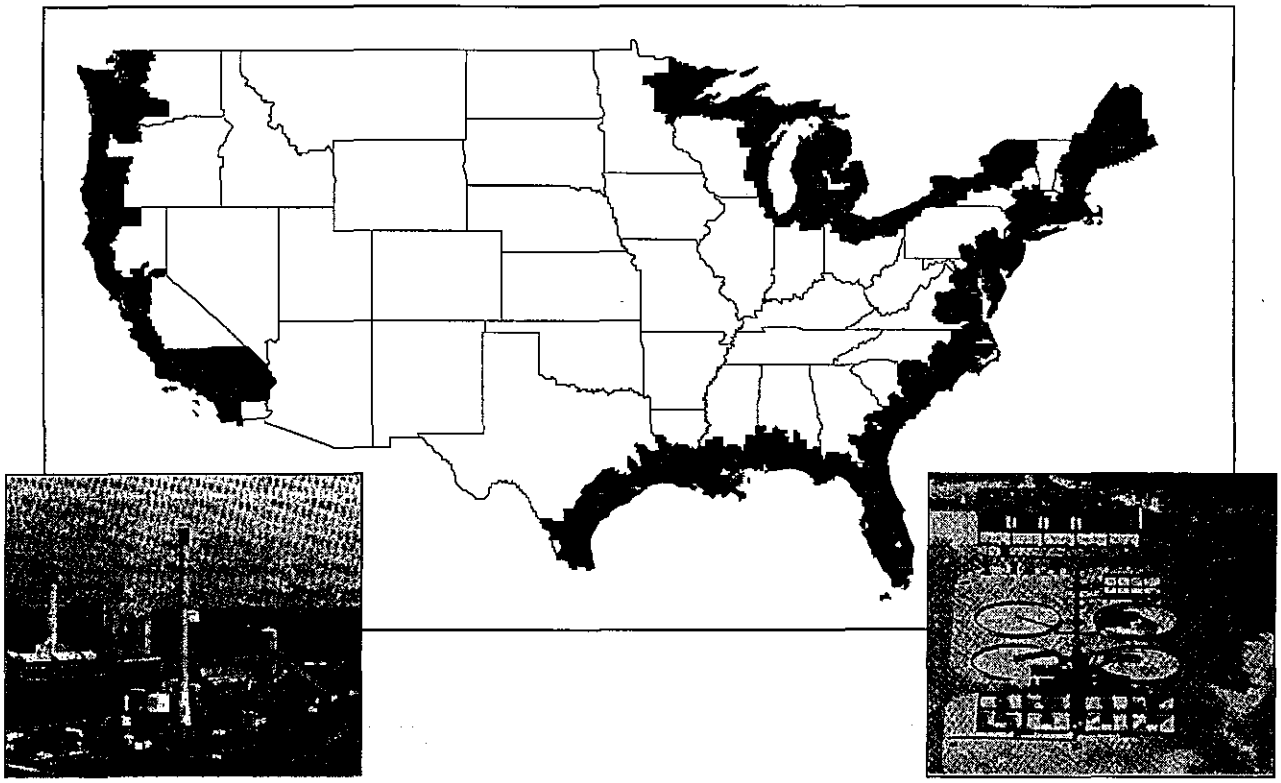
THE NATIONAL COASTAL POLLUTANT DISCHARGE INVENTORY

Point Source Methods Document



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NCPDI Point Source Methods Document

This document describes the methods used to develop the NCPDI Point Source Inventory, completed in December, 1993. Information within the inventory may change if more accurate or complete information is located. Subsequent versions of the national inventory may be released as improvements and refinements in data are incorporated into the inventory. Direct any comments, questions or problems relating to the NCPDI Point Source Inventory to Percy A. Pacheco or Daniel R. G. Farrow at the address on the inside of the back cover.

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Section 1: Overview

This document describes the data sources and methods used to develop an inventory of direct-discharging point sources in the coastal watersheds of the Nation, as part of NOAA's National Coastal Pollutant Discharge Inventory (NCPDI) (see insert). The inventory contains estimates of seasonal and annual pollutant loadings for 1991 for each active pipe discharging pollutants to surface waters, along with location and operational characteristics of the point source facilities in the study area. A description of the study area is included in Section 2.

When possible, pollutant discharge estimates have been derived from monitoring sources. However, the amount of monitoring data varied by pollutant parameter. The greatest amount of monitoring data was available for the conventional pollutant parameters such as flow, total suspended solids (TSS), and biochemical oxygen demand (BOD5), with far less monitoring data available for heavy metals, nutrients, and oil and grease.

Most monitoring data were taken from the monthly Discharge Monitoring Reports (DMR) completed as part of each facility's National Pollutant Discharge Elimination System (NPDES) Compliance Monitoring Program. In some cases, monitoring data were taken from other data sources, such as a facility's NPDES permit application. When monitoring data were not available or appeared to be inaccurate, estimates were made based on NPDES permit limit requirements when available.

If no monitoring, permit, or other data were available or acceptable, estimates were made based on pollutant concentrations considered typical for the facility's industrial or municipal activity. Typical pollutant concentration data were an important source of information used in making the discharge estimates.

The reliability and relative accuracy of the discharge estimates and the facility characterization data depended on the availability, quantity, and quality of information in the national data sources. Because these data sources have certain limitations, estimates often required the use of assumptions and typical values.

The National Coastal Pollutant Discharge Inventory

NOAA's National Coastal Pollutant Discharge Inventory (NCPDI) begun in 1981, is a national data base and computational framework that provides estimates of pollutant discharges from all point, nonpoint, and riverine sources into the estuarine, coastal, and oceanic waters of the contiguous United States. Point sources include those facilities that discharge pollutants to surface waters through a pipe, ditch, canal, or related type of conveyance on a regular basis, and have an NPDES permit issued either by the EPA or a designated State agency. Nonpoint sources include discharges from urban nonpoint sources, nonurban nonpoint sources such as runoff from farmland (cropland and pasture/range) and forestland, and upstream sources discharging to coastal areas.

It is important for users to understand the limitations of the data and to be able to independently evaluate the relative accuracy of the estimates. To give the user this capability, the Project Team has developed a variety of codes to document the data source(s), the basis for each estimate, and cases where professional judgment was used to modify or override data determined to be unacceptable. In addition, several supporting files have been developed that contain both the original data received from the source and that derived from key intermediate steps in the estimation process. This combination of source and basis codes and supporting files provides an audit trail that can be used to independently calculate a loading estimate and assess its relative accuracy.

The Approach

There are five major steps in developing an inventory of direct-discharging point sources and estimating their discharge loadings. These include:

- Identifying the primary data sources and obtaining the desired information in an appropriate format;
- Developing data input files, including manipulating and enhancing the primary data to produce the Facility File, the Permit Data File, and the Monitoring Data File;
- Developing a data base of characteristics typical of different types of point sources. These values are used when facility-specific data are either missing or unacceptable. These typical characteristics include estimates for volume of flow discharged, type and concentration of pollutants discharged, seasonal discharge patterns, and the percentage of process or

sanitary versus cooling water or stormwater flow in a discharge pipe with combined flow. In addition, it is necessary to develop a system for assigning these typical characteristics to different industrial and municipal activities. All typical value information used were developed by the NCPDI team;

- Developing the computational procedures necessary to estimate pollutant loadings based on the information in the input files. These procedures are the key to the process, and involve four steps. The first is to design a data structure (series of data files) for the information needed to make estimates. The second is to develop the algorithms that will be used to generate the loading estimates. The third is to develop a set of hierarchical decision rules to select the best available information from the data files for input into the estimation algorithms. The final step is to encode the file structure, estimation algorithms, and decision rules into a series of linked computer programs that, when run, generate the inventory of point sources and pollutant-discharge estimates; and

- Producing the final pipe-level and facility-level master loadings files.

Each of these steps is described in more detail later in this document.

Using the Inventory

The inventory contains a wealth of information about direct-discharging point sources in coastal watersheds. Some of the analyses and summaries that can be made using information in the inventory include:

- Identification of potential sources of a contaminant found at a benthic or water-column monitoring site by reviewing the permit requirements and pollutant-discharge estimates of the facilities in the tributary watershed(s);

- Rankings of the facilities in a watershed, county, or state based on the amount of pollutant discharged;

- Counts and distributions of the number, type, and size (major/minor) of point sources in a watershed, county, or state;

- Listing of latitude/longitude of all major and most minor facilities in the study area;

- Comparison and evaluation of the NPDES permit requirements across discharge activity, watershed, or state; and

- Calculation of average, maximum, minimum, and distribution statistics for a particular pollutant by industry sector across a watershed, county, state, or the entire study area.

Using this Document

This document is organized in four sections and several appendices:

Section 1 provides an overview of the inventory development process. Section 2 describes the major features of the inventory. Section 3 details the steps of the inventory development process, including the data sources used, development of the data input files, the information contained in the typical values reference files (and the sources from which this information was compiled), and the computational procedures. Section 4 contains an evaluation of the relative accuracy of the estimates, a discussion of the potential sources of error, and suggestions for improving the inventory.

There are also nine appendices that contain listings and summaries of supporting information:

I. ***Point Source Data Dictionary*** - contains definitions of all data fields in the point source data base, and a table that cross-references variable names with the text description of the variable;

II. ***Typical Pollutant Concentrations for NCPDI Discharge Categories*** - contains information organized by discharge category code (DCCD) characterizing the concentrations of pollutants typically discharged by point sources. This information was used when no other data sources were available. The DCCD is a coding scheme used in the NCPDI that links categories of dischargers to their respective typical pollutant concentration values. A DCCD is comprised of a group of industrial or municipal facilities that engage in similar manufacturing or waste-producing processes, as determined by the facility's SIC (Standard Industrial Classification) code, and thus are assumed to have similar types and levels of pollutant discharges. This table also includes the number of operating days per year, process pipe factors, and seasonality factors by DCCD;

III. ***Typical Flow Values*** - contains typical flow rates by SIC code used to calculate pollutant loads when no other flow data sources were available;

IV. ***SAS Programs Used to Generate Point Source Pollutant Loading Estimates*** - provides a list of the Statistical Analysis System (SAS) computer programs used to generate the point source inventory estimates, including a description of the functions of each program;

V. ***Data Fields Included in the Seven Deliverable Files*** - lists the data fields in each file of the data base, including a description of the data type in each;

VI. ***Estuarine and Coastal Drainage Areas in the NCPDI***- list of the major/minor coastal and Great Lakes watersheds included in the NCPDI;

VII. ***USGS Hydrologic Cataloging Units in the NCPDI***- list of the USGS hydrologic cataloging units included in the NCPDI;

VIII. ***Counties Comprising the NCPDI Study Area*** - list of the counties included in the NCPDI; and

IX. ***List of Acronyms*** - summarizes the acronyms found in this document.

Section 2: Features of the Inventory

This section describes the important features of the NCPDI point source inventory.

Definition of Point Source

The data base includes point source facilities that discharge pollutants to surface waters through a pipe, ditch, canal, or related type of conveyance on a regular basis and have an NPDES permit issued either by the EPA or a designated State agency. The inventory contains information only for direct-discharging facilities, those land-based point sources that discharge pollutants directly to rivers, estuaries, bays, or the ocean. Indirect dischargers, those activities or facilities that discharge to a wastewater treatment plant (WWTP), are not included because their loadings are incorporated into the discharge estimates of treatment plants.

In 1990 the EPA began issuing NPDES permits to regulate the discharge of stormwater from large municipalities and certain types of industries. While the stormwater discharges regulated under this program are technically considered point sources by the EPA, these discharges are not included in this inventory.

Base Year and Seasonal Estimates

Because the information requested and received from EPA and the states was for 1991, the information in the data base approximates conditions for that year. When no monitoring discharge data were available, estimates were made using facility characteristics for the 1991 base year.

The inventory contains both seasonal and annual discharge estimates. Seasonal discharges are divided into winter (January to March), spring (April to June), summer (July to September), and fall (October to December) estimates.

Study Area

The study area for the NCPDI is shown in Figure 1. The dark line represents the estuarine and coastal drainage areas that collectively comprise the coastal watersheds. The counties that contain these watersheds are shaded.

The information in the inventory can be organized by four spatial units. The first is the estuarine drainage area/coastal drainage area. An estuarine drainage area (EDA) is defined by NOAA as that portion of an entire watershed that most directly affects the estuary and is delineated by the USGS hydrologic cataloging units and the head of tide. There are currently 102 EDAs in NOAA's National Estuarine Inventory (NEI).

A coastal drainage area (CDA) is that component of an entire watershed that is not part of the 102 EDAs in the NEI, but drains into an estuary or coastal water. CDAs are also delineated by the USGS hydrologic cataloging units and the head of tide. In the NCPDI study area, there are 288 CDAs, including the 90 CDAs in the Great Lakes region. A list of the EDAs/CDAs in the NCPDI study area can be found in Appendix VI.

The data can also be organized by USGS hydrologic cataloging unit. A cataloging unit is a geographic area representing all or part of a surface drainage basin, a combination of drainage basins, or a distinct hydrologic feature. Cataloging units generally have an area of at least 1,800 km^2 (695 mi^2). A list of the 357 cataloging units in the NCPDI along with their areas can be found in Appendix VII.

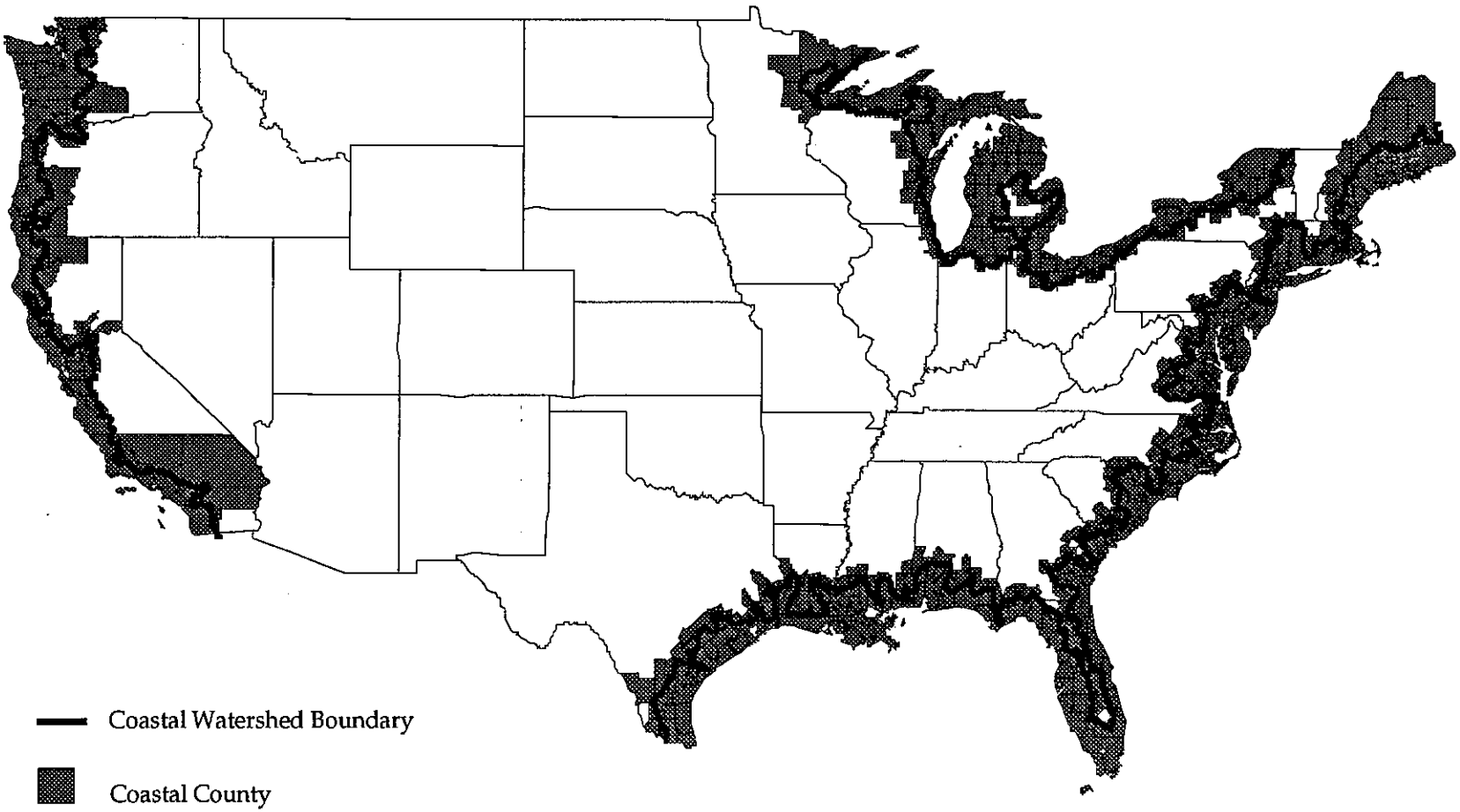
The third spatial unit into which the data can be organized is the coastal county. A list of the counties in the NCPDI along with their 1990 population and areas can be found in Appendix VIII. There are 735 counties, independent cities, and parishes in the NCPDI study area. A county was included if it was part of any EDA/CDA in the study area.

Finally, the point source estimates in the inventory can be organized based on whether they are inside or outside the existing State coastal zone management boundary. This information is of use to coastal zone managers because Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 gives State coastal management agencies new authority to control nonpoint source pollutant discharges. These estimates can be used to help understand the relative contributions of discharges in this management area.

Pollutants in the Inventory

The inventory includes estimates for the 15 pollutants listed in Table 1 (including eight heavy metals). These pollutants were included in the inventory because they represent substances whose presence in the aquatic environment is of concern in terms of both water quality and human health

Figure 1. *NCPDI Study Area Showing Coastal Counties and Coastal Watershed Boundaries*



effects. They are also either among the most frequently monitored pollutants or those frequently included in NPDES facilities permits.

When no monitoring or permit data were available for a particular pollutant, discharge estimates were developed based on typical pollutant concentrations so the data base would be complete for these pollutants. The methodologies used to estimate pollutant loadings are presented in Section 3.

Table 1 also lists the annual units by which each pollutant parameter in the data base is measured. Flow is given in millions of gallons. Discharges for the remaining pollutants, with the exception of fecal coliform bacteria which is given in cells, are given in pounds. Seasonal, monthly, and daily discharge estimates are also available for each of the 15 pollutants in the inventory.

Additional Pollutant Discharge Information

The background files in the data base also include information on the permit limits and monitored discharges for up to 1,600 parameters that can be reported in EPA's Permit Compliance System (PCS) data base. Unfortunately, the information for most of these pollutant parameters is incomplete, as few permits require facilities to monitor for these pollutants.

Table 1. *Pollutants Included in the NCPDI*

Pollutant	Description	Annual Units
Flow	Wastewater discharge from point source. Flow can be process, cooling, sanitary, storm, other, or a combination of these.	Million gallons
BOD	Biochemical Oxygen Demand (BOD5); Measure of organic material that can be readily oxidized through microbial degradation.	Pounds
TSS	Total Suspended Solids; Measure of suspended solid materials.	Pounds
Total Nitrogen	Measure of all forms of nitrogen including nitrate, ammonia, and organic forms.	Pounds
Total Phosphorus	Measure of all forms of phosphorus (i.e., ortho and para compounds).	Pounds
Heavy Metals Arsenic Cadmium Chromium Copper Iron Lead Mercury Zinc	A group of elements present in the environment from natural and anthropogenic sources that can produce toxic effects, even in small concentrations.	Pounds
Oil & Grease	A mixture of hydrocarbons comprised of hundreds of chemical compounds found in petroleum.	Pounds
FCB	Fecal Coliform Bacteria. Used as an indicator of raw or partially treated human sewage.	Cells

Section 3: Estimating Discharges

This section describes in detail how the NCPDI Point Sources Inventory was developed. Figure 2 is a flow diagram of the process; the shaded areas denote the five major steps in developing the inventory:

- Identifying data sources and obtaining data;
- Developing data input files;
- Developing typical value information;
- Developing the computational procedures that result in the generation of the final inventory and pollutant loadings; and
- Generating the final inventory files.

Boxes of different shapes represent different activities in the estimation process (e.g., a triangle indicates a computer program, a diamond indicates data entry, and a rounded rectangle indicates a data source). Shadowed rectangles denote the inventory's seven deliverable data files. All others are intermediate files that are available upon request. However, the deliverable files contain the most relevant point source information. All files generated in the process and their contents are listed in Appendix V.

The circled numbers associated with each element correspond to the numbered paragraphs in this section, and provide a quick reference to the descriptions of the individual steps in the inventory development process. The letters in the triangles represent Statistical Analysis System (SAS) computer programs that are discussed in the text and explained in greater detail in Appendix IV.

Data Sources

To build the data base, information was gathered from a variety of sources (Table 2). Although the main source was EPA's Permit Compliance System (PCS), other sources were used to supplement this data when necessary. The major sources used in developing the inventory included:

(1) The Permit Compliance System. The PCS is a computerized information management system maintained by EPA for tracking permit, compliance, and enforcement-status data for the NPDES.

(2) Bureau of Census. The Bureau of Census's *1990 Census of Housing and Population* provided city centroid information that was used to approximate the location of each facility when this information was missing.

(3) State Agency Latitude/Longitude Information. When latitude/longitude information was missing from the NPDES permit, state agencies were able to supply some of the missing coordinates. This data source was used to locate major facilities in the inventory.

(4) NPDES Permit Application Form and Other Sources of Monitoring Data. All point source facilities are required to complete an NPDES permit application form when applying for or renewing an NPDES permit (permits must be renewed every five years). As part of the application process, each facility is required to monitor active discharge pipes for the presence and concentration of 165 pollutants. Permit application form data, however, was only incorporated into the NCPDI Point Sources Inventory for the Middle Atlantic region, as not enough resources were available to manually enter the hardcopy permit application form data for the entire country. These data were used to supplement missing or unacceptable PCS information on flow type, operating days per year, facility location, and pollutant discharges. The permit writer uses the results of these analyses to set or modify the facility's discharge limits.

In addition to the permit application form, other sources of monitoring data not specifically mentioned in this document were sometimes used in developing the discharge estimates. These included various state files, federal and state summary reports, and national data bases.

(5) Needs Survey. EPA's Construction Grants Needs Survey is an inventory of all existing or proposed publicly owned WWTPs needing construction to meet the requirements of the Clean Water Act. Data from the survey form the basis of a biennial report to Congress indicating the estimated cost to achieve secondary treatment. For the NCPDI Point Sources Inventory, data on flows and treatment levels were collected from the 1992 Needs Survey.

Data Input Files

The next step in building the inventory was developing the data input files from the information available in the primary data sources. A significant amount of raw data modification and enhancement was necessary, and a substantial effort was made to fill

Figure 2. *Schematic for Estimating Point Source Discharges in the NCPDI*

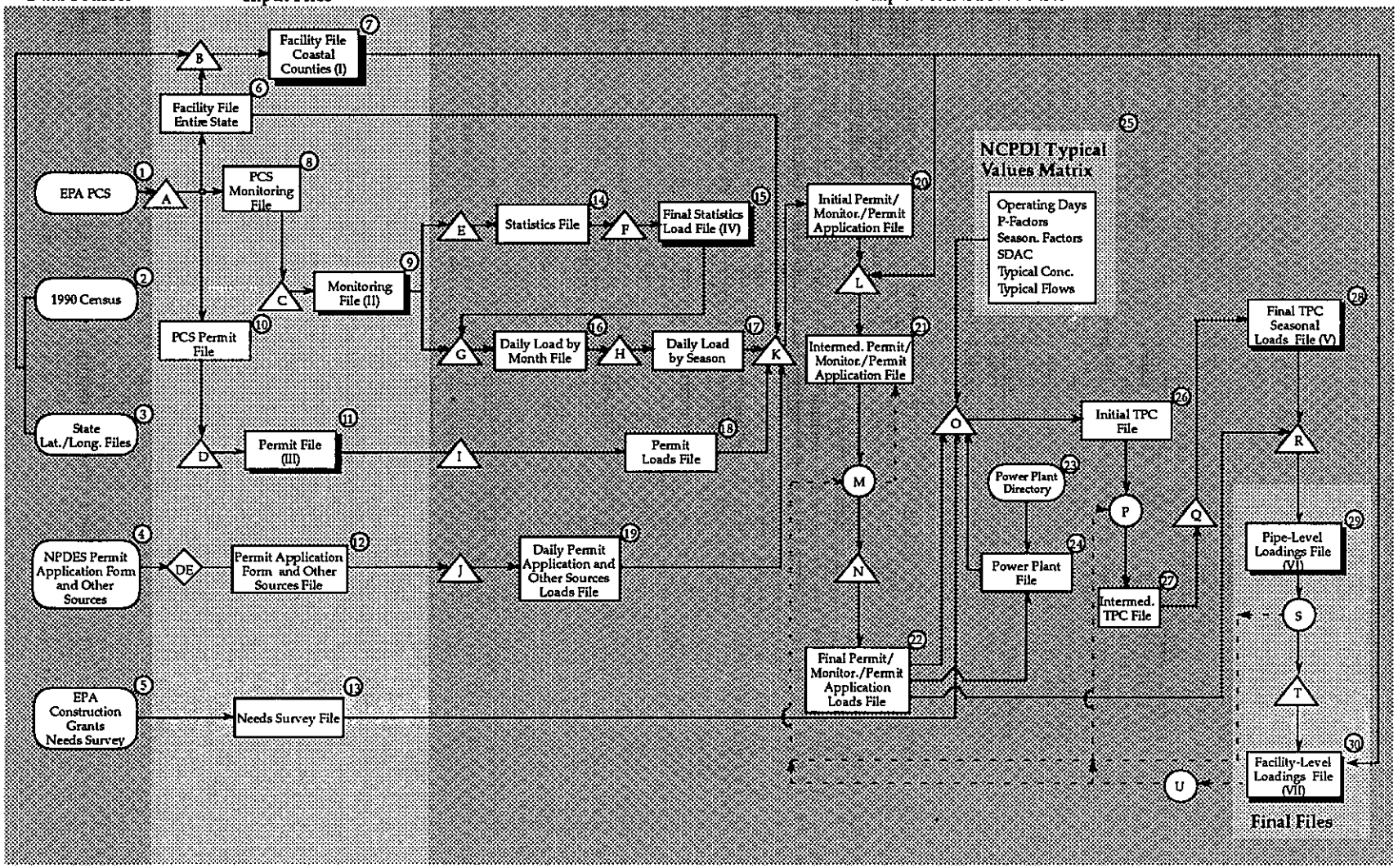


Table 2. *Information Sources Used to Develop the NCPDI Point Source Inventory*

Source	Information Obtained
EPA's Permit Compliance System: Discharge Monitoring Reports and Permit Limits	Data on facility characteristics, monthly monitored values, permit limits, and the location of point source facilities.
EPA NPDES Permit Application Forms and other sources of monitoring data	Provided information on flow type, operating days, facility and pipe location, and pollutant-loading estimates.
1992 EPA Needs Survey	Information on flow and treatment level for publicly owned WWTPs.
1990 Power Plant Directory	Provided information on the type of cooling water system used and flow values.
State Files	Facility latitude/longitude information
1990 Census of Housing and Population	City centroid information used to estimate location of facilities
NCPDI Typical Value Files	Values by SIC code for pollutant concentrations, flow, operating days per year, percent process water discharged from combined pipes, and seasonality factors.

in missing location information, standardize facility names and pollution discharge units, and identify and delete obvious errors in the pollutant discharges reported.

An ASCII version of the PCS was first obtained from EPA's Office of Wastewater Enforcement and Compliance. A separate file was requested for each state in the study area. After verifying that the appropriate fields were included, the files were read into SAS maintained on personal computers. Each state file was divided into three separate files: *Facility, Monitoring,* and *Permit.* NPDES permit application data were obtained from the permit application data base developed by the Pollution Sources Characterization Branch, and a digital copy of the Needs Survey was obtained from EPA.

(6, 7) Facility Files. A SAS program (Program A) was then run to delete inactive facilities from the state PCS files and to manipulate facility location information to create the Facility File-Entire State (6). A second program (Program B) was then used to subset the state files to include only those facilities in the study area. A quality control examination of all existing variables was conducted to identify missing and erroneous information, and unacceptable data were removed. Missing values for the county, SIC code, and facility latitude/longitude variables were then filled to the extent possible. Variables were also created for USGS hydrologic cataloging unit, EDA/CDA code, standardized facility name, codes to aggregate data by various spatial units, codes to enable a latitude/longitude quality control assessment, and codes to track the source and basis of the data assignment. The methods used to fill missing data for several of the most important variables are described below:

County: When the county FIPS code was missing, the facility was assigned to a county using other information associated with the facility record, such as the city or town name in the mailing address or the facility's ZIP code. If this information was not available, the facility was assigned to the county with the largest population in the state. See "County Source Code" in the data dictionary (Appendix I) for the basis codes used to

identify the source of each county assignment.

SIC Code: When the SIC code was missing, a code was assigned by reviewing the name of the facility to determine the type of industrial activity in which it was engaged. If no assignment could be made, the missing SIC code was replaced with a default value of 9999.

Facility Latitude and Longitude: When facility latitude/longitude values were missing in the PCS, coordinates were assigned using a hierarchy of other information sources. The preferred source was coordinate information from State pollution control agencies. Other assignments were based on the centroid of city in which the facility was located or the facility's ZIP code. See "Facility Latitude/ Longitude Source Code" in the data dictionary for the basis codes used to identify the source of each latitude/longitude assignment.

Latitude/Longitude Verification: An attempt was made to verify the accuracy of the latitude/longitude coordinates in the PCS by plotting points on a geographic information system (GIS). The county assigned to the facility by the GIS was compared with the county reported for the facility in the PCS. If the GIS-assigned county did not match the county reported in the PCS, a code was assigned to flag this discrepancy. Major facilities flagged by the process were investigated to determine the nature of the discrepancy. See "Facility Latitude/Longitude Quality Control Codes 1, 2, and 3" in the data dictionary for the codes used to describe the different types of plotting discrepancies.

Facility File-Coastal Counties: The first of the inventory's seven deliverable data files, Facility File-Coastal Counties (7) contains all the descriptive attributes of each facility, including the NPDES number, facility name, SIC code, latitude/longitude, and status (major or minor). It also contains the county, cataloging unit, and EDA/CDA in which the facility is located. The major/minor facility classification is based on the EPA system that organizes industrial facilities using six parameters including flow volume and effluent toxicity. WWTPs are classified based on flow and population served. The Facility File is organized by the NPDES number, a nine-character code used to uniquely identify each facility. The first two digits identify the state in which the facility is located, and are followed by a series of digits that identify the specific facility. A more detailed summary of the fields in the Facility File is included in Appendix V.

(8, 9) Monitoring Files. The monitoring data obtained from the PCS represent the information provided by the facilities in their monthly Discharge Monitoring Reports (DMR) sent to each state and EPA. These data are entered into the PCS, and internal PCS programs compare the monitoring values with the facility's permit limits to determine if it is in compliance with its NPDES permit.

In developing the inventory, Program A was used to extract monitoring data from the PCS to create the PCS Monitoring File (8). Program C was then used to convert non-numeric data to a numeric format, replace missing unit values, and standardize units of measurement. In addition, season and month variables were created for use in later calculations. The Monitoring File (9) is the second deliverable data file in the inventory.

(10, 11) Permit File. The NPDES permit specifies the pollutants for which facilities must monitor and the allowable levels of discharge for these pollutants. These limits were used to estimate discharges when monitoring information was either missing or unacceptable. Program A was used to extract permit data from the original PCS file and create the PCS Permit File (10). Program D was then used to replace non-numeric values in the Permit File with blanks, convert numeric values formatted as character to numeric, standardize measurement units, and back-calculate flow from permitted concentration and load values where necessary. This Permit File (11) is the third deliverable file in the inventory.

(12) The Permit Application Form and Other Sources File. The NPDES permit application form was used to supplement data in the PCS. Data received in hard copy format for over 300 major facilities in the Middle Atlantic region were manually entered into SAS. In addition, data from other sources were also entered into this file and coded with a field element source code, to create the Permit Application Form and Other Sources File (12). Data from these sources are also considered monitoring data.

(13) Needs Survey File. The 1992 Needs Survey File (13), which was received in a digital format, was used to supplement the PCS with WWTP information.

Computational Procedures

The computational procedures used to develop the inventory involved a series of programs that calculated daily, seasonal, and annual loads using information from a variety of data sources. These data were then merged to create a Pipe-Level Loadings File (29).

(14, 15) Statistics Files. The Statistics File (14) was developed from the information in the Monitoring File (9), using Program E to assess data variability and to provide a mechanism for deciding when to censor data with unacceptable variability. Monthly monitoring data in the PCS can be reported as either a mass average or mass maximum, or concentration average, maximum, or minimum. Program E was used to calculate the mean, standard deviation, and coefficient of variation for each of these five reporting categories for up to 12 monthly monitoring values. The value of the coefficient of variation was used to decide when monitoring data variability during the 12-month period was too high to be used in the inventory. The Final Statistics Load File (15), the fourth of the deliverable files in the inventory, contains the statistics for the monitoring data, as well as estimates of the average daily load for the year, which were used as markers for the next file.

(16, 17) Daily Monitored Loads by Month and Season. The values reported by a facility in their monthly DMRs are an estimate of the average daily discharge during each month. Average daily loads for the month and season were developed using either mass or concentration data. Program G used a set of decision rules to select the value used to calculate a load. If the discharge was reported as a mass average value (MQAV), it was used. If not, the concentration average value (MCAV) was used, followed by the mass maximum value (MQMX), the concentration maximum value (MCMX), and the concentration minimum value (MCMN). If no monitoring values were available for a facility, the field was left blank. Loads were developed based on the source of the data. Mass values were used as direct estimates of the daily load by month (16). If concentration data were used, the load was calculated from monthly concentration and flow data (load = concentration x flow). Flow data from the Monitoring File (9) were also selected based on a hierarchy. If a flow average value was available it was used to calculate the load; if not, a flow maximum was used, and if this was not available a flow minimum was used. If no flow data were available, no load estimates were made.

Program G was also used to flag data whose variability was unacceptable, using the coefficient of variation from the Final Statistics Load File (15). If the coefficient of variation was greater than 133 for mass, 157 for concentration, or 95 for flow, the pollutant's monthly monitoring values were flagged. These threshold levels were based on an analysis of the monitoring data available, and were chosen to enable sets of monthly monitoring data with excessive variability to be flagged.

The Daily Load by Season File (17) was created using Program H. If the coefficient of variation from the monthly loads was unacceptable, the data were deleted and no seasonal load was calculated. The seasonal average daily load was calculated by averaging the values for the three average daily loads for the months in each season. If data for only two months of a season were available, these two values were averaged to determine the seasonal average daily load. If only one value was available, this value was used as the average daily load for the season. If no data were available, the value was left blank.

(18) Permit Loads File. Daily loads were also developed from the Permit File (11) data to supplement the monitoring data. The Permit Loads File (18) was developed using Program I. The hierarchy used to select mass or concentration values (i.e., MQAV, MCAV, MQMX, MCMX, and MCMN) was the same as that used to calculate the daily load by month.

(19) Daily Permit Application and Other Sources Loads File. To supplement monitoring information, daily loads were also calculated using data from the Permit Application Form and Other Sources File. Loads were calculated using Program J by multiplying flow by concentration because most pollutant discharges on the permit application are reported based on concentration. A hierarchy was developed to select which flow and concentration data were used to calculate the load. Long-term average values were used first for flow and concentration when available. If these data were missing, the maximum 30-day value or maximum daily value was used to develop the Daily Permit Application and Other Sources Loads File (19). In addition, the load for each combined pipe (e.g., process and cooling) was adjusted based on the percent of the discharge that

was process flow. The use of these P-factors in calculating loads from typical concentrations is described later in more detail.

(20) Initial Permit/Monitoring/ Permit Application File. The Monitoring and Permit Loadings files and the Permit Application and Other Sources Loads File were combined using Program K to form the Initial Permit/Monitoring/Permit Application File (20). This file contains estimates of the average seasonal daily load for an entire state.

(21) Intermediate Permit/Monitoring/Permit Application File. The loadings files were then subset to include only those counties in the study area, using information from the Facilities File and Program L. This program also created listings for a subsequent quality control check. It also removed loadings from the Permit Application Form and Other Sources File (12) for all NCPDI pollutants (except copper) from power plants to reduce the possibility of over-estimating these loadings. Most of the data for power plants in the Permit Application Form and Other Sources File were gross values rather than net values. Power plants often have extremely large cooling-water flows which, when multiplied by even a small concentration of pollutant, result in very large load estimates. Because net values were not computed in the Permit Application Form and Other Sources File, loading estimates of this type were eliminated. Copper estimates were reduced by 50 percent to account for intake concentrations.

(22) Final Permit/Monitoring/ Permit Application Loads File. A manual quality control review was then conducted to check for questionable monitoring, permit, permit application, and design data. Program M was used to delete questionable data and Program N was then used to create the Final Permit/Monitoring/Permit Application Loads File (22). If monitoring data were missing, the program replaced them with permit application data. If permit application data were not available, they were replaced with the facility's permit data. If no data were available, the value was left blank.

Decision rules were also developed to replace monitoring data with permit application data when the monitoring data from the PCS were 10 percent of, or greater than two times, the permit application data. In addition, monitoring data from the PCS were replaced with permit data when they were one percent of, or greater than two times, the permit data. This replacement was made based on the belief that values outside these boundaries represented extreme (and unacceptable) data. Missing monitoring, permit, and permit application flows were replaced with the average design flow from the Facility File-Coastal Counties (7). The program also assigned basis codes for monitoring data that were replaced, and indicated why they were replaced.

(23, 24) Power Plant Directory, Power Plant File. The Power Plant File (24) was created using the Final Permit/Monitoring/ Permit Application Loads File (22), and the flow was checked against the Power Plant Directory (23) published by Edison Electric Institute. The Power Plant File (24) was used to assign power plants flow type codes and Special Discharge Activity Codes (SDAC), as described below.

(25, 26) Initial TPC File. The NCPDI Typical Values Matrix (25) and flow data from the Final Permit/Monitoring/Permit Application Loads File (22) and the Needs Survey File (13) were used to create the Initial TPC File (26). The Final Permit/Monitoring/Permit Application Loads File (22) and the Power Plant File (24) were also used to supply cross-reference information on flow types. Through Program O, the Typical Values Matrix was used to assign missing operating days, process-factors (P-factors), seasonality factors, SDAC codes, typical pollutant concentrations, typical flows, and flow types. A description of these parameters follows:

Operating Days. Since flows are given on a daily basis in the PCS, the calculation of discharge loads required an estimate of the typical number of operating days per year for a given industrial category. Some information on operating days was obtained for the 300 facilities in the permit application data base. For many categories, however, annual operating days had to be estimated using data reported in the NCPDI Typical Values Matrix (Appendix II).

Process Factors. Discharge pipes from industrial facilities can be broadly classified as process, sanitary, once-through cooling, recycled cooling, stormwater runoff, or combination (which includes process and once-through cooling; sanitary and once-through cooling; process and runoff; and sanitary and runoff). To develop estimates of pollutant discharges for combination pipes, P-factors were assigned to the combined pipe designations. The P-factor is developed on an industry-specific basis, and represents the percentage of the combined pipe discharge assumed

to originate from production processes. P-factors were either assigned to combined pipes after reviewing permit application data, or from the NCPDI Typical Values Matrix based on the facility's industrial category. The different P-factors were developed from an NCPDI review of existing literature, and are included in Appendix II. In addition to assigning P-factors, flow types were assigned when no data were available, using criteria developed based on professional judgement.

Seasonality Factors. Some industries have seasonal distributions of point source discharges that coincide with cyclical peaks in output or demand. Industries such as seafood and fruit and vegetable processors, for example, only operate when the materials they process are harvested. Accordingly, seasonality factors were developed and applied to selected industries to account for this fluctuation. A seasonality factor is computed from the days a pipe is assumed to discharge during a season, based on the facility's SIC code. All seasonality factors were assigned using the information in Appendix II.

Special Discharge Activity Code (SDAC). These codes are used to further refine the operating characteristics of certain facility types with respect to operating days, P-factors, seasonality factors, and the level of treatment at WWTPs. The primary purpose of the SDAC is to account for regional differences in the time of year that facilities with the same SIC code process raw materials. For example, food processing facilities in the North Atlantic region have different seasonal operating schedules than those in the South Atlantic because of the differences in harvest dates for the dominant crops in these regions.

NCPDI Typical Pollutant Concentrations. When no information could be found on the discharges of one or more of the 15 pollutants for a facility, typical pollutant concentrations (TPC) were assigned based on the facility's industrial discharge category code, which was generated from the facility's SIC code. A TPC is the pollutant concentration assumed to be present in a discharger's effluent. The NCPDI has developed a TPC for each of the 15 pollutants and for each discharge category code (Appendix II). If the facility was a WWTP, the TPC used varied according to the level of treatment (primary, secondary, or tertiary). Because the NCPDI does not contain TPCs for industries employing tertiary treatment, half of the TPC value for secondary treatment was substituted for WWTPs using tertiary treatment. The TPCs are primarily drawn from EPA's Development Documents (U.S. EPA, 1973-1983).

NCPDI Typical Flows. When no flow information was available from sources such as the PCS, the permit application data base, or the Needs Survey, the NCPDI Typical Flow Matrix was used. This matrix contains typical flows (in millions of gallons per day) organized by SIC code. These values were developed as part of the original NCPDI East Coast Project (1987), and represent the mean or median value in the original facility file for which flows were available. Flow values are available for process, cooling, and combined pipes (Appendix III). For more information on the development of typical flow values, see page III-26 of the East Coast Point Source Methods Document (1987).

Program O also compared the average daily flow for the year reported for WWTPs in the PCS and other sources with the same flows reported in the Needs Survey File (13). If the flow was missing, the Needs Survey flow was used. If the flow was 1.5 times less or .5 times greater than the Needs Survey flow, the Needs Survey flow was used to replace the existing flow. This replacement was made based on professional judgement that the Needs Survey information generally approximates the average daily flow for the treatment plant, and that values outside these boundaries represented extreme (and therefore unacceptable) values.

Flow Types. Another important assignment made at this point was flow type. Flow types were assigned using information in the permit application and/or interpreting codes reported in the variable "WAST" in the PCS and/or using the pipe description (PIPE) in the PCS. If flow type was still missing, it was determined using flow information. The methodology for determining flow type varied depending on whether the facility was classified as a major or minor discharger. For major facilities, if the flow from a pipe was less than or equal to two million gallons per day, the pipe was considered process. If the flow was between two million and four million gallons per day, the flow type was considered combination. If the flow was greater than four million but less than or equal to 25 million gallons per day, the flow type was considered cooling. If the flow was greater than 25 million gallons per day, the pipe was designated as "other". For minor facilities, if the flow was less than or equal to one million gallons per day, the flow type was considered process. A

Table 3. *General Equations Used to Estimate Loadings*

Equation I. Used when monitoring data are available from the PCS and expressed as a mass

IA. Used when Operating Days ≥ 90

Seasonal Load = avg. load/day (for the season) X operating days per year X number of months reporting in the season divided by 12 months in a year

$$(lbs/season) = (lbs/day)_{season} \times (days/year) \times \left(\frac{months/season}{12\ months/year}\right)$$

IB. Used when Operating Days < 90

Seasonal Load = avg. load/day (for the season) X operating days per year X number of months reporting in the season divided by number of months reporting in a year

$$(lbs/season) = (lbs/day)_{season} \times (days/year) \times \left(\frac{months/season}{months/year}\right)$$

Equation II. Used when monitoring data are available from the PCS and expressed as a concentration

IIA. Used when Operating Days ≥ 90

Seasonal Load = avg. daily flow (for the season) X avg. pollutant concentration (for the season) X operating days per year X number of months reporting in the season divided by 12 months in a year X conversion factor

$$(lbs/season) = (MG/day)_{season} \times (mg/l) \times (days/year) \times \left(\frac{months/season}{12\ months/year}\right) \times (l{\cdot}lbs)/(mg{\cdot}MG)$$

IIB. Used when Operating Days < 90

Seasonal Load = avg. daily flow (for the season) X pollutant concentration X operating days per year X number of months reporting in the season divided by number of months reporting in a year X conversion factor

$$(lbs/season) = (MG/day)_{season} \times (mg/l) \times (days/year) \times \left(\frac{months/season}{months/year}\right) \times (l{\cdot}lbs)/(mg{\cdot}MG)$$

Equation III. Used when data are taken from the NPDES permit, permit application form or other data

IIIA. Used when monitoring data are expressed as a mass

Seasonal Load = avg. daily load (for the year) X operating days per year X seasonality factor (industry dependant - usually .25)

$$(lbs/season) = (lbs/day)_{year} \times (days/year) \times (year/season)$$

IIIB. Used when monitoring data are expressed as a concentration

Seasonal Load = avg. daily flow (for the year) X pollutant concentration X operating days per year X seasonality factor (industry dependant - usually .25) X conversion factor

$$(lbs/season) = (MG/day)_{year} \times (mg/l) \times (days/year) \times (year/season) \times (l{\cdot}lbs)/(mg{\cdot}MG)$$

Table 3. *General Equations Used to Estimate Loadings (cont.)*

Equation IV. Used when estimates are based on typical pollutant concentration values because monitoring data are not available or acceptable

IVA. Used when the variable FLOWTYPE is P (process), C (cooling), R (recycled), or S (sanitary)

Seasonal Load	=	avg. daily flow (for the year)	X	typical pollutant concentration for the industrial category	X	operating days per year	X	seasonality factor (industry dependant - usually .25)	X	conversion factor
(lbs/season)	=	*(MG/day)* $_{year}$	X	*(mg/l)*	X	*(days/year)*	X	*(year/season)*	X	*(l·lbs)/(mg·MG)*

IVB. Used when the variable FLOWTYPE is B (combined process and cooling), X (combined sanitary and cooling), N (combined sanitary and stormwater runoff), or M (combined process and stormwater runoff)

Seasonal Load $_{combined}$ = Seasonal Load $_{process\ or\ sanitary}$ + Seasonal Load $_{cooling\ or\ stormwater}$

Seasonal Load	=	avg. daily flow (for the year)	X	% process water ("P" factor)	X	typical pollutant concentration for the industrial category	X	operating days per year	X	seasonality factor (industry dependant - usually .25)	X	conversion factor
process or sanitary												
Seasonal Load	=	avg. daily flow (for the year)	X	(1 - "P" factor)	X	typical pollutant concentration for the once-thru cooling or stormwater	X	operating days per year	X	seasonality factor (industry dependant - usually .25)	X	conversion factor
cooling or stormwater												
(lbs/season)	=	*(MG/day)* $_{year}$	X	*process factor*	X	*(mg/l)*	X	*(days/year)*	X	*(year/season)*	X	*(l·lbs)/(mg·MG)*

NOTES:
1. Annual loading estimates are computed for all cases as the sum of the four seasonal values.
2. See the description under the Pipe Level Loadings File paragraph, page 18., for an explanation of the different forms of Equation I and II.
3. Flow information was derived from a variety of sources including monitoring, permit, permit application, Needs Survey, and TPC data.
4. When FLOWTYPE is N or M, the P-factor is assumed to be 0.5. Additionally, there are no TPCs developed for stormwater runoff at this time, so no pollutant load is computed for the stormwater component.

