-EASTEX INC-SILSBEE	TX0003891	WQ0000493	2621	30°07'32"	94°04'41"	NECHES RIVER TIDAL	18,863.4	16,376.1	M	2,257.3	M	3,403.0	M
39	TEXACO CHEMICAL COMPANY	TX0005070	WQ0000511	2869	29°58'02"	93°55'14"	NECHES RIVER TIDAL	42,618.1	21,308.1	M	87.9	M	234.1	M
40	TEXACO CHEMICAL COMPANY-PORT N	TX0005606	WQ0000585	2869	29°59'30"	93°57'42"	NECHES RIVER TIDAL	.0	.0	M	.0	T	.0	T
41	TEXACO REFINING & MARKETING, I	TX0005835	WQ0000414	2911	29°51'40"	93°59'20"	INTRACOASTAL WATERWAY	7,395.5	3,555.4	M	377.7	B	978.3	B
42	TEXAS EASTERN PRODUCTS PIPELIN	TX0082295	WQ0002302	2911	30°02'33"	94°01'55"	NECHES RIVER TIDAL	69.6	69.6	M	7.8	B	15.1	B
43	UNION OIL CO-NEDERLAND	TX0002909	WQ0000316	2911	30°00'33"	93°58'40"	NECHES RIVER TIDAL	2,513.5	319.3	M	95.7	M	53.9	M
	Total							170,402.1	97,784.9		14,960.1		16,854.7	

Table 5. Continued.

	Facility Characteristics							Annual Flow						
Map Ref. Num.	EDA (Code) Facility Name	NPDES Number	Texas State Permit Number	SIC Code	Latitude	Longitude	Receiving Water	Total (million gal.)	Process (million gal.)		BOD (1000 lbs)		TSS (1000 lbs)	
	Galveston Bay (3.17)													
44	ADVANCED AROMATICS, INC.	TX0059285	WQ0001914	2865	29°46'13"	95°01'14"	TABBS BAY	1.3	.7	M	.2	M	.3	M
45	ALVIN, CITY OF	TX0024554	WQ0010005-001	4952	29°22'00"	95°21'56"	MUSTANG BAY	875.7	875.7	M	53.5	M	74.9	M
46	AMERICAN TEXMARK, INC DBA TEXM	TX0005860	WQ0000786	2869	29°43'53"	95°13'46"	HOUSTON SHIP CHANNEL	12.6	12.6	M	1.1	M	3.1	M
47	AMOCO CHEMICALS CO,CEDAR BAYOU	TX0100404	WQ0002766	2869	29°45'00"	95°00'00"	CEDAR BAYOU TIDAL	214.0	214.0	M	8.6	M	21.6	M
48	AMOCO CORP-CHOCOLATE BAYOU	TX0004821	WQ0001333	2821	29°13'05"	95°12'34"	CHOCOLATE BAYOU TIDAL	1,713.1	856.6	M	100.3	M	544.9	M
49	AMOCO CORP-TEXAS CITY	TX0004758	WQ0000451	2869	29°22'00"	94°54'50"	TEXAS CITY SHIP CHANNEL	-	.0	M	-		-	
50	AMOCO REFINERY-TEXAS CITY	TX0003522	WQ0000443	2911	29°22'00"	94°54'00"	UPPER GALVESTON BAY	5,336.5	1,352.2	M	715.9	B	683.9	M
51	ARCO CHEMICAL CO-BAYPORT	TX0030228	WQ0002756	2865	29°37'11"	95°03'04"	UPPER GALVESTON BAY	17.8	.0	M	.0		-	
52	ARCO CHEMICAL COMPANY	TX0060493	WQ0002927	5171	29°48'47"	95°07'27"	SAN JACINTO RIVER TIDAL	104.4	.0	M	4.6	M	9.5	M
53	ARISTECH CHEMICAL CORP.	TX0006068	WQ0000393	2869	29°45'00"	95°30'00"	HOUSTON SHIP CHANNEL	103.4	51.7	M	17.9	M	12.1	M
54	ARISTECH CHEMICAL CORP.	TX0074276	WQ0002107	2821	29°41'10"	95°01'52"	SAN JACINTO BAY	63.7	31.8	M	5.0	M	21.3	M
55	ARMCO STEEL CORP-HOUSTON	TX0008524	WQ0000509	3312	29°44'50"	95°11'32"	HOUSTON SHIP CHANNEL	11.0	11.0	M	.4	M	3.9	M
56	BAYCLIFF, UD	TX0021369	WQ0010627-001	4952	29°30'00"	94°58'59"	MOSES LAKE	251.1	251.1	M	14.2	M	14.4	M
57	BAYTOWN, CITY OF (EAST DISTRIC	TX0020117	WQ0010395-007	4952	29°45'50"	94°55'06"	CEDAR BAYOU	813.1	813.1	M	15.6	M	44.2	M
58	BAYTOWN, CITY OF (W MAIN ST PL	TX0020109	WQ0010395-002	4952	29°43'09"	94°58'50"	GOOSE CREEK/TABBS BAY	1,753.6	1,753.6	M	110.5	M	243.6	M
59	BAYTOWN, CITY OF-WEST DIST WAS	TX0072834	WQ0010395-008	4952	Missing	Missing	SAN JACINTO RIVER	392.0	392.0	M	8.6	M	40.1	M
60	BELLAIRE, CITY OF	TX0020613	WQ0010550-001	4952	29°41'07"	95°26'30"	HOUSTON SHIP CHANNEL	632.8	632.8	M	15.4	M	16.6	M
61	BTL SPECIALTY RESINS CORP-HOUS	TX0005576	WQ0000662	2821	29°46'04"	95°11'18"	HOUSTON SHIP CHANNEL	25.0	12.5	M	2.9	M	6.3	M
62	CAMERON FORGE COMPANY	TX0042129	WQ0001402	3444	29°57'00"	95°40'20"	HOUSTON SHIP CHANNEL	53.6	5.5	M	4.6	M	5.3	B
63	CAMERON IRON WORKS USA, INC.	TX0004898	WQ0000357	3312	29°47'05"	95°27'41"	HOUSTON SHIP CHANNEL	46.6	4.7	M	.0	T	1.2	B
64	CHAMPION INTERNATIONAL CORP-SH	TX0053023	WQ0001160	2621	29°52'38"	95°05'47"	HOUSTON SHIP CHANNEL	5,634.3	5,070.8	M	875.1	M	2,198.5	M
65	CHELFORD CITY MUD	TX0056481	WQ0011599-001	4952	29°43'00"	95°36'00"	HOUSTON SHIP CHANNEL	1,213.1	1,213.1	M	20.1	M	25.8	M
66	CHEMTANK	TX0091855	WQ0003129	4226	Missing	Missing	HOUSTON SHIP CHANNEL	8.7	8.7	M	.7	M	1.7	M
67	CHEVRON CHEMICAL CO-CEDAR BAYO	TX0003948	WQ0001016	2869	29°49'52"	94°55'05"	CEDAR BAYOU TIDAL	794.7	794.7	M	22.4	M	75.5	M
68	CHEVRON CHEMICAL CO.-CHANNELVI	TX0063967	WQ0001310	2821	29°47'00"	95°08'00"	HOUSTON SHIP CHANNEL	36.0	18.0	M	1.3	M	4.3	M
69	CLEAR LAKE CITY, CITY OF	TX0022543	WQ0010539-001	4952	29°34'35"	95°05'30"	HORSEPEN BAY	1,612.6	1,612.6	M	29.3	M	42.2	M
70	CROWN CENTRAL PETR-HOUSTON	TX0004626	WQ0000574	2911	29°43'39"	95°12'32"	HOUSTON SHIP CANNEL	.0	.0	M	-		-	
71	DEER PARK, CITY OF	TX0025321	WQ0010519-002	4952	29°42'32"	95°07'01"	PATRICK BAY	1,264.0	1,264.0	M	49.5	M	120.7	M
72	DOW CHEMICAL CO.-LAPORTE-FREEP	TX0002933	WQ0000663	2869	29°42'34"	95°04'21"	SAN JACINTO BAY	422.3	422.3	M	14.1	M	66.6	M
73	E I DUPONT DE NEMOURS-HOUSTON	TX0007293	WQ0000474	2879	29°42'08"	95°02'07"	SAN JACINTO BAY	1,680.7	1,586.4	M	26.4	M	87.1	M
74	EMERALD FOREST UD	TX0027324	WQ0011201-001	4952	29°45'00"	95°30'00"	GREENS BAY	225.1	225.1	M	6.6	M	8.6	M
75	ETHYL CORP-PASADENA	TX0004731	WQ0000492	2869	29°44'39"	95°10'11"	HOUSTON SHIP CHANNEL	653.2	653.2	M	82.9	M	94.7	M
76	EXXON CHEM CO,A DIV EXXON CORP	TX0004235	WQ0001198	2619	29°49'43"	95°05'00"	SAN JACINTO RIVER TIDAL	11.1	.5	M	<0.1	M	.1	M
77	EXXON CHEM CO-MONT BELVIEU PLA	TX0089125	WQ0002546	2821	29°52'00"	94°54'30"	CEDAR BAYOU TIDAL	185.5	92.7	M	6.7	M	40.4	M
78	EXXON CHEMICAL AMERICAS	TX0007013	WQ0001215	2822	29°44'45"	95°01'30"	SCOTT BAY	.0	.0	M	-		-	
79	EXXON CHEMICAL AMERICAS-HOUSTO	TX0007021	WQ0000610	2869	29°44'34"	95°16'43"	HOUSTON SHIP CHANNEL	27.5	27.5	M	1.2	M	1.6	M
80	EXXON CHEMICAL CO USA-BAYTOWN	TX0077887	WQ0002184	2869	29°45'09"	95°01'30"	SCOTT BAY	102.2	102.2	M	37.1	T	13.1	M
81	EXXON CORP-HOUSTON	TX0006271	WQ0000592	2911	29°44'16"	95°00'24"	HOUSTON SHIP CHANNEL	6,271.5	1,817.4	M	635.8	B	2,065.9	B
82	FERMENTA PLT PROT,A SUB SDS BI	TX0007439	WQ0000749	2869	29°45'45"	95°10'00"	HOUSTON SHIP CHANNEL	251.0	251.0	M	16.7	M	34.6	M
83	FINA OIL & CHEMICAL CO.-DEER P	TX0007421	WQ0001000	2821	29°43'38"	95°04'59"	PHILLIPS	130.9	65.5	M	11.4	M	21.8	M
84	FRIENDSWOOD,CITY OF	TX0069728	WQ0011571-001	4952	29°30'20"	95°10'04"	CLEAR CREEK	1,097.3	1,097.3	M	27.9	M	19.2	M
85	GAF CHEMICALS CORP.	TX0007323	WQ0001263	2869	29°25'10"	94°58'05"	MOSES LAKE	119.6	29.5	M	5.2	M	4.8	M
86	GALVESTON COUNTY WCID #0001 (S	TX0023655	WQ0010173-001	4952	29°27'24"	95°02'34"	DICKINSON BAY	785.8	785.8	M	131.0	M	113.3	M
87	GALVESTON, CITY OF (AIRPORT)	TX0027791	WQ0010688-002	4952	29°18'00"	94°49'00"	DRNG CHANNEL	738.0	736.0	M	21.6	M	12.1	M
88	GALVESTON, CITY OF (MAIN)	TX0047309	WQ0010688-001	4952	29°17'57"	94°49'41"	GALVESTON BAY	2,485.9	2,485.9	M	101.7	M	76.2	M
89	GCWDA ALIEF REGIONAL WWTP	TX0077003	WQ0011998-001	4952	29°43'34"	95°37'38"	HCFC DITCH D100-BRAYS BAY	459.6	459.6	M	14.1	M	13.9	M
90	GCWDA-40 ACRE-TEXAS CITY	TX0057843	WQ0001485	4953	29°21'09"	94°54'25"	UPPER GALVESTON BAY	3,736.9	3,736.9	M	846.8	M	1,293.8	M
91	GEORGIA-GULF CORP-HOUSTON	TX0072320	WQ0002067	2869	29°44'30"	95°11'20"	HOUSTON SHIP CHANNEL	9.6	9.6	M	3.5	T	1.2	T

Abbreviations: EDA, Estuarine Drainage Area; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O&G, Oil and Grease; FCB, Fecal Coliform Bacteria; M, monitored data; P, permit data; T, data derived from typical pollutant concentrations; O, other data from IFD and/or Needs Survey databases; No., number; WWTP, wastewater treatment plant; -, indicates that either there were no estimates for that parameter or there were no facilities in that point source category in the EDA.

Note: • Basis of loading estimate codes shown in parenthesis: M=monitoring data; P=permit data; B=value from both monitoring and typical pollutant concentration or permit data; N=needs survey data; I=IFD database materal; T=typical pollutant concentration data. Hierarchy of confidence in estimates: monitored > permit > both > needs > IFD > typical pollutant concentrations.

Table 5. Facility characteristics, annual pollutant load estimates, and basis of loading estimates for major and significant minor facilities, 1987 (Continued).

Facility Characteristics								Annual Flow						
Map Ref. Num.	EDA (Code) Facility Name	NPDES Number	Texas State Permit Number	SIC Code	Latitude	Longitude	Receiving Water	Total (million gal.)	Process (million gal.)		BOD (1000 lbs)		TSS (1000 lbs)	
92	GOODYEAR TIRE & RUBBER-HOUSTON	TX0003689	WO0000520	2822	29°42'20"	95°15'41"	HOUSTON SHIP CHANNEL	432.3	.0	M	52.3	M	195.6	M
93	GRACE,WR & CO-DEER PARK	TX0089567	WO0002558	2899	29°43'07"	95°05'41"	HOUSTON SHIP CHANNEL	12.8	12.8	M	.6	B	4.9	B
94	GREENS PARKWAY MUD-HARRIS COUN	TX0093475	WO0012754-001	4952	29°57'18"	95°22'24"	GREENS BAYOU	23.3	23.3	M	.2	M	.5	M
95	GULF COAST WASTE DISP. AUTH.	TX0052591	WO0001740	4953	29°43'19"	95°13'11"	HOUSTON SHIP CHANNEL	13,721.1	6,860.6	M	1,287.8	M	4,715.7	M
96	GULF COAST WASTE DISPOSAL-HARR	TX0005380	WO0001054	4953	29°36'50"	95°00'45"	HOUSTON SHIP CHANNEL	2,868.6	1,434.3	M	381.1	M	729.1	M
97	GULF STATES ASPHALT-HOUSTON	TX0005479	WO0001058	2951	29°39'38"	95°13'53"	HOUSTON SHIP CHANNEL	7.9	7.1	M	.6	T	.7	M
98	HANSA MANUFACTURING COMPANY-BA	TX0098604	WO0002777	2911	29°44'30"	94°55'30"	HOUSTON SHIP CHANNEL	485.8	485.8	P	55.3	P	55.3	P
99	HARRIS CO MUD NO.33	TX0074136	WO0011904-001	4952	29°52'59"	95°25'59"	GREENS BAY	275.4	275.4	M	5.2	M	7.8	M
100	HARRIS CO. MUD #67, BAYFIELD U	TX0069736	WO0011851-001	4952	29°35'21"	95°09'14"	HCFC DITCH B104-HORSEPEN CRK.	386.4	386.4	M	5.0	M	5.1	M
101	HARRIS COUNTY FWSD #0051	TX0025062	WO0010032-001	4952	29°47'34"	95°09'24"	CARPENTERS BAY	1,007.2	1,007.2	M	22.6	M	35.2	M
102	HARRIS COUNTY FWSD #0061	TX0022853	WO0010876-001	4952	29°56'39"	95°38'15"	HCFC DITCH E133	398.7	398.7	M	11.5	M	15.9	M
103	HARRIS COUNTY FWSD #150	TX0072893	WO0011863-001	4952	29°57'17"	95°27'58"	HARRIS COUNTY	241.8	241.8	M	6.2	M	6.9	M
104	HARRIS COUNTY FWSD #180	TX0079529	WO0012127-001	4952	29°57'20"	95°30'44"	HARRIS COUNTY FLOOD DITCHES	46.6	46.6	M	.8	M	1.6	M
105	HARRIS COUNTY MUD #16	TX0091481	WO0012614-001	4952	29°59'41"	95°24'09"	LATERAL H/TURKEY CREEK	36.5	36.5	P	7.3	T	6.7	T
106	HARRIS COUNTY MUD #247	TX0092606	WO0012681-001	4952	Missing	Missing	WHITE OAK & BUFFALO BAYOU	.9	.9	M	.1	M	.1	M
107	HARRIS COUNTY MUD NO 200	TX0085413	WO0012294-001	4952	29°58'22"	95°25'42"	GREENS BAYOU	136.4	136.4	M	5.1	M	5.1	M
108	HARRIS COUNTY MUD NO. 203	TX0084875	WO0012301-001	4952	Missing	Missing	GREEN'S BAY	154.4	154.4	M	6.2	M	1.3	M
109	HARRIS COUNTY MUD NO. 208	TX0075884	WO0011947-101	4952	Missing	Missing	HORSEPEN CREEK	371.2	371.2	M	11.6	M	16.8	M
110	HARRIS COUNTY WCID #0001	TX0023311	WO0010104-001	4952	29°48'40"	95°03'46"	WHITES LAKE/SAN JACINTO RIVER	217.6	217.6	M	44.6	M	63.7	M
111	HARRIS COUNTY WCID #0021	TX0022756	WO0010105-001	4952	29°46'10"	95°07'10"	FRESH WATER BAY	473.7	473.7	M	6.9	M	24.8	M
112	HARRIS COUNTY WCID #0109	TX0033243	WO0011026-001	4952	29°57'45"	95°30'42"	HOUSTON SHIP CHANNEL	516.8	516.8	M	31.2	M	28.7	M
113	HARRIS COUNTY WCID NO.133 HOUS	TX0020788	WO0011153-001	4952	Missing	Missing	VOGEL CREEK/WHITE OAK BAYOU	464.8	464.8	M	10.9	M	17.5	M
114	HEARTHSTONE DEVELOPMENT CORP.	TX0079146	WO0012121-001	4952	29°54'59"	95°36'16"	HARRIS COUNTY FLOOD DITCH	209.3	209.3	M	6.4	M	7.7	M
115	HILL PETEROLEUM CO.	TX0002976	WO0000535	2911	29°43'13"	95°16'11"	HOUSTON SHIP CHANNEL	454.3	113.6	M	28.9	M	44.9	M
116	HILL PETROLEUM CO.	TX0006009	WO0000449	2911	29°21'54"	94°54'13"	TEXAS CITY SHIP CHANNEL	767.4	767.4	M	117.5	M	138.5	M
117	HL&P-CEDAR BAYOU	TX0006459	WO0001241	4911	29°45'18"	94°49'04"	TRINITY BAY	327,558.4	138.1	M	.1	B	17.7	B
118	HL&P-GREENS BAYOU	TX0006386	WO0001031	4911	29°49'15"	95°13'08"	GREENS BAYOU	403.6	4.2	M	.0	T	49.3	M
119	HL&P-P H ROBINSON STATION-HOUS	TX0006416	WO0001050	4911	29°30'24"	94°57'30"	UPPER GALVESTON BAY	415,908.4	.0	M	.0	T	19.7	M
120	HL&P-WEBSTER STATION-HOUSTON	TX0006432	WO0006432	4911	29°31'22"	95°05'47"	CLEAR LAKE	82,963.7	18.5	M	.0	T	1.9	B
121	HLEP-DEEPWATER	TX0006360	WO0001032	4911	29°43'25"	95°13'00"	HOUSTON SHIP CHANNEL	29,136.8	.0	M	.0	T	5.1	M
122	HLEP-SAM BERTRON-HOUSTON	TX0006376	WO0001026	4911	29°43'29"	95°03'00"	SAN JACINTO BAY	58,022.2	.0	M	.0	T	25.8	M
123	HOUSTON, CITY OF (69TH STREET)	TX0096172	Missing	4952	Missing	Missing	BUFFALO BAY	22,146.5	22,146.5	M	498.4	M	597.2	M
124	HOUSTON, CITY OF (ALMEDA SIMS)	TX0034924	WO0010495-003	4952	29°37'41"	95°24'24"	SIMS BAY	6,168.4	6,168.4	M	339.5	M	783.2	M
125	HOUSTON, CITY OF (BELTWAY CENT	TX0065307	WO0010495-111	4952	Missing	Missing	HCFC DITCH 0124-BRAYS BAY	837.3	837.3	M	19.4	M	31.9	M
126	HOUSTON, CITY OF (CHOCOLATE BA	TX0063061	WO0010495-009	4952	29°38'43"	95°20'26"	SIMS BAY	1,129.5	1,129.5	M	29.4	M	54.5	M
127	HOUSTON, CITY OF (CLINTON PARK	TX0035106	WO0010495-010	4952	29°44'20"	95°16'00"	HOUSTON SHIP CHANNEL	276.1	276.1	M	15.2	M	45.4	M
128	HOUSTON, CITY OF (EASTHAVEN)	TX0034886	WO0010495-065	4952	29°38'44"	95°15'51"	UNNAMED-BERRY CREEK	375.3	375.3	M	14.9	M	37.6	M
129	HOUSTON, CITY OF (FWSD #0017)	TX0034959	WO0010495	4952	29°45'29"	95°16'18"	UNNAMED-HUNTING BAY	242.5	242.5	M	8.5	M	11.3	M
130	HOUSTON, CITY OF (FWSD #0023)	TX0063053	WO0010495-016	4952	29°48'38"	95°17'27"	HALLS BAY-GREENS BAY	1,466.7	1,466.7	M	51.2	M	75.2	M
131	HOUSTON, CITY OF (FWSD #0034)	TX0035025	WO0010495-069	4952	29°37'35"	95°31'13"	SIMS BAY	275.2	275.2	M	15.7	M	19.6	M
132	HOUSTON, CITY OF (GREENRIDGE)	TX0026433	WO0010495-110	4952	Missing	Missing	UNNAMED-HCFC DITCH C147	858.9	858.9	M	30.3	M	31.6	M
133	HOUSTON, CITY OF (GULF MEADOWS	TX0035033	WO0010495-020	4952	29°36'08"	95°16'43"	HCFC DITCH-A125	263.4	263.4	M	8.7	M	14.1	M
134	HOUSTON, CITY OF (HOMESTEAD)	TX0063029	WO0010495-023	4952	29°48'24"	95°17'35"	HUNTING BAY	511.8	511.8	M	60.1	M	104.0	M
135	HOUSTON, CITY OF (IMP.VALLEY)	TX0020476	WO0010495-101	4952	29°55'00"	95°21'00"	HARRIS COUNTY FLOOD CONTROL	519.1	519.1	M	16.0	M	26.1	M
136	HOUSTON, CITY OF (KEEGANS BAYO	TX0098191	WO0010495-119	4952	Missing	Missing	KEEGANS BAY	8,168.5	8,168.5	P	1,230.2	P	1,137.6	T
137	HOUSTON, CITY OF (MANNING U.D.	TX0027405	WO0010495-104	4952	29°41'03"	95°34'22"	HCFC DITCH-BRAYS BAY	273.9	273.9	M	7.0	M	6.1	M
138	HOUSTON, CITY OF (NORTHBOROUGH	TX0054798	WO0010495-115	4952	Missing	Missing	HOUSTON SHIP CHANNEL	226.4	226.4	M	7.6	M	8.5	M
139	HOUSTON, CITY OF (NORTHEAST)	TX0063037	WO0010495-077	4952	29°46'54"	95°12'51"	GREENS BAY	780.0	780.0	M	59.8	M	121.1	M
140	HOUSTON, CITY OF (NORTHGATE UD	TX0055310	WO0010495-100	4952	29°56'51"	95°24'10"	GREENS BAY	713.3	713.3	M	21.9	M	14.7	M
141	HOUSTON, CITY OF (NORTHSIDE)	TX0046884	WO0010495	4952	29°30'00"	95°45'00"	BUFFALO BAY	3,942.9	3,942.9	M	436.6	M	1,619.0	M
142	HOUSTON, CITY OF (NORTHWEST)	TX0063011	WO0010495-076	4952	29°49'43"	95°27'34"	COLE CREEK-WHITE OAK BAY	3,220.7	3,220.7	M	106.3	M	172.2	M
143	HOUSTON, CITY OF (PARKGLEN)	TX0026123	WO0010495-097	4952	29°39'23"	95°35'10"	KEEGAN'S BAY	510.0	510.0	M	16.7	M	13.6	M
144	HOUSTON, CITY OF (SAGEMONT)	TX0063070	WO0010495-075	4952	29°35'52"	95°12'29"	TURKEY CREEK CLEAR CREEK	802.1	802.1	M	26.1	M	30.6	M
145	HOUSTON, CITY OF (SIMS BAYOU)	TX0062201	WO0010495-002	4952	29°45'00"	95°30'00"	SIMS BAY	11,495.2	11,495.2	M	617.5	M	1,042.9	M

Table 5. Continued.

Map Ref. Num.	EDA (Code) Facility Name	NPDES Number	Texas State Permit Number	SIC Code	Latitude	Longitude	Receiving Water	Annual Flow Total (million gal.)	Annual Flow Process (million gal.)		BOD (1000 lbs)		TSS (1000 lbs)	
146	HOUSTON, CITY OF (SOUTHEAST)	TX0035009	WQ0010495-079	4952	29°00'00"	95°00'00"	HCFC DITCH/CLEAR CREEK	588.2	588.2	M	25.4	M	17.1	M
147	HOUSTON, CITY OF (SOUTHWEST)	TX0062995	WQ0010495-037	4952	29°41'20"	95°27'00"	BRAYS BAY	15,018.3	15,018.3	M	798.9	M	1,310.4	M
148	HOUSTON, CITY OF (TURKEY CREEK	TX0035017	WQ0010495-109	4952	29°45'49"	95°39'06"	BUFFALO BAY	427.1	427.1	M	12.2	M	14.6	M
149	HOUSTON, CITY OF (WCID #0047)	TX0063045	WQ0010495-050	4952	29°38'50"	95°13'27"	BERRY BAY-SIMS BAY	688.2	688.2	M	73.4	M	42.2	M
150	HOUSTON, CITY OF (WCID #0051)	TX0063088	WQ0010495-053	4952	29°37'00"	95°27'10"	SIMS BAY	998.3	998.3	M	43.3	M	37.8	M
151	HOUSTON, CITY OF (WCID #111)	TX0027201	WQ0010495-095	4952	29°40'02"	95°37'16"	KEEGANS BAY	465.8	465.8	M	19.9	M	17.9	M
152	HOUSTON, CITY OF (WCID #90)	TX0027731	WQ0010495-093	4952	29°40'55"	95°35'20"	HCFC DITCH 120-BRAYS BAY	249.1	249.1	M	10.1	M	10.7	M
153	HOUSTON, CITY OF (WEST)	TX0063002	WQ0010495-030	4952	29°45'44"	95°34'38"	BUFFALO BAY	6,221.8	6,221.8	M	424.0	M	640.6	M
154	HOUSTON, CITY OF (WHITE OAK UD	TX0057347	WQ0010495-099	4952	29°52'34"	95°30'48"	WHITE OAK BAY-BUFFALO BAY	458.3	458.3	M	20.2	M	24.4	M
155	HUMBLE, CITY OF (SOUTH)	TX0034401	WQ0010763-002	4952	30°00'00"	95°18'00"	GARNERS BAY	571.9	571.9	M	16.0	M	26.3	M
156	ICI AMERICAS INC.-PASEDENA	TX0094951	WQ0002654	2879	29°37'35"	95°04'44"	HOUSTON SHIP CHANNEL	.0	.0	M	-		-	
157	JACINTO CITY, CITY OF	TX0053970	WQ0010195-001	4952	29°45'57"	95°13'13"	HOUSTON SHIP CHANNEL	354.1	354.1	M	13.9	M	19.3	M
158	JACKRABBIT ROAD PUD	TX0046621	WQ0011290-001	4952	29°50'10"	95°40'06"	HCFC DITCH U102-20-BEAR CREEK	582.5	582.5	M	15.7	M	30.0	M
159	JOHANN HALTERMANN, LTD.	TX0085979	WQ0002458	2899	Missing	Missing	HOUSTON SHIP CHANNEL	16.9	16.9	M	3.3	M	1.1	M
160	KATY, CITY OF	TX0025747	WQ0010706-001	4952	29°46'00"	95°59'30"	CANE ISLAND BR/BUFFALO BAY	360.6	360.6	M	9.0	M	12.2	M
161	KOPPERS	TX0005096	WQ0001034	2865	29°44'32"	95°11'58"	HOUSTON SHIP CHANNEL	6.3	4.2	M	.3	M	1.1	M
162	LA MARQUE, CITY OF	TX0023680	WQ0010410-001	4952	29°19'59"	94°55'59"	GCDD DITCH 2	477.8	477.8	M	24.0	M	31.8	M
163	LA PORTE CHEMICALS CORP/C/O TH	TX0070416	WQ0002097	2869	29°43'20"	95°04'40"	HOUSTON SHIP CHANNEL	130.9	130.9	M	15.3	M	48.0	M
164	LA PORTE, CITY OF	TX0022799	WQ0010206-001	4952	29°39'00"	95°01'00"	LITTLE CEDAR BAY	702.9	702.9	M	28.3	M	61.3	M
165	LEAGUE CITY, CITY OF(CENTRAL W	TX0085618	WQ0010568-005	4952	29°31'15"	95°05'30"	UNNAMED-CLEAR L	932.7	932.7	M	32.5	M	96.5	M
166	LIBERTY, CITY OF WWTP NO.1	TX0074284	WQ0010108-001	4952	30°07'59"	94°49'00"	TRINITY RIVER	330.5	330.5	M	9.7	M	36.6	M
167	LUBRIZOL CORP-HOUSTON	TX0007048	WQ0000639	2869	29°43'03"	95°07'02"	HOUSTON SHIP CHANNEL	417.4	285.3	M	12.6	B	41.2	B
168	LYONDELL PETROCHEMICAL CO.	TX0003247	WQ0000392	2911	29°43'30"	95°13'44"	HOUSTON SHIP CHANNEL	.0	.0	M	-		-	
169	LYONDELL PETROCHEMICAL CO.	TX0003531	WQ0000391	2869	29°47'00"	95°08'00"	SAN JACINTO RIVER TIDAL	1,670.9	835.4	M	165.4	M	215.5	M
170	MARATHON OIL CO-TEXAS CITY	TX0003697	WQ0000990	2911	29°22'14"	94°55'06"	TEXAS CITY SHIP CHANNEL	453.9	106.9	M	64.7	B	72.8	B
171	MEMORIAL VILLAGES WA	TX0047457	WQ0010584-001	4952	29°45'28"	95°31'22"	BUFFALO BAY	789.5	789.5	M	56.7	M	258.1	M
172	MERICHEM CO-HOUSTON	TX0005584	WQ0000485	2865	29°45'36"	95°10'48"	HOUSTON SHIP CHANNEL	2.5	.0	M	.4	M	.4	M
173	MOBAY CHEMICAL CO-BAYTOWN	TX0002798	WQ0001499	2869	29°45'23"	94°54'59"	CEDAR BAYOU TIDAL	706.3	706.3	M	71.0	M	303.9	M
174	MOBAY SYNTH CORP & TX PET CORP	TX0004961	WQ0000587	2869	29°45'00"	95°30'00"	HOUSTON SHIP CHANNEL	1,707.6	752.2	M	189.5	B	422.7	B
175	MOBAY SYNTHETICS CORP.	TX0084409	WQ0002392	2822	29°42'00"	95°15'08"	HOUSTON SHIP CHANNEL	.0	.0	M	-		-	
176	MOBILE MINING & MINERALS CO.	TX0007285	WQ0000649	2874	29°44'16"	95°11'43"	HOUSTON SHIP CHANNEL	652.2	4.7	M	.1	B	.3	B
177	MONSANTO COMPANY	TX0003875	WQ0000001	2869	29°14'25"	95°13'03"	CHOCOLATE BAYOU TIDAL	462.7	140.6	M	3.5	M	8.7	M
178	NORTH GREEN MUD	TX0083381	WQ0012206-001	4952	Missing	Missing	HCFC DITCH P156-GREENS BAY	60.8	80.8	M	1.9	M	3.4	M
179	NORTHWAY MUD STP-HARRIS	TX0083917	WQ0012229-001	4952	29°58'58"	95°24'29"	HARRIS COUNTY FLOOD DITCH	174.8	174.8	T	34.9	T	32.2	T
180	OCCIDENTAL CHEMICAL CORP.	TX0007412	WQ0000305	2812	29°44'14"	95°06'46"	HOUSTON SHIP CHANNEL	31,627.1	5,094.2	M	10.7	B	1,201.0	B
181	OCCIDENTAL CHEMICAL CORPORATIO	TX0006335	WQ0000002	2821	29°44'01"	95°06'49"	HOUSTON SHIP CHANNEL	861.4	430.7	M	93.3	M	77.7	M
182	OCCIDENTAL CHEMICALS CORP.	TX0008150	WQ0001539	2812	29°44'07"	95°04'38"	SURFACE WATER	544.6	544.6	M	.0	T	23.7	M
183	OLYMPIA DEVELOPERS-BEECHNUT MU	TX0084425	WQ0012258-001	4952	29°41'21"	95°38'39"	HARRIS COUNTY FLOOD CONTROL	23.1	23.1	M	.4	M	1.0	M
184	PARK TEN MUD	TX0026395	WQ0011455-001	4952	29°47'17"	95°41'09"	UNNAMED-BUFFALO BAY	101.9	101.9	M	5.3	M	2.3	M
185	PASADENA, CITY OF (DEEPWATER)	TX0047872	WQ0010053-002	4952	29°42'38"	95°09'33"	PARKWOOD FLOOD CONTROL CNL	890.2	890.2	M	114.0	M	106.9	M
186	PASADENA, CITY OF (GOLDEN ACRE	TX0047881	WQ0010053-003	4952	29°39'53"	95°08'33"	BOGGY (B). HOUSTON SHIP CHAN.	1,656.8	1,656.8	M	37.8	M	21.2	M
187	PASADENA, CITY OF (VINCE BAYOU	TX0063410	WQ0010053-005	4952	29°42'54"	95°13'15"	VINCE BAY	2,042.4	2,042.4	M	288.9	M	275.9	M
188	PENNWALT CORP-HOUSTON	TX0007064	WQ0000445	2869	29°45'29"	95°10'25"	HOUSTON SHIP CHANNEL	40.9	20.4	M	2.2	M	2.2	M
189	PHILLIPS CHEMICAL COMPANY	TX0007552	WQ0000815	2821	29°42'00"	95°12'00"	HOUSTON SHIP CHANNEL	998.8	499.4	M	48.9	M	113.9	M
190	PONDEROSA JOINT POWERS AGENCY	TX0046761	WQ0011081-001	4952	30°01'42"	95°27'56"	CYPRESS CREEK	804.4	804.4	M	24.5	M	25.6	M
191	QUANTUM CHEMICAL CORPORATION	TX0002836	WQ0000534	2821	29°42'34"	95°03'45"	SAN JACINTO BAY	712.6	356.3	M	44.0	B	221.5	B
192	QUANTUM CHEMICAL CORPORATION	TX0077593	WQ0002175	2869	29°42'28"	95°03'20"	SAN JACINTO BAY	398.6	240.5	M	66.8	B	37.0	B
193	RENN ROAD MUNICIPAL UTILITY DI	TX0078964	WQ0012078-001	4952	29°25'00"	95°37'59"	KEEGANS (B)-BRAYS BAY	281.4	281.4	M	7.2	M	9.1	M
194	ROHM & HASS-DEER PARK	TX0006084	WQ0000458	2869	29°44'09"	95°06'12"	HOUSTON SHIP CHANNEL	1,407.0	1,407.0	M	197.0	B	353.7	B
195	ROHM AND HAAS-DEER PARK	TX0056529	WQ0001962	2869	29°42'30"	95°07'20"	HOUSTON SHIP CHANNEL	301.4	301.4	M	19.0	M	52.6	M
196	ROLLINS ENVIRONMENTAL SERVICES	TX0005941	WQ0000309	4953	29°43'43"	95°05'49"	HOUSTON SHIP CHANNEL	200.8	200.8	M	4.3	M	15.8	M
197	SEABROOK, CITY OF	TX0022250	WQ0010671-001	4952	29°33'34"	95°01'46"	GALVESTON BAY	424.0	424.0	M	20.4	M	32.0	M
198	SHELL DEVELOPMENT CO-HOUSTON	TX0052761	WQ0001853	7391	29°43'30"	95°39'30"	HOUSTON SHIP CHANNEL	124.4	62.2	M	1.1	M	3.3	M
199	SHELL OIL CO-DEER PARK	TX0004871	WQ0000403	2911	29°43'49"	95°07'47"	HOUSTON SHIP CHANNEL	2,033.1	1,929.0	M	67.2	B	63.1	B

Abbreviations: EDA, Estuarine Drainage Area; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O&G, Oil and Grease; FCB, Fecal Coliform Bacteria; M, monitored data; P, permit data; T, data derived from typical pollutant concentrations; O, other data from IFD and/or Needs Survey databases; No., number; WWTP, wastewater treatment plant; -, indicates that either there were no estimates for that parameter or there were no facilities in that point source category in the EDA.