ABBREVIATIONS: PCS - Permit Compliance System; avg. - average; lbs - pounds; MG - million gallons; mg - milligram; l - liter; TPC - typical pollutant concentrations

flow of between two million and 10 million gallons per day was considered cooling, and a pipe with a flow of greater than 10 million gallons per day was designated as "other".

(27) Intermediate TPC File. The Intermediate TPC File (27) was created using Program P to correct any misassignments of flow types.

(28) Final TPC Seasonal Loads File. Program Q was used to calculate the pipe-level seasonal flow (from any source) and seasonal pollutant loads (based only on TPC information). This file, the Final TPC Seasonal Loads File (28), is the fifth of the deliverable files in the inventory. The equation used to generate the seasonal TPC loadings is given in Table 3, Equation IV. Along with the flow data, which may or may not have been a typical value, data on operating days and seasonality were also used. In addition, the number of flow observations per season was used if the flow information was based on monitoring data.

(29) Pipe-Level Loadings File. Program R was used to calculate monitored/permit/permit application/seasonal loads by pipe. The general equations used to calculate the seasonal load using mass or concentration data are given in Table 3. Equation I illustrates how pipe-level loadings were made when monitoring data were available as mass (e.g., in pounds). The number of operat-

ing days per year was obtained from the NCPDI Typical Values Matrix or from the permit application form data base.

Two different versions of the equation were used, depending on the estimate of the number of operating days per year. If operating days per year was greater or equal to 90, discharges were assumed to be continuous or nearly continuous, and the number of operating days per season was derived by dividing the number of months reporting in the season by 12. If the operating days per year were less than 90, the discharges were assumed to be more intermittent, and the number of operating days per season was computed by dividing the number of months reporting in the season by the total number of months reporting for the year.

The second method resulted in a seasonal proration factor that more accurately reflects the nature of the intermittent discharge. Ninety days was used as a breakpoint, as it is the maximum number of operating days possible in a season. Equation II provides an example of how seasonal estimates were made when monitoring concentration data were available. Equation III was used when permit data were available. It is identical to Equations I and II, except that a seasonality factor (rather than the number of months reporting data) was used to prorate the number of operating days per year to obtain operating days per season. The seasonality factors were taken from the NCPDI Typical Values Matrix.

Program R was also used to fill in missing monitoring/permit/permit application data with the seasonal loads calculated using TPC values. Once this was accomplished, annual loads were calculated by totaling the seasonal values. The final result was the Pipe-Level Loadings File (29), the sixth of the deliverable files in the inventory, which contains seasonal and annual loadings for all point source facilities in the study area by individual pipe.

(30) Facility-Level Loadings File. After the Pipe-Level Loadings File (29) was created, three final computer programs were run. Program S, a quality control program, was used to obtain listings of the top 100 pipes by flow and the top 50 pipes by pollutant in each state. Once these lists were reviewed and questionable estimates identified, the appropriate files were edited and the process was rerun if necessary starting with Program M or, in some cases, Program P. Once the quality control procedure was completed and the data were corrected and rerun, Program T was used to aggregate pollutant discharges from the pipe level to facility level to create the Facility-Level Loadings File (30), the seventh, and final, deliverable file in the inventory. From this seventh file, pollutant loads can be aggregated by different spatial units e.g., county, cataloging unit, or EDA/CDA. Program U, also a quality control program, was used to obtain listings of the top 100 dischargers by flow and the top 50 dischargers by pollutant in each state. Once these lists were reviewed and questionable estimates identified, the appropriate files were edited and the process was rerun if necessary, starting with Program M or, in some cases, Program P.

Section 4: Data Accuracy & Sources of Error –

This section provides an overview of the relative accuracy of the information in the data base and describes the potential sources of error associated with developing the inventory. Users must fully understand and appreciate these topics when deciding on the utility of the inventory for their particular application. This section also includes suggestions for improving point source data-collection and load-estimation procedures.

Accuracy of the Estimates

The inventory approximates pollutant loadings from direct-discharging point source facilities for 15 pollutants for a base year of 1991. It contains the most accurate information on the discharges of pollutants available for this base year. Whenever possible, actual facility monitoring data were used to calculate loadings. Ideally, all estimates in the Point Sources Inventory would be based on such monitoring information. Unfortunately, monitoring data are very incomplete, even for the 15 common pollutants included in the inventory.

One advantage of using the inventory is that users can decide what data they want to use to evaluate discharge estimates. For example, if the user is only interested in monitoring data, it can be retrieved independent of other data sources using the source codes included in the data base. It should be noted, however, that using only monitoring data may substantially underestimate point source discharges because monitoring is not comprehensive for all pollutants.

A significant amount of monitoring and permit data exists and was used to estimate flow, BOD5, TSS, and fecal coliform bacteria. For metals, nutrients, and oil & grease, however, the majority of estimates were made using typical discharge values, because relatively few facilities are required by their NPDES permits to monitor for these contaminants.

Overall, the accuracy of the data in the inventory can be rated as good based on the data types used, the extensive computerized and manual quality control checks, and the option for the user to decide what data sources are acceptable when making discharge estimates. The individual data sources used to develop the estimates can also be rated in a qualitative fashion in terms of their accuracy. These data sources are rated below as either *good* or *adequate.*

PCS Monitoring Data - Monitoring data from the PCS are considered the most accurate *(good)* source of information available, as they are provided by the facility as part of the NPDES Compliance Monitoring Program.

Permit Application Form - Data obtained from the permit application form is also monitoring data. As a whole, however, it is not representative of the 1991 base year, but of conditions over the last five years (as facilities are required to monitor once every five years for a suite of 165 pollutants). It is still considered a *good* source of discharge information and is a valuable source of information for pollutants not included in a facility's permit monitoring requirements.

1992 Needs Survey - The Needs Survey provided *good* information on WWTPs for flow and treatment level, both of which are critical to calculating loadings. As with other supplemental data sources, information from the Needs Survey was used only when flow or treatment-level data for a WWTP were either missing or obviously incorrect.

1990 Power Plant Directory - Information on the type of cooling water system used (e.g., once-through or recycled) was needed to verify information from the PCS or to fill in missing information. It was considered a *good* source of information for power plant flow design, even though it is for a base year of 1990.

State Latitude/Longitude - Some information on missing coordinates for point source facilities was obtained from the states. While this information was not incorporated directly into an estimate of the pollutant load, it was used to plot facility location, a variable that affected how accurately facilities were mapped in the three spatial units included in the data base. The latitude/longitude information obtained from the states was considered *good.*

1990 Census of Housing and Population - When location information for minor facilities and some major facilities could not be determined, the *1990 Census of Housing and Population* provided city centroid and ZIP code latitude/longitude information that was used to assign the facility location. While this was an accurate source of information for the centroid of a city or ZIP

code, it was considered only an *adequate* source of information for assigning the location of a point source facility.

PCS Permit Data - The permit data in the PCS contained discharge limits by pollutant for each facility. Because permit values represent the maximum amount of a pollutant a facility can legally release, discharge estimates based on such values probably overestimate the actual discharge level. As such, it was considered an *adequate* source of data for estimating discharges when monitoring data were unavailable.

NCPDI Typical Pollutant Concentration Matrix - The TPC Matrix was used to estimate pollutant concentrations only when no other data sources were available. The TPC values, gathered primarily from EPA's Development Documents, provided *adequate* loading estimates of the pollutants discharged by various types of point source facilities.

Potential Sources of Error

There are a number of potential sources of error that could affect the accuracy of the estimates in the inventory. The most likely is the uncertainty of the quality and accuracy of the data received. While an extensive computerized and manual review of the data was conducted to identify and censor unacceptable data, errors may remain.

For the most part, pollutant discharge data from the PCS had to be used as received, as there was no way to verify the discharge values other than flagging and correcting those values that were either very high or very low. In addition, many of the changes made were based on professional judgement. Methods of reducing sources of error are discussed in the final section of this document. To provide additional insight into the potential sources of errors in the inventory, several examples of potential sources of error are given here:

Unacceptable Variation in Reported Monthly Values - The monthly monitoring values were used to calculate seasonal and annual pollutant loads. While some variation was expected from month to month, there were numerous cases where monthly values varied by two or three orders of magnitude.

There appeared to be numerous reasons for this variation, one of which was data entry errors. For example, the positioning of the decimal point (e.g., a concentration of 0.2 mg/l might appear as 2, 20, or 200 mg/l), could significantly alter the load calculated. While a coefficient of variation was used to remove many of the incorrect values, other errors may not have been detected.

Monitoring Requirements - In some cases, a facility is required to monitor on a bimonthly or quarterly basis. In such cases, the NCPDI point source loading estimation methodology assumed that the facility discharged only four or six times a year. However, each number could have been adjusted to reflect the annual discharge. In the PCS there is a data field that indicates the number of units in the reporting periods (NRPU). This information was not used because it had the potential to introduce greater error if incorrect. For example, a facility might be required to monitor quarterly, but submits eight DMRs. Each month reported could still have been multiplied by the NRPU value of three, resulting in the total load being overestimated.

Incorrect Location Information - Latitude and longitude information was reported incorrectly for some facilities in the PCS and in the permit application form. Some of these locational errors were found using the GIS. While the GIS helped to determine gross errors in location, there was no way to verify the accuracy of the latitude/longitude data if the facility plotted in the reported county.

Incorrect Units of Measurement - In some records the units were missing or appeared to be incorrect Most of these problems were corrected through quality control measures.

Internal Pipes - Internal pipes within a facility discharge to external pipes that, in turn, discharge to the receiving water. Pollutant loads calculated from monitoring data relied on the mass or concentration of the pollutant discharged from the external pipes. Once these pipes were identified, calculating the load was straightforward. Unfortunately, the designation of which pipes were internal and which were external was not always clear in either the PCS or on the permit application form. When no pipe could be positively identified as external, the monitoring information for all pipes was summed to get the total discharge. Unfortunately, this created the possibility of double-counting discharges if the external pipe was included in this calculation.

Flow Types - As noted earlier, pipes can be classified as cooling, process, sanitary, stormwater, other, or combined (carrying

multiple flow types). When flow type data were not available, these values were assigned based on the flow of the particular pipe. These assignments introduced another source of error into the loadings estimates. In many cases, there was a discrepancy between fields in the PCS for the same pipe regarding whether the discharge type was considered process, cooling, or other. If flow was not available, the type was assigned as an unidentified pipe, and no loading estimates were made.

Inactive Pipes - There were cases in which an active facility had one or more of its pipes identified as inactive. While records for inactive pipes were carried in the inventory, no loading estimates were made for these pipes.

Typical Pollutant Concentrations - TPC values were used when no other data were available. While these values approximated the average concentration of pollutants for a facility type, their use introduced a source of error in calculating pollutant loads.

Operating Days - The number of operating days per year a facility discharges pollutants is one key to determining annual and seasonal pollutant loads. While the number of operating days was available for some facilities, it was estimated in most cases. The use of typical operating days per year for a facility is another source of error in the data base.

P-factors - The P-factors used to estimate the amount of process flow in a combined pipe also presented a potential source of error because the actual process flow in a combined pipe varies by facility and from day to day.

Use of Gross Values to Estimate Loads - Ideally, the amount of pollutant contained in the influent should be subtracted from the amount discharged in the effluent to determine the net pollutant discharge. This is especially true for pollutants such as TSS and nutrients, which may also be contained in the water entering a facility. On some permit application forms, net discharge information was included. When this information was available, it was used in load calculations. In most cases, however, only gross values were included, introducing another source of error into the inventory.

Suggested Improvements

There are a number of improvements that would make developing future inventories easier and the data they contain more accurate. Most of these improvements involve the need for a more efficient system of data collection and the use of additional information that would simplify the calculation of loads and improve their accuracy.

Computerized Reporting System - The most important suggested improvement concerns data collection. The accuracy and completeness of the discharge information collected would be greatly improved if the facilities themselves entered the DMR and permit application form data into a computer and transferred the data directly to a central digital data base.

The states or EPA could maintain a dial-in PCS and permit application form data base. Each facility would connect to the data base using a modem and enter their monitoring data. Data quality would be greatly improved because the facility would enter their data directly into the data base, rather than someone at the state or EPA manually entering hundreds of hard copy reports. In addition, it would be essential that the data entry program be standardized across all states so that regional and national assessments could be made.

Update the TPC Matrix - Even if the monitoring data were accurate and complete for the pollutants for which facilities are required to monitor, it would still be necessary to develop a series of TPCs for those pollutants not included in the permit. Currently, the NCPDI maintains a list of TPC values taken mainly from EPA Development Documents published between 1973 and 1983. The process of estimating discharges using TPCs could be improved by updating the TPC Matrix to a more recent base year.

Use Net Discharge Values - As discussed above, the use of net discharge values in the PCS or in the permit application form would, in some cases (e.g., power plants), more realistically represent the pollutant load that a facility is actually discharging.

Use of Permit Application Form Data - Data from the permit application form is a good source of information for many pollutants not included in the NPDES permit, and also provides a good characterization of the type of discharge (e.g., process, cooling, etc.) and the amount of process flow in a combined pipe. Currently, however, permit application form data are only available in hard copy form. The inclusion of permit application form data in an inventory of point sources would be greatly facilitated if it were digitally available.

Appendix Ia.
Point Source Data Dictionary

Appendix Ia. - Point Source Data Dictionary

This appendix contains a list of the variables (data fields) in the National Coastal Pollutant Discharge Inventory point sources data base. The variables are listed in alphabetical order by text description, and each includes a definition. An acronym cross-reference table containing the variable name used in the data base is included as the second part of this appendix. Each definition contains a bold textual name for the variable, followed by the variable designation used in the data base (e.g., **Area Code**; AREACODE), information on the variable type and number of characters in the field (e.g., 1 character), definition of the variable, and any codes found in that variable, along with their definition(s).

Area Code (AREACODE)

(1 character)

A code characterizing each unique watershed/analysis area used in the Coastal Watershed Boundary Review Project.

CZ = existing coastal zone
CW = coastal watershed defined by the inland boundary of those USGS cataloging units containing the extent of tidal influence, head of tide.
EDA = estuarine drainage area (see EDA listing for definition)

Code	Description
1	In CZ, below CW
7	In CZ, above CW
D	In CZ, in CW, above EDA
2	In CW, above CZ
3	In state, above CW

Arsenic Annual (Total) in Lb (ASANN)

(numeric)

The estimated annual total load of arsenic in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Arsenic Fall - Number of Observations (NUASFAL)

(numeric)

The number of months (observations) in the fall for which monitoring data were reported for arsenic.

Arsenic Fall in Lb (ASFAL)

(numeric)

The estimated fall total load of arsenic in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Arsenic Spring - Number of Observations (NUASSPR)

(numeric)

The number of months (observations) in the spring for which monitoring data were reported for arsenic.

Arsenic Spring in Lb (ASSPR)
(numeric)
The estimated spring total load of arsenic in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Arsenic Summer - Number of Observations (NUASSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for arsenic.

Arsenic Summer in Lb (ASSUM)
(numeric)
The estimated summer total load of arsenic in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Arsenic Winter - Number of Observations (NUASWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for arsenic.

Arsenic Winter in Lb (ASWIN)
(numeric)
The estimated winter total load of arsenic in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Biochemical Oxygen Demand Annual (Total) in Lb (BODANN)
(numeric)
The estimated annual total load of BOD, 5-day (20 deg. C) in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates. BOD is 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 provides a somewhat standard measure of how much oxygen will be required to degrade a waste, and therefore the may be used to predict the effect waste may have on fish or other aquatic organisms that require oxygen to live.

Biochemical Oxygen Demand Fall - Number of Observations (NUBODFAL)
(numeric)
The number of months (observations) in the fall for which monitoring data were reported for BOD.

Biochemical Oxygen Demand Fall in Lb (BODFAL)
(numeric)
The estimated fall total load of BOD in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Biochemical Oxygen Demand Spring - Number of Observations (NUBODSPR)
(numeric)
The number of months (observations) in the spring for which monitoring data were reported for BOD.

Biochemical Oxygen Demand Spring in Lb (BODSPR)
(numeric)
The estimated spring total load of BOD in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Biochemical Oxygen Demand Summer - Number of Observations (NUBODSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for BOD.

Biochemical Oxygen Demand Summer in Lb (BODSUM)
(numeric)
The estimated summer total load of BOD in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Biochemical Oxygen Demand Winter - Number of Observations (NUBODWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for BOD.

Biochemical Oxygen Demand Winter in Lb (BODWIN)
(numeric)
The estimated winter total load of BOD in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Cadmium Annual (Total) in Lb (CDANN)
(numeric)
The estimated annual total load of cadmium in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Cadmium Fall - Number of Observations (NUCDFAL)
(numeric)
The number of months (observations) in the fall for which monitoring data were reported for cadmium.

Cadmium Fall in Lb (CDFAL)
(numeric)
The estimated fall total load of cadmium in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Cadmium Spring - Number of Observations (NUCDSPR)
(numeric)
The number of months (observations) in the spring for which monitoring data were reported for cadmium.

Cadmium Spring in Lb (CDSPR)
(numeric)
The estimated spring total load of cadmium in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Cadmium Summer - Number of Observations (NUCDSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for cadmium.

Cadmium Summer in Lb (CDSUM)
(numeric)
The estimated summer total load of cadmium in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Cadmium Winter - Number of Observations (NUCDWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for cadmium.

Cadmium Winter in Lb (CDWIN)
(numeric)
The estimated winter total load of cadmium in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Census City Identification Code (KEYPTNUM)
(5 characters)
A city identification code, cross-referenced to the Bureau of the Census data base.

Chlorinated Hydrocarbon Pesticides (CHP) Annual (Total) in Lb (CHPANN)
(numeric)
The estimated annual total load of CHP in pounds. The value is based only on typical pollutant concentration data. This is a large class of chlorinated hydrocarbon compounds separate from polychlorinated biphenyls (PCB).

Chlorinated Hydrocarbon Pesticides (CHP) Fall in Lb (CHPFAL)
(numeric)
The estimated fall total load of CHP in pounds. The value is based only on typical pollutant concentration data.

Chlorinated Hydrocarbon Pesticides (CHP) Spring in Lb (CHPSPR)
(numeric)
The estimated spring total load of CHP in pounds. The value is based only on typical pollutant concentration data.

Chlorinated Hydrocarbon Pesticides (CHP) Summer in Lb (CHPSUM)
(numeric)
The estimated summer total load of CHP in pounds. The value is based only on typical pollutant concentration data.

Chlorinated Hydrocarbon Pesticides (CHP) Winter in Lb (CHPWIN)
(numeric)
The estimated winter total load of CHP in pounds. The value is based only on typical pollutant concentration data.

Chromium Annual (Total) in Lb (CRANN)
(numeric)
The estimated annual total load of chromium in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Chromium Fall - Number of Observations (NUCRFAL)
(numeric)
The number of months (observations) in the fall for which monitoring data were reported for chromium.

Chromium Fall in Lb (CRFAL)
(numeric)
The estimated fall total load of chromium in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Chromium Spring - Number of Observations (NUCRSPR)
(numeric)
The number of months (observations) in the spring for which monitoring data were reported for chromium.

Chromium Spring in Lb (CRSPR)
(numeric)
The estimated spring total load of chromium in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Chromium Summer - Number of Observations (NUCRSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for chromium.

Chromium Summer in Lb (CRSUM)
(numeric)
The estimated summer total load of chromium in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Chromium Winter - Number of Observations (NUCRWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for chromium.

Chromium Winter in Lb (CRWIN)
(numeric)
The estimated winter total load of chromium in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

City Code (CITY)
(5 characters)
A code defined in the city master file and maintained by EPA's Monitoring and Data Support Division. The codes are unique for each city and place in a particular state or territory.

City Name (CYNM)
(20 characters)
The name of the city where the facility is located. Each city name is defined with its corresponding city code in the system's city-state code table.

Cognizant Official (OFFL)
(30 characters)
The name and/or department of the permittee's representative responsible for completing Discharge Monitoring Reports (DMRs). Also referred to as Facility Contact Person.

Cognizant Official Telephone (TELE)
(10 characters)
The telephone number of the permittee's representative responsible for administering the DMRs.

Concentration Average Limit (LCAV)
(8 characters)
The numeric value of the concentration average for the associated parameter, as entered by the user, as shown in the Permit Compliance System (PCS) data base. ADDMON, DELMON or OPTMON are also

entered in this field to add or delete a monitoring requirement. Entered values are placed anywhere in the eight-character field.

Concentration Maximum Limit (LCMX)

(8 characters)
The numeric value of the concentration maximum for the associated parameter, as entered by the user, as shown in the Permit Compliance System (PCS) data base. ADDMON, DELMON or OPTMON are also entered in this field to add or delete a monitoring requirement. Entered values are placed anywhere in the eight-character field.

Concentration Minimum Limit (LCMN)

(8 characters)
The numeric value of the concentration minimum for the associated parameter, as entered by the user, as shown in the Permit Compliance System (PCS) data base (typically only used for pH, temperature and chlorine use). ADDMON, DELMON or OPTMON are also entered in this field to add or delete a monitoring requirement. Entered values are placed anywhere in the eight-character field.

Concentration Unit Code (LCUC)

(2 characters)
Code representing the unit of measure applicable to concentration limits and measurements (monitoring data) as entered by the user, as shown in the Permit Compliance System (PCS) data base.

Code	Description
	(No Units Coded)
00	Barrels per Month
01	Kilograms per Day
02	Kilograms per 1,000 Gallons
03	Million Gallons per Day
04	Degrees Centigrade
05	Million BTUs per Hour
06	Million BTUs per Day
07	Gallons per Day
08	Cubic Feet per Second
09	Jackson Turbidity (Candle) Unit
1A	Direction, Degrees from North
1B	Centipoises
1C	Number per Milliliter
1D	Centimeters
1E	Color - Admi Units
1F	Micromhos
1G	British Thermal Units
1H	10 Pounds per Year
1I	Pounds per Season
1J	Inches per Diameter
1K	Fibers per Liter
1L	Micrograms per Kilogram
1M	Number of Days
1N	Barrels
1P	Fibers/Milliliter

1Q	Time (HHMMM)
1R	Pounds/1,000 Gallons
1S	Cycles
1T	Barrels per Day
1U	Ratio
1V	BTUs per Second
1W	Kilograms per Month
1X	Gallons per Hour
1Y	Pounds per 100 Pounds
1Z	Picocuries per Milliliter
10	Color - Platinum Cobalt Unit
11	Conductance-Micromhos per Centimeter
12	Standard Units (i.e., pH)
13	Number per 100 Milliliters
14	Minutes
15	Degrees Fahrenheit
16	Cubic Meters per Day
17	Picocuries per Liter
18	Counts per Liter
19	Milligrams per Liter
2A	Million Gallons per Year
2B	Inches per Hour
2C	Kilograms per 1,000 Kilograms
2D	Inches per Day
2E	Milliosmols per Kilogram
2F	Acute Toxicity
2G	Chronic Toxicity
2H	Curies per Day
2I	Percent Mortality
2J	Kilograms per Hour
2K	Pounds per Minute
2L	1,000 Gallons per Day
2M	Percent Samples in Compliance
2N	Tons per Day
2P	Pounds per Million Gallons per Day
24	Milligrams per Day
2R	Pounds per Hour
2S	Parts per Quadrillion
2T	Percent Survival
2U	Micrograms per Day
2V	Milliequivalants/100 Grams Sni
2W	Cubic Meters per Hour
2X	Cubic Meters per Minute
2Y	Cubic Meters per Second
2Z	Cubic Meters per Week
20	Parts per Million
21	Parts per Billion
22	Parts per Trillion
23	Percent
24	Visual
25	Milliliters per Liter
26	Pounds per Day
27	Feet
28	Micrograms per Liter

29	Pounds per Square Inch
3A	Cubic Yards
3B	Formazin Tur
3C	BTUs per Minute
3D	Picograms per Liter
3E	Cubic Meters per Month
3F	Cubic Meters per Year
3G	Thousandths Pounds per Day
3H	Grams per Square Meter per Day
3I	Pounds per 1,000 Pounds Product
3J	1,000 Pounds per Pounds Product
3K	Kilograms per Hectare
3L	Picograms per Liter
3M	Nanograms per Liter
3N	Cubic Feet per Raise/Lower Dry Doc.
3P	Pounds per Acre
30	Most Probable Number per 100 Meters
31	Threshold Number
32	Parts per Thousand
33	BTUs per Hour
34	BTUs per Day
35	Grams per Day
36	Grams per Liter
37	Kilograms per Liter
38	Meters per Second
39	Feet per Second
40	Short Tons per Day
41	Metric Tons per Day
42	Pounds per Ton of Production
43	Nephelometric Turbidity Units
44	Kilograms per Metric Ton of Production
45	Pounds per Half Ton of Production
46	Meters
47	Kg per CFS of Streamflow/Day
48	MGD per CFS of Streamflow/Day
49	Lbs. per CFS of Streamflow/Day
5A	Day
5B	Minutes per Day
5C	Million Gallons per Batch
5D	Tons
5E	Billion BTUs per Day
5F	Tons per Year
5G	Millivolts
50	Pounds per Year
51	Kilograms per Year
52	Kilograms per Batch
53	Gallons per Batch
54	Megawatts
55	Pounds
56	Kilograms
57	Gallons
58	1,000 Cubic Feet
59	Pounds per Week
6A	Pounds per Ton Live Weight

6B	Number per 40 Liters
60	Liters
61	Inches
62	Degrees Centigrade per Hour
63	Pounds per Square Inch per Foot
64	Grams per Milliliter
65	Curies per Milliliter
66	Pounds per Batch
67	Grams per Milliliter
68	Picocuries per Milligram
69	Milligrams per Kilogram
70	Dry Tons
71	Million Pounds per Year
72	Milligrams per Square Meter
73	Toxicity Units
74	Severity Units
75	Microcuries per Milliliter
76	Pounds per Month
77	Milligrams/Day per Cubic Meter Streamflow
78	Gallons per Minute
79	Hours per Day
8A	Hours
8B	Gallons per Acre
8C	Gallons per Ton Live Weight
8D	Gallons per Month
8E	Gallons per Year
8F	Million Gallons per Year
8G	Gallons per Week
80	Million Gallons per Month
81	Hours per Week
82	Hours per Month
83	Days per Week
84	Days per Month
85	Cubic Feet per Day
86	Sludge Volume Index
87	Pounds per Cubic Foot Processed Waste
88	Occurrences per Day
89	Occurrences per Week
9A	Pass=O; Fail=L
90	Pounds per 1,000 Gallons
91	Inches per Week
92	Square Feet
93	Occurrences per Month
94	Presence of Cond: Yes=L; No=0
95	10 per Milliliter
96	Pounds per Barrel
97	Acres
98	Degrees Fahrenheit per Hour
99	Barrels per Hour

Concentration Value - Coefficient of Variation (CONCCV)
(numeric)
The coefficient of variation by pipe for the concentration value used to obtain a pollutant-loading estimate.

Concentration Value - Number of Observations (CONCN)
(numeric)
The total number of observations by pipe of the pollutant concentration value used.

Copper Annual (Total) in Lb (CUANN)
(numeric)
The estimated annual total load of copper in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Copper Fall - Number of Observations (NUCUFAL)
(numeric)
The number of months (observations) in the fall for which monitoring data were reported for copper.

Copper Fall in Lb (CUFAL)
(numeric)
The estimated fall total load of copper in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data.

Copper Spring - Number of Observations (NUCUSPR)
(numeric)
The number of months (observations) in the spring for which monitoring data were reported for copper.

Copper Spring in Lb (CUSPR)
(numeric)
The estimated spring total load of copper in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Copper Summer - Number of Observations (NUCUSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for copper.

Copper Summer in Lb (CUSUM)
(numeric)
The estimated summer total load of copper in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Copper Winter - Number of Observations (NUCUWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for copper.

Copper Winter in Lb (CUWIN)
(numeric)
The estimated winter total load of copper in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

County Code (CNTY)
(3 characters)
The Federal Information Processing Standards (FIPS) code that defines the county where the facility is located.

County Name (CNTYNM)
(40 characters)
The name of the county where the facility is located.

County Source Code (CNTYSORS)
(1 character)
A code describing the source of county code assignment.

Code	Description
1	City name
2	Facility location ZIP code
3	Facility Name
4	Facility address
5	Facility mailing ZIP code
6	Facilities in DC
7	Greatest county area in the state
8	Greatest county population in the state
9	PCS or main source of data

Discharge Category Code (DCCD)
(2 characters)
A code used for classifying point sources by similiar Standard Industrial Classification (SIC) code. It groups facilities with similar industrial activities for the effluent guidelines development process. This code simplifies the variability within categories resulting from differences in processes, water-use practices, facility age, and production level (see Appendix II).

Discharge Category Name (DCNM)
(30 characters)
The descriptive name of the Discharge Category Code.

Discharge Number (DSCH)

(3 characters)
A code assigned to identify each point of discharge. Each character can be either alphabetic or numeric.

Estuarine/Coastal Drainage Area (EDA/CDA) Classification Code (EDACLASS)

(2 characters)
A classification scheme for each polygon in NOAA's Coastal Assessment Framework (CAF).
A Fluvial Drainage Area (FDA) is the land and water component of the entire watershed "upstream" of the EDA.

A UCDA (Upstream portion of a Coastal Drainage Area) is the land and water component of the entire watershed "upstream" of the CDA. This definition is consistent with the definition established for FDAs, but was given its own acronym to distinguish it from those drainage units. UCDAs are only found in Louisiana, Texas, California, and the states bordering the Great Lakes.

A Coastal Drainage Unit (CDU) is the downstream-most USGS accounting unit that contains at least all of the drainage areas defined by both EDAs or CDAs. The CDU also incorporates much of the drainage areas of the FDAs and UCDAs. There are three CDUs: 1) the Atlantic-Gulf of Mexico, 2) the Pacific, and 3) the Great Lakes-St. Lawrence River.

Code	Description
05	An entire cataloging unit that does not drain to the Great Lakes, St. Lawrence River, or an ocean
10	An entire cataloging unit that is all or part of an EDA
20	An entire cataloging unit that is all or part of an FDA, and lies outside the CDU
30	An entire cataloging unit that is all or part of an ocean-draining UCDA
35	An entire cataloging unit that is all or part of a UCDA and lies outside the CDU
40	An entire cataloging unit that is all or part of an ocean-draining CDA
50	A divided cataloging unit, some of which makes up all, or a portion of, a nEDA
60	A divided cataloging unit, some of which makes up all, or a portion of, a CDA
70	A divided cataloging unit, some of which makes up a barrier island that directly drains to an ocean
80	An entire cataloging unit that drains to both an EDA and a CDA
90	An entire cataloging unit that is all of a Great Lakes- or St. Lawrence River-draining CDA
95	An entire cataloging that is all of a Great Lakes- or St. Lawrence River-draining UCDA

Estuarine/Coastal Drainage Area (EDA/CDA) Code (EDACODE)

(5 characters)
An EDA is the land and water component of an entire watershed that drains directly into an estuary and in which the downstream-most USGS cataloging unit containing the head of tide is found.

A CDA is the land and water component of an entire watershed that: 1) drains directly to the ocean, a non-National Estuary Inventory (NEI) estuary, or the Great Lakes; and 2) contains the downstream-most USGS cataloging unit that contains the head of tide. Within the Great Lakes, tide refers to meterologically created tides.

The first character of the code designates one of six coastal regions (N - North Atlantic; M - Middle Atlantic; S - South Atlantic; G - Gulf of Mexico; P - Pacific; and L - Great Lakes). The next three characters represent the watersheds in the region and are ordered clockwise according to their geography. Codes for

EDAs all end in zero. Codes for CDAs end in 1 through 9, and indicate the general location of the CDA within the sequence (e.g., CDA N056 in Maine lies between estuarine watersheds N050 - Penobscot Bay and N060 - Muscongus Bay). The fifth character is used to designate the subsystem code if applicable.

Estuarine / Coastal Drainage Area (EDA/CDA) Name (EDANAME)

(60 characters)
Name of the EDA/CDA and the subsystem name. The first 30 characters contain the EDA/CDA name and the remaining characters contain the subsystem name if applicable.

Estuarine / Coastal Drainage Area (EDA/CDA) Source Code (EDASORS)

(1 character)
A code describing the source code of EDA/CDA code assignment.

Code	Description
O	Offshore
L	Lat./long. (GIS)
C	City name
V	Lat./long. (viewing a map)
A	The greatest land area in the bisected HUCO
R	Based on REF09 data base (a HUCO reference data base)
F	Cataloging Unit

Expiration Month / Year (EXMY)

(5 characters)
The date (month /year) the current permit will expire.

Facility Inactive Code (IACC)

(1 character)
Code indicating whether the facility is currently active. Used to separate the State master files into active and inactive files.

Code	Description
I	Inactive facility
A	Active facility

Facility Inactive Date (IADT)

(6 characters)
Date on which the facility became inactive or active.

Facility Latitude - Decimal Degrees (FLAT1)

(numeric)
Latitude describing facility location in degrees decimal.

Facility Latitude - Degrees, Minutes, Seconds (FLAT)

(6 characters)
Latitude describing facility location in degrees, minutes, and seconds (DDMMSS)

Facility Latitude/Longitude Quality Control Code 1 (FLLCODE1)

(1 character)
A code assessing accuracy of the facility latitude/longitude coordinates by both comparing FIPS assigned by the GIS and the existing FIPS from PCS and checking cases where the GIS could not assign a FIPS code. It characterizes the lat./long. data as GOOD, BAD, or QUESTIONABLE.

Code	Description
A	FIPS assigned by GIS is different than PCS FIPS Point might be close or far away from PCS FIPS QUESTIONABLE data
B	FIPS assigned by GIS is different than PCS FIPS Point is close to PCS FIPS (1/2" radius) GOOD data
C	FIPS assigned by GIS is different than PCS FIPS Point is far away from PCS FIPS (> than 1/2" radius) BAD data
D	GIS could not assign FIPS Point when plotted manually falls on PCS FIPS GOOD data
E	GIS could not assign FIPS Point when plotted manually falls far away from PCS FIPS BAD data
F	GIS could not assign FIPS Point when plotted manually falls either on ocean close to land or falls on land close to ocean QUESTIONABLE data
Y	GIS assign same FIPS as reported in PCS GOOD data
W	Wrong coordinates. These coordinates did not fall within coastal states boundary limits. No GIS work BAD data
Blank	No assessment of data

Facility Latitude/Longitude Quality Control Code 2 (FLLCODE2)

(1 character)
A code assessing accuracy of the facility latitude/longitude coordinates by checking cases where the GIS could not assign a USGS cataloging unit code. It characterizes the lat./long. data as GOOD, BAD, or QUESTIONABLE.

Code	Description
G	GIS could not assign cataloging unit When plotted manually, point falls either on ocean far from land or outside GIS boundaries BAD data
H	GIS could not assign cataloging unit When plotted manually, point falls either on ocean close to land or falls on land close to ocean. Cataloging unit was assigned manually for major facilities GOOD data
Y	GIS assigned a cataloging unit GOOD data
W	Wrong coordinates. These coordinates did not fall within coastal states' boundary limits. No GIS work BAD data
Blank	No assessment of data

Facility Latitude/Longitude Quality Control Code 3 (FLLCODE3)

(1 character)

A code assessing accuracy of the facility latitude/longitude coordinates by checking cases where the GIS could not assign an NEI EDA/CDA code. It characterizes the lat./long. data as GOOD, BAD, or QUESTIONABLE.

Code	Description
I	GIS could not assign EDA/CDAs Point might fall close to ocean or on ocean far from land QUESTIONABLE data
J	GIS could not assign EDA/CDAs When plotted manually, point falls either on ocean close to land or falls on land close to ocean. EDA was assigned manually for major facilities GOOD data
Y	GIS assigned an EDA/CDA code GOOD data
W	Wrong coordinates. These coordinates fall outside the coastal states' boundaries No GIS work BAD data
Blank	No assessment of data

Facility Latitude/Longitude Source Code (FLLSORS)

(1 character)
A code describing the source used to obtain facility latitude/longitude coordinates. Same codes apply to the pipe latitude/longitude source (PLLSORS)

Code	Description
F	From permit application file
W	From U.S. Fish and Wildlife Service
M	From map location
P	From PCS data base
I	From IFD data base
S	From State hard copy lists or personal communication
C	From census city centroids
N	From Needs Survey data base
R	From review (state or facility)
O	From outfall data (first outfall)
Z	From ZIP code in ZIP code data base

Facility Location Street, Line 1 of 2 (RST1)

(30 characters)
The first of two lines of street information in the location address.

Facility Location Street, Line 2 of 2 (RST2)

(30 characters)
The second of two lines of street information in the location address.

Facility Location Telephone Number (RTEL)

(10 characters)
Telephone number of the facility.

Facility Location ZIP Code (RZIP)

(9 characters)
ZIP code for the address of the facility.

Facility Longitude - Decimal Degrees (FLON1)

(numeric)
Longitude describing facility's location in degrees decimal.

Facility Longitude - Degrees, Minutes, Seconds (FLON)

(7 characters)
Longitude describing facility location in degrees, minutes, seconds (DDMMSS)

Facility Name (FNML)

(120 characters)
The official or legal name used to distinguish the facility from similar entities, if any, in the same geographic area. It is generally the name appearing on the NPDES application form. Each of the 30 character fields have free-form entry (no edits).

Facility Quality Control Code (FACILQC)

(1 character)
A code that flags a facility if at least one of its associated variables was edited. A look-up table (QCFACIL) is available to determine which variable was edited and what the original value was. This code does not apply to the lat./long. or the mailing address variables.

Facility USGS Hydrologic Cataloging Unit Code (FCU)

(8 characters)
A code that uniquely identifies each of the four levels of classification within four two-digit fields. The first two digits identify the water-resources region; the first four digits identify the subregions; the first six digits identify the accounting unit; and the addition of two more digits identifies the cataloging unit. A facility assigned the cataloging unit "00000000" is an offshore facility.

Facility USGS Hydrologic Cataloging Unit Source Code (FCUSORS)

(1 character)
This code describes the source of information used to assign a cataloging unit code to a point source discharger.

Code	Description
A	Cataloging unit covers the greatest land area. If two cataloging units covered equal land area, the one with the most towns was assigned.
C	City name
I	IFD data base
V	Lat./long. (viewing a map)
S	Stream segment
R	Receiving water name
B	River basin
L	Lat./long. (GIS)
N	Based on the reach number code (REAC) in PCS
O	Offshore facilities

Fecal Coliform Bacteria Annual in Cells (FCBANN)

(numeric)
The estimated annual total load of FCB in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Fecal Coliform Bacteria Fall - Number of Observations (NUFCBFAL)

(numeric)
The number of months (observations) in the fall for which monitoring data were reported for FCB.

Fecal Coliform Bacteria Fall in Cells (FCBFAL)
(numeric)
The estimated fall total load of FCB in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Fecal Coliform Bacteria Spring - Number of Observations (NUFCBSPR)
(numeric)
The number of months (observations) in the spring for which monitoring data were reported for FCB.

Fecal Coliform Bacteria Spring in Cells (FCBSPR)
(numeric)
The estimated spring total load of FCB in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Fecal Coliform Bacteria Summer - Number of Observations (NUFCBSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for FCB.

Fecal Coliform Bacteria Summer in Cells (FCBSUM)
(numeric)
The estimated summer total load of FCB in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Fecal Coliform Bacteria Winter - Number of Observations (NUFCBWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for FCB.

Fecal Coliform Bacteria Winter in Cells (FCBWIN)
(numeric)
The estimated winter total load of FCB in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Federal Facility Identification Number (FFID)
(12 characters)
A unique identifier for each federally owned facility. Positions 1-2 represent the FIPS state abbreviation. Position 3 is always "-". Position 4-7 is the Agency/Bureau. Positions 8-12 represent the GSA number.

Federal Information Processing System Code (FIPS)
(5 characters)
The first two digits represent the state code. Codes are assigned to each state, and within each state to each county based on an alphabetical listing of the state or county name.

Flow - Annual Average in MG (FLOWANN)
(numeric)
The total annual average flow from a pipe in million gallons. In the facility file, the total is for the entire facility. One of the 15 pollutants for which the NCPDI Program makes estimates.

Flow - Coefficient of Variation (FLOWCV)
(numeric)
The coefficient of variation by pipe for the monitoring flow value used to obtain a pollutant-loading estimate.

Flow - Number of Observations (FLOWN)
(numeric)
The total number of observations by pipe per year for the flow value used.

Flow Fall - Number of Observations (NUFLOFAL)
(numeric)
The number of months (observations) in the fall for which monitoring data were reported for flow.

Flow Fall in MG (FLOWFAL)
(numeric)
The flow, in millions gallons, for fall. One of the 15 pollutants for which the NCPDI Program makes estimates.

Flow from Facility File (PCS) - Average Design in MGD (FLOW)
(numeric)
The average flow, in million gallons per day, that a permitted facility was designed to accommodate, as reported in PCS.

Flow from Needs (MGD) (FLOW4)
(numeric)
The flow, in million gallons per day, as reported in the 1992 Needs Survey data base.

Flow from Needs - Basis Code (FLOWBAS4)
(2 characters)
The source of flow as reported in the 1992 Needs Survey data base.

Code	Description
7R	Actual 12-month average flow in million gallons.
7S	Present design flow in million gallons per day.

Flow in Millions of Gallons Per Day (FLOWMGD)
(numeric)
Flow reported in million gallons per day (MGD).

Flow Pipe Average in MGD (FLOWPIPE)
(numeric)
The average flow from a pipe reported in millions gallons per day. For the facility file, the sum of all flows reported in all pipes, except where the type of discharge is stormwater runoff.

Flow Spring - Number of Observations (NUFLOSPR)
(numeric)
The number of months (observations) in the spring for which monitoring data were reported for flow.

Flow Spring in MG (FLOWSPR)
(numeric)
The flow in millions gallons for spring. One of the 15 pollutants for which the NCPDI Program makes estimates.

Flow Summer - Number of Observations (NUFLOSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for flow.

Flow Summer in MG (FLOWSUM)
(numeric)
The flow in millions gallons for summer. One of the 15 pollutants for which the NCPDI Program makes estimates.

Flow Winter - Number of Observations (NUFLOWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for flow.

Flow Winter in MG (FLOWWIN)
(numeric)
The flow in millions gallons for winter. One of the 15 pollutants for which the NCPDI Program makes estimates.

Flow Type (FLOWTYPE)

(1 character)
A code that identifies the type of wastewater discharged for each pipe.

Code	Description
P	Process pipe (uses process TPCs)
S	Sanitary (uses WWTP secondary TPCs)
C	Once-through cooling pipe
R	Recycled cooling pipe
B	Combined pipe (process and once-through cooling) (Uses both process TPCs and once-through cooling TPCs)
X	Combined pipe (sanitary and once-through cooling) (Uses both WWTP secondary TPCs and once-through cooling TPCs)
M	Combined pipe (process and runoff)
N	Combined pipe (sanitary and runoff)
O	Other (stormwater) (No estimates made)
I	Intake (No estimates made)
U	Unidentified (No estimates made)

Flow Type Basis Code (FTBASE)

(1 character)
A code describing the basis of assigning a Flow Type code

Code	Description
E	Engineering judgment by reviewing DMRs, power directory, or other source
W	Global assignment for SIC = 4952 and SIC = 4941
I	From IFD data base
P	From PCS data base (WAST code)
D	From PCS data base (Discharge or pipe description)
2	From permit application form
F	Using flow information
R	Review process (state or facility)
U	Unidentified

General Permit Industrial Category (GPCT)

(2 characters)
Identifies the industrial category of a general permit. The code is stored in the fourth and fifth positions of the NPDES number - General Permits.

Code	Description
01	Agricultural Product Livestock
02	Asphalt Scrubbers
03	Shipyards
04	Coal Mining
05	Remine and Abandoned Mine Land Rclm.
06	Lumber and Wood Industries
07	Construction

08	Fuel Spill Cleanup
09	Compost Site(s)
10	Deep Seabed Mining
11	Concrete Industries
12	Primary Metals, Fabrication
13	Fish Hatcheries and Preserves
14	Transportation
15	Food and Kindred Products
16	Landfill Runoff
17	Paints and Kindred Products
18	Salvage and Recycling
19	Laundry/Cleaning/Garment Services
20	Plastics and Rubber
21	Film Processing
22	Meat Products
23	Stone, Glass, and Clay
24	Textiles
25	Noncontact Cooling Waters
28	Offshore Oil and Gas
29	Oil/Gas Extract - Coastal Production
31	Oil and Gas Extraction
32	Oil and Gas Extract- Onshore
33	Oil and Gas Extract - Coastal
34	Petroleum Bulk Stations and Terminals
35	Petroleum Bulk Stations and Terminals
37	Placer Mining
40	Private Households
41	Private Households
43	Processed Fruits and Vegetables
46	Salt Extraction
49	Sand and Gravel
50	Sand and Gravel
51	Boatyard
52	Seafood Processing
55	Sewerage Systems (Commercial)
58	Sewerage Systems (Municipal)
61	Storwater Runoff
64	Water Supply
67	Hydrostatic/Oil and Gas Lines
68	Pressure Testing/Water
69	Dredging/Water Discharge
70	Log Transfer
73	Mine Dewatering
75	Car and Truck Washes
76	Swimming Pool Filter Backwash
79	Aquifer Restoration
82	No Discharge Permit
83	Underground Storage Tank
84	NonCoal Mining
85	Coal Mining
88	Offshore Oil/Gas Demonstration
91	Groundwater Cleanup Dewatering

94	Fuel Spill Cleanup
96	Land Application Sites
97	Land Application Sites
99	Not Yet Classified

Industrial Classification Code (INCL)

(1 character)
Identifies the industrial classification of a facility.

Code	Description
P	A primary industry on Effluent Limitations Guidelines (ELG). An industry will be classified as primary by an associated Code of Federal Regulations Code (CFRC)
M	Municipal facilities determined by SIC code of 4952 and type of ownership (TYPO) of PUB
R	On Effluent Limitations Guidelines (ELG), but not a primary industry
X	An industry that has not been categorized by ELG
Blank	If SIC code is blank in PCS , no INCL is generated

Iron Annual (Total) in Lb (FEANN)

(numeric)
The estimated annual total load of iron in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Iron Fall - Number of Observations (NUFEFAL)

(numeric)
The number of months (observations) in the fall for which monitoring data were reported for iron.

Iron Fall in Lb (FEFAL)

(numeric)
The estimated fall total load of iron in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Iron Spring - Number of Observations (NUFESPR)

(numeric)
The number of months (observations) in the spring for which monitoring data were reported for iron.

Iron Spring in Lb (FESPR)

(numeric)
The estimated spring total load of iron in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Iron Summer - Number of Observations (NUFESUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for iron.