Note: • Basis of loading estimate codes shown in parenthesis: M=monitoring data; P=permit data; B=value from both monitoring and typical pollutant concentration or permit data; N=needs survey data; I=IFD database materal; T=typical pollutant concentration data. Hierarchy of confidence in estimates: monitored > permit > both > needs > IFD > typical pollutant concentrations.

Table 5. Facility characteristics, annual pollutant load estimates, and basis of loading estimates for major and significant minor facilities, 1987 (Continued).

Facility Characteristics								Annual Flow						
Map Ref. Num.	EDA (Code) Facility Name	NPDES Number	Texas State Permit Number	SIC Code	Latitude	Longitude	Receiving Water	Total (million gal.)	Process (million gal.)		BOD (1000 lbs)		TSS (1000 lbs)	
200	SHELL OIL CO-HOUSTON	TX0004863	WQ0000402	2869	29°43'20"	95°07'00"	HOUSTON SHIP CHANNEL	1,990.3	995.1	M	100.7	M	322.3	M
201	SIMPSON PASADENA PAPER COMPANY	TX0006041	WQ0002286	2611	29°43'16"	95°12'51"	HOUSTON SHIP CHANNEL	.3	.0	M	-		-	
202	SOLTEX-DEER PARK (CELANESE)	TX0006033	WQ0000544	2821	29°44'06"	95°04'05"	HOUSTON SHIP CHANNEL	409.7	409.7	M	18.6	M	99.5	M
203	SOUTH HOUSTON, CITY OF	TX0057304	WQ0010284-002	4952	29°40'13"	95°14'07"	BERRY BAYOU/SIMS BAYOU	703.9	703.9	M	17.1	M	29.9	M
204	SPENCER ROAD UD	TX0026263	WQ0011472-001	4952	29°52'00"	95°34'59"	HORSEPEN CREEK	185.9	185.9	M	4.9	M	7.5	M
205	STAUFFER CHEMICAL CO-HOUSTON	TX0007072	WQ0000542	2819	29°43'10"	95°16'25"	HOUSTON SHIP CHANNEL	306.5	306.5	M	5.8	M	43.7	M
206	TEX-TIN CORPORATION-TEXAS CITY	TX0004855	WQ0001040	3339	29°21'17"	94°56'24"	UPPER GALVESTON BAY	532.8	49.5	M	7.8	M	2.4	M
207	TEXAS CITY, CITY OF (STP #0001	TX0023949	WQ0010375-001	4952	29°20'03"	94°53'57"	UNNAMED STREAM	2,362.6	2,362.6	M	147.1	M	204.5	M
208	TEXAS INSTRUMENTS INC-DALLAS	TX0003824	WQ0001225	3679	29°38'10"	95°34'30"	HOUSTON SHIP CHANNEL	221.2	221.2	M	5.4	B	13.6	B
209	TEXAS MGT. CO. HARRIS COUNTY #	TX0095532	WQ0012927-001	4952	29°51'49"	95°40'08"	LANGHAM CREEK	73.0	73.0	P	14.6	T	13.5	T
210	UNION CARBIDE CORPORATION	TX0002852	WQ0000448	2819	29°22'09"	94°56'29"	UPPER GALVESTON BAY	631.4	.0	M	-		-	
211	US STEEL CORP-BAYTOWN	TX0007706	WQ0001332	3312	29°42'03"	94°54'26"	CEDAR BAYOU TIDAL	17.4	17.4	M	.6	M	2.3	M
212	W HARRIS COUNTY MUD #10	TX0082317	WQ0012171-001	4952	29°54'49"	95°35'21"	WHITE OAK BAYOU	236.0	236.0	M	6.1	M	7.5	M
213	W MEMORIAL MUD	TX0021512	WQ0011152-001	4952	29°46'31"	95°46'11"	MASON CREEK/BUFFALO BAYOU	594.9	594.9	M	18.2	M	12.1	M
214	WEST HARRIS COUNTY MUD #6(NEW)	TX0089621	WQ0012499-001	4952	29°43'21"	95°38'33"	HARRIS COUNTY/BRAYS BAYOU	57.4	57.4	M	1.5	M	1.8	M
215	WEST UNIVERSITY PLACE, CITY OF	TX0023841	WQ0010058-001	4952	29°41'55"	95°25'21"	BRAYS BAY	570.6	570.6	M	27.0	M	23.2	M
216	WESTON MUD	TX0058831	WQ0011632-001	4952	29°47'32"	95°45'25"	MASON CREEK	13.5	13.5	M	.2	M	.8	M
	Total							1,134,371.5	187,411.4		13,480.7		27,694.5	
	Brazos River (3.18)													
217	CLUTE, CITY OF	TX0034436	WQ0010044-001	4952	29°03'00"	95°22'00"	UNNAMED-EAST UNION BAY	822.0	822.0	M	33.8	M	54.2	M
218	DOW CHEMICAL CO-FREEPORT	TX0006483	WQ0000007	2869	28°58'42"	95°23'08"	BRAZOS RIVER TIDAL	397,548.1	134,268.6	M	1,661.1	B	7,653.7	M
219	DOW CHEMICAL CO-FREEPORT	TX0059447	WQ0001866	2869	28°58'42"	95°23'08"	BRAZOS RIVER TIDAL	341.8	170.9	M	30.8	T	98.9	B
220	FREEPORT, CITY OF	TX0033332	WQ0010882-001	4952	28°55'00"	95°25'00"	BRAZOS RIVER	526.0	526.0	M	28.8	M	29.1	M
221	H L & P - W.A. PARISH	TX0006394	WQ0001038	4911	29°29'17"	95°37'27"	DRY CREEK/RABBS BAYOU	392,954.4	36.3	M	.0	T	423.7	B
222	LAKE JACKSON, CITY OF	TX0025798	WQ0010047-001	4952	29°01'27"	95°27'24"	BRAZOS RIVER	760.9	760.9	M	70.5	M	72.4	M
223	RICHMOND, CITY OF (STP #0001)	TX0025526	WQ0010258-001	4952	29°36'00"	95°46'00"	UNNAMED-BRAZOS	261.5	261.5	M	15.5	M	11.3	M
224	SEALY, CITY OF	TX0025054	WQ0010276-001	4952	29°46'46"	96°09'34"	ALLENS CREEK	187.1	187.1	M	4.6	M	5.7	M
225	WEST COLUMBIA, CITY OF	TX0026182	WQ0010312-001	4952	29°12'00"	95°37'59"	UNNAMED NIF	351.5	351.5	M	15.1	M	23.4	M
	Total							793,753.3	137,384.6		1,860.2		8,372.3	
	Matagorda Bay (3.19)													
226	ALUMINUM CO OF AMERICA-PT COMF	TX0004715	WQ0000394	3334	28°39'49"	96°34'06"	LAVACA BAY	2,030.3	221.8	M	.0	T	6,747.1	B
227	BP CHEMICALS AMERICA INC.	TX0077577	WQ0002181	2869	28°32'32"	96°50'05"	TAYLOR BAYOU-ABOVE TIDAL	141.4	70.7	M	8.4	M	16.2	M
228	H. CELANESE CHEMICAL CO-BAY CITY	TX0006017	WQ0000455	2869	28°51'20"	96°02'00"	COLORADO RIVER TIDAL	327.8	163.9	M	8.8	M	50.7	M
229	CENTRAL POWER & LIGHT-JOSLIN	TX0003573	WQ0001303	4911	28°39'02"	96°32'27"	COX BAY	52,679.5	.0	M	.0	T	1.8	M
230	EL CAMPO ALUMINUM	TX0030597	WQ0001209	3354	29°11'20"	96°18'40"	TRES PALACIOS CREEK	29.9	.0	M	.0	T	1.6	B
231	FORMOSA PLASTICS CORP. U.S.A.	TX0085570	WQ0002436	2869	28°41'30"	96°32'00"	COX BAY	732.7	288.6	M	41.8	M	88.1	M
232	HL&P-SOUTH TEXAS PROJECT	TX0064947	WQ0001908	4911	28°45'00"	96°00'00"	COLORADO RIVER	8.8	8.8	M	.7	M	.7	M
	Total							55,950.5	753.9		57.7		6,906.3	

Table 5. Continued.

Map Ref. Num.	EDA (Code) Facility Name	NPDES Number	Texas State Permit Number	SIC Code	Latitude	Longitude	Receiving Water	Annual Flow Total (million gal.)	Annual Flow Process (million gal.)		BOD (1000 lbs)		TSS (1000 lbs)	
	San Antonio Bay (3.20)													
233	AIRCO CARBON, A DIV. OF THE BO	TX0090948	WQ0002586	2999	28°31'00"	96°47'30"	VICTORIA BARGE CANAL	169.6	10.0	M	<0.1	M	3.6	M
234	UNION CARBIDE CORP-PORT LAVACA	TX0002844	WQ0000447	2869	28°29'55"	96°47'42"	TAYLOR BAYOU-ABOVE TIDAL	3,498.7	2,645.7	M	562.5	T	337.8	T
	Total							3,668.3	2,655.8		562.5		341.4	
	Aransas Bay (3.21)													
235	ARANSAS PASS, CITY OF	TX0025682	WQ0010521-002	4952	27°49'59"	97°10'00"	REDFISH BAY	203.4	203.4	M	10.7	M	16.8	M
236	BEEVILLE, CITY OF (MOORE ST)	TX0047007	WQ0010124-002	4952	28°23'08"	97°43'18"	POESTA CREEK	487.6	487.6	M	28.1	M	26.3	M
	Total							691.0	691.0		38.8		43.1	
	Corpus Christi Bay (3.22)													
237	AMERICAN CHROME & CHEM-CORPUS	TX0004685	WQ0000349	2819	27°49'20"	97°26'10"	CORPUS CHRISTI INNER HARBOR	4,350.1	4,350.1	M	.0	T	9.6	M
238	CCPC CHEMICAL INC.	TX0076996	WQ0011947	2824	27°48'59"	97°28'27"	CORPUS CHRISTI INNER HARBOR	513.5	256.7	M	35.7	B	39.2	B
239	CENTRAL POWER & LIGHT-BARNEY D	TX0008826	WQ0001490	4911	27°37'44"	97°20'46"	CORPUS CHRISTI BAY	143,212.5	.0	M	.0	M	.4	M
240	CHAMPLIN REVINING.CO.-CORPUS C	TX0006211	WQ0000467	2911	27°48'50"	97°25'20"	CORPUS CHRISTI INNER HARBOR	858.4	858.4	M	75.8	B	188.4	B
241	COASTAL REFINING & MARKETING,	TX0006904	WQ0000465	2911	27°48'40"	97°27'10"	CORPUS CHRISTI INNER HARBOR	427.2	423.4	M	39.3	M	63.0	M
242	CORPUS CHRISTI, CITY OF (ALLIS	TX0047082	WQ0010401-006	4952	27°51'28"	97°33'24"	NUECES	797.7	797.7	M	103.7	M	66.4	M
243	CORPUS CHRISTI, CITY OF (BROAD	TX0047066	WQ0010401-005	4952	27°48'42"	97°24'29"	CORPUS CHRISTI INNER HARBOR	2,525.1	2,525.1	M	280.1	M	97.6	M
244	CORPUS CHRISTI, CITY OF (LAGUN	TX0047104	WQ0010401-008	4952	27°46'59"	97°25'00"	LAGUNA MADRE	490.1	490.1	M	34.1	M	21.0	M
245	CORPUS CHRISTI, CITY OF (OSO)	TX0047058	WQ0010401-004	4952	27°43'09"	97°27'24"	CORPUS CHRISTI BAY	4,263.9	4,263.9	M	346.0	M	179.8	M
246	CORPUS CHRISTI, CITY OF (WESTS	TX0047074	WQ0010401-003	4952	27°43'09"	97°27'24"	LA VOLLO CREEK	1,015.4	1,015.4	M	145.5	M	80.5	M
247	DIAMOND SHAMROCK REFINING & MA	TX0088331	WQ0001353	2911	28°27'00"	98°11'00"	NUECES/LOWER FRIO RIVER	.0	.0	M	.0	T	.0	T
248	E I DUPONT DE NEMOURS-INGLESID	TX0008907	WQ0001651	2869	27°52'21"	97°14'46"	CORPUS CHRISTI BAY	482.1	241.1	M	87.5	T	66.6	M
249	ENCYCLE/TEXAS, INC.	TX0003191	WQ0000314	3333	27°48'54"	97°21'39"	CORPUS CHRISTI INNER HARBOR	8.7	8.7	M	1.7	T	.4	M
250	KOCH REFINING COMPANY	TX0006289	WQ0000531	2911	27°50'17"	97°31'10"	CORPUS CHRISTI INNER HARBOR	447.5	447.5	M	61.2	M	49.5	M
251	NUECES COUNTY WCID #0004	TX0024287	WQ0010846-001	4952	27°45'00"	97°07'30"	E. FLATS CORPUS CHRISI BAY	237.7	237.7	M	14.0	M	14.6	M
252	NUECES COUNTY WCIP#4-MUSTANG I	TX0091031	WQ0010846-002	4952	27°45'00"	97°07'30"	MUD FLATS SHAMROCK COVE	438.0	438.0	M	87.4	T	80.6	T
253	PORTLAND, CITY OF	TX0055433	WQ0010478-001	4952	27°52'10"	97°20'24"	NUECES BAY	574.0	574.0	M	35.8	M	16.0	M
254	ROBSTOWN, CITY OF	TX0020389	WQ0010261-001	4952	27°47'44"	97°38'30"	CAYO DELOSO	399.9	399.9	M	61.1	M	28.3	M
255	SOUTHWESTERN REFINING-CORPUS C	TX0006599	WQ0000457	2911	27°48'47"	97°25'11"	CORPUS CHRISTI INNER HARBOR	405.5	372.0	M	11.6	M	11.3	M
256	USN-CORPUS CHRISTI NAS	TX0007889	WQ0002317	3471	27°42'16"	97°17'09"	CORPUS CHRISTI	302.0	302.0	M	37.2	M	22.0	M
257	USX CORPORATION	TX0084786	WQ0002415	1094	28°14'00"	98°13'00"	SPRING CREEK	.0	.0	M	-		-	
258	USX CORPORATION	TX0098884	WQ0002753	1094	28°14'30"	98°12'30"	NUECES/LOWER FRIO RIVER	37.8	.0	P	-		-	
259	VALERO REFINING CO.-CORPUS CHR	TX0063355	WQ0001909	9999	27°49'30"	97°29'30"	CORPUS CHRISTI INNER HARBOR	935.1	471.5	M	20.7	B	184.6	T
	Total							162,722.2	18,473.2		1,478.3		1,220.3	

Abbreviations: EDA, Estuarine Drainage Area; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O&G, Oil and Grease; FCB, Fecal Coliform Bacteria; M, monitored data; P, permit data; T, data derived from typical pollutant concentrations; O, other data from IFD and/or Needs Survey databases; No., number; WWTP, wastewater treatment plant; -, indicates that either there were no estimates for that parameter or there were no facilities in that point source category in the EDA.

Note: • Basis of loading estimate codes shown in parenthesis: M=monitoring data; P=permit data; B=value from both monitoring and typical pollutant concentration or permit data; N=needs survey data; I=IFD database materal; T=typical pollutant concentration data. Hierarchy of confidence in estimates: monitored > permit > both > needs > IFD > typical pollutant concentrations.

Table 5. Facility characteristics, annual pollutant load estimates, and basis of loading estimates for major and significant minor facilities, 1987 (Continued).

Facility Characteristics								Annual Flow						
Map Ref. Num.	EDA (Code) Facility Name	NPDES Number	Texas State Permit Number	SIC Code	Latitude	Longitude	Receiving Water	Total (million gal.)	Process (million gal.)		BOD (1000 lbs)		TSS (1000 lbs)	
	Laguna Madre (3.23)													
260	ALICE, CITY OF (SOUTH)	TX0034002	WQ0010536-002	4952	27°43'40"	98°02'39"	LATTAS CREEK	301.4	301.4	M	19.9	M	23.0	M
261	BROWNSVILLE PUBLIC UTILITIES (B)	TX0071340	WQ0010397-005	4952	25°54'00"	97°31'00"	CCDC CENTRAL DRNG DITCH	986.8	986.6	M	119.1	M	114.6	M
262	CAMERON COUNTY FWSD-#0001 PORT	TX0023647	WQ0010350-001	4952	26°03'30"	97°13'00"	VADIA ANCHA	285.5	285.5	M	14.2	M	17.5	M
263	CELANESE ENGINEERING RESINS	TX0006025	WQ0000579	2869	27°33'31"	97°50'17"	BAFFIN & ALAZAN BAYS	372.8	186.4	M	32.3	M	51.5	M
264	DONNA, CITY OF	TX0024660	WQ0010504-001	4952	26°06'10"	98°02'30"	UNNAMED U.S. BOUNDARY	360.1	360.1	M	224.3	M	193.7	M
265	EDINBURG, CITY OF	TX0024112	WQ0010503-002	4952	26°18'38"	98°08'39"	DRNG DITCH	836.4	836.4	M	116.3	M	102.7	M
266	HARLINGEN, CITY OF (STP #0001)	TX0047937	WQ0010490-002	4952	26°11'00"	97°41'00"	ARROYO COLORADO	743.3	743.3	M	126.5	M	67.3	M
267	HARLINGEN, CITY OF (STP #0002)	TX0047929	WQ0010490-003	4952	26°10'54"	97°38'21"	ARROYO COLORADO	856.1	856.1	M	139.7	M	84.2	M
268	KENAF INTERNATIONAL-MCALLEN	TX0103110	Missing	2621	26°12'06"	98°13'48"	Missing	.0	.0	I	-		-	
269	KINGSVILLE, CITY OF	TX0023418	WQ0010696-001	4952	27°31'18"	97°50'48"	TRANQUITAS CREEK	469.5	469.5	M	26.2	M	44.5	M
270	MC ALLEN, CITY OF	TX0047449	WQ0010633-003	4952	26°10'30"	98°16'30"	MISSION FLOODWAY CHANNEL	3,128.2	3,128.2	M	182.2	M	127.1	M
271	MC ALLEN, CITY OF (STP #3-NORT	TX0093106	WQ0010633-004	4952	26°18'20"	98°13'30"	Missing	174.8	174.8	T	34.9	T	32.2	T
272	MERCEDES, CITY OF	TX0021547	WQ0010347-001	4952	26°10'36"	98°15'56"	ARROYO ANACUITAS	437.8	437.8	M	36.5	M	26.2	M
273	MISSION, CITY OF	TX0070017	WQ0010484-001	4952	26°13'00"	98°21'00"	UNNAMED-MAIN FLOODWAY	598.9	598.9	M	26.6	M	47.1	M
274	PHARR, CITY OF	TX0062219	WQ0010596-001	4952	26°09'47"	98°10'54"	HC DRNG DITCH-IBWC MAIN RIVER	691.8	691.8	M	189.7	M	161.3	M
275	SAN BENITO, CITY OF	TX0047601	WQ0010473-002	4952	26°11'44"	97°38'12"	UNNAMED-ARROYO COLORADO	473.2	473.2	M	243.3	M	304.7	M
276	SAN JUAN CITY OF	TX0057592	WQ0011512-001	4952	26°09'55"	98°09'58"	UNNAMED/ARROYO COLORADO	230.2	230.2	M	133.0	M	150.2	M
277	UNION CARBIDE-BROWNSVILLE	TX0030139	WQ0000446	2869	25°58'32"	97°22'25"	BROWNSVILLE SHIP CHANNEL	.0	.0	M	.0	T	.0	T
278	WESLACO CITY OF	TX0052787	WQ0010619-202	4952	26°10'50"	97°58'41"	N FLOODWAY LAGUNA MADRE	94.1	94.1	M	10.5	M	4.1	M
	Total							11,040.9	10,854.5		1,677.2		1,551.9	
	Outside EDAs (9.99)													
279	ANGLETON, CITY OF	TX0056316	WQ0010548-001	4952	29°12'00"	95°25'59"	DRNG DITCH-OYSTER CREEK	618.3	818.3	M	58.9	M	50.6	M
280	BAMMEL UTILITY DISTRICT	TX0046639	WQ0011105-001	4952	30°00'31"	95°30'51"	CYPRESS CREEK	325.7	325.7	M	7.4	M	10.0	M
281	BASF CORPORATION	TX0008788	WQ0001802	2869	28°57'00"	95°20'00"	BRAZOS RIVER TIDAL	655.8	327.9	M	142.5	B	211.6	B
282	BAY CITY, CITY OF	TX0034461	WQ0010123-001	4952	28°58'09"	95°56'48"	COTTONWOOD CREEK	805.8	805.8	M	34.6	M	41.7	M
283	BAYTANK (HOUSTON) INC-HARRIS C	TX0089192	WQ0002547	4013	29°36'24"	95°01'12"	HOUSTON SHIP CHANNEL	.0	.0	M	-		-	M
284	BRAZOS RIVER AUTHORITY-SUGARLA	TX0058114	WQ0011317-001	4952	29°35'39"	95°37'45"	BULLHEAD BAYOU	1,427.7	1,427.7	M	39.9	M	56.1	M
285	BROWNSVILLE, CITY OF (MAIN)	TX0055484	WQ0010397-003	4952	25°54'00"	97°28'00"	RIO GRANDE	2,223.3	2,223.3	M	167.9	M	224.4	M
286	CENTRAL POWER & LIGHT-COLETO C	TX0070068	WQ0002159	4911	28°45'11"	97°10'54"	COLETO CREEK	214,106.3	.0	M	<0.1	B	6.3	B
287	CENTRAL POWER & LIGHT-VICTORIA	TX0003603	WQ0001165	4911	28°47'23"	97°00'37"	GUADALUPE RIVER	1,233.8	.0	M	.0	T	.1	M
288	CNP UTILITY DISTRICT	TX0055166	WQ0011239-001	4952	30°02'00"	95°26'30"	CYPRESS CREEK	268.6	268.6	M	5.7	M	8.9	M
289	E I DUPONT DE NEMOURS-VICTORIA	TX0006050	WQ0000476	2821	28°39'41"	96°57'55"	Missing	4,529.8	1,851.3	M	369.2	T	341.4	T
290	FORT BEND CO. MUD #13 SOUTH PL	TX0096881	WQ0012833-002	4952	29°33'45"	95°35'30"	STREET BANK CREEK	3,650.0	3,650.0	P	.0	N	.0	N
291	FORT BEND COUNTY WCID #0002	TX0021456	WQ0010086-001	4952	29°36'50"	95°33'29"	STAFFORD RUN CREEK	893.9	893.9	M	27.5	M	30.3	M
292	GBRA (OLD VICTORIA STP)	TX0025194	WQ0010466-001	4952	28°47'00"	97°00'00"	GUADALUPE RIVER	512.2	512.2	M	66.7	M	40.6	M
293	GBRA (VICTORIA REGIONAL STP)	TX0025186	WQ0011078-001	4952	28°45'30"	97°00'00"	BRAZOS RIVER VIA	1,996.3	1,996.3	M	119.2	M	131.8	M
294	GCWDA (HARRIS COUNTY WCID #013	TX0046728	WQ0011141-001	4952	30°02'08"	95°22'09"	CYPRESS CREEK	345.9	345.9	M	12.0	M	9.9	M
295	GCWDA (KLEINWOOD)	TX0046817	WQ0011409-001	4952	30°10'14"	95°32'02"	CYPRESS CREEK	456.1	456.1	M	22.3	M	20.0	M
296	GULF CHEMICAL&METALLURGICAL CO	TX0034738	WQ0001861	3341	28°57'17"	95°20'15"	BRAZOS RIVER TIDAL	24.7	12.2	M	.0	T	2.1	M
297	HARRIS COUNTY FWSD	TX0091804	WQ0012625-002	4952	29°55'22"	95°37'27"	WHITE OAK & BUFFALO BAYOU	45.2	45.2	M	1.2	M	1.2	M
298	HARRIS COUNTY MUD-KINGWOOD CEN	TX0066583	WQ0011872-001	4952	30°02'41"	95°10'35"	LAKE HOUSTON	1,402.3	1,402.3	M	27.0	M	25.0	M
299	HOFFMANN-LA ROCHE INC-FREEPORT	TX0064912	WQ0002216	2834	29°00'30"	95°22'29"	BRAZOS RIVER TIDAL	.1	.1	M	<0.1	M	<0.1	M
300	LAKE FOREST PLANT ADVISORY COU	TX0046833	WQ0011084-001	4952	29°58'59"	95°34'00"	CYPRESS CREEK	521.9	521.9	M	11.3	M	21.3	M
301	MINERAL RESEARCH & DEVELOPMENT	TX0046906	WQ0001878	2819	28°57'06"	95°21'18"	BRAZOS RIVER TIDAL	38.3	38.3	M	1.6	M	3.9	M

Table 5. Continued.

Map Ref. Num.	EDA (Code) Facility Name	NPDES Number	Texas State Permit Number	SIC Code	Latitude	Longitude	Receiving Water	Annual Flow Total (million gal.)	Annual Flow Process (million gal.)		BOD (1000 lbs)		TSS (1000 lbs)	
	Facility Characteristics													
302	NALCO CHEMICAL CO.-FREEPORT	TX0008761	WQ0001806	2869	28°57'33"	95°20'00"	BRAZOS RIVER TIDAL	55.7	52.6	M	8.0	M	5.1	M
303	PHILLIPS 66 CO.-SWEENY REFINER	TX0007536	WQ0000721	2911	29°02'43"	95°46'37"	CANEY CREEK-ABOVE TIDAL	1,154.8	1,154.8	M	116.6	B	190.6	B
304	QUAIL VALLEY UD	TX0035220	WQ0011046-001	4952	29°37'10"	95°32'22"	GOLF COURSE IRR POND	747.4	747.4	M	21.6	M	194.0	M
305	RHONE-POULENC, INCORPORATED	TX0008737	WQ0001822	2865	28°59'14"	95°25'56"	BRAZOS RIVER TIDAL	38.2	38.2	M	9.3	M	4.9	M
306	SHINTECH	TX0053813	WQ0001871	2821	28°59'40"	95°21'40"	BRAZOS RIVER TIDAL	404.3	403.2	M	17.1	M	53.4	M
307	WHARTON, CITY OF	TX0021288	WQ0010381-001	4952	29°19'00"	96°06'00"	COLORADO RIVER	401.7	401.7	M	31.4	M	31.8	M
	Total							239,084.0	20,720.8		1,319.0		1,717.1	
	Significant Minor Facilities													
308	USDOE-BIG HILL STOR. COMPLEX (3.16)	TX0092827	WQ0002638-001	5171	Missing	Missing	Missing	8,068.8	8,068.8	M	1,609.2	B	326.6	M
309	HUBER,JM-HARRIS (3.17)	TX0003832	WQ0000737-001	2895	29°48'53"	94°54'35"	CEDAR BAYOU TIDAL	4,389.0	4,389.0	M	875.3	T	875.3	T
310	WALLIS, CITY OF (3.18)	TX0025968	WQ0010765-001	4952	29°37'59"	96°03'00"	BRAZOS RIVER/NAVASOTA RIVER	71.6	71.6	M	11.0	M	16.6	M
311	ALAMO, CITY OF (3.23)	TX0057622	WQ0011511-001	4952	26°09'00"	98°06'20"	HIDALGO COUNTY DRAIN. DITCH	323.2	323.2	M	203.5	M	255.0	M
312	TRIPLE "B" MOBILE PARK (3.23)	TX0076414	Missing	6515	26°19'00"	98°09'00"	Missing	11.0	11.0	I	10.4	T	14.3	T
	Total							12,863.4	12,863.4		2,709.4		1,488.3	

Abbreviations: EDA, Estuarine Drainage Area; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O&G, Oil and Grease; FCB, Fecal Coliform Bacteria; M, monitored data; P, permit data; T, data derived from typical pollutant concentrations; O, other data from IFD and/or Needs Survey databases; No., number; WWTP, wastewater treatment plant; -, indicates that either there were no estimates for that parameter or there were no facilities in that point source category in the EDA.

Note: • Basis of loading estimate codes shown in parenthesis: M=monitoring data; P=permit data; B=value from both monitoring and typical pollutant concentration or permit data; N=needs survey data; I=IFD database materal; T=typical pollutant concentration data. Hierarchy of confidence in estimates: monitored > permit > both > needs > IFD > typical pollutant concentrations.

Table 5. Facility characteristics, annual pollutant load estimates, and basis of loading estimates for major and significant minor facilities, 1987 (Continued).

Map Ref. Num.	EDA (Code) Facility Name	TN (1000 lbs)		TP (1000 lbs)		As (10 lbs)		Cd (10 lbs)		Cr (10 lbs)		Cu (10 lbs)		Fe (10 lbs)		Pb (10 lbs)		Hg (10 lbs)		Zn (10 lbs)		O&G (1000 lbs)		FCB (billion cells)	
		Annual Pollutant Load Estimates																							
	Sabine Lake (3.16)																								
1	ALLIED-SIGNAL, INC.-ORANGE	28.6	T	.0	T	2.6	T	.3	T	59.9	T	8.7	T	.0	T	2.6	T	.3	T	25.7	T	13.3	T	.0	T
2	AMERIPOL SYNPOL O.-DIV. OF UNI	-		-		-		-		-		-		-		-		-		-		.5	M	-	
3	BEAUMONT, CITY OF (HILLEBRANDT	764.8	T	478.0	T	220.6	T	77.2	T	292.9	T	254.0	T	4,779.8	T	305.2	T	2.0	T	1,127.3	T	764.8	T	61,945.1	T
4	BRIDGE CITY, CITY OF	33.6	T	21.0	T	9.7	T	3.4	T	12.9	T	11.2	T	209.9	T	13.4	T	.1	T	49.5	T	33.6	T	2,720.4	T
5	BROWNING-FERRIS IND-JEFFERSON	-		-		.2	M	-		.7	M	.9	M	-		1.6	M	-		.9	M	.5	M	-	
6	CALABRIAN CHEMICALS CORP	-		-		-		-		-		-		-		-		-		-		.1	M	-	
7	CHEMICAL WASTE MANAGEMENT INC-	-		-		-		-		-		-		-		-		-		-		4.8	M	-	
8	CHEVRON CHEMICAL CO.-ORANGE	255.0	T	.0	T	22.9	T	2.3	T	534.4	T	76.3	T	.0	T	22.9	T	2.7	T	229.0	T	31.7	M	.0	T
9	CHEVRON U.S.A. INC.-PORT ARTHU	99.8	T	.0	T	.0	T	.0	T	765.8	B	23.5	T	.0	T	7.3	T	1.3	T	146.7	T	491.1	B	.0	T
10	E I DUPONT DE NEMOURS-BEAUMONT	.0	T	.0	T	.0	T	.0	T	109.2	M	3.1	T	.0	T	42.1	M	.9	M	.0	T	.0	B	.0	T
11	E I DUPONT DE NEMOURS-ORANGE	.0	T	.0	T	.0	T	.0	T	33.2	M	83.0	M	.0	T	.0	T	.0	T	.0	T	.0	M	.0	T
12	EQUITABLE BAG CO. INC.	2.5	T	.0	T	.2	T	1.1	T	10.6	T	7.1	T	53.1	T	8.1	T	.1	T	43.7	T	.0	B	.0	T
13	FINA OIL & CHEMICAL CO.-PORT A	37.4	T	.0	T	.0	T	.0	T	16.6	B	20.7	T	.0	T	2.7	T	.5	T	55.0	T	93.9	M	.0	T
14	FIRESTONE SYN RUBBER-ORANGE	.0	T	.0	T	.0	T	.0	T	2.3	M	17.1	M	.0	T	.0	T	.0	T	26.5	M	4.4	M	.0	T
15	GOODYEAR TIRE & RUBBER CO.-BEA	.0	T	.0	T	.0	T	.0	T	2.3	M	.0	T	.0	T	5.5	T	.0	T	220.9	T	7.7	M	.0	T
16	GREAT LAKES CARBON CORP-PORT A	2.8	T	<0.1	T	<0.1	T	.0	T	4.1	T	.4	T	.2	T	.2	T	<0.1	T	4.1	T	7.0	T	3.0	T
17	GROVES, CITY OF (STP #0001)	47.5	T	29.7	T	13.7	T	4.8	T	18.2	T	15.8	T	297.0	T	19.0	T	.1	T	70.0	T	47.5	T	3,848.8	T
18	GULF STATES UTILITIES-NECHES	.0	T	.0	T	.0	T	.0	T	.0	T	.3	T	.0	T	.0	T	.0	T	.0	T	.7	M	.0	T
19	GULF STATES UTILITIES-SABINE	.0	T	.0	T	.0	T	.0	T	.0	T	.8	T	.0	T	.0	T	.0	T	.0	T	17.1	M	.0	T
20	INDEPENDENT REFINING-HOUSTON	.4	T	.0	T	.0	T	.0	T	.1	M	.1	T	.0	T	.0	T	.0	T	.6	T	.1	M	.0	T
21	INLAND CONTAINER CORPORATION	105.4	T	.0	T	.0	T	.0	T	225.8	T	75.3	T	.0	T	75.3	T	.8	T	1,505.6	T	.0	T	.0	T
22	JASPER, CITY OF	48.1	T	30.1	T	13.9	T	4.9	T	18.4	T	16.0	T	300.7	T	19.2	T	.1	T	70.9	T	48.1	T	3,897.1	T
23	LOWER NECHES VALLEY AUTH-BEAUM	245.5	T	153.4	T	6.6	T	2.2	T	404.8	M	92.1	T	1,534.3	T	252.2	M	.7	T	219.2	T	75.5	M	19,884.0	T
24	LUMBERTON MUD	27.5	T	17.2	T	7.9	T	2.8	T	10.5	T	9.1	T	171.7	T	11.0	T	.1	T	40.5	T	27.5	T	2,225.3	T
25	MOBIL CHEM-LDPE PLANT-BEAUMONT	31.4	T	.0	T	2.8	T	.3	T	65.8	T	9.4	T	.0	T	2.8	T	.3	T	28.2	T	2.4	M	.0	T
26	MOBIL CHEMICAL CO-BEAUMONT	-		-		-		-		-		-		-		-		-		-		.0	M	-	
27	NEDERLAND, CITY OF	89.0	T	55.7	T	25.7	T	9.0	T	34.1	T	29.8	T	556.5	T	35.5	T	.2	T	131.3	T	89.0	T	7,212.6	T
28	NORTH STAR STEEL TEXAS INC.	6.6	T	.6	T	4.2	T	2.0	T	13.5	B	4.2	T	25.7	T	8.1	T	-	T	6.9	B	6.0	B	82.5	T
29	OLIN CORP-BEAUMONT	-		-		-		-		-		-		-		-		-		-		.9	M	-	
30	ORANGE, CITY OF-JACKSON ST WWT	115.8	T	72.3	T	33.4	T	11.7	T	44.3	T	38.4	T	723.5	T	46.2	T	.3	T	170.6	T	115.8	T	9,376.3	T
31	PD GLYCOL & PPG IND.INC,JOINT	-		-		-		-		-		-		-		-		-		-		-		-	
32	PENNWALT CORP-BEAUMONT	.1	T	.0	T	.1	T	.1	T	.2	T	.2	T	.1	T	.7	T	<0.1	T	.7	T	.0	T	.0	T
33	POLYSAR GULF COAST INC.	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	4.5	T	.0	T	178.0	T	5.2	M	.0	T
34	PORT ARTHUR, CITY OF (MAIN)	190.1	T	118.8	T	54.8	T	19.2	T	72.6	T	63.1	T	1,188.0	T	75.9	T	.5	T	280.2	T	190.1	T	15,397.0	T
35	PORT NECHES, CITY OF	59.0	T	36.9	T	17.0	T	6.0	T	22.6	T	19.6	T	368.8	T	23.6	T	.2	T	87.0	T	59.0	T	4,780.0	T
36	QUANTUM CHEMICAL CORPORATION	69.7	T	.0	T	6.3	T	.6	T	7.7	M	21.3	T	.0	T	6.3	T	.8	T	62.6	T	32.3	T	.0	T
37	SANDOZ CROP PROTECTION CORP.	-		-		-		-		-		-		-		-		-		-		.9	M	-	
38	TEMPLE-EASTEX INC-SILSBEE	191.3	T	.0	T	.0	T	.0	T	409.9	T	139.7	T	.0	T	136.6	T	1.4	T	2,733.0	T	17.5	B	.0	T
39	TEXACO CHEMICAL COMPANY	.0	T	.0	T	.0	T	.0	T	40.1	M	53.3	T	.0	T	.0	T	.0	T	.0	T	.0	M	.0	T
40	TEXACO CHEMICAL COMPANY-PORT N	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	M	.0	T
41	TEXACO REFINING & MARKETING, I	201.7	T	.0	T	.0	T	.0	T	492.0	B	36.1	T	.0	T	14.8	T	2.7	T	296.7	T	210.6	B	.0	T
42	TEXAS EASTERN PRODUCTS PIPELIN	3.9	T	.0	T	.0	T	.0	T	5.7	M	.6	T	.0	T	.3	T	.1	T	5.8	T	2.6	M	.0	T
43	UNION OIL CO-NEDERLAND	16.1	T	.0	T	.0	T	.0	T	16.6	M	4.3	T	.0	T	1.3	T	.2	T	26.6	T	24.7	M	.0	T
	Total	2,675.5		1,013.7		442.5		147.6		3,748.2		1,135.1		10,209.4		1,145.0		16.4		7,843.9		2,426.7		69,427.1	

Table 5. Continued.

Map Ref. Num.	EDA (Code) Facility Name	TN (1000 lbs)		TP (1000 lbs)		As (10 lbs)		Cd (10 lbs)		Cr (10 lbs)		Cu (10 lbs)		Fe (10 lbs)		Pb (10 lbs)		Hg (10 lbs)		Zn (10 lbs)		O&G (1000 lbs)		FCB (billion cells)	
		Annual Pollutant Load Estimates																							
	Galveston Bay (3.17)																								
44	ADVANCED AROMATICS, INC.	.1	T	<0.1	T	<0.1	T	<0.1	T	<0.1	T	<0.1	T	.4	T	<0.1	T	<0.1	T	.1	T	<0.1	M	5.0	T
45	ALVIN, CITY OF	61.8	T	51.2	T	23.6	T	8.3	T	31.3	T	27.2	T	511.5	T	32.7	T	.2	T	120.6	T	81.6	T	6,629.1	T
46	AMERICAN TEXMARK, INC DBA TEXM	.0	T	.0	T	.0	T	.0	T	.5	M	<0.1	T	.0	T	.0	T	.0	T	.0	T	.4	M	.0	T
47	AMOCO CHEMICALS CO,CEDAR BAYOU	.0	T	.0	T	.0	T	.0	T	.0	T	.2	T	.0	T	.0	T	.0	T	.0	T	2.6	M	.0	T
48	AMOCO CORP-CHOCOLATE BAYOU	238.7	T	.0	T	21.4	T	2.1	T	31.9	M	72.9	T	.0	T	21.4	T	2.6	T	52.8	M	110.8	B	.0	T
49	AMOCO CORP-TEXAS CITY	-		-		-		-		-		-		-		-		-		-		.0	M	-	
50	AMOCO REFINERY-TEXAS CITY	76.7	T	.0	T	.0	T	.0	T	155.3	B	17.9	T	.0	T	5.6	T	1.0	T	112.8	T	312.0	B	.0	T
51	ARCO CHEMICAL CO-BAYPORT	-		-		-		-		-		-		-		-		-		-		2.2	M	-	
52	ARCO CHEMICAL COMPANY	.0	T	.0	T	.2	T	.9	T	3.5	M	4.4	T	43.6	T	5.2	T	<0.1	T	20.0	M	2.7	M	.0	T
53	ARISTECH CHEMICAL CORP.	.0	T	.0	T	.0	T	.0	T	15.3	M	.1	T	.0	T	.0	T	.0	T	.0	T	1.4	M	.0	T
54	ARISTECH CHEMICAL CORP.	8.9	T	.0	T	.8	T	.1	T	18.6	T	2.7	T	.0	T	.8	T	.1	T	8.0	T	4.1	B	.0	T
55	ARMCO STEEL CORP-HOUSTON	.3	T	.0	T	.2	T	.1	T	.2	T	.2	T	.9	T	.4	T	.0	T	.9	T	.2	T	.0	T
56	BAYCLIFF, UD	23.5	T	14.7	T	6.8	T	2.4	T	9.0	T	7.6	T	146.7	T	9.4	T	.1	T	34.6	T	23.5	T	1,901.0	T
57	BAYTOWN, CITY OF (EAST DISTRIC	78.0	T	47.5	T	21.9	T	7.7	T	29.1	T	25.2	T	474.9	T	30.3	T	.2	T	112.0	T	78.0	T	6,155.1	T
58	BAYTOWN, CITY OF (W MAIN ST PL	163.9	T	102.4	T	47.3	T	16.5	T	62.8	T	54.4	T	1,024.3	T	65.4	T	.4	T	241.6	T	163.9	T	13,275.0	T
59	BAYTOWN, CITY OF-WEST DIST WAS	36.6	T	22.9	T	10.6	T	3.7	T	14.0	T	12.2	T	229.0	T	14.6	T	.1	T	54.0	T	36.6	T	2,967.3	T
60	BELLAIRE, CITY OF	59.1	T	37.0	T	17.1	T	6.0	T	22.7	T	19.6	T	369.6	T	23.6	T	.2	T	87.2	T	59.1	T	4,790.1	T
61	BTL SPECIALTY RESINS CORP-HOUS	3.5	T	.0	T	.3	T	<0.1	T	7.3	T	1.1	T	.0	T	.3	T	.0	T	4.1	M	1.6	T	.0	T
62	CAMERON FORGE COMPANY	.5	T	.3	T	.1	T	.1	T	.2	T	.3	T	3.2	T	.2	T	.0	T	.8	T	1.0	M	41.8	T
63	CAMERON IRON WORKS USA, INC.	.1	T	.0	T	.1	T	<0.1	T	.1	T	.1	T	.4	T	.2	T	.0	T	.4	T	.6	B	.0	T
64	CHAMPION INTERNATIONAL CORP-SH	59.2	T	.0	T	.0	T	.0	T	126.9	T	43.3	T	.0	T	42.3	T	.4	T	846.3	T	.0	T	.0	T
65	CHELFORD CITY MUD	113.4	T	70.9	T	32.7	T	11.4	T	43.4	T	37.7	T	708.6	T	45.2	T	.3	T	167.1	T	113.4	T	9,183.4	T
66	CHEMTANK	.8	T	.5	T	<0.1	T	<0.1	T	.3	T	.3	T	5.1	T	.4	T	.0	T	.7	T	1.6	M	65.8	T
67	CHEVRON CHEMICAL CO-CEDAR BAYO	.0	T	.0	T	.0	T	.0	T	8.0	M	.7	T	.0	T	.0	T	.0	T	43.1	M	2.2	M	.0	T
68	CHEVRON CHEMICAL CO.-CHANNELVI	5.0	T	.0	T	.5	T	.0	T	10.5	T	1.5	T	.0	T	.5	T	.1	T	4.5	T	2.3	T	.0	T
69	CLEAR LAKE CITY, CITY OF	150.7	T	94.2	T	43.5	T	15.2	T	57.7	T	50.1	T	941.9	T	60.1	T	.4	T	222.2	T	150.7	T	12,207.0	T
70	CROWN CENTRAL PETR-HOUSTON	-		-		-		-		-		-		-		-		-		-		.0	M	-	
71	DEER PARK, CITY OF	118.1	T	73.8	T	34.1	T	11.9	T	45.2	T	39.2	T	738.3	T	47.1	T	.3	T	174.1	T	118.1	T	9,568.4	T
72	DOW CHEMICAL CO.-LAPORTE-FREEP	.0	T	2.6	M	.0	T	.0	T	15.5	M	.4	T	.0	T	.0	T	.0	T	.0	T	7.0	M	.0	T
73	E I DUPONT DE NEMOURS-HOUSTON	.0	T	.0	T	.0	T	.0	T	56.4	M	1.3	T	.0	T	.0	T	.0	T	73.0	M	1.9	B	.0	T
74	EMERALD FOREST UD	21.0	T	13.1	T	6.1	T	2.1	T	8.1	T	7.0	T	131.5	T	8.4	T	.1	T	31.0	T	21.0	T	1,704.1	T
75	ETHYL CORP-PASADENA	.0	T	.0	T	.0	T	.0	T	36.4	M	.5	T	.0	T	61.9	M	.0	T	.0	T	.0	T	.0	T
76	EXXON CHEM CO,A DIV EXXON CORP	<0.1	T	<0.1	T	<0.1	T	<0.1	T	<0.1	T	<0.1	T	.3	T	<0.1	T	<0.1	T	.1	T	.3	B	3.6	T
77	EXXON CHEM CO-MONT BELVIEU PLA	25.8	T	.0	T	2.3	T	.2	T	54.2	T	7.9	T	.0	T	2.3	T	.3	T	23.2	T	3.7	M	.0	T
78	EXXON CHEMICAL AMERICAS	-		-		-		-		-		-		-		-		-		-		-		-	
79	EXXON CHEMICAL AMERICAS-HOUSTO	.0	T	.0	T	.0	T	.0	T	.0	T	<0.1	T	.0	T	.0	T	.0	T	.0	T	.2	M	.0	T
80	EXXON CHEMICAL CO USA-BAYTOWN	.0	T	.0	T	.0	T	.0	T	.0	T	.1	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T
81	EXXON CORP-HOUSTON	103.1	T	.0	T	.0	T	.0	T	350.6	B	22.6	T	.0	T	7.6	T	1.4	T	151.7	T	153.6	B	.0	T
82	FERMENTA PLT PROT,A SUB SDS BI	.0	T	.0	T	4.0	T	.0	T	.0	T	.2	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T
83	FINA OIL & CHEMICAL CO.-DEER P	18.2	T	.0	T	1.6	T	.2	T	4.8	M	5.6	T	.0	T	1.6	T	.2	T	18.4	T	8.5	B	.0	T
84	FRIENDSWOOD,CITY OF	102.6	T	64.1	T	29.8	T	10.3	T	39.3	T	34.1	T	640.9	T	40.9	T	.3	T	151.2	T	102.6	T	8,306.5	T
85	GAF CHEMICALS CORP.	.0	T	.0	T	.0	T	.0	T	.0	T	.1	T	.0	T	.0	T	.0	T	.0	T	1.0	B	.0	T
86	GALVESTON COUNTY WCID #0001 (S	73.4	T	45.9	T	21.2	T	7.4	T	28.1	T	24.4	T	459.0	T	29.3	T	.2	T	108.3	T	73.4	T	5,948.4	T
87	GALVESTON, CITY OF (AIRPORT)	69.0	T	43.1	T	19.9	T	7.0	T	26.4	T	22.9	T	431.1	T	27.5	T	.2	T	101.7	T	69.0	T	5,586.9	T
88	GALVESTON, CITY OF (MAIN)	232.3	T	145.2	T	67.0	T	23.4	T	89.0	T	77.2	T	1,452.1	T	92.7	T	.6	T	342.5	T	232.3	T	18,818.0	T
89	GCWDA ALIEF REGIONAL WWTP	43.0	T	26.8	T	12.4	T	4.3	T	16.5	T	14.3	T	268.5	T	17.1	T	.1	T	63.3	T	43.0	T	3,479.5	T
90	GCWDA-40 ACRE-TEXAS CITY	349.2	T	218.3	T	9.4	T	3.1	T	124.7	T	124.7	T	2,182.8	T	155.9	T	.9	T	311.6	T	115.3	M	28,289.0	T
91	GEORGIA-GULF CORP-HOUSTON	.0	T	.0	T	.0	T	.0	T	.0	T	<0.1	T	.0	T	.0	T	.0	T	.0	T	.4	M	.0	T

Abbreviations: EDA, Estuarine Drainage Area; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O&G, Oil and Grease; FCB, Fecal Coliform Bacteria; M, monitored data; P, permit data; T, data derived from typical pollutant concentrations; O, other data from IFD and/or Needs Survey databases; No., number; WWTP, wastewater treatment plant; -, indicates that either there were no estimates for that parameter or there were no facilities in that point source category in the EDA.

Note: • Basis of loading estimate codes shown in parenthesis: M=monitoring data; P=permit data; B=value from both monitoring and typical pollutant concentration or permit data; N=needs survey data; I=IFD database materal; T=typical pollutant concentration data. Hierarchy of confidence in estimates: monitored > permit > both > needs > IFD > typical pollutant concentrations.

Table 5. Facility characteristics, annual pollutant load estimates, and basis of loading estimates for major and significant minor facilities, 1987 (Continued).

Map Ref. Num.	EDA (Code) Facility Name	Annual Pollutant Load Estimates																											
		TN (1000 lbs)		TP (1000 lbs)		As (10 lbs)		Cd (10 lbs)		Cr (10 lbs)		Cu (10 lbs)		Fe (10 lbs)		Pb (10 lbs)		Hg (10 lbs)		Zn (10 lbs)		O&G (1000 lbs)		FCB (billion cells)	
92	GOODYEAR TIRE & RUBBER-HOUSTON	.0	T	.0	T	.0	T	.0	T	.0	T	.7	T	.0	T	.0	T	.0	T	.0	T	8.9	M	.0	T
93	GRACE,WR & CO-DEER PARK	.2	T	.0	T	.4	T	.3	T	.7	T	.7	T	.2	T	2.1	T	<0.1	T	2.1	T	.2	B	.0	T
94	GREENS PARKWAY MUD-HARRIS COUN	2.2	T	1.4	T	.6	T	.2	T	.8	T	.7	T	13.6	T	.9	T	<0.1	T	3.2	T	2.2	T	178.6	T
95	GULF COAST WASTE DISP. AUTH.	641.2	T	400.7	T	17.2	T	5.7	T	697.5	M	240.4	T	4,007.4	T	952.9	M	10.6	M	1,161.4	M	468.9	M	48,808.0	M
96	GULF COAST WASTE DISPOSAL-HARR	134.0	T	83.8	T	3.6	T	1.2	T	49.3	M	50.3	T	837.8	T	59.8	T	.4	T	182.7	M	195.6	M	10,858.0	T
97	GULF STATES ASPHALT-HOUSTON	<0.1	T	.0	T	<0.1	T	.8	T	1.2	T	.6	T	3.5	T	5.9	T	<0.1	T	1.2	T	<0.1	M	.0	T
98	HANSA MANUFACTURING COMPANY-BA	27.6	T	.0	T	.0	T	.0	T	40.5	T	4.1	T	.0	T	2.0	T	.4	T	40.5	T	69.3	T	.0	T
99	HARRIS CO MUD NO.33	25.7	T	18.1	T	7.4	T	2.6	T	9.9	T	8.5	T	160.8	T	10.3	T	.1	T	37.9	T	25.7	T	2,084.6	T
100	HARRIS CO. MUD #67, BAYFIELD U	36.1	T	22.6	T	10.4	T	3.6	T	13.8	T	12.0	T	225.7	T	14.4	T	.1	T	53.2	T	36.1	T	2,925.2	T
101	HARRIS COUNTY FWSD #0051	94.1	T	58.8	T	27.1	T	9.5	T	36.1	T	31.3	T	588.3	T	37.6	T	.3	T	138.8	T	94.1	T	7,624.4	T
102	HARRIS COUNTY FWSD #0061	37.3	T	23.3	T	10.7	T	3.8	T	14.3	T	12.4	T	232.9	T	14.9	T	.1	T	54.9	T	37.3	T	3,018.0	T
103	HARRIS COUNTY FWSD #150	22.6	T	14.1	T	6.5	T	2.3	T	8.7	T	7.5	T	141.3	T	9.0	T	.1	T	33.3	T	22.6	T	1,830.6	T
104	HARRIS COUNTY FWSD #180	4.4	T	2.7	T	1.3	T	.4	T	1.7	T	1.4	T	27.2	T	1.7	T	<0.1	T	6.4	T	4.4	T	353.0	T
105	HARRIS COUNTY MUD #16	3.4	T	2.1	T	1.0	T	.3	T	1.3	T	1.1	T	21.3	T	1.4	T	<0.1	T	5.0	T	3.4	T	276.3	T
106	HARRIS COUNTY MUD #247	.1	T	.1	T	<0.1	T	<0.1	T	<0.1	T	<0.1	T	.5	T	<0.1	T	<0.1	T	.1	T	.1	T	6.8	T
107	HARRIS COUNTY MUD NO 200	12.8	T	8.0	T	3.7	T	1.3	T	4.9	T	4.2	T	79.7	T	5.1	T	<0.1	T	18.8	T	12.8	T	1,032.9	T
108	HARRIS COUNTY MUD NO. 203	14.4	T	9.0	T	4.2	T	1.5	T	5.5	T	4.8	T	90.2	T	5.8	T	<0.1	T	21.3	T	14.4	T	1,169.0	T
109	HARRIS COUNTY MUD NO. 208	34.7	T	21.7	T	10.0	T	3.5	T	13.3	T	11.5	T	216.9	T	13.8	T	.1	T	51.1	T	34.7	T	2,810.4	T
110	HARRIS COUNTY WCID #0001	20.3	T	12.7	T	5.9	T	2.1	T	7.8	T	6.8	T	127.1	T	8.1	T	.1	T	30.0	T	20.3	T	1,647.1	T
111	HARRIS COUNTY WCID #0021	44.3	T	27.7	T	12.8	T	4.5	T	17.0	T	14.7	T	276.7	T	17.7	T	.1	T	65.3	T	44.3	T	3,586.1	T
112	HARRIS COUNTY WCID #0109	48.3	T	30.2	T	13.9	T	4.9	T	18.5	T	18.0	T	301.9	T	19.3	T	.1	T	71.2	T	48.3	T	3,912.2	T
113	HARRIS COUNTY WCID NO.133 HOUS	43.4	T	27.2	T	12.5	T	4.4	T	16.6	T	14.4	T	271.5	T	17.3	T	.1	T	64.0	T	43.4	T	3,518.9	T
114	HEARTHSTONE DEVELOPMENT CORP.	19.6	T	12.2	T	5.6	T	2.0	T	7.5	T	6.5	T	122.2	T	7.8	T	.1	T	28.8	T	19.6	T	1,584.2	T
115	HILL PETEROLEUM CO.	6.4	T	.0	T	.0	T	.0	T	45.5	M	1.5	T	.0	T	.5	T	.1	T	9.5	T	35.0	M	.0	T
116	HILL PETROLEUM CO.	43.5	T	.0	T	.0	T	.0	T	40.9	M	6.4	T	.0	T	3.2	T	.6	T	35.0	M	32.4	M	.0	T
117	HL&P-CEDAR BAYOU	.1	T	.1	T	8.0	T	1.0	T	6.9	T	556.8	T	92.1	T	1.2	T	.1	T	80.2	T	8.7	B	7.8	T
118	HL&P-GREENS BAYOU	.0	T	.0	T	.2	T	<0.1	T	.2	T	3.6	B	15.8	B	<0.1	T	<0.1	T	2.4	T	3.8	M	.0	T
119	HL&P-P H ROBINSON STATION-HOUS	.0	T	.0	T	.0	T	.0	T	.0	T	3.6	M	48.0	M	.0	T	.0	T	.0	T	3.6	M	.0	T
120	HL&P-WEBSTER STATION-HOUSTON	.0	T	.0	T	1.1	T	.1	T	.9	T	139.5	B	8.6	B	.2	T	<0.1	T	10.8	T	.4	B	.0	T
121	HLEP-DEEPWATER	.0	T	.0	T	.0	T	.0	T	.0	T	48.6	T	.0	T	.0	T	.0	T	.0	T	1.7	M	.0	T
122	HLEP-SAM BERTRON-HOUSTON	.0	T	.0	T	.0	T	.0	T	.0	T	5.1	M	68.3	M	.0	T	.0	T	.0	T	5.3	M	.0	T
123	HOUSTON, CITY OF (69TH STREET)	2,069.8	T	1,293.6	T	596.9	T	208.8	T	792.8	T	687.5	T	12,936.1	T	826.1	T	5.5	T	3,051.1	T	2,069.8	T	167,650.0	T
124	HOUSTON, CITY OF (ALMEDA SIMS)	576.5	T	360.3	T	166.3	T	58.2	T	220.8	T	191.5	T	3,603.1	T	230.1	T	1.5	T	849.8	T	576.5	T	46,695.0	T
125	HOUSTON, CITY OF (BELTWAY CENT	78.3	T	48.9	T	22.8	T	7.9	T	30.0	T	26.0	T	489.1	T	31.2	T	.2	T	115.4	T	78.3	T	6,338.4	T
126	HOUSTON, CITY OF (CHOCOLATE BA	105.6	T	66.0	T	30.4	T	10.7	T	40.4	T	35.1	T	659.7	T	42.1	T	.3	T	155.6	T	105.6	T	6,550.1	T
127	HOUSTON, CITY OF (CLINTON PARK	25.8	T	16.1	T	7.4	T	2.6	T	9.9	T	8.6	T	161.3	T	10.3	T	.1	T	38.0	T	25.8	T	2,090.1	T
128	HOUSTON, CITY OF (EASTHAVEN)	35.1	T	21.9	T	10.1	T	3.5	T	13.4	T	11.6	T	219.2	T	14.0	T	.1	T	51.7	T	35.1	T	2,840.9	T
129	HOUSTON, CITY OF (FWSD #0017)	22.7	T	14.2	T	6.5	T	2.3	T	8.7	T	7.5	T	141.6	T	9.0	T	.1	T	33.4	T	22.7	T	1,835.4	T
130	HOUSTON, CITY OF (FWSD #0023)	137.1	T	85.7	T	39.5	T	13.8	T	52.5	T	45.5	T	856.7	T	54.7	T	.4	T	202.1	T	137.1	T	11,103.0	T
131	HOUSTON, CITY OF (FWSD #0034)	25.7	T	16.1	T	7.4	T	2.6	T	9.9	T	8.5	T	160.8	T	10.3	T	.1	T	37.9	T	25.7	T	2,083.5	T
132	HOUSTON, CITY OF (GREENRIDGE)	80.3	T	50.2	T	23.2	T	8.1	T	30.7	T	26.7	T	501.7	T	32.0	T	.2	T	118.3	T	80.3	T	6,502.0	T
133	HOUSTON, CITY OF (GULF MEADOWS	24.6	T	15.4	T	7.1	T	2.5	T	9.4	T	8.2	T	153.9	T	9.8	T	.1	T	36.3	T	24.6	T	1,994.2	T
134	HOUSTON, CITY OF (HOMESTEAD)	47.8	T	29.9	T	13.8	T	4.8	T	18.3	T	15.9	T	298.9	T	19.1	T	.1	T	70.5	T	47.8	T	3,874.3	T
135	HOUSTON, CITY OF (IMP.VALLEY)	48.5	T	30.3	T	14.0	T	4.9	T	18.6	T	16.1	T	303.2	T	19.4	T	.1	T	71.5	T	48.5	T	3,929.6	T
136	HOUSTON, CITY OF (KEEGANS BAYO	576.5	T	360.3	T	166.3	T	58.2	T	220.8	T	191.5	T	3,603.1	T	230.1	T	1.5	T	849.8	T	576.5	T	46,696.0	T
137	HOUSTON, CITY OF (MANNING U.D.	25.6	T	16.0	T	7.4	T	2.6	T	9.6	T	8.5	T	160.0	T	10.2	T	.1	T	37.7	T	25.6	T	2,073.5	T
138	HOUSTON, CITY OF (NORTHBOROUGH	21.2	T	13.2	T	6.1	T	2.1	T	8.1	T	7.0	T	132.3	T	8.4	T	.1	T	31.2	T	21.2	T	1,714.1	T
139	HOUSTON, CITY OF (NORTHEAST)	72.9	T	45.8	T	21.0	T	7.4	T	27.9	T	24.2	T	455.6	T	29.1	T	.2	T	107.5	T	72.9	T	5,904.4	T
140	HOUSTON, CITY OF (NORTHGATE UD	66.7	T	41.7	T	19.2	T	6.7	T	25.5	T	22.1	T	416.7	T	26.6	T	.2	T	98.3	T	66.7	T	5,399.6	T
141	HOUSTON, CITY OF (NORTHSIDE)	368.5	T	230.3	T	106.3	T	37.2	T	141.1	T	122.4	T	2,303.1	T	147.1	T	1.0	T	543.2	T	368.5	T	29,848.0	T
142	HOUSTON, CITY OF (NORTHWEST)	301.0	T	188.1	T	86.6	T	30.4	T	115.3	T	100.0	T	1,881.3	T	120.1	T	.6	T	443.7	T	301.0	T	24,381.0	T
143	HOUSTON, CITY OF (PARKGLEN)	47.7	T	29.8	T	13.7	T	4.8	T	18.3	T	15.8	T	297.9	T	19.0	T	.1	T	70.3	T	47.7	T	3,860.7	T
144	HOUSTON, CITY OF (SAGEMONT)	75.0	T	46.9	T	21.6	T	7.6	T	28.7	T	24.9	T	468.5	T	29.9	T	.2	T	110.5	T	75.0	T	6,071.9	T
145	HOUSTON, CITY OF (SIMS BAYOU)	1,074.3	T	671.5	T	309.8	T	108.4	T	411.5	T	356.8	T	6,714.5	T	428.8	T	2.9	T	1,583.7	T	1,074.3	T	87,019.0	T

Table 5. Continued.