Iron Summer in Lb (FESUM)
(numeric)
The estimated summer total load of iron in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Iron Winter - Number of Observations (NUFEWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for iron.

Iron Winter in Lb (FEWIN)
(numeric)
The estimated winter total load of iron in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Lead Annual (Total) in Lb (PBANN)
(numeric)
The estimated annual total load of lead in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Lead Fall - Number of Observations (NUPBFAL)
(numeric)
The number of months (observations) in the fall for which monitoring data were reported for lead.

Lead Fall in Lb (PBFAL)
(numeric)
The estimated fall total load of lead in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Lead Spring - Number of Observations (NUPBSPR)
(numeric)
The number of months (observations) in the spring for which monitoring data were reported for lead.

Lead Spring in Lb (PBSPR)
(numeric)
The estimated spring total load of lead in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Lead Summer - Number of Observations (NUPBSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for lead.

Lead Summer in Lb (PBSUM)
(numeric)
The estimated summer total load of lead in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Lead Winter - Number of Observations (NUPBWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for lead.

Lead Winter in Lb (PBWIN)
(numeric)
The estimated winter total load of lead in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Limit Discharge Number / Report Designator (PDSG)
(4 characters)
Displays the Limit Pipe Schedule Number. It is a combination of the three-digit Discharge Number and the one-digit Limit Report Designator assigned for each point of discharge.

Major Discharge Indicator (MADI)
(1 character)
A code designating that the facility has been identified as a major or minor discharger. A wastewater treatment plant is classified as a major facility if flow is greater than one million gallons per day , if population is greater than 10,000, or if there is a water quality impact. An industrial discharger is classified as a major facility if it scores more than 80 on a numerical permit rating system. The system assigns points based on an assessment of five characteristics of the permittee's discharge. These rating criteria include: 1) toxic pollutant potential; 2) flow/streamflow volume; 3) traditional pollutants; 4) potential public health impacts; and 5) water-quality factors.

Code	Description
M	Major facility
Blank	Minor facility

Major Rating Code (MRAT)
(3 characters)
Defines the EPA PCS numeric total of ranking points assigned to nonmunicipal facilities and used to delineate each as a major or minor facility.

Code	Description
0 - 79	Minor facility
80 or above	Major facility

Mass Value - Coefficient of Variation (MASSCV)
(numeric)
The coefficient of variation by pipe for the mass value used to obtain a pollutant-loading estimate.

Mass Value - Number of Observations (MASSN)
(numeric)
The total number of observations by pipe for the pollutant mass value used.

Measurement Concentration Average - Annual Average (MCAV_AVE)
(numeric)
The average value by pipe for the monitoring pollutant concentration average.

Measurement Concentration Average - Coefficient of Variation (MCAV_CV)
(numeric)
The coefficient of variation value by pipe for the monitoring pollutant concentration average.

Measurement Concentration Average - Coefficient of Variation Adjusted for Small Sample (MCAV_CV1)
(numeric)
The adjusted coefficient of variation value in a pipe and year for the monitoring pollutant concentration average. It adjusts the coefficient of variation (MCAV_CV) for bias by using a correction factor. In small samples, this correction can make an appreciable difference. The equation is:
MCAV_CV1 = MCAV_CV (1+(1/(4N)))

Measurement Concentration Average - Maximum Value (MCAV_MAX)
(numeric)
The maximum value by pipe for the monitoring pollutant concentration average.

Measurement Concentration Average - Minimum Value (MCAV_MIN)
(numeric)
The minimum value by pipe for the monitoring pollutant concentration average.

Measurement Concentration Average - Number of Missing Values (MCAV_NMI)
(numeric)
The number of missing values by pipe for the monitoring pollutant concentration average.

Measurement Concentration Average - Number of Observations (MCAV_N)
(numeric)
The total number of observations by pipe for the monitoring pollutant concentration average.

Measurement Concentration Average - Range (MCAV_RAN)
(numeric)
The range value by pipe for the monitoring pollutant concentration average.

Measurement Concentration Average - Standard Deviation (MCAV_STD) (numeric)
The standard deviation value by pipe for the monitoring pollutant concentration average.

Measurement Concentration Maximum - Annual Average (MCMX_AVE)
(numeric)
The average value by pipe for the monitoring pollutant concentration maximum.

Measurement Concentration Maximum - Coefficient of Variation (MCMX_CV)
(numeric)
The coefficient of variation value by pipe for the monitoring pollutant concentration maximum.

Measurement Concentration Maximum - Coefficient of Variation Adjusted for Small Sample (MCMX_CV1)
(numeric)
The adjusted coefficient of variation value by pipe for the monitoring pollutant concentration maximum. It adjusts the coefficient of variation (MCMX_CV) for bias by using a correction factor. This correction can make a difference in small samples. The equation is: MCMX_CV1 = MCMX_CV (1+(1/(4N)))

Measurement Concentration Maximum - Maximum Value (MCMX_MAX)
(numeric)
The maximum value by pipe for the monitoring pollutant concentration maximum.

Measurement Concentration Maximum - Minimum Value (MCMX_MIN)
(numeric)
The minimum value by pipe for the monitoring pollutant concentration maximum.

Measurement Concentration Maximum - Number of Missing Values (MCMX_NMI)
(numeric)
The number of missing values by pipe for the monitoring pollutant concentration maximum.

Measurement Concentration Maximum - Number of Observations (MCMX_N)
(numeric)
The total number of observations by pipe for the monitoring pollutant concentration maximum.

Measurement Concentration Maximum - Range (MCMX_RAN)
(numeric)
The range value by pipe for the monitoring pollutant concentration maximum.

Measurement Concentration Maximum - Standard Deviation (MCMX_STD)
(numeric)
The standard deviation value by pipe for the monitoring pollutant concentration maximum.

Measurement Concentration Minimum - Annual Average (MCMN_AVE)
(numeric)
The average value by pipe for the monitoring pollutant concentration minimum.

Measurement Concentration Minimum - Coefficient of Variation (MCMN_CV)
(numeric)
The coefficient of variation value by pipe for the monitoring pollutant concentration minimum.

Measurement Concentration Minimum - Coefficient of Variation Adjusted for Small Sample (MCMN_CV1)
(numeric)
The adjusted coefficient of variation value by pipe for the monitoring pollutant concentration minimum. It adjusts the coefficient of variation (MCMN_CV) for bias by using a correction factor. In small samples, this correction can make an appreciable difference. The equation is:
MCMN_CV1 = MCMN_CV (1+(1/(4N)))

Measurement Concentration Minimum - Maximum Value (MCMN_MAX)
(numeric)
The maximum value by pipe for the monitoring pollutant concentration minimum.

Measurement Concentration Minimum - Minimum Value (MCMN_MIN)
(numeric)
The minimum value by pipe for the monitoring pollutant concentration minimum.

Measurement Concentration Minimum - Number of Missing Values (MCMN_NMI)
(numeric)
The number of missing values by pipe for the monitoring pollutant concentration minimum.

Measurement Concentration Minimum - Number of Observations (MCMN_N)
(numeric)
The total number of observations by pipe for the monitoring pollutant concentration minimum.

Measurement Concentration Minimum - Range (MCMN_RAN)
(numeric)
The range value by pipe for the monitoring pollutant concentration minimum.

Measurement Concentration Minimum - Standard Deviation (MCMN_STD)
(numeric)
The standard deviation value by pipe for the monitoring pollutant concentration minimum.

Measurement Quantity Average - Annual Average (MQAV_AVE)
(numeric)
The average value by pipe for the monitoring pollutant quantity average.

Measurement Quantity Average - Coefficient of Variation (MQAV_CV)
(numeric)
The coefficient of variation value by pipe for the monitoring pollutant quantity average.

Measurement Quantity Average - Coefficient of Variation Adjusted for Small Sample (MQAV_CV1)
(numeric)
The adjusted coefficient of variation value by pipe for the monitoring pollutant quantity average. It adjusts the coefficient of variation (MQAV_CV) for bias by using a correction factor. In small samples, this correction can make an appreciable difference. The equation is:
MQAV_CV1 = MQAV_CV (1+(1/(4N)))

Measurement Quantity Average - Maximum Value (MQAV_MAX)
(numeric)
The maximum value by pipe for the monitoring pollutant quantity average.

Measurement Quantity Average - Minimum Value (MQAV_MIN)
(numeric)
The minimum value by pipe for the monitoring pollutant quantity average.

Measurement Quantity Average - Number of Missing Values (MQAV_NMI)
(numeric)
The number of missing values by pipe for the monitoring pollutant quantity average.

Measurement Quantity Average - Number of Observations (MQAV_N)
(numeric)
The total number of observations by pipe for the monitoring pollutant quantity average.

Measurement Quantity Average - Range (MQAV_RAN)
(numeric)
The range value by pipe for the monitoring pollutant quantity average.

Measurement Quantity Average - Standard Deviation (MQAV_STD)
(numeric)
The standard deviation value by pipe for the monitoring pollutant quantity average.

Measurement Quantity Maximum - Annual Average (MQMX_AVE)
(numeric)
The average value by pipe for the monitoring pollutant quantity maximum.

Measurement Quantity Maximum - Coefficient of Variation (MQMX_CV)
(numeric)
The coefficient of variation value by pipe for the monitoring pollutant quantity maximum.

Measurement Quantity Maximum - Coefficient of Variation Adjusted for Small Sample (MQMX_CV1)
(numeric)
The adjusted coefficient of variation value by pipe per year for the monitoring pollutant quantity maximum. It adjusts the coefficient of variation (MQMX_CV) for bias by using a correction factor. In small samples, this correction can make an appreciable difference. The equation is:
MQMX_CV1 = MQMX_CV (1+(1/(4N)))

Measurement Quantity Maximum - Maximum Value (MQMX_MAX)
(numeric)
The maximum value by pipe for the monitoring pollutant quantity maximum.

Measurement Quantity Maximum - Minimum Value (MQMX_MIN)
(numeric)
The minimum value by pipe for the monitoring pollutant quantity maximum.

Measurement Quantity Maximum - Number of Missing Values (MQMX_NMI)
(numeric)
The number of missing values by pipe for the monitoring pollutant quantity maximum.

Measurement Quantity Maximum - Number of Observations (MQMX_N)
(numeric)
The total number of observations by pipe for the monitoring pollutant quantity maximum.

Measurement Quantity Maximum - Range (MQMX_RAN)
(numeric)
The range value by pipe for the monitoring pollutant quantity maximum.

Measurement Quantity Maximum - Standard Deviation (MQMX_STD)
(numeric)
The standard deviation value by pipe for the monitoring pollutant quantity maximum.

Measurement/Violation - Concentration Average (MCAV)
(numeric)
The reported value for concentration average. The original characters preceding the values: <, >, -, E, or T (less than, greater than, minus, estimate, or too numerous to count) were translated to blanks before the values were converted to numeric values.

Measurement/Violation - Concentration Maximum (MCMX)
(numeric)
The reported value for concentration maximum. The original characters preceding the values: <, >, -, E, or T (less than, greater than, minus, estimate, or too numerous to count) were translated to blanks before the values were converted to numeric values.

Measurement/Violation - Concentration Minimum (MCMN)
(numeric)
The reported value for concentration minimum. The original characters preceding the values: <, >, -, E, or T (less than, greater than, minus, estimate, or too numerous to count) were translated to blanks before the values were converted to numeric values.

Measurement/Violation Monitoring Period End Date (MVDT)
(6 characters)
For effluent measurement violations; the monitoring period end date as stated on the DMR.

Measurement/Violation - Quantity Average (MQAV)
(numeric)
The reported value for quantity average. The original characters preceding the values: <, >, -, E, or T (less than, greater than, minus, estimate, or too numerous to count) were translated to blanks before the values were converted to numeric values.

Measurement/Violation - Quantity Maximum (MQMX)
(numeric)
The reported value for quantity maximum. The original characters preceding the values: <, >, -, E, or T (less than, greater than, minus, estimate, or too numerous to count) were translated to blanks before the values were converted to numeric values.

Mercury Annual (Total) in Lb (HGANN)
(numeric)
The estimated annual total load of mercury in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Mercury Fall - Number of Observations (NUHGFAL)
(numeric)
The number of months (observations) in the fall for which monitoring data were reported for mercury.

Mercury Fall in Lb (HGFAL)
(numeric)
The estimated fall total load of mercury in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Mercury Spring - Number of Observations (NUHGSPR)
(numeric)
The number of months (observations) in the spring for which monitoring data were reported for mercury.

Mercury Spring in Lb (HGSPR)
(numeric)
The estimated spring total load of mercury in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Mercury Summer - Number of Observations (NUHGSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for mercury.

Mercury Summer in Lb (HGSUM)
(numeric)
The estimated summer total load of mercury in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Mercury Winter - Number of Observations (NUHGWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for mercury.

Mercury Winter in Lb (HGWIN)

(numeric)

The estimated winter total load of mercury in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Minimum Number of DMR Lines (MDML)

(2 characters)

Determines the number of blank parameters that will be generated on a facility's DMR if no parameters are on file, or if additional reporting space is desired. It may be the number of parameters monitored by a facility.

Code	Description
00 - 99	Numeric value between 00 and 99

Monitoring Location (MLOC)

(1 character)

The monitoring location at which the monitoring requirement (and effluent limit, if limited) applies. One parameter may have several monitoring location requirements for the same pipe.

Code	Description
+	Sludge
>	Increase (not end of pipe)
0	Intake
1	Effluent Gross Value - Monitoring the gross effluent from the outfall or facility
2	Effluent Net Value - Monitoring both the incoming raw wastewater (or influent) and the gross effluent to determine the net contribution of the facility to the effluent characteristics (gross effluent minus influent equals net effluent)
3	Intake Public Water - Water obtained from a public water supply monitored prior to use
4	Pre-treatment, Processing Completed - Monitoring of the effluent from pretreatment operations prior to primary treatment. These operations include racks and screens, grit chambers, communicators, skimmers, grease traps, preaeration, and flocculation employed to improve wastewater treatability
5	Upstream Monitoring - Monitoring of the body of water receiving the discharge upstream of the discharge point
6	Downstream Monitoring - Monitoring of the body of water receiving the discharge downstream of the discharge point
7	Intake From Stream - Water obtained from a stream monitored prior to use
8	Other Treatment, Processing Completed - Monitoring of the discharge from any treatment processes not specifically included in any of the other treatment categories
9	Phosphorus, Removal Processing Completed - Monitoring after phosphorus removal processes, such as chemical precipitation and bacterial assimilation, are completed
A	Disinfection, Processing Completed - Monitoring after disinfection with chlorine, ozone, or other compounds
B	Prior To Disinfection Process - Monitoring of the wastewater before the disinfection processes

C	Nitrogen, Removal Process Completed - Water monitored following nitrogen removal processes, such as ammonia stripping, nitrification/denitrification, ion exchange, and chlorination
D	Advanced (Tertiary) Treatment, Processing Completed - Monitoring of the effluent from advanced wastewater treatment processes. These include filtration, distillation, flotation, reverse osmosis, foam fractionation, freezing, gas-phase separation, land application, carbon adsorption, ion exchange, denitrification, etc., employed after secondary treatment
E	Secondary (Biological) Treatment, Processing Completed - Monitoring of the effluent from secondary (or biological) wastewater treatment processes, including activated sludge treatment, trickling filters, aerated lagoons, and stabilization ponds
F	Primary (Preliminary) Treatment, Processing Completed - Monitoring of the effluent from primary or preliminary wastewater treatment. The unit operations and processes used in the primary treatment of wastewater include sedimentation alone or in combination with chlorination
G	Raw Sewage (Influent) - Monitoring of the incoming raw wastewater (or influent) prior to any treatment
H	During Manufacturing Process - Water used in the manufacturing process monitored at some point in the process
I	Intake From Well - Water obtained from an underground well monitored prior to use
J	Intermediate Treatment, Processing Completed - Monitoring of the effluent from intermediate wastewater treatment. Intermediate treatment consists of sedimentation plus conventional chemical coagulation processes with or without chlorination
K	Percent Removal - Percent removal across the entire treatment train.
L	Digestor - Monitoring thatoccurs within the digestor itself .
M	Upstream and Downstream - Monitoring that must be done both at upstream and downstream locations
N	In Aeration Unit
O	Other - Special monitoring location described in the comments field, printed on the bottom of the DMR form
P	See Code O
Q	See Code O
R	See Code O
S	See Code O
T	See Code O
U	See Code O
V	See Code O
W	See Code O
X	End Chlorine Contact Chamber - Monitoring that occurs at the end of the chlorine contact chamber
Y	Annual Average - Monitoring reported as a yearly average
Z	Instream Monitoring

Month Code (MONTH)

(2 characters)

The code identifying the month of discharge.

Code	Description
01	January
02	February
03	March

04	April
05	May
06	June
07	July
08	August
09	September
10	October
11	November
12	December

National Pollutant Discharge Elimination System (NPDES) Number (NPID)

(9 characters)

For permitted NPDES or NPID facilities, a nine-character code used to uniquely identify a facility. The code is comprised of the two-character FIPS alpha code for the state where the facility is located, a six-digit sequence number, and a one-character check digit used to verify that the six-digit sequence number has been entered correctly. Except for the state code portion, the NPDES or NPID number is not a structured number, and no significance should be attached to the last seven characters.

For general permits, it is a nine-character code used to uniquely identify a facility. The code is comprised of the two-character FIPS alpha code for the state where the facility is located, position three must be a "G," the fourth and fifth position digit code is the General Permit Industrial Category (GPCT) code. The remaining four characters comprise a sequence number to be assigned at the user's discretion.

For nonpermitted NPDES or NPID facilities it is a nine-character code used to uniquely identify a facility. The code is comprised of the two-character FIPS alpha code for the state where the facility is located; the third character must be a valid nonpermitted NPDES or NPID facility code. The remaining six characters comprise a sequence number to be assigned at the user's discretion.

NOTE: The NCPDI Point Source Data Base contains only permitted NPDES facilities.

Nitrogen Annual (Total) in Lb (NANN)

(numeric)

The estimated annual total load of nitrogen in pounds (sum of all forms). The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Nitrogen Fall - Number of Observations (NUNFAL)

(numeric)

The number of months (observations) in the fall for which monitoring data were reported for nitrogen.

Nitrogen Fall in Lb (NFAL)

(numeric)

The estimated fall total load of nitrogen in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Nitrogen Spring - Number of Observations (NUNSPR)
(numeric)
The number of months (observations) in the spring for which monitoring data were reported for nitrogen.

Nitrogen Spring in Lb (NSPR)
(numeric)
The estimated spring total load of nitrogen in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Nitrogen Summer - Number of Observations (NUNSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for nitrogen.

Nitrogen Summer in Lb (NSUM)
(numeric)
The estimated summer total load of nitrogen in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Nitrogen Winter - Number of Observations (NUNWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for nitrogen.

Nitrogen Winter in Lb (NWIN)
(numeric)
The estimated winter total load of nitrogen in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

No Data Indicator (NODI)
(1 character)
Indicates the reason that "No Discharge" was reported in place of the measurement on the DMR.

Code	Description
A	General Permit Exemption
B	Below Detection Limit/No Detect
C	No Discharge
D	Lost Sample
E	Analysis Not Conducted
F	Insufficient Flow For Sampling
G	Sampling Equipment Failure
H	Invalid Test

I	Land Applied Wastewater
1	Wrong Flow
2	Operations Shut down
3	Low-level Production
4	Lagoon Processing
5	Frozen Conditions
6	Production-based Limits Don't Apply To MP
7	DMR received, Production- or Flow-related
8	Other
9	Monitoring Is Conditional/Not Required This MP

Number of Pipes (NUMPIPES)

(numeric)
The number of pipes in a facility. It includes all types of pipes (process, coolings, other, unidentified, etc.)

Oil and Grease Annual (Total) in Lb (OGANN)

(numeric)
The estimated annual total load of oil and grease in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates. This parameter accounts for all forms of oil and grease measured from petroleum-derived sources. Light aromatics as well as tars are included. Oil and grease from animal fats, vegetable oils, or rendering operations can also be measured.

Oil and Grease Fall - Number of Observations (NUOGFAL)

(numeric)
The number of months (observations) in the fall for which monitoring data were reported for oil and grease.

Oil and Grease Fall in Lb (OGFAL)

(numeric)
The estimated fall total load of oil and grease in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Oil and Grease Spring - Number of Observations (NUOGSPR)

(numeric)
The number of months (observations) in the spring for which monitoring data were reported for oil and grease.

Oil and Grease Spring in Lb (OGSPR)

(numeric)
The estimated spring total load of oil and grease in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Oil and Grease Summer - Number of Observations (NUOGSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for oil and grease.

Oil and Grease Summer in Lb (OGSUM)
(numeric)
The estimated summer total load of oil and grease in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Oil and Grease Winter - Number of Observations (NUOGWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for oil and grease.

Oil and Grease Winter in Lb (OGWIN)
(numeric)
The estimated winter total load of oil and grease in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Operating Days (OPDAYS)
(numeric)
The number of days in a calendar year that an industrial facility or wastewater treatment plant was either known or assumed to have operated and released an effluent. Used to adjust daily load estimates to annual estimates. Assumes 12 months of operation per year.

Operating Days - Adjusted (OPDAYS_A)
(numeric)
The number of days in a calendar year that an industrial facility or wastewater treatment plant was known to have operated and released an effluent. Used to adjust daily load estimates to annual estimates. Assumes only those months reporting in a year.

Operating Days Source Code (OPDSORS)
(1 character)
A code identifying the source of operating days assignment.

Code	Description
S	State (Self-Monitoring Report)
T	NCPDI Typical Operating Days
E	Engineering assumption based on best available information
F	Permit Application Form
R	From Review (state or facilities)

Parameter Code (PRAM)
(5 characters)
Usually the STORET parameter code; but for toxicity testing parameters, a PCS-devised parameter code.

Code	Description
TAA1A	LC50 Stat 48-Hour Acu Selen. Capr.
TAA1B	LC50 Stat 48-Hour Acu L. Minor
TAA1C	LC50 Stat 48-Hour Acu Champia
TAA3A	LC50 Stat 48-Hour Acu Arbacia
TAA3B	LC50 Stat 48-Hour Acu Ceriodaphnia
TAA3C	LC50 Stat 48-Hour Acu D. magna
TAA3D	LC50 Stat 48-Hour Acu D. pulex
TAA3E	LC50 Stat 48-Hour Acu Mysid. bahia
TAA6A	LC50 Stat 48-Hour Acu Cyprinodon
TAA6B	LC50 Stat 48-Hour Acu Menidia
TAA6C	LC50 Stat 48-Hour Acu Pimephales
TAA6D	LC50 Stat 48-Hour Acu Salmo Gair.
TAA6E	LC50 Stat 48-Hour Acu Lepomis macrochirus
TAA6F	LC50 Stat 48-Hour Acu Salvel. Salmonid
TAA6H	LC50 Stat 48-Hour Acu Notropis Leedsi
TAB1A	LC50 Stat 96-Hour Acu Selen. Capr.
TAB1B	LC50 Stat 96-Hour Acu L. Minor
TAB1C	LC50 Stat 96-Hour Acu Champia
TAB3A	LC50 Stat 96-Hour Acu Arbacia
TAB3B	LC50 Stat 96-Hour Acu Ceriodaphnia
TAB3C	LC50 Stat 96-Hour Acu D. magna
TAB3D	LC50 Stat 96-Hour Acu D. pulex
TAB3E	LC50 Stat 96-Hour Acu Mysid. bahia
TAB6A	LC50 Stat 96-Hour Acu Cyprinodon
TAB6B	LC50 Stat 96-Hour Acu Menidia
TAB6C	LC50 Stat 96-Hour Acu Pimephales
TAB6D	LC50 Stat 96-Hour Acu Salmo Gair.
TAB6E	LC50 Stat 96-Hour Acu Lepomis macrochirus
TAC6E	LC50 Stat 4-Day Chr Lepomis macrochirus
TAD6E	LC50 Stat 7-Day Chr Lepomis macrochirus
TAE3B	LC50 Stat 24-Hour Acu Ceriodaphnia
TAE6C	LC50 Stat 24-Hour Acu Pimephales
TAE6E	LC50 Stat 24-Hour Acu Lepomis macrochirus
TAM1A	LC50 Statre 48-Hour Acu Selen. Capr.
TAM1B	LC50 Statre 48-Hour Acu L. Minor
TAM1C	LC50 Statre 48-Hour Acu Champia
TAM3A	LC50 Statre 48-Hour Acu Arbacia
TAM3B	LC50 Statre 48-Hour Acu Ceriodaphnia
TAM3C	LC50 Statre 48-Hour Acu D. magna
TAM3D	LC50 Statre 48-Hour Acu D. pulex
TAM3E	LC50 Statre 48-Hour Acu Mysid. bahia
TAM6A	LC50 Statre 48-Hour Acu Cyprinodon
TAM6B	LC50 Statre 48-Hour Acu Menidia
TAM6C	LC50 Statre 48-Hour Acu Pimephales
TAM6D	LC50 Statre 48-Hour Acu Salmo Gair.

TAM6E	LC50 Stat 48-Hour Acu Lepomis macrochirus
TAN1A	LC50 Statre 96-Hour Acu Selen. Capr.
TAN1B	LC50 Statre 96-Hour Acu L. Minor
TAN1C	LC50 Statre 96-Hour Acu Champia
TAN3A	LC50 Statre 96-Hour Acu Arbacia
TAN3B	LC50 Statre 96-Hour Acu Ceriodaphnia
TAN3C	LC50 Statre 96-Hour Acu D. magna
TAN3D	LC50 Statre 96-Hour Acu D. pulex
TAN3E	LC50 Statre 96-Hour Acu Mysid. bahia
TAN3H	LC50 Statre 96-Hour Acu Pandulas hypsinotus
TAN3I	LC50 Statre 96-Hour Acu Pandulas borealis
TAN3J	LC50 Statre 96-Hour Acu Cancer Magister
TAN6A	LC50 Statre 96-Hour Acu Cyprinodon
TAN6B	LC50 Statre 96-Hour Acu Menidia
TAN6C	LC50 Statre 96-Hour Acu Pimephales
TAN6D	LC50 Statre 96-Hour Acu Salmo Gair.
TAN6E	LC50 Statre 96-Hour Acu Lepomis macrochi
TAN6G	LC50 Statre 96-Hour Acu Orcorhynchus gorbus
TAN6H	LC50 Statre 96-Hour Acu Notropis Leedsi
TAO6E	LC50 Statre 4-Day Chr Lepomis macrochi
TAP6E	LC50 Statre 7-Day Chr Lepomis macrochi
TAW1A	LC50 Flth 48-Hour Acu Selen. Capr.
TAW1B	LC50 Flth 48-Hour Acu L. Minor
TAW1C	LC50 Flth 48-Hour Acu Champia
TAW3A	LC50 Flth 48-Hour Acu Arbacia
TAW3B	LC50 Flth 48-Hour Acu Ceriodaphnia
TAW3C	LC50 Flth 48-Hour Acu D. magna
TAW3D	LC50 Flth 48-Hour Acu D. pulex
TAW3E	LC50 Flth 48-Hour Acu Mysid. bahia
TAW6A	LC50 Flth 48-Hour Acu Cyprinodon
TAW6B	LC50 Flth 48-Hour Acu Menidia
TAW6C	LC50 Flth 48-Hour Acu Pimephales
TAW6D	LC50 Flth 48-Hour Acu Salmo Gair.
TAW6E	LC50 Flth 48-Hour Acu Lepomis macrochi
TAX1A	LC50 Flth 96-Hour Acu Selen. Capr.
TAX1B	LC50 Flth 96-Hour acu L. Minor
TAX1C	LC50 Flth 96-Hour Acu Champia
TAX3A	LC50 Flth 96-Hour Acu Arbacia
TAX3B	LC50 Flth 96-Hour Acu Ceriodaphnia
TAX3C	LC50 Flth 96-Hour Acu D. magna
TAX3D	LC50 Flth 96-Hour Acu Cyprinodon
TAX6B	LC50 Flth 96-Hour Acu Menidia
TAX6C	LC50 Flth 96-Hour Acu Pimephales
TAX6D	LC50 Flth 96-Hour Acu Salmo Gair.
TAX6E	LC50 Flth 96-Hour Acu Lepomis macrochirus
TAY6E	LC50 Flth 4-Day Chr Lepomis macrochirus
TAZ6E	LC50 Flth 7-Day Chr Lepomis macrochirus
TA1AA	LC50 Mycd Shrimp Static Defn.
TA1BA	LC50 Shee Minnow Static Defn.
TA1CA	LC50 Fthd Minnow Static Defn.
TBA6E	NOEL Stat 48-Hour Acu Lepomis macrochirus
TBB6E	NOEL Stat 96-Hour Acu Lepomis macrochirus
TBC1A	NOEL Stat 4-Day Chr Selen. Capr.
TBC1B	NOEL Stat 4-Day Chr L. Minor

TBC1C	NOEL Stat 4-Day Chr Champia
TBC3A	NOEL Stat 4-Day Chr Arbacia
TBC3B	NOEL Stat 4-Day Chr Ceriodaphnia
TBC3C	NOEL Stat 4-Day Chr D. magna
TBC3D	NOEL Stat 4-Day Chr D. pulex
TBC3E	NOEL Stat 4-Day Chr Mysid. bahia
TBC6A	NOEL Stat 4-Day Chr Cyprinodon
TBC6B	NOEL Stat 4-Day Chr Menidia
TBC6C	NOEL Stat 4-Day Chr Pimephales
TBC6D	NOEL Stat 4-Day Chr Salmo Gair.
TBC6E	NOEL Stat 4-Day Chr Lepomis macrochirus
TBD1A	NOEL Stat 7-Day Chr Selen. Capr.
TBD1B	NOEL Stat 7-Day Chr L. Minor
TBD1C	NOEL Stat 7-Day Chr Champia
TBD3A	NOEL Stat 7-Day Chr Arbacia
TBD3B	NOEL Stat 7-Day Chr Ceriodaphnia
TBD3C	NOEL Stat 7-Day Chr D. magna
TBD3D	NOEL Stat 7-Day Chr D. pulex
TBD3E	NOEL Stat 7-Day Chr Mysid. bahia
TBD6A	NOEL Stat 7-Day Chr Cyprinodon
TBD6B	NOEL Stat 7-Day Chr Menidia
TBD6C	NOEL Stat 7-Day Chr Pimephales
TBD6D	NOEL Stat 7-Day Chr Salmo Gair.
TBD6E	NOEL Stat 7-Day Chr Lepomis macrochirus
TBE6E	NOEL Stat 24-Hour Acu Lepomis macrochirus
TBF3K	NOEL Stat 1-Hour Chr Red Sea Urchin
TBF3L	NOEL Stat 1-Hour Chr Purple Sea Urchin
TBF3M	NOEL Stat 1-Hour Chr Green Sea Urchin
TBF3N	NOEL Stat 1-Hour Chr Dendraster Excent
TBG1C	NOEL Stat 48-Hour Chr Champia
TBG3O	NOEL Stat 48-Hour Chr Crassostrea gigas
TBG3P	NOEL Stat 48-Hour Chr Mytilus edulis
TBH3A	NOEL Stat 1-Hour Fert. Chr Arbacia
TBM6E	NOEL Stat 48-Hour Acu Lepomis macrochirus
TBN6E	NOEL Statre 96-Hour Acu Lepomis macrochirus
TBO1A	NOEL Statre 4-Day Chr Selen. Capr.
TBO1B	NOEL Statre 4-Day Chr L. Minor
TBO1C	NOEL Statre 4-Day Chr Champia
TBO3A	NOEL Statre 4-Day Chr Arbacia
TBO3B	NOEL Statre 4-Day Chr Ceriodaphnia
TBO3C	NOEL Statre 4-Day Chr D. magna
TBO3D	NOEL Statre 4-Day Chr D. pulex
TBO3E	NOEL Statre 4-Day Chr Mysid. bahia
TBO6A	NOEL Statre 4-Day Chr Cyprinodon
TBO6B	NOEL Statre 4-Day Chr Menidia
TBO6C	NOEL Statre 4-Day Chr Pimephales
TBO6D	NOEL Statre 4-Day Chr Salmo Gair.
TBO6E	NOEL Statre 4-Day Chr Lepomis macrochirus
TBP1A	NOEL Statre 7-Day Chr Selen. Capr.
TBP1B	NOEL Statre 7-Day Chr L. Minor
TBP1C	NOEL Statre 7-Day Chr Champia
TBP3A	NOEL Statre 7-Day Chr Arbacia
TBP3B	NOEL Statre 7-Day Chr Ceriodaphnia
TBP3C	NOEL Statre 7-Day Chr D. magna

TBP3D	NOEL Statre 7-Day Chr D. pulex
TBP3E	NOEL Statre 7-Day Chr Mysid. bahia
TBP6A	NOEL Statre 7-Day Chr Cyprinodon
TBP6B	NOEL Statre 7-Day Chr Menidia
TBP6C	NOEL Statre 7-Day Chr Pimephales
TBP6D	NOEL Statre 7-Day Chr Salmo Gair.
TBP6E	NOEL Statre 7-Day Chr Lepomis macrochirus
TBQ6F	NOEl Statre 10-Day Chr Salvel. Salmonid
TBW6E	NOEL Flth 48-Hour Acu Lepomis macrochirus
TBX6E	NOEL Flth 96-Hour Acu Lepomis macrochirus
TBY1A	NOEL Flth 4-Day Chr Selen. Capr.
TBY1B	NOEL Flth 4-Day Chr L. Minor
TBY1C	NOEL Flth 4-Day Chr Champia
TBY3A	NOEL Flth 4-Day Chr Arbacia
TBY3B	NOEL Flth 4-Day Chr Ceriodaphnia
TBY3C	NOEL Flth 4-Day Chr D. magna
TBY3D	NOEL Flth 4-Day Chr D. pulex
TBY3E	NOEL Flth 4-Day Chr Mysid. bahia
TBY6A	NOEL Flth 4-Day Chr Cyprinodon
TBY6B	NOEL Flth 4-Day Chr Menidia
TBY6C	NOEL Flth 4-Day Chr Pimephales
TBY6D	NOEL Flth 4-Day Chr Salmo Gair.
TBY6E	NOEL Flth 4-Day Chr Lepomis macrochirus
TBZ1A	NOEL Flth 7-Day Chr Selen. Capr.
TBZ1B	NOEL Flth 7-Day Chr L. Minor
TBZ1C	NOEL Flth 7-Day Chr Champia
TBZ3A	NOEL Flth 7-Day Chr Arbacia
TBZ3B	NOEL Flth 7-Day Chr Ceriodaphnia
TBZ3C	NOEL Flth 7-Day Chr D. magna
TBZ3D	NOEL Flth 7-Day Chr D. pulex
TBZ3E	NOEL Flth 7-Day Chr Mysid. bahia
TBZ6A	NOEL Flth 7-Day Chr Cyprinodon
TBZ6B	NOEL Flth 7-Day Chr Menidia
TBZ6C	NOEL Flth 7-Day Chr Pimephales
TBZ6D	NOEL Flth 7-Day Chr Salmo Gair.
TBZ6E	NOEL Flth 7-Day Chr Lepomis macrochirus
TB1AA	LC50 Mycd Shrimp Fl-Thru Defn.
TB1BA	LC50 Shee Minnow Fl-Thru Defn.
TB1CA	LC50 Fthd Minnow Fl-Thru Defn.
TB3GO	NOEL Stat 48-Hour Chr Crassostrea gigas
TCA6E	Percent Effect Stat 48-Hour Acu Lepomis macrochirus
TCA6E	Percent Effect Stat 96-Hour Acu Lepomis macrochirus
TCC6E	Percent Effect Stat 4-Day Chr Lepomis macrochirus
TCD6E	Percent Effect Stat 7-Day Chr Lepomis macrochirus
TCE3B	Percent Effect Stat 24-Hour Acu Ceriodaphnia
TCE6C	Percent Effect Stat 24-Hour Acu Pimephales
TCE6E	Percent Effect Stat 24-Hour Acu Lepomis macrochirus
TCM1A	Percent Effect Statre 48-Hour Acu Selen. Capr.
TCM1B	Percent Effect Statre 48-Hour Acu L. Minor
TCM1C	Percent Effect Statre 48-Hour Acu. Champia
TCM3A	Percent Effect Statre 48-Hour Acu Arbacia
TCM3B	Percent Effect Statre 48-Hour Acu Ceriodaphnia
TCM3C	Percent Effect Statre 48-Hour Acu D. magna
TCM3D	Percent Effect Statre 48-Hour Acu D. pulex

TCM3E	Percent Effect Statre 48-Hour Acu Mysid. bahia
TCM6A	Percent Effect Statre 48-Hour Acu Cyprinodon
TCM6B	Percent Effect Statre 48-Hour Acu Menidia
TCM6C	Percent Effect Statre 48-Hour Acu Pimephales
TCM6E	Percent Effect Stat 48-Hour Acu Lepomis macrochirus
TCN1A	Percent Effect Statre 96-Hour Acu Selen. Capr.
TCN1B	Percent Effect Statre 96-Hour Acu L. Minor
TCN1C	Percent Effect Statre 96-Hour Acu. Champia
TCN3A	Percent Effect Statre 96-Hour Acu Arbacia
TCN3B	Percent Effect Statre 96-Hour Acu Ceriodaphnia
TCN3C	Percent Effect Statre 96-Hour Acu D. magna
TCN3D	Percent Effect Statre 96-Hour Acu D. pulex
TCN3E	Percent Effect Statre 96-Hour Acu Mysid. bahia
TCN6A	Percent Effect Statre 96-Hour Acu Cyprinodon
TCN6B	Percent Effect Statre 96-Hour Acu Menidia
TCN6C	Percent Effect Statre 96-Hour Acu Pimephales
TCN6E	Percent Effect Statre 96-Hour Acu Lepomis macrochirus
TCO1A	Percent Effect Statre 4-Day Chr Selen. Capr.
TCO1B	Percent Effect Statre 4-Day Chr L. Minor
TCO1C	Percent Effect Statre 4-Day Chr Champia
TCO3A	Percent Effect Statre 4-Day Chr Arbacia
TCO3B	Percent Effect Statre 4-Day Chr Ceriodaphnia
TCO3C	Percent Effect Statre 4-Day Chr D. magna
TCO3D	Percent Effect Statre 4-Day Chr D. pulex
TCO3E	Percent Effect Statre 4-Day Chr Mysid. bahia
TCO6A	Percent Effect Statre 4-Day Chr Cyprinodon
TCO6B	Percent Effect Statre 4-Day Chr Menidia
TCO6C	Percent Effect Statre 4-Day Chr Pimephales
TCO6E	Percent Effect Statre 4-Day Chr Lepomis macrochirus
TCP1A	Percent Effect Statre 7-Day Chr Selen. Capr.
TCP1B	Percent Effect Statre 7-Day Chr L. Minor
TCP1C	Percent Effect Statre 7-Day Chr Champia
TCP3A	Percent Effect Statre 7-Day Chr Arbacia
TCP3B	Percent Effect Statre 7-Day Chr Ceriodaphnia
TCP3C	Percent Effect Statre 7-Day Chr D. magna
TCP3D	Percent Effect Statre 7-Day Chr D. pulex
TCP3E	Percent Effect Statre 7-Day Chr Mysid. bahia
TCP6A	Percent Effect Statre 7-Day Chr Cyprinodon
TCP6B	Percent Effect Statre 7-Day Chr Menidia
TCP6C	Percent Effect Statre 7-Day Chr Pimephales
TCP6E	Percent Effect Statre 7-Day Chr Lepomis macrochirus
TCW6E	Percent Effect Flth 48-Hour Acu Lepomis macrochirus
TCX6E	Percent Effect Flth 96-Hour Acu Lepomis macrochirus
TCY6E	Percent Effect Flth 4-Day Chr Lepomis macrochirus
TCZ6E	Percent Effect Flth 7-Day Chr Lepomis macrochirus
TDA3B	NOAEL Stat 48-Hour Acu Ceriodaphnia
TDA3D	NOAEL Stat 48-Hour Acu D. pulex
TDA3E	NOAEL Stat 48-Hour Acu Mysid. bahia
TDA6B	NOAEL Stat 48-Hour Acu Menidia
TDA6C	NOAEL Stat 48-Hour Acu Pimephales
TDA6E	NOAEL Stat 48-Hour Acu Lepomis macrochirus
TDA6F	NOAEL Stat 48-Hour Acu Salvel. Salmonid
TDB6E	NOAEL Stat 96-Hour Acu Lepomis macrochirus
TDC6E	NOAEL Stat 4-Day Chr Lepomis macrochirus

TDD6E	NOAEL Stat 7-Day Chr Lepomis macrochirus
TDE6E	NOAEL Stat 24-Hour Acu Lepomis macrochirus
TDM1A	NOAEL Statre 48-Hour Acu Selen. Capr.
TDM1B	NOAEL Statre 48-Hour Acu L. Minor
TDM1C	NOAEL Statre 48-Hour Acu. Champia
TDM3A	NOAEL Statre 48-Hour Acu Arbacia
TDM3B	NOAEL Statre 48-Hour Acu Ceriodaphnia
TDM3C	NOAEL Statre 48-Hour Acu D. magna
TDM3D	NOAEL Statre 48-Hour Acu D. pulex
TDM3E	NOAEL Statre 48-Hour Acu Mysid. bahia
TDM6A	NOAEL Statre 48-Hour Acu Cyprinodon
TDM6B	NOAEL Statre 48-Hour Acu Menidia
TDM6C	NOAEL Statre 48-Hour Acu Pimephales
TDM6E	NOAEL Stat 48-Hour Acu Lepomis macrochirus
TDN1A	NOAEL Statre 96-Hour Acu Selen. Capr.
TDN1B	NOAEL Statre 96-Hour Acu L. Minor
TDN1C	NOAEL Statre 96-Hour Acu. Champia
TDN3A	NOAEL Statre 96-Hour Acu Arbacia
TDN3B	NOAEL Statre 96-Hour Acu Ceriodaphnia
TDN3C	NOAEL Statre 96-Hour Acu D. magna
TDN3D	NOAEL Statre 96-Hour Acu D. pulex
TDN3E	NOAEL Statre 96-Hour Acu Mysid. bahia
TDN6A	NOAEL Statre 96-Hour Acu Cyprinodon
TDN6B	NOAEL Statre 96-Hour Acu Menidia
TDN6C	NOAEL Statre 96-Hour Acu Pimephales
TDN6E	NOAEL Statre 96-Hour Acu Lepomis macrochirus
TDO1A	NOAEL Statre 4-Day Chr Selen. Capr.
TDO1B	NOAEL Statre 4-Day Chr L. Minor
TDO1C	NOAEL Statre 4-Day Chr Champia
TDO3A	NOAEL Statre 4-Day Chr Arbacia
TDO3B	NOAEL Statre 4-Day Chr Ceriodaphnia
TDO3C	NOAEL Statre 4-Day Chr D. magna
TDO3D	NOAEL Statre 4-Day Chr D. pulex
TDO3E	NOAEL Statre 4-Day Chr Mysid. bahia
TDO6A	NOAEL Statre 4-Day Chr Cyprinodon
TDO6B	NOAEL Statre 4-Day Chr Menidia
TDO6D	NOAEL Statre 4-Day Chr Pimephales
TDO6E	NOAEL Statre 4-Day Chr Lepomis macrochirus
TDP1A	NOAEL Statre 7-Day Chr Selen. Capr.
TDP1B	NOAEL Statre 7-Day Chr L. Minor
TDP1C	NOAEL Statre 7-Day Chr Champia
TDP3A	NOAEL Statre 7-Day Chr Arbacia
TDP3B	NOAEL Statre 7-Day Chr Ceriodaphnia
TDP3C	NOAEL Statre 7-Day Chr D. magna
TDP3D	NOAEL Statre 7-Day Chr D. pulex
TDP3E	NOAEL Statre 7-Day Chr Mysid. bahia
TDP6A	NOAEL Statre 7-Day Chr Cyprinodon
TDP6B	NOAEL Statre 7-Day Chr Menidia
TDP6C	NOAEL Statre 7-Day Chr Pimephales
TDP6E	NOAEL Statre 7-Day Chr Lepomis macrochirus
TDW6E	NOAEL Flth 48-Hour Acu Lepomis macrochirus
TDX6E	NOAEL Flth 96-Hour Acu Lepomis macrochirus
TDY6E	NOAEL Flth 4-Day Chr Lepomis macrochirus
TDZ6E	NOAEL Flth 7-Day Chr Lepomis macrochirus

TEA6E	Lf P/F Stat 48-Hour Acu Lepomis macrochirus
TEB6E	Lf P/F Stat 96-Hour Acu Lepomis macrochirus
TEC6E	Lf P/F Stat 4-Day Chr Lepomis macrochirus
TED6E	Lf P/F Stat 7-Day Chr Lepomis macrochirus
TEE3D	Lf P/F Stat 24-Hour Acu Daphnia pulex
TEE6C	Lf P/F Stat 24-Hour Acu Pimephales
TEE6E	Lf P/F Stat 24-Hour Acu Lepomis macrochirus
TEI3B	Lf P/F Statre 7-Day Chr Ceriodaphnia
TEI3E	Lf P/F Statre 7-Day Chr Mysid. bahia
TEI6A	Lf P/F Statre 7-Day Chr Cyprinodon
TEI6C	Lf P/F Statre 7-Day Chr Pimephales
TEM3C	Lf P/F Statre 48-Hour Acu Daphnia magna
TEM3D	Lf P/F Statre 48-Hour Acu Daphnia pulex
TEM3E	Lf P/F Statre 48-Hour Acu Mysidopis bahia
TEM6A	Lf P/F Statre 48-Hour Acu Cyprinodon variegatus
TEM6B	Lf P/F Statre 48-Hour Acu Menidia
TEM6C	Lf P/F Statre 48-Hour Acu Pimephales promelas
TEM6E	Lf P/F Stat 48-Hour Acu Lepomis macrochirus
TEN6E	Lf P/F Statre 96-Hour Acu Lepomis macrochirus
TEO3E	Lf P/F Statre 7-Day Chr Mysidopsis bahia
TEO6A	Lf P/F Statre 7-Day Chr Cyprinodon variegatus
TEO6E	Lf P/F Statre 4-Day Chr Lepomis macrochirus
TEP3B	Lf P/F Statre 7-Day Chr Ceriodaphnia
TEP6C	Lf P/F Statre 7-Day Chr Pimephales
TEP6E	Lf P/F Statre 7-Day Chr Lepomis macrochirus
TEW6E	Lf P/F Flth 48-Hour Acu Lepomis macrochirus
TEX6E	Lf P/F Flth 96-Hour Acu Lepomis macrochirus
TEY6E	Lf P/F Flth 4-Day Chr Lepomis macrochirus
TEZ6E	Lf P/F Flth 7-Day Chr Lepomis macrochirus
TFA6E	Hlf P/F Stat 48-Hour Acu Lepomis macrochirus
TFB6E	Hlf P/F Stat 96-Hour Acu Lepomis macrochirus
TFC6E	Hlf P/F Stat 4-Day Chr Lepomis macrochirus
TFD6E	Hlf P/F Stat 7-Day Chr Lepomis macrochirus
TFE6E	Hlf P/F Stat 24-Hour Acu Lepomis macrochirus
TFM3C	Hlf P/F Statre 48-Hour Acu Daphnia magna
TFM3D	Hlf P/F Statre 48-Hour Acu Daphnia pulex
TFM3E	Hlf P/F Statre 48-Hour Acu Mysidopis bahia
TFM6A	Hlf P/F Statre 48-Hour Acu Cyprinodon variegatus
TFM6C	Hlf P/F Statre 48-Hour Acu Pimephales promelas
TFM6E	Hlf P/F Stat 48-Hour Acu Lepomis macrochirus
TFN6E	Hlf P/F Statre 96-Hour Acu Lepomis macrochirus
TFO3E	Hlf P/F Statre 7-Day Chr Mysidopsis bahia
TFO6A	Hlf P/F Statre 7-Day Chr Cyprinodon variegatus
TFO6E	Hlf P/F Statre 4-Day Chr Lepomis macrochirus
TFP3B	Hlf P/F Statre 7-Day Chr Ceriodaphnia
TFP6C	Hlf P/F Statre 7-Day Chr Pimephales
TFP6E	Hlf P/F Statre 7-Day Chr Lepomis macrochirus
TFW6E	Hlf P/F Flth 48-Hour Acu Lepomis macrochirus
TFX6E	Hlf P/F Flth 96-Hour Acu Lepomis macrochirus
TFY6E	Hlf P/F Flth 4-Day Chr Lepomis macrochirus
TFZ6E	Hlf P/F Flth 7-Day Chr Lepomis macrochirus
TGA3B	P/F Stat 48-Hour Acu Ceriodaphnia
TGA3D	P/Fstat 48-Hour Acu D. pulex
TGA3E	P/F Stat 48-Hour Acu Mysidopsis bahia

TGA6B	P/F Stat 48-Hour Acu Menidia
TGA6C	P/Fstat 48-Hour Acu Pimephales
TGA6E	P/F Stat 48-Hour Acu Lepomis macrochirus
TGA6H	P/F Stat 48-Hour Acu Notropis Leedsi
TGB6A	P/F Stat 96-Hour Acu Cyprinodon variegatus
TGB6C	P/F Stat 96-Hour Acu Pimephales promelas
TGB6E	P/F Stat 96-Hour Acu Lepomis macrochirus
TGC3D	P/F Stat 4-Day Chr Daphnia pulex
TGC3E	P/F Stat 4-Day Chr Mysidopsis bahia
TGC6A	P/F Stat 4-Day Chr Cyprinodon variegatus
TGC6C	P/F Stat 4-Day Chr Pimephales promelas
TGC6E	P/F Stat 4-Day Chr Lepomis macrochirus
TGD6E	P/F Stat 7-Day Chr Lepomis macrochirus
TEG3D	P/F Stat 24-Hour Acu Daphnia pulex
TEG3E	P/F Stat 24-Hour Acu Mysid. bahia
TGE6A	P/F Stat 24-Hour Cyprinodon
TGE6C	P/Fstat 24-Hour Acu Pimephales
TGE6E	P/F Stat 24-Hour Acu Lepomis macrochirus
TGM3B	P/F Statre 48-Hour Acu Ceriodaphnia
TGM3G	P/F Statre 48-Hour Acu Daphnia Species
TGM6E	P/F Stat 48-Hour Acu Lepomis macrochirus
TGN3B	P/F Statre 96-Hour Acu Ceriodaphnia
TGN3E	P/F Statre 96-Hour Acu Mysid. bahia
TGN6B	P/F Statre 96-Hour Acu Menidia
TGN6C	P/F Statre 96-Hour Acu Pimephales promelas
TGN6E	P/F Statre 96-Hour Acu Lepomis macrochirus
TGN6H	P/F Statre 96-Hour Acu Notropis Leedsi
TGO6E	P/F Statre 4-Day Chr Lepomis macrochirus
TGP3B	P/F Statre 7-Day Chr Ceriodaphnia
TGP3E	P/F Statre 7-Day Chr Mysid. bahia
TGP6B	P/F Statre 7-Day Chr Menidia
TGP6C	P/F Statre 7-Day Chr Pimephales promelas
TGP6E	P/F Statre 7-Day Chr Lepomis macrochirus
TGP6H	P/F Statre 7-Day Chr Notropis leedsi
TGW6E	P/F Flth 48-Hour Acu Lepomis macrochirus
TGX6E	P/F Flth 96-Hour Acu Lepomis macrochirus
TGY6E	P/F Flth 4-Day Chr Lepomis macrochirus
TGZ6E	P/F Flth 7-Day Chr Lepomis macrochirus
THA6E	Chv Stat 48-Hour Acu Lepomis macrochirus
THB6E	Chv Stat 96-Hour Acu Lepomis macrochirus
THC6E	Chv Stat 4-Day Chr Lepomis macrochirus
THD6E	Chv Stat 7-Day Chr Lepomis macrochirus
THE6E	Chv Stat 24-Hour Acu Lepomis macrochirus
THF6D	Chv Stat 1 Hour Chr Salmo Gair.
THG6D	Chv Stat 48-Hour Chr Salmo Gair.
THM6E	Chv Stat 48-Hour Acu Lepomis macrochirus
THN6E	Chv Statre 96-Hour Acu Lepomis macrochirus
THO6E	Chv Statre 4-Day Chr Lepomis macrochirus
THP3B	Chv Statre 7-Day Chr Ceriodaphnia
THP6C	Chvstatre 7-Day Chr Pimephales
THP6E	Chv Statre 7-Day Chr Lepomis macrochirus
THW6E	Chv Flth 48-Hour Acu Lepomis macrochirus
THX6E	Chv Flth 96-Hour Acu Lepomis macrochirus
THY6E	Chv Flth 4-Day Chr Lepomis macrochirus

THZ6E	Chv Flth 7-Day Chr Lepomis macrochirus
TIA3F	LC50/Pf Stat 48-Hour Acu Oyster Embryo
TIA6E	LC50/Pf Stat 48-Hour Acu Lepomis macrochirus
TIB6E	LC50/Pf Stat 96-Hour Acu Lepomis macrochirus
TIC6E	LC50/Pf Stat 4-Day Chr Lepomis macrochirus
TID6E	LC50/Pf Stat 7-Day Chr Lepomis macrochirus
TIE3B	LC50/Pf Stat 24-Hour Acu Ceriodaphnia
TIE3D	LC50/Pf Stat 24-Hour Acu D. pulex
TIE3E	LC50/Pf Stat 24-Hour Acu Mysid. bahia
TIE6A	LC50/Pf Stat 24-Hour Acu Cyprinodon
TIE6B	LC50/Pf Stat 24-Hour Acu Menidia
TIE6C	LC50/Pf Stat 24-Hour Acu Pimphales
TIE6E	LC50/Pf Stat 24-Hour Acu Lepomis macrochirus
TIM6E	LC50/Pf Stat 48-Hour Acu Lepomis macrochirus
TIN6E	LC50/Pf Statre 96-Hour Acu Lepomis macrochirus
TIO6E	LC50/Pf Statre 4-Day Chr Lepomis macrochirus
TIP6E	LC50/Pf Statre 7-Day Chr Lepomis macrochirus
TIW6	LC50/Pf Flth 48-Hour Acu Lepomis macrochirus
TIX6E	LC50/Pf Flth 96-Hour Acu Lepomis macrochirus
TIY6E	LC50/Pf Flth 4-Day Chr Lepomis macrochirus
TIZ6E	LC50/Pf Flth 7-Day Chr Lepomis macrochirus
TJA3B	Percent Mortality Stat 48-Hour Acu Ceriodaphnia
TJA3E	Percent Mortality Stat 48-Hour Acu Mysid. bahia
TJE3B	Percent Mortality Stat 24-Hour Acu Ceriodaphnia
TJE6C	Percent Mortality Stat 24-Hour Acu Pimephales
TKF3K	Tu Stat 1-Hour Chr Red Sea Urchin
TKF3L	Tu Stat 1-Hour Chr Purple Sea Urchin
TKF3M	Tu Stat 1-Hour Chr Green Sea Urchin
TKF3N	Tu Stat 1-Hour Chr Dendraster Excent
TKG3O	Tu Stat 48-Hour Chr Crassostrea Gigas
TKG3P	Tu Stat 48-Hour Chr Mytilus Edulis
TKN3H	Tu Statre 96-Hour Acu Pandulas hypsinotus
TKN3I	Tu Statre 96-Hour Acu Pandulas borealis
TKN3J	Tu Statre 96-Hour Acu Cancer magister
TKN6G	Tu Statre 96-Hour Acu Orcorhynchus gorbus
TLP3B	Lf P/F Leth Statre 7-Day Chr Ceriodaphnia
TLP3E	Lf P/F Leth Statre 7-Day Chr Mysid. bahia
TLP6A	Lf P/F Leth Statre 7-Day Chr Cyprinodon
TLP6B	Lf P/F Leth Statre 7-Day Chr Menidia
TLP6C	Lf P/F Leth Statre 7-Day Chr Pimephales
TMM3B	LC10 Statre 48-Hour Acu Ceriodaphnia
TMM3C	LC10 Statre 48-Hour Acu D. magna
TMN6C	LC10 Statre 96-Hour Acu Pimephales
TNA3C	LC20 Stat 48-Hour Acu Ceriodaphnia
TNA3E	LC20 Stat 48-Hour Acu Mysid. bahia
TNN3B	LC20 Statre 96-Hour Acu Ceriodaphnia
TNN6H	LC20 Statre 96-Hour Acu Notropis leedsi
TNP3C	LC20 Statre 7-Day Chrceriodaphnia
TNP3E	LC20 Statre 7-Day Chrmysid. bahia
TOM3D	NOEL Lethal Statre 48-Hour Acu D. pulex
TOM3E	NOEL Lethal Statre 48-Hour Acu Mysid. bahia
TOM6A	NOEL Lethal Statre 48-Hour Acu Cyprinodon
TOM6B	NOEL Lethal Statre 48-Hour Acu Menidia
TOM6C	NOEL Lethal Statre 48-Hour Acu Pimephales

TOP3B	NOEL Lethal Statre 7-Day Chr Ceriodaphnia
TOP3E	NOEL Lethal Statre 7-Day Chr Mysid. bahia
TOP6A	NOEL Lethal Statre 7-Day Chr Cyprinodon
TOP6B	NOEL Lethal Statre 7-Day Chr Menidia
TOP6C	NOEL Lethal Statre 7-Day Chr Pimephales
TPP3B	NOEL Sub-Leth Statre 7-Day Chr Ceriodaphnia
TPP3E	NOEL Sub-Leth Statre 7-Day Chr Mysid. bahia
TPP6A	NOEL Sub-Leth Statre 7-Day Chr Cyprinodon
TPP6B	NOEL Sub-Leth Statre 7-Day Chr Menidia
TPP6C	NOEL Sub-Leth Statre 7-Day Chr Pimephales
TQM3D	Coef of Var Statre 48-Hour Acu D. pulex
TQM3E	Coef of Var Statre 48-Hour Acu Mysid. bahia
TQM6A	Coef of Var Statre 48-Hour Acu Cyprinodon
TQM6B	Coef of Var Statre 48-Hour Acu Menidia
TQM6C	Coef of Var Statre 48-Hour Acu Pimephales
TQP3B	Coef of Var Statre 7-Day Chr Ceriodaphnia
TQP3E	Coef of Var Statre 7-Day Chr Mysid. bahia
TQP6A	Coef of Var Statre 7-Day Chr Cyprinodon
TQP6B	Coef of Var Statre 7-Day Chr Menidia
TQP6C	Coef of Var Statre 7-Day Chr Pimephales
00004	Stream Width
00010	Temperature, Water (Deg. C)
00011	Temperature, Water (Deg. F)
00015	Thermal Discharge Million BTUs per Hour
00016	Temperature Difference Between Sample and Upstream (Deg. C)
00017	Thermal Discharge, Million BTUs per Day
00018	Temp. Diff. Between Sample and Upstream (Deg. F)
00020	Temperature, Air (Deg. C)
00021	Temperature, Air (Deg. F)
00032	Cloud Cover (Percent)
00036	Wind Direction (Deg. From True N)
00056	Flow Rate
00058	Flow Rate
00059	Flow Rate, Instantaneous
00060	Stream Flow, Mean. Daily
00061	Stream Flow, Instantaneous
00065	Stage, Stream
00067	Tide Stage
00068	Depth, Max of Sample
00070	Turbidity
00075	Turbidity, Hellige (Silicon Dioxide)
00076	Turbidity, Hch Turbidimiter
00077	Transparency, Secchi Disc (Inches)
00080	Color (Pt-Co. Units)
00081	Color, Apparent (Unfiltered Sample)
00082	Color, Spectrophotometric Filter, Water Sample at 7.6 pH
00083	Color, Spectrophotometric Filter
00084	Color
00085	Odor, Threshold No. at Room Temperature
00086	Odor, Threshold No. (60 Deg. C)
00087	Odor, Threshold No. (40 Deg. C)
00091	Flow, Minimum Flow Range
00092	Flow, Maximum Flow Range
00094	Conductivity

00095	Specific Conductance
00111	Ratio Fecal Coliform and Streptococci
00135	Rainfall Duration
00136	Temperature of Sample Upon Arrival At Lab.
00139	Hydrogen Peroxide
00140	BOD, 5-Day (20 Deg. C) per Production
00141	Solids, Total Suspended per Production
00142	Hydrogen Cyanide
00143	Methyl Mercaptan
00144	Combined Metals Sum
00145	Total Production
00146	Chemical Oxygen Demand per Production
00147	Iron, Total per Production
00148	Herbicides, Total
00149	Alpha Emitting Radium Isotopes, Dissolved
00150	Solids, Total Suspended per cfs of Streamflow
00151	Nitrogen, Ammonia per cfs of Streamflow
00152	Oil and Grease per Production
00153	Oil and Grease per cfs of Streamflow
00154	Sulfate (as S)
00155	Isooctyl Silvex
00156	Isooctyl 2,4,5-T
00157	Solids, Total Volatile, Percent Removal
00158	Cn, Free (Amenable To Chlorine), Kg per Batch
00159	Copper, Total Kg per Batch
00160	Iron, Total
00161	Nickel, Total
00162	Silver, Total
00163	Solids, Total Suspended
00164	Flow
00165	Sludge Volume Index (SVI)
00166	Chloride, Percent Removal
00167	Solids, Dry, Discharge to Solid Handling System
00168	Production, Total, Megawatts
00169	Solids, Dry, Incineration as Percent of Dry Solid from Treatment Plant
00170	Solids, Dry, Removed from Solid Handling System
00171	Septage Discharged to Treatment Facility
00172	Digester Solids Content, Percent
00173	Sludge, Rate of Wasting
00174	Gas, Digester, Volume of
00175	Nitrogen, Ammonia, Percent Removal
00176	Oxygen Demand, Ultimate Percent Removal
00177	Oxygen Demand, Dissolved
00178	Nicotine Sulfate
00179	Waste Heat Rejection Rate, BTU per Hour
00180	Plant Capacity Fact., Percent of Capacity
00181	Oxygen Demand, Ultimate
00182	Oil and Grease
00183	Chlorine, Total Res. Duration of Violation
00184	Coagulants Added
00185	Particulates, Floating
00186	Particulates, Floating (Dry Weight)
00187	Toxicity, Concentration
00188	Chlorinated Pesticides, Total and PCBs

00189	Radioactivity
00190	Bis Ether
00191	Hydrogen Ion Concentration
00192	Oxygen Demand, Ultimate Carbonaceous (UCOD)
00195	Plume Surface Area
00208	Chlorine, Total Rresidual (Dsg. Time)
00300	Oxygen, Dissolved (DO)
00301	Oxygen, Dissolved (Percent Saturation)
00310	BOD, 5-Day (20 Deg. C)
00311	BOD, 5-Day Dissolved
00314	BOD, Nitrogen Inhib., 5-Day (20 Deg. C)
00318	BOD, 5-Day
00319	BOD (Ult. All Stages)
00320	BOD (Ult. First Stage)
00321	BOD (Ult. Second Stage)
00324	BOD, 20-Day (20 Deg. C)
00327	BOD, 11-Day (20 Deg. C)
00335	Oxygen Demand, Chemical (Low-Level) (COD)
00340	Oxygen Demand, Chemical (High-Level) (COD)
00341	Oxygen Demand, Chemical (COD), Dissolved
00343	Oxygen Demand, Total (TOD)
00352	BOD, 35-Day (20 Deg. C)
00370	Chlorine Demand, One Hour
00386	Ozone - Residual
00387	Ozone
00388	Oxygen Demand, Sum Product
00399	Oxygen, Dissolved, Percent of Time Violated
00400	pH
00403	pH, Laboratory
00404	Non-Ionic Dispersant (Nalsperse 7348)
00405	Carbon Dioxide (as CO_2)
00410	Alkalinity, Total (as $CaCO_3$)
00415	Alkalinity, Phenol- Phthaline Method
00425	Alkalinity, Bicarbonate (as $CaCO_3$)
00430	Alkalinity, Carbonate (as $CaCO_3$)
00435	Acidity, Total (as $CaCO_3$)
00436	Acidity-Mineral Methyl Orange (as $CaCO_3$)
00437	Acidity, CO_2 Phenol (as $CaCO_3$)
00438	Hydrochloric Acid in Whole Water
00439	Hydrochloric Acid
00440	Bicarbonate Ion (as HCO_3)
00441	Sulphur, Total Elemental
00442	Phosphorus, Total Elemental
00445	Carbonate Ion- (as CO_3)
00475	Viscosity
00480	Salinity
00499	Drilled Solids in Drilling Fluids
00500	Solids, Total
00505	Solids, Total Volatile
00510	Solids, Total Fixed
00515	Residue, Total Filterable (Dried At 105 Deg. C)
00520	Solids, Volatile Dissolved

00525	Solids, Fixed Dissolved
00530	Solids, Total Suspended
00535	Solids, Volatile Suspended
00540	Solids, Fixed Suspended
00545	Solids, Settleable
00546	Residue, Settleable
00547	Residue, Total Nonsettleable
00550	Oil and Grease (Soxhlet Extr.) Total
00551	Hydrocarbons, in H_2O, Ir, Cc14 Ext. Chromat.
00552	Oil and Grease, Hexane Extr. Method
00555	Oil and Grease, per 1,000 Gallons
00556	Oil and Grease Freon Extr.-Grav. Method
00558	Oil and Grease Percent Removal
00560	Oil and Grease (Freon Extr.-Ir. Method) Total, Rc.
00562	Baroid Nos. 3,7
00563	Baroid Nos. 2,4,5,6 Imco No. 1,2,3,6
00564	Imco Nos. 4,5
00566	Imco Nos. 1,2,3,6
00570	Biomass, Plankton
00600	Nitrogen, Total (as N)
00605	Nitrogen, Organic Total (as N)
00607	Nitrogen, Organic, Dissolved (as N)
00608	Nitrogen, Ammonia Dissolved
00610	Nitrogen, Ammonia Total (as N)
00611	Nitrogen, Ammonia in Bottom Deposits
00612	Nitrogen, Ammonia, Total Unionized (as N)
00613	Nitrite Nitrogen, Dissolved (as N)
00615	Nitrogen, Nitrite, Total (as N)
00618	Nitrogen, Nitrate, Dissolved
00619	Ammonia, Unionized
00620	Nitrogen, Nitrate, Total (as N)
00623	Nitrogen, Kjeldahl, Dissolved (as N)
00625	Nitrogen, Kjeldahl, Total (as N)
00630	Nitrite Plus Nitrate, Total 1 Det. (as N)
00631	Nitrite Plus Nitrate, Dissolved 1 Det.
00633	Nitrite Plus Nitrate in Bottom Deposits
00637	Dithiocarbamate, Reported as Dithiocarbonate
00640	Nitrogen, Inorganic Total
00650	Phosphate, Total (as PO_4)
00653	Phosphate Total Soluble
00655	Phosphate, Poly (as PO_4)
00660	Phosphate, Ortho(as PO_4)
00665	Phosphorus, Total (as P)
00666	Phosphorus, Dissolved
00668	Phosphorus, Total, in Bottom Deposits
00670	Phosphorus, Total Organic (as P)
00671	Phosphate,Dissolved/Orthophosphate (as P)
00679	Carbon, Total Organic (TOC) per 1,000 Gallons
00680	Carbon, Total Organic (TOC)
00681	Carbon, Dissolved Organic (as C)
00685	Carbon, Total Inorganic (as C)
00690	Carbon, Total (as C)
00695	Nitrilotriacetic Acid (NTA)

00696	Nitrofurans
00697	Acetic Acid
00698	Boric Acid
00700	Acids, Total Volatile (as Acetic Acid)
00718	Cyanide, Weak Acid, Dissociable
00719	Cyanide, Free Water Plus Wastewaters
00720	Cyanide, Total (as Cn)
00721	Cyanide in Bottom Deposits, (Dry Weight)
00722	Cyanide, Free (Amen. To Chlorination)
00723	Cyanide, Dissolved, Standard Method
00724	Cyanide, Complexed To Range of Compound
00725	Cyanate (as Ocn)
00726	Sodium Chlorate
00727	Sodium Dichromate
00728	Sodium Nitrite
00730	Thiocyanate (as Scn)
00740	Sulfite (as SO_3)
00741	Sulfite (as S)
00745	Sulfide, Total (as S)
00746	Sulfide, Dissolved (as S)
00760	Sulfite Waste Liquor Pearl Benson Index
00900	Hardness, Total (as $CaCO_3$)
00915	Calcium, Dissolved (as Ca)
00916	Calcium, Total (as Ca)
00917	Calcium in Bottom Deposits
00921	Magnesium, Total Recoverable
00924	Magnesium in Bottom Deposits
00925	Magnesium, Dissolved (as Mg)
00927	Magnesium, Total (as Mg)
00929	Sodium, Total (as Na)
00930	Sodium, Dissolved (as Na)
00931	Sodium Adsorption Ratio
00932	Sodium, Percent
00934	Sodium in Bottom Deposits, Dry Weight (as Na)
00935	Potassium, Dissolved (as K)
00937	Potassium, Total (as K)
00938	Potassium, in Bottom Deposits
00940	Chloride (as Cl)
00941	Chloride, Dissolved in Water
00942	Chloride, Sludge, Total Dry Weight
00945	Sulfate, Total (as SO_4)
00946	Sulfate, Dissolved (as SO_4)
00948	Asbestos
00949	Fluoride
00950	Fluoride, Dissolved (as F)
00951	Fluoride, Total (as F)
00952	Fluoroborates
00955	Silica, Dissolved (as SiO_2)
00956	Silica, Total (as SiO_2)
00959	Attapulgite in Drilling Fluids
00960	Barite in Drilling Fluids
00961	Bentonite in Drilling Fluids
00962	Potassium Chloride in Drilling Fluids

00963	Lignite in Drilling Fluids
00964	Lignosulfate in Drilling Fluids
00965	Lime in Drilling Fluids
00966	Mica in Drilling Fluids
00967	Sodium Bicarbonate in Drilling Fluids
00968	Sand in Drilling Fluids
00973	Asbestos, Total Amphibole
00978	Arsenic, Total Recoverable
00979	Cobalt, Total Recoverable
00980	Iron, Total Recoverable
00981	Selenium, Total Recoverable
00982	Thallium, Total Recoverable
00983	Tin, Total Recoverable
00987	Iron and Manganese, Total
00988	Iron and Manganese,.Soluble
00989	Uranyl-Ion
00998	Beryllium, Total Recoverable (as Be)
00999	Boron, Total Recoverable
01000	Arsenic, Dissolved (as As)
01002	Arsenic, Total (as As)
01003	Arsenic in Bottom Deposits (Dry Weight)
01005	Barium, Dissolved (as Ba)
01007	Barium, Total (as Ba)
01008	Barium in Bottom Deposits (Dry Weight)
01009	Barium, Total Recoverable
01010	Beryllium, Dissolved (as Be)
01012	Beryllium, Total (as Be)
01013	Beryllium in Bottom Deposits (Dry Weight)
01017	Bismuth, Total (as Bi)
01020	Boron, Dissolved (as B)
01022	Boron, Total (as B)
01024	Chromium, Total in Bottom Deposits (Wet Weight)
01025	Cadmium, Dissolved (as Cd)
01027	Cadmium, Total (as Cd)
01028	Cadmium in Bottom Deposits (Dry Weight)
01029	Chromium, Total Dry Weight (as Cr)
01030	Chromium, Dissolved (as Cr)
01031	Chromium, Suspended (as Cr)
01032	Chromium, Hexavalent (as Cr)
01033	Chromium, Trivalent (as Cr)
01034	Chromium, Total (as Cr)
01035	Cobalt, Dissolved (as Co)
01037	Cobalt, Total (as Co)
01040	Copper, Dissolved (as Cu)
01041	Copper, Suspended (as Cu)
01042	Copper, Total (as Cu)
01043	Copper in Bottom Deposits (Dry Weight)
01044	Iron, Suspended
01045	Iron, Total (as Fe)
01046	Iron, Dissolved (as Fe)
01047	Iron, Ferrous
01049	Lead, Dissolved (as Pb)
01051	Lead, Total (as Pb)
01052	Lead, Total Dry Weight (as Pb)

01053	Manganese in Bottom Deposits (Dry Weight)
01054	Manganese, Suspended
01055	Manganese, Total (as Mn)
01056	Manganese, Dissolved (as Mn)
01057	Thallium, Dissolved (as Tl)
01059	Thallium, Total (as Tl)
01060	Molybdenum, Dissolved (as Mo)
01062	Molybdenum, Total (as Mo)
01064	Tellurium, Total
01065	Nickel, Dissolved (as Ni)
01066	Nickel, Suspended (as Ni)
01067	Nickel, Total (as Ni)
01068	Nickel, Total in Bottom Deposits (Dry Weight)
01074	Nickel, Total Recoverable
01075	Silver, Dissolved (as Ag)
01077	Silver, Total (as Ag)
01078	Silver in Bottom Deposits (Dry Weight)
01079	Silver, Total Recoverable
01082	Strontium, Total (as Sr)
01085	Vanadium, Dissolved (as V)
01086	Vanadium, Suspended (as V)
01087	Vanadium, Total (as V)
01088	Vanadium, Total Dry Weight (as V)
01089	Copper as Suspended Black Oxide
01090	Zinc, Dissolved (as Zn)
01092	Zinc, Total (as Zn)
01093	Zinc in Bottom Deposits (Dry Weight)
01094	Zinc Total Recoverable
01095	Antimony, Dissolved (as Sb)
01097	Antimony, Total (as Sb)
01098	Antimony in Bottom Deposits (Dry Weight)
01100	Tin, Dissolved (as Sn)
01102	Tin, Total (as Sn)
01104	Aluminum, Total Recoverable
01105	Aluminum, Total (as Al)
01106	Aluminum, Dissolved (as Al)
01109	Aluminum, Ionic
01113	Cadmium Total Recoverable
01114	Lead Total Recoverable
01117	Cesium, Total (as Cs)
01118	Chromium Total Recoverable
01119	Copper Total Recoverable
01124	Thallium, Acid Soluble
01127	Germanium, Total (as Ge)
01128	Vanadium, Total Recoverable
01130	Lithium, Dissolved (as Li)
01132	Lithium, Total (as Li)
01137	Rubidium, Total (as Rb)
01139	Columbium, Total
01142	Silicon, Total
01145	Selenium, Dissolved (as Se)
01147	Selenium, Total (as Se)
01148	Selenium in Bottom Deposits (Dry Weight)
01150	Titanium, Dissolved (as Ti)

01152	Titanium, Total (as Ti)
01153	Titanium, Total Dry Weight (as Ti)
01154	Tungsten, Total
01155	Tungsten, Dissolved
01162	Zirconium,Total
01167	Selenium, Acid Soluble
01168	Indium
01169	Metals Toxicity Ratio
01170	Iron, Total Dry Weight (as Fe)
01171	Platinum, Total (as Pt)
01182	Lanthanum, Total
01210	Palladium, Total (as Pd)
01220	Chromium, Hexavalent Dissolved (as Cr)
01251	Aluminum
01252	Arsenic
01253	Cadmium
01254	Chromium
01255	Chromium, Hexavalent
01256	Copper
01257	Cyanide (A)
01258	Iron
01259	Lead
01260	Mercury
01261	Nickel
01262	Tin
01263	Silver
01264	Zinc
01265	Settling Index as Pertaining To Wells
01266	Pressure as Pertaining To Wells
01268	Antimony, Totalrecoverable
01273	Total Acid Priority Pollutants
01274	Total Base/Neutral Priority Pollutants
01275	Total Volatile Pollutants
01276	Total Agg. Concentration #4
01277	Total Agg. Concentration #1
01278	Total Agg. Concentration #2
01279	Total Agg. Concentration #3
01280	Total Agg. Concentration #5
01281	Total Agg. Concentration #6
01282	Total Agg. Concentration #7
01283	Total Agg. Concentration #8
01284	Application, Daily Spray Irrigation
01285	Application, Monthly Spray Irrigation
01286	Application, Period Spray Irrigation
01287	Application, Weekly Spray Irrigation
01288	Foaming Agents
01289	Biocides
01290	Color (Admi. Units)
01291	Cyanide, Filterable, Total
01292	Magnesium, Percent Exchange
01293	Calcium, Percent Exchange
01294	Calcium, Percent in Water (Percent)
01295	Potassium, Total Percent in Water (Percent)
01296	Potassium, Percent Exchange

01298	Nitrogen, Nitrite in Water (Percent)
01299	Nitrogen, Nitrate in Water (Percent)
01300	Oil and Grease Severity
01301	Sodium Hexametaphosphate
01302	Bayer 73 Lampreycide in Water
01303	Zinc, Potentially Dissolved
01304	Silver, Potentially Dissolved
01306	Copper, Potentially Dissolved
01307	Chromium, Hexavalent, Potentially Dissolved
01308	Aluminum, Potentially Dissolved
01309	Arsenic, Potentially Dissolved
01310	Gas Bubble Severity
01311	Barium, Potentially Dissolved
01312	Beryllium, Potentially Dissolved
01313	Cadmium, Potentially Dissolved
01314	Chromium, Trivalent, Potentially Dissolved
01316	Sludge Build-up in Water
01317	Iron, Potentially Dissolved
01318	Lead, Potentially Dissolved
01319	Manganese, Potentially Dissolved
01321	Mercury, Potentially Dissolved
01322	Nickel, Potentially Dissolved
01323	Selenium, Potentially Dissolved
01324	Thallium, Potentially Dissolved
01325	Algae, Floating Mats (Severity)
01326	Uranium, Potentially Dissolved
01330	Odor, Atmospheric (Severity)
01331	Taste (Severity)
01336	Runoff-Spray Irrigation Field to Stream
01340	Fish, Dead (Severity)
01345	Debris, Floating (Severity)
01350	Turbidity (Severity)
01351	Stream Flow (Severity)
01352	Discharge Flow as Percent of Stream Flow
01355	Ice Cover, Floating or Solid (Severity)
01501	Alpha, Total
01502	Alpha, Total, Counting Error
01503	Alpha, Dissolved
01505	Alpha, Suspended
01523	Silver, Ionic
03501	Beta, Total
03502	Beta, Total, Counting Error
03503	Beta, Dissolved
03505	Beta, Suspended
03520	Radiation, Gross Beta
03556	2,3,7,8 Tetrachlorodibenzo-P-Dioxin
03582	Oil and Grease
03593	Toxics, Percent Removal
03594	Halogens, Adsorbable Organic
03595	Bioassay (96-Hour)
03596	Bioassay (48-Hour)
03597	Bioassay (24-Hour)
03598	Toxicity
03599	Toxicity, Choice of Species

03600	Toxicity, Trout
03601	Toxicity, Sand Dollar
03602	Biochemical Oxygen Demand
03603	Total Suspendable Solids
03604	Total Phenols
03605	Flow Meter Calibration
03606	Thorium 232
03607	Stickwater, Effluent Percent Recycled
03608	Stickwater, Effluent Volume Recycled
03609	Production, Seafood Effluent
03610	Dioxin
03612	Para-Dichlorobenzene
03613	Solids, Total Dissolved, Total Tons
03614	2,4,5-Trichlorophenoxypropionic Acid
03615	2-Methyl-4,6-Dinitrophenol
03772	Temperature Difference Between Upstream/Downstream (Deg. F)
03777	Dichloropropylene, 1,2
03811	Toxicity, Salmoacute
03812	Toxicity, Salmochronic
03820	Human Enteric Virus
03821	Dichloromethane
03823	Hydrazines, Total
03824	Tributyltin
04141	Chlorine, Free Residual, Total Effluent
04160	Halocarbons, Purgeable Scan, Effluent
04161	Halocarbons, Purgeable Scan, Sludge
04162	Aromatic, Purgeable Scan, Effluent
04163	Aromatic Purgeable Scan, Sludge
04164	Phenolic, Total Scan Effluent
04165	Phenolic, Total Scan Sludge
04166	PCB, Total, Scan Effluent
04167	PCB, Total Sludge, Scan Code
04174	Free Liquids in Sludge
04175	Phosphate, Ortho (as P)
04196	U-236, Total Water
04223	Total Residual Oxidant Effluent
04224	Dicyclohexylamine, Total
05501	Gamma, Total
05502	Gamma, Total Counting Error
07000	Tritium (1 H_3), Total
07001	Tritium, Total Counting Error (Pc/l)
07020	Tritium, Total Net Increase H_3 Units
09501	Radium 226, Total
09503	Radium 226, Dissolved
11123	Manganese, Total Recoverable
11500	Radium 226 & 228, Dissolved
11501	Radium 228, Total
11503	Radium 226 and Radium 228, Total
13501	Strontium 90, Total
17501	Lead 210, Total
18501	Iodine 129
19500	Polonium, Total
19501	Polonium 210

22405	Aluminum Chloride, Dissolved, Water
22409	Octachlorostyrene
22410	Tris (2,3-Dibromopropyl) Phosphate
22414	Whole Effluent Toxicity
22417	Methyl Tert-Butyl Ether
22454	Methoxypropylamine
22456	Polynuc Aromatic Hc per Method 610
22501	Thorium 232
22601	Uranium 238, Total
22622	Uranium 235, Total
22703	Uranium, Natural, Dissolved
22706	Uranium, Total as U 308
22708	Uranium, Natural, Total
26501	Thorium 230
28012	Uranium, Natural, Total (in Pci/l)
28801	Cerium, Total
29404	Chromium Trivalent in Bottom Deposits
29405	Chromium, Hexavalent in Bottom Deposits (Dry Weight)
29620	Phosphorus 32, Total
30056	Benzy Chloride
30191	Dinoseb
30234	Terbacil
30264	Hexazimone
30311	Bromacil
30362	Tetrachlordibenzofuran, 2378-(Tcdf) Sed.
30383	Benzene, Ethylbenzenetoluene, Xylene Combination
30391	Chlorosyringealdehyde, Effluent
30500	Coliform, Fecal , Percent Sample Exceeds Limit
31501	Coliform, Total Mf, Immed., M-Endo Med. 35c
31502	Coliform, Total (10/ml)
31503	Coliform, Total Mf, Delayed, M-Endo. Med.
31504	Coliform, Total Mf, Immed., Les. Endo. Agar.
31505	Coliform, Total, Mpn., Completed, (100 ml)
31612	Coliform, Fecal (10/ml)
31613	Coliform, Fecal Mf, M-Fc Agar., 44.5c, 24-Hour
31615	Fecal Coliform, Mpn, Ec Med., 44.5c
31616	Coliform, Fecal Mf, M-Fc Broth, 44.5c
31625	Coliform, Fecal Mf, M-Fc, 0.7um
31633	E. Coli, Thermotol, Mf, M-Tec
31639	Enterococci: Group D Mf Trans, M-E, Eia
31648	E. Coli, Mtec-Mf
31662	Phosphate, Total Bottom Sed. (Dry Weight)
31663	Halogens, Total Organics Bottom Sediment
31667	Oil Petroleum, Total Recoverable
31671	Streptococci, Fecal Plate Count ,Kf Agar
31673	Streptococci, Fecal Mf, Kf Agar, 3 5c, 4 8-Hr.
31674	Streptococci, Fecal 10/ml
31675	Streptococci, Fecal Mpn, Kf Broth 35c
31679	Fecal Streptococci, Mf M-Enterococcus Ag.
31751	Plate Count, Total (35 Deg. C, 24-Hour)
31760	Klebsiella Species
32005	Carbon, Chloroform Extractables
32015	Base/Neutral Compounds
32016	Fluoride - Complex

32017	Sodium Chloride (Salt)
32018	Fluoride - Free
32019	Cyanide and Thiocyanate - Total
32020	Acid Compounds
32021	Carbon Chloroform Extracts, Ether Insoluble
32101	Dichlorobromomethane
32102	Carbon Tetrachloride
32103	1,2 Dichloroethane
32104	Bromoform
32105	Dibromochloro- Methane
32106	Chloroform
32209	Chlorophyll-a, Corrected
32218	Pheophytin
32230	Chlorophyll -a
32231	Chlorophyll-b
32232	Chlorophyll -c
32240	Tannin and Lignin
32250	Oil, Petroleum Ether Extractables
32251	Benzofuran
32252	Acrylic Polymer in Drilling Fluids
32253	Aluminum Stearate, Water Soluable in Drilling Fluids
32254	Cellulose Polymer in Drilling Fluids
32255	Dos-3 in Drilling Fluids
32256	Imco Lube 106 in Drilling Fluids
32257	Imco Lubrikleen in Drilling Fluids
32258	Imco Phos in Drilling Fluids
32259	Kwik Seal in Drilling Fluids
32261	Starch in Drilling Fluids
32262	Xc Polymer in Drilling Fluids
32270	Chloroform Extractables, Total
32730	Phenolics, Total Recoverable
32731	Phenolics in Bottom Deposits (Dry Weight)
34010	Toluene
34011	Halogenated Toluene
34030	Benzene
34031	Monochlorobenzenes
34032	Chlorinated Methanes
34033	Chlorinated Ethanes
34034	Chlorinated Phenols
34035	Isopimaric Acid
34036	Linolenic Acid
34037	9,10 Epoxystearic Acid
34038	9,10 Dichlorostearic Acid
34039	Monochlorodehydroabietic Acid
34040	Dichlorodehydroabeietic Acid
34041	3,4,5 Trichloroguacacol
34042	Isoprene
34043	Phenolics, Total
34044	Oxidants, Total Residual
34045	Oxidants, Free Available
34046	Oxidants Released, Total Residual
34047	Oxygen Transfer Efficiency
34048	Oxygen Injection Diversion
34049	Oxygen Injection Interruption

34101	Nitroglycerin by Gas Chromatography
34102	Ethylene Glycol Dinitrate
34103	Benzene, Toluene, Xylene in Combination
34198	BHC-Delta
34199	N-Butyl-Benzenesulfonamide (in Water)
34200	Acenaphthylene
34205	Acenaphthene
34208	Acenaphthene, Sed. (Dry Weight)
34210	Acrolein
34215	Acrylonitrile
34220	Anthracene
34225	Asbestos, Fibrous
34228	Asbestos, Fibrous (Dry Weight)
34230	Benzo(B) Fluoranthene (3,4-Benzo)
34235	Benzene, Dissolved
34242	Benzo(K) Fluoranthene
34247	Benzo(A) Pyrene
34253	Alpha BHC Dissolved
34255	B-BHC-Beta Dissolved
34259	Delta Benzene Hexachloride
34266	R-BHC (Lindane) Gamma
34268	Bis (Chloromethyl) Ether
34271	Bis (Chloromethyl) Ether (Dry Weight)
34273	Bis (2-Chloroethyl) Ether
34278	Bis (2-Chloroethoxy) Methane
34283	Bis (2-Chloro-Isopropyl) Ether
34292	Butyl Benzyl Phthalate
34301	Chlorobenzene
34306	Chlorodibromomethane
34311	Chloroethane, Total Weight
34316	Chloroform, Dissolved
34320	Chrysene
34334	Dichlorodifluoromethane (Dry Weight)
34336	Diethyl Phthalate
34341	Dimethyl Phthalate
34346	1,2-Diphenylhydrazine
34351	Endosulfan Sulfate
34356	B-Endosulfan-Beta
34361	A-Endosulfan-Alpha
34366	Endrin Aldehyde
34371	Ethylbenzene
34376	Fluoranthene
34381	Fluorene
34386	Hexachlorocyclopentadiene
34391	Hexachlorobutadiene
34396	Hexachloroethane
34403	Indeno (1,2,3-Cd) Pyrene
34408	Isophorone
34413	Methyl Bromide
34418	Methyl Chloride
34423	Methylene Chloride
34425	Methylene Chloride, Suspended
34428	N-Nitrosodi-N-Propylamine
34433	N-Nitrosodiphenylamine

34438	N-Nitrosodimethylamine
34447	Nitrobenzene
34452	Parachlorometa Cresol
34461	Phenanthrene
34469	Pyrene
34475	Tetrachloroethylene
34480	Thallium in Bottom Deposits (Dry Weight)
34481	Toluene, Dissolved
34485	Trichloroethylene, Dissolved
34488	Trichlorofluoro- Methane
34496	1,1-Dichloroethane
34501	1,1-Dichloroethylene
34506	1,1,1-Trichloroethane
34511	1,1,2-Trichloroethane
34516	1,1,2,2-Tetrachloroethane
34521	Benzo (ghi) Perylene
34526	Benzo (A) Anthracene
34531	1,2-Dichloroethane (Total Weight)
34536	1,2-Dichlorobenzene
34539	1,2-Dichlorobenzene (Dry Weight)
34541	1,2-Dichloropropane
34546	1,2-Transdichloroethylene
34551	1,2,4-Trichlorobenzene
34556	Dibenzo (A,H) Anthracene
34561	1,3-Dichloropropene (Total Weight)
34566	1,3-Dichlorobenzene
34569	1,3-Dichlorobenzene (Dry Weight)
34571	1,4-Dichlorobenzene
34574	1,4 Dichlorobenzene (Dry Weight)
34576	2-Chloroethyl Vinyl Ether (Mixed)
34581	2-Chloronaphthalene
34586	2-Chlorophenol
34591	2-Nitrophenol
34596	Di-N-Octyl Phthalate
34601	2,4-Dichlorophenol
34606	2,4-Dimethylphenol
34611	2,4-Dinitrotoluene
34616	2,4-Dinitrophenol
34619	2,4 Dinitrophenol (Dry Weight)
34621	2,4,6-Trichlorophenol
34624	2,4,6-Trichlorophenol (Dry Weight)
34626	2,6-Dinitrotoluene
34631	3,3-Dichlorobenzidine
34636	4-Bromophenyl Phenyl Ether
34641	4-Chlorophenyl Phenyl Ether
34646	4-Nitrophenol
34649	4 Nitrophenol (Dry Weight)
34653	P,P-DDE, Dissolved
34655	P,P-DDT, Dissolved
34657	4,6-Dinitro-O-Cresol
34668	Dichlorodifluoromethane
34671	PCB-1016 (Arochlor 1016)
34675	2,3,7,8-Tetrachloro-Dibenzo-P-Dioxin
34677	Dioxin (TCDD), Suspended

34678	2,3,7,8 Tetrachloro-Dibenzo-P-Dioxin, Dry
34694	Phenol, Single Compound
34696	Naphthalene
34699	Trans-1,3-Dichloropropene
34704	Cis-1,3-Dichloropropene
34717	Triaryl Phosphate
34724	Sodium Polyacrylate, Total
34726	Nitrogen, Ammonia, Total (as NH_3)
34728	Xylene, Para, Total
34729	Sodium Molybdate, Total
34730	Dichlorophenol 2,3, Total
34731	Phenylphenol,4, Total
34753	2,3,7,8 Tetrachlorodibenzo-P-Dioxin Sed.
34782	Stream Stage
34790	Surfactants as Ctas, Effluent
37371	Ethyl Benzene
38260	Surfactants (Mbas)
38446	Dichloran, Total
38451	Dichlorvos, Total
38528	Polynuclear Aromatics (Polyram)
38533	Propachlor (Ramrod) Dissolved
38579	Benzene, Halogenated
38580	Sodium, Percent Exchange- Able Soil, Total
38670	Xanthates
38671	1,1 Dichloro 2,2,2-Trifluoroethane
38672	1,1,1,2,2-Penta-Fluoroethane
38674	1,1,1-Trichloro- 2,2,2-Trifluoroethane
38675	1,1 Dichloro-1,2,2,2-Tetrafluoroethane
38676	Dichloroethene-1,2-Effluent
38677	Bromomethane
38678	Chloromethane
38679	Dibromomethane
38682	2,3,7,8 Chlorodibenzofuran
38683	Chlorohexane, Total
38691	2,3,7,8 Tetrachlorodibenzo Furan (TCDF)
38693	Bromodichloromethane, Effluent
38710	Bentazon, Total
38745	2,4-D
38765	Deet
38775	Dichlorvos, Total Dissolved
38776	Dichlorvos, Total Suspended
38777	Dichlorvos, Total Sed. (Dry Weight)
38779	Dinoseb (DNBP)
38787	Ethalfluralin Water, Total
38820	Isopropalin Water, Total
38925	Dechlorane Plus
38928	Ethylenethiourea (ETU)
39002	Balan (Benefin)
39007	Delnav
39010	Disulfoton
39013	Dyfonate
39017	Kelthane
39030	Treflan (Trifluralin)

39031	Difolatan
39032	Pentachlorophenol
39033	Atrazine
39043	Chlor., Phenoxy Acid Gp., None Found
39051	Methomyl
39053	Aldicarb
39055	Simazine
39058	Phosphated Pesticides
39084	Total Purgeable Halocarbons
39100	Bis (2-Ethylhexyl) Phthalate
39108	Chloral Hydrate
39109	2,2-Dichlorovinyl Dimethylphosphate
39110	Di-N-Butyl Phthalate
39117	Phthalate Esters
39120	Benzidine
39122	Dimethoxybenzidine
39129	Chlorendic Acid
39131	Didecyldimethylammonium Chloride
39150	Dichlone
39161	Alachlor (Brand Name: Lasso)
39175	Vinyl Chloride
39180	Trichloroethylene
39300	4,4-DDT (P,P-DDT)
39305	1,4-DDT (O,P-DDT)
39310	4,4-DDD (P,P-DDD)
39320	4,4-DDE (P,P-DDE)
39330	Aldrin
39336	BHC-Alpha
39337	A-BHC-Alpha
39338	B-BHC-Beta
39340	Gamma-BHC
39344	BHC-Gamma
39348	Chlordane, Alpha, Whole Water
39350	Chlordane (Tech. Mix. and Metabolites)
39360	DDD in Whole Water Sample
39365	DDE
39370	DDT
39379	DDT/DDD/DDE, Sum of P,P and O,P Isomers
39380	Dieldrin
39388	Endosulfan, Total
39389	Endosulfan Bottom Deposits, Dry Solids
39390	Endrin
39398	Ethion
39400	Toxaphene
39410	Heptachlor
39420	Heptachlor Epoxide
39480	Methoxychlor
39488	PCB-1221 (Arochlor 1221)
39492	PCB-1232 (Arochlor 1232)
39495	PCB-1232 Bot. Dep., Dry Solid
39496	PCB-1242 (Arochlor 1242)
39499	PCB-1242 Bot. Dep., Dry Solid
39500	PCB-1248 (Arochlor 1248)
39503	PCB-1248, Bot. Dep.,Dry Solid