Map Ref. Num.	EDA (Code) Facility Name	TN (1000 lbs)		TP (1000 lbs)		As (10 lbs)		Cd (10 lbs)		Cr (10 lbs)		Cu (10 lbs)		Fe (10 lbs)		Pb (10 lbs)		Hg (10 lbs)		Zn (10 lbs)		O&G (1000 lbs)		FCB (billion cells)	
		Annual Pollutant Load Estimates																							
146	HOUSTON, CITY OF (SOUTHEAST)	55.0	T	34.4	T	15.9	T	5.5	T	21.1	T	18.3	T	343.6	T	21.9	T	.1	T	81.0	T	55.0	T	4,452.5	T
147	HOUSTON, CITY OF (SOUTHWEST)	1,403.6	T	877.2	T	404.8	T	141.6	T	537.6	T	466.2	T	8,772.4	T	560.2	T	3.8	T	2,069.0	T	1,403.6	T	113,690.0	T
148	HOUSTON, CITY OF (TURKEY CREEK	39.9	T	24.9	T	11.5	T	4.0	T	15.3	T	13.3	T	249.5	T	15.9	T	.1	T	58.6	T	39.9	T	3,233.1	T
149	HOUSTON, CITY OF (WCID #0047)	64.3	T	40.2	T	18.5	T	6.5	T	24.6	T	21.4	T	402.0	T	25.7	T	.2	T	94.6	T	64.3	T	5,209.6	T
150	HOUSTON, CITY OF (WCID #0051)	93.3	T	58.3	T	26.9	T	9.4	T	35.7	T	31.0	T	583.1	T	37.2	T	.2	T	137.5	T	93.3	T	7,557.4	T
151	HOUSTON, CITY OF (WCID #111)	43.5	T	27.2	T	12.6	T	4.4	T	16.7	T	14.5	T	272.1	T	17.4	T	.1	T	64.2	T	43.5	T	3,526.2	T
152	HOUSTON, CITY OF (WCID #90)	23.3	T	14.5	T	6.7	T	2.3	T	8.9	T	7.7	T	145.5	T	9.3	T	.1	T	34.3	T	23.3	T	1,885.4	T
153	HOUSTON, CITY OF (WEST)	581.5	T	363.4	T	167.7	T	58.7	T	222.7	T	193.1	T	3,634.2	T	232.1	T	1.6	T	857.2	T	581.5	T	47,099.0	T
154	HOUSTON, CITY OF (WHITE OAK UD	42.8	T	26.8	T	12.4	T	4.3	T	16.4	T	14.2	T	267.7	T	17.1	T	.1	T	63.1	T	42.8	T	3,469.4	T
155	HUMBLE, CITY OF (SOUTH)	53.5	T	33.4	T	15.4	T	5.4	T	20.5	T	17.8	T	334.1	T	21.3	T	.1	T	78.8	T	53.5	T	4,329.5	T
156	ICI AMERICAS INC.-PASEDENA	-		-		-		-		-		-		-		-		-		-		-	M	-	
157	JACINTO CITY, CITY OF	33.1	T	20.7	T	9.5	T	3.3	T	12.7	T	11.0	T	206.8	T	13.2	T	.1	T	48.8	T	33.1	T	2,680.3	T
158	JACKRABBIT ROAD PUD	54.4	T	34.0	T	15.7	T	5.5	T	20.9	T	18.1	T	340.2	T	21.7	T	.1	T	80.2	T	54.4	T	4,409.3	T
159	JOHANN HALTERMANN, LTD.	.3	T	.0	T	.6	T	.4	T	1.0	T	1.0	T	.3	T	2.8	T	<0.1	T	2.8	T	.7	M	.0	T
160	KATY, CITY OF	33.7	T	21.1	T	9.7	T	3.4	T	12.9	T	11.2	T	210.6	T	13.4	T	.1	T	49.7	T	33.7	T	2,729.6	T
161	KOPPERS	1.2	T	.0	T	.1	T	<0.1	T	2.4	T	.4	T	.0	T	.1	T	<0.1	T	1.0	T	.6	M	.0	T
162	LA MARQUE, CITY OF	44.7	T	27.9	T	12.9	T	4.5	T	17.1	T	14.8	T	279.1	T	17.8	T	.1	T	65.8	T	44.7	T	3,617.1	T
163	LA PORTE CHEMICALS CORP/C/O TH	.0	T	.0	T	.0	T	.0	T	32.4	M	47.2	M	.0	T	.0	T	.0	T	34.6	M	.0	B	.0	T
164	LA PORTE, CITY OF	65.7	T	41.1	T	18.9	T	6.6	T	25.2	T	21.8	T	410.6	T	26.2	T	.2	T	96.8	T	65.7	T	5,321.1	T
165	LEAGUE CITY, CITY OF(CENTRAL W	87.2	T	.0	M	25.1	T	8.8	T	33.4	T	29.0	T	544.8	T	34.8	T	.2	T	128.5	T	87.2	T	7,060.3	T
166	LIBERTY, CITY OF WWTP NO.1	30.9	T	19.3	T	8.9	T	3.1	T	11.8	T	10.3	T	193.1	T	12.3	T	.1	T	45.5	T	30.9	T	2,502.1	T
167	LUBRIZOL CORP-HOUSTON	.0	T	.0	T	.0	T	.0	T	.0	T	.2	T	.0	T	.0	T	.0	T	25.6	B	20.6	M	.0	T
168	LYONDELL PETROCHEMICAL CO.	-		-		-		-		-		-		-		-		-		-		-		-	
169	LYONDELL PETROCHEMICAL CO.	.0	T	.0	T	.0	T	.0	T	61.8	M	2.1	T	.0	T	.0	T	.0	T	236.9	M	27.1	M	.0	T
170	MARATHON OIL CO-TEXAS CITY	8.1	T	.0	T	.0	T	.0	T	26.6	B	1.4	T	.0	T	.4	T	.1	T	8.9	T	35.7	B	.0	T
171	MEMORIAL VILLAGES WA	73.8	T	46.1	T	21.3	T	7.4	T	28.3	T	24.5	T	461.2	T	29.4	T	.2	T	108.8	T	73.8	T	5,976.7	T
172	MERICHEM CO-HOUSTON	.0	T	.0	T	<0.1	T	<0.1	T	.1	T	.1	T	1.1	T	.1	T	.0	T	.2	T	.1	M	.0	T
173	MOBAY CHEMICAL CO-BAYTOWN	.0	T	386.2	M	.0	T	15.4	M	27.3	M	31.8	M	.0	T	57.0	M	.0	T	54.6	M	30.2	M	.0	T
174	MOBAY SYNTH CORP & TX PET CORP	.0	T	.0	T	.0	T	.0	T	19.9	B	2.2	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T
175	MOBAY SYNTHETICS CORP.	-		-		-		-		-		-		-		-		-		-		-	M	-	
176	MOBILE MINING & MINERALS CO.	.4	T	6.5	B	.1	T	<0.1	T	.2	T	1.0	T	2.8	T	.2	T	<0.1	T	.7	T	.4	T	35.8	T
177	MONSANTO COMPANY	.0	T	.0	T	.0	T	.0	T	.7	M	.4	T	.0	T	.0	T	.0	T	2.0	M	24.7	M	.0	T
178	NORTH GREEN MUD	7.6	T	4.7	T	2.2	T	.8	T	2.9	T	2.5	T	47.2	T	3.0	T	<0.1	T	11.1	T	7.6	T	612.0	T
179	NORTHWAY MUD STP-HARRIS	16.3	T	10.2	T	4.7	T	1.6	T	6.3	T	5.4	T	102.1	T	6.5	T	<0.1	T	24.1	T	16.3	T	1,323.5	T
180	OCCIDENTAL CHEMICAL CORP.	80.8	T	.0	T	170.0	T	127.5	T	297.6	T	341.8	T	85.0	T	850.2	T	5.4	B	850.2	T	1.3	B	.0	T
181	OCCIDENTAL CHEMICAL CORPORATIO	120.0	T	.0	T	10.8	T	1.1	T	116.1	M	36.7	T	.0	T	10.8	T	1.3	T	107.8	T	3.9	M	.0	T
182	OCCIDENTAL CHEMICALS CORP.	8.6	T	.0	T	18.2	T	13.6	T	31.8	T	31.8	T	9.1	T	90.9	T	.8	T	27.0	M	.0	T	.0	T
183	OLYMPIA DEVELOPERS-BEECHNUT MU	2.2	T	1.3	T	.6	T	.2	T	.8	T	.7	T	13.5	T	.9	T	<0.1	T	3.2	T	2.2	T	174.6	T
184	PARK TEN MUD	9.5	T	5.9	T	2.7	T	1.0	T	3.6	T	3.2	T	59.5	T	3.8	T	<0.1	T	14.0	T	9.5	T	771.0	T
185	PASADENA, CITY OF (DEEPWATER)	83.2	T	52.0	T	24.0	T	8.4	T	31.9	T	27.6	T	520.0	T	33.2	T	.2	T	122.6	T	83.2	T	6,739.1	T
186	PASADENA, CITY OF (GOLDEN ACRE	154.8	T	96.8	T	44.7	T	15.6	T	59.3	T	51.4	T	967.7	T	61.8	T	.4	T	228.2	T	154.8	T	12,542.0	T
187	PASADENA, CITY OF (VINCE BAYOU	190.9	T	119.3	T	55.0	T	19.3	T	73.1	T	63.4	T	1,193.0	T	76.2	T	.5	T	281.4	T	190.9	T	15,461.0	T
188	PENNWALT CORP-HOUSTON	.0	T	.0	T	.0	T	.0	T	.1	M	.1	T	.0	T	.0	T	.0	T	2.0	M	.0	T	.0	T
189	PHILLIPS CHEMICAL COMPANY	139.2	T	.0	T	12.5	T	1.3	T	142.0	M	42.3	T	.0	T	12.5	T	1.5	T	125.0	T	11.5	M	.0	T
190	PONDEROSA JOINT POWERS AGENCY	75.2	T	47.0	T	21.7	T	7.6	T	28.8	T	25.0	T	469.9	T	30.0	T	.2	T	110.8	T	75.2	T	6,089.3	T
191	QUANTUM CHEMICAL CORPORATION	99.3	T	.0	T	8.9	T	.9	T	63.4	B	30.3	T	.0	T	8.9	T	1.1	T	89.2	T	46.1	T	.0	T
192	QUANTUM CHEMICAL CORPORATION	.0	T	.0	T	.0	T	.0	T	.0	T	.5	T	.0	T	.0	T	.0	T	.0	T	.0	B	.0	T
193	RENN ROAD MUNICIPAL UTILITY DI	26.3	T	16.4	T	7.6	T	2.7	T	10.1	B	8.7	T	181.4	T	10.5	T	.1	T	38.8	T	26.3	M	2,130.0	T
194	ROHM & HASS-DEER PARK	.0	T	.0	T	.0	T	.0	T	72.4	T	1.2	T	.0	T	.0	T	.0	T	.0	T	6.2	B	.0	T
195	ROHM AND HAAS-DEER PARK	.0	T	.0	T	.4	M	.0	T	6.2	M	.3	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T
196	ROLLINS ENVIRONMENTAL SERVICES	18.8	T	11.7	T	5.4	T	1.9	T	7.2	T	6.2	T	117.3	T	7.5	T	.1	T	27.7	T	2.0	M	1,519.8	T
197	SEABROOK, CITY OF	39.6	T	24.8	T	11.4	T	4.0	T	15.2	T	13.2	T	247.7	T	15.8	T	.1	T	58.4	T	39.6	T	3,209.7	T
198	SHELL DEVELOPMENT CO-HOUSTON	5.8	T	.9	M	.2	T	.1	T	2.1	T	2.2	T	36.3	T	2.6	T	<0.1	T	5.2	T	5.8	B	470.9	T
199	SHELL OIL CO-DEER PARK	109.5	T	.0	T	.0	T	.0	T	84.5	M	16.3	T	.0	T	8.0	T	1.4	T	161.0	T	35.4	B	.0	T

Abbreviations: EDA, Estuarine Drainage Area; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O&G, Oil and Grease; FCB, Fecal Coliform Bacteria; M, monitored data; P, permit data; T, data derived from typical pollutant concentrations; O, other data from IFD and/or Needs Survey databases; No., number; WWTP, wastewater treatment plant; -, indicates that either there were no estimates for that parameter or there were no facilities in that point source category in the EDA.

Note: • Basis of loading estimate codes shown in parenthesis: M=monitoring data; P=permit data; B=value from both monitoring and typical pollutant concentration or permit data; N=needs survey data; I=IFD database materal; T=typical pollutant concentration data. Hierarchy of confidence in estimates: monitored > permit > both > needs > IFD > typical pollutant concentrations.

Table 5. Facility characteristics, annual pollutant load estimates, and basis of loading estimates for major and significant minor facilities, 1987 (Continued).

Map Ref. Num.	EDA (Code) Facility Name	TN (1000 lbs)		TP (1000 lbs)		As (10 lbs)		Cd (10 lbs)		Cr (10 lbs)		Cu (10 lbs)		Fe (10 lbs)		Pb (10 lbs)		Hg (10 lbs)		Zn (10 lbs)		O&G (1000 lbs)		FCB (billion cells)	
		Annual Pollutant Load Estimates																							
200	SHELL OIL CO-HOUSTON	.0	T	.0	T	.0	T	.0	T	134.7	M	2.5	T	.0	T	81.0	M	.0	T	.0	T	.0	B	.0	T
201	SIMPSON PASADENA PAPER COMPANY	-		-		-		-		-		-		-		-		-		-		-		-	
202	SOLTEX-DEER PARK (CELANESE)	114.2	T	.0	T	10.3	T	1.0	T	239.3	T	34.2	T	.0	T	10.3	T	1.2	T	56.2	B	53.0	B	.0	T
203	SOUTH HOUSTON, CITY OF	65.6	T	41.1	T	19.0	T	6.6	T	25.2	T	21.8	T	411.1	T	26.3	T	.2	T	97.0	T	65.8	T	5,328.2	T
204	SPENCER ROAD UD	17.4	T	10.9	T	5.0	T	1.8	T	6.7	T	5.8	T	108.6	T	6.9	T	<0.1	T	25.6	T	17.4	T	1,407.2	T
205	STAUFFER CHEMICAL CO-HOUSTON	4.9	T	.0	T	10.2	T	7.7	T	5.1	M	4.6	M	5.1	T	8.5	M	.5	T	8.8	M	.0	T	.0	T
206	TEX-TIN CORPORATION-TEXAS CITY	3.5	T	.0	T	18.5	M	.8	T	2.1	T	3.6	M	.0	T	2.9	T	.0	T	9.3	M	2.9	T	.0	T
207	TEXAS CITY, CITY OF (STP #0001	220.8	T	138.0	T	63.7	T	22.3	T	84.6	T	73.3	T	1,380.0	T	88.1	T	.6	T	325.5	T	220.8	T	17,885.0	T
208	TEXAS INSTRUMENTS INC-DALLAS	13.5	T	1.8	T	5.5	T	9.2	T	2.6	B	5.3	B	55.4	T	18.5	T	.1	T	11.4	B	7.8	T	.0	T
209	TEXAS MGT. CO. HARRIS COUNTY #	6.8	T	4.3	T	2.0	T	.7	T	2.6	T	2.3	T	42.6	T	2.7	T	.0	T	10.1	T	6.8	T	552.6	T
210	UNION CARBIDE CORPORATION	-		-		-		-		14.4	M	-		-		-		-		-		36.8	M	-	
211	US STEEL CORP-BAYTOWN	.4	T	.0	T	.3	T	.1	T	.2	M	.3	T	1.4	T	1.0	M	.0	T	.9	M	.4	M	.0	T
212	W HARRIS COUNTY MUD #10	22.1	T	13.8	T	6.4	T	2.2	T	8.4	T	7.3	T	137.9	T	8.8	T	.1	T	32.5	T	22.1	T	1,786.7	T
213	W MEMORIAL MUD	55.6	T	34.7	T	16.0	T	5.6	T	21.3	T	18.5	T	347.5	T	22.2	T	.1	T	82.0	T	55.6	T	4,503.0	T
214	WEST HARRIS COUNTY MUD #6(NEW)	5.4	T	3.4	T	1.5	T	.5	T	2.1	T	1.8	T	33.5	T	2.1	T	<0.1	T	7.9	T	5.4	T	434.4	T
215	WEST UNIVERSITY PLACE, CITY OF	53.3	T	33.3	T	15.4	T	5.4	T	20.4	T	17.7	T	333.3	T	21.3	T	.1	T	78.6	T	53.3	T	4,319.2	T
216	WESTON MUD	1.3	T	.8	T	.4	T	.1	T	.5	T	.4	T	7.9	T	.5	T	<0.1	T	1.9	T	1.3	T	102.5	T
	Total	14,062.9		8,317.3		3,692.6		1,368.7		7,769.3		5,876.2		80,214.0		7,143.6		63.8		22,164.5		13,537.7		1,030,754.1	
	Brazos River (3.18)																								
217	CLUTE, CITY OF	76.8	T	48.0	T	22.2	T	7.8	T	29.4	T	25.5	T	480.1	T	30.7	T	.2	T	113.2	T	76.8	T	6,222.4	T
218	DOW CHEMICAL CO-FREEPORT	.0	T	.0	T	.0	T	.0	T	5.9	B	551.4	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T
219	DOW CHEMICAL CO-FREEPORT	.0	T	.0	T	.0	T	.0	T	7.8	B	.4	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T
220	FREEPORT, CITY OF	49.2	T	30.7	T	14.2	T	5.0	T	16.8	T	18.3	T	307.3	T	19.6	T	.1	T	72.5	T	49.2	T	3,982.1	T
221	H L & P - W.A. PARISH	.0	T	.0	T	3.5	T	7.3	T	37.2	T	41.2	B	400.4	B	42.7	T	.3	T	77.7	T	28.2	B	.0	T
222	LAKE JACKSON, CITY OF	71.1	T	44.4	T	20.5	T	7.2	T	27.2	T	23.6	T	444.4	T	28.4	T	.2	T	104.8	T	71.1	T	5,759.7	T
223	RICHMOND, CITY OF (STP #0001)	24.4	T	15.3	T	7.0	T	2.5	T	9.4	T	8.1	T	152.8	T	9.8	T	.1	T	36.0	T	24.4	T	1,979.9	T
224	SEALY, CITY OF	17.5	T	10.9	T	5.0	T	1.8	T	6.7	T	5.8	T	109.3	T	7.0	T	.0	T	25.8	T	17.5	T	1,416.4	T
225	WEST COLUMBIA, CITY OF	32.9	T	20.5	T	9.5	T	3.3	T	12.6	T	10.9	T	205.3	T	13.1	T	.1	T	48.4	T	32.9	T	2,660.8	T
	Total	271.9		169.9		81.9		34.6		155.0		683.4		2,099.6		151.2		1.0		478.5		300.0		22,021.3	
	Matagorda Bay (3.19)																								
226	ALUMINUM CO OF AMERICA-PT COMF	15.7	T	.0	T	7.4	T	3.7	T	9.3	T	20.6	T	.0	T	13.0	T	.9	B	9.3	T	9.7	B	.0	T
227	BP CHEMICALS AMERICA INC.	.0	T	.0	T	.0	T	.0	T	6.3	B	.2	T	.0	T	.0	T	.0	T	37.9	M	5.8	M	.0	T
228	H. CELANESE CHEMICAL CO-BAY CITY	15.3	T	9.6	T	4.4	T	1.5	T	33.3	M	5.4	T	95.7	T	8.1	T	.0	T	35.2	M	15.3	T	1,240.9	T
229	CENTRAL POWER & LIGHT-JOSLIN	.0	T	.0	T	.0	T	.0	T	.0	T	87.9	T	.0	T	.0	T	.0	T	.0	T	.1	M	.0	T
230	EL CAMPO ALUMINUM	.0	T	.0	T	.0	T	.0	T	.0	T	<0.1	T	1.4	B	.0	T	.0	T	.0	T	.9	B	.0	T
231	FORMOSA PLASTICS CORP. U.S.A.	.0	T	.0	T	.0	T	.0	T	33.6	M	.7	T	.0	T	.0	T	.0	T	.0	T	6.9	M	.0	T
232	HL&P-SOUTH TEXAS PROJECT	.8	T	.5	T	.2	T	.1	T	.3	T	.3	T	5.2	T	.3	T	<0.1	T	1.2	T	.8	B	66.8	T
	Total	31.9		10.1		12.1		5.3		82.7		115.1		102.3		19.4		.9		83.6		39.5		1,307.7	

Table 5. Continued.

Map Ref. Num.	EDA (Code) Facility Name	TN (1000 lbs)		TP (1000 lbs)		As (10 lbs)		Cd (10 lbs)		Cr (10 lbs)		Cu (10 lbs)		Fe (10 lbs)		Pb (10 lbs)		Hg (10 lbs)		Zn (10 lbs)		O&G (1000 lbs)		FCB (billion cells)	
		Annual Pollutant Load Estimates																							
	San Antonio Bay (3.20)																								
233	AIRCO CARBON, A DIV. OF THE BO	.6	T	.0	T	.0	T	.0	T	.8	T	.1	T	.0	T	<0.1	T	<0.1	T	.8	T	6.2	M	.0	T
234	UNION CARBIDE CORP-PORT LAVACA	.0	T	.0	T	.0	T	.0	T	.0	T	3.6	T	.0	T	.0	T	.0	T	.0	T	.2	B	.0	T
	Total	.6		.0		.0		.0		.8		3.7		.0		<0.1		<0.1		.8		8.4		.0	
	Aransas Bay (3.21)																								
235	ARANSAS PASS, CITY OF	19.0	T	11.9	T	5.5	T	1.9	T	7.3	T	6.3	T	118.8	T	7.6	T	.1	T	28.0	T	19.0	T	1,539.6	T
236	BEEVILLE, CITY OF (MOORE ST)	45.6	T	28.5	T	13.1	T	4.6	T	17.5	T	15.1	T	284.8	T	18.2	T	.1	T	67.2	T	45.6	T	3,691.3	T
	Total	64.6		40.4		18.6		6.5		24.7		21.4	.0	403.6		25.8		.2		95.2		64.6		5,230.9	
	Corpus Christi Bay (3.22)																								
237	AMERICAN CHROME & CHEM-CORPUS	69.0	T	.0	T	145.2	T	108.9	T	6.2	M	254.1	T	72.6	T	.6	M	6.5	T	7.7	M	.0	T	.0	T
238	CCPC CHEMICAL INC.	71.6	T	.0	T	6.4	T	.6	T	9.8	B	21.9	T	.0	T	6.4	T	.8	T	16.5	B	4.6	B	.0	T
239	CENTRAL POWER & LIGHT-BARNEY D	.0	T	.0	T	.0	T	.0	T	.0	T	239.0	T	.0	T	.0	T	.0	T	.0	T	.0	M	.0	T
240	CHAMPLIN REVINING CO.-CORPUS C	46.7	T	.0	T	.0	T	.0	T	101.4	B	7.2	T	.0	T	3.6	T	.6	T	71.6	T	54.6	B	.0	T
241	COASTAL REFINING & MARKETING,	24.0	T	.0	T	.0	T	.0	T	13.2	M	3.5	T	.0	T	1.8	T	.3	T	35.3	T	17.9	M	.0	T
242	CORPUS CHRISTI, CITY OF (ALLIS	74.8	T	46.6	T	21.5	T	7.5	T	28.6	T	24.8	T	465.9	T	29.8	T	.2	T	109.9	T	74.6	T	6,038.5	T
243	CORPUS CHRISTI, CITY OF (BROAD	236.0	T	147.5	T	68.1	T	23.8	T	90.4	T	78.4	T	1,475.0	T	94.2	T	.6	T	347.9	T	236.0	T	19,115.0	T
244	CORPUS CHRISTI, CITY OF (LAGUN	45.8	T	28.6	T	13.2	T	4.6	T	17.5	T	15.2	T	286.3	T	18.3	T	.1	T	67.5	T	45.8	T	3,710.0	T
245	CORPUS CHRISTI, CITY OF (OSO)	398.5	T	249.1	T	114.9	T	40.2	T	152.6	T	132.4	T	2,490.6	T	159.0	T	1.1	T	587.4	T	398.5	T	32,277.0	T
246	CORPUS CHRISTI, CITY OF (WESTS	94.9	T	59.3	T	27.4	T	9.6	T	36.3	T	31.5	T	593.1	T	37.9	T	.3	T	139.9	T	94.9	T	7,686.3	T
247	DIAMOND SHAMROCK REFINING & MA	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	B	.0	T
248	E I DUPONT DE NEMOURS-INGLESID	.0	T	.0	T	.0	T	.0	T	.0	T	.6	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T
249	ENCYCLE/TEXAS, INC.	.8	T	.5	T	.3	M	1.0	M	.3	T	1.3	M	5.1	T	1.1	M	<0.1	T	21.1	M	.8	T	66.0	T
250	KOCH REFINING COMPANY	25.4	T	.0	T	.0	T	.0	T	34.7	M	3.7	T	.0	T	1.9	T	.3	T	37.3	T	14.2	M	.0	T
251	NUECES COUNTY WCID #0004	22.2	T	13.9	T	8.4	T	2.2	T	8.5	T	7.4	T	138.8	T	8.9	T	.1	T	32.7	T	22.2	T	1,799.5	T
252	NUECES COUNTY WCIP#4-MUSTANG I	40.9	T	25.6	T	11.8	T	4.1	T	15.7	T	13.6	T	255.8	T	16.3	T	.1	T	60.3	T	40.9	T	3,315.7	T
253	PORTLAND, CITY OF	53.6	T	33.5	T	15.5	T	5.4	T	20.5	T	17.8	T	335.3	T	21.4	T	.1	T	79.1	T	53.6	T	4,345.5	T
254	ROBSTOWN, CITY OF	37.4	T	23.4	T	10.8	T	3.8	T	14.3	T	12.4	T	233.6	T	14.9	T	.1	T	55.1	T	37.4	T	3,027.1	T
255	SOUTHWESTERN REFINING-CORPUS C	21.1	T	.0	T	.0	T	.0	T	10.7	M	3.1	T	.0	T	1.6	T	.3	T	31.0	T	3.3	M	.0	T
256	USN-CORPUS CHRISTI NAS	.0	T	.0	T	.0	T	8.6	M	11.0	M	2.3	M	.0	T	4.7	M	.0	T	16.4	M	2.5	M	189.0	M
257	USX CORPORATION	-		-		-		-		-		-		-		-		-		-		-		-	
258	USX CORPORATION	-		-		-		-		-		-		-		-		-		-		-		-	
259	VALERO REFINING CO.-CORPUS CHR	44.1	T	27.5	T	2.0	T	4.3	T	35.1	T	35.1	T	468.8	T	42.9	T	.3	T	70.5	T	10.2	B	3,568.9	T
	Total	1,308.5		655.5		443.5		224.7		608.9		905.2		6,821.0		465.1		11.8		1,789.4		1,112.1		85,138.5	

Abbreviations: EDA, Estuarine Drainage Area; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O&G, Oil and Grease; FCB, Fecal Coliform Bacteria; M, monitored data; P, permit data; T, data derived from typical pollutant concentrations; O, other data from IFD and/or Needs Survey databases; No., number; WWTP, wastewater treatment plant; -, indicates that either there were no estimates for that parameter or there were no facilities in that point source category in the EDA.

Note: • Basis of loading estimate codes shown in parenthesis: M=monitoring data; P=permit data; B=value from both monitoring and typical pollutant concentration or permit data; N=needs survey data; I=IFD database materal; T=typical pollutant concentration data. Hierarchy of confidence in estimates: monitored > permit > both > needs > IFD > typical pollutant concentrations.

Table 5. Facility characteristics, annual pollutant load estimates, and basis of loading estimates for major and significant minor facilities, 1987 (Continued).

Map Ref. Num.	EDA (Code) Facility Name	TN (1000 lbs)		TP (1000 lbs)		As (10 lbs)		Cd (10 lbs)		Cr (10 lbs)		Cu (10 lbs)		Fe (10 lbs)		Pb (10 lbs)		Hg (10 lbs)		Zn (10 lbs)		O&G (1000 lbs)		FCB (billion cells)	
		Annual Pollutant Load Estimates																							
	Laguna Madre (3.23)																								
260	ALICE, CITY OF (SOUTH)	26.2	T	17.6	T	8.1	T	2.8	T	10.6	T	9.4	T	176.0	T	11.2	T	.1	T	41.5	T	28.2	T	2,281.3	T
261	BROWNSVILLE PUBLIC UTILITIES (B)	92.2	T	57.6	T	26.6	T	9.3	T	35.3	T	30.6	T	576.4	T	36.8	T	.2	T	135.9	T	92.2	T	7,469.9	T
262	CAMERON COUNTY FWSD-#0001 PORT	26.7	T	16.7	T	7.7	T	2.7	T	10.2	T	8.9	T	166.8	T	10.7	T	.1	T	39.3	T	26.7	T	2,161.5	T
263	CELANESE ENGINEERING RESINS	.0	T	.0	T	.0	T	.0	T	20.4	M	13.2	M	.0	T	.0	T	.0	T	.0	T	.0	B	.0	T
264	DONNA, CITY OF	33.7	T	21.0	T	9.7	T	3.4	T	12.9	T	11.2	T	210.3	T	13.4	T	.1	T	49.6	T	33.7	T	2,725.8	T
265	EDINBURG, CITY OF	78.2	T	48.9	T	22.5	T	7.9	T	29.9	T	26.0	T	488.5	T	31.2	T	.2	T	115.2	T	78.2	T	6,331.5	T
266	HARLINGEN, CITY OF (STP #0001)	69.5	T	43.4	T	20.0	T	7.0	T	26.6	T	23.1	T	434.2	T	27.7	T	.2	T	102.4	T	69.5	T	5,626.6	T
267	HARLINGEN, CITY OF (STP #0002)	80.0	T	50.0	T	23.1	T	8.1	T	30.6	T	26.6	T	500.1	T	31.9	T	.2	T	117.9	T	80.0	T	6,480.6	T
268	KENAF INTERNATIONAL-MCALLEN	-		-		-		-		-		-		-		-		-		-		-		-	
269	KINGSVILLE, CITY OF	43.9	T	27.4	T	12.7	T	4.4	T	16.8	T	14.6	T	274.3	T	17.5	T	.1	T	64.7	T	43.9	T	3,554.3	T
270	MC ALLEN, CITY OF	292.4	T	182.7	T	84.3	T	29.5	T	112.0	T	97.1	T	1,827.2	T	116.7	T	.8	T	431.0	T	292.4	T	23,681.0	T
271	MC ALLEN, CITY OF (STP #3-NORT	16.3	T	10.2	T	4.7	T	1.6	T	6.3	T	5.4	T	102.1	T	6.5	T	<0.1	T	24.1	T	16.3	T	1,323.5	T
272	MERCEDES, CITY OF	40.9	T	25.6	T	11.6	T	4.1	T	15.7	T	13.6	T	255.7	T	16.3	T	.1	T	60.3	T	40.9	T	3,314.4	T
273	MISSION, CITY OF	58.0	T	35.0	T	16.1	T	5.6	T	21.4	T	18.6	T	349.8	T	22.3	T	.1	T	82.5	T	56.0	T	4,533.4	T
274	PHARR, CITY OF	87.2	T	75.0	T	19.7	T	31.5	T	53.4	T	84.3	T	1,443.2	T	34.1	T	.3	T	289.9	T	159.3	T	523,710.0	T
275	SAN BENITO, CITY OF	44.2	T	27.6	T	12.6	T	4.5	T	16.9	T	14.7	T	276.4	T	17.6	T	.1	T	65.2	T	44.2	T	3,581.9	T
276	SAN JUAN CITY OF	21.5	T	13.4	T	6.2	T	2.2	T	8.2	T	7.1	T	134.5	T	8.6	T	.1	T	31.7	T	21.5	T	1,742.9	T
277	UNION CARBIDE-BROWNSVILLE	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T	.0	T
278	WESLACO CITY OF	8.6	T	5.5	T	2.5	T	.9	T	3.4	T	2.9	T	55.0	T	3.5	T	.0	T	13.0	T	8.8	T	712.5	T
	Total	1,019.5		657.6		288.6		125.5		430.9		407.2		7,270.5		406.2		2.8		1,664.3		1,091.7		599,231.1	
	Outside EDAs (9.99)																								
279	ANGLETON, CITY OF	76.5	T	47.8	T	22.1	T	7.7	T	29.3	T	25.4	T	478.0	T	30.5	T	.2	T	112.7	T	76.5	T	6,194.8	T
280	BAMMEL UTILITY DISTRICT	30.4	T	19.0	T	8.8	T	3.1	T	11.7	T	10.1	T	190.3	T	12.1	T	.1	T	44.9	T	30.4	T	2,465.8	T
281	BASF CORPORATION	.0	T	.0	T	.0	T	.0	T	17.0	B	.8	T	.0	T	.0	T	.0	T	46.6	B	.0	T	.0	T
282	BAY CITY, CITY OF	75.3	T	47.1	T	21.7	T	7.6	T	28.8	T	25.0	T	470.7	T	30.1	T	.2	T	111.0	T	75.3	T	6,099.8	T
283	BAYTANK (HOUSTON) INC-HARRIS C	-		-		-		-		-		-		-		-		-		-		-	M	-	
284	BRAZOS RIVER AUTHORITY-SUGARLA	133.4	T	83.4	T	36.5	T	13.5	T	51.1	T	44.3	T	834.0	T	53.3	T	.4	T	196.7	T	133.4	T	10,808.0	T
285	BROWNSVILLE, CITY OF (MAIN)	207.8	T	129.9	T	59.9	T	21.0	T	79.6	T	69.0	T	1,298.7	T	82.9	T	.6	T	306.3	T	207.8	T	16,830.0	T
286	CENTRAL POWER & LIGHT-COLETO C	.0	T	.0	T	.1	T	.4	T	2.0	T	359.2	T	19.8	T	2.4	T	<0.1	T	3.2	T	<0.1	B	.0	T
287	CENTRAL POWER & LIGHT-VICTORIA	.0	T	.0	T	.0	T	.0	T	.0	T	2.1	T	.0	T	.0	T	.0	T	.0	T	.1	M	.0	T
288	CNP UTILITY DISTRICT	25.1	T	15.7	T	7.2	T	2.5	T	9.6	T	8.3	T	156.9	T	10.0	T	.1	T	37.0	T	25.1	T	2,033.1	T
289	E I DUPONT DE NEMOURS-VICTORIA	173.0	T	108.1	T	49.9	T	17.5	T	59.8	M	60.6	T	1,081.4	T	69.1	T	.5	T	35.6	M	13.8	M	14,014.0	T
290	FORT BEND CO. MUD #13 SOUTH PL	341.1	T	213.2	T	98.4	T	34.4	T	130.7	T	113.3	T	2,132.0	T	136.1	T	.9	T	502.9	T	341.1	T	27,631.0	T
291	FORT BEND COUNTY WCID #0002	83.5	T	52.2	T	24.1	T	8.4	T	32.0	T	27.7	T	522.1	T	33.3	T	.2	T	123.1	T	83.5	T	6,766.8	T
292	GBRA (OLD VICTORIA STP)	47.9	T	29.9	T	13.6	T	4.8	T	18.3	T	15.9	T	299.2	T	19.1	T	.1	T	70.6	T	47.9	T	3,877.4	T
293	GBRA (VICTORIA REGIONAL STP)	166.6	T	116.6	T	53.8	T	18.8	T	71.5	T	62.0	T	1,166.1	T	74.5	T	.5	T	275.0	T	186.6	T	15,112.0	T
294	GCWDA (HARRIS COUNTY WCID #013	32.3	T	20.2	T	9.3	T	3.3	T	12.4	T	10.7	T	202.1	T	12.9	T	.1	T	47.7	T	32.3	T	2,618.7	T
295	GCWDA (KLEINWOOD)	42.6	T	26.6	T	12.3	T	4.3	T	16.3	T	14.2	T	266.4	T	17.0	T	.1	T	62.8	T	42.6	T	3,452.5	T
296	GULF CHEMICAL&METALLURGICAL CO	.0	T	.0	T	3.0	T	.9	T	.6	T	2.1	T	.0	T	17.3	T	.0	T	5.1	T	.1	B	.0	T
297	HARRIS COUNTY FWSD	4.2	T	2.6	T	1.2	T	.4	T	1.6	T	1.4	T	26.4	T	1.7	T	.0	T	6.2	T	4.2	T	341.9	T
298	HARRIS COUNTY MUD-KINGWOOD CEN	131.1	T	81.9	T	37.8	T	13.2	T	50.2	T	43.5	T	819.1	T	52.3	T	.4	T	193.2	T	131.1	T	10,615.0	T
299	HOFFMANN-LA ROCHE INC-FREEPORT	.0	T	.0	T	.0	T	.0	T	<0.1	T	<0.1	T	.0	T	<0.1	T	<0.1	T	<0.1	T	.0	T	.0	T
300	LAKE FOREST PLANT ADVISORY COU	48.8	T	30.5	T	14.1	T	4.9	T	18.7	T	16.2	T	304.8	T	19.5	T	.1	T	71.9	T	48.8	T	3,950.6	T
301	MINERAL RESEARCH & DEVELOPMENT	.6	T	.0	T	<0.1	M	.2	M	2.2	T	2.2	T	.6	T	.1	M	.1	T	20.7	M	.0	T	.0	T

Table 5. Continued.