39504	PCB-1254 (Arochlor 1254)
39507	PCB-1254, Bot. Dep.,Dry Solid
39508	PCB-1260 (Arochlor 1260)
39511	PCB-1260, Bot. Dep.,Dry Solid
39514	PCB-1016 Bot. Sed. (Dry Weight)
39516	Polychlorinated Biphenyls (PCBs)
39519	PCBS in Bottom Deps., Dry Solid
39521	Polybrominated Biphenyls
39524	Polybrominated Diphenyl Oxides
39530	Malathion
39540	Parathion
39560	Demeton
39570	Diazinon
39580	Guthion
39600	Methyl Parathion
39632	Atrazine, Dissolved
39640	Captan
39650	Diuron
39700	Hexachlorobenzene
39702	Hexachlorobutadiene
39730	2,4-Dichlorophenoxyacetic Acid
39740	2,4,5-T
39750	Sevin
39755	Mirex
39760	Silvex
39770	Dacthal
39782	Lindane
39786	Trithion
39793	Chloroethylene Bisthiocyanate
39794	Sodium Pentachlorophenate
39810	Chlordane, Gamma, Whole Water
39930	Pyrethrins
39941	Round-up
39942	Hydrocarbons, Aromatic
45019	Iso-octane
45022	Propyl Acetate
45028	Chlorodifluoromethane
45058	Methyl Phenol
45097	Methyl Styrene
45130	Alkyl Benzene Sulfonated (ABS)
45232	Chlorophenoxypropananol
45265	Butanol
45268	Methylene Bis-Thiocyanate
45316	Butoxy Ethoxy Ethanol, Total
45364	Benzisothiazole
45501	Petrol Hydrocarbons, Total Recoverable
45504	Hexane, Sediment (Dry Weight)
45597	Tetraethyl Lead as Alkyl Lead
45599	Temperature Rise, Length of Excursion
45600	Temperature, Length of Excursion
45601	Equipment Outage, Length of Downtime
45602	Equipment Outage, Number of Occurances
45603	Fish Food Fed per Day
45604	Fish On Hand

45613	Floating Solids Or Visible Foam,Visual
45614	Sanitary Waste Discharged, Assessmnt
45615	Intermittent Discharge, Assessment
46000	Phenols
46116	Hydrocarbons, Total Gas Chromatograph
46225	Chloride
46312	Diethylhexylphthalate
46313	Phorate
46315	Ethyl Parathion
46342	Alachlor, Dissolved
46390	Toxicity Characteristic Leaching Procedure
46391	Zinc, Total Sludge
46392	Nickel, Total Sludge
46393	Lead, Total Sludge
46394	Copper, Total Sludge
46395	Cadium, Total Sludge
46396	Process to Significantly Reduce Pathogens
46397	Process to Further Reduce Pathogens
46474	Hydroxyquinoline Total
46475	Dodecene,4 Total Effluent
46476	Diethylene Glycol Dinitrate, Total
46477	Metriol Trinitrate, Total
46478	Equipment Inspection, Visual
46481	Chlordane, Alpha (Dry Weight)
46485	Chlordane, Gamma (Dry Weight)
46529	Rainfall
47021	Methylene Blue, Active Substances
47024	BOD, 5-Day (20 Deg. C) per cfs of Streamflow
47027	Chloride, per cfs of Streamflow
48201	Coliform, Fecal MPN and Membrane Ftl (44.5 Deg. C)
50033	Condenser Cooling, Water Pumping Rate
50043	Plant Intake as Percent of Stream Flow
50045	Application Rate Area Sprayed
50047	Flow, Maximum During 24-Hour Period
50048	Flow, Maximum During 24-Hour Period
50049	Flow, Wastewater Bypassing Treatment Plant
50050	Flow, in Conduit Or Thru Treatment Plant
50056	Injection Pressure at Well Head
50057	Pressure in Annulus of Waste Inject Well
50058	Chlorine Dose
50059	Chlorine Rate
50060	Chlorine, Total Residual
50064	Chlorine, Free Available
50066	Chlorine, Combined Available
50068	Chlorination
50073	Monoboro Chlorate
50075	Ferricyanide
50076	BOD, Percent Removal (Total)
50077	5-Day Sum of BOD Discharged
50078	7-Day Sum of BOD Discharged
50079	7-Day Sum of WLA Values
50081	WLA BOD 5-Day Value
50082	5-Day Sum of WLA Values
50083	Avg. of 7-Day Sum of BOD, 5-Day Values

60050	Algae, Total (cells/ml)
61400	Bioassay (24-Hour)
61401	Bioassay (48-Hour)
61402	Bioassay (96-Hour)
61406	Toxicity, Final Conc. Toxicity Units
61425	Toxicity, Ceriodaphnia Acute
61426	Toxicity, Ceriodaphnia Chronic
61427	Toxicity, Pimephales Acute
61428	Toxicity, Pimephales Chronic
61503	Lead Sludge Solid
61504	Lead Sludge Total
61506	Copper Sludge, Solid
61507	Copper Sludge, Total
61509	Zinc Sludge, Solid
61510	Zinc Sludge, Total
61512	Chromium Sludge, Solid
61513	Chromium Sludge, Total
61515	Nickel Sludge, Solid
61516	Nickel Sludge, Total
61518	Selenium Sludge, Solid
61524	Beryllium, Sludge, Total Dry Weight (as Be)
61527	Cadmium Sludge, Solid
61528	Cadmium Sludge, Total
61533	Nitrogen Sludge, Solid
61534	Nitrogen Sludge, Total
61539	Nitrogen (as NO_3) Sludge, Solid
61556	Cyanide Sludge, Solid
61574	Ammonia (as N) and Unionized Ammonia
61575	Net Rate of Addition of Heat
61576	Temperature Difference Between Intake and Discharge
70002	Phenylpropanolamine
70003	Acetaminophen
70004	Phenyltoloxamine
70005	Chloroxazone
70006	Chlorpheniramine
70007	Methocarbamol
70008	Ephedrine Sulfate
70009	Bromochloromethane
70010	Dichloroflouromethane
70011	Isodecyldiphenylphosphate
70012	4-Chloro-3-Methyl Phenol
70013	Temp. Difference, Summer (Deg. F)
70014	Temp. Difference, Winter (Deg. F)
70015	Freon, Total
70017	Hexachloropentadiene
70018	Isoxsuprine
70019	Hydroxyzine
70022	Trichlorobenzene 1,2,4 Total
70023	Chromium, Hexavalent (as Cr)
70024	Solids, Large Fraction, Suspended
70025	Solids, Small Fraction, Suspended
70026	BOD, 5-Day, Total
70027	COD, 2,5-$NK_2Cr_2O_7$, Total

70028	Chromium, Total (as Cr)
70029	Phenolic Compounds, Total
70030	Oil and Grease, Total Recoverable
70031	Solids, Total Suspended
70226	Current Direction, Deg. From True North
70295	Solids, Total Dissolved
70296	Solids, Total Dissolved (TDS)
70297	Solids, Total Suspended per 1,000 Gallons
70300	Solids, Total Dissolved (180 Deg. C)
70311	pH, $CaC0_3$ Stability
70314	Daconil ($C_8Cl_4N_2$)
70316	Sediment Sample (Dry Weight)
70318	Solids, Total, Percent
70319	Solids, Fixed, Percent of Total Solids
70321	Sludge Weight, Wet Tons
70322	Solids,Volatile, Percent of Total Solids
70324	Solids, Volatile Suspended in Mixed Liquor
70352	Chloride, Organic, Total
70353	Organic Halides, Total
70505	Phosphate, Total Color. Method (as P)
70507	Phosphorus, in Total Orthophosphate
71800	Urea
71820	Density of Water (20 Deg. C)
71845	Nitrogen, Ammonia Total (as NH_4)
71850	Nitrogen, Nitrate Total (as NO_3)
71855	Nitrogen, Nitrite Total (as NO_2)
71865	Iodide (as I)
71867	Iodine, Residual
71868	Iodine, Total
71870	Bromide (as Br)
71871	Bromine, Reported as the Element
71872	Bromine Chloride
71875	Hydrogen Sulfide
71880	Formaldehyde
71888	Phosphorus, Total Soluble (as PO_4)
71890	Mercury, Dissolved (as Hg)
71900	Mercury, Total (as Hg)
71901	Mercury, Total Recoverable
71910	Gold, Total (as Au)
71911	Rare Earth Metals, Total
71921	Mercury, Total in Bottom Deposits (Dry Weight)
72009	Elevation of Original Ground
72019	Depth To Water Level, Feet Below Land Surface
72025	Depth of Pond or Reservoir in Feet
72035	Pump Hours
72047	Gases, Total Dissolved
72048	Seawater in Drilling Fluids
72049	Freshwater in Drilling Fluids
72107	Length of Longest pH Excursion
72108	Percent of Time Exceeding pH Limits
72110	Elevation of Top of Well Casing
73010	Ethyl Ether By Gas Chromatograph
73128	Benzyl Chloride

73155	PCB-1221, (Dry Weight)
73185	Aniline (Dry Weight)
73188	Ethanol (Dry Weight)
73189	1,2-Dichlorobenzene (Dry Weight)
73191	Acetone (Dry Weight)
73199	Methoxychlor (Dry Weight)
73202	Bromoethane (Dry Weight)
73209	Carbon Disulfide (Dry Weight)
73211	Bromodichloromethane (Dry Weight)
73214	Trichlorofluoro-Methane (Dry Weight)
73281	Styrene (Dry Weight)
73282	Benzyl Alcohol (Dry Weight)
73292	Didromomethane, 1-2
73299	Vinyl Acetate (Dry Weight)
73304	Chloromethane (Dry Weight)
73312	Pyridine (Dry Weight)
73334	Dimethyl Phthalate (Dry Weight)
73335	Dibenzofuran (Dry Weight)
73354	Benzo(B)Fluoranthene (Dry Weight)
73382	Xylenes, Total (Dry Weight)
73403	Cis-1,3-Dichloropropene (Dry Weight)
73404	Trans-1,3-Dichloropropene (Dry Weight)
73427	Endrin Ketone (Dry Weight)
73525	2-Butanone Peroxide
73593	Methylhydrazine
73617	Morpholine, 4-Nitroso
73652	Phosphorothioic Acid 0,0,0-Triethyl Ester
73653	1,3,5-Trinitrobenzene
73676	Flow, Restrictive
74006	Inert Plastic Spheres in Drilling Fluids
74007	Nutshells in Drilling Fluids
74008	Power Plant Load in Megawatts
74009	Torq Trim it InDrilling Fluids
74011	Drill Cutting (Oil Rigs)
74012	Condenser Cooling Water Temperature Increase
74013	Temperature Calculated Limit
74014	Applicable Temperature Limitation
74015	Phenols, Chlorinated
74020	Flow, Pump Out
74024	Caustic in Drilling Fluids
74025	Temperature, Summer (Deg. C)
74026	Temperature, Winter (Deg. C)
74027	Temperature, Summer (Deg. F)
74028	Temperature, Winter (Deg. F)
74029	Temperature, Rate of Change (Deg. F per Hour)
74051	Algicides, General
74052	Chlorinated Hydrocarbons, General
74053	Pesticides, General
74054	Streptococci, Fecal, General
74055	Coliform, Fecal, General
74056	Coliform, Total, General
74060	Flow Rate
74061	Overflow Use
74062	Overflow Use, Occurances

74069	Stream Flow, Estimated
74076	Flow
75062	Isopropyl Alcohol (C_3H_8O), Sed.
75166	2-Hexanone
76023	Chlorinated Dibenzo-Furans, Effluent
76024	Chlorinated Dibenzo-Furans, Sludge
76025	Chlorinated Dibenzo-P-Dioxins, Effluent
76026	Chlorinated Dibenzo-P-Dioxins, Sludge
76028	Base Neutrals and Acid (Method 625), Effluent
76029	Organics, Total Purgeables (Method 624)
76030	Base Neutrals and Acid (Method 625), Total
76982	4-Chloro-3, 5-Dimethylphenol
76993	2,2-Dibromo-3-Nitrilopropionamide
76994	Methane
76996	Methylamine
76997	Methyl Cyanide (Acetonitrile)
76999	Ethylene Oxide
77001	Acetaldehyde
77003	Dimethylamine
77004	Ethanol
77006	Formic Acid
77015	Isopropanol
77018	N-Propanol (N-Propylalchohol)
77023	Ethylene Glycol
77030	Diethylamine
77032	Methyl Acetate
77033	Isobutyl Alcohol
77035	2-Methyl-2-Propanol
77038	1,2-Propanediol
77041	Carbon Disulfide
77042	Dimethyl Sulfoxide, Total
77045	Pyridine
77046	2-Chloroethanol
77057	Vinyl Acetate
77063	Butanoic Acid
77081	Oxalic Acid
77089	Aniline
77093	Cis-1,2-Dichloroethylene
77097	Cyclohexanone
77101	Cyclohexyl Amine (Amino Hexahydro)
77103	2-Hexanone
77110	N,N- Dimethylformamide
77111	Triethylamine
77117	Isopropyl Ether
77124	Bezonitrile (Cyanobenzene)
77128	Styrene, Total
77135	O-Xylene
77146	P-Cresol
77147	Benzyl Alcohol
77161	1,2-Dichloropropene
77163	1,3 Dichloropropene
77164	Resorcinol
77165	Hydroquinone

77166	2,3 Dichloropropylene
77173	1,3 Dichloropropane
77189	N-Butyl Acetate
77201	Isobutyl Acetate
77202	Indene
77222	1, 2, 4-Trimethylbenzene
77223	Isopropylbenzene
77224	N-Propylbenzene
77226	1, 3, 5-Trimethylbenzene
77237	Dimethylaniline
77247	Benzioc Acids, Total
77275	Orthochlorotoluene
77285	1,4-Dichlorobutane
77287	2-Chloroaniline
77295	3-Chlorophenol
77296	4-Chlorophenol
77299	Quinoline
77311	2-Ethyl-1-Hexanol
77337	1,2,4,5-Tetramethyl-Benzene
77342	N-Butylbenzene (Whole Water, ug/l)
77416	2-Methylnaphthalene
77418	1-Methylnaphthalene
77421	2-Methyl-4-Chlorophenol
77447	Chloral
77517	Benzene Sulphonic Acid
77540	2,5-Dichlorophenol
77541	2,6-Dichlorophenol
77542	Hexamethylbenzene
77566	Phthalic Acid
77613	1,2,3-Trichlorobenzene
77625	Azobenzene
77647	Freon 113 (1,1,1-Triflouro-2,2)
77651	Ethylene Dibromide (1,2-Dibromoethane)
77652	1,1,2-Trichlorotrifluorethane
77653	1,2-Bis-(2-Chloroethony) Ethane
77666	Citric Acid
77676	Trichorotulene
77687	2,4,5-Trichlorophenol
77700	Carbaryl Total
77734	1,2,4,5-Tetrachlorobenzene
77757	Hexadecane
77763	Bis-Phenol-A (Alpha)
77770	2,3,4,6-Tetrachlorophenol
77779	Dibromodichloromethane
77781	N-Heptadecane
77793	Pentachlorobenzene
77819	Tri-N-Butyl-Phosphate
77828	Linoleic Acid
77832	Oleic Acid
77835	Hexachlorocyclohexane (BHC) Total
77856	Abietic Acid
77859	Docosane
77860	Butachlor
77881	Triphenyl Phosphate

77885	Methanol, Total
77889	Octachlorocyclopentene
77963	Chloromethyl Benzene
77969	Chlorpyrifos
77970	Chlorotoluene
77983	Dichlorotoluene
77984	Dichlorotrifluoroethane
77986	Diethl methylbenzenesulfonamide
78008	Endrin Ketone, in Water
78024	Hexahydroazepinone
78028	Tetrachlorobenzene
78032	Propane, 2-Methoxy- 2-Methyl
78036	Methyl ethyl sulfide
78109	Allychloride, Total
78111	N,N-Dimethyl Formamide
78113	Ethyl Benzene
78115	Halogen, Total Organic
78124	Benzene (Volatile Analysis)
78133	4-Methyl-2-Pentanone
78136	Trimethyl Benzene
78141	Organics, Total Toxic (TTO)
78143	Monochlorobenzyltrifluoride
78144	Toluene-2,4 -Diisocyanite
78145	Tetra Sodium EDTA
78146	Aminotrol-Methylenephosphate
78147	Bis (Trichloromethyl) Sulfone
78148	Chloramine Residual
78149	Diethylaminoethanol
78150	Dyphylline
78151	EDTA
78152	Guafensin
78153	Hydroxyacetophenone
78154	Mercaptobenzothiazole
78155	Dichlorobenzyltrifluoride
78156	M-Alkyldimethlbenzylamcl
78157	Naphthenic Acid
78159	Niacinamide
78160	Nitrostyrene
78161	Polymethylacrylic Acid
78162	Aromatics, Substituted
78163	Sulfabenzamide
78164	Sulfacetamide
78165	Sulfathiazole
78166	Tetrahydro-3,5-Dimethyl-2-Hydro-1,3,5-Th
78167	Theophylline
78168	Carbamates
78169	Sodium-O-Ppth
78171	Aromatics, Total Purgeable
78198	Heptane
78200	N-Nitrosodiethyl- Amine
78202	Ethylene Chlorohydrin
78203	Halogenated Hydrocarbons, Total
78204	Monochlorotoluene
78205	Paraben (Methyl and Propyl)

78206	N-Nitrosopyrrolidine
78207	N-Nitrosodibutyl- Amine
78213	Monochloroacetic Acid
78214	Diethylbenzene
78215	O-Chlorobenzyl Chloride
78216	Aldrin and Dieldrin
78217	Chlorinated Pesticides, Total
78218	Phenolic Compounds, Unchlorinated
78219	Isothiazolone
78221	Organic Pesticide Chemicals (40cfr455)
78222	Organic Active Ingredients (40cfr455)
78223	Total Toxic Organics (TTO) (40cfr413)
78224	Total Toxic Organics (TTO) (40cfr433)
78225	Total Toxic Organics (TTO) (40cfr464a)
78226	Total Toxic Organics (TTO) (40cfr464b)
78227	Total Toxic Organics (TTO) (40cfr464c)
78228	Total Toxic Organics (TTO) (40cfr464d)
78229	Total Toxic Organics(TTO) (40cfr465)
78230	Total Toxic Organics (TTO) (40cfr467)
78231	Total Toxic Organics (TTO) (40cfr468)
78232	Total Toxic Organics (TTO) (40cfr469)
78236	Organics, Total Volatile (NJAC. Reg. 7:23-17e)
78237	Organics, Volatile (NJAC. Reg. 7:23-17e)
78238	Explosive Limit, Lower
78239	Metals, Tox Priority Pollutants, Total
78240	Metals, Total
78242	Anesthetics
78244	Cadmium (Cd), in Barite (Dry Weight)
78245	Mercury (Hg), in Barite (Dry Weight)
78246	Solids, Floating,Visual Determination, Number of Days Observed
78247	Chromium, Hexavalent Total Recoverable
78248	Cyanide, Total Recoverable
78299	2-Nitroaniline, in Sed. (Dry Weight)
78300	3-Nitroaniline, Total in Water
78306	2-Nitroaniline
78356	2-Butanone
78389	Tetrachloroethene
78391	Trichloroethene
78395	2-Methylphenol
78396	4-Methylphenol
78401	2,4,5-Trichlorophenol (Dry Weight)
78428	Alpha-Endosulfan
78454	Ethane, 1,2-Bis (2-Clrethxy), Homlg. Sum.
78455	Explosives, Combined TNT and Rdx. and Tetryl.
78456	Halomethanes, Sum.
78463	Boron, Sludge, Total Dry Weight (as B)
78464	Sodium, Sludge, Total Dry Weight (as Na)
78465	Molybdenum, Sludge, Total Dry Weight (as Mo)
78466	Barium, Sludge, Total Dry Weight (as Ba)
78467	Zinc, Sludge, Total Dry Weight, (as Zn)
78468	Lead, Sludge, Total Dry Weight (as Pb)
78469	Nickel, Sludge, Total Dry Weight (as Ni)
78470	Nitrogen, Sludge, Total Dry Weight (as N)
78471	Mercury, Sludge, Total Dry Weight (as Hg)

78472	Potassium, Sludge, Total Dry Weight (as K)
78473	Chromium, Sludge, Total Dry Weight (as Cr)
78474	Iron, Sludge, Total Dry Weight (as Fe)
78475	Copper, Sludge, Total Dry Weight (as Cu)
78476	Cadmium, Sludge, Total Dry Weight (as Cd)
78477	Solids, Sludge, Total Dry Weight
78478	Phosphorus, Sludge, Total Dry Weight (as P)
78480	Effluent Dilution Ratio
78531	Butyl Acetate
78656	Nitrosediphenylamine
78720	Flow, Recycled
78721	Phthalates, Total
78722	Pressure Difference
78723	Amines, Organictotal
78724	4-Nitro-N-Methylphthalimide, Total
78725	Hydrocarbons, Nitrated, Total
78726	Sodium Dimethyl-Dithiocarbamate, Total
78727	Isothiozoline, Total
78728	Alkyldimethylbenzyl Ammonium Chloride
78729	Alkyldimethyl Ethyl Ammonium Bromide
78730	N-Nitroso Compounds, Volatile
78731	N-Nitroso Compounds, Volatile
78732	Volatile Compounds, (GC/MS)
78733	Volatile Fraction, Organics (EPA 624)
78734	Tributhylamine
78735	Octylphenoxy Polyethoxyethanol
78736	Isopropylbiphenyl, Total
78737	Thermal Discharge
78738	Chlorination Frequency
78739	Chlorination Duration
78760	Methyl Ethyl Benzene
78867	4-Chloroaniline, in Sediment
78868	2-Methylnaphthalene
78869	3-Nitroaniline (Dry Weight)
78870	4-Nitroaniline
78885	Diquat, Dibromide (Reglone)
78886	Flow, Process Wastewater
78887	Precipitation, Monthly Accumulation
78888	2,4-Toluenediamine
78889	2,5-Toluenediamine
78920	Gasoline, Regular
78932	Flow, Augmented Water
78933	Flow, Well Water
78938	Isopropylidine Dioxyphenol
78939	Fuel, Diesel, #1
79146	4-Methylphenol
79531	3,4-Benzofluoranthene
79539	Acetone, in Waste
79617	Endosulfan, Alpha, in Waste
79618	Endosulfan, Beta, in Waste
79732	2,4,5, Tp (Silvex)
79743	Glyphosate, Total
79744	Panthalium, Total
79745	Neptune Blue

79746	Ethylhexyl
79750	Decachlorobiphenyl (DCBP) Total
79751	Guanidine Nitrate
79752	N,N-Diethyl carbanilide
79753	Nitroguanidine
79774	Suspended Solids, Total Discharge
79775	Suspended Solids, Total Annual
79776	Oil & Grease, Calculated Limit
79777	Precipitation Volume
79778	Cresol
79779	Sludge Wasting
79780	Tetramethylbenzene
79781	Time Each Pumping Rate Utilized
79783	Quarternary Ammonium Compounds
79817	3,4-Dichlorophenol
79818	Flusilazole
79819	Polychlorinatedbiphenyls (PCB), Pg/l
80000	Alpha Activity
80029	Alpha Gross Radioactivity
80045	Alpha Gross Particle Activity
80082	BOD, Carbonaceous, 5-Day (20 Deg. C)
80087	BOD, Carbonaceous, 20-Day (20 Deg. C)
80091	BOD, Carbonaceous, 5-Day (20 Deg. C), Percent Removal
80092	Dechlorination Reagent, Gen.
80093	Dilution Factor
80103	Chemical Oxygen Demand (COD)
80107	Sulfur, Total
80108	Chemical Oxygen Demand (COD)
80114	Color, Concentration At Wavelength
80115	Chem. Oxygen Demand (COD) Percent Removal
80126	BOD, Carbonaceous, 5-Day (5 Deg. C)
80273	BOD Carbonaceous, 25-Day (20 Deg. C)
80276	BOD, Carbonaceous, 28-Day (20 Deg. C)
80278	Non-Nitrogenous BOD
80279	CBOD5/NH_3N
80357	Chromium, Trivalent Dissolved, as Cr
80358	BOD, Carbonaceous, Percent Removal
80887	Ferrochrome Lignosulfonated Freshwater Mud
80888	Lightly Treated Lignosulfonated Mud
80991	Sludge Waste From Secondary Clarifiers
80996	Spray Irrigation
80998	Bypass of Treatment
80999	Bypass of Treatment
81005	Recirculation, Percent of Plant Flow
81009	Solids, Volatile Suspended, Percent Removal
81010	BOD, 5-Day, Percent Removal
81011	Solids, Suspended, Percent Removal
81012	Phosphorus, Total, Percent Removal
81013	Residue, Volatile, Nonfilterable
81014	Sludge Return Rate, Percent of Plant Flow
81015	Residue, Total Filterable
81017	Chemical Oxygen Demand (COD)
81018	Oxygen Demand, Total

81020	Sulfate
81021	Residue, Total Volatile
81207	Seawater Gel Mud
81208	Cyanide Free, Not Amenable to Chlorin.
81281	Kepone
81283	Benzenehexachloride
81284	Trifluralin($C_{13}H_{16}F_3N_3O_4$)
81286	BOD, Carbonaceous, 5-Day (20 Deg. C)
81287	Dinitrobutylphenol (DNBP)
81288	BHC, Total
81293	Coumaphos
81299	Organics, Total
81302	Dibenzofuran
81308	Hydrocarbons, Nitrated
81313	Hydrazine
81314	1,1-Dimethylhydrazine
81317	Thiosulfate Ion (2-)
81318	Ferrocyanide
81328	Dichloroethene, Total
81333	Dichlorobenzene, Isomer
81346	Diethylhexyl Phthalate Isomer
81358	Trinitrotoluene (TNT), Dissolved
81360	Trinitrotoluene (TNT), Total
81362	RDX, Dissolved
81364	RDX, Total
81375	Halogenated Organics
81380	Velocity of Discharge, Meters/Second
81381	Duration of Discharge
81382	Nitrogenous OxygenDemand, 20-Day (20 Deg. C)
81383	Carbonaceous Oxygen Demand, Percent Removal
81384	Nitrogenous Oxygen Demand, Percent Removal
81385	BOD, 20-Day, Percent Removal
81386	Heat, Summer (per Hour)
81387	Heat, Winter (per Hour)
81389	Temp. Difference, Summer (Deg. C)
81390	Temp. Difference, Winter (Deg. C)
81391	Recirculation Flow
81392	Gallons Distilled
81393	Nitrogen, Total Kjeldahl, Percent Removal
81394	Ballast Water Flow
81395	Stormwater Flow
81396	Organic Compounds, Chloroform Extract.
81397	Chlorinated Organic Compounds
81398	Heat, Summer (per Day)
81399	Heat, Winter (per Day)
81400	Chlorine Usage
81401	Enteric Viruses
81402	Settleable Solids, Percent Removal
81405	Carbofuran
81410	Butylate (Sutan)
81436	Caffeine
8150	1-Pentachloroethane
81518	Cloronitrobenzene

81520	Chlorobutadiene (Chloroprene)
81524	Dichlorobenzene
81531	Dimethylnaphthalene
81533	Dinitrotoluene
81547	Methylnaphthalene
81549	Tetrachloroethane, Total
81551	Xylene
81552	Acetone
81553	Acetophenone
81557	1-Bromo-2-Chloroethane
81559	Bromodichloroethane
81561	Buthdiene, Total
81563	Butane
81570	Cyclohexane
81572	Dicyclopentadiene
81574	1,2-Cis-Dichloroethylene
81577	Diisopropyl Ether
81579	Dimethyl Sulfide Total
81580	Dimethyl Disulfide Total
81582	Dioxane
81585	Ethyl Acetate
81586	Ethyl Methyldioxolane
81588	Furfural
81590	Hexane
81595	Methyl Ethyl Ketone
81596	Methyl Isobutyl Ketone (MIBK)
81597	Methyl Methacrylate
81604	N-Pentane
81607	Tetrahydrofuran
81611	Trichlorotrifluoroethane
81621	Sulfide, Total
81646	Surfactants (Linear Alkylate Sulfonate)
81651	Bisphenol-A
81676	Ortho-Cresol
81678	Dehydroabietic Acid
81679	Epichlorohydrin
81686	Cis-1,2-Dichloroethen, Whole Water
81688	Ethylene Glycol
81690	Cycohexanone
81706	Propylene Oxide
81708	Styrene
81710	Meta-Xylene
81711	Ortho-Xylene
81769	2,4-D Isobutyl Esterin, Sediments
81795	Sulfur Dioxide, Total
81799	Flow, Average Stream per Composite Sample
81815	Orthene
81848	Trichlorophenol
81853	Trichloroethane
81870	Tetrachloroguaiacol (4CG) in Whole Water
81871	Trichloroguaiacol
81879	Tetrachlorobiphenyl
81885	Hexachlorobiphenyl
81892	Cycloate (Roneet)

81894	EPTC (Eptam)
81899	Sevin (Carbaryl) in Tissue
82028	Ratio of Fecal Coliform to Fecal Strepoc.
82035	Sodium, Total (as Na)
82044	Ethylene, Dissolved (C_2H_4)
82051	Amiben (Chloramben)
82052	Banvel (Dicamba)
82056	Aluminum, Total
82057	Boron, Total
82058	Chromium, Total, Percent Removal
82059	Chromium, Total
82060	Manganese, Total
82061	Vanadium, Total
82062	Zinc, Total
82063	Residue, Total Filterable
82064	Ferrous Sulfate
82065	Propargite
82066	Radioactivity, Gross
82067	Rhodium, Total
82073	Time, Starting (HHMM Using 24-Hour Clock)
82074	Time, Ending (HHMM Using 24-Hour Clock)
82077	Radiation, Gross Alpha
82079	Turbidity, Lab, Ntu
82080	Trihalomethane, Total
82088	Terbufos (Counter), Total
82093	Phytoplankton
82126	Tritium, Total
82153	Dichlorodibromomethane
82173	Oil and Grease, Aromatic
82180	Hydrocarbons, Petroleum
82183	Benzene Hexachloride
82189	Nitrocellulose
82190	Triethanolamine
82191	2-Naphthylamine
82192	Diethylstilbesterol
82193	Estradiol
82194	Phenoxy Acetic Acid
82195	Thiocarbamates
82196	Hexamethylphosphoramine (HMPA)
82197	Betasan(N-2-Mercaptoethylbenzenesulfamid)
82198	Bromacil (Hyvar)
82199	Ordram (Hydram)
82200	Vernam (S-Propyldipropylthiocarbamate)
82201	Sulfotepp (Bladafume)
82202	Rotenone
82203	Hmx-1,3,5,7-Tetra Zocine
82204	2-Acetyl Amino-Flourcene
82205	Specific Gravity
82206	Acidity
82207	Differential Pressure, Annular, Well Head
82208	Sodium Arsenite
82209	Chlorides and Sulfates
82210	Oxygen Demand, First Stage

82211	Mercaptans, Total
82212	Resin Acids, Total
82213	Dimethyl Benzidine
82214	pH Change, Range
82215	Algal Biomass, Percent
82216	Spray Irrigation, Application Rate
82218	Iron, Total Percent Removal
82219	Sludge Settleability, 30-Minute
82220	Flow, Total
82221	Flow Volume, Daily, Into A Well
82222	Sludge Volume, Daily, Into a Well
82223	Area of Disposal, Used
82224	Pressure, Bottom, At Well Bottom
82225	Dichlorobutene, Isomers)
82226	2-Secondary Butyl - 4,6-Dinitrophenol
82227	Trichlorophenate, Isomers
82228	EDTA Ammoniated
82229	Free Acid
82230	Ammonia and Ammonium, Total
82231	Chlorodimeform
82232	2-Ethyl-2-Methyldioxolane
82234	Temperature, Rate of Change (Deg. C/Hour)
82235	Turbidity, Percent Increase Over Intake
82236	BOD, 5-Lb./Cubic Feet Process
82237	Total Suspended Solids, Lbs./Cubic Feet Process
82238	Mixed Liquor
82239	Microscopic Analysis
82241	Nitrobodies, Total
82287	Solids, Total , Non-Volatile, Nonfixed
82289	Lagoon Observation, Visual
82290	Calcium Hypo Weight, Application Grams
82291	Calcium Hypo, Number of Applications
82293	4-Nitro-M-Cresol
82294	Nitrogen, Ammonia, Sludge, Total Dry Weight
82295	Dissolved Chloride (as Cl)
82318	Tantalum, Total
82322	Samarium, Total (as Sm in Water)
82358	Propane, Total
82370	Dissolved Radioactive Gasses
82375	Solids Accumulation Rate, Total Dry Weight
82385	Nitrogen Oxides (as N)
82386	Nitrogen, Oxidized
82387	First Stage Oxygen Demand, Percent Removal
82388	1,4-Dioxane
82389	Sodium Sulfate, Total
82390	Free Acid, Total
82391	Water Treatment Additives
82392	Aluminum Sulfate
82394	Hardness, Total Calc. (Ca, Mg, Fe) as $CaC0_3$
82399	Chromium, Hexavalent
82416	Paraquat
82424	BOD, Percent Over Influent
82501	Iron, Dissolved From Dry Deposition

82516	Trichlorobenzene
82529	Dichlorobutadiene
82540	Mb 121
82541	Polyacrilamide Chloride
82546	Elevation of Original Ground
82550	Osmotic Pressure, Total, Unf. Whole Water
82558	Volatile Halogenated Hydrocarbons
82559	Volatile Hydrocarbons
82560	Total Pesticides
82561	Conductivity, Net
82563	3-Trifluoromethyl-4-Npnl (TFM)
82564	Lagoon Freeboard
82575	pH Exchange (Su)
82576	Daily Excursion Time (Min)
82577	Monthly Excursion Time (Min)
82578	Day Max Excursion Time (Min)
82581	pH Range Excursions, > 60 Minutes
82582	pH Range Excursions, Monthly Total Accummulation
82583	pH in Soil
82589	Drilling Fluids, Free Oil
82590	Drilling Fluids, Toxicity
82591	Drilling Fluids, End of Well Toxicity
82592	Drilling Fluids, Discharge Rate
82593	Drilling Fluids, Oil Content
82594	Drilling Fluids, Volume
82595	Drilling Cuttings, Free Oil
82596	Drilling Cuttings, Volume
82597	Deck Drainage, Free Oil
82598	Deck Drainage, Volume
82599	Produced Water, Oil and Grease
82600	Produced Water, Flow
82601	Produced Sand, Free Oil
82602	Produced Sand, Weight
82603	Well Fluids, Free Oil
82604	Well Fluids, Volume
82605	Sanitary Waste, Residual Chlorine
82606	Sanitary Waste, Flow
82607	Sanitary Waste, Solids
82608	Domestic Waste, Solids
82609	Desalinization Unit, Free Oil
82629	Backwash Cycles, Total Number
82630	Metribuzin (Sencor), Water, Dissolved
82635	Volatile Halogenated Organics (VHO), Total
82698	TCDD Equivalents
82699	Endrin and Endrin Aldehyde (Sum)
84066	Oil and Grease, Visual
84085	Volatile Organics, Detected
84103	Dioxin Laboratory , Alpha Code
84105	Oil - Separator Obsv. Assessment
84106	Evaporator /Bed Obsv. Assessment
84107	Area Inspection, Visual
84108	Drain Field Insp. Assessment
84109	Sludge Build-up Visual
84110	Pond Observation

84130	Outfall Observation,Visual, Y/N Response
84165	Discharge Event Observation
85001	Suspended Solids
85002	Biochemical Oxygen Demand, 5
85327	Water Level at Sample Collection Time
85662	Flow, Direction
85667	1,1-Dichloro-1-Fluoroethane
85668	1-Chloro-1,1- Difluoroethane
85669	1,1,1-Trifluoroethane
85670	1,1,1,3,3-Pentafluorobutane
85771	Corrugated Media, Market Pulp, Air-Dried
85772	Stickwater Discharge
85773	De-Inked Washed Fiber
85774	De-Inked Flotation Fiber
85775	Purchased Paper
85776	Fine Paper Machine, Dried
85777	Raw Materials, Processed
85778	Pulp Production
85779	Paper Production
85780	Fine Bleached Kraft
85781	Paper-Grade Sulfite Pulp and Paper
85782	Nonintegrated Fine Paper
85783	Bleached Kraft
85784	Chemi-Mechanical Pulp
85785	Sulfite Pulp
85788	4,4-Butyldenebis- (6-T-Butyl-M-Cresol)
85789	2,2-Dimethyl-2,3-Di-Hydro-7-Benzofuranol
85790	Chlorine, Addition Rate
85804	Solids, Total Dissolved, Percent by Weight
85807	Acrylic Acid
85808	P-Ethyltoluene
85809	Dodecylguanidine Salts
85810	Trans-1,2-Dichloroethylene
85811	Chloroethane
85812	1-Hydroxyethylidene
85813	Tolytriazole
85814	Tetrachloroethylene
85815	Aldicarb Sulfoxide
85816	Aldicarb Sulfone
85817	Gross Beta
85820	Monitoring, Well Level From the Surface
85824	Aluminum, Acid Soluable
85825	Hydrocarbons, Total Spectrphotometric

Phosphorus Annual (Total) in Lb (PANN)

(numeric)

The estimated annual total load of phosphorus in pounds (sum of all forms of phosphorus). The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Phosphorus Fall - Number of Observations (NUPFAL)
(numeric)
The number of months (observations) in the fall for which monitoring data were reported for phosphorus.

Phosphorus Fall in Lb (PFAL)
(numeric)
The estimated fall total load of phosphorus in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Phosphorus Spring - Number of Observations (NUPSPR)
(numeric)
The number of months (observations) in the spring for which monitoring data were reported for phosphorus.

Phosphorus Spring in Lb (PSPR)
(numeric)
The estimated spring total load of phosphorus in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Phosphorus Summer - Number of Observations (NUPSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for phosphorus.

Phosphorus Summer in Lb (PSUM)
(numeric)
The estimated summer total load of phosphorus in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Phosphorus Winter - Number of Observations (NUPWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for phosphorus.

Phosphorus Winter in Lb (PWIN)
(numeric)
The estimated winter total load of phosphorus in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Pipe Description (PIPE)
(30 characters)
The free-form description of a pipe (discharge/designator).

Pipe Inactive Code (PIAC)
(1 character)
Code specifying the active or inactive status of the pipe (discharge/designator)

Code	Description
I	Inactive
A	Active

Pipe Latitude- Decimal Degrees (PLAT1)
(numeric)
Latitude describing the pipe's location in degrees decimal.

Pipe Latitude - Degrees, Minutes, Seconds (PLAT)
(6 characters)
Latitude describing the pipe's location in degrees, minutes, and seconds (DDMMSS)

Pipe Latitude/Longitude Source Code (PLLSORS)
(1 character)
A code describing the source of gathering pipe latitude/longitude coordinates. For a description of codes, see "Facility Latitude/Longitude Source Code" (FLLSORS)

Pipe Longitude - Decimal Degrees (PLON1)
(numeric)
Longitude describing the pipe's location in degrees decimal.

Pipe Longitude - Degrees, Minutes, Seconds (PLON)
(7 characters)
Longitude describing the pipe's location in degrees, minutes, and seconds (DDMMSS)

Point Source Category (PS)
(1 character)
One of the three major point source categories classified by the NCPDI Program.

A *WWTP* is a facility that receives wastewater (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.

An *Industry* is a facility that, as a result of manufacturing products from raw materials, discharges a contaminated effluent into the environment. Industrial discharges are the most complex category for

which loading estimates are made because of the variation in the facility size, production levels, and waste streams within a single discharge category. Water supply treatment plants are considered industries under this point source category scheme.

A *Power Plant* is a facility that generates electricity either by burning of fossil fuels or nuclear fission. Power Plants are considered a separate point source category in the NCPDI because the high value of wastewater discharged would distort their relative importance as a pollutant source.

Code	Description
W	Waste Water Treatment Plant (WWTP)
I	Industry
P	Power Plant

Pollutant Basis Codes - Detailed Description (e.g., LOADBASE, BAS00310, BAS00530, BODBASE etc.)
(3 characters)
This code documents, in detail, the basis of how pollutant-loading estimates were made.

Basis Code	Description
• Mass Data	
1A	Average DMR quantity value from PCS data base
1B	Maximum DMR quantity value from PCS data base
1C	Average DMR value from State files
1D	Maximum DMR quantity value from State files
1E	Average DMR quantity value - Review process
1F	Maximum DMR quantity value - Review process
• Form 2C (Permit Application Form)	
2C	Long-term average from permit application form
2B	Maximum 30 day from permit application form
2A	Maximum daily from permit application form
2Z	Laboratory report from permit application form
2H	No value (zero), test required from permit application form
2I	No value (zero), believed present from permit application form
2J	No value (zero), believed absent from permit application form
2K	Not detected (zero), test required from permit application form
2L	Not detected (zero), believed present from permit application form
2M	Not detected (zero), believed absent from permit application form
2N	Not detected (zero), not applicable from permit application form
2O	Detection limits, test required from permit application form
2P	Detection limits, believed present frompermit application form
2Q	Detection limits, believed absent from permit application form
2Y	Detection limits, laboratory report from permit application form
2T	Trace (zero) from permit application form
2X	Other statements (zero) from permit application form
2G	Average 30 days (pH) from permit application form
2F	Average daily (pH) from permit application form

2E	Minimum 30 days (pH) from permit application form
2D	Minimum daily (pH) from permit application form
2V	Average flow from sum of all operations (internal pipes)
22	Annual average value frompermit application form-WWTP
23	Lowest monthly average from permit application form-WWTP
24	Highest monthly average from permit application form-WWTP

• Other Data

3A	Actual average value obtained from Needs Survey data base
3B	Present design value obtained from Needs Survey data base
3C	Value from IFD data base
3D	Load from permit load average value from PCS data base
3E	Load from permit load maximum value from PCS data base
3F	Load from permit concentration average value and flow average from PCS data base
3G	Load from permit concentration maximum value and flow average from PCS data base
3H	Load from permit concentration minimum value and flow average from PCS data base
3I	Load from permit concentration average value and flow maximum or minimum from PCS data base
3J	Load from permit concentration maximum value and flow maximum or minimum from PCS data base
3K	Load from permit concentration minimum value and flow maximum or minimum from PCS data base
3L	Data from old NCPDI file (1982)
3M	Data from old NCPDI file (1987)
3N	Data from old NCPDI file (1990)
3O	Other sources of monitoring data (for listing of sources contact the NCPDI)

• Monitored Data

4A	Load from average flow and concentration reported in the MQAV field in PCS data base
4B	Load from average flow and concentration reported in the MCAV field in PCS data base
4C	Load from average flow and concentration reported in the MQMX field in PCS data base
4D	Load from average flow and concentration reported in the MCMX field in PCS data base
4E	Load from average flow and concentration reported in the MCMN field in PCS data base
4F	Load from maximum or minimum flow and concentration reported in the MQAV field in PCS data base
4G	Load from maximum or minimum flow and concentration reported in the MCAV field in PCS data base
4H	Load from maximum or minimum flow and concentration reported in the MQMX field in PCS data base
4I	Load from maximum or minimum flow and concentration reported in the MCMX field in PCS data base

4J	Load from maximum or minimum flow and concentration reported in the MCMN field in PCS data base
4K	Load from average flow (computed from concentration and load values) and concentration reported in the MQAV field in PCS data base
4L	Load from average flow (computed from concentration and load values) and concentration reported in the MCAV field in PCS data base
4M	Load from average flow (computed from concentration and load values) and concentration reported in the MQMX field in PCS data base
4N	Load from average flow (computed from concentration and load values) and concentration reported in the MCMX field in PCS data base
4O	Load from average flow (computed from concentration and load values) and concentration reported in the MCMN field in PCS data base
4P	Load from maximum flow (computed from concentration and load values) and concentration reported in the MQAV field in PCS data base
4Q	Load from maximum flow (computed from concentrationand load values) and concentration reported in the MCAV field in PCS data base
4R	Load from maximum flow (computed from concentration and load values) and concentration reported in the MQMX field in PCS data base
4S	Load from maximum flow (computed from concentration and load values) and concentration reported in the MCMX field in PCS data base
4T	Load from maximum flow (computed from concentration and load values) and concentration reported in the MCMN field in PCS data base
4U	Load from average flow (computed from BOD or TSS values) and concentration reported in the MQAV field in PCS data base
4V	Load from average flow (computed from BOD or TSS values) and concentration reported in the MCAV field in PCS data base
4W	Load from average flow (computed from BOD or TSS values) and concentration reported in the MQMX field in PCS data base
4X	Load from average flow (computed from BOD or TSS values) and concentration reported in the MCMX field in PCS data base
4Y	Load from average flow (computed from BOD or TSS values) and concentration reported in the MCMN field in PCS data base

• TPC Data

5A	Load from average or design flow and TPC value
5B	Load from average flow (computed from concentration and load values) and TPC value
5C	Load from maximum or minimum flow and TPC value
5D	Load from maximum flow (computed from concentration and load

	values) and TPC value
5E	Load from average flow (computed from BOD or TSS values) and TPC value
5F	Load from typical flow and concentration reported in the MQAV field in PCS data base
5G	Load from typical flow and concentration reported in the MCAV field in PCS data base
5H	Load from typical flow and concentration reported in the MQMX field in PCS data base
5I	Load from typical flow and concentration reported in the MCMX field in PCS data base
5J	Load from typical flow and concentration reported in the MCMN field in PCS data base
5T	Load from typical flow and TPC value

• Deleted DMR Pollutant Data

MF	Pollutant monitoring load was deleted because of high cofficient of variation of flow data (MGD)
MM	Pollutant monitoring load was deleted because of high cofficient of variation of mass data (lbs/day)
MC	Pollutant monitoring load was deleted because of high cofficient of variation of concentration data (mg/l)
QF	Pollutant monitoring load was deleted because of questionable flow (MGD) data
QM	Pollutant monitoring load was deleted because of questionable mass (lbs/day) data
QC	Pollutant monitoring load was deleted because of questionable concentration (mg/l) data
XX	Unknown basis code (bug in computer program)

• Flow Data

6A	Flow average from (50050) flow in conduit
6B	Flow maximum from (50050) flow in conduit
6C	Flow minimum from (50050) flow in conduit
6D	Flow computed from concentration and load (average values)
6E	Flow computed from concentration and load (maximum values)
6F	Flow average from (00056) flow rate
6G	Flow maximum from (00056) flow rate
6H	Flow minimum from (00056) flow rate
6I	Flow average from (00058) flow rate
6J	Flow maximum from (00058) flow rate
6K	Flow minimum from (00058) flow rate
6L	Flow average from (74060) flow rate
6M	Flow maximum from (74060) flow rate
6N	Flow minimum from (74060) flow rate
6O	Flow average from (82220) flow total
6P	Flow maximum from (82220) flow total
6Q	Flow minimum from (82220) flow total
6R	Flow average from (74020) flow pump out
6S	Flow maximum from (74020) flow pump out
6T	Flow minimum from (74020) flow pump out
6U	Flow average from (50049) flow wastewater by passing TP
6V	Flow maximum from (50049) flow wastewater by passing TP

6W	Flow minimum from (50049) flow wastewater by passing TP
6X	Flow average from (78932) flow augmented water
6Y	Flow maximum from (78932) flow augmented water
6Z	Flow minimum from (78932) flow augmented water
7A	Flow average from (50047) flow max. during 24-hour period
7B	Flow maximum from (50047) flow max. during 24-hour period
7C	Flow minimum from (50047) flow max. during 24-hour period
7D	Flow average from (78720) flow recycled
7E	Flow maximum from (78720) flow recycled
7F	Flow minimum from (78720) flow recycled
7G	Flow average from (73676) flow restrictive
7H	Flow maximum from (73676) flow restrictive
7I	Flow minimum from (73676) flow restrictive
7J	Flow computed from TSS and/or BOD data
7K	Flow design from PCS
7L	Flow from permit average
7M	Flow from permit maximum
7N	Flow from permit minimum
7O	Flow from permit computed from concentration and load values (average values)
7P	Flow from permit computed from concentration and load values (maximum values)
7Q	Flow from power plants directory (average value)
7R	Actual average flow obtained from Needs Survey
7S	Present design value obtained from Needs Survey
7T	Flow from typical pollutant concentration matrix
2C-24	Flow from permit application form (see first page of pollutant basis codes)

• Deleted Flow Data

MF	DMR flow was deleted because of high cofficient of variation of flow data (MGD)
QF	DMR flow was deleted because of questionable flow data (MGD)
XX	Unknown (bug in computer program)

NOTE: A basis code can have a special character attached to it , meaning the following:

*	replaced DMR data because of high coefficient of variation of flow data (MGD)
@	replaced DMR data because of high coefficient of variation of mass data (lbs/day)
$	replaced DMR data because of high coefficient of variation of concentration data (mg/l)
#	replaced DMR data because of decision rule
{	replaced DMR data because of questionable flow data (MGD)
/	replaced DMR data because of questionable mass data (lbs/day)
%	replaced DMR data because of questionable concentration data (mg/l)

Pollutant Basis Codes - Short Description (ex: FLOWCODE, BODCODE, ASCODE, etc.)

This code documents in short format the basis of pollutant-loading estimates.

Code	Description
M	Monitoring data
P	Permit data

T	Typical pollutant concentration data
O	Other data
B	Combination of the above

Pollutant Load (LOAD)
(numeric)
Value in lbs/day or (for FCB) cells/day for the pollutant value used.

Pollutant Load Units Code (UNITSCD)
(2 characters)
Units code for the pollutant value used (see Standardized Units Code).

Polychlorinated Biphenyls Annual (Total) in Lb (PCBANN)
(numeric)
The estimated annual total load of PCB in pounds (sum of all PCB). The value is based only on typical pollutant concentration data. PCB is an aromatic halogenated hydrocarbon compound of low flamability that contains from 12 to 68 percent chlorine.

Polychlorinated Biphenyls Fall in Lb (PCBFAL)
(numeric)
The estimated fall total load of PCB in pounds. The value is based only on typical pollutant concentration data.

Polychlorinated Biphenyls Spring in Lb (PCBSPR)
(numeric)
The estimated spring total load of PCB in pounds. The value is based only on typical pollutant concentration data.

Polychlorinated Biphenyls Summer in Lb (PCBSUM)
(numeric)
The estimated summer total load of PCB in pounds. The value is based only on typical pollutant concentration data.

Polychlorinated Biphenyls Winter in Lb (PCBWIN)
(numeric)
The estimated winter total load of PCB in pounds. The value is based only on typical pollutant concentration data.

Pretreatment Program Required Indicator Code (PRET)
(1 character)
This code indicates if the permitted municipality is required to develop a pretreatment program. PRET was entered only on municipal permits and cannot be entered on State-level control authorities or industrial users, even if they are municipals.

Code	Description
C	Covered by POTW Control Authority
M	Covered by ST/REG Control Authority
R	Pretreatment Program Approval Not Required
Y	Approval Pretreatment Program

Primary Mailing State (MSTT)
(2 characters)
The state in the primary facility mailing address.

Primary Mailing Street, Line 1 of 2 (MST1)
(30 characters)
The first of two lines of street information in the primary facility mailing address.

Primary Mailing Street, Line 2 of 2 (MST2)
(30 characters)
The second line of street information in the primary facility mailing address.

Primary Mailing ZIP Code (MZIP)
(9 characters)
The ZIP code in the primary facility mailing address.

Process Factor (PFACTOR)
(9 characters)
The percentage of a facility's combined pipe discharge (process and once-through cooling water or process and stormwater runoff) that was assumed to have originated from production processes.

Process Flow - Annual Average in MG (FLOWPROC)
(numeric)
The total annual average process flow in million gallons.

Process Flow Pipe Fall in MG (FLOWFAL1)
(numeric)
The total fall process flow in million gallons.

Process Flow Pipe Spring in MG (FLOWSPR1)
(numeric)
The total spring process flow in million gallons.

Process Flow Pipe Summer in MG (FLOWSUM1)
(numeric)
The total summer process flow in million gallons.

Process Flow Pipe Winter in MG (FLOWWIN1)

(numeric)
The total winter process flow in million gallons.

Quantity Average Limit (LQAV)

(8 characters)
The numeric value of the quantity average as limited in the permit for the associated parameter, as entered by the user, as shown in the PCS data base. ADDMON, DELMON or OPTMON are also entered in this field to add or delete a monitoring requirement. Entered values are placed anywhere in the eight-character field.

Quantity Maximum Limit (LQMX)

(8 characters)
The numeric value of the quantity maximum as limited in the permit for the associated parameter, as entered by the user, as shown in the PCS data base. ADDMON, DELMON or OPTMON are also entered in this field to add or delete a monitoring requirement. Entered values are placed anywhere in the eight-character field.

Quantity Unit Code (LQUC)

(2 characters)
Code representing the unit of measure applicable to quantity limits and measurements (monitoring data) as entered by the user, as shown in the PCS data base.

Code	Description
	(No Units Coded)
00	Barrels per Month
01	Kilograms per Day
02	Kilograms per 1,000 Gallons
03	Million Gallons per Day
04	Degrees Centigrade
05	Million BTUs per Hour
06	Million BTUs per Day
07	Gallons per Day
08	Cubic Feet per Second
09	Jackson Turbidity (Candle) Unit
1A	Direction, Degrees from North
1B	Centipoises
1C	Number per Milliliter
1D	Centimeters
1E	Color - Admi Units
1F	Micromhos
1G	British Thermal Units
1H	10 Pounds per Year
1I	Pounds per Season
1J	Inches per Diameter
1K	Fibers per Liter

1L	Micrograms per Kilogram
1M	Number of Days
1N	Barrels
1P	Fibers/Milliliter
1Q	Time (HHMMM)
1R	Pounds per 1,000 Gallons
1S	Cycles
1T	Barrels per Day
1U	Ratio
1V	BTUs per Second
1W	Kilograms per Month
1X	Gallons per Hour
1Y	Pounds per 100 Pounds
1Z	Picocuries per Milliliter
10	Color - Platinum Cobalt Unit
11	Conductance-Micromhos per Cm
12	Standard Units (i.e., pH)
13	Number per 100 Milliliters
14	Minutes
15	Degrees Fahrenheit
16	Cubic Meters per Day
17	Picocuries per Liter
18	Counts per Liter
19	Milligrams per Liter
2A	Million Gallons per Year
2B	Inches per Hour
2C	Kilograms per 1,000 Kilograms
2D	Inches per Day
2E	Milliosmols per Kilogram
2F	Acute Toxicity
2G	Chronic Toxicity
2H	Curies per Day
2I	Percent Mortality
2J	Kilograms per Hour
2K	Pounds per Minute
2L	1,000 Gallons per Day
2M	Percent Samples In Compliance
2N	Tons per Day
2P	Pounds per Million Gallons per Day
24	Milligrams per Day
2R	Pounds per Hour
2S	Parts per Quadrillion
2T	Percent Survival
2U	Micrograms per Day
2V	Milliequivalants per 100 Gram Sni
2W	Cubic Meters per Hour
2X	Cubic Meters per Minute
2Y	Cubic Meters per Second
2Z	Cubic Meters per Week
20	Parts per Million
21	Parts per Billion
22	Parts per Trillion
23	Percent
24	Visual

25	Milliliters per Liter
26	Pounds per Day
27	Feet
28	Micrograms per Liter
29	Pounds per Square Inch
3A	Cubic Yards
3B	Formazin Tur
3C	BTUs per Minute
3D	Picograms per Liter
3E	Cubic Meters per Month
3F	Cubic Meters per Year
3G	Thousandths Pounds per Day
3H	Grams per Square Meter per Day
3I	Pounds per 1,000 Pounds Product
3J	1,000 Pounds per Pounds Product
3K	Kilograms per Hectare
3L	Picograms per Liter
3M	Nanograms per Liter
3N	Cubic Feet per Raise/Lower Dry Doc.
3P	Pounds per Acre
30	Most Probable Number per 100 m
31	Threshold Number
32	Parts per Thousand
33	BTUs per Hour
34	BTUs per Day
35	Grams per Day
36	Grams per Liter
37	Kilograms per Liter
38	Meters per Second
39	Feet per Second
40	Short Tons per Day
41	Metric Tons per Day
42	Pounds per Ton of Production
43	Nephelometric Turbidity Units
44	Kilograms per Metric Ton of Production
45	Pounds per Half-Ton of Production
46	Meters
47	Kg per CFS of Streamflow per Day
48	MGD per CFS of Streamflow per Day
49	Lbs per CFS of Streamflow per Day
5A	Day
5B	Minutes per Day
5C	Million Gallons per Batch
5D	Tons
5E	Billion BTUs per Day
5F	Tons per Year
5G	Millivolts
50	Pounds per Year
51	Kilograms per Year
52	Kilograms per Batch
53	Gallons per Batch
54	Megawatts
55	Pounds
56	Kilograms

57	Gallons
58	1,000 Cubic Feet
59	Pounds per Week
6A	Pounds per Ton Live Weight
6B	Number per 40 Liters
60	Liters
61	Inches
62	Degrees Centigrade per Hour
63	Pounds per Square Inch per Foot
64	Grams per Milliliter
65	Curies per Milliliter
66	Pounds per Batch
67	Grams per Milliliter
68	Picocuries per Milligram
69	Milligrams per Kilogram
70	Dry Tons
71	Million Pounds per Year
72	Milligrams per Square Meter
73	Toxicity Units
74	Severity Units
75	Microcuries per Milliliter
76	Pounds per Month
77	Mg/Day per Cubic Meter Streamflow
78	Gallons per Minute
79	Hours per Day
8A	Hours
8B	Gallons per Acre
8C	Gallons per Ton Live Weight
8D	Gallons per Month
8E	Gallons per Year
8F	Million Gallons per Year
8G	Gallons per Week
80	Million Gallons per Month
81	Hours per Week
82	Hours per Month
83	Days per Week
84	Days per Month
85	Cubic Feet per Day
86	Sludge Volume Index
87	Lbs per Cubic Feet Processed Waste
88	Occurrences per Day
89	Occurrences per Week
9A	Pass=O; Fail=L
90	Pounds per 1,000 Gallons
91	Inches per Week
92	Square Feet
93	Occurrences per Month
94	Presence of Cond: Yes=L; No=0
95	10 per Milliliter
96	Pounds per Barrel
97	Acres
98	Degrees Fahrenheit per Hour
99	Barrels per Hour

Receiving Waters (RWAT)
(35 characters)
The name of the river, stream, tributary, lake, or other body of water into which the effluent is discharged.

Region Code (REGION)
(1 character)
A code indicating the coastal region in which the facility is located.

Code	Description
G	Gulf of Mexico
L	Great Lakes
M	Middle Atlantic
N	North Atlantic
P	Pacific
S	South Atlantic

Reported Concentration Unit (RCUN)
(2 characters)
The concentration unit code as reported on the returned DMR. See "Concentration Unit Code" (LCUC) for a description of these codes.

Reported Quantity Unit (RUNT)
(2 characters)
The quantity unit code as reported on the returned DMR. See "Quantity Unit Code" (LQUC) for a description of these codes.

River Basin (BAS6)
(6 characters)
A six-digit field used to identify the river basin in which the facility is located. Positions one through four represent a valid river basin code. Positions five and six are a free-form entry.

Code	Description
0100	VI/ST. CROIX
0101	NE/QUINNIPIAC R.
0102	NE/HOUSATONIC R.
0103	NE/PAWCATUCK
0104	NE/CONNECTICUT R.
0105	NE/THAMES R.
0106	NE/NARRAGANSETT BAY
0108	NE/MASS. COAST
0109	NE/MERRIMACK R.
0110	NE/PISCATA4UA-NH COA
0112	NE/SACO-S. MN. COAST
0114	NE/PRESUMPSCOT-CASCO

0115	NE/ANDROSCOGGIN R.
0116	NE/KENNEBEC-SHEFPSCO
0117	NE/PENOBSCOT R.
0118	NE/N. ME. COAST
0119	NE/ST. CROIX R.
0120	NE/ST. JOHNS R.
0121	NE/LAKE MEMPHREMAGOG
0124	NE/LAKE CHAMPLAIN
0125	NE/ST. LAWRENCE R.
0126	NE/LONTARIO/ST.LAWRECE R.
0127	NE/NIAGARA R.
0128	NE/GENESEE R.
0129	NE/OSWEGO R.
0130	NE/MOHAWK R.
0131	NE/UPPER HUDSON R.
0132	NE/MIDDLE HUDSON R.
0133	NE/LOWER HUDSON-NYC
0134	NE/NJ COAST
0135	NE/L.ERIE-MINOR TRIB
0136	NE/LONTARIO/OSWEGO R
0137	NE/LONTARIO/GENESSEE
0138	NE/ST. REGIS R.
0199	NE/OCS ATLANTIC
0200	VI/ST. THOMAS
0203	NA/DELAWARE R-ZONE 1
0204	NA/DELAWARE R-LEHIGH
0205	NA/DELAWARE/SCHUYKIL
0206	NA/DELAWARE R-ZONE 2
0207	NA/DELAWARE R-ZONE 3
0208	NA/DELAWARE R-ZONE 4
0212	NA/SUSQUEHANNA R
0213	NA/UP CHESAPEAKE BAY
0214	NA/POTOMAC R.
0215	NA/RAPPAHANNOCK-YORK
0216	NA/JAMES R.
0300	VI/ST. JOHN
0301	SE/CHOWAN R.
0302	SE/ROANOKE R.
0303	SE/TAR R.
0304	SE/NEUSE R.

River Reach Number (REAC)
(12 characters)
STORET code describing a facility's location on a river.

Sample Type (SAMP)

(2 characters)

The sampling method required by the permit to provide measurement values on the DMR.

Code	Description
CA	Calctd
CN	Contin
CP	Compos
CR	Ck Req
CS	Corsam
CU	Curve
DA	Dailav
DS	Discrt
ES	Estima
FI	Floind
GH	5gr24h
GM	Grab10
GR	Grab
G2	Grab-2
G3	Grab-3
G4	Grab-4
G5	Grab-5
G6	Grab-6
G7	Grab-7
G8	Grab-8
G9	Grab-9
IM	Imersn
IN	Instan
IS	Insitu
IT	Imrstb
MC	Mathcl
MP	Mathcp
MS	Measrd
NA	Not Ap
NR	Notrpt
OC	Occurs
PC	Pmpcrv
PL	Pmplog
RC	Rcordr
RD	Rng-DA
RF	Rcdflo
RG	Rang-C
RP	Repres
RT	Rcotot
R4	Rng-4a
SR	Sglrdg
TI	Timemt
TM	Totalz
VI	Visual
01	Comp-L
02	Comp-2

03	Comp-3
04	Comp-4
05	Comp-5
06	Comp-6
08	Comp-8
1H	Avg-1H
10	Comp10
12	Comp12
16	Comp16
2H	Avg-2H
20	Comp20
22	Batch
24	Comp24
28	Comp28
3G	3 Gr/Hour
4H	Avg.-4H
5G	5 Gr45M
72	Comp72
96	Comp96

Season Code (SEASON)

(1 character)
A code describing the season that monitoring data were obtained.

Code	Description
W	Winter (January, February, March)
S	Spring (April, May, June)
H	Summer (July, August, September)
F	Fall (October, November, December)

Seasonality Coefficient - Fall (FALCOEF)

(numeric)
A coefficient used to compute estimates of seasonal loads of pollutants discharged by the facilities for the fall. The seaonality factor is computed from the seasonal discharge days for a pipe or assumed based on the facility's special discharge category code (SDAC).

Seasonality Coefficient - Spring (SPRCOEF)

(numeric)
A coefficient used in computing estimates of seasonal loads of pollutants discharged by the facilities for the spring. The seaonality factor is computed from the seasonal discharge days for a pipe, or assumed based on the facility's special discharge category code (SDAC).

Seasonality Coefficient - Summer (SUMCOEF)

(numeric)
A coefficient used in computing estimates of seasonal loads of pollutants discharged by the facilities for the summer. The seaonality factor is computed from the seasonal discharge days for a pipe or assumed based on the facility's special discharge category code (SDAC).

Seasonality Coefficient - Winter (WINCOEF)

(numeric)
A coefficient used in computing estimates of seasonal loads of pollutants discharged by the facilitiesfor the winter. The seaonality factor is computed from the seasonal discharge days for a pipe or assumed based on the facility's special discharge category code (SDAC).

SIC Code - 1987 Facility Description (SIC)

(4 characters)
A code for the principal activity causing the discharge at the facility, as defined by the 1987 Standard Industrial Classification (SIC) manual. A coding system has been 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 range of economic activities, including: agriculture, forestry, fishing, hunting, trapping, mining, construction manufacturing, transportation, communications, electric, gas, sanitary services, etc.

SIC Division Code (SICDG)

(1 character)
A code for the principal activity causing the discharge at the facility, as defined by the 1987 Standard Industrial Classification (SIC) manual.

SIC Industry Group Code (SICIG)

(3 characters)
A code for the principal activity causing the discharge at the facility, as defined by the 1987 Standard Industrial Classification (SIC) manual.

SIC Major Group Code (SICMG)

(2 characters)
A code for the principal activity causing the discharge at the facility, as defined by the 1987 Standard Industrial Classification (SIC) manual.

SIC Name (SICNM)

(40 characters)
The fully descriptive name of the four-digit SIC code, as defined by the 1987 Standard Industrial Classification (SIC) manual.

Special Discharge Activity Codes (SDAC)

(2 characters)
A code used to denote unique operating and/or seasonal characteristics of some industries. For wastewater treatment plants, the SDAC indicates the treatment level of the plant.

Code	Description
• Steam electric plants	
SE	Base load plant

SP	Peak load plant

• Canned and preserved seafood

CV	Plants processing finfish and shellfish (SEAFOOD)
CF	Species processed unknown (SEAFOOD)
CW	Plants processing a diversity of shellfish (SHELLFISH)
CY	Plants processing a limited number of shellfish (SHELLFISH)
CX	Plants processing a diversity of finfish (FINFISH)
CZ	Plants processing a limited number of finfish (FINFISH)

• Canned and preserved fruits and vegetables

FP	Highly seasonal operation
FQ	Year-round operation, some seasonal variation
FT	Year-round operation, minor seasonal variation

• Wastewater Characteristics

WA	For WWTPs with alum coagulation treatment process
WF	For WWTPs with iron treatment process
WR	Residential code assigned based on SIC code (SIC = 6513-6515, 7011-7041, 8811)
WN	Nuclear steam electric power plants

• Treatment Levels for WWTPs

TU	Untreated
TP	Primary
TS	Secondary
TT	Tertiary

Standard Basis (STBA)

(1 character)

The environmental standards, regulations, etc. that were the basis for imposing particular effluent limitations.

Code	Description
A	Effluent guidelines
B	Nondegradation standards
1	WQS
2	BCT
3	BAT
4	BPWTT
5	BPT
6	STS
7	NSPS
8	BMP
9	TES

Standardized Concentration Average Limit (LCAV1)

(numeric)
The numeric value of the concentration average for the associated parameter, as limited by the permit. Character data on LCAV that could not be converted to a numerical value were entered as missing.

Standard Concentration Maximum Limit (LCMX1)

(numeric)
The numeric value of the concentration maximum for the associated parameter, as limited by the permit. Character data on LCMX that could not be converted to a numerical value were entered as missing.

Standardized Concentration Minimum Limit (LCMN1)

(numeric)
The numeric value of the concentration minimum for the associated parameter, as limited by the permit. Character data on LCAV that could not be converted to a numerical value were entered as missing.

Standardized Facility Name (FACILNM)

(40 characters)
The facility name edited to a standard format by the NCPDI Team.

First Tier

Word	Abbreviation
ADMINISTRATION	ADMIN.
AND	&
APARTMENT	APT.
APARTMENTS	APTS.
ASSOCIATE	ASSOC.
ASSOCIATES	ASSOCS.
ASSOCIATION	ASSN.
AUTHORITY	AUTH.
BOARD	BD.
BOROUGH	BORO
BOULEVARD	BLVD.
BUILDING	BLDG.
COMMISSION	COMM.
COMMUNITY	COM.
COMPANIES	CO.
COMPANY	CO.
CONDOMINIUM	CONDO.
CONDOMINIUMS	CONDOS.
COOPERATIVE	COOP.
CORPORATION	CORP.
CORPS OF ENGINEERS	COE
COUNTY	CNTY.
COUNTY SCHOOL BOARD	CNTY. SCH. BD.
COUNTY SCHOOL DISTRICT	CNTY. SCH. DIST.
DEPARTMENT	DEPT.
DEVELOP	DEV.
DEVELOPMENT	DEV.
DISTRICT	DIST.
DIVISION	DIV.
EDUCATION	ED.

ELECTRIC	ELEC.
ELEMENTARY	ELEM.
ELEMENTARY SCHOOL	ELEM. SCH.
ENGINEERING	ENGR.
ENGINEER'S	ENGR'S
ESTATES	EST.
FACILITY	FAC.
GOVERNMENT	GOVT.
GROUND WATER	GW.
HENRICO REGIONAL SEWAGE DISTRICT	HRSD
HIGH SCHOOL	H. S.
HIGHWAY	HWY.
HOSPITAL	HOSP.
INCORPORATED	INC.
INDUSTRIES	INDS.
INDUSTRY	IND.
INSTITUTION	INST.
INSURANCE	INS.
INSURANCE COMPANY	INS. CO.
INTERNATIONAL	INTERNAT.
LABORATORIES	LABS.
LABORATORY	LAB.
LIMITED	LTD.
MANAGEMENT	MGMT.
MANUFACTURING	MFG.
MIDDLE	MID.
MOBILE HOME PARK	M. H. P.
MOUNTAIN	MT.
MUNICIPAL	MUN.
MUNICIPAL DISTRICT	MUN. DIST.
MUNICIPAL WATER DISTRICT	MUN. WTR. DIST.
NATIONAL	NAT.
PACKAGE	PKG.
PACKAGING	PKG.
PLT	PLANT
PARTNERSHIP	PARTNER.
POWER	PWR.
PRODUCT	PROD.
PRODUCTS	PRODS.
PROJECT	PROJ.
RAILROAD	RR
RECLAMATION	RECL.
RECOVERY	RECOV.
REGIONAL	REG.
REHABILITATION	REHAB.
REMEDIATION	REM.
RESTAURANT	REST.
ROAD	RD.
SANITARY	SAN.
SANITARY DISTRICT	SAN. DIST.
SCHOOL	SCH.
SCHOOLS	SCHS.
SERVICE	SERV.
SERVICES	SERVS.
SEWAGE	SEW.
SEWAGE AUTHORITY	SEW. AUTH.
SEWAGE DISTRICT	SEW. DIST.
SEWER	SEW.
SEWER AUTHORITY	SEW. AUTH.
SEWER DISTRICT	SEW. DIST.
SEWERAGE	SEW.
SEWERAGE AUTHORITY	SEW. AUTH.
SEWERAGE DISTRICT	SEW. DIST.
STATION	STA.

STATIONS	STAS.
SUBDIVISION	SUBD.
SUBURBAN	SUB.
SYSTEM	SYS.
SYSTEMS	SYS.
TECHNOLOGIES	TECHS.
TECHNOLOGY	TECH.
TERMINAL	TERM.
TERMINALS	TERMS.
TOWNSHIP	TWP.
TOWNSHIP AUTHORITY	TWP. AUTH.
TRANSPORTATION	TRANS.
UTILITIES	UTIL.
UTILITY	UTIL.
UTILITY DISTRICT	UTIL. DIST.
WATER	WTR.
WATER DISTRICT	WTR. DIST.

Second Tier

Word	**Abbreviation**
BROTHERS	BROS.
BUSINESS	BUS.
CENTER	CNTR.
CENTRAL	CEN.
CHANNEL	CHAN.
CHEMICAL	CHEM.
CHEMICALS	CHEM.
CONSTRUCTION	CONST.
CONVALESCENT	CONVAL.
CORRECTIONS	CORRECT.
CREEK	CK.
DIRECTORATE	DIRECT.
ENVIRONMENTAL	ENVIR.
FOUNDRY	FNDY.
FURNITURE	FURN.
GENERATING	GEN.
HATCHERY	HATCH.
HEADQUARTERS	HQ.
INDUSTRIAL	INDL.
INSTITUTIONAL	INSTL.
INTERSTATE	INTER.
LAKE	LK.
LOWER	LOW.
MAINTENANCE	MAINT.
MATERIAL	MAT.
MATERIALS	MATS.
MOUNTAIN	MT.
OPERATION	OPER.
OPERATIONS	OPERS.
POLLUTION	POLL.
RECREATION	REC.
RECREATIONAL	RECL.
RESEARCH	RES.
RESERVATION	RESERV.
RESERVOIR	RESVR.
RESIDENCE	RESID.
RIVER	RVR.

STORAGE	STOR.
STORMWATER	STMWTR.
STREET	ST.
THOUSAND	THOUS.
TREATMENT	TRTMNT.
UPPER	UP.
VOCATIONAL	VOC.
WASTEWATER	WW.

Standardized Units Code (UNITSCD, LCUC1, LQUC1, RCUN1, RUNT1)
(2 characters)
A standardized code representing the unit of measurement applicable to concentration limits and measurements (monitoring data) for the following variables:

Code	Description
01	Acres
02	BTUs
03	BTUs per day
04	Color, admi. units
05	Color, platinum cobalt unit
06	Curies per day
07	Curies per liter
08	Cycles
09	Days
10	Degrees Fahrenheit
11	Degrees Fahrenheit per day
12	Direction, degrees from north
13	Feet
14	Feet per day
15	Feet per diameter
16	Fibers per day
17	Fibers per gallon
18	Formazin tur
19	Hhmmtime
20	Hours per day
21	Jackson turbidity units
22	Megawatts
23	Mgd per cubic foot of streamflow
24	Mgd per cfs of streamflow per day
25	Micromhos
26	Micromhos per foot
27	Milligrams per liter
28	Million gallons
29	Million gallons per acre
30	Million gallons per day
31	Milliosmols per kilogram
32	Nephelometric turbidity units
33	Number (cells) per 100 milliliters
34	Number per day
35	Occurrences per day
36	Pass fail
37	Percent
38	Percent mortality

39	Poises
40	Pounds
41	Pounds per batch
42	Pounds per cubic foot of processed waste
43	Pounds per day
44	Pounds per million gallons

Standardized Monitored Concentration Average (MCAV1)

(numeric)
The reported value for the concentration average. Character data on MCAV that could not be corrected to a numerical value were entered as missing. Not available for deliverable file II.

Standardized Monitored Concentration Maximum (MCMX1)

(numeric)
The reported value for the concentration maximum. Character data on MCMX that could not be corrected to a numerical value were entered as missing. Not available for deliverable file II.

Standardized Monitored Concentration Minimum (MCMN1)

(numeric)
The reported value for the concentration minimum. Character data on MCMN that could not be corrected to a numerical value were entered as missing. Not available for deliverable file II.

Standardized Monitored Quantity Average (MQAV1)

(numeric)
The reported value for the quantity average. Character data on MQAV that could not be corrected to a numerical value were entered as missing. Not available for deliverable file II.

Standardized Monitored Quantity Maximum (MQMX1)

(numeric)
The reported value for the quantity maximum. Character data on MQMX that could not be corrected to a numerical value were entered as missing. Not available for deliverable file II.

Standard Quantity Average Limit (LQAV1)

(numeric)
The numeric value of the quantity average as limited in the permit for the associated parameter. Character data on LQAV1 that could not be converted to a numerical value were entered as missing.

Standard Quantity Maximum Limit (LQMX1)

(numeric)
The numeric value of the quantity maximum as limited in the permit for the associated parameter. Character data on LQMX1 that could not be converted to a numerical value were entered as missing.

State Code (STTE)
(2 characters)
The alphabetical state code as defined by the Federal Information Processing Standards (FIPS). Based on the State code in the NPDES number.

State FIPS Code (STATE)
(2 characters)
The State FIPS code.

Study Area 0 (STUDY0)
(1 character)
Flags offshore facilities.

Code	Description
Y	Offshore facility
Blank	No offshore facility

Study Area 1 (STUDY1)
(1 character)
Flags facilities in EDAs.

Code	Description
Y	Facility in an EDA
Blank	Facility not in an EDA

Study Area 2 (STUDY2)
(1 character)
Flags facilities in CDAs.

Code	Description
Y	Facility in a CDA
Blank	Facility not in a CDA

Study Area 3 (STUDY3)
(1 character)
Flags facilities in original NCPDI coastal counties.

Code	Description
Y	Facility in an original coastal county
Blank	Facility not in an original coastal county

Study Area 4 (STUDY4)
(1 character)
Flags facilities in existing coastal zone (the coastal zone boundary is based on information supplied by State coastal zone management programs).

Code	Description
Y	Facility in existing coastal zone
Blank	Facility not in existing coastal zone

Study Area 5 (STUDY5)
(1 character)
Flags facilities in new NCPDI coastal counties (defined as all counties that touch an EDA/CDA watershed).

Code	Description
Y	Facility in new coastal county
Blank	Facility not in new coastal county

Total Suspended Solids Annual (Total) in Lb (TSSANN)
(numeric)
The estimated annual total load of TSS in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates. TSS represents the total amount of solid matter in a representative water sample that is retained on a membrane filter. It includes all sediment and other constituents that are fluid-suspended.

Total Suspended Solids Fall - Number of Observations (NUTSSFAL)
(numeric)
The number of months (observations) in the fall for which monitoring data were reported for TSS.

Total Suspended Solids Fall in Lb (TSSFAL)
(numeric)
The estimated fall total load of TSS in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Total Suspended Solids Spring - Number of Observations (NUTSSSPR)
(numeric)
The number of months (observations) in the spring for which monitoring data were reported for TSS.

Total Suspended Solids Spring in Lb (TSSSPR)
(numeric)
The estimated spring total load of TSS in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Total Suspended Solids Summer - Number of Observations (NUTSSSUM)

(numeric)
The number of months (observations) in the summer for which monitoring data were reported for TSS.

Total Suspended Solids Summer in Lb (TSSSUM)

(numeric)
The estimated summer total load of TSS in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Total Suspended Solids Winter - Number of Observations (NUTSSWIN)

(numeric)
The number of months (observations) in the winter for which monitoring data were reported for TSS.

Total Suspended Solids Winter in Lb (TSSWIN)

(numeric)
The estimated winter total load of TSS in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Treatment Types (TRET)

(24 characters)
A series of up to 12 two-digit codes representing the treatment chain for a given discharge/designator.

Code	Description	Definition
1A	Ammonia Stripping	The removal of ammonia from alkaline aqueous wastes by stripping with steam or air. The waste stream, at or near its boiling point, is introduced at the top of a packed tray tower and contacted concurrently with steam or air.
IB	Dialysis	A process by which various substances in solution with widely different molecular weights may be separated by solute diffusion through semi-permeable membranes. The driving force is the difference in chemical activity of the transferred species on the two sides of the membrane. The oldest continuing commercial use of dialysis is in the textile industry. Dialysis is particularly applicable when concentrations are high and dialysis coefficients are disparate.
IC	Diatomaceous Earth Filtration	A type of surface filtration involving the physical removal of the solid constituents from an aqueous waste stream with a diatomaceous earth bed.

ID	Distillation	A unit operation in which the components of a liquid solution are separated by vaporization and condensation. Multi-stage flash evaporation, multiple-effect evaporation, and vapor-compression distillation appear to be the most feasible methods for purifying municipal wastewaters.
IE	Electrodialysis	Electrodialysis is similar to dialysis in that dissolved solids are separated from the wastewater by passage through a semi-permeable membrane. It differs from dialysis in its dependence on an electric field as the driving force for the separation.
IF	Evaporation	Any process in which a liquid is converted to the vapor state by the addition of latent heat.
IG	Flocculation	The bonding together of coagulated particles to form settleable or filterable solids by agglomeration. The agglomeration is promoted by gentle stirring of the water with slow-moving paddles to increase the collision of coagulated particles.
IH	Flotation	A unit operation employed in the separation of solid and liquid particles from a liquid phase. Separation is facilitated by the presence of fine bubbles resulting from the introduction of a gas phase, usually air, into the system. The rising bubbles either adhere to, or are trapped in, the particle structure, thereby imparting to, or increasing, the buoyancy of the particles. Air bubbles are added or caused to form in one of the following methods: 1. Aeration at atmospheric pressure (air flotation); 2. Injection of air while the liquid is under pressure, followed by release of the pressure (dissolved-air flotation); 3. Saturation with air atmospheric pressure followed by the application of a vacuum to the liquid (vacuum flotation). In all of the above systems, the degree of removal can be enhanced through the use of various chemical additives, such as alum, ferric chloride, activated silica, etc.
II	Foam Fractionation	Foam fractionation involves the separation of colloidal and suspended material by flotation and dissolved organic matter by absorption. Foam is produced when air is bubbled through the wastewater or induced by the addition of chemicals. Because most water-soluble organic compounds are surface-active to some extent, they tend to concentrate at the gas-liquid interface and are removed with the foam.

lJ	Freezing	A physical separation operation similar to distillation. The wastewater is sprayed into a chamber operating under a vacuum. A portion of the wastewater evaporates and the cooling effect produces contaminant-free ice crystals in the remaining liquid. The ice is then removed and melted by using the heat of the vapor condensation from the evaporation stage.
lK	Gas-Phase Separation	A method for the removal of ammonia as a gas by means of selective permeable gas-phase membranes. The wastewater is passed through tubes lined with, or made from, a selective gas-phase membrane and remains attached to the tube exterior. The attached gas is removed by blowing air or nitrogen tangentially along the tubes.
lL	Grinding (Comminutors)	Devices for grinding or cutting up of sewage solids.
lM	Grit Removal	Chambers for removing grit consisting of sand, gravel, cinders, or other heavy solid materials that have subsiding velocities or specific gravities substantially greater than those of the organic putrescible solids in wastewater. There are two general types of grit chambers: horizontal flow and aerated.
lN	Microstraining (Microscreening)	A type of surface filtration, involving the user of variable low-speed, continuously backwashed, rotating drum filters operating under gravity conditions (microscreening) . The principal filtering fabrics have openings of 23 μ or 35 μ and are fitted on the drum periphery. The wastewater enters the open end of the drum and flows outward through the rotating screening cloth. The collected solids are backwashed by high-pressure jets into a trough located within the drum at the highest point of the drum.
10	Mixing	An operation in which two or more materials are intermingled to attain a desired degree of uniformity. This includes: 1. Mixing of chlorine or hypochlorite with the effluent from the secondary settling tanks; 2. Mixing of chemicals with sludge to improve its dewatering characteristics before vacuum filtration; 3. Mixing in digestion tanks to ensure intimate contact between food and microorganisms; 4. Mixing of air with the activated sludge to provide the organisms with the required oxygen in biological-process tanks.

		Mixing devices include the following: 1. Rotating impellers - paddles, turbines and propellers; 2. Air agitators; 3. Mixing jets; 4. Pumps.
IP	Moving Bed Filters (MBF)	A type of surface filtration in which water moves countercurrent to the sand. The filter medium, sand, is driven through a cone in one direction while simultaneously passing the wastewater to be treated through the filter bed in the opposite direction. Movement of the filter bed is accomplished by means of a hydraulically actuated diaphragm.
IQ	Multimedium Filtration	A type of in-depth filtration involving the user of granular media filters graded coarse to fine in the direction of flow. Some dual-medium filter beds that have been used are composed of: 1) anthracite and sand; 2) activated carbon and sand; 3) resin beds and sand; and 4) resin beds and anthracite. Multimedia beds include: 1) anthracite, sand, and garnet; 2) activated carbon, anthracite, and sand; 3) weighted spherical resin beds (charged and uncharged), anthracite, and sand; and 4) activated carbon, sand, and garnet.
IR	Rapid Sand Filtration	A type of surface filtration in which wastewater is passed downward through a filter composed of a single type of granular medium that is backwashed by reversing the flow through the filter. Most of the material removed by the filter is at, or very near, the surface of the bed.
IS	Reverse Osmosis (Hyperfiltration)	A process in which water is separated from dissolved salts in solution by filtering through a semi-permeable membrane at a pressure greater than the osmotic pressure caused by the dissolved salts in the wastewater.
IT	Screening	Any device used to retain coarse sewage solids. The screening element may consist of parallel bars, rods, or wires, grating, wire mesh, or perforated plate, and the openings may be of any shape, but are generally circular or rectangular slots. The screening devices are used to protect pumps, valves, pipelines, and other appurtenances from damage or clogging.
IU	Sedimentation (Settling)	The separation of suspended particles that are heavier than water by gravitational settling. This operation is used for grit removal, particulate matter removal in the primary settling basin, biological flocculant removal in the activated sludge settling basin, chemical flocculant removal in the chemical coagulation process, and for solids concentration in sludge thickeners.

IV	Slow Sand Filtration	A type of surface filtration involving a filter approximately 12 to 30 inches deep, with a layer of sand composing about one-half the depth. The sand rests on a layer of coarser material which, in turn, rests on an underdrain system. These filters are constructed without a means of backwashing. The wastewater is applied at the rate of about three gallons per square foot per hour. When the head loss reaches the point that the applied wastewater rises to the top of the filter wall, the filter is drained, allowed to partially dry, and the surface layer of sludge is manually removed.
IW	Solvent Extraction	The separation of materials of different chemical types and solubilities by selective solvent action (i.e., some materials are more soluble in one solvent than another, thus promoting preferential extraction).
IX	Sorption	A process designed to remove various forms of phosphate without increasing the sulfate concentration. Activated alumina is used to bind phosphates by passing a stream of water through the sorption column.
IY	Equalization	A method of retaining wastes in a basin so that the effluent discharged is fairly uniform. The primary objective of flow-equalization is to dampen the flow variation to achieve a constant or nearly constant flow rate. A second objective is to dampen the concentration and mass flow of wastewater constituents by blending the wastewater in the equalization basin. Surge tanks are included in this category.
IZ	Intermittent Sand Filters	A process in which natural sand deposits are used for filtration. Settled urban wastewater is applied at rates of 40,000 to 120,000 gpd per acre, while biologically and treated effluent is applied at a rate of 400,000 to 800,000 gpd per acre.
2A	Carbon Adsorption	The use of activated carbon to remove dissolved organics from water and wastewater.
2B	Chemical Oxidation	A process in which wastewater streams containing reductants are treated with oxidants (e.g., chlorine, hypochlorites, ozone, and peroxide) to convert the wastewater to a less hazardous state. In advanced wastewater treatment applications, chemical oxidation is used to remove ammonia and cyanide, reduce the concentration of residual organics, and reduce the bacterial and viral content of wastewaters.

2C	Chemical Precipitation	The addition of chemicals to wastewater to improve plant performance and remove specific components in the wastewater. The most common chemical precipitants include: alum, ferrous sulfate, lime, sulfuric acid, sulfur dioxide, ferric chloride, and ferric sulfate.
2D	Coagulation	Coagulation involves the reduction of surface charges and the formation of complex hydrous oxides. It is essentially instantaneous, in that the only time required is that needed to disburse the chemical coagulants throughout the wastewater. The function of the chemical coagulation of wastewater is the removal of suspended solids by the destabilization of colloids to increase the settling velocity of settleable material, or the removal of soluble inorganic compounds (e.g., phosphorus) by chemical precipitation or adsorption on chemical flocculant. The following inorganic coagulants are commonly used for wastewater treatment: 1. Aluminum salts - aluminum sulfate (alum) or lime; 2. Iron salts - ferric chloride. Polymeric organic coagulants are also used as primary coagulants or coagulant aids.
2E	Dechlorination	The practice of removing all or part of the total combined chlorine residual remaining after chlorination. This treatment is accomplished by the addition of sulfur dioxide or other sulfur-bearing compounds such as sodium sulfite or sodium metabisulfite. Activated carbon is also used.
2F	Disinfection (Chlorine)	The process or method of destroying harmful microorganisms in water and wastewater through the addition of chlorine and its compounds, including hypochlorite. Breakpoint chlorination is included in this category.
2G	Disinfection (Ozone)	The process or method of destroying harmful microorganisms in water and wastewater by the addition of ozone.
2H	Disinfection (Other)	The disinfection of water and wastewater using one of the following: 1. Phenol and phenolic compounds; 2. Alcohols; 3. Iodine; 4. Bromine; 5. Heavy metal and related compounds; 6. Dyes;

7. Soaps and synthetic detergents;
8. Quaternary ammonium compounds;
9. Hydrogen peroxide;
10. Various alkalis and acids.

2I	Electrochemical Treatment	A process in which wastewater is mixed with seawater and passed into a single cell containing carbon electrodes. Because of the relative densities of the seawater and the seawater-wastewater mixture, the former accumulates in the anode area at the bottom of the cell and the latter accumulates at the cathode area near the top of the cell. The current raises the pH at the cathode, precipitating the phosphorus and ammonia as $Ca_3(PO_4)_2$ and $MgNH_4PO_4$ along with $Mg(OH)_2$. Hydrogen bubbles, generated at the cathode, lift the sludge to the surface, where it is skimmed off.
2J	Ion Exchange	An adsorption process by which ions of a given species are displaced from an insoluble exchange material by ions of a different species in solution. Ion exchangers are used in wastewater treatment to soften water, and to remove contaminants such as metals, cyanides, fluorides, nitrates, ammonia nitrogen, and phosphate.
2K	Neutralization	A process used to prevent excessively acid or alkaline waste from being discharged in plant effluents. The following are neutralization processes: 1. Mixing wastes to effect a neutral pH. 2. Passing acid wastes through beds of limestone. 3. Mixing acid wastes with lime slurries. 4. Adding concentrated solutions of caustic soda (NaOH) or soda ash to acidic wastewaters. 5. Adding compressed CO_2 to alkaline wastes. 6. Adding sulfuric acid to alkaline wastes. Neutralization is used in the precipitation of heavy metal hydroxides or hydrous oxides and calcium sulfate.
2L	Reduction	A process in which wastewater streams containing oxidants are treated with sulfur dioxide to reduce the oxidants to less noxious materials. Sulfite salts (i.e., sodium bisulfite, metabisulfite, and hydrosulfite) and ferrous sulfate are also employed as reductants. Reduction is used to convert hexavalent chromium to trivalent chromium for subsequent treatment.

2M	Odor Control	The control of odor from wastewater streams and air emanating from treatment units using one of the following: 1. Chlorination (including hypochlorite); 2. Ozonation; 3. Hydrogen peroxide; 4. Aeration.
2N	Chemical Hydrolysis	A process in which caustic soda (NaOH) is used to convert urea to ammonia.
3A	Activated Sludge	A treatment process in which a waste, usually domestic sewage, is stabilized biologically in a reactor under aerobic conditions. The aerobic environment is achieved by the use of diffused or mechanical aeration. The process involves an aeration step followed by a solid-liquid separation step (sedimentation), from which a portion of the settled biological solid is recycled. The remaining solids are waste. The various modifications of the activated sludge process include: 1. Conventional activated sludge; 2. Contact stabilization; 3. Step aeration; 4. Modified aeration; 5. Extended aeration; 6. Complete mix activated sludge.
3B	Aerated Lagoons	A basin in which wastewater is treated on a flow-through basis. Oxygen is usually supplied through surface aerators or diffused aeration units. The action of the aerators and that of the rising air bubbles from the diffuser is used to keep the contents of the basin suspended. Depending on the amount of mixing, lagoons are often classified as either aerobic or aerobic-anaerobic. The contents of an aerobic lagoon are completely mixed with little settling out of solids. In the case of the aerobic-anaerobic lagoon, the contents of the basin are not completely mixed, and settling occurs. The solids then undergo anaerobic decomposition.
3C	Anaerobic Treatment	Anaerobic waste treatment involves the decomposition of organic and/or inorganic matter in the absence of oxygen. The major application is the digestion of concentrated sewage sludges and in the treatment of some industrial wastes. Other applications include the anaerobic contact process, anaerobic filter, and anaerobic lagoons or ponds.

3D	Nitrification - Denitrification	A biological treatment method for removing nitrogen from wastewater. If the wastewater contains nitrogen in the form of ammonia, two steps are required for removal. In the first step, the ammonia is aerobically converted to the nitrate (NO_3) form (through nitrification). In the second step, the nitrates are anaerobically converted to nitrogen gas (through denitrification). If the nitrogen in the wastewater is already in the form of nitrate, only denitrification is required.
3E	Pre-Aeration	The practice of aerating sewage prior to primary sedimentation is implemented for one of the following reasons: 1) to improve sewage treatability; 2) to provide grease separation, odor control, grit removal, and flocculation; 3) to promote uniform distribution of suspended and floating solids to treatment units; and 4) to increase BOD removal. Detention times range from 10 to 45 minutes for preaeration.
3F	Spray Irrigation/Land Application	The land application of treated effluent either through nozzles or sprinkler heads for the purpose of supporting plant growth. The wastewater is lost to plant intake, to air by evapotransportation, and to groundwater by percolation. Liquid loading rates up to four inches (10.2 cm) per week on a seasonal basis and eight feet (2.44 m) per year on an annual basis are typical.
3G	Stabilization Ponds	A relatively shallow body of water contained in an earthen basin of controlled shape, that is designed to treat wastewater. Stabilization ponds are usually classified as aerobic, aerobic-anaerobic (or facultative), or anaerobic. Aerobic ponds are used primarily for treating soluble organic wastes and effluents from wastewater treatment plants. Aerobic-anaerobic ponds are the most commonly used type, and can be used to treat domestic wastewater and a wide range of industrial wastes. Anaerobic ponds are usually employed used to stabilize strong organic wastes and are commonly used in series with aerobic-anaerobic ponds to provide complete treatment.
3H	Trickling Filtration	An aerobic waste treatment process in which waste stabilization is accomplished by aerobic and facultative microorganisms. The trickling filter consists of a bed of highly permeable media, such as crushed stones or other coarse aggregate, to which microorganisms are attached and through which a liquid waste is percolated. The filter media varies in size from one to four inches in diameter and in depth from three to eight feet. Trickling filters employing a plastic media have been built with depths of 30 to 40 feet. The filter bed is usually circular, and the liquid waste is distributed over the top of the bed by a rotary distributor.