Map Ref. Num.	EDA (Code) Facility Name	TN (1000 lbs)		TP (1000 lbs)		As (10 lbs)		Cd (10 lbs)		Cr (10 lbs)		Cu (10 lbs)		Fe (10 lbs)		Pb (10 lbs)		Hg (10 lbs)		Zn (10 lbs)		O&G (1000 lbs)		FCB (billion cells)	
		Annual Pollutant Load Estimates																							
302	NALCO CHEMICAL CO.-FREEPORT	.0	T	.0	T	.0	T	.0	T	.0	T	<0.1	T	.0	T	38.0	M	.0	T	1.6	M	.0	T	.0	T
303	PHILLIPS 66 CO.-SWEENY REFINER	65.5	T	.0	T	.0	T	.0	T	141.0	M	9.6	T	.0	T	4.8	T	.9	T	96.4	T	59.8	B	.0	T
304	QUAIL VALLEY UD	69.9	T	43.7	T	20.1	T	7.0	T	26.8	T	23.2	T	436.6	T	27.9	T	.2	T	103.0	T	69.9	T	5,657.9	T
305	RHONE-POULENC, INCORPORATED	10.6	T	.0	T	1.0	T	.1	T	7.4	M	3.2	T	.0	T	1.0	T	.1	T	9.6	T	1.4	M	.0	T
306	SHINTECH	73.8	T	12.2	T	10.5	T	2.5	T	10.0	M	22.7	T	121.7	T	12.7	T	.6	T	77.5	T	11.9	M	1,577.9	T
307	WHARTON, CITY OF	37.5	T	23.5	T	10.8	T	3.8	T	14.4	T	12.5	T	234.7	T	15.0	T	.1	T	55.3	T	37.5	T	3,041.1	T
	Total	1,897.6		1,104.1		518.4		180.3		843.0		985.3		11,061.4		773.5		6.4		2,616.5		1,661.1		143,088.3	
	Significant Minor Facilities																								
308	USDOE-BIG HILL STOR. COMPLEX (3.18)	754.1	T	471.3	T	20.2	T	134.7	B	336.6	B	336.6	B	4,713.1	T	2,717.8	B	33.7	B	894.0	B	336.7	B	61,080.5	M
309	HUBER,JM-HARRIS (3.17)	410.2	T	256.4	T	118.3	T	41.4	T	157.1	T	136.2	T	2,563.7	T	163.7	T	1.1	T	604.7	T	410.2	T	33,224.7	M
310	WALLIS, CITY OF (3.18)	9.0	T	7.8	T	2.0	T	3.3	T	5.5	T	8.7	T	149.3	T	3.5	T	<0.1	T	30.0	T	16.5	T	54,189.9	M
311	ALAMO, CITY OF (3.23)	40.7	T	35.1	T	9.2	T	14.7	T	24.9	T	39.4	T	674.1	T	15.9	T	.2	T	135.4	T	74.4	T	244,630.4	M
312	TRIPLE "B" MOBILE PARK (3.23)	1.3	T	0.9	T	<0.1	T	<0.1	T	.1	T	.7	T	11.9	T	.9	T	.0	T	2.0	T	2.5	T	82,891.5	M
	Total	1,215.3		771.4		149.7		194.0		524.4		521.7		8,112.1		2,901.9		34.9		1,666.0		840.3		476,017.0	

Abbreviations: EDA, Estuarine Drainage Area; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O&G, Oil and Grease; FCB, Fecal Coliform Bacteria; M, monitored data; P, permit data; T, data derived from typical pollutant concentrations; O, other data from IFD and/or Needs Survey databases; No., number; WWTP, wastewater treatment plant; -, indicates that either there were no estimates for that parameter or there were no facilities in that point source category in the EDA.

Note: • Basis of loading estimate codes shown in parenthesis: M=monitoring data; P=permit data; B=value from both monitoring and typical pollutant concentration or permit data; N=needs survey data; I=IFD database materal; T=typical pollutant concentration data. Hierarchy of confidence in estimates: monitored > permit > both > needs > IFD > typical pollutant concentrations.

Table 6. Top ten dischargers by pollutant.

Map Ref. #	Facility Name	SIC Code	SIC Name	Discharge Estimate	Basis Code
	Total Flow			million gallons	
119	HL&P-P H ROBINSON STATION-HOUS	4911	Electric services	415,908	M
218	DOW CHEMICAL CO-FREEPORT	2869	Industrial inorganic chemicals	397,548	M
221	H L & P - W.A. PARISH	4911	Electric services	392,954	M
117	HL&P-CEDAR BAYOU	4911	Electric services	327,558	M
286	CENTRAL POWER & LIGHT-COLETO C	4911	Electric services	214,106	M
239	CENTRAL POWER & LIGHT-BARNEY D	4911	Electric services	143,213	M
120	HL&P-WEBSTER STATION-HOUSTON	4911	Electric services	82,964	M
122	HLEP-SAM BERTRON-HOUSTON	4911	Electric services	58,022	M
229	CENTRAL POWER & LIGHT-JOSLIN	4911	Electric services	52,679	M
11	E I DUPONT DE NEMOURS-ORANGE	2869	Industrial inorganic chemicals	46,116	M
	Total Polluted Flow			million gallons	
218	DOW CHEMICAL CO-FREEPORT	2869	Industrial inorganic chemicals	134,269	M
11	E I DUPONT DE NEMOURS-ORANGE	2869	Industrial inorganic chemicals	23,058	M
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	22,147	M
39	TEXACO CHEMICAL COMPANY	2869	Industrial inorganic chemicals	21,308	M
38	TEMPLE-EASTEX INC-SILSBEE	2621	Nonbuilding paper mills	16,376	M
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	15,018	M
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	11,495	M
21	INLAND CONTAINER CORPORATION	2631	Paperboard mills	9,021	M
3	BEAUMONT, CITY OF (HILLEBRANDT	4952	Sewerage systems	8,183	M
312	USDOE-BIG HILL STORAGE COMPLEX	5171	Petroleum bulk stations & term.	8,069	M
	Biochemical Oxygen Demand (BOD)			1000 lbs	
21	INLAND CONTAINER CORPORATION	2631	Paperboard mills	6,893	M
38	TEMPLE-EASTEX INC-SILSBEE	2621	Nonbuilding paper mills	2,257	M
9	CHEVRON U.S.A. INC.-PORT ARTHU	2911	Petroleum refining	1,868	B
218	DOW CHEMICAL CO-FREEPORT	2869	Industrial inorganic chemicals	1,661	B
312	USDOE-BIG HILL STORAGE COMPLEX	5171	Petroleum bulk stations & term.	1,609	M
95	GULF COAST WASTE DISP. AUTH.	4953	Refuse systems	1,288	M
136	HOUSTON, CITY OF (KEEGANS BAYO	4952	Sewerage systems	1,230	P
3	BEAUMONT, CITY OF (HILLEBRANDT	4952	Sewerage systems	1,118	M
308	HUBER,JM-HARRIS	2895	Carbon black	875	T
64	CHAMPION INTERNATIONAL CORP-SH	2621	Nonbuilding paper mills	875	M
	Total Suspended Solids (TSS)			1000 lbs	
218	DOW CHEMICAL CO-FREEPORT	2869	Industrial inorganic chemicals	7,654	M
21	INLAND CONTAINER CORPORATION	2631	Paperboard mills	7,203	M
226	ALUMINUM CO OF AMERICA-PT COMF	3334	Primary aluminum	6,747	B
95	GULF COAST WASTE DISP. AUTH.	4953	Refuse systems	4,716	M
38	TEMPLE-EASTEX INC-SILSBEE	2621	Nonbuilding paper mills	3,403	M
64	CHAMPION INTERNATIONAL CORP-SH	2621	Nonbuilding paper mills	2,198	M
81	EXXON CORP-HOUSTON	2911	Petroleum refining	2,066	B
141	HOUSTON, CITY OF (NORTHSIDE)	4952	Sewerage systems	1,619	M
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	1,310	M
90	GCWDA-40 ACRE-TEXAS CITY	4953	Refuse systems	1,294	M
	Total Nitrogen (TN)			1000 lbs	
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	2,070	T
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	1,404	T
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	1,074	T
3	BEAUMONT, CITY OF (HILLEBRANDT	4952	Sewerage systems	765	T
312	USDOE-BIG HILL STORAGE COMPLEX	5171	Petroleum bulk stations & term.	754	T
95	GULF COAST WASTE DISP. AUTH.	4953	Refuse systems	641	T
153	HOUSTON, CITY OF (WEST)	4952	Sewerage systems	581	T
136	HOUSTON, CITY OF (KEEGANS BAYOU)	4952	Sewerage systems	576	T
124	HOUSTON, CITY OF (ALMEDA SIMS)	4952	Sewerage systems	576	T
308	HUBER,JM-HARRIS	2895	Carbon black	410	T

Abbreviations: SIC, Standard Industrial Classification; N/A not applicable; Ref. #, reference number.
See also table 5 for corresponding reference numbers and more discharge information.
Basis Codes: M, monitored data; B, both monitored and typical concentration or permit data; T, typical concentration data.

Table 6. Continued.

Map Ref. #	Facility Name	SIC Code	SIC Name	Discharge Estimate	Basis Code
	Total Phosphorus (TP)			1000 lbs	
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	1,294	T
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	877	T
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	671	T
3	BEAUMONT, CITY OF (HILLEBRANDT	4952	Sewerage systems	478	T
312	USDOE-BIG HILL STORAGE COMPLEX	5171	Petroleum bulk stations & term.	471	T
95	GULF COAST WASTE DISP. AUTH.	4953	Refuse systems	401	T
173	MOBAY CHEMICAL CO-BAYTOWN	2869	Industrial inorganic chemicals	386	M
153	HOUSTON, CITY OF (WEST)	4952	Sewerage systems	363	T
136	HOUSTON, CITY OF (KEEGANS BAYOU)	4952	Sewerage systems	360	T
124	HOUSTON, CITY OF (ALMEDA SIMS)	4952	Sewerage systems	360	T
	Arsenic (As)			10 lbs	
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	597	T
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	405	T
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	310	T
3	BEAUMONT, CITY OF (HILLEBRANDT	4952	Sewerage systems	221	T
180	OCCIDENTAL CHEMICAL CORP.	2812	Alkalies and chlorine	170	T
153	HOUSTON, CITY OF (WEST)	4952	Sewerage systems	168	T
136	HOUSTON, CITY OF (KEEGANS BAYOU)	4952	Sewerage systems	166	T
124	HOUSTON, CITY OF (ALMEDA SIMS)	4952	Sewerage systems	166	T
237	AMERICAN CHROME & CHEM-CORPUS	2819	Industrial inorganic chemicals	145	T
308	HUBER,JM-HARRIS	2895	Carbon black	118	T
	Cadmium (Cd)			10 lbs	
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	209	T
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	142	T
312	USDOE-BIG HILL STORAGE COMPLEX	5171	Petroleum bulk stations & term.	135	B
180	OCCIDENTAL CHEMICAL CORP.	2812	Alkalies and chlorine	128	T
237	AMERICAN CHROME & CHEM-CORPUS	2819	Industrial inorganic chemicals	109	T
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	108	T
3	BEAUMONT, CITY OF (HILLEBRANDT	4952	Sewerage systems	77	T
153	HOUSTON, CITY OF (WEST)	4952	Sewerage systems	59	T
136	HOUSTON, CITY OF (KEEGANS BAYOU)	4952	Sewerage systems	58	T
124	HOUSTON, CITY OF (ALMEDA SIMS)	4952	Sewerage systems	58	T
	Chromium (Cr)			10 lbs	
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	793	T
9	CHEVRON U.S.A. INC.-PORT ARTHU	2911	Petroleum refining	766	B
95	GULF COAST WASTE DISP. AUTH.	4953	Refuse systems	698	M
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	538	T
8	CHEVRON CHEMICAL CO.-ORANGE	2821	Plastics materials & resins	534	T
41	TEXACO REFINING & MARKETING, I	2911	Petroleum refining	492	B
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	412	T
38	TEMPLE-EASTEX INC-SILSBEE	2621	Nonbuilding paper mills	410	T
23	LOWER NECHES VALLEY AUTH-BEAUM	4953	Refuse systems	405	M
81	EXXON CORP-HOUSTON	2911	Petroleum refining	351	B
	Copper (Cu)			10 lbs	
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	688	T
117	HL&P-CEDAR BAYOU	4911	Electric services	557	T
218	DOW CHEMICAL CO-FREEPORT	2869	Industrial inorganic chemicals	551	T
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	466	T
286	CENTRAL POWER & LIGHT-COLETO C	4911	Electric services	359	T
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	357	T
180	OCCIDENTAL CHEMICAL CORP.	2812	Alkalies and chlorine	342	T
312	USDOE-BIG HILL STORAGE COMPLEX	5171	Petroleum bulk stations & term.	337	B
237	AMERICAN CHROME & CHEM-CORPUS	2819	Industrial inorganic chemicals	254	T
3	BEAUMONT, CITY OF (HILLEBRANDT	4952	Sewerage systems	254	T

Table 6. Top ten dischargers by pollutant (Continued).

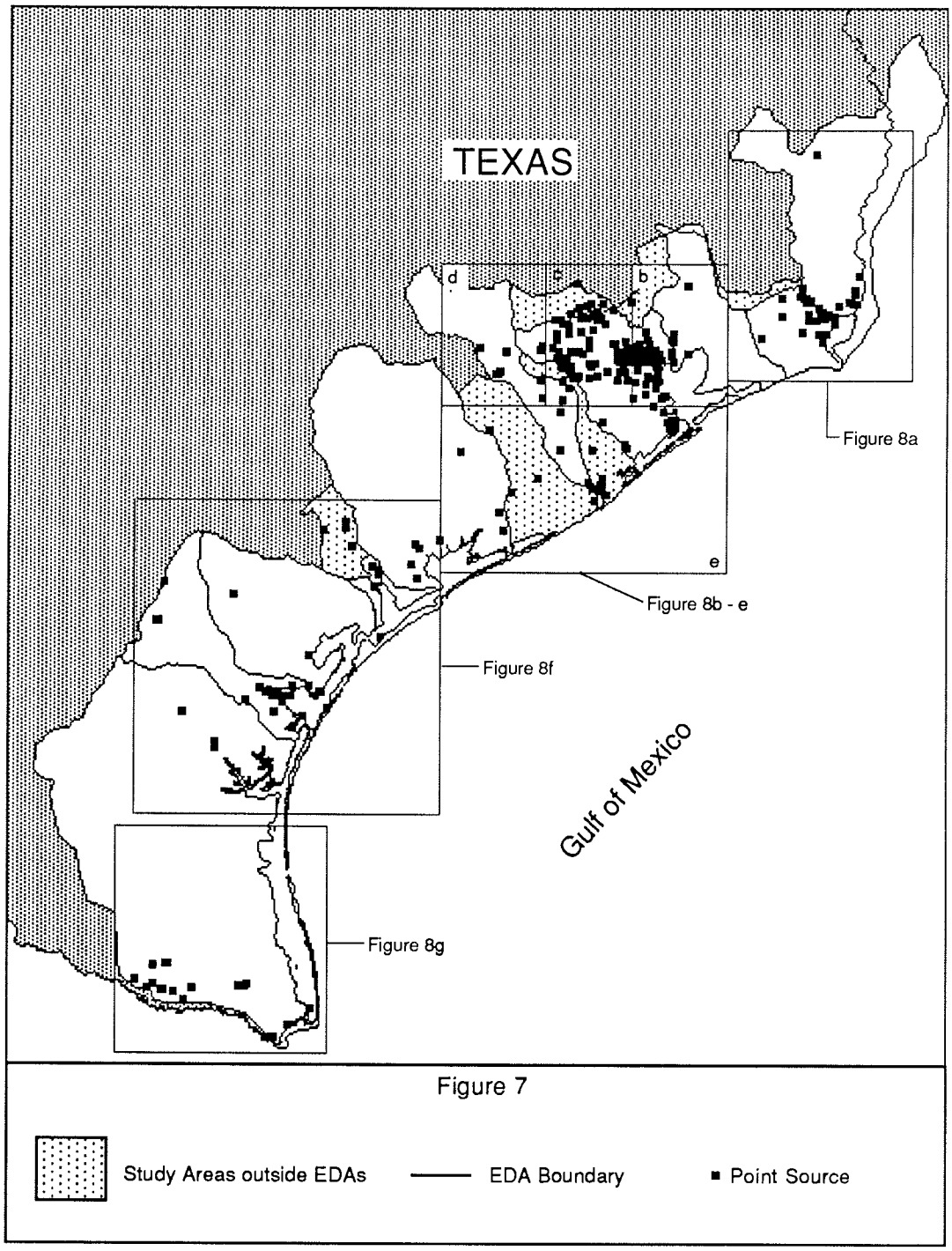
Map Ref. #	Facility Name	SIC Code	SIC Name	Discharge Estimate	Basis Code
	Iron (Fe)			10 lbs	
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	12,936	T
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	8,772	T
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	6,715	T
3	BEAUMONT, CITY OF (HILLEBRANDT	4952	Sewerage systems	4,780	T
312	USDOE-BIG HILL STORAGE COMPLEX	5171	Petroleum bulk stations & term.	4,713	T
95	GULF COAST WASTE DISP. AUTH.	4953	Refuse systems	4,007	T
153	HOUSTON, CITY OF (WEST)	4952	Sewerage systems	3,634	T
136	HOUSTON, CITY OF (KEEGANS BAYO	4952	Sewerage systems	3,603	T
124	HOUSTON, CITY OF (ALMEDA SIMS)	4952	Sewerage systems	3,603	T
308	HUBER,JM-HARRIS	2895	Carbon black	2,564	T
	Lead (Pb)			10 lbs	
312	USDOE-BIG HILL STORAGE COMPLEX	5171	Petroleum bulk stations & term.	2,718	B
95	GULF COAST WASTE DISP. AUTH.	4953	Refuse systems	953	M
180	OCCIDENTAL CHEMICAL CORP.	2812	Alkalies and chlorine	850	T
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	826	T
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	560	T
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	429	T
3	BEAUMONT, CITY OF (HILLEBRANDT	4952	Sewerage systems	305	T
23	LOWER NECHES VALLEY AUTH-BEAUM	4953	Refuse systems	252	M
153	HOUSTON, CITY OF (WEST)	4952	Sewerage systems	232	T
136	HOUSTON, CITY OF (KEEGANS BAYO	4952	Sewerage systems	230	T
	Mercury (Hg)			10 lbs	
312	USDOE-BIG HILL STORAGE COMPLEX	5171	Petroleum bulk stations & term.	34	B
95	GULF COAST WASTE DISP. AUTH.	4953	Refuse systems	11	M
237	AMERICAN CHROME & CHEM-CORPUS	2819	Industrial inorganic chemicals	7	T
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	6	T
180	OCCIDENTAL CHEMICAL CORP.	2812	Alkalies and chlorine	5	B
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	4	T
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	3	T
8	CHEVRON CHEMICAL CO.-ORANGE	2821	Plastics materials & resins	3	T
41	TEXACO REFINING & MARKETING, I	2911	Petroleum refining	3	T
48	AMOCO CORP-CHOCOLATE BAYOU	2821	Plastics materials & resins	3	T
	Zinc (Zn)			10 lbs	
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	3,051	T
38	TEMPLE-EASTEX INC-SILSBEE	2621	Nonbuilding paper mills	2,733	T
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	2,069	T
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	1,584	T
21	INLAND CONTAINER CORPORATION	2631	Paperboard mills	1,506	T
95	GULF COAST WASTE DISP. AUTH.	4953	Refuse systems	1,161	M
3	BEAUMONT, CITY OF (HILLEBRANDT	4952	Sewerage systems	1,127	T
312	USDOE-BIG HILL STORAGE COMPLEX	5171	Petroleum bulk stations & term.	894	B
153	HOUSTON, CITY OF (WEST)	4952	Sewerage systems	857	T
180	OCCIDENTAL CHEMICAL CORP.	2812	Alkalies and chlorine	850	T
	Oil and Grease (O & G)			1000 lbs	
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	2,070	T
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	1,404	T
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	1,074	T
3	BEAUMONT, CITY OF (HILLEBRANDT	4952	Sewerage systems	765	T
153	HOUSTON, CITY OF (WEST)	4952	Sewerage systems	581	T
136	HOUSTON, CITY OF (KEEGANS BAYO	4952	Sewerage systems	576	T
124	HOUSTON, CITY OF (ALMEDA SIMS)	4952	Sewerage systems	576	T
9	CHEVRON U.S.A. INC.-PORT ARTHU	2911	Petroleum refining	491	B
95	GULF COAST WASTE DISP. AUTH.	4953	Refuse systems	469	M
308	HUBER,JM-HARRIS	2895	Carbon black	410	T

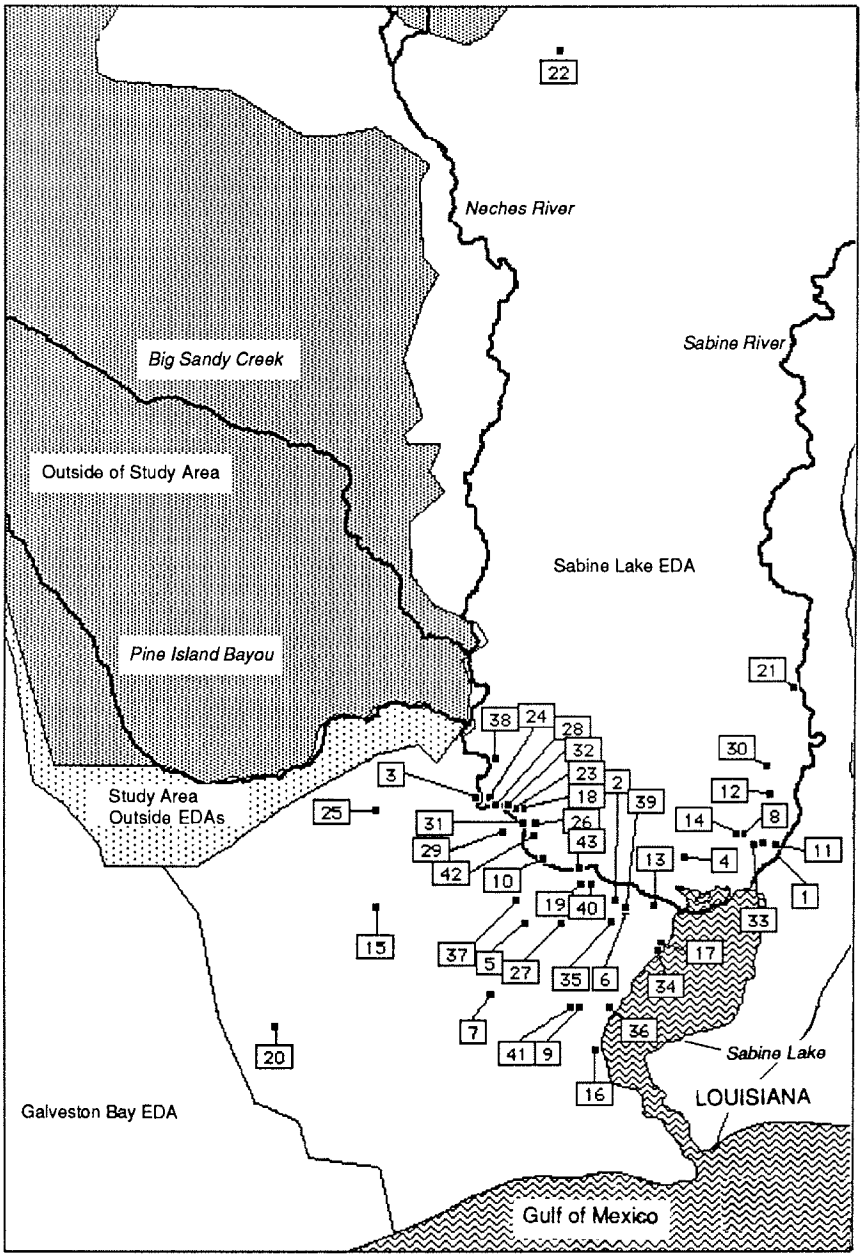
Abbreviations: SIC, Standard Industrial Classification; N/A not applicable; Ref. #, reference number.
See also table 5 for corresponding reference numbers and more discharge information.
Basis Codes: M, monitored data; B, both monitored and typical concentration or permit data; T, typical concentration data.

Table 6. Continued.

Map Ref. #	Facility Name	SIC Code	SIC Name	Discharge Estimate	Basis Code
	Fecal Coliform Bacteria (FCB)			billion cells	
274	PHARR, CITY OF	4952	Sewerage systems	523,710	T
310	ALAMO, CITY OF	4952	Sewerage systems	244,630	T
123	HOUSTON, CITY OF (69TH STREET)	4952	Sewerage systems	167,650	T
147	HOUSTON, CITY OF (SOUTHWEST)	4952	Sewerage systems	113,690	T
145	HOUSTON, CITY OF (SIMS BAYOU)	4952	Sewerage systems	87,019	T
311	TRIPLE "B" MOBILE PARK	6515	Mobile home site operators	82,892	T
3	BEAUMONT, CITY OF (HILLEBRANDT	4952	Sewerage systems	61,945	T
312	USDOE-BIG HILL STORAGE COMPLEX	5171	Petroleum bulk stations & term.	61,080	T
309	WALLIS, CITY OF	4952	Sewerage systems	54,190	T
95	GULF COAST WASTE DISP. AUTH.	4953	Refuse systems	48,806	M

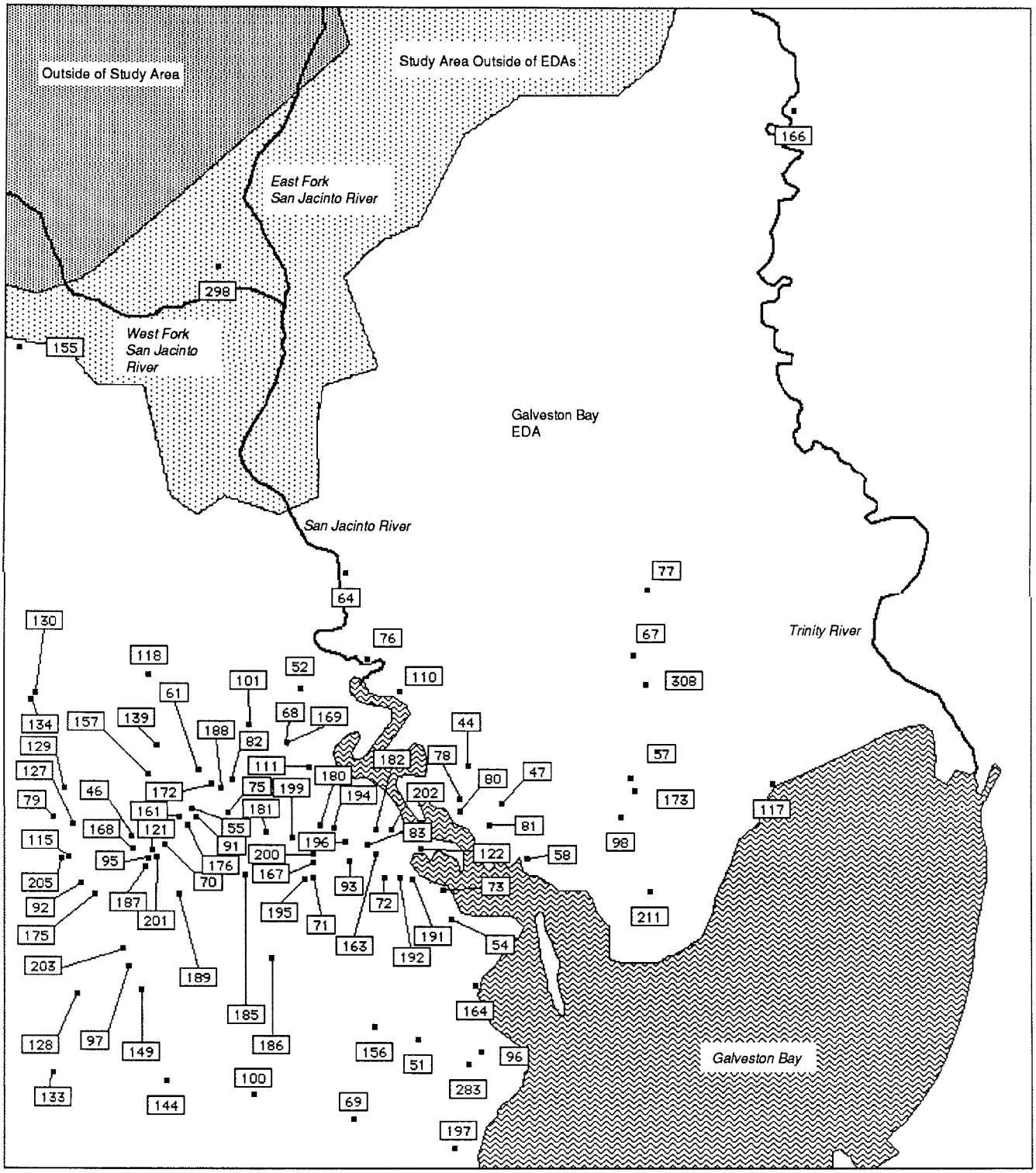
Figure 7. General location of major facilities in the NCPDI study area in Texas.