3I	Rotating Biological Contactors	A biological treatment method involving the use of a 1/16 to 1/8 inch-thick layer of biological slime of microorganisms that grows on a series of thin discs mounted side-by-side on a shaft. The discs are rotated slowly and partially submerged in the wastewater. The discs are usually made of lightweight plastic, and are covered to protect the process from low temperatures and bad weather.
3J	Polishing Lagoons	A lagoon or body of water designed to provide improved organic and suspended solids removal of secondary treated effluent at minimal cost. Both aerobic and facultative lagoons are used.
3K	Biological Hydrolysis	A process in which bacteria convert urea to ammonia.
3L	Post Aeration	The practice of aerating treated effluent prior to discharge to maintain desired dissolved oxygen concentrations. Methods employed for post aeration include: 1. Diffused aeration; 2. Mechanical aeration; 3. U-tube aeration; 4. Cascade aeration.
3M	Treatment by Plain Aeration	The practice of treating wastewater solely by dispersing air bubbles in the wastewater by one of the following methods: 1. Diffused aeration; 2. Mechanical aeration; 3. Surface aeration.
3N	Holding or Detention Pond	A pond used for holding wastewater prior to further treatment.
3P	1-Cell Lagoon	1-cell pond containing raw or partially treated wastewater, in which aerobic or aneorobic stabilization occurs.
3Q	2-Cell Lagoon	2-cell pond containing raw or partially treated wastewater, in which aerobic or aneorobic stabilization occurs.
3R	3-Cell Lagoon	3-cell pond containing raw or partially treated wastewater, in which aerobic or aneorobic stabilization occurs.
3S	4-Cell Lagoon	4-cell pond containing raw or partially treated wastewater, in which aerobic or anaerobic stabilization occurs.
3T	Septic Tank	A settling tank in which settled sludge is in immediate contact with the wastewater flowing through the tank and the organic solids are decomposed by anaerobic bacterial action.

4A	Discharge to Surface Water	The discharge of wastewater to a receiving water body (such as a lake, river, or estuary) for the purpose of dilution.
4B	Ocean Discharge through Outfall	The ocean disposal of wastewater through submarine outfalls that consist of a long section of pipe to transport the wastewater from shore and a diffuser section to dilute the waste with seawater.
4C	Reuse/Recycle of Treated Effluent	The reuse/recycle of treated effluent is a method of wastewater disposal. Water reuse/recycle may be classified according to direct and indirect reuse/recycle applications for these areas: 1. Municipal Direct - Park or golf course watering, lawn watering with separate distribution system, and potential source for municipal water supply. Indirect - Groundwater recharge to reduce aquifer overdrafts. 2. Industrial Direct - Cooling tower water, boiler feed water, and process water. Indirect - Replenish groundwater supply for industrial use. 3. Agricultural Direct - Irrigation of certain agricultural lands, crops, orchards, pastures, and forests, and the leaching of soils. Indirect - Replenish ground water supply for agricultural overdrafts. 4. Recreational Direct - Forming artificial lakes for boating, swimming, etc., and swimming pools. Indirect - Develop fish and waterfowl areas. 5. Other Direct - Groundwater recharge to control saltwater intrusion, salt balance control in ground water, and wetting agent-refuse compaction. Indirect - Groundwater recharge to control land subsidence, oil-well repressurizing, and soil compaction.
4D	Underground Injection	Also referred to as subsurface injection, a system of disposing raw or treated waste by pumping it into deep wells where it is contained in the pores of permeable subsurface rock separated from other groundwater supplies by impermeable layers of rock or clay.
4E	Reuse or Sale of Wastewater	A method of wastewater disposal in which wastewater is reused in-house or sold as a raw material for other processes.

4F	Temperature Control	A process in which the temperature of the wastewater is lowered prior to discharge to a receiving stream. Cooling reservoirs or ponds are used for this purpose.
4G	Eutectic Freezing	A process in which salts are removed from water. Eutectic freezing operates at the eutectic temperature of the water. At the eutectic point, ice crystals nucleate and grow independently of salt crystals. Because the ice floats and the salts sink, the salts can be separated.
4H	Grease Removal	A process for the removal of oil and grease from wastewater including any of the following: 1. Skimming the surface of tanks; 2. Grease traps; 3. API separators; 4. Aeration; 5. Dissolved air flotation.
4I	Disinfection (Ultraviolet)	The art of killing the larger portion of microorganisms in or on a substance with the probability that all pathogenic bacteria are killed by the ultraviolet light agent used.
5A	Aerobic Digestion	A method of treating the organic sludges produced by various treatment operations, such as waste-activated sludge, mixtures of waste-activated sludge or trickling filter sludge and primary sludge, or waste sludge from activated sludge treatment processes designed without primary settling. Aerobic digestion has been used primarily in small plants, particularly extended aeration and contact stabilization. Digestion is accomplished in one or more tanks mixed by diffused aeration.
5B	Anaerobic Digestion	A method of anaerobically treating organic sludges derived from other treatment operations. The variations employed in the anaerobic digestion process include the following: 1. Conventional digesters; 2. High-rate digesters; 3. Sludge lagoons; 4. Imhoff tanks.
5C	Belt Filtration	The different types of belt filtration include: 1. Moving screen concentrators; 2. Belt pressure filters; 3. Capillary dewatering systems; 4. Rotary gravity concentrators. In all these units, the influent mixture of solids and polymer (or other chemical) is placed onto a moving

		porous belt or screen. Dewatering occurs as the sludge moves through a series of rollers that squeeze the sludge between two belts. The cake is discharged from the belt by a scraper mechanism.
5D	Centrifugation	The centrifuge is essentially a sedimentation device in which the solid-liquid separation is enhanced by rotating the liquid at high speeds to subject the sludge to increased gravitational forces. Centrifuges have been used to both thicken and dewater waste-activated sludge and digested sludges. Both the disc type and solid bowl centrifuges are well-suited to thickening operations.
5E	Chemical Conditioning	The use of chemicals to condition sludge for dewatering. This results in the coagulation of the solids and the release of absorbed water. Conditioning is used in advance of vacuum filtration and centrifugation. Chemicals used include ferric chloride, lime, alum, and organic polymers.
5F	Chlorine Treatment	The stabilization of sludge by the addition of chlorine (marketed under the registered trade name "Purifax").
5G	Composting	A means of stabilizing raw or digested sludge through biological action. Heat is produced during the composting process, and is generally sufficient to produce temperatures high enough to kill most pathogenic organisms in the compost pile. Two methods have been used for composting wastewater sludge: 1) the windrow method (used with digested sludge); and 2) the forced-air static pile method (used with either raw or digested sludges).
5H	Drying Beds	A method employed for drying well-digested sludges. Sludge drying beds consist of either perforated or open joint drainage pipe laid within a gravel base. The gravel is covered with a layer of sand. Partitions around and between the beds may be of concrete, wood, or earthen embankment. The beds are usually open to the weather, but may be covered with ventilated greenhouse-type enclosures.
5I	Elutriation	The mixing of a solid, or a solid-liquid mixture, with a liquid for the purpose of transferring certain components to the liquid. An example is the washing of digested sewage sludge before chemical conditioning to remove certain soluble organic and inorganic components.
5J	Flotation Thickening	A unit operation employed in the separation of solid and liquid particles from a liquid phase. Separation is facilitated by the presence of fine bubbles resulting from the introduction of a gas phase, usually air, to the system. The rising bubbles either adhere to, or are trapped in, the particle structure, thereby imparting to, or increasing, the

		buoyancy of the particles. Air bubbles are added or caused to form in one of the following methods: 1. Aeration at atmospheric pressure (air flotation). 2. Injection of air while the liquid is under pressure, followed by the release of the pressure (dissolved - air flotation). 3. Saturation with air at atmospheric pressure followed by the application of a vacuum to the liquid (vacuum flotation). In all of the above systems, the degree of removal can be enhanced through the use of various chemical additives, such as alum, ferric chloride, activated silica, etc.
5K	Freezing (Sludge Treatment)	The process of freezing sludge to improve its dewatering characteristics upon thawing.
5L	Gravity Thickening	A method of sludge thickening that is similar to the settling that takes place in a sedimentation tank. Solids settle by gravity to the bottom of the basin, forming a sludge blanket with a clearer supernatant above. The supernatant is removed from the basin over weirs located near the top of the tank, usually around the outer circumference. The sludge solids are scraped toward a center well and withdrawn.
5M	Heat Drying	Heat drying involves raising the temperature of the incoming sludge to 212°F (100°C) to remove moisture. Flash drying equipment and rotary kilns have been employed to heat dry sludge.
5N	Heat Treatment	A process for the thermal treatment of sludge that involves the flameless oxidation of the sludge at temperatures of 350°F to 400°F and pressures of 150 to 300 psi. Heat treatment improves the dewaterability of the sludge.
5O	Incineration	The dry combustion of dewatered sludge. This is usually accomplished in a multiple hearth furnace or fluidized bed incinerator.
5P	Land Application (Sludge)	The controlled application of wastewater sludge to land by subsurface injection or surface spreading. Injection can be accomplished by using truck or tractor-mounted injectors. Tank trucks are normally used for surface spreading.
5Q	Landfill	The disposal of wastewater sludge in a sanitary landfill.
5R	Pressure Filtration	The most common type of filter press consists of vertical plates that are held in a frame and pressed together between a fixed and moving end. A cloth is mounted on the face of each individual plate. The press is closed and sludge is pumped into the press at pressures of up to 225.

		psi. The water passes through the cloth, while the solids are retained and form a cake on the surface of the cloth
5S	Pyrolysis	Subjecting the sludge to temperatures of about 1200°F ±300°F (650°C ±150°C), depending upon the nature of the sludge, in an essentially oxygen-free atmosphere. The sludge is broken down into steam, carbon, oxides, volatile vapors, and charcoal.
5T	Sludge Lagoons	Sludge lagoons are similar to sand beds, in that sludge is periodically drawn from a digester, placed in a lagoon, removed after a period of drying, and the cycle is repeated. Drying lagoons do not typically have an underdrain system, as most of the drying is accomplished by decanting supernatant liquor and by evaporation. Plastic or rubber fabrics may be used as a bottom lining, or the lagoons may be natural earth basins. Supernatant liquor and rainwater drain-off points are usually provided, with the liquid being returned for further treatment.
5U	Vacuum Filtration	A vacuum filter basically consists of a cylindrical drum that rotates, partially submerged, in a vat of sludge. The filter drum is divided into compartments by partitions or seal strips. A vacuum is applied between the drum deck and filter medium, causing filtrate to be extracted and filter cake to be retained on the medium during the pickup and cake drying cycle. The filter medium may be a cloth made of natural or synthetic fibers, stainless steel wire mesh or coil springs. The cake of dewatered sludge is removed by one of several different methods, including the use of a fixed scraper blade.
5V	Vibration	A process used for the removal of particles from wastewater, primarily through the use of screens. Separation by vibratory screen is dependent on hole size, feed rate, vibration frequency, amplitude, and the properties of the particulate material. Two types of screens are commonly used: radial flow and axial flow.
5W	Wet Airoxidation	A method of sludge disposal that involves the oxidation of sludge solids in water suspension and under increased pressures and temperatures.
6A	Excess Flow Treatment	The solid separation process of overflow through the use of a clarification area, the chemical treatment of wastewaters, or the use of settling devices.
6B	Imhoff Tank	A deep, two-storied wastewater tank originally patented by Karl Imhoff. It consists of an upper continuous-flow sedimentation chamber and a lower sludge-digestion chamber. The floor of the upper chamber slopes steeply to trapped slots through with solids may slide into the lower

		chamber. The lower chamber receives no freshwater directly, but is provided with gas vents and with the means for drawing digested from near the bottom.
6C	Irradiation/Beta Ray	Exposure to wavelengths shorter than those of visible light for the purpose of bacterial destruction. Beta rays are composed of a stream of beta particles, which are charged and emitted from a nucleus through radioactive decay or fission.
6C	Irradiation/Gamma Ray	Exposure to radiation of wavelengths shorter than those of visible light for the purpose of bacterial destruction. Gamma rays are comprised of highly energetic penetrating radiation emitted from radioisotopes such as cobalt 60. Because of their penetration power, they have been used to disinfect (sterilize) both water and wastewater.
6E	Lime Stabilization	A process for softening water by the addition of lime and soda ash to form the insoluble compounds of calcium carbonate and magnesium hydroxide.
6F	Oil-Water Separator	A light oil is mixed with dewatered sludge. This oil-sludge mixture, which can be pumped easily and is effective in reducing scaling and corrosion, is then passed through a four-stage falling film evaporator. Water is removed because it has a lower boiling point than the oil carrier. After evaporation, what remains is essentially a mixture of oil and dry sludge. The solids are then removed from the oil with a centrifuge. The remaining oil can be separated into light-oil and heavy-oil residues by exposing to superheated steam.
6G	Pasteurization	Bacteria is destroyed by heating to a prescribed temperature for a specified time.
6H	Phosphorus Removal	Methods involve chemical precipitation of the phosphorus and removal of the resultant precipitate. Precipitants include salts of aluminum and iron, and lime. The practical points of addition are before the primary settler, in the aerator of an activated sludge plant, before the final settler, or in a tertiary process.
6I	Rock Filter	The ideal filter media is a material that has a high surface area per unit volume, is low in cost, has a high durability, and does not clog easily. The most suitable media is generally a locally available river rock or gravel, graded to uniform size within the range of 25 to 75 mm. Trap rock is particularly satisfactory. Other materials, such as slag, cinders, and hard coal, have also been used. Stones less than 25 mm in diameter do not provide sufficient pore space between the stones to permit the free flow of wastewater and sloughed solids. Plugging of the medium and ponding inside the filter will result. Large-diameter

		stones avoid the ponding problem, but have a relatively small surface area per unit volume; thus they cannot support as large a biological population.
6J	Subsurface Seepage	The slow movement of water through small cracks, pores, interstices, of a material, into or out of a body of subsurface water.
6K	Thermophilic Digestion	Digestion carried on at a temperature approaching, or within, the thermophilic range, generally between 113° F and 145° F.
6L	Two-Stage Activated Sludge	Biological wastewater treatment process in which a mixture of wastewater and activated sludge is agitated and aerated. The activated sludge is subsequently separated from the treated wastewater (mixed liquor) by sedimentation and wasted or returned to the process as needed.
6M	Vegetative Filter	A filter process based on the use of a tank filled with soil.
8A	Primary Treatment	First steps in wastewater treatment; screens and sedimentation tanks are used to remove most materials that float or will settle. Primary treatment results in the removal of about 30 percent of carbonaceous biochemical oxygen demand from domestic sewage.
8B	Secondary Treatment	The second step in most publicly owned waste treatment systems, in which bacteria consume the organic parts of the waste. It is accomplished by bringing together waste bacteria, and oxygen in trickling filters or in the activated sludge process. This treatment removes floating and settleable solids and about 90 percent of the oxygen-demanding substances and suspended solids. Disinfection is the final stage of secondary treatment.
8C	Tertiary Treatment	Advanced cleaning of wastewater that goes beyond the secondary or biological stage. It removes nutrients such as phosphorus and nitrogen, as well as most BOD and suspended solids.
8D	Lagoon(s)	A pond containing raw or partially treated wastewater in which aerobic or anaerobic stabilization occurs.
8E	Oxidation Pond or Ditch	A basin used for the retention of wastewater before final disposal, in which biological oxidation of organic material is effected by the natural or artificially accelerated transfer of oxygen to water from the air.
8F	Contact Stabilization	A modification of the activated sludge process in which raw sewage wastewater is aerated with a high concentration of activated sludge for a short period (usually less than 60 minutes) to obtain BOD removal by absorption. The solids are subsequently removed by

		sedimentation and transferred to a stabilization tank where aeration is continued further to oxidize and condition them before their reintroduction to the raw wastewater flow.
8G	Extended Aeration	A modification of the activated sludge process which provides for aerobic sludge digestion within the aeration system. The concept envisages the stabilization of organic matter under aerobic conditions and disposal of the end products into the air as gases and with the plan effluent as finely divided suspended matter and soluble matter.
8H	Constructed Wetland	Three categories of wetlands are now used for municipal wastewater treatment: artificial wetlands, existing wetlands, and peat lands. Artificial or constructed wetlands are formed in sandy soil by installing an impervious plastic layer under the soil. Wastewater is aerated for short periods prior to application.

Type of Application (TYPA)

(2 characters)
The code describes various forms used to apply for a permit.

Code	Description
LA	Standard A
LC	Standard B
LR	RAPP
SA	Short A
SB	Short B
SC	Short C
SD	Short D
TS	Ten Short
2A	Municipal
2B	Animal/Aquatic
2C	Industrial
2D	New Sources
2E	No Wastewater
2F	Stormwater Permit

Type of Effluent Waste (WAST)

(2 characters)
The effluent waste type, or types, discharged from a pipe. This code was provided by the PCS data base. This field is not complete in the PCS data base. However, it was used to assign flow types as shown below.

Code	Description	Flow Type	Description
01	Sanitary	S	Sanitary
02	Noncontact Cooling Water	C	Cooling
03	Stormwater Runoff	O	Other

04	Process Water	P	Process
05	Other	O	Other
06	Sanitary, Cooling	X	Combined (S+C)
07	Sanitary, Cooling, Runoff	X	Combined (S+C)
08	Sanitary, Cooling, Runoff, Process	B	Combined (P+C)
09	Sanit., Cooling, Runoff, Proc. Other	B	Combined (P+C)
10	Sanitary, Runoff	N	Combined (S+O)
11	Sanitary, Runoff, Process	M	Combined (P+O)
12	Sanitary, Runoff, Proc., Other	M	Combined (P+O)
13	Sanitary, Process	P	Process
14	Sanitary, Process, Other	P	Process
15	Sanitary, Other	N	Combined (S+O)
16	Cooling, Runoff	C	Cooling
17	Cooling, Runoff, Process	B	Combined (P +C)
18	Cooling, Runoff, Process, Other	B	Combined (P +C)
19	Cooling, Process	B	Combined (P +C)
20	Cooling, Process, Other	B	Combined (P +C)
21	Cooling, Other	C	Cooling
22	Runoff, Process	M	Combined (P+O)
23	Runoff, Process, Other	M	Combined (P+O)
24	Runoff, Other	O	Other
25	Process, Other	M	Combined (P+O)
26	Sanitary, Cooling, Process	B	Combined (P+C)
27	Sanitary, Cooling, Other	X	Combined (S+C)
28	Sanitary, Cooling, Process, Other	B	Combined (P+C)
29	Sanitary, Runoff, Other	N	Combined (S+O)
30	Cooling, Runoff, Other	C	Cooling
31	Sanitary, Cooling, Runoff, Other	X	Combined (S +C)
32	Contact Cooling Water	C	Cooling
33	Contact Cooling Water/Proc./Cooling	B	Combined (P +C)
34	Ground Water Treatment	O	Other
35	Mine Pit Dewatering	O	Other
36	Contact and Noncontact Cooling Water	C	Cooling

Type of Ownership (TYPO)

(3 characters)
Describes the facility ownership classification.

Code	Description
FED	Federal
PRI	Private
PUB	Public
STA	State
BPP	Public and Private

Type of Permit Issued (EPST)

(1 character)
A code indicating whether EPA or the state has issued the permit.

Code	Description
E	EPA
S	State

Typical Pollutant Concentration (ex: TPCAS, TPCBOD, TPCCD, etc.)

(numeric)
The concentration of a pollutant 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 for which the NCPDI Program makes estimates (additional TPC values for CHP and PCB are also available) and for the discharge categories in the NCPDI. TPC values are drawn from EPA's Development Documents in Effluent Limitations Guidelines and Standards (see Appendix II).

Water Quality Limits Indicator (WQUA)

(1 character)
An indicator identifying whether a permit contains water-quality based limits.

Code	Description
Y	Yes
Blank	No

Zinc Annual (Total) in Lb (ZNANN)

(numeric)
The estimated annual total load of zinc in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Zinc Fall - Number of Observations (NUZNFAL)

(numeric)
The number of months (observations) in the fall for which monitoring data were reported for zinc.

Zinc Fall in Lb (ZNFAL)

(numeric)
The estimated fall total load of zinc in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Zinc Spring - Number of Observations (NUZNSPR)

(numeric)
The number of months (observations) in the spring for which monitoring data were reported for zinc.

Zinc Spring in Lb (ZNSPR)
(numeric)
The estimated spring total load of zinc in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Zinc Summer - Number of Observations (NUZNSUM)
(numeric)
The number of months (observations) in the summer for which monitoring data were reported for zinc.

Zinc Summer in Lb (ZNSUM)
(numeric)
The estimated summer total load of zinc in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Zinc Winter - Number of Observations (NUZNWIN)
(numeric)
The number of months (observations) in the winter for which monitoring data were reported for zinc.

Zinc Winter in Lb (ZNWIN)
(numeric)
The estimated winter total load of zinc in pounds. The value could be based on monitoring, permit, or typical pollutant concentration data. One of the 15 pollutants for which the NCPDI Program makes estimates.

Appendix Ib.
Variable Name Cross Reference Table

Appendix 1b. Variable Name Cross Reference Table

Variable	Type	Length	Description	Page
AREACODE	Char	1	AREA CODE	I-1
ASANN	Num	8	ARSENIC ANNUAL (TOTAL) IN LB	I-1
ASBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR ARSENIC	I-84
ASCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR ARSENIC	I-88
ASFAL	Num	8	ARSENIC FALL IN LB	I-1
ASSPR	Num	8	ARSENIC SPRING IN LB	I-2
ASSUM	Num	8	ARSENIC SUMMER IN LB	I-2
ASWIN	Num	8	ARSENIC WINTER IN LB	I-2
BAS6	Char	6	RIVER BASIN	I-95
BODANN	Num	8	BIOCHEMICAL OXYGEN DEMAND ANNUAL (TOTAL) IN LB	I-2
BODBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR BIOCHEMICAL OXYGEN DEMAND	I-84
BODCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR BIOCHEMICAL OXYGEN DEMAND	I-88
BODFAL	Num	8	BIOCHEMICAL OXYGEN DEMAND FALL IN LB	I-2
BODSPR	Num	8	BIOCHEMICAL OXYGEN DEMAND SPRING IN LB	I-3
BODSUM	Num	8	BIOCHEMICAL OXYGEN DEMAND SUMMER IN LB	I-3
BODWIN	Num	8	BIOCHEMICAL OXYGEN DEMAND WINTER IN LB	I-3
CDANN	Num	8	CADMIUM ANNUAL (TOTAL) IN LB	I-3
CDBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR CADMIUM	I-84
CDCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR CADMIUM	I-88
CDFAL	Num	8	CADMIUM FALL IN LB	I-3
CDSPR	Num	8	CADMIUM SPRING IN LB	I-4
CDSUM	Num	8	CADMIUM SUMMER IN LB	I-4
CDWIN	Num	8	CADMIUM WINTER IN LB	I-4
CHPANN	Num	8	CHLORINATED HYDROCARBONS PESTICIDES ANNUAL (TOTAL) IN LB	I-4
CHPBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR CHLORINATED HYDROCARBONS PESTICIDES	I-84
CHPFAL	Num	8	CHLORINATED HYDROCARBONS PESTICIDES FALL IN LB	I-5
CHPSPR	Num	8	CHLORINATED HYDROCARBONS PESTICIDES SPRING IN LB	I-5
CHPSUM	Num	8	CHLORINATED HYDROCARBONS PESTICIDES SUMMER IN LB	I-5
CHPWIN	Num	8	CHLORINATED HYDROCARBONS PESTICIDES WINTER IN LB	I-5
CITY	Char	5	CITY CODE	I-6
CNTY	Char	3	COUNTY CODE	I-12
CNTYNM	Char	40	COUNTY NAME	I-12
CNTYSORS	Char	1	COUNTY SOURCE CODE	I-12
CONCCV	Num	8	CONCENTRATION VALUE - COEFFICIENT OF VARIATION	I-11
CONCN	Num	8	CONCENTRATION VALUE - NUMBER OF OBSERVATIONS	I-11
CRANN	Num	8	CHROMIUM ANNUAL (TOTAL) IN LB	I-5
CRBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR CHROMIUM	I-84
CRCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR CHROMIUM	I-88
CRFAL	Num	8	CHROMIUM FALL IN LB	I-5
CRSPR	Num	8	CHROMIUM SPRING IN LB	I-5
CRSUM	Num	8	CHROMIUM SUMMER IN LB	I-6

Appendix 1b. Variable Name Cross Reference Table

Variable	Type	Length	Description	Page
CRWIN	Num	8	CHROMIUM WINTER IN LB	I-6
CUANN	Num	8	COPPER ANNUAL (TOTAL) IN LB	I-11
CUBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR COPPER	I-84
CUCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR COPPER	I-88
CUFAL	Num	8	COPPER FALL IN LB	I-11
CUSPR	Num	8	COPPER SPRING IN LB	I-11
CUSUM	Num	8	COPPER SUMMER IN LB	I-11
CUWIN	Num	8	COPPER WINTER IN LB	I-12
CYNM	Char	20	CITY NAME	I-6
DCCD	Char	2	DISCHARGE CATEGORY CODE	I-12
DCNM	Char	30	DISCHARGE CATEGORY NAME	I-12
DSCH	Char	3	DISCHARGE NUMBER	I-13
EDACLASS	Char	2	ESTUARINE/COASTAL DRAINAGE AREA (EDA/CDA) CLASSIFICATION CODE	I-13
EDACODE	Char	5	ESTUARINE/COASTAL DRAINAGE AREA (EDA/CDA) CODE	I-13
EDANAME	Char	60	ESTUARINE/COASTAL DRAINAGE AREA (EDA/CDA) NAME	I-14
EDASORS	Char	1	ESTUARINE/COASTAL DRAINAGE AREA (EDA/CDA) SOURCE CODE	I-14
EPST	Char	1	TYPE OF PERMIT ISSUED	I-126
EXMY	Char	5	EXPIRATION MONTH/YEAR	I-14
FACILNM	Char	40	STANDARDIZED FACILITY NAME	I-101
FACILQC	Char	1	FACILITY QUALITY CONTROL CODE	I-18
FALCOEF	Num	8	SEASONALITY COEFFICIENT - FALL	I-98
FCBANN	Num	8	FECAL COLIFORM BACTERIA ANNUAL IN CELLS	I-18
FCBBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR FECAL COLIFORM BACTERIA	I-84
FCBCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR FECAL COLIFORM BACTERIA	I-88
FCBFAL	Num	8	FECAL COLIFORM BACTERIA FALL IN CELLS	I-19
FCBSPR	Num	8	FECAL COLIFORM BACTERIA SPRING IN CELLS	I-19
FCBSUM	Num	8	FECAL COLIFORM BACTERIA SUMMER IN CELLS	I-19
FCBWIN	Num	8	FECAL COLIFORM BACTERIA WINTER IN CELLS	I-19
FCU	Char	8	FACILITY U.S.G.S HYDROLOGIC CATALOGING UNIT CODE	I-18
FCUSORS	Char	1	FACILITY U.S.G.S HYDROLOGIC CATALOGING UNIT SOURCE CODE	I-18
FEANN	Num	8	IRON ANNUAL (TOTAL) IN LB	I-24
FEBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR IRON	I-84
FECODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR IRON	I-88
FEFAL	Num	8	IRON FALL IN LB	I-24
FESPR	Num	8	IRON SPRING IN LB	I-24
FESUM	Num	8	IRON SUMMER IN LB	I-25
FEWIN	Num	8	IRON WINTER IN LB	I-25
FFID	Char	12	FEDERAL FACILITY IDENTIFICATION NUMBER	I-19
FIPS	Char	5	FEDERAL INFORMATION PROCESSING SYSTEM CODE	I-20
FLAT	Char	6	FACILITY LATITUDE - DEGREES, MINUTES, SECONDS	I-15
FLAT1	Num	8	FACILITY LATITUDE - DECIMAL DEGREES	I-14
FLLCODE1	Char	1	FACILITY LATITUDE/LONGITUDE QUALITY CONTROL CODE 1	I-15

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Variable	Type	Length	Description	Page
FLLCODE2	Char	1	FACILITY LATITUDE/LONGITUDE QUALITY CONTROL CODE 2	I-15
FLLCODE3	Char	1	FACILITY LATITUDE/LONGITUDE QUALITY CONTROL CODE 3	I-16
FLLSORS	Char	1	FACILITY LATITUDE/LONGITUDE SOURCE CODE	I-17
FLON	Char	7	FACILITY LONGITUDE - DEGREES, MINUTES, SECONDS	I-17
FLON1	Num	8	FACILITY LONGITUDE - DECIMAL DEGREES	I-17
FLOW	Num	8	FLOW FROM FACILITY FILE (PCS) - AVERAGE DESIGN FLOW IN MGD	I-20
FLOW4	Num	8	FLOW FROM NEEDS (MGD)	I-20
FLOWANN	Num	8	FLOW - ANNUAL AVERAGE IN MG	I-20
FLOWBAS4	Char	2	FLOW FROM NEEDS - BASIS CODE	I-20
FLOWBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR FLOW	I-84
FLOWCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR FLOW	I-88
FLOWCV	Num	8	FLOW - COEFFICIENT OF VARIATION	I-20
FLOWFAL	Num	8	FLOW FALL IN MG	I-20
FLOWFAL1	Num	8	PROCESS FLOW PIPE FALL IN MG	I-90
FLOWMGD	Num	8	FLOW IN MILLIONS OF GALLONS PER DAY	I-21
FLOWN	Num	8	FLOW - NUMBER OF OBSERVATIONS	I-20
FLOWPIPE	Num	8	FLOW PIPE AVERAGE IN MGD	I-21
FLOWPROC	Num	8	PROCESS FLOW - ANNUAL AVERAGE IN MG	I-90
FLOWSPR	Num	8	FLOW SPRING IN MG	I-21
FLOWSPR1	Num	8	PROCESS FLOW PIPE SPRING IN MG	I-90
FLOWSUM	Num	8	FLOW SUMMER IN MG	I-21
FLOWSUM1	Num	8	PROCESS FLOW PIPE SUMMER IN MG	I-90
FLOWTYPE	Char	1	FLOW TYPE	I-22
FLOWWIN	Num	8	FLOW WINTER IN MG	I-21
FLOWWIN1	Num	8	PROCESS FLOW PIPE WINTER IN MG	I-91
FNML	Char	120	FACILITY NAME	I-18
FTBASE	Char	1	FLOW TYPE BASIS CODE	I-22
GPCT	Char	2	GENERAL PERMIT INDUSTRIAL CATEGORY	I-22
HGANN	Num	8	MERCURY ANNUAL (TOTAL) IN LB	I-33
HGBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR MERCURY	I-84
HGCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR MERCURY	I-88
HGFAL	Num	8	MERCURY FALL IN LB	I-33
HGSPR	Num	8	MERCURY SPRING IN LB	I-33
HGSUM	Num	8	MERCURY SUMMER IN LB	I-33
HGWIN	Num	8	MERCURY WINTER IN LB	I-34
IACC	Char	1	FACILITY INACTIVE CODE	I-14
IADT	Char	6	FACILITY INACTIVE DATE	I-14
INCL	Char	1	INDUSTRIAL CLASSIFICATION CODE	I-24
KEYPTNUM	Char	5	CENSUS CITY IDENTIFICATION CODE	I-4
LCAV	Char	8	CONCENTRATION AVERAGE LIMIT	I-6
LCAV1	Num	8	STANDARDIZED CONCENTRATION AVERAGE LIMIT	I-101
LCMN	Char	8	CONCENTRATION MINIMUM LIMIT	I-7
LCMN1	Num	8	STANDARDIZED CONCENTRATION MINIMUM LIMIT	I-101
LCMX	Char	8	CONCENTRATION MAXIMUM LIMIT	I-7

Appendix 1b. Variable Name Cross Reference Table

Variable	Type	Length	Description	Page
LCMX1	Num	8	STANDARDIZED CONCENTRATION MAXIMUM LIMIT	I-101
LCUC	Char	2	CONCENTRATION UNIT CODE	I-7
LCUC1	Char	2	STANDARDIZED UNITS CODE - CONCENTRATION	I-104
LOAD	Num	8	POLLUTANT LOAD	I-89
LOADBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR LOAD	I-84
LQAV	Char	8	QUANTITY AVERAGE LIMIT	I-91
LQAV1	Num	8	STANDARDIZED QUANTITY AVERAGE LIMIT	I-105
LQMX	Char	8	QUANTITY MAXIMUM LIMIT	I-91
LQMX1	Num	8	STANDARDIZED QUANTITY MAXIMUM LIMIT	I-105
LQUC	Char	2	QUANTITY UNIT CODE	I-91
LQUC1	Char	2	STANDARDIZED UNITS CODE - QUANTITY	I-104
MADI	Char	1	MAJOR DISCHARGE INDICATOR	I-26
MASSCV	Num	8	MASS VALUE - COEFFICIENT OF VARIATION	I-27
MASSN	Num	8	MASS VALUE - NUMBER OF OBSERVATIONS	I-27
MCAV	Num	8	MEASUREMENT/VIOLATION - CONCENTRATION AVERAGE	I-32
MCAV1	Num	8	STANDARDIZED MONITORED CONCENTRATION AVERAGE	I-105
MCAV_AVE	Num	8	MEASUREMENT CONCENTRATION AVERAGE - ANNUAL AVERAGE	I-27
MCAV_CV	Num	8	MEASUREMENT CONCENTRATION AVERAGE - COEFFICIENT OF VARIATION	I-27
MCAV_CV1	Num	8	MEASUREMENT CONCENTRATION AVERAGE - COEFFICIENT OF VARIATION ADJUSTED FOR SMALL SAMPLE	I-27
MCAV_MAX	Num	8	MEASUREMENT CONCENTRATION AVERAGE - MAXIMUM VALUE	I-27
MCAV_MIN	Num	8	MEASUREMENT CONCENTRATION AVERAGE - MINIMUM VALUE	I-27
MCAV_N	Num	8	MEASUREMENT CONCENTRATION AVERAGE - NUMBER OF OBSERVATIONS	I-28
MCAV_NMI	Num	8	MEASUREMENT CONCENTRATION AVERAGE - NUMBER OF MISSING VALUES	I-28
MCAV_RAN	Num	8	MEASUREMENT CONCENTRATION AVERAGE - RANGE	I-28
MCAV_STD	Num	8	MEASUREMENT CONCENTRATION AVERAGE - STANDARD DEVIATION	I-28
MCMN	Num	8	MEASUREMENT/VIOLATION - CONCENTRATION MINIMUM	I-32
MCMN1	Num	8	STANDARDIZED MONITORED CONCENTRATION MINIMUM	I-105
MCMN_AVE	Num	8	MEASUREMENT CONCENTRATION MINIMUM - ANNUAL AVERAGE	I-29
MCMN_CV	Num	8	MEASUREMENT CONCENTRATION MINIMUM - COEFFICIENT OF VARIATION	I-29
MCMN_CV1	Num	8	MEASUREMENT CONCENTRATION MINIMUM - COEFFICIENT OF VARIATION ADJUSTED FOR SMALL SAMPLE	I-29
MCMN_MAX	Num	8	MEASUREMENT CONCENTRATION MINIMUM - MAXIMUM VALUE	I-29
MCMN_MIN	Num	8	MEASUREMENT CONCENTRATION MINIMUM - MINIMUM VALUE	I-29

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Variable	Type	Length	Description	Page
MCMN_N	Num	8	MEASUREMENT CONCENTRATION MINIMUM - NUMBER OF OBSERVATIONS	I-30
MCMN_NMI	Num	8	MEASUREMENT CONCENTRATION MINIMUM - NUMBER OF MISSING VALUES	I-29
MCMN_RAN	Num	8	MEASUREMENT CONCENTRATION MINIMUM - RANGE	I-30
MCMN_STD	Num	8	MEASUREMENT CONCENTRATION MINIMUM - STANDARD DEVIATION	I-30
MCMX	Num	8	MEASUREMENT/VIOLATION - CONCENTRATION MAXIMUM	I-32
MCMX1	Num	8	STANDARDIZED MONITORED CONCENTRATION MAXIMUM	I-105
MCMX_AVE	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - ANNUAL AVERAGE	I-28
MCMX_CV	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - COEFFICIENT OF VARIATION	I-28
MCMX_CV1	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - COEFFICIENT OF VARIATION ADJUSTED FOR SMALL SAMPLE	I-28
MCMX_MAX	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - MAXIMUM VALUE	I-28
MCMX_MIN	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - MINIMUM VALUE	I-28
MCMX_N	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - NUMBER OF OBSERVATIONS	I-29
MCMX_NMI	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - NUMBER OF MISSING VALUES	I-28
MCMX_RAN	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - RANGE	I-29
MCMX_STD	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - STANDARD DEVIATION	I-29
MDML	Char	2	MINIMUM NUMBER OF DMR LINES	I-34
MLOC	Char	1	MONITORING LOCATION	I-34
MONTH	Char	2	MONTH CODE	I-35
MQAV	Num	8	MEASUREMENT/VIOLATION - QUANTITY AVERAGE	I-32
MQAV1	Num	8	STANDARDIZED MONITORED QUANTITY AVERAGE	I-105
MQAV_AVE	Num	8	MEASUREMENT QUANTITY AVERAGE - ANNUAL AVERAGE	I-30
MQAV_CV	Num	8	MEASUREMENT QUANTITY AVERAGE - COEFFICIENT OF VARIATION	I-30
MQAV_CV1	Num	8	MEASUREMENT QUANTITY AVERAGE - COEFFICIENT OF VARIATION ADJUSTED FOR SMALL SAMPLE	I-30
MQAV_MAX	Num	8	MEASUREMENT QUANTITY AVERAGE - MAXIMUM VALUE	I-30
MQAV_MIN	Num	8	MEASUREMENT QUANTITY AVERAGE - MINIMUM VALUE	I-30
MQAV_N	Num	8	MEASUREMENT QUANTITY AVERAGE - NUMBER OF OBSERVATIONS	I-30
MQAV_NMI	Num	8	MEASUREMENT QUANTITY AVERAGE - NUMBER OF MISSING VALUES	I-30
MQAV_RAN	Num	8	MEASUREMENT QUANTITY AVERAGE - RANGE	I-31
MQAV_STD	Num	8	MEASUREMENT QUANTITY AVERAGE - STANDARD DEVIATION	I-31
MQMX	Num	8	MEASUREMENT/VIOLATION - QUANTITY MAXIMUM	I-32
MQMX1	Num	8	STANDARDIZED MONITORED QUANTITY MAXIMUM	I-105
MQMX_AVE	Num	8	MEASUREMENT QUANTITY MAXIMUM - ANNUAL AVERAGE	I-31

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Variable	Type	Length	Description	Page
MQMX_CV	Num	8	MEASUREMENT QUANTITY MAXIMUM - COEFFICIENT OF VARIATION	I-31
MQMX_CV1	Num	8	MEASUREMENT QUANTITY MAXIMUM - COEFFICIENT OF VARIATION ADJUSTED FOR SMALL SAMPLE	I-31
MQMX_MAX	Num	8	MEASUREMENT QUANTITY MAXIMUM - MAXIMUM VALUE	I-31
MQMX_MIN	Num	8	MEASUREMENT QUANTITY MAXIMUM - MINIMUM VALUE	I-31
MQMX_N	Num	8	MEASUREMENT QUANTITY MAXIMUM - NUMBER OF OBSERVATIONS	I-31
MQMX_NMI	Num	8	MEASUREMENT QUANTITY MAXIMUM - NUMBER OF MISSING VALUES	I-31
MQMX_RAN	Num	8	MEASUREMENT QUANTITY MAXIMUM - RANGE	I-31
MQMX_STD	Num	8	MEASUREMENT QUANTITY MAXIMUM - STANDARD DEVIATION	I-31
MRAT	Char	3	MAJOR RATING CODE	I-27
MST1	Char	30	PRIMARY MAILING STREET LINE 1 OF 2	I-90
MST2	Char	30	PRIMARY MAILING STREET LINE 2 OF 2	I-90
MSTT	Char	2	PRIMARY MAILING STATE	I-90
MVDT	Char	6	MEASUREMENT/VIOLATION - MONITORING PERIOD END DATE	I-32
MZIP	Char	9	PRIMARY MAILING ZIP CODE	I-90
NANN	Num	8	NITROGEN ANNUAL (TOTAL) IN LB	I-36
NBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR NITROGEN	I-84
NCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR NITROGEN	I-88
NFAL	Num	8	NITROGEN FALL IN LB	I-36
NODI	Char	1	NO DATA INDICATOR	I-37
NPID	Char	9	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM NUMBER	I-36
NSPR	Num	8	NITROGEN SPRING IN LB	I-37
NSUM	Num	8	NITROGEN SUMMER IN LB	I-37
NUASFAL	Num	8	ARSENIC FALL - NUMBER OF OBSERVATIONS	I-1
NUASSPR	Num	8	ARSENIC SPRING - NUMBER OF OBSERVATIONS	I-1
NUASSUM	Num	8	ARSENIC SUMMER - NUMBER OF OBSERVATIONS	I-2
NUASWIN	Num	8	ARSENIC WINTER - NUMBER OF OBSERVATIONS	I-2
NUBODFAL	Num	8	BIOCHEMICAL OXYGEN DEMAND FALL - NUMBER OF OBSERVATIONS	I-2
NUBODSPR	Num	8	BIOCHEMICAL OXYGEN DEMAND SPRING - NUMBER OF OBSERVATIONS	I-3
NUBODSUM	Num	8	BIOCHEMICAL OXYGEN DEMAND SUMMER - NUMBER OF OBSERVATIONS	I-3
NUBODWIN	Num	8	BIOCHEMICAL OXYGEN DEMAND WINTER - NUMBER OF OBSERVATIONS	I-3
NUCDFAL	Num	8	CADMIUM FALL - NUMBER OF OBSERVATIONS	I-3
NUCDSPR	Num	8	CADMIUM SPRING - NUMBER OF OBSERVATIONS	I-4
NUCDSUM	Num	8	CADMIUM SUMMER - NUMBER OF OBSERVATIONS	I-4
NUCDWIN	Num	8	CADMIUM WINTER - NUMBER OF OBSERVATIONS	I-4
NUCRFAL	Num	8	CHROMIUM FALL - NUMBER OF OBSERVATIONS	I-5
NUCRSPR	Num	8	CHROMIUM SPRING - NUMBER OF OBSERVATIONS	I-5
NUCRSUM	Num	8	CHROMIUM SUMMER - NUMBER OF OBSERVATIONS	I-6
NUCRWIN	Num	8	CHROMIUM WINTER - NUMBER OF OBSERVATIONS	I-6
NUCUFAL	Num	8	COPPER FALL - NUMBER OF OBSERVATIONS	I-11
NUCUSPR	Num	8	COPPER SPRING - NUMBER OF OBSERVATIONS	I-11
NUCUSUM	Num	8	COPPER SUMMER - NUMBER OF OBSERVATIONS	I-11

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NUCUWIN	Num	8	COPPER WINTER - NUMBER OF OBSERVATIONS	I-12
NUFCBFAL	Num	8	FECAL COLIFORM BACTERIA FALL - NUMBER OF OBSERVATIONS	I-18
NUFCBSPR	Num	8	FECAL COLIFORM BACTERIA SPRING - NUMBER OF OBSERVATIONS	I-19
NUFCBSUM	Num	8	FECAL COLIFORM BACTERIA SUMMER - NUMBER OF OBSERVATIONS	I-19
NUFCBWIN	Num	8	FECAL COLIFORM BACTERIA WINTER - NUMBER OF OBSERVATIONS	I-19
NUFEFAL	Num	8	IRON FALL - NUMBER OF OBSERVATIONS	I-24
NUFESPR	Num	8	IRON SPRING - NUMBER OF OBSERVATIONS	I-24
NUFESUM	Num	8	IRON SUMMER - NUMBER OF OBSERVATIONS	I-25
NUFEWIN	Num	8	IRON WINTER - NUMBER OF OBSERVATIONS	I-25
NUFLOFAL	Num	8	FLOW FALL - NUMBER OF OBSERVATIONS	I-20
NUFLOSPR	Num	8	FLOW SPRING - NUMBER OF OBSERVATIONS	I-21
NUFLOSUM	Num	8	FLOW SUMMER - NUMBER OF OBSERVATIONS	I-21
NUFLOWIN	Num	8	FLOW WINTER - NUMBER OF OBSERVATIONS	I-21
NUHGFAL	Num	8	MERCURY FALL - NUMBER OF OBSERVATIONS	I-33
NUHGSPR	Num	8	MERCURY SPRING - NUMBER OF OBSERVATIONS	I-33
NUHGSUM	Num	8	MERCURY SUMMER - NUMBER OF OBSERVATIONS	I-33
NUHGWIN	Num	8	MERCURY WINTER - NUMBER OF OBSERVATIONS	I-33
NUMPIPES	Num	8	NUMBER OF PIPES	I-38
NUOGFAL	Num	8	OIL AND GREASE FALL - NUMBER OF OBSERVATIONS	I-38
NUOGSPR	Num	8	OIL AND GREASE SPRING - NUMBER OF OBSERVATIONS	I-38
NUOGSUM	Num	8	OIL AND GREASE SUMMER - NUMBER OF OBSERVATIONS	I-39
NUOGWIN	Num	8	OIL AND GREASE WINTER - NUMBER OF OBSERVATIONS	I-39
NUPBFAL	Num	8	LEAD FALL - NUMBER OF OBSERVATIONS	I-25
NUPBSPR	Num	8	LEAD SPRING - NUMBER OF OBSERVATIONS	I-25
NUPBSUM	Num	8	LEAD SUMMER - NUMBER OF OBSERVATIONS	I-26
NUPBWIN	Num	8	LEAD WINTER - NUMBER OF OBSERVATIONS	I-26
NUNFAL	Num	8	NITROGEN FALL - NUMBER OF OBSERVATIONS	I-36
NUNSPR	Num	8	NITROGEN SPRING - NUMBER OF OBSERVATIONS	I-37
NUNSUM	Num	8	NITROGEN SUMMER - NUMBER OF OBSERVATIONS	I-37
NUNWIN	Num	8	NITROGEN WINTER - NUMBER OF OBSERVATIONS	I-37
NUPFAL	Num	8	PHOSPHORUS FALL - NUMBER OF OBSERVATIONS	I-82
NUPSPR	Num	8	PHOSPHORUS SPRING - NUMBER OF OBSERVATIONS	I-82
NUPSUM	Num	8	PHOSPHORUS SUMMER - NUMBER OF OBSERVATIONS	I-82
NUPWIN	Num	8	PHOSPHORUS WINTER - NUMBER OF OBSERVATIONS	I-82
NUTSSFAL	Num	8	TOTAL SUSPENDED SOLIDS FALL - NUMBER OF OBSERVATIONS	I-107
NUTSSSPR	Num	8	TOTAL SUSPENDED SOLIDS SPRING - NUMBER OF OBSERVATIONS	I-107
NUTSSSUM	Num	8	TOTAL SUSPENDED SOLIDS SUMMER - NUMBER OF OBSERVATIONS	I-108
NUTSSWIN	Num	8	TOTAL SUSPENDED SOLIDS WINTER - NUMBER OF OBSERVATIONS	I-108
NUZNFAL	Num	8	ZINC FALL - NUMBER OF OBSERVATIONS	I-127
NUZNSPR	Num	8	ZINC SPRING - NUMBER OF OBSERVATIONS	I-127
NUZNSUM	Num	8	ZINC SUMMER - NUMBER OF OBSERVATIONS	I-128
NUZNWIN	Num	8	ZINC WINTER - NUMBER OF OBSERVATIONS	I-128
NWIN	Num	8	NITROGEN WINTER IN LB	I-37
OFFL	Char	30	COGNIZANT OFFICIAL	I-6
OGANN	Num	8	OIL AND GREASE ANNUAL (TOTAL) IN LB	I-38
OGBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR OIL AND GREASE	I-84
OGCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR OIL AND GREASE	I-88