Number	Facility Name
1	ALLIED-SIGNAL, INC.-ORANGE
2	AMERIPOL SYNPOL O.-DIV. OF UNI
3	BEAUMONT, CITY OF HILLEBRANDT
4	BRIDGE CITY, CITY OF
5	BROWNING-FERRIS IND-JEFFERSON
6	CALABRIAN CHEMICALS CORP.
7	CHEMICAL WASTE MANAGEMENT INC
8	CHEVRON CHEMICAL CO.-ORANGE
9	CHEVRON U.S.A. INC.-PORT ARTHUR
10	E I DUPONT DE NEMOURS-BEAUMONT
11	E I DUPONT DE NEMOURS-ORANGE
12	EQUITABLE BAG CO. INC.
13	FINA OIL & CHEMICAL CO.-PORT ARTHUR
14	FIRESTONE SYN RUBBER-ORANGE
15	GOODYEAR TIRE & RUBBER CO.-BEAUMONT
16	GREAT LAKES CARBON CORP-PORT ARTHUR
17	GROVES, CITY OF (STP #0001)
18	GULF STATES UTILITIES-NECHES
19	GULF STATES UTILITIES-SABINE
20	INDEPENDENT REFINING-HOUSTON
21	INLAND CONTAINER CORPORATION
22	JASPER, CITY OF
23	LOWER NECHES VALLEY AUTH-BEAUMONT
24	LUMBERTON MUD
25	MOBIL CHEM-LDPE PLANT-BEAUMONT
26	MOBIL CHEMICAL CO-BEAUMONT
27	NEDERLAND, CITY OF
28	NORTH STAR STEEL TEXAS INC.
29	OLIN CORP-BEAUMONT
30	ORANGE, CITY OF-JACKSON ST WWT
31	PD GLYCOL & PPG IND.INC,JOINT
32	PENNWALT CORP-BEAUMONT
33	POLYSAR GULF COAST INC.
34	PORT ARTHUR, CITY OF (MAIN)
35	PORT NECHES, CITY OF
36	QUANTUM CHEMICAL CORPORATION
37	SANDOZ CROP PROTECTION CORP.
38	TEMPLE-EASTEX INC-SILSBEE
39	TEXACO CHEMICAL COMPANY
40	TEXACO CHEMICAL COMPANY-PORT N
41	TEXACO REFINING & MARKETING, I
42	TEXAS EASTERN PRODUCTS PIPELINE
43	UNION OIL CO-NEDERLAND

Figure 8a


Outside of Study Area
Study Area Outside of EDAs
East Fork
San Jacinto River
West Fork
San Jacinto
River
Galveston Bay
EDA
San Jacinto River
Trinity River
Galveston Bay
166
298
155
77
64
130
76
67
118
52
110
308
101
61
134
157
139
188
68
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44
129
82
57
127
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128
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133
144
69
283
197

Figure 8b

Number	Facility Name
44	ADVANCED AROMATICS, INC.
46	AMERICAN TEXMARK, INC DBA TEXMARK
47	AMOCO CHEMICALS CO,CEDAR BAYOU
51	ARCO CHEMICAL CO-BAYPORT
52	ARCO CHEMICAL COMPANY
54	ARISTECH CHEMICAL CORP.
55	ARMCO STEEL CORP-HOUSTON
56	BAYCLIFF, MUD
57	BAYTOWN, CITY OF (EAST DISTRICT)
58	BAYTOWN, CITY OF (W MAIN ST PL)
61	BTL SPECIALTY RESINS CORP-HOUSTON
64	CHAMPION INTERNATIONAL CORP-SH
67	CHEVRON CHEMICAL CO-CEDAR BAYOU
68	CHEVRON CHEMICAL CO.-CHANNELVI
69	CLEAR LAKE CITY, CITY OF
70	CROWN CENTRAL PETR-HOUSTON
71	DEER PARK, CITY OF
72	DOW CHEMICAL CO.-LAPORTE-FREEPORT
73	E I DUPONT DE NEMOURS-HOUSTON
75	ETHYL CORP-PASADENA
76	EXXON CHEM CO,A DIV EXXON CORP
77	EXXON CHEM CO-MONT BELVIEU PLA
78	EXXON CHEMICAL AMERICAS
79	EXXON CHEMICAL AMERICAS-HOUSTON
80	EXXON CHEMICAL CO USA-BAYTOWN
81	EXXON CORP-HOUSTON
82	FERMENTA PLT PROT,A SUB SDS BI
83	FINA OIL & CHEMICAL CO.-DEER P
91	GEORGIA-GULF CORP-HOUSTON
92	GOODYEAR TIRE & RUBBER-HOUSTON
93	GRACE,WR & CO-DEER PARK
95	GULF COAST WASTE DISP. AUTHORITY
96	GULF COAST WASTE DISPOSAL-HARR
97	GULF STATES ASPHALT-HOUSTON
98	HANSA MANUFACTURING COMPANY-BA
102	HARRIS COUNTY FWSD #0061
110	HARRIS COUNTY WCID #0001
111	HARRIS COUNTY WCID #0021
115	HILL PETEROLEUM CO.
117	HL&P-CEDAR BAYOU
118	HL&P-GREENS BAYOU
121	HLEP-DEEPWATER
122	HLEP-SAM BERTRON-HOUSTON
127	HOUSTON, CITY OF (CLINTON PARK
128	HOUSTON, CITY OF (EASTHAVEN)
129	HOUSTON, CITY OF (FWSD #0017)
130	HOUSTON, CITY OF (FWSD #0023)
133	HOUSTON, CITY OF (GULF MEADOWS
134	HOUSTON, CITY OF (HOMESTEAD)
144	HOUSTON, CITY OF (SAGEMONT)
149	HOUSTON, CITY OF (WCID #0047)
155	HUMBLE, CITY OF (SOUTH)
156	ICI AMERICAS INC.-PASEDENA
157	JACINTO CITY, CITY OF
161	KOPPERS
163	LA PORTE CHEMICALS CORP/C/O TH
164	LA PORTE, CITY OF
166	LIBERTY, CITY OF WWTP NO.1
167	LUBRIZOL CORP-HOUSTON
168	LYONDELL PETROCHEMICAL CO.
169	LYONDELL PETROCHEMICAL CO.
172	MERICHEM CO-HOUSTON
173	MOBAY CHEMICAL CO-BAYTOWN
175	MOBAY SYNTHETICS CORP.
176	MOBILE MINING & MINERALS CO.
180	OCCIDENTAL CHEMICAL CORP.
181	OCCIDENTAL CHEMICAL CORP.
182	OCCIDENTAL CHEMICALS CORP.
185	PASADENA, CITY OF (DEEPWATER)
186	PASADENA, CITY OF (GOLDEN ACRE)
187	PASADENA, CITY OF (VINCE BAYOU)
188	PENNWALT CORP-HOUSTON
189	PHILLIPS CHEMICAL COMPANY
191	QUANTUM CHEMICAL CORP.
192	QUANTUM CHEMICAL CORP.
194	ROHM & HASS-DEER PARK
195	ROHM AND HAAS-DEER PARK
196	ROLLINS ENVIRONMENTAL SERVICES
197	SEABROOK, CITY OF
199	SHELL OIL CO-DEER PARK
200	SHELL OIL CO-HOUSTON
201	SIMPSON PASADENA PAPER COMPANY
202	SOLTEX-DEER PARK (CELANESE)
203	SOUTH HOUSTON, CITY OF
204	SPENCER ROAD UD
205	STAUFFER CHEMICAL CO-HOUSTON
211	US STEEL CORP.-BAYTOWN
298	HARRIS COUNTY MUD-KINGWOOD CEN
308	USDOE-BIG HILL STOR. COMPLEX (3.16)

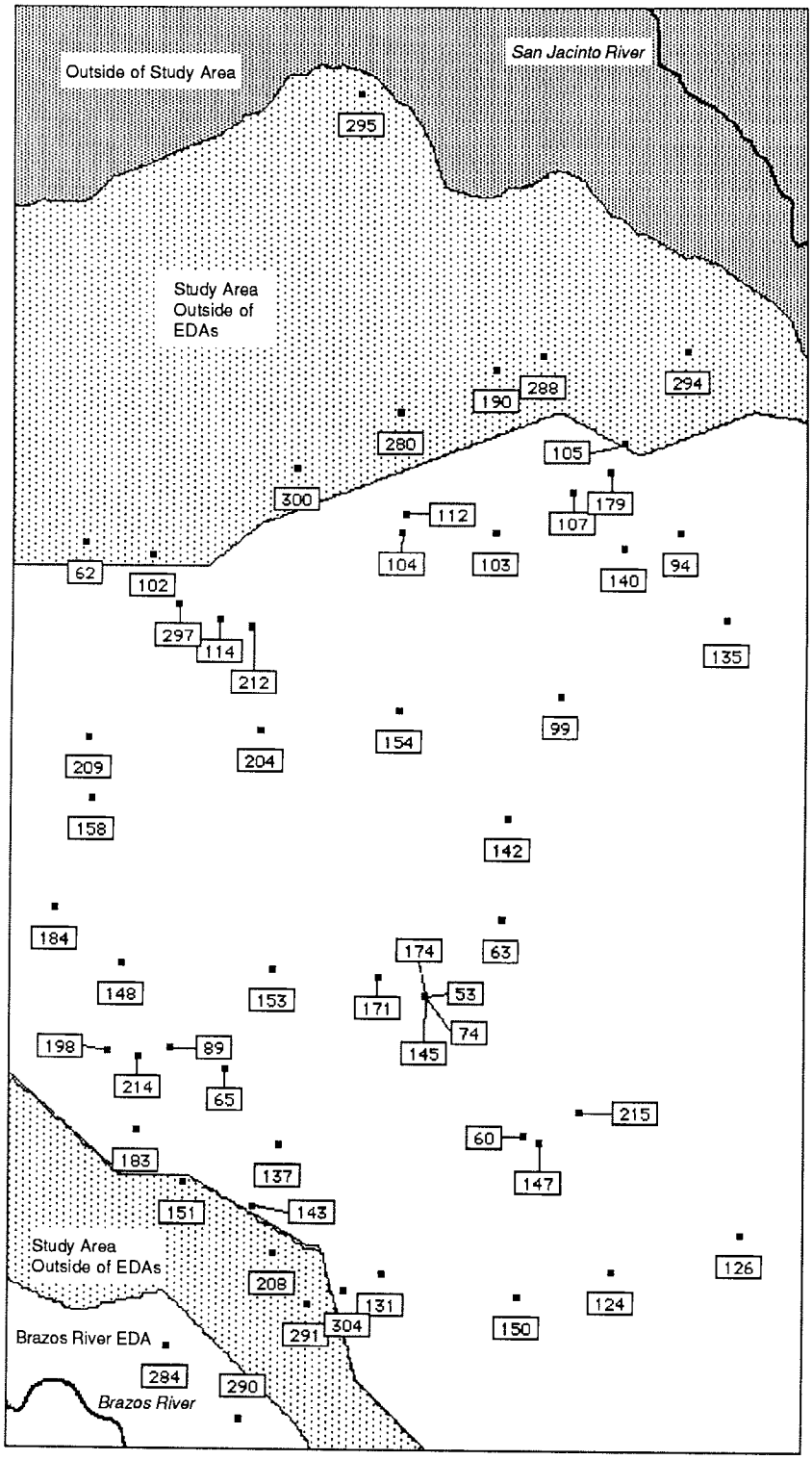


Figure 8c

Number	Facility Name
53	ARISTECH CHEMICAL CORP.
60	BELLAIRE, CITY OF
62	CAMERON FORGE COMPANY
63	CAMERON IRON WORKS USA, INC.
65	CHELFORD CITY MUD
74	EMERALD FOREST UD
89	GCWDA ALIEF REGIONAL WWTP
94	GREENS PARKWAY MUD-HARRIS COUNTY
99	HARRIS CO MUD NO.33
103	HARRIS COUNTY FWSD #150
104	HARRIS COUNTY FWSD #180
105	HARRIS COUNTY MUD #16
107	HARRIS COUNTY MUD NO 200
112	HARRIS COUNTY WCID #0109
114	HEARTHSTONE DEVELOPMENT CORP.
124	HOUSTON, CITY OF (ALMEDA SIMS)
126	HOUSTON, CITY OF (CHOCOLATE BA
131	HOUSTON, CITY OF (FWSD #0034)
135	HOUSTON, CITY OF (IMP.VALLEY)
137	HOUSTON, CITY OF (MANNING U.D.
140	HOUSTON, CITY OF (NORTHGATE UD
142	HOUSTON, CITY OF (NORTHWEST)
143	HOUSTON, CITY OF (PARKGLEN)
145	HOUSTON, CITY OF (SIMS BAYOU)
147	HOUSTON, CITY OF (SOUTHWEST)
148	HOUSTON, CITY OF (TURKEY CREEK
150	HOUSTON, CITY OF (WCID #0051)
151	HOUSTON, CITY OF (WCID #111)
153	HOUSTON, CITY OF (WEST)
154	HOUSTON, CITY OF (WHITE OAK UD
158	JACKRABBIT ROAD PUD
171	MEMORIAL VILLAGES WA
174	MOBAY SYNTH CORP & TX PET CORP
179	NORTHWAY MUD STP-HARRIS
183	OLYMPIA DEVELOPERS-BEECHNUT MUD
184	PARK TEN MUD
190	PONDEROSA JOINT POWERS AGENCY
198	SHELL DEVELOPMENT CO-HOUSTON
204	SPENCER ROAD UD
208	TEXAS INSTRUMENTS INC-DALLAS
209	TEXAS MGT. CO. HARRIS COUNTY #
212	W HARRIS COUNTY MUD #10
214	WEST HARRIS COUNTY MUD #6(NEW)
215	WEST UNIVERSITY PLACE, CITY OF
280	BAMMEL UTILITY DISTRICT
284	BRAZOS RIVER AUTHORITY-SUGARLAND
288	CNP UTILITY DISTRICT
290	FORT BEND CO. MUD #13 SOUTH PL
291	FORT BEND COUNTY WCID #0002
294	GCWDA (HARRIS COUNTY WCID #013
295	GCWDA (KLEINWOOD)
296	GULF CHEMICAL&METALLURGICAL CO
297	HARRIS COUNTY FWSD
300	LAKE FOREST PLANT ADVISORY COU
304	QUAIL VALLEY UD

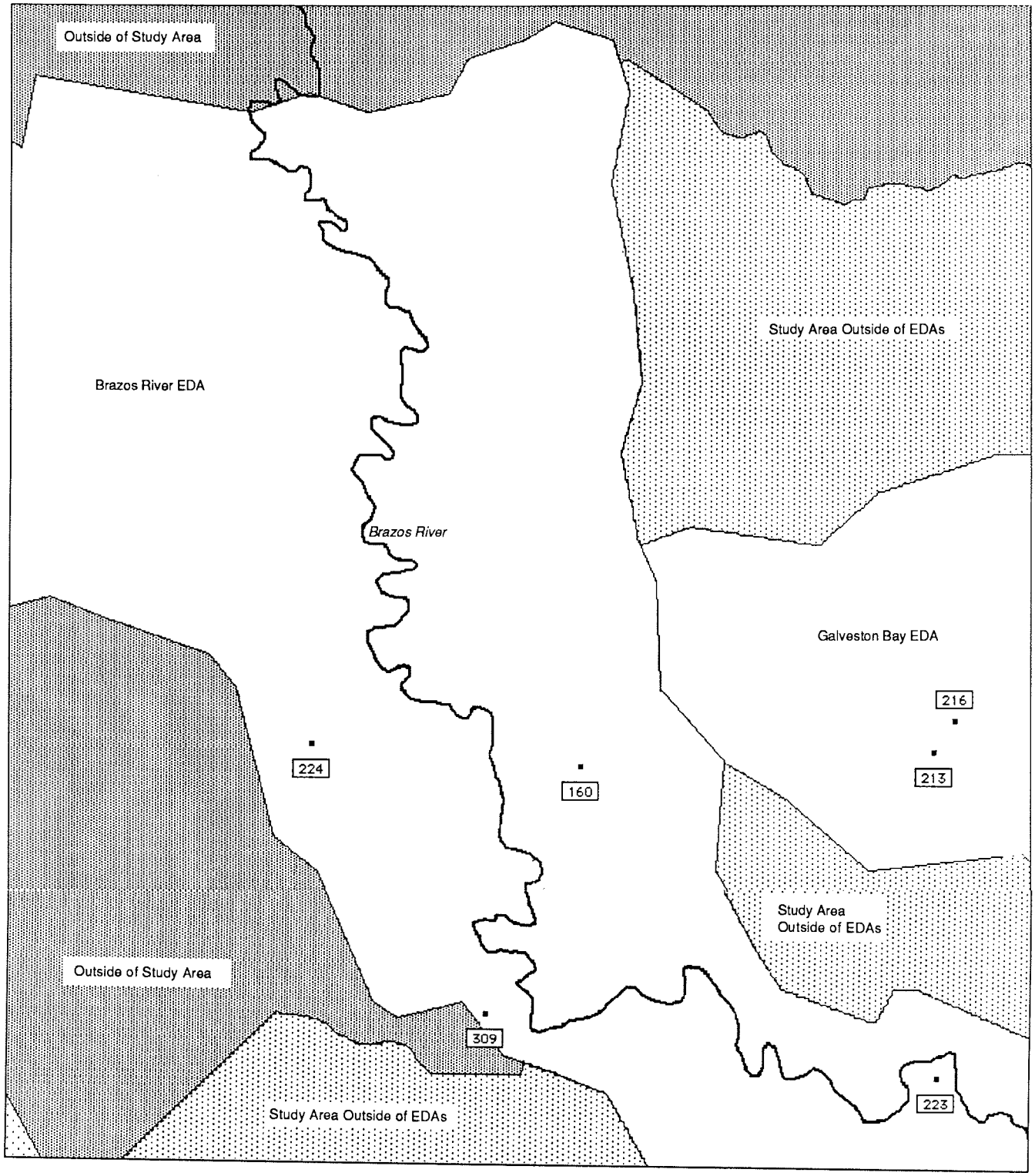


Figure 8d

Number	Facility Name
160	KATY, CITY OF
213	W MEMORIAL MUD
216	WESTON MUD
223	RICHMOND, CITY OF (STP #0001)
224	SEALY, CITY OF
309	HUBER, JM-HARRIS (3.17)

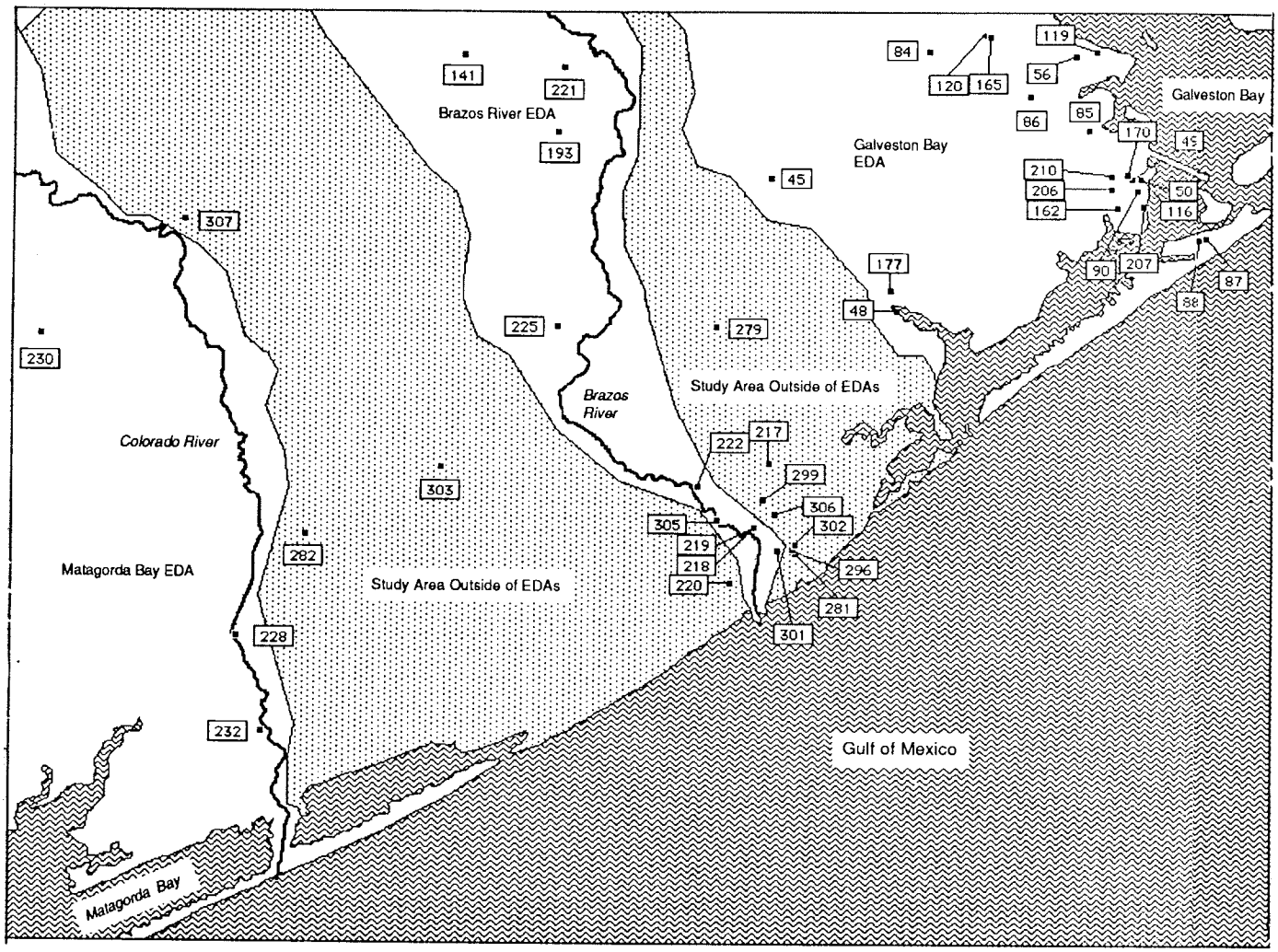


Figure 8e

Number	Facility Name
45	ALVIN, CITY OF
48	AMOCO CORP-CHOCOLATE BAYOU
49	AMOCO CORP-TEXAS CITY
50	AMOCO REFINERY-TEXAS CITY
56	BAYCLIFF, UD
84	FRIENDSWOOD,CITY OF
85	GAF CHEMICALS CORP.
86	GALVESTON COUNTY WCID #0001 (S
87	GALVESTON, CITY OF (AIRPORT)
88	GALVESTON, CITY OF (MAIN)
90	GCWDA-40 ACRE-TEXAS CITY
116	HILL PETROLEUM CO.
119	HL&P-P H ROBINSON STATION-HOUS
120	HL&P-WEBSTER STATION-HOUSTON
141	HOUSTON, CITY OF (NORTHSIDE)
162	LA MARQUE, CITY OF
165	LEAGUE CITY, CITY OF (CENTRAL W
170	MARATHON OIL CO-TEXAS CITY
177	MONSANTO COMPANY
193	RENN ROAD MUNICIPAL UTILITY DI
206	TEX-TIN CORPORATION-TEXAS CITY
207	TEXAS CITY, CITY OF (STP #0001
210	UNION CARBIDE CORPORATION
217	CLUTE, CITY OF
218	DOW CHEMICAL CO-FREEPORT
219	DOW CHEMICAL CO-FREEPORT
220	FREEPORT, CITY OF
221	H L & P - W.A. PARISH
222	LAKE JACKSON, CITY OF
225	WEST COLUMBIA, CITY OF
228	H. CELANESE CHEMICAL CO-BAY CITY
230	EL CAMPO ALUMINUM
232	HL&P-SOUTH TEXAS PROJECT
279	ANGLETON, CITY OF
280	BAMMEL UTILITY DISTRICT
281	BASF CORPORATION
282	BAY CITY, CITY OF
296	GULF CHEMICAL&METALLURGICAL CO
299	HOFFMANN-LA ROCHE INC-FREEPORT
301	MINERAL RESEARCH & DEVELOPMENT
302	NALCO CHEMICAL CO.-FREEPORT
303	PHILLIPS 66 CO.-SWEENY REFINER
305	RHONE-POULENC, INCORPORATED
306	SHINTECH
307	WHARTON, CITY OF

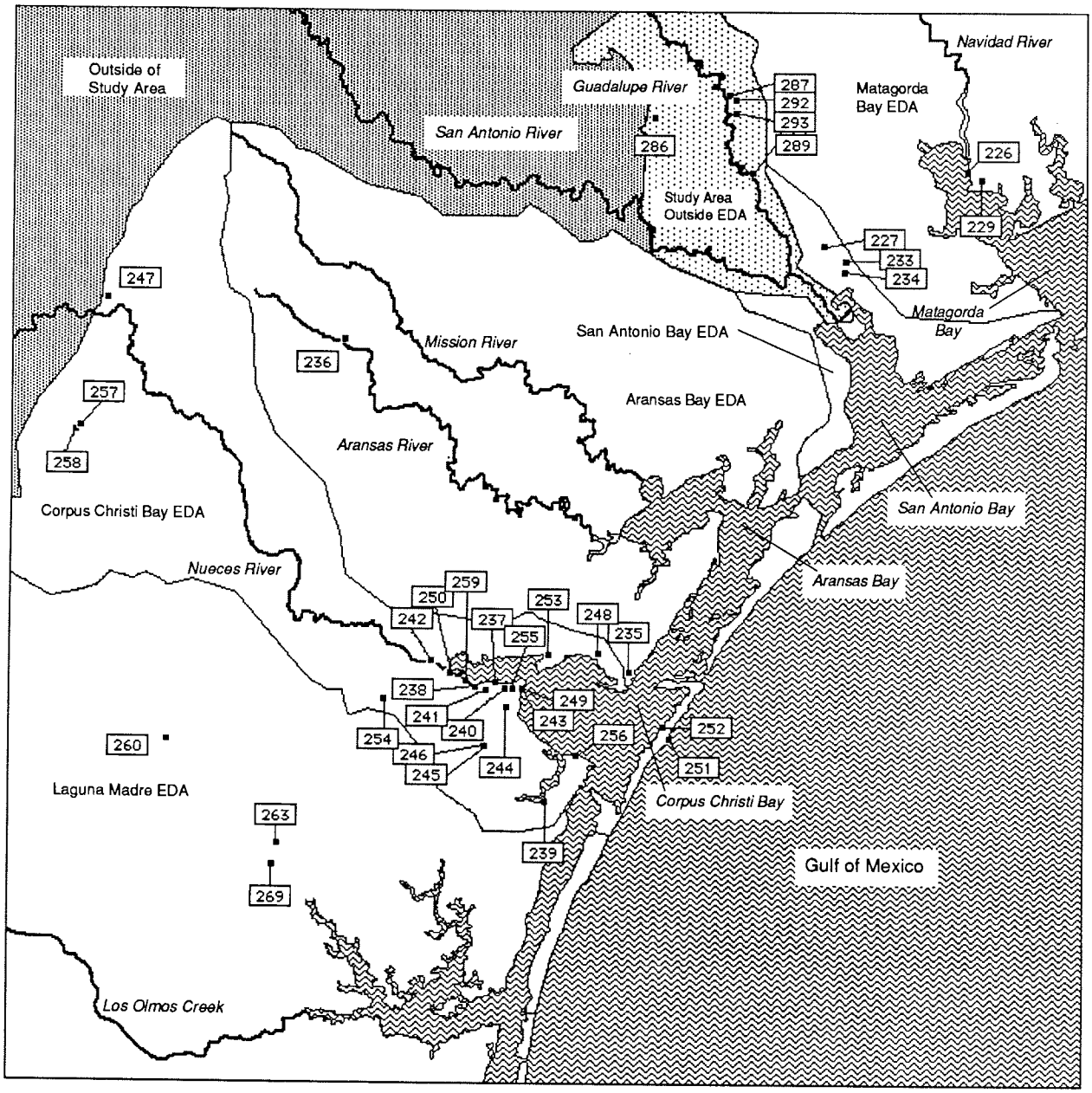


Figure 8f

Number	Facility Name	Number	Facility Name	Number	Facility Name
226	ALUMINUM CO OF AMERICA-PT COMF	243	CORPUS CHRISTI, CITY OF (BROAD	256	USN-CORPUS CHRISTI NAS
227	BP CHEMICALS AMERICA INC.	244	CORPUS CHRISTI, CITY OF (LAGUN	257	USX CORPORATION
229	CENTRAL POWER & LIGHT-JOSLIN	245	CORPUS CHRISTI, CITY OF (OSO)	258	USX CORPORATION
233	AIRCO CARBON	246	CORPUS CHRISTI, CITY OF (WESTS	259	VALERO REFINING CO.-CORPUS CHRISTI
234	UNION CARBIDE CORP-PORT LAVACA	247	DIAMOND SHAMROCK REFINING & MA	260	ALICE, CITY OF (SOUTH)
235	ARANSAS PASS, CITY OF	248	E I DUPONT DE NEMOURS-INGLESID	263	CELANESE ENGINEERING RESINS
236	BEEVILLE, CITY OF (MOORE ST)	249	ENCYCLE/TEXAS, INC.	269	KINGSVILLE, CITY OF
237	AMERICAN CHROME & CHEM-CORPUS	250	KOCH REFINING COMPANY	286	CENTRAL POWER & LIGHT-COLETO C
238	CCPC CHEMICAL INC.	251	NUECES COUNTY WCID #0004	287	CENTRAL POWER & LIGHT-VICTORIA
239	CENTRAL POWER & LIGHT-BARNEY D	252	NUECES COUNTY WCIP#4-MUSTANG I	289	E I DUPONT DE NEMOURS-VICTORIA
240	CHAMPLIN REVINING CO.-CORPUS CHRISTI	253	PORTLAND, CITY OF	292	GBRA (OLD VICTORIA STP)
241	COASTAL REFINING & MARKETING,	254	ROBSTOWN, CITY OF	293	GBRA (VICTORIA REGIONAL STP)
242	CORPUS CHRISTI, CITY OF (ALLIS	255	SOUTHWESTERN REFINING-CORPUS CHRISTI		

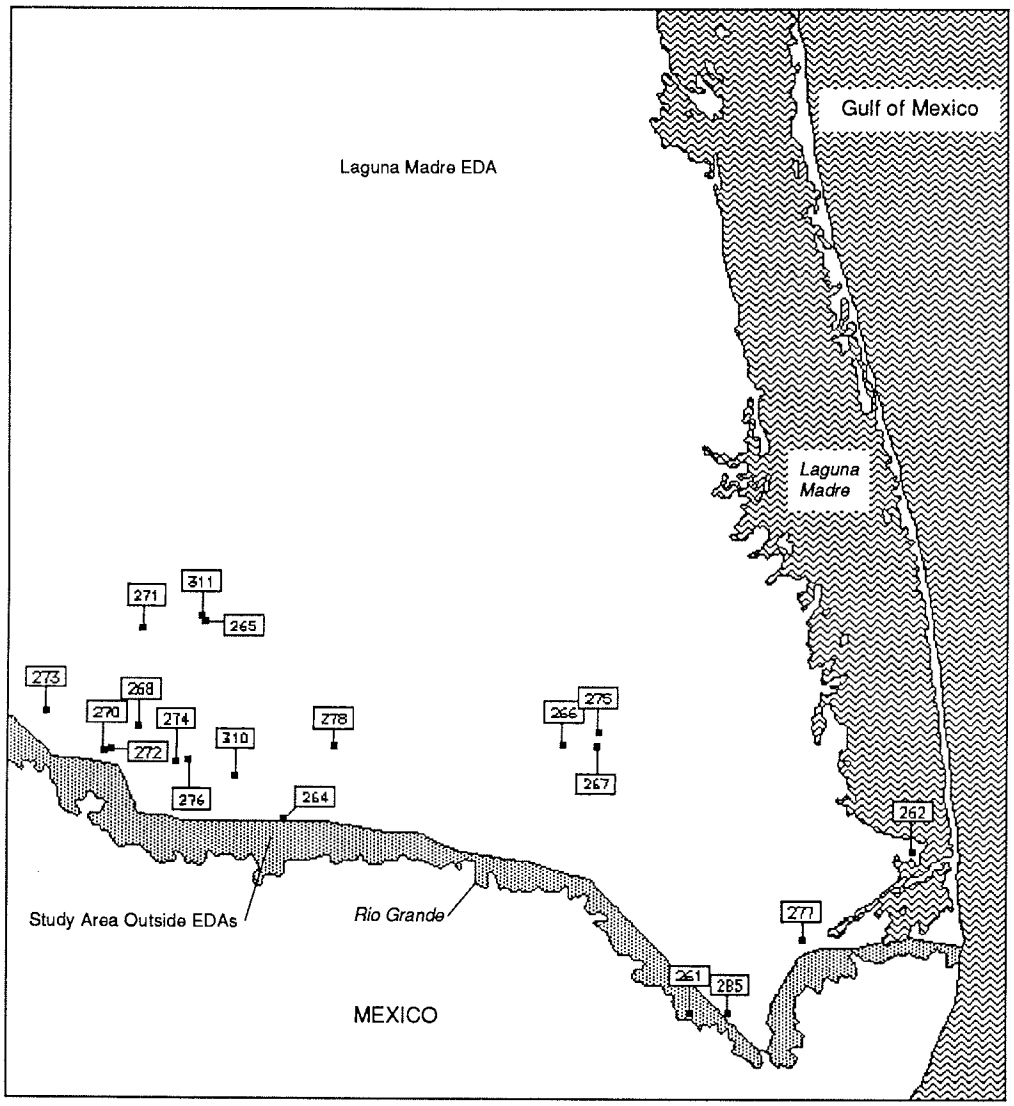


Figure 8g

Number	Facility Name
261	BROWNSVILLE PUBLIC UTILITIES (B)
262	CAMERON COUNTY FWSD-#0001 PORT
264	DONNA, CITY OF
265	EDINBURG, CITY OF
266	HARLINGEN, CITY OF (STP #0001)
267	HARLINGEN, CITY OF (STP #0002)
268	KENAF INTERNATIONAL-MCALLEN
270	MC ALLEN, CITY OF
271	MC ALLEN, CITY OF (STP #3-NORTH)
272	MERCEDES, CITY OF
273	MISSION, CITY OF
274	PHARR, CITY OF
275	SAN BENITO, CITY OF
276	SAN JUAN CITY OF
277	UNION CARBIDE-BROWNSVILLE
278	WESLACO, CITY OF
285	BROWNSVILLE, CITY OF (MAIN)
310	WALLIS, CITY OF (3.18)
311	ALAMO, CITY OF (3.23)

Appendices

Appendix A. Loading estimation methods.

A brief description of the steps followed by the NCPDI load estimating methodology is presented below. The accompanying flow chart shows the steps taken in making point source estimates. For a more detailed description of the methodology, the reader is directed to the NCPDI Point Source Methods Document.

1. Compile a list of active facilities in the NCPDI study area using EPA data sources (Permit Compliance System, and Industrial Facilities Discharge files) and state lists. Identify the number of active pipes per facility, and the SIC code for each facility.

2. Classify the facility into one of the three NCPDI major point source categories (wastewater treatment plant, industrial facility, or power plant) and assign the facility to one of 88 NCPDI discharge categories (see Appendix B), based on the SIC code.

3. Identify for each pipe the type of wastewater discharged (process or polluted water, cooling water, combination of process and cooling water, domestic sewage effluent, stormwater, other), based on descriptions of pipe types in the Industrial Facility Discharge File, NPDES permit applications (2C Form), and state lists.

4. Assign annual operating days, proration process factors (P factors), and seasonality factors to each pipe, based on the days of discharge reported on the DMR or assumed, based on the NCPDI facility discharge category and type of pipe discharge.

5. Collect and assign flow volume to each pipe. Highest priority are given to monitoring data reported in the NPDES Discharge Monitoring Reports (DMRs). This information was collected from either EPA's Permit Compliance System data base or from DMRs state files. When actual monitoring data are available, average daily flow estimates are derived by computing the arithmetic mean from up to 12 average monthly values reported for the period December 1986 through November 1987. Where actual monitoring data are not available, average permit limits are used.

6. Collect and assign pollutant discharge data for each pipe. As with flow data, highest priority is given to monitoring data reported on the DMRs. When DMR data are available, average daily loading estimates are derived by computing the arithmetic mean using up to 12 average monthly values reported for the period December 1986 through November 1987. If data are reported as concentration on DMRs, loads are computed by multiplying flow by concentration. Where actual monitoring data are not available, average permit limits are used. As with flow, the source of the data is coded in the data base.

7. Assign typical flow estimates and typical pollutant concentration (TPC) values to each pipe for pollutants for which no monitoring, permit, or other source data are available. Assignment is based on the facility discharge category and type of pipe discharge process, cooling, etc.).

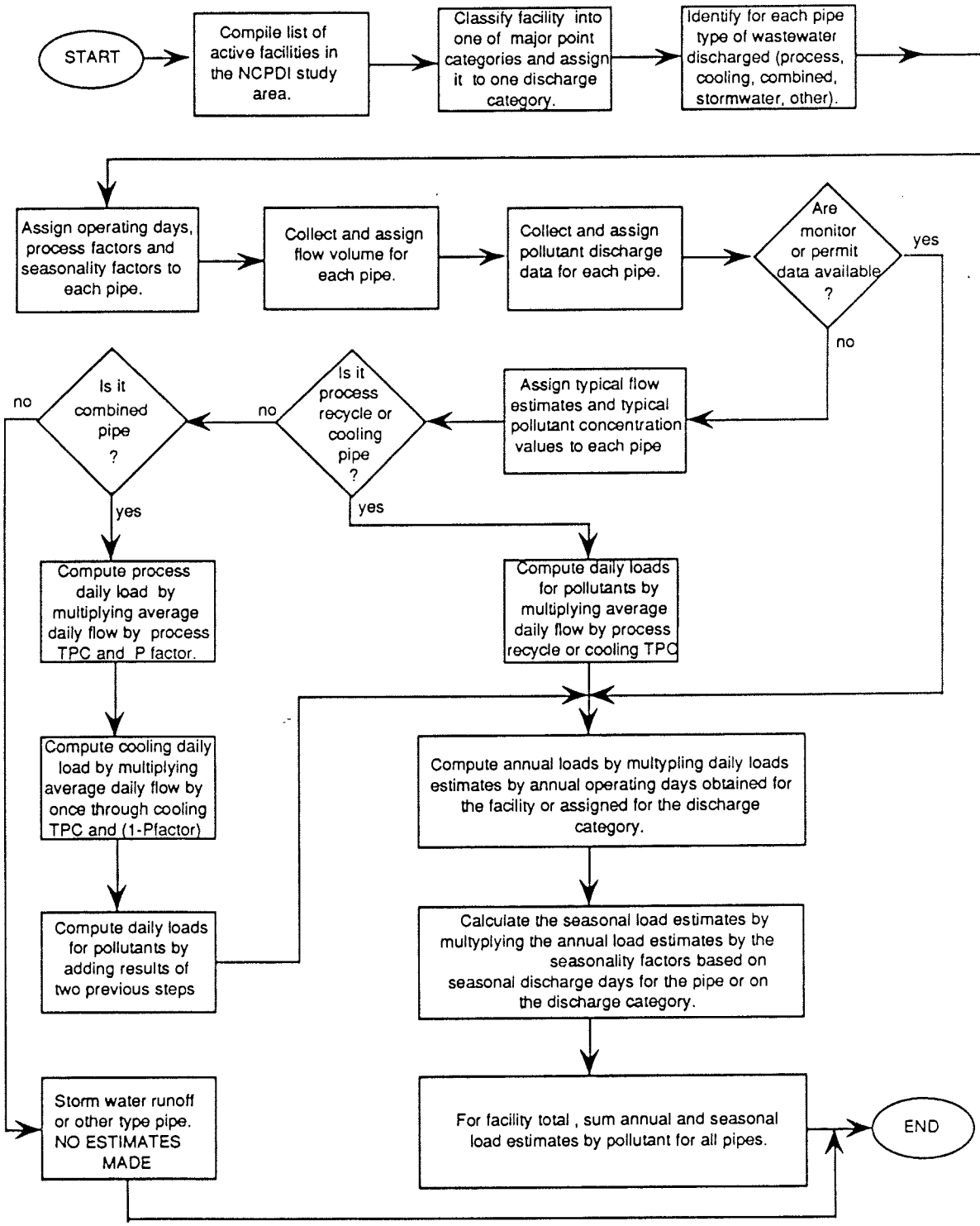
8. Compute daily estimated discharge loads for pollutants using TPCs by multiplying the TPC by the average daily flow. If the pipe is a combined pipe type (process and cooling), the average daily flow is first split into a process flow and a once-through cooling water flow component using the P factor for the discharge category. The volume assumed to be process water is multiplied by the TPCs for the discharge category. The volume assumed to be cooling water is multiplied by TPCs for once-through cooling water or recycle cooling water. If the facility is a WWTP, the TPC vary according to level of treatment (primary, secondary, or tertiary). Because TPCs for tertiary treatment have not yet been developed, TPCs for secondary treatment are substituting for those WWTPs using tertiary treatments.

9. Compute annual loads by multiplying daily load estimates (monitoring, permit, or typical) by the annual operating days collected by the facility of assumed for the NCPDI discharge category (see Appendix B). No estimates are made for stormwater runoff or other pipe types.

10. Calculate the seasonal load estimates by multiplying the annual load estimates by the seasonality factors.

Seasonality factors are based on seasonal discharge days for the pipe, or these assigned to the NCPDI discharge categories.

11. Sum annual and seasonal load estimates by pollutant for all pipes to arrive at the facility total.



Appendix B. Pollutant discharge concentrations for point source wastewater dischargers.

This appendix presents a matrix of typical pollutant concentrations (TPCs) organized by the 88 discharge categories into which point sources are classified in the NCPDI. These concentrations are used in the load estimation methodology to compute pollutant discharges where monitoring or permit data are not available. Because comprehensive monitoring data exists for relatively few pollutants, these TPCs are the basis for the majority of pollutant loading estimates in the data base.

The TPC values in the matrix are drawn primarily from the EPA's Development Documents for Effluent Limitations, Guidelines, and Standards. These documents were produced as part of the EPA's process of determining effluent guidelines for direct discharging point sources. Each document contains a profile of the manufacturing processes and effluent characteristics of a major industrial category. The effluent characteristics in the document are based on monitoring studies conducted at a representative sample of facilities engaged in the industrial activity. The monitoring studies were conducted between the mid-1970s and the mid-1980s, depending on the industrial category. Thus, some of the values are dated. It is important to understand that the values represent average end-of-pipe discharge concentrations after the treatment technologies typically used by the industry have been applied. Thus, the concentrations are an approximation of the pollutant discharge of a typical plant, and are not equivalent to the recommended federal effluent guidelines for the industrial category.

The 88 discharge categories used for classifying the point sources in the NCPDI and therefore used in the NCPDI load estimation methodology are similar to those used by the EPA to group facilities having similar industrial activities for the effluent guidelines development process. The assumption underlying the use of discharge categories by the NCPDI is that facilities producing the same or similar products have similar production processes, and hence similar pollutant discharge characteristics. Grouping facilities engaged in related industrial or commercial activities is clearly a simplification of the variability within categories resulting from differences in processes, water use practices, facility age and production level. For certain industries the methods may yield similar results, while for others the variability may be quite large.

This appendix also presents the Process Proration Factor (P factor), seasonality factors, and special discharge activity codes (SDAC) for each discharge category. The P factor is the percent of combined (process plus cooling) discharges assumed to originate from production processes as opposed to originating from non-contact cooling water. The seasonality factor is the percentage of annual discharge assumed to occur in each of the four seasons. These two factors account for production fluctuations during the year for selected industries. The SDAC codes are used to denote unique operating and/or seasonal characteristics of some industries.

For more explanation on the development of these concentrations, the reader is directed to both the NCPDI Point Source Methods document and the report entitled *NCPDI Pollutant Discharge Concentrations for Industrial Point Sources.*

Appendix B. Typical pollutant concentrations for NCPDI discharge catagories.

NCPDI Discharge Category Code	Name	SIC Codes	Pollutant Concentrations BOD mg/l	TSS mg/l	TN mg/l	TP mg/l	FCB c/l	As mg/l	Cd mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Pb mg/l	Hg mg/l	Zn mg/l	O & G mg/l	PCB mg/l	CHP mg/l	Operating Days	P factor	Seasonality factor winter	spring	summer	fall	SDAC
1	ASBESTOS	3292	16.0	26.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250	0.75	0.250	0.250	0.250	0.250	
2	BAKERY PRODUCTS	2051, 2052, 2065, 2066 2067	8.0	12.0	2.4	-	-	-	-	-	-	-	-	-	-	1.6	-	-	250	0.90	0.250	0.250	0.250	0.250	
3	BATTERY MFG	3691, 3692	-	125.4	-	-	-	1.0	0.001	9.0	0.4	0.08	1.5	160.2	44.5	7.2	-	-	250	0.50	0.250	0.250	0.250	0.250	
4	BEVERAGE PRODUCTS Beverages	2082-85, 2087, 2095	219.6	34.2	16.8	-	-	-	-	-	-	-	-	-	-	4.5	-	-	250	0.90	0.250	0.250	0.250	0.250	
5	BEVERAGE PRODUCTS Soft Drinks	2086	70.0	40.0	8.6	4.0	-	-	-	-	-	-	-	-	-	-	-	-	250	0.90	0.250	0.250	0.250	0.250	
6	CANNED & PRESERVED FRUITS & VEGETABLES	2031, 2032-2067	116.0	246.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140 260 260	0.75 0.75 0.75	0.160 0.175 0.249	0.075 0.208 0.249	0.334 0.326 0.249	0.424 0.292 0.249	P Q T
7	CANNED & PRESERVED SEAFOOD PRODUCTS Seafood	2091, 2092	417.4	213.1	22.6	-	-	-	-	-	-	-	-	-	-	-	-	-	260 120	1.00 1.00	0.343 0.377	0.248 0.207	0.189 0.243	0.207 0.248	V F
8	Shellfish	2091, 2092	669.7	402.2	22.6	-	-	-	-	-	-	-	-	-	-	-	-	-	220 120	1.00 1.00	0.239 0.239	0.179 0.177	0.325 0.325	0.259 0.259	W Y
9	Finfish	2091, 2092	380.7	180.7	22.6	-	-	-	-	-	-	-	-	-	-	-	-	-	220 120	1.00 1.00	0.185 0.185	0.213 0.213	0.297 0.297	0.306 0.306	X Z
10	CAR WASHES	7542	35.1	68.6	-	8.2	-	-	-	-	0.005	-	-	-	-	21.0	-	-	250	1.00	0.250	0.250	0.250	0.250	
11	CEMENT	3241	-	27.7	-	-	-	-	-	0.002	-	0.2	0.08	-	-	-	-	-	300	0.75	0.206	0.249	0.277	0.264	
12	CHEMICAL PRODUCTS Inorganic Chemicals	2812, 2813, 2816, 2819 2892, 2899, 3274	-	46.0	1.9	-	-	0.04	0.03	0.07	0.07	0.02	0.2	1.8	0.2	-	-	-	350	1.00	0.250	0.250	0.250	0.250	
13	Nitrogenous Fertilizers	2873, 2875	-	8.7	4.4	-	-	-	-	0.01	-	-	-	-	-	-	-	-	250	0.75	0.250	0.250	0.250	0.250	
14	Phosphatic Fertilizers	2874	-	2.5	-	2.8	-	-	-	0.01	-	-	-	-	0.005	-	-	-	250	0.75	0.250	0.250	0.250	0.250	
15	Organic Chemicals	2821, 2823, 2824, 2851 2865, 2893, 2895, 3952, 3953, 3955, 7535	23.6	47.7	33.4	-	-	0.03	0.003	0.7	0.1	-	0.03	3.6	0.3	15.5	-	-	350	0.50	0.250	0.250	0.250	0.250	
16	Adhesives and Sealants	2891	3.1	4.2	-	0.2	-	-	-	0.5	1.0	-	-	-	1.0	-	-	-	250	0.50	0.250	0.250	0.250	0.250	
17	Gum and Wood Chemicals	2861	69.8	27.0	-	-	-	0.03	-	0.3	0.7	-	0.006	-	0.2	-	-	-	250	0.75	0.250	0.250	0.250	0.250	
18	Pesticides	2869, 2879	43.5	15.3	-	-	-	-	-	-	0.001	-	-	-	-	-	-	22.7	300	0.50	0.250	0.250	0.250	0.250	
19	Pharmaceutical	2831, 2833, 2834	83.0	108.0	-	-	-	-	-	0.05	0.09	-	0.05	0.3	0.3	-	-	-	365	0.50	0.250	0.250	0.250	0.250	
20	Soaps and Detergents	2841-44	2.0	1.9	-	-	-	-	-	0.05	0.02	-	0.007	-	0.03	-	-	-	250	0.34	0.250	0.250	0.250	0.250	
21	CONCRETE	3271-73, 3281	-	8.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250	0.90	0.206	0.249	0.277	0.264	

Abbreviations : SIC, Standard Industrial Classification; P factor, Process pipe factor; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus;
FCB, Fecal Coliform Bacteria; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; HG, Mercury; Zn, Zinc; O & G, Oil and Grease; PCB, Polychlorinated Biphenyls; CHP, Chlorinated Hydrocarbon Pesticides.
Special Discharge Activity Codes (SDAC): P, highly seasonal operation; Q, year-round operation with some seasonal variation; T, year-round operation with some minor variation; V, plants processing finfish and shellfish;
F, species processed unknown; W, plantsprocessing a diversity of shellfish; Y, plants processing a limited number of shellfish; X, plants processing a diversity of finfish; Z, plants processing a limited number of finfish.

Appendix B. Typical pollutant concentrations for NCPDI discharge catagories (Continued).

NCPDI Discharge Category Code	Name	SIC Codes	Pollutant Concentrations BOD mg/l	TSS mg/l	TN mg/l	TP mg/l	FCB c/l	As mg/l	Cd mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Pb mg/l	Hg mg/l	Zn mg/l	O & G mg/l	PCB mg/l	CHP mg/l	Operating Days	P factor	Seasonality factor winter	spring	summer	fall	SDAC
22	CLAY PRODUCTS Structural Clay Products	3251-59	14.0	25.0	-	-	-	-	0.02	-	-	1.7	-	-	-	-	-	-	250	0.90	0.250	0.250	0.250	0.250	
23	Pottery and Related Products	3261-69, 3275, 3295-97, 3299	21.0	33.0	-	-	-	-	0.06	0.02	-	0.6	0.9	-	0.24	-	-	-	250	0.90	0.250	0.250	0.250	0.250	
24	DAIRY PRODUCTS	2021-24, 2026	38.6	49.0	36.5	33.3	-	-	-	-	-	-	-	-	-	-	-	-	250	0.50	0.250	0.250	0.250	0.250	
25	EDIBLE OILS	2079	45.3	47.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250	0.90	0.250	0.250	0.250	0.250	
26	ELECTRICAL PRODUCTS Electrical & Electronic Components	3624, 3641, 3671, 3672, 3674, 3676, 3679, 3699	21.4	10.9	7.3	1.0	-	0.03	0.05	0.09	0.2	0.3	0.10	0.7	0.2	4.2	-	-	250	1.00	0.250	0.250	0.250	0.250	
27	Power Transformers	3677, 3612	15.5	11.0	-	-	-	-	0.03	0.03	0.10	-	0.04	-	0.1	3.5	10.0	-	250	1.00	0.250	0.250	0.250	0.250	
28	FEEDLOTS	0211-0291	90.0	178.6	28.5	41.0	400.0	-	-	-	-	-	-	-	-	-	-	-	365	1.00	0.250	0.250	0.250	0.250	
29	FISH HATCHERIES	0921	4.8	6.0	0.7	0.1	-	-	-	-	-	-	-	-	-	-			365	1.00	0.003	0.426	0.426	0.144	
30	FOUNDRIES	3321-25, 3361, 3362, 3369	-	34.0	6.3	-	-	0.003	0.004	0.001	0.05	1.2	0.70	-	1.9	6.0	-	-	250	0.10	0.250	0.250	0.250	0.250	
31	FOOD AND BEVERAGES (MISC)	2038, 2047, 2074-2076, 2087, 2097-2099, 5142, 5144, 5146, 5148, 5154, 5423	44.1	48.0	17.9	6.7	-	-	-	-	-	-	-	-	-	-	-	-	250	0.50	0.250	0.250	0.250	0.250	
32	GLASS MFG	3211, 3221, 3229, 3231	11.7	15.1	-	1.0	-	0.08	0.2	0.03	0.3	1.2	0.07	-	0.1	7.0	-	-	250	0.75	0.250	0.250	0.250	0.250	
33	GRAIN PROCESSING	2041, 2043-46, 2048	17.1	21.6	39.9	19.5	-	-	-	-	-	-	-	-	-	-	-	-	250	0.90	0.250	0.250	0.250	0.250	
34	HOSPITALS	8062, 8063, 8069	15.0	20.0	33.4	11.7	-	-	-	0.04	0.4	2.0	-	5.3	-	27.2	-	-	365	1.00	0.250	0.250	0.250	0.250	
35	IRON & STEEL	3312, 3313, 3315-17	-	12.3	2.9	-	-	0.02	0.01	0.02	0.02	0.1	0.04	-	0.1	2.5	-	-	350	0.10	0.245	0.272	0.255	0.238	
36	LAUNDRIES	7211-7217, 7118, 7219	122.9	79.5	-	2.7	-	-	-	-	-	-	-	-	-	-	-	-	250	1.00	0.250	0.250	0.250	0.250	
37	LEATHER TANNING	3111, 3131, 3142-3144 3149, 3151, 3161, 3171, 3172, 3199	33.0	56.0	48.8	-	-	-	-	4.8	0.03	-	0.05	0.3	0.1	19.6	-	-	250	1.00	0.250	0.250	0.250	0.250	
38	METAL FINISHING Finishing	2514, 2515, 2522, 2542, 3398, 3399, 3412, 3421, 3423, 3425, 3429, 3432, 3433, 3441, 3442, 3443, 3444, 3446, 3448, 3449, 3451, 3452, 3462, 3465, 3466, 3471, 3482, 3463, 3484, 3489, 3493, 3494, 3496, 3498, 3499, 3613, 3621, 3622, 3623, 3629, 3634-3636, 3643-3648, 3651, 3661, 3662, 3673, 3675, 3678, 3693, 3694, 7531, 7692-7699	-	11.2	-	-	-	-	0.1	0.6	0.8	-	0.2	-	0.5	11.8	-	-	250	0.10	0.250	0.250	0.250	0.250	

Appendix B. Continued.

NCPDI Discharge Category Code	Name	SIC Codes	Pollutant Concentrations BOD mg/l	TSS mg/l	TN mg/l	TP mg/l	FCB c/l	As mg/l	Cd mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Pb mg/l	Hg mg/l	Zn mg/l	O & G mg/l	PCB mg/l	CHP mg/l	Operating Days	P factor	Seasonality factor winter	spring	summer	fall	SDAC
39	Coil Coating	3479, 3497	-	48.4	-	2.5	-	-	0.05	1.2	0.007	2.6	0.04	-	5.7	18.1	-	-	250	1.00	0.250	0.250	0.250	0.250	
40	Can Making	3411	-	12.0	-	4.1	-	0.5	0.08	0.08	0.6	0.4	0.1	60.0	0.3	10.0	-	-	250	0.10	0.250	0.250	0.250	0.250	
41	MACHINERY Instruments	3811-3873	6.9	11.2	5.9	1.3	-	0.1	0.03	0.2	0.3	0.5	0.1	10.0	0.4	5.9	-	-	250	0.10	0.250	0.250	0.250	0.250	
42	MACHINERY	3511-3599	10.1	10.0	3.0	0.9	-	0.0004	0.01	0.07	0.1	0.5	0.01	2.0	0.1	4.3	-	-	250	0.10	0.250	0.250	0.250	0.250	
43	Miscellaneous Manufacturing	3914, 3915, 3931, 3944, 3949, 3951, 3961, 3963, 3964, 3993, 3995, 3999	8.9	7.0	25.8	0.6	-	0.2	0.02	0.1	1.5	0.3	0.07	3.0	0.3	3.5	-	-	250	0.10	0.250	0.250	0.250	0.250	
44	Shipbuilding	3731, 3732	-	26.7	-	-	-	0.06	0.07	0.1	0.2	3.4	0.09	1.7	0.3	2.2	-	-	250	1.00	0.250	0.250	0.250	0.250	
45	Transportation Equipment	3711-3728, 3743-3799	12.6	11.9	3.6	0.7	-	0.01	0.05	0.03	0.1	0.8	0.1	1.0	0.2	3.4	-	-	250	0.90	0.250	0.250	0.250	0.250	
46	MINERAL MINING	1211, 1411-1499	-	9.0	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-	250	1.00	0.250	0.250	0.250	0.250	
47	MISCELLANEOUS INDUSTRIAL, COMMERCIAL	0112, 0181, 1311, 1321 1381, 1382, 1389, 1522, 1531, 1541, 1542, 1791, 1799, 4225, 4400, 4464, 4469, 4583, 4612, 4613, 4723, 4742, 4782, 4783, 4784, 4811, 4922, 4923, 4925, 4939, 4953, 4959, 4971, 5011-5099, 5112, 5161, 5171, 5172, 5191, 5199,5211, 5331, 5411, 5511, 5541, 5812, 5813, 5931, 5963, 5989, 5999, 6122, 6211, 6512, 6552, 6531, 7011, 7032, 7299, 7358, 7381, 7394, 7519, 7629, 7833, 7911, 7997, 7999, 8051, 8071, 8081, 8211, 8221, 8222, 8231, 8351, 8361, 8611, 8641, 8661, 8811, 9223, 9511, 9531	23.9	22.1	11.2	7.0	200.0	0.003	0.001	0.04	0.04	0.7	0.05	0.3	0.1	11.2	-	-	300	0.50	0.250	0.250	0.250	0.250	
48	NONFERROUS METALS Primary Nonferrous Metals	3331, 3332, 3334-3339	-	26.7	8.5	-	-	0.04	0.02	0.05	0.1	-	0.07	-	0.05	7.0	-	-	300	0.50	0.250	0.250	0.250	0.250	
49	Primary Zinc	3333	-	1.1	-	-	-	0.5	0.08	0.08	0.6	-	0.1	-	0.3	-	-	-	300	0.50	0.250	0.250	0.250	0.250	
50	Secondary Nonferrous Metals	3341	-	126.3	-	-	-	0.3	0.09	0.06	0.2	-	1.7	-	0.5	0.3	-	-	300	0.50	0.250	0.250	0.250	0.250	
51	Nonferrous Metal Forming	3356, 3357, 3363	-	15.5	52.1	-	-	-	0.1	0.1	0.7	0.5	0.1	-	0.5	10.0	-	-	250	0.50	0.250	0.250	0.250	0.250	

Abbreviations: SIC, Standard Industrial Classification; P factor, Process pipe factor; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; FCB, Fecal Coliform Bacteria; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O & G, Oil and Grease; PCB, Polychlorinated Biphenyls; CHP, Chlorinated Hydrocarbon Pesticides.
Special Discharge Activity Codes (SDAC): none.

Appendix B. Typical pollutant concentrations for NCPDI discharge catagories (Continued).

NCPDI Discharge Category Code	Name	SIC Codes	Pollutant Concentrations BOD mg/l	TSS mg/l	TN mg/l	TP mg/l	FCB c/l	As mg/l	Cd mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Pb mg/l	Hg mg/l	Zn mg/l	O & G mg/l	PCB mg/l	CHP mg/l	Operating Days	P factor	Seasonality factor winter	spring	summer	fall	SDAC
52	Aluminum Forming	3353-3355	-	34.4	-	-	-	-	0.002	3.3	9.0	-	0.03	-	8.1	34.6	-	-	250	0.00	0.250	0.250	0.250	0.250	
53	Copper Forming	3351	-	12.0	-	2.1	-	-	0.08	0.08	0.6	0.4	0.1	-	3.0	10.0	-	-	250	0.00	0.250	0.250	0.250	0.250	
54	ORE MINING AND DRESSING	1011, 1021, 1031, 1041, 1044, 1051, 1061, 1081, 1092, 1094	-	5.0	-	-	-	0.5	0.005	0.05	0.03	0.5	0.07	1.0	0.4	-	-	-	220	1.00	0.250	0.250	0.250	0.250	
55	PAVING AND ROOFING	2951, 2952, 3996	9.5	40.0	0.1	-	-	0.002	0.1	0.2	0.1	0.6	1.0	0.9	0.2	19.5	-	-	250	0.90	0.184	0.225	0.312	0.278	
56	PETROLEUM REFINING	2911, 2992, 2999	13.5	26.1	6.8	-	-	-	-	0.1	0.01	-	0.005	0.9	0.1	17.1	-	-	350	0.25	0.250	0.250	0.250	0.250	
57	PHOTOGRAPHIC PROCESSING	7395	143.1	5.9	21.0	-	-	-	0.05	0.05	-	6.7	0.08	-	-	-	-	-	250	0.50	0.250	0.250	0.250	0.250	
58	PLASTICS MOLDING AND FORMING	3079, 3652	11.7	86.4	0.2	1.1	-	-	0.006	0.02	0.006	0.3	0.09	-	0.08	7.5	-	1.6	250	0.25	0.250	0.250	0.250	0.250	
59	PORCELAIN ENAMELING	3431, 3469, 3611, 3631-33, 3639	-	12.0	-	4.1	-	0.2	0.08	0.08	0.6	0.4	0.1	-	0.3	10.0	-	-	250	1.00	0.250	0.250	0.250	0.250	
60	PRINTING AND PUBLISHING	2711, 2721, 2751, 2795	6.0	3.5	7.6	-	-	0.006	-	0.4	0.2	-	0.8	-	2.9	7.0	-	-	230	0.50	0.250	0.250	0.250	0.250	
61	PULP AND PAPER	2611, 2621, 2631, 2641 2649, 2651, 2653, 2655	17.3	28.4	1.4	-	-	-	-	0.03	0.01	-	0.01	0.1	0.2	-	-	-	350	0.90	0.242	0.261	0.247	0.252	
62	RENDERING	2011, 2013, 2016, 2017, 2077	44.1	58.8	10.8	2.9	400.0	-	-	-	-	-	-	-	-	-	-	-	250	0.75	0.250	0.250	0.250	0.250	
63	RUBBER PROCESSING	2822, 3021, 3031, 3041, 3069, 3293, 7534	33.0	40.0	-	-	-	-	-	-	-	-	0.01	-	0.4	15.0	-	-	250	0.00	0.250	0.250	0.250	0.250	
64	TIRE AND INNER TUBE	3011	7.2	40.0	-	-	-	-	-	-	-	-	-	-	-	10.0	-	-	250	0.00	0.250	0.250	0.250	0.250	
65	STEAM ELECTRIC Non-Cooling Flows	4911	-	30.0	-	-	-	0.07	0.009	0.06	0.09	0.8	0.01	1.2	0.7	15.0	-	-	365 36	0.00 0.00 0.00	0.288 0.288 0.246	0.260 0.260 0.246	0.237 0.237 0.258	0.295 0.295 0.246	E P N
68	SUGAR PRODUCTS Beet Sugar	2063	68.5	478.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250	0.75	0.250	0.250	0.250	0.250	
69	Cane Sugar	2061, 2062	57.0	180.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	260	0.75	0.250	0.250	0.250	0.250	
70	TEXTILE MFG General Textile Mfg	2311-2399, 2281-2284, 2293, 2294	22.4	49.1	-	-	-	0.02	0.003	0.06	0.06	-	0.06	0.8	0.5	26.3	-	-	250	1.00	0.250	0.250	0.250	0.250	
71	Wool Scouring	2299	50.0	230.1	-	-	-	0.04	0.03	0.04	0.08	-	0.90	1.0	0.3	190.0	-	-	250	1.00	0.250	0.250	0.250	0.250	
72	Wool Finishing	2231	25.0	60.0	-	-	-	0.02	0.006	0.4	0.02	-	0.1	-	2.3	-	-	-	250	1.00	0.250	0.250	0.250	0.250	
73	Low Water Use Textile Processing	2211, 2221, 2241, 2295, 2296, 2298	30.4	88.0	-	-	-	-	0.005	0.01	0.04	-	0.08	-	2.3	-	-	-	250	1.00	0.250	0.250	0.250	0.250	

Appendix B. Continued.

NCPDI Discharge Category Code	Name	SIC Codes	Pollutant Concentrations BOD mg/l	TSS mg/l	TN mg/l	TP mg/l	FCB c/l	As mg/l	Cd mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Pb mg/l	Hg mg/l	Zn mg/l	O & G mg/l	PCB mg/l	CHP mg/l	Operating Days	P factor	Seasonality factor winter	spring	summer	fall	SDAC
74	Woven Fabric Finishing	2261, 2262	22.0	48.7	-	-	-	0.02	0.002	0.02	0.06	-	0.04	0.8	0.4	14.0	-	-	250	1.00	0.250	0.250	0.250	0.250	
75	Knit Fabric Finishing	2251-54, 2257-59, 2292	23.6	41.0	-	-	-	0.02	0.005	0.1	0.1	-	0.04	1.4	0.3	21.0	-	-	250	1.00	0.250	0.250	0.250	0.250	
76	Carpet Finishing	2271, 2272, 2279	35.0	65.0	-	-	-	-	0.004	0.2	0.04	-	0.03	-	0.2	6.0	-	-	250	1.00	0.250	0.250	0.250	0.250	
77	Stock and Yarn	2269	10.0	25.0	-	-	-	0.006	0.005	0.07	0.09	-	0.08	1.0	0.3	90.0	-	-	250	1.00	0.250	0.250	0.250	0.250	
78	Nonwoven Mfg	2297	35.0	65.0	-	-	-	-	0.004	0.2	0.04	-	0.03	-	0.2	4.8	-	-	250	1.00	0.250	0.250	0.250	0.250	
79	Felted Fabric	2291	25.0	60.0	-	-	-	-	-	0.04	-	-	0.05	-	-	2.4	-	-	250	1.00	0.250	0.250	0.250	0.250	
80	TIMBER PRODUCTS Sawmills	2411-2429, 2661	38.7	31.8	-	-	-	-	-	1.0	0.1	-	0.04	-	0.5	9.8	-	-	250	0.90	0.250	0.250	0.250	0.250	
81	Plywood	2431-2499, 2511, 2512, 2517, 2521, 2531, 2541, 2591, 2599	20.0	33.5	-	-	-	-	-	-	-	-	-	-	-	15.0	-	-	250	0.90	0.250	0.250	0.250	0.250	
82	TRANSPORTATION Railroads	4011, 4013	17.4	19.9	-	-	-	-	-	0.2	-	-	-	-	-	10.2	-	-	365	0.90	0.250	0.250	0.250	0.250	
83	Trucking	4131, 4151, 4221, 4171-4214, 4222, 4231	22.3	19.9	-	-	-	-	-	0.2	-	-	-	-	-	10.4	-	-	365	0.90	0.250	0.250	0.250	0.250	
84	Residentials	6513-6515, 7011-7041, 8811	113.9	156.8	14.2	10.0	2.0E+5	0.005	0.002		0.072	1.3	0.097	0.0004	0.214	27.6	-	-	365	1.00	0.250	0.250	0.250	0.250	
98	Water Supply Treatment Plants	4941	-	35.0 50.0	-	-	-	-	-	-	-	- 50.0	-	-	-	-	-	-	365 365	1.00 1.00	0.250 0.250	0.250 0.250	0.250 0.250	0.250 0.250	A F
99	Sewerage Systems	4952	207.3 158.3 23.9 23.9	209.1 114.4 22.1 22.1	15.1 15.1 11.2 11.2	13.0 13.0 7.0 7.0	5.0E+6 2.0E+4 200 200	0.034 0.034 0.032 0.032	0.054 0.054 0.011 0.011	0.234 0.092 0.043 0.043	0.224 0.146 0.037 0.037	6.3 2.5 0.7 0.7	0.116 0.059 0.045 0.045	0.0007 0.0006 0.0003 0.0003	0.869 0.502 0.165 0.165	50.7 27.6 11.2 11.2	- - - -	0.0008 0.0008 0.0006 0.0006	365 365 365 365	1.00 1.00 1.00 1.00	0.267 0.267 0.267 0.267	0.267 0.267 0.267 0.267	0.222 0.222 0.222 0.222	0.244 0.244 0.244 0.244	U P S T
	Recycled Cooling		-	30.0	-	-	-	0.002	0.01	0.05	0.05	0.50	0.06	0.0004	0.08	-	-	-	-	-	-	-	-	-	R
	Once Through Cooling		-	-	-	-	-	-	-	-	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	C

Abbreviations: SIC, Standard Industrial Classification; P factor, process pipe factor; BOD, Biochemical Oxygen Demand; TSS, Total Suspended Solids; TN, Total Nitrogen; TP, Total Phosphorus; FCB, Fecal Coliform Bacteria; As, Arsenic; Cd, Cadmium; Cr, Chromium; Cu, Copper; Fe, Iron; Pb, Lead; Hg, Mercury; Zn, Zinc; O & G, Oil and Grease; PCB, Polychlorinated Biphenyls; CHP, Chlorinated Hydrocarbon Pesticides.
Special Discharge Activity Codes (SDAC): A, indicates that alum coagulation is the main treatment process; F, indicates that iron treatment is the major treatment process; U, untreated wastewater; P, primary wastewater treatment; S, secondary wastewater treatment; T, tertiary wastewater treatment; R, recycled cooling; C, once through cooling.

Appendix C. Distribution of facilities in the study area by four-digit SIC code, 1987.

Standard Industrial Classification		Number of Facilities		NCPDI Discharge Category	
Code	Activity	NCPDI	Total	Code	Name
112	Rice	0	1	47	Miscellaneous Industrial, Commercial
181	Ornamental floriculture/nursery products	1	1	47	Miscellaneous Industrial, Commercial
211	Beef cattle feedlots	1	7	28	Feedlots
212	Beef cattle, except feedlots	0	1	28	Feedlots
213	Hogs	0	5	28	Feedlots
241	Dairy farms	0	3	28	Feedlots
252	Chicken eggs	0	1	28	Feedlots
279	Animal specialties	0	3	28	Feedlots
723	Crop preparation services	0	1	47	Miscellaneous Industrial, Commercial
913	Shellfish catching	0	1	47	Miscellaneous Industrial, Commercial
921	Fish hatcheries & preserves	0	3	29	Fish Hatcheries
1094	Uranium, radium & vanadium ore	2	3	54	Ore Mining And Dressing
1311	Crude petroleum and natural gas	81	537	47	Miscellaneous Industrial, Commercial
1321	Natural gas liquids	1	105	47	Miscellaneous Industrial, Commercial
1381	Drilling oil and gas wells	0	16	47	Miscellaneous Industrial, Commercial
1389	Oil/gas field services, not elsewhere classified	1	17	47	Miscellaneous Industrial, Commercial
1411	Dimension stone	0	1	46	Mineral Mining
1422	Crushed & broken limestone	0	1	46	Mineral Mining
1442	Construction sand & gravel	3	6	46	Mineral Mining
1446	Industrial sand	1	1	46	Mineral Mining
1452	Bentonite	0	1	46	Mineral Mining
1477	Sulfur	2	4	46	Mineral Mining
1521	Contractors--single family houses	1	18	47	Miscellaneous Industrial, Commercial
1522	Contractors--res. buildings other than sing. family	0	1	47	Miscellaneous Industrial, Commercial
1531	Operative builders	0	3	47	Miscellaneous Industrial, Commercial
1541	Contractors--ind. buildings and warehouses	0	4	47	Miscellaneous Industrial, Commercial
1542	Contractors--non-residential buildings	0	13	47	Miscellaneous Industrial, Commercial
1629	Heavy construction	0	6	47	Miscellaneous Industrial, Commercial
1791	Structural steel erection	1	1	47	Miscellaneous Industrial, Commercial
1799	Special trade contractors, not elsewhere class.	0	1	47	Miscellaneous Industrial, Commercial
2033	Canned fruits & vegs	2	2	06	Canned and Pres. Fruits and Vegs.
2034	Dehydrated fruits, vegetables & soup	1	1	06	Canned and Pres. Fruits and Vegs.
2047	Dog, cat & other pet food	1	1	31	Foods and Beverages
2048	Prepared feeds	0	1	33	Grain Processing
2061	Raw cane sugar	1	1	69	Cane Sugar Manufacturing
2062	Cane sugar refining	1	1	69	Cane Sugar Manufacturing
2074	Cottonseed oil mills	1	1	31	Foods and Beverages
2077	Animal & marine fats	0	1	62	Rendering
2082	Malt beverages	2	2	04	Beverages
2085	Distilled liquor, except brandy	1	1	04	Beverages
2091	Canned & cured seafoods	0	1	07	Canned and Pres. Seafood Products
2092	Fresh or frozen packaged fish	21	22	07	Canned and Pres. Seafood Products
2099	Food preparations	1	2	31	Foods and Beverages
2421	Gen. sawmills & planning mills	1	1	80	Sawmills
2435	Hardwood veneer & plywood	0	1	81	Plywood
2436	Softwood veneer & plywood	1	1	81	Plywood
2491	Wood preserving	2	2	81	Plywood
2492	Particle board	1	1	81	Plywood
2611	Pulp mills	2	2	61	Pulp and Paper
2621	Nonbuilding paper mills	3	4	61	Pulp and Paper
2631	Paperboard mills	2	2	61	Pulp and Paper
2812	Alkalies and chlorine	2	2	12	Inorganic Chemical Production
2813	Industrial gases	8	11	12	Inorganic Chemical Production
2819	Industrial inorganic chemicals	11	19	12	Inorganic Chemical Production
2821	Plastics materials & resins	23	28	15	Organic Chemical Production
2822	Synthetic rubber	8	9	63	Rubber Processing
2824	Noncellulosic organic fibers	1	1	15	Organic Chemical Production

Appendix C. Continued.

Standard Industrial Classification		Number of Facilities		NCPDI Discharge Category	
Code	Activity	NCPDI	Total	Code	Name
2834	Pharmaceutical preparations	1	1	19	Pharmaceutical Manufacturing
2841	Soaps & other detergents	2	2	20	Soaps and Detergents
2842	Polishes & sanitation goods	2	2	20	Soaps and Detergents
2843	Surface active agents	0	1	20	Soaps and Detergents
2851	Paints and allied products	0	1	15	Organic Chemical Production
2865	Cylic crudes & intermediates	8	9	15	Pesticides
2869	Industrial inorganic chemicals	53	65	18	Organic Chemical Production
2874	Phosphatic fertilizers	2	2	14	Phosphatic Fertilizer Production
2879	Agricultural chemicals	4	5	18	Pesticides
2895	Carbon black	2	2	15	Organic Chemical Production
2899	Chemical preparations	3	5	12	Inorganic Chemical Production
2911	Petroleum refining	35	38	56	Petroluem Refining
2951	Paving mixtures & blocks	1	1	55	Paving and Roofing
2992	Lubricating oils & greases	0	1	56	Petroluem Refining
2999	Petroleum & coal products	3	3	56	Petroluem Refining
3079	Misc. plastics products	4	5	58	Plastics Molding and Forming
3231	Products of purchased glass	0	1	32	Glass Manufacture
3241	Cement, hydraulic	3	4	11	Cement
3251	Brick & structural clay tile	0	1	22	Structural Clay Products
3271	Concrete block & brick	0	1	21	Concrete
3272	Concrete products	1	1	21	Concrete
3273	Ready-mixed concrete	1	4	21	Concrete
3293	Gaskets, packing & sealing	0	1	63	Rubber Processing
3295	Minerals, ground or treated	0	1	23	Pottery and Related Products
3312	Blast furnaces & steel mills	5	7	35	Iron and Steel
3313	Electrometallurgical products	0	1	35	Iron and Steel
3315	Steel wire & related products	1	1	35	Iron and Steel
3317	Steel pipes & tubes	1	1	35	Iron and Steel
3321	Gray iron foundries	0	1	30	Foundries
3333	Primary zinc	1	1	49	Primary Zinc
3334	Primary aluminum	1	1	48	Primary Nonferrous Metals
3339	Primary nonferrous metals	1	2	48	Primary Nonferrous Metals
3341	Secondary nonferrous metals	1	2	50	Secondary Nonferrous Metals
3354	Aluminum extruded products	1	1	52	Aluminum Forming
3412	Metal barrels, drums & pails	2	2	38	Metal Finishing
3441	Fabricated structural metal	0	2	38	Metal Finishing
3443	Fabricated plate work	2	4	38	Metal Finishing
3444	Sheet metal work	1	1	38	Metal Finishing
3446	Architectural metal work	1	1	38	Metal Finishing
3448	Prefabricated metal buildings	1	2	38	Metal Finishing
3451	Screw machine products	1	1	38	Metal Finishing
3462	Iron & steel forgings	1	1	38	Metal Finishing
3471	Plating & polishing	2	2	38	Metal Finishing
3479	Metal coating & allied service	3	6	39	Coil Coating
3494	Valves & valve fittings	1	3	38	Metal Finishing
3498	Fabricated pipe & pipe fitting	1	2	38	Metal Finishing
3531	Construction machinery	1	1	42	Machinery
3533	Oil field machinery and equipment	4	11	42	Machinery
3536	Hoists, industry cranes, and monorail systems	1	1	42	Machinery
3541	Machine tools, metal cutting types	0	2	42	Machinery
3542	Machine tools, metal forming types	0	1	42	Machinery
3547	Rolling mill machinery and equipment	2	2	42	Machinery
3551	Food products machinery	0	1	42	Machinery
3568	Mechanical power transmission equipment	1	1	42	Machinery

Note: • 76 facilities have been identified as having only stormwater runoff or other flow type of wastewater.

• Facility counts under NCPDI are the number of facilities for which estimates are made. Facilities for which the type of wastewater (eg. process, cooling, etc.) could not be identified are not included. Facility counts under "Total" include all facilites with NPDES permit numbers listed in the Permit Compliance System.

Appendix C. Distribution of facilities in the study area by four-digit SIC code, 1987 (Continued).

Standard Industrial Classification		Number of Facilities		NCPDI Discharge Category	
Code	Activity	NCPDI	Total	Code	Name
3569	General industrial machinery	1	1	42	Machinery
3585	Air cond. refrig.,and warm air heating equipment	1	1	42	Machinery
3589	Service ind. machines, not elsewhere classified	1	1	42	Machinery
3612	Transformers	0	2	27	Power Transformers
3621	Motors & generators	0	1	38	Metal Finishing
3623	Welding apparatus, electric	1	1	38	Metal Finishing
3679	Electronic components	1	1	26	Electrical and Electronic Components
3694	Engine electrical equipment	0	1	38	Metal Finishing
3731	Ship building & repairing	1	5	44	Shipbuilding
3743	Railroad equipment	2	2	45	Transportation Equipment
3825	Inst. for measuring/testing of electric signals	0	1	41	Machinery Instruments
4011	Railroads & line hauling	2	2	82	Railroads
4013	Switching & terminal services	2	5	82	Railroads
4212	Local trucking without storage	0	1	83	Trucking
4213	Trucking, except local	0	4	83	Trucking
4214	Local trucking with storage	0	1	83	Trucking
4221	Farm product warehousing and storage	0	1	83	Trucking
4225	General warehousing and storage	1	7	47	Miscellaneous Industrial, Commercial
4226	Special warehousing	14	28	47	Miscellaneous Industrial, Commercial
4231	Trucking terminal facilities	1	3	83	Trucking
4463	Marine cargo handling	7	20	47	Miscellaneous Industrial, Commercial
4464	Canal operation	1	1	47	Miscellaneous Industrial, Commercial
4469	Water transportation services, not else. classified	2	5	47	Miscellaneous Industrial, Commercial
4583	Airport terminal services	0	1	47	Miscellaneous Industrial, Commercial
4612	Crude petroleum piplines	0	1	47	Miscellaneous Industrial, Commercial
4613	Refined petroleum pipelines	0	1	47	Miscellaneous Industrial, Commercial
4712	Freight forwarding	0	1	47	Miscellaneous Industrial, Commercial
4723	Arrangement of transportation of freight and cargo	1	2	47	Miscellaneous Industrial, Commercial
4742	Rental of railroad cars with care of lading	1	2	47	Miscellaneous Industrial, Commercial
4782	Inspection and weighing services, transportation	0	1	47	Miscellaneous Industrial, Commercial
4783	Packing and crating	0	1	47	Miscellaneous Industrial, Commercial
4784	Fixed facilities, motor vehicle transportation	0	1	47	Miscellaneous Industrial, Commercial
4811	Telephone communication (wire or radio)	0	1	47	Miscellaneous Industrial, Commercial
4911	Electric services	23	23	65	Power Plants
4922	Natural gas transmission	0	61	47	Miscellaneous Industrial, Commercial
4923	Natural gas transmission and distribution	0	1	47	Miscellaneous Industrial, Commercial
4925	Liquified petroleum gas production/distribution	0	1	47	Miscellaneous Industrial, Commercial
4931	Comb. electric and gas utility	0	1	47	Miscellaneous Industrial, Commercial
4932	Comb. gas and other utility	0	1	47	Miscellaneous Industrial, Commercial
4939	Combination utilities, not elsewhere classified	1	1	47	Miscellaneous Industrial, Commercial
4941	Water supply	8	8	98	Water Supply Treatment Plants
4952	Sewerage systems	937	937	99	Waste Water Treatment Plants
4953	Refuse systems	9	26	47	Miscellaneous Industrial, Commercial
4959	Sanitary services, not elsewhere classified	1	1	47	Miscellaneous Industrial, Commercial
4971	Irrigation systems	0	15	47	Miscellaneous Industrial, Commercial
5012	Automobiles and other motor vehicles	0	1	47	Miscellaneous Industrial, Commercial
5039	Construction materials, not elsewhere classified	0	2	47	Miscellaneous Industrial, Commercial
5051	Metal service centers and offices	0	3	47	Miscellaneous Industrial, Commercial
5081	Commercial machines and equipment	0	1	47	Miscellaneous Industrial, Commercial
5084	Industrial machinery and equipment	1	1	47	Miscellaneous Industrial, Commercial
5085	Industrial supplies	1	1	47	Miscellaneous Industrial, Commercial
5087	Service establishment equipment and supplies	0	1	47	Miscellaneous Industrial, Commercial
5093	Scrap and waste materials	3	3	47	Miscellaneous Industrial, Commercial
5112	Stationery supplies	0	1	47	Miscellaneous Industrial, Commercial
5142	Frozen foods	0	2	31	Food and Beverages
5146	Fish and seafoods	0	2	31	Food and Beverages
5148	Fresh fruits and vegetables	0	1	31	Food and Beverages
5154	Livestock	0	3	31	Food and Beverages

Appendix C. Continued.

Standard Industrial Classification		Number of Facilities		NCPDI Discharge Category	
Code	Activity	NCPDI	Total	Code	Name
5161	Chemicals and allied products	2	5	47	Miscellaneous Industrial, Commercial
5171	Petroleum bulk stations and terminals	7	18	47	Miscellaneous Industrial, Commercial
5172	Petroleum and petroleum products wholesalers	1	1	47	Miscellaneous Industrial, Commercial
5191	Farm supplies	0	1	47	Miscellaneous Industrial, Commercial
5199	Nondurable goods, not elsewhere classified	0	2	47	Miscellaneous Industrial, Commercial
5211	Lumber and other building materials dealers	1	2	47	Miscellaneous Industrial, Commercial
5411	Grocery stores	0	1	47	Miscellaneous Industrial, Commercial
5423	Meat and fish (seafood) markets	0	2	31	Food and Beverages
5541	Gasoline service stations	0	2	47	Miscellaneous Industrial, Commercial
5812	Eating places	0	10	47	Miscellaneous Industrial, Commercial
6211	Security brokers, dealers, and flotation companies	0	1	47	Miscellaneous Industrial, Commercial
6512	Operators of nonresidential buildings	0	4	47	Miscellaneous Industrial, Commercial
6513	Operators of apartmet buildings	0	7	84	Residentials
6514	Operators of dwellings other than apt. buildings	0	1	84	Residentials
6515	Operators of residential mobile home sites	4	88	84	Residentials
6552	Subdividers and developers, except cemeteries	1	6	47	Miscellaneous Industrial, Commercial
7011	Hotels, motels, and tourist courts	1	15	84	Residentials
7032	Sporting and recreational camps	0	1	84	Residentials
7033	Trailering parks and campsites for transients	0	3	84	Residentials
7215	Coin operated laundry	2	2	36	Laundries
7218	Industrial launderers	1	1	36	Laundries
7299	Miscellaneous personal services	4	6	47	Miscellaneous Industrial, Commercial
7391	Research and development laboratories	1	5	47	Miscellaneous Industrial, Commercial
7394	Equipment rental and leasing services	0	1	47	Miscellaneous Industrial, Commercial
7395	Photofinishing laboratories	1	1	57	Photographic Processing
7399	Business services	0	2	47	Miscellaneous Industrial, Commercial
7519	Utility trailer and recreational vehicle rental	0	2	47	Miscellaneous Industrial, Commercial
7542	Car washes	1	3	10	Car Washes
7629	Electrical and electronic repair shops	0	1	47	Miscellaneous Industrial, Commercial
7699	Repair services and shops, not elsewhere class.	1	1	38	Metal Finishing
7833	Drive-in motion picture theaters	0	1	47	Miscellaneous Industrial, Commercial
7911	Dance halls, studios, and schools	0	1	47	Miscellaneous Industrial, Commercial
7997	Membership sports and recreation clubs	0	3	47	Miscellaneous Industrial, Commercial
7999	Amusement and rec. services, not elsewhere class.	5	7	47	Miscellaneous Industrial, Commercial
8062	General medical and surgical hospitals	0	1	34	Hospitals
8071	Medical laboratories	0	1	47	Miscellaneous Industrial, Commercial
8081	Outpatient care facilities	0	1	47	Miscellaneous Industrial, Commercial
8211	Elementary and secondary schools	0	19	47	Miscellaneous Industrial, Commercial
8221	Colleges, universities, and professional schools	0	2	47	Miscellaneous Industrial, Commercial
8231	Libraries and information centers	0	1	47	Miscellaneous Industrial, Commercial
8351	Child day care centers	0	1	47	Miscellaneous Industrial, Commercial
8361	Residential care	0	2	47	Miscellaneous Industrial, Commercial
8611	Business associations	0	1	47	Miscellaneous Industrial, Commercial
8661	Religious organizations	0	3	47	Miscellaneous Industrial, Commercial
8922	Noncomm., educ., scientific, and research organiz.	0	1	47	Miscellaneous Industrial, Commercial
9223	Correctional institutions	5	10	47	Miscellaneous Industrial, Commercial
9224	Fire protection	0	1	47	Miscellaneous Industrial, Commercial
9511	Air and water, solid waste management	0	1	47	Miscellaneous Industrial, Commercial
9512	Land, mineral, wildlife, and forest conservation	2	7	47	Miscellaneous Industrial, Commercial
9621	Regulation and administration of trans. programs	0	1	47	Miscellaneous Industrial, Commercial
9711	National security facility	2	4	47	Miscellaneous Industrial, Commercial
9999	Nonclassifiable establishments	2	3	47	Miscellaneous Industrial, Commercial
Total		1422	2581		

Note: • 76 facilities have been identified as having only stormwater runoff or other flow type of wastewater.
• Facility counts under NCPDI are the number of facilities for which estimates are made. Facilities for which the type of wastewater (eg. process, cooling, etc.) could not be identified are not included. Facility counts under "Total" include all facilites with NPDES permit numbers listed in the Permit Compliance System.

Glossary

GLOSSARY

This section is an alphabetical listing of technical terms used in this document which may not be familiar to the reader.

Biochemical Oxygen Demand (BOD). The quantity of dissolved oxygen used in the biochemical oxidation of organic matter in a specific time, at a specified temperature, and under specified conditions. BOD values provide a somewhat standard measure of how much oxygen will be required to degrade a waste, and therefore reflect the effect waste may have on fish or other aquatic organisms that require oxygen to live.

Chlorinated Hydrocarbons (CHP). A large class of chlorinated hydrocarbon compounds other than polychlorinated byphenyls (PCBs).

Coastal County. A county that contains or borders a stream, river, or portion of an estuary affected by tides. Typically, these counties border the marine coastline. However, inland counties, such as St. Charles Parish in Louisiana, that border a tidally-influenced portion of the Mississippi River are also considered coastal counties in the NCPDI.

Direct and Indirect Dischargers. A direct discharger is a facility that discharges its effluent directly into a receiving water, such as a stream, river, estuary, or ocean. An indirect discharger is a facility that discharges its effluent into a sewer system for treatment by a wastewater treatment plant.

Discharge Category Code. The coding scheme used in the NCPDI that links categories of industrial dischargers to their respective typical pollutant concentration values. A discharge category is comprised of a group of industrial or municipal facilities that engage in similar manufacturing or waste-producing processes, and thus are assumed to have similar types and levels of pollutant discharge. Facilities are assigned to one of 89 discharge categories based on the facility's Standard Industrial Classification code.

Discharge Monitoring Report (DMR). The form used to report to a regulatory agency the results of a discharger's effluent monitoring. DMRs are submitted on a regular basis (usually monthly for major facilities and most minor facilities; quarterly for small dischargers), as required under the discharger's National Pollutant Discharge Elimination System permit.

Estimated Discharge Load. An amount of a pollutant discharged over a specific period of time that has been computed using either monitoring or typical flow volumes and typical pollutant concentration values. Because of the assumptions involved in using typical pollutant concentration values, these load estimates are considered less accurate than those based entirely on monitoring data.

Estuarine Drainage Area (EDA). That land and water component of an entire drainage basin that most directly affects an estuary. EDAs are defined based on the limits of tidal influence within an estuarine system and the boundaries of U.S. Geological Survey (USGS) hydrologic cataloging units . There are currently 90 estuaries in NOAA's National Estuarine Inventory .

Fecal Coliform Bacteria (FCB). A measure of the fecal coliform bacteria found in a sample of water. FCB are the bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the presence of human pathogenic organisms carried in sanitary sewage. Their concentrations are expressed as number of cells per 100 milliliters of sample.

Heavy Metals. These include Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Iron (Fe), Lead (Pb), Mercury (Hg) and Zinc (Zn). For the purpose of this report they are measures of the individual constituents listed above as a total of all their different forms. For example, Chromium is a measure of all forms rather than just the hexavalent form of Chromium.

Hydrologic Cataloging Unit. A geographic area defined by the U. S. Geological Survey (USGS) representing all or part of a surface drainage basin, a combination of drainage basins, or a distinct hydrologic feature. The cataloging unit is the smallest of the four hydrologic units used by the USGS to define the boundaries of drainage basins throughout the country.

Industrial Discharger. A facility that, as a result of manufacturing products from raw materials, discharges a contaminated effluent to the environment. The second of the three major categories of point source dischargers in the NCPDI. Industrial dischargers are the most complex category for which to make loading estimates because of the variation in facility size, production levels and waste-streams within a single discharge category.

Industrial Facilities Discharge (IFD) Data Base. A data base developed by the EPA's Office of Water Regulations and Standards to provide a comprehen-

sive inventory of WWTP and industrial facilities releasing effluent to surface waters in the U.S.

Major or Minor Facility. The terms used to classify dischargers according to their relative importance as pollutant sources. The criteria used to make major and minor assignments were developed by the EPA's Office of Water Enforcement and Permits. Different guidelines are used for wastewater treatment plants and industrial dischargers. Major wastewater treatment plants are those that discharge over one million gallons per day on average, or serve a population greater than 10,000 people, or discharge to surface waters that have severe water quality problems. Industrial dischargers are classified using a numerical rating system that takes into account discharge volume, effluent toxicity, level of conventional pollutant discharge, potential human health impacts, and water quality factors. Because major facilities contribute the largest share of pollutant discharges, they are the main focus of the data collection effort in the NCPDI.

Monitoring Discharge Load. An amount of a pollutant discharged over a specific period of time computed using monitoring flow volumes and pollutant concentrations based on monitoring data. Estimates based on reported monitoring data are considered the most accurate values in the Inventory.

National Estuarine Inventory (NEI). The NEI is a series of interrelated projects and activities initiated by NOAA to develop a national estuarine data base and assessment capability. The NEI identifies 90 estuaries, which account for approximately 90 percent of the estuarine surface water of the three coasts of the contiguous U.S. The NEI acts as a framework for the integration of information gathered on an estuary-by-estuary basis by NOAA's Strategic Assessment Branch.

National Pollutant Discharge Elimination System (NPDES) discharge permit. The permit that sets limits on the amounts or concentrations of pollutants that a municipal, industrial, or commercial facility is allowed to discharge into surface waters. The permit is written by either the state regulatory agency or the EPA and revised every five years. It specifies which pollutants are regulated (e.g., wastewater, phosphorus, mercury), and how frequently the permit holder must monitor its effluent for the pollutants listed on the permit. If the permit holder violates the terms of the permit, it is liable for penalties under the Water Quality Act of 1987.

NCPDI Study Area. On a national basis, the NCPDI study area is comprised of a combination of coastal counties and Estuarine Drainage Areas (EDA). The portion of the NCPDI study area in Texas contains all or a portion of eight EDAs.

Needs Survey Data Base. A data base initiated in 1973 by the EPA to comply with the Federal Water Pollution Control Act Amendments and has been updated every two years so that EPA may report their findings to Congress. This data base is the major source of data for all existing or proposed wastewater treatment plants and includes information characterizing facility location, flow capacity, influent and effluent characteristics, treatment processes, population served by each WWTP, construction cost estimates, and projection for future treatment needs. There are approximately 24,000 facility records in the 1986 Needs Survey data base.

Nutrients. Chemical elements or substances, such as nitrogen and phosphorus, that are essential for plant and animal growth.

Oil and Grease (O&G). All forms of oil and grease that are measured from petroleum derived sources. Included are light aromatics as well as tars. Oil and grease from animal fats, vegetable oils, or rendering operations can also be measured in the test.

Operating Days. The number of days in a calendar year that an industry or wastewater treatment plant was either known or assumed to have operated and released an effluent. In the NCPDI load estimation methodology, operating days are used to adjust daily load estimates to annual estimates.

Once-through Cooling Water. Water typically drawn from a surface water source that is passed only once through heat exchange equipment and then is discharged back into the receiving water.

Permit Compliance System (PCS) Data Base. This is a computerized EPA data management information system for tracking permit compliance and enforcement status data for the NPDES. The 1987 data base consists of more than 5 million records on over 75,000 active discharge permits issued nationally by the EPA.

Point Source Category. One of the three major point source categories classified in the NCPDI inventory. WWTPs, Industry, and Power Plants.

Polychlorinated Byphenyls (PCBs). An aromatic halogenated hydrocarbon compound of low flamability which contains from 12 to 68 percent chlorine.

Power Plants. A facility that generates electricity by either the burning of fossil fuels, or nuclear fission. The third of the three major categories of point source dischargers in the NCPDI. Although power plants usually do not release large quantities of pollutants, if they use once through cooling water to remove heat from the condenser units, they release tremendous volumes of wastewater. They are carried as a separate point source category in the NCPDI because the high value of wastewater discharged would tend to distort their relative importance as pollutant sources.

Process Proration Factor (P factor). The percentage of a facility's combined pipe discharge (process and once-through cooling water) that was assumed to have originated from production processes. There is a separate P factor for each discharge category in the NCPDI. P factors range from zero to 100 percent.

Process Wastewater. Wastewater which contains byproducts of manufacturing, commercial, or domestic activities that is released to either a wastewater treatment plant or, after treatment, to a receiving water. Sources of process wastewater include: process water, septic tank waste, demineralizer backwash, salt water brine, industrial waste chemicals, ship ballast water, sump drain water, wash water which is an integral part of production, heating water, metal cleaning wastewater, and low volume wastewater. Once-through and recycled cooling water are <u>not</u> considered polluted wastewater.

Recycled Cooling Water (Blowdown Water). Wastewater from a recycled cooling water system (water that is passed multiple times through a heat exchange equipment) that is discharged to a receiving water due to the buildup of high concentrations of dissolved solids. In some recycled systems, chemical additives that inhibit scale formation are added, and a portion of these are also released in the blowdown. Fresh makeup water is added to the system to replace the volume lost in blowdown. Typically, the volume discharged as blowdown is much less that that discharged in a once though cooling water system.

Seasonality Factor. A coefficient used in computing estimates of seasonal loads of pollutants discharged by the facilities. Seasonality factor is computed from the seasonal discharge days for a pipe or assumed, based on the facility's discharge category code. Many classifications of industries, such as seafood processes and fruit and vegetable processors, only operate when the material they process is harvested. This coefficient accounts for the seasonal fluctuation in effluent production by these industries.

Standard Industrial Classification (SIC) code system. A coding system developed by the Office of Management and Budget to classify establishments according to the type of activity in which they are engaged. The SIC is intended to cover the entire field of economic activities: agriculture, forestry, fishing, hunting, and trapping, mining, construction, manufacturing, transportation, communications, electric, gas, and sanitary services, etc.

Total Nitrogen. The sum of all forms of nitrogen.

Total Phosphorus. The sum of all forms of phosphorus.

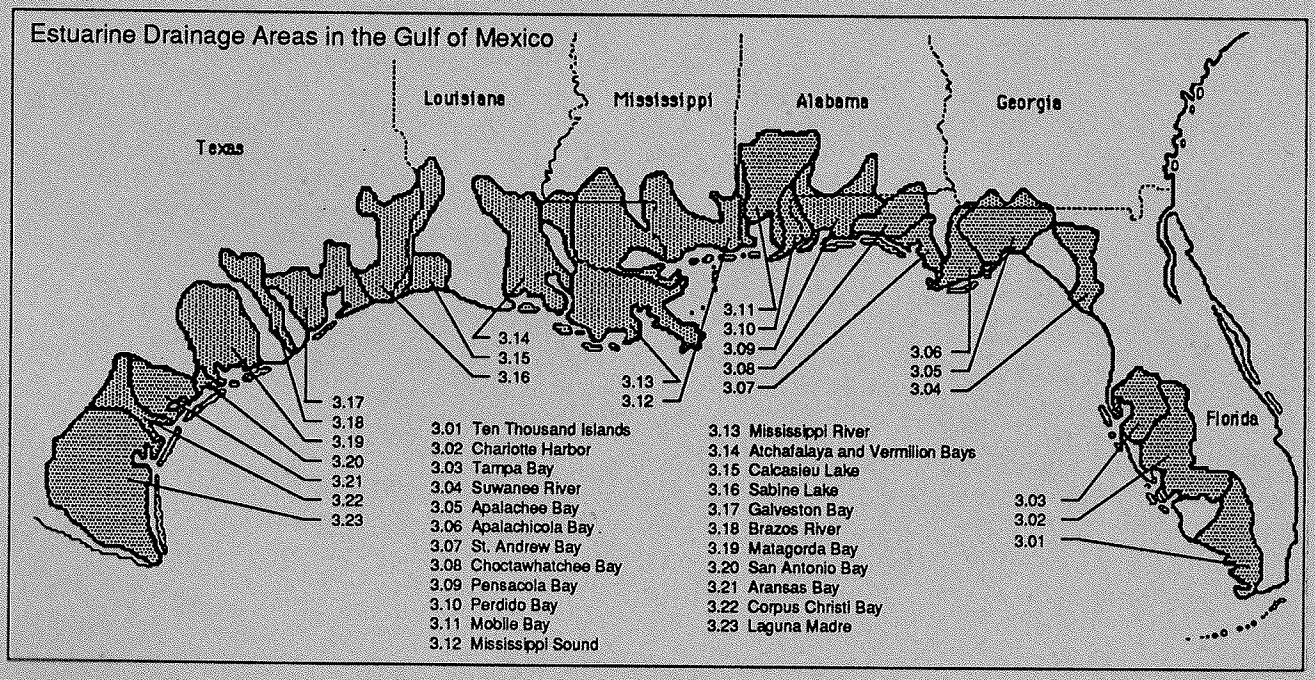
Total Suspended Solids (TSS). Total amount of solid matter in a representative water sample that is retained on a membrane filter. It includes all sediment and other constituents which is suspended in a fluid.

Typical Pollutant Concentration (TPC). The concentration of a pollutant that is assumed to be present in a discharger's effluent when actual monitoring or permit data are not available. There is a TPC for each of the 15 pollutants and the 88 discharge categories in the NCPDI. TPC values are drawn primarily from the EPA's Development Documents for Effluent Limitations Guidelines and Standards.

Wastewater Treatment Plant (WWTP). A facility that receives wastewaters (and sometimes runoff) from domestic and/or industrial sources, and by a combination of physical, chemical, and biological processes reduces (treats) the wastewater to less harmful byproducts. The first of the three categories of point source dischargers in the NCPDI. WWTPs are an important source of pollutant loadings. The loadings estimated for WWTPs are considered more accurate than those for industries or power plants.

Pollution Sources in the NCPDI

- point sources (industries and sewage treatment plants);
- urban, nonpoint runoff (stormwater runoff and combined sewer overflow discharges)
- nonurban, nonpoint runoff (cropland, pastureland, and forestland runoff);
- upstream sources (pollutants carried into the coastal area as part of a river's streamflow);
- irrigation return flow (irrigation water returned to a lake, stream, or canal);
- oil and gas operations (discharges from drilling and production activities);
- marine transportation operations (operational discharges and accidental spills); and
- dredging operations (offshore disposal of dredged material).

Pollutants in the NCPDI

- wastewater and/or stormwater runoff;
- oxygen-demanding materials (degrading organic and oxidizing inorganic substances, BOD);
- particulate material (suspended sediment, TSS);
- nutrients (total nitrogen, total phosphorus);
- heavy metals (arsenic, cadmium, chromium, copper, iron, lead, mercury, and zinc);
- petroleum hydrocarbons (oil and grease);
- chlorinated hydrocarbons other than polychlorinated biphenyls (pesticides); and
- pathogens (fecal coliform bacteria).