Appendix 1b. Variable Name Cross Reference Table

Variable	Type	Length	Description	Page
OGFAL	Num	8	OIL AND GREASE FALL IN LB	I-38
OGSPR	Num	8	OIL AND GREASE SPRING IN LB	I-38
OGSUM	Num	8	OIL AND GREASE SUMMER IN LB	I-39
OGWIN	Num	8	OIL AND GREASE WINTER IN LB	I-39
OPDAYS	Num	8	OPERATING DAYS	I-39
OPDAYS_A	Num	8	OPERATING DAYS_ADJUSTED	I-39
OPDSORS	Char	1	OPERATING DAYS SOURCE CODE	I-39
PANN	Num	8	PHOSPHORUS ANNUAL (TOTAL) IN LB	I-81
PBANN	Num	8	LEAD ANNUAL (TOTAL) IN LB	I-25
PBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR PHOSPHORUS	I-84
PBBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR LEAD	I-84
PBCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR LEAD	I-88
PBFAL	Num	8	LEAD FALL IN LB	I-25
PBSPR	Num	8	LEAD SPRING IN LB	I-26
PBSUM	Num	8	LEAD SUMMER IN LB	I-26
PBWIN	Num	8	LEAD WINTER IN LB	I-26
PCBBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR POLYCHLORINATED BYPHENYLS	I-84
PCBCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR POLYCHLORINATED BYPHENYLS	I-88
PCBANN	Num	8	POLYCHLORINATED BYPHENYLS ANNUAL (TOTAL) IN LB	I-89
PCBFAL	Num	8	POLYCHLORINATED BYPHENYLS FALL IN LB	I-89
PCBSPR	Num	8	POLYCHLORINATED BYPHENYLS SPRING IN LB	I-89
PCBSUM	Num	8	POLYCHLORINATED BYPHENYLS SUMMER IN LB	I-89
PCBWIN	Num	8	POLYCHLORINATED BYPHENYLS WINTER IN LB	I-89
PCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR PHOSPHORUS	I-88
PDSG	Char	4	LIMIT DISCHARGE NUMBER/REPORT DESIGNATOR	I-26
PFACTOR	Num	8	PROCESS FACTOR	I-90
PFAL	Num	8	PHOSPHORUS FALL IN LB	I-82
PIAC	Char	1	PIPE INACTIVE CODE	I-83
PIPE	Char	30	PIPE DESCRIPTION	I-83
PLAT	Char	6	PIPE LATITUDE - DEGREES, MINUTES, SECONDS	I-83
PLAT1	Num	8	PIPE LATITUDE - DECIMAL DEGREES	I-83
PLLSORS	Char	1	PIPE LATITUDE/LONGITUDE SOURCE CODE	I-83
PLON	Char	7	PIPE LONGITUDE - DEGREES, MINUTES, SECONDS	I-83
PLON1	Num	8	PIPE LONGITUDE - DECIMAL DEGREES	I-83
PRAM	Char	5	PARAMETER CODE	I-40
PRET	Char	1	PRETREATMENT PROGRAM REQUIRED INDICATOR CODE	I-89
PS	Char	1	POINT SOURCE CATEGORY	I-83
PSPR	Num	8	PHOSPHORUS SPRING IN LB	I-82
PSUM	Num	8	PHOSPHORUS SUMMER IN LB	I-82
PWIN	Num	8	PHOSPHORUS WINTER IN LB	I-82
RCUN	Char	2	REPORTED CONCENTRATION UNIT	I-95
RCUN1	Char	2	STANDARDIZED UNITS CODE - MONITORED CONCENTRATION	I-104
REAC	Char	12	RIVER REACH NUMBER	I-96
REGION	Char	1	REGION CODE	I-95

Appendix 1b. Variable Name Cross Reference Table

Variable	Type	Length	Description	Page
RST1	Char	30	FACILITY LOCATION STREET LINE 1 OF 2	I-17
RST2	Char	30	FACILITY LOCATION STREET LINE 2 OF 2	I-17
RTEL	Char	10	FACILITY LOCATION TELEPHONE NUMBER	I-17
RUNT	Char	2	REPORTED QUANTITY UNIT	I-95
RUNT1	Char	2	STANDARDIZED UNITS CODE - MONITORED QUANTITY	I-104
RWAT	Char	35	RECEIVING WATER	I-95
RZIP	Char	9	FACILITY LOCATION ZIP CODE	I-17
SAMP	Char	2	SAMPLE TYPE	I-97
SDAC	Char	2	SPECIAL DISCHARGE ACTIVITY CODES	I-99
SEASON	Char	1	SEASON CODE	I-98
SIC	Char	4	SIC CODE - 1987 FACILITY DESCRIPTION	I-99
SICDG	Char	1	SIC DIVISION CODE	I-99
SICIG	Char	3	SIC INDUSTRY GROUP CODE	I-99
SICMG	Char	2	SIC MAJOR GROUP CODE	I-99
SICNM	Char	40	SIC NAME	I-99
SPRCOEF	Num	8	SEASONALITY COEFFICIENT - SPRING	I-98
STATE	Char	2	STATE FIPS CODE	I-106
STBA	Char	1	STANDARD BASIS	I-100
STTE	Char	2	STATE CODE	I-106
STUDY0	Char	1	STUDY AREA 0	I-106
STUDY1	Char	1	STUDY AREA 1	I-106
STUDY2	Char	1	STUDY AREA 2	I-106
STUDY3	Char	1	STUDY AREA 3	I-106
STUDY4	Char	1	STUDY AREA 4	I-107
STUDY5	Char	1	STUDY AREA 5	I-107
SUMCOEF	Num	8	SEASONALITY COEFFICIENT - SUMMER	I-98
TELE	Char	10	COGNIZANT OFFICIAL TELEPHONE	I-6
TPCAS	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR AS (mg/L)	I-127
TPCBOD	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR BOD (mg/L)	I-127
TPCCD	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR CD (mg/L)	I-127
TPCCHP	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR CHP (mg/L)	I-127
TPCCR	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR CR (mg/L)	I-127
TPCCU	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR CU (mg/L)	I-127
TPCFCB	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR FCB (cell/100mL)	I-127
TPCFE	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR FE (mg/L)	I-127
TPCHG	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR HG (mg/L)	I-127
TPCN	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR N (mg/L)	I-127
TPCOG	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR OG (mg/L)	I-127
TPCP	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR P (mg/L)	I-127
TPCPB	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR PB (mg/L)	I-127
TPCPCB	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR PCB (mg/L)	I-127
TPCTSS	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR TSS (mg/L)	I-127
TPCZN	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR ZN (mg/L)	I-127
TRET	Char	24	TREATMENT TYPES	I-108
TSSANN	Num	8	TOTAL SUSPENDED SOLIDS ANNUAL (TOTAL) IN LB	I-107
TSSBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR TOTAL SUSPENDED SOLIDS	I-84
TSSCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR TOTAL SUSPENDED SOLIDS	I-88

Appendix 1b. Variable Name Cross Reference Table

Variable	Type	Length	Description	Page
TSSFAL	Num	8	TOTAL SUSPENDED SOLIDS FALL IN LB	I-107
TSSSPR	Num	8	TOTAL SUSPENDED SOLIDS SPRING IN LB	I-107
TSSSUM	Num	8	TOTAL SUSPENDED SOLIDS SUMMER IN LB	I-108
TSSWIN	Num	8	TOTAL SUSPENDED SOLIDS WINTER IN LB	I-108
TYPA	Char	2	TYPE OF APPLICATION	I-125
TYPO	Char	3	TYPE OF OWNERSHIP	I-126
UNITSCD	Char	2	POLLUTANT LOAD UNITS CODE	I-89,104
WAST	Char	2	TYPE OF EFFLUENT WASTE	I-125
WINCOEF	Num	8	SEASONALITY COEFFICIENT - WINTER	I-99
WQUA	Char	1	WATER QUALITY LIMITS INDICATOR	I-127
ZNANN	Num	8	ZINC ANNUAL (TOTAL) IN LB	I-127
ZNBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR ZINC	I-84
ZNCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR ZINC	I-88
ZNFAL	Num	8	ZINC FALL IN LB	I-127
ZNSPR	Num	8	ZINC SPRING IN LB	I-128
ZNSUM	Num	8	ZINC SUMMER IN LB	I-128
ZNWIN	Num	8	ZINC WINTER IN LB	I-128

Appendix II.
Typical Pollutant Concentrations for NCPDI Discharge Categories

Appendix II. Typical Pollutant Concentrations for NCPDI Discharge Categories

Code	NCPDI Discharge Category Name	SIC Codes	Pollutant Concentrations																Operating Days	P-factor	Seasonality factor				SDAC	References (No. and Page)
			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 ug/l	Zn mg/l	O & G mg/l	PCB ug/l	CHP ug/l			winter	spring	summer	fall		
1	ASBESTOS	3292	16.0	26.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250	0.75	0.250	0.250	0.250	0.250		(4) pp. 57-64 (5) pp. 82-97
2	BAKERY PRODUCTS	2051, 2052, 2065, 2066 2067	6.0	12.0	2.1	-	-	-	-	-	-	-	-	-	-	1.6	-	-	250	0.90	0.250	0.250	0.250	0.250		(3) see Table 1
3	BATTERY MFG.	3691, 3692	-	125.4	-	-	-	1.0	0.001	9.000	0.400	0.08	1.500	160,200	44.500	7.2	-	-	250	0.50	0.250	0.250	0.250	0.250		(1) Appendix B
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		(3) see Table 1
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		(24) pp. 396-403 (2) pp. 3.2.1-11
6	CANNED & PRESERVED a/ FRUITS & VEGETABLES	2031 - 2037	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	FP FQ FT	(2) pp. 3.2.2-6 (8) pp. 172-173 (9) p. 36
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	0.169 0.243	0.207 0.248	CV CF	(6) pp. 43-62, 106-122, 213-278
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	CW CY	(7) pp. 100-114
9	Finfish	2091, 2092	360.7	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	CX CZ	(7) pp. 150-166
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		(3) See Table 1
11	CEMENT	3241	-	27.7	-	-	-	-	-	0.002	-	0.2	0.080	-	-	-	-	-	300	0.75	0.206	0.249	0.277	0.264		(2) pp. 3.1.18-7 (10) pp. 28-32
12	CHEMICAL PRODUCTS b/ Inorganic Chemicals	2812, 2813, 2816, 2819 2892, 2899, 3274	-	46.0	1.9	-	-	0.04	0.030	0.070	0.070	0.02	0.200	1.800	0.200	-	-	-	350	1.00	0.250	0.250	0.250	0.250		(1) Appendix H (1) Appendix S
13	Nitrogenous Fertilizers	2873, 2875	-	8.7	4.4	-	-	-	-	0.010	-	-	-	-	-	-	-	-	250	0.75	0.250	0.250	0.250	0.250		(15) Section III
14	Phosphatic Fertilizers	2874	-	2.5	-	2.8	-	-	-	0.010	-	-	-	-	0.005	-	-	-	250	0.75	0.250	0.250	0.250	0.250		(16) Section III
15	Organic Chemicals c/	2821, 2823, 2824, 2851 2865, 2893, 2895, 3952, 3953, 3955, 7535	23.6	47.7	33.4	-	-	0.03	0.003	0.700	0.100	-	0.030	3.600	0.300	15.5	-	-	350	0.50	0.250	0.250	0.250	0.250		(1) Appendix H (for metals) (26) pp. 145, 153, 278-280 (others)
16	Adhesives and Sealants d/	2891	3.1	4.2	-	0.2	-	-	-	0.500	1.000	-	-	-	1.000	-	-	-	250	0.50	0.250	0.250	0.250	0.250		Not regulated based upon NPDES permit related DMR's for 10 East Coast plants
17	Gum and Wood Chemicals	2861	69.8	27.0	-	-	-	0.03	-	0.300	0.700	-	0.006	-	0.200	-	-	-	250	0.75	0.250	0.250	0.250	0.250		(21) p. 49
18	Pesticides	2869, 2879	43.5	15.3	-	-	-	-	-	-	0.001	-	-	-	-	-	-	22.7	300	0.50	0.250	0.250	0.250	0.250		(28) pp. 69-74, 100-106(others) (1) Section III (for metals)
19	Pharmaceutical	2831, 2833, 2834	83.0	108.0	-	-	-	-	-	0.050	0.090	-	0.050	0.200	0.300	-	-	-	365	0.50	0.250	0.250	0.250	0.250		(1) Section III: (43) Mean Values
20	Soaps and Detergents	2841-44	2.0	1.9	-	-	-	-	-	0.050	0.020	-	0.007	-	0.030	-	-	-	250	0.34	0.250	0.250	0.250	0.250		(40) pp. 12, 21
21	CONCRETE e/	3271-73, 3281	-	8.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250	0.90	0.206	0.249	0.277	0.264		Not regulated-based upon DMR's for 7 plants

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): FP, highly seasonal operation; FQ, year-round operation with some seasonal variation; FT, year-round operation with some minor variation; CV, plants processing finfish and shellfish; CF, species processed unknown; CW, plants processing a diversity of shellfish; CY, plants processing a limited number of shellfish; CX, plants processing a diversity of finfish; CZ, plants processing a limited number of finfish.

Appendix II. Typical Pollutant Concentrations for NCPDI Discharge Categories

Code	NCPDI Discharge Category Name	SIC Codes	Pollutant Concentrations																Operating Days	P-factor	Seasonality factor				SDAC	References (No. and Page)
			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 ug/l	Zn mg/l	O & G mg/l	PCB ug/l	CHP ug/l			winter	spring	summer	fall		
22	CLAY PRODUCTS Structural Clay Products	3251-59	14.0	25.0	-	-	-	-	0.020	-	-	1.7	-	-	-	-	-	-	250	0.90	0.250	0.250	0.250	0.250		(3) see Table 1
23	Pottery and Related Products	3261-69, 3275, 3295-97, 3299	21.0	33.0	-	-	-	-	0.060	0.020	-	0.6	0.9	-	0.24	-	-	-	250	0.90	0.250	0.250	0.250	0.250		(3) see Table 1
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		(2) pp. 5.1-16; (12) pp. 48-68
25	EDIBLE OILS	2079	45.3	47.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250	0.90	0.250	0.250	0.250	0.250		(24) pp. 315-331, 530-566
26	ELECTRICAL PRODUCTS Electrical & Electronic Components	3624, 3641, 3671, 3672, 3674, 3676, 3679, 3699	21.4	10.9	7.3	1.0	-	0.030	0.050	0.090	0.2	0.3	0.10	0.7	0.2	4.2	-	-	250	1.00	0.250	0.250	0.250	0.250		(3) see Table 1
27	Power Transformers	3677, 3612	15.5	11.0	-	-	-	-	0.030	0.030	0.10	-	0.04	-	0.1	3.5	10.0	-	250	1.00	0.250	0.250	0.250	0.250		(1) Section III
28	FEEDLOTS f/	0211-0291	90.0	178.6	28.5	41.0	400.0	-	-	-	-	-	-	-	-	-	-	-	365	1.00	0.250	0.250	0.250	0.250		(2) pp. 3.2.2-6; (14) pp. 54-131
29	FISH HATCHERIES g/	0921	4.8	6.0	0.7	0.1	-	-	-	-	-	-	-	-	-	-			365	1.00	0.003	0.426	0.426	0.144		(17) pp. 54-75
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		(1) Section III
31	FOOD AND BEVERAGES (MISC.)	2038, 2047, 2074-2076, 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		(3) see Table 1
32	GLASS MFG.	3211, 3221, 3229, 3231	11.7	15.1	-	1.0	-	0.080	0.200	0.030	0.3	1.2	0.07	-	0.1	7.0	-	-	250	0.75	0.250	0.250	0.250	0.250		(16) pp. 90-92; (19) p. 33; (20) pp. 45-60
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		(3) see Table 1
34	HOSPITALS	8062, 8063, 8069	15.0	20.0	33.4	11.7	-	-	-	0.040	0.4	2.0	-	5.3	-	27.2	-	-	365	1.00	0.250	0.250	0.250	0.250		(22) pp. v-1-25, 26
35	IRON & STEEL h/	3312, 3313, 3315-17	-	12.3	2.9	-	-	0.020	0.010	0.020	0.02	0.1	0.04	-	0.1	2.5	-	-	350	0.10	0.245	0.272	0.255	0.238		(1) Section III
36	LAUNDRIES	7211 - 7219	122.9	79.5	-	2.7	-	-	-	-	-	-	-	-	-	-	-	-	250	1.00	0.250	0.250	0.250	0.250		(3) see Table 1
37	LEATHER TANNING	3111, 3131, 3142-3144 3149, 3151, 3161, 3171, 3172, 3199	33.0	56.0	48.8	-	-	-	-	4.800	0.03	-	0.05	0.3	0.1	19.6	-	-	250	1.00	0.250	0.250	0.250	0.250		(1) Section III
38	METAL FINISHING Finishing	1/	-	11.2	-	-	-	-	0.100	0.600	0.8	-	0.2	-	0.5	11.8	-	-	250	0.10	0.250	0.250	0.250	0.250		(1) Section III
39	Coil Coating	3479, 3497	-	48.4	-	2.5	-	-	0.050	1.200	0.007	2.6	0.04	-	5.7	18.1	-	-	250	1.00	0.250	0.250	0.250	0.250		(1) Sec. III; (11) pp. 106-136, 167
40	Can Making	3411	-	12.0	-	4.1	-	0.500	0.080	0.080	0.600	0.4	0.1	60.0	0.3	10.0	-	-	250	0.10	0.250	0.250	0.250	0.250		(1) Section III
41	MACHINERY Instruments	3811-3873	6.9	11.2	5.9	1.3	-	0.100	0.030	0.200	0.300	0.5	0.1	10.0	0.4	5.9	-	-	250	0.10	0.250	0.250	0.250	0.250		(3) see Table 1
42	Machinery	3511-3599	10.1	10.0	3.0	0.9	-	0.000	0.010	0.070	0.100	0.5	0.01	2.0	0.1	4.3	-	-	250	0.10	0.250	0.250	0.250	0.250		(3) see Table 1
43	Miscellaneous Manufacturing	3914, 3915, 3931, 3944, 3949, 3951, 3961, 3963, 3964, 3993, 3995, 3999	8.9	7.0	25.8	0.6	-	0.200	0.020	0.100	1.500	0.3	0.07	3.0	0.3	3.5	-	-	250	0.10	0.250	0.250	0.250	0.250		(3) see Table 1
44	Shipbuilding	3731, 3732	-	26.7	-	-	-	0.060	0.070	0.100	0.200	3.4	0.09	1.7	0.3	2.2	-	-	250	1.00	0.250	0.250	0.250	0.250		(32) pp. 59, 62

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 II. Typical Pollutant Concentrations for NCPDI Discharge Categories

Code	NCPDI Discharge Category Name	SIC Codes	Pollutant Concentrations																Operating Days	P-factor	Seasonality factor				SDAC	References (No. and Page)
			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 ug/l	Zn mg/l	O & G mg/l	PCB ug/l	CHP ug/l			winter	spring	summer	fall		
45	Transportation Equipment	3711-3726, 3743-3799	12.6	11.9	3.6	0.7	-	0.010	0.050	0.030	0.100	0.8	0.1	1.0	0.2	3.4	-	-	250	0.90	0.250	0.250	0.250	0.250		(3) see Table 1
46	MINERAL MINING	1211, 1411-1499	-	9.0	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-	250	1.00	0.250	0.250	0.250	0.250		(3) see Table 1
47	MISCELLANEOUS INDUSTRIAL, COMMERCIAL	j/	23.9	22.1	11.2	7.0	200.0	0.003	0.001	0.040	0.040	0.7	0.05	0.3	0.1	11.2	-	-	300	0.50	0.250	0.250	0.250	0.250		(42) pp. 36-87
48	NONFERROUS METALS k/ Primary Nonferrous Metals	3331, 3332, 3334-3339	-	26.7	8.5	-	-	0.040	0.020	0.050	0.100	-	0.07	-	0.05	7.0	-	-	300	0.50	0.250	0.250	0.250	0.250		(1) Appendix K, T
49	Primary Zinc l/	3333	-	1.1	-	-	-	0.501	0.080	0.080	0.600	-	0.1	-	0.3	-	-	-	300	0.50	0.250	0.250	0.250	0.250		(1) Appendix K
50	Secondary Nonferrous Metals	3341	-	126.3	-	-	-	0.300	0.090	0.060	0.200	-	1.7	-	0.5	0.3	-	-	300	0.50	0.250	0.250	0.250	0.250		(1) Appendix K, T
51	Nonferrous Metal Forming	3356, 3357, 3363	-	15.5	52.1	-	-	-	0.100	0.100	0.700	0.5	0.1	-	0.5	10.0	-	-	250	0.50	0.250	0.250	0.250	0.250		(25) pp. 649, 762-778
52	Aluminum Forming	3353-3355	-	34.4	-	-	-	-	0.002	3.3	9.000	-	0.030	-	8.1	34.6	-	-	250	0.00	0.250	0.250	0.250	0.250		(1) Section III
53	Copper Forming	3351	-	12.0	-	2.1	-	-	0.080	0.08	0.600	0.400	0.100	-	0.3	10.0	-	-	250	0.00	0.250	0.250	0.250	0.250		(1) Appendix K, Section III
54	ORE MINING AND DRESSING	1011, 1021, 1031, 1041, 1044, 1051, 1061, 1081, 1092, 1094	-	5.0	-	-	-	0.500	0.005	0.05	0.030	0.500	0.070	1.0	0.4	-	-	-	220	1.00	0.250	0.250	0.250	0.250		(3) see Table 1
55	PAVING AND ROOFING	2951, 2952, 3996	9.5	40.0	0.1	-	-	0.002	0.100	0.2	0.100	0.600	1.000	0.9	0.2	19.5	-	-	250	0.90	0.184	0.225	0.312	0.278		(27) pp. 4-10, 39
56	PETROLEUM REFINING	2911, 2992, 2999	13.5	26.1	6.8	-	-	-	-	0.1	0.010	-	0.005	0.9	0.1	17.1	-	-	350	0.25	0.250	0.250	0.250	0.250		(1) Section III
57	PHOTOGRAPHIC PROCESSING	7395	143.1	5.9	21.0	-	-	-	0.050	0.05	-	6.700	0.080	-	-	-	-	-	250	0.50	0.250	0.250	0.250	0.250		(1) Section III
58	PLASTICS MOLDING AND FORMING	3079, 3652	11.7	86.4	0.2	1.1	-	-	0.006	0.02	0.006	0.300	0.090	-	0.08	7.5	-	1.6	250	0.25	0.250	0.250	0.250	0.250		(29) pp. 100, 123-128
59	PORCELAIN ENAMELING	3431, 3469, 3611, 3631-33, 3639	-	12.0	-	4.1	-	0.200	0.080	0.08	0.600	0.400	0.100	-	0.3	10.0	-	-	250	1.00	0.250	0.250	0.250	0.250		(1) Appendix M
60	PRINTING AND PUBLISHING	2711 - 2795	6.0	3.5	7.6	-	-	0.006	-	0.4	0.200	-	0.800	-	2.9	7.0	-	-	230	0.50	0.250	0.250	0.250	0.250		(41) pp. 69-93
61	PULP AND PAPER	2611 - 2655	17.3	28.4	1.4	-	-	-	-	0.03	0.010	-	0.010	0.1	0.2	-	-	-	350	0.90	0.242	0.261	0.247	0.252		(1) Sec. III, Appendix N
62	RENDERING m/	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		(3) see Table 1
63	RUBBER PROCESSING	2822, 3021, 3031, 3041, 3069, 3293, 7534	33.0	40.0	-	-	-	-	-	-	-	-	0.010	-	0.4	15.0	-	-	250	0.00	0.250	0.250	0.250	0.250		(2) pp. 3.1.14-7, 3.1.5-8, 3.2.1-12; (30) pp. 52-63
64	TIRE AND INNER TUBE	3011	7.2	40.0	-	-	-	-	-	-	-	-	-	-	-	10.0	-	-	250	0.00	0.250	0.250	0.250	0.250		(31) pp. 78-87
65	STEAM ELECTRIC Process Flows	4911	-	30.0	-	-	-	0.070	0.009	0.06	0.090	0.800	0.010	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	SE SP WN	(33) pp. 110-130, 176-238

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): SE, base load plant; SP, peak load plant; WN, nuclear steam electric power plant.

Appendix II. Typical Pollutant Concentrations for NCPDI Discharge Categories

Code	NCPDI Discharge Category Name	SIC Codes	Pollutant Concentrations																Operating Days	P-factor	Seasonality factor				SDAC	References (No. and Page)
			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 ug/l	Zn mg/l	O & G mg/l	PCB ug/l	CHP ug/l			winter	spring	summer	fall		
68	SUGAR PRODUCTS Beet Sugar	2063	68.5	478.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250	0.75	0.250	0.250	0.250	0.250		(2) pp. 3.2.1-11, 2.3.2-6 (34) p. 61
69	Cane Sugar	2061, 2062	57.0	160.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	260	0.75	0.250	0.250	0.250	0.250		(35) p. 66; (36) p. 80
70	TEXTILE MFG. General Textile Mfg	2311-2399, 2281-2284, 2293, 2294	22.4	49.1	-	-	-	0.020	0.003	0.06	0.060	-	0.060	0.6	0.5	26.3	-	-	250	1.00	0.250	0.250	0.250	0.250		(1) Appendix O
71	Wool Scouring	2299	50.0	230.1	-	-	-	0.040	0.030	0.04	0.080	-	0.900	1.0	0.3	190.0	-	-	250	1.00	0.250	0.250	0.250	0.250		(1) Appendix O
72	Wool Finishing	2231	25.0	60.0	-	-	-	0.020	0.006	0.4	0.020	-	0.100	-	2.3	-	-	-	250	1.00	0.250	0.250	0.250	0.250		(1) Appendix O
73	Low Water Use Textile Processing	2211, 2221, 2241, 2295, 2296, 2298	30.4	88.0	-	-	-	-	0.005	0.01	0.040	-	0.060	-	2.3	-	-	-	250	1.00	0.250	0.250	0.250	0.250		(37) pp. 132, 195, 369
74	Woven Fabric Finishing	2261, 2262	22.0	48.7	-	-	-	0.020	0.002	0.020	0.060	-	0.040	0.8	0.400	14.0	-	-	250	1.00	0.250	0.250	0.250	0.250		(1) Appendix O
75	Knit Fabric Finishing	2251-54, 2257-59, 2292	23.6	41.0	-	-	-	0.020	0.005	0.050	0.060	-	0.040	1.4	0.300	21.0	-	-	250	1.00	0.250	0.250	0.250	0.250		(1) Appendix O
76	Carpet Finishing	2271, 2272, 2279	35.0	65.0	-	-	-	-	0.004	0.200	0.040	-	0.030	-	0.200	6.0	-	-	250	1.00	0.250	0.250	0.250	0.250		(1) Appendix O
77	Stock and Yarn	2269	10.0	25.0	-	-	-	0.006	0.005	0.070	0.090	-	0.080	1.0	0.300	90.0	-	-	250	1.00	0.250	0.250	0.250	0.250		(1) Appendix O
78	Nonwoven Mfg.	2297	35.0	65.0	-	-	-	-	0.004	0.200	0.040	-	0.030	-	0.200	4.8	-	-	250	1.00	0.250	0.250	0.250	0.250		(1) Appendix O
79	Felted Fabric	2291	25.0	60.0	-	-	-	-	-	0.040	-	-	0.050	-	-	2.4	-	-	250	1.00	0.250	0.250	0.250	0.250		(1) Appendix O
80	TIMBER PRODUCTS Sawmills	2411-2429, 2661	38.7	31.8	-	-	-	-	-	1.000	0.100	-	0.040	-	0.500	9.8	-	-	250	0.90	0.250	0.250	0.250	0.250		(3) see Table 1
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		(3) see Table 1
82	TRANSPORTATION Railroads	4011, 4013	17.4	19.9	-	-	-	-	-	0.200	-	-	-	-	-	10.2	-	-	365	0.90	0.250	0.250	0.250	0.250		(38) p. 6
83	Trucking	4131, 4151, 4221, 4171-4214, 4222, 4231	22.3	19.9	-	-	-	-	-	0.200	-	-	-		-	10.4	-	-	365	0.90	0.250	0.250	0.250	0.250		(39) p. II.4
84	Residentials ·	6513-6515, 7011-7041, 8811	113.9	156.8	14.2	10.0	2.0E+3	0.005	0.002	0.016	0.072	1.300	0.097	0.4	0.214	27.6	-	-	365	1.00	0.250	0.250	0.250	0.250	WR	(48)
98	Water Supply Treatment Plants	4941	-	35.0 50.0	-	-	-	-	-	-	-	- 50.000	-	-	-	-	-	-	365 365	1.00 1.00	0.250 0.250	0.250 0.250	0.250 0.250	0.250 0.250	WA WF	(49)
99	Sewerage Systems	4952	207.3 158.3 23.9 12.0	209.1 114.4 22.1 11.1	15.1 15.1 11.2 5.6	13.0 13.0 7.0 3.5	5.0E+7 2.0E+5 2000 1000	0.034 0.034 0.032 0.016	0.054 0.054 0.011 0.006	0.234 0.092 0.043 0.022	0.224 0.146 0.037 0.019	6.300 2.500 0.700 0.350	0.116 0.059 0.045 0.023	0.7 0.6 0.3 0.2	0.869 0.502 0.165 0.083	50.7 27.6 11.2 5.6	- - - -	0.8 0.8 0.6 0.3	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	TU TP TS TT	(50)
	Recycled Cooling		-	30.0	-	-	-	0.002	0.010	0.050	0.050	0.500	0.060	0.4	0.080	-	-	-	-	-	-	-	-	-		(44) pp. 8-16
	Once Through Cooling n/		-	-	-	-	-	-	-	-	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-		(45) pp. 278-282 (46) pp. 63-66 (47) pp. 244-247

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): WR, residential code assigned based on SIC (SIC = 6513-6515, 7011-7041, 8811); WA, indicates that alum coagulation is the main treatment process; WF, indicates that iron treatment is the major treatment process; TU, untreated wastewater; TP, primary wastewater treatment; TS, secondary wastewater treatment; TT, tertiary wastewater treatment.

Footnotes

a/ Canned & Preserved Seafood. One outlying value was dropped in calculating mean values. Development document categories were consolidated into shellfish plants, finfish plants, and plants processing both shellfish and finfish to better reflect actual plants.

b/ Inorganic Chemicals. Iron is only found in the waste stream of two subcategories and was dropped to prevent skewing of results. Explosives are covered under inorganic chemical values due to difficulties in deriving realistic values.

c/ Organic Chemicals. Paint and ink plants covered by organic chemical values due to difficulties in deriving realistic values from the limited numbers of plants sampled and reported in the source documents.

d/ Adhesives & Sealants. Not currently regulated but permitted in some states; values based on Discharge Monitoring Reports for 10 plants.

e/ Concrete. Not currently regulated but permitted in some states, values based on Discharge Monitoring Reports for seven plants.

f/ Feedlots. FCB is assumed to be equal to the best practicable technology regulated level. The only feedlots that are direct discharges are wet duck farming, and values represent this activity.

g/ Fish Hatcheries. Includes cleaning waste stream and normal daily operations.

h/ Iron & Steel. Ferroalloys are covered under this category.

i/ Metal Finishing. This category is defined by EPA for 66 individual SIC categories: 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, 3483, 3484, 3489, 3493, 3494, 3496, 3498, 3499, 3613, 3621, 3622, 3623, 3629, 3634-3636, 3643-48, 3651, 3661, 3662, 3673, 3675, 3678, 3693, 3694, 7531, 7692-7699.

j/ Miscellaneous Industrial Commercial. Assumed to represent small package treatment plants with discharge characteristics similar to secondary treatment: 111, 112, 115, 116, 119, 131, 132, 133, 134, 139, 161, 171, 172, 173, 174, 175, 179, 181, 182, 191, 273, 711, 721, 722, 723, 724, 741, 742, 751, 752, 761, 762, 781, 782, 783, 811, 831, 851, 912, 913, 919, 971, 1099, 1221, 1222, 1231, 1241, 1311, 1321, 1381, 1382, 1389, 1521, 1522, 1531, 1541, 1542, 1611, 1622, 1623, 1629, 1711, 1721, 1731, 1741, 1742, 1743, 1751, 1752, 1761, 1771, 1781, 1791, 1793, 1794, 1795, 1796, 1799, 2015, 2053, 2064, 2068, 2096, 2111, 2121, 2131, 2141, 2273, 2281, 2282, 2284, 2519, 2656, 2657, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2796, 2835, 2836, 3052, 3053, 3061, 3081, 3082, 3083, 3084, 3085, 3086, 3087, 3088, 3089, 3291, 3364, 3365, 3366, 3463, 3491, 3492, 3495, 3625, 3663, 3669, 3695, 3911, 3942, 3965, 3991, 4111, 4119, 4121, 4141, 4142, 4215, 4225, 4226, 4311, 4412, 4424, 4432, 4449, 4481, 4482, 4489, 4491, 4492, 4493, 4499, 4512, 4513, 4522, 4581, 4612, 4613, 4619, 4724, 4725, 4729, 4731, 4741, 4783, 4785, 4789, 4812, 4813, 4822, 4832, 4833, 4841, 4899, 4922, 4923, 4924, 4925, 4931, 4932, 4939, 4953, 4959, 4961, 4971, 5011, 5012, 5013, 5014, 5015, 5021, 5023, 5031, 5032, 5033, 5039, 5043, 5044, 5045, 5046, 5047, 5048, 5049, 5051, 5052, 5063, 5064, 5065, 5074, 5075, 5078, 5082, 5083, 5084, 5085, 5087, 5088, 5091, 5092, 5093, 5094, 5099, 5111, 5112, 5113, 5122, 5131, 5136, 5137, 5139, 5141, 5143, 5145, 5147, 5149, 5153, 5159, 5162, 5169, 5171, 5172, 5181, 5182, 5191, 5192, 5193, 5194, 5198, 5199, 5211, 5231, 5251, 5261, 5271, 5311, 5331, 5399, 5411, 5421, 5431, 5441, 5451, 5461, 5499, 5511, 5521, 5531, 5541, 5551, 5561, 5571, 5599, 5611, 5621, 5632, 5641, 5651, 5661, 5699, 5712, 5713, 5714, 5719, 5722, 5731, 5734, 5735, 5736, 5812, 5813, 5912, 5921, 5932, 5941, 5942, 5943, 5944, 5945, 5946, 5947, 5948, 5949, 5961, 5962, 5963, 5983, 5984, 5989, 5992, 5993, 5994, 5995, 5999, 6011, 6019, 6021, 6022, 6029, 6035, 6036, 6061, 6062, 6081, 6082, 6091, 6099, 6111, 6112, 6141, 6153, 6159, 6162, 6163, 6211, 6221, 6231, 6282, 6289, 6311, 6321, 6324, 6331, 6351, 6361, 6371, 6399, 6411, 6512, 6517, 6519, 6531, 6541, 6552,

6553, 6712, 6719, 6722, 6726, 6732, 6733, 6792, 6794, 6798, 6799, 7221, 7231, 7241, 7251, 7261, 7291, 7299, 7311, 7312, 7313, 7319, 7322, 7323, 7331, 7334, 7335, 7336, 7338, 7342, 7349, 7352, 7353, 7359, 7361, 7363, 7371, 7372, 7373, 7374, 7375, 7376, 7377, 7378, 7379, 7381, 7382, 7383, 7384, 7389, 7513, 7514, 7515, 7519, 7521, 7532, 7533, 7536, 7537, 7538, 7539, 7549, 7622, 7623, 7629, 7631, 7641, 7812, 7819, 7822, 7829, 7832, 7833, 7841, 7911, 7922, 7929, 7933, 7941, 7948, 7991, 7992, 7993, 7996, 7997, 7999, 8011, 8021, 8031, 8041, 8042, 8043, 8049, 8051, 8052, 8059, 8071, 8072, 8082, 8092, 8093, 8099, 8111, 8211, 8221, 8222, 8231, 8243, 8244, 8249, 8299, 8322, 8331, 8351, 8361, 8399, 8412, 8422, 8611, 8621, 8631, 8641, 8651, 8661, 8699, 8711, 8712, 8713, 8721, 8731, 8732, 8733, 8734, 8741, 8742, 8743, 8744, 8748, 8999, 9111, 9121, 9131, 9199, 9211, 9221, 9222, 9223, 9224, 9229, 9311, 9411, 9431, 9441, 9451, 9511, 9512, 9531, 9532, 9611, 9621, 9631, 9641, 9651, 9661, 9711, 9721, 9999.

k/ Nonferrous Primary and Secondary. Subcategories are consolidated under primary and secondary category; based on flow weighted averages for current concentration levels from reference 1. A nitrogen value is not given for secondary nonferrous due to the wide range of concentration values given (3-3000 mg/1) in the source document.

1/ Primary Zinc. Not regulated until 1984; values represent pretreatment levels as currently regulated.

m/ Meat Processing and Rendering. FCB was derived from the EPA Development Document. Note that there is no value for oil and grease because it is defined as petroleum hydrocarbons and not animal fats and oils.

n/ Steam Electric. Once-through cooling concentrations represent values for saline waters and not freshwater.

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PSC Branch best judgement, assume secondary treatment level for FCB.
U.S. EPA, 1982b, for O & G.
Evans, EPA-MERL, personal communication for TP, Fe.

49. Assumes typical doses of alum or ferrous sulfate. All products are considered to be insoluble and are included in the TSS loadings.

50. U.S. EPA, 1982b, for BOD, TSS, TN, O & G, Fe, As, Cd, Cr, Cu, Pb, Hg, Zn, PCB, CHP.
Verosa, EPA-MERL, personal communication for FCB.
Evans, EPA-MERL, personal communication for TP.

Appendix III.
Typical Flow Values

Appendix III. Typical Flow Values

SIC Code	Process Flow		Combined Process & Cooling Flow		Cooling Flow	
	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations
0111 - 0161	-	-	-	-	-	-
0171	0.175	2	-	-	-	-
0172 - 0173	-	-	-	-	-	-
0174	0.175	2	56.524	2	-	-
0175 - 0189	-	-	-	-	-	-
0191	0.330	1	0.020	1	-	-
0211	0.193	9	-	-	-	-
0212 - 0219	-	-	-	-	-	-
0241	0.432	9	0.079	1	-	-
0251	-	-	-	-	-	-
0252	0.163	8	-	-	-	-
0253 - 0254	-	-	-	-	-	-
0259	0.163	8	-	-	-	-
0271 - 0272	-	-	-	-	-	-
0279	0.193	9	-	-	-	-
0291 - 0912	-	-	-	-	-	-
0913	0.109	3	0.001	1	-	-
0921	4.775	55	1.000	1	-	-
0971 - 1321	-	-	-	-	-	-
1381	0.860	2	-	-	-	-
1382 - 1411	-	-	-	-	-	-
1422 - 1423	-	-	0.090	11	-	-
1429	1.516	4	0.066	12	-	-
1442 - 1446	0.351	13	0.670	15	-	-
1452 - 1454	-	-	-	-	-	-
1455 - 1459	-	-	0.090	11	-	-
1472 - 1499	-	-	-	-	-	-
1521 - 1629	-	-	0.283	4	-	-
1711 - 1799	-	-	-	-	-	-
2011	0.509	5	0.059	2	-	-
2013	0.186	4	0.018	1	0.067	1
2016	0.698	10	0.294	2	-	-
2017 - 2021	-	-	-	-	-	-
2022 - 2024	0.034	8	0.028	3	0.045	4
2026	0.034	8	0.028	4	0.045	4
2032	0.111	4	-	-	0.420	2
2033	0.263	15	0.300	9	0.190	14
2034	-	-	-	-	-	-
2035	0.263	15	0.300	9	0.190	14
2037 - 2038	0.125	4	1.838	7	0.498	3
2041 - 2046	-	-	-	-	-	-
2047 - 2048	0.083	3	2.015	1	1.420	1
2051 - 2061	-	-	-	-	-	-

Appendix III. Typical Flow Values

SIC Code	Process Flow		Combined Process & Cooling Flow		Cooling Flow	
	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations
2062	0.357	5	-	-	0.708	2
2063	-	-	-	-	-	-
2065	0.072	1	-	-	-	-
2066 - 2076	-	-	-	-	-	-
2077	0.877	10	2.325	10	2.267	1
2079	-	-	-	-	-	-
2082	0.039	7	3.200	3	0.025	6
2083	0.039	7	3.200	2	0.025	6
2084	0.039	7	3.200	3	0.025	6
2085 - 2086	0.039	7	3.200	2	0.025	6
2087	-	-	-	-	-	-
2091	0.061	40	-	-	0.100	1
2092	0.002	227	0.001	10	0.053	4
2095 - 2098	-	-	-	-	-	-
2099	0.050	7	0.160	5	0.360	1
2111 - 2141	-	-	-	-	-	-
2211 - 2399	0.198	16	0.411	14	0.040	17
2421	0.090	24	0.192	13	7.545	2
2426 - 2435	-	-	-	-	-	-
2436	0.110	14	-	-	-	-
2439 - 2452	-	-	-	-	-	-
2491	0.009	4	0.079	22	0.005	33
2492	-	-	0.079	22	-	-
2499 - 2512	-	-	-	-	-	-
2514	0.010	27	0.025	33	0.024	58
2515 - 2599	-	-	-	-	-	-
2611	-	-	-	-	0.199	5
2621	1.325	14	1.098	5	2.330	3
2631	0.265	10	7.907	6	0.406	7
2641 - 2651	-	-	-	-	-	-
2652 - 2653	0.046	5	0.054	12	0.087	13
2654	-	-	-	-	-	-
2655	0.046	5	0.054	12	0.087	13
2661	-	-	-	-	-	-
2711 - 2741	0.038	5	0.017	4	0.036	7
2751	-	-	-	-	-	-
2752	0.038	5	0.017	4	0.036	7
2753	-	-	-	-	-	-
2754 - 2791	0.038	5	0.017	4	0.036	7
2793 - 2795	-	-	-	-	-	-
2812 - 2819	0.216	18	0.085	32	0.246	31
2821	2.424	5	0.473	12	0.275	16
2822	-	-	-	-	-	-

Appendix III. Typical Flow Values

SIC Code	Process Flow		Combined Process & Cooling Flow		Cooling Flow	
	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations
2823 - 2824	2.424	5	0.473	12	0.275	16
2831	-	-	-	-	-	-
2833 - 2834	0.563	6	0.741	4	0.213	10
2841 - 2844	0.144	5	0.535	4	0.166	9
2851	3.960	2	0.040	6	0.030	8
2861	-	-	9.610	3	-	-
2865	0.284	6	14.490	3	0.662	6
2869	0.200	21	1.275	18	0.093	18
2873	-	-	-	-	-	-
2874	0.800	1	1.500	4	2.155	1
2875	-	-	-	-	-	-
2879	-	-	1.275	18	-	-
2891	0.030	1	-	-	0.230	8
2892 - 2895	-	-	-	-	-	-
2899	0.216	18	0.085	32	0.246	31
2911	1.388	9	1.800	9	64.250	5
2951 - 2952	0.549	12	0.087	12	0.160	2
2992	-	-	2.083	3	-	-
2999 - 3031	-	-	-	-	-	-
3041 - 3069	0.150	3	0.409	5	0.064	13
3079	0.036	17	0.140	17	0.050	39
3111 - 3199	-	-	-	-	-	-
3211 - 3231	0.188	6	0.278	5	0.052	9
3241	6.676	4	2.905	1	0.006	1
3251	0.148	3	-	-	-	-
3253 - 3272	-	-	-	-	-	-
3273	0.015	10	0.016	3	-	-
3274	-	-	-	-	-	-
3275	-	-	-	-	0.007	1
3281 - 3293	-	-	-	-	-	-
3295	0.103	4	8.500	2	-	-
3296	-	-	-	-	-	-
3297	0.069	3	-	-	0.100	3
3299	-	-	-	-	-	-
3312	0.050	8	0.086	33	0.177	14
3313 - 3317	0.050	27	0.086	33	0.177	58
3321	0.010	27	0.179	33	0.037	58
3322 - 3325	0.010	27	0.025	33	0.024	58
3331	0.124	27	1.200	33	0.020	58
3332 - 3333	-	-	-	-	-	-
3334 - 3341	0.124	27	1.200	33	0.020	58
3351	0.280	27	0.104	33	0.325	58
3353 - 3355	0.010	27	0.025	33	0.024	58

Appendix III. Typical Flow Values

SIC Code	Process Flow		Combined Process & Cooling Flow		Cooling Flow	
	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations
3356 - 3357	0.124	27	1.200	33	0.020	58
3361 - 3362	-	-	-	-	-	-
3363 - 3399	0.010	27	0.025	33	0.024	58
3411	0.059	27	0.025	33	0.130	58
3412 - 3442	0.010	27	0.025	33	0.024	58
3443	0.010	58	0.018	3	0.030	33
3444 - 3451	0.010	27	0.025	33	0.024	58
3452	0.054	27	0.052	33	0.134	58
3462 - 3466	0.010	27	0.025	33	0.024	58
3469	0.008	27	0.019	33	0.074	58
3471	0.030	40	0.136	33	0.147	58
3479	0.047	27	0.125	33	0.058	58
3482 - 3495	0.010	27	0.025	33	0.024	58
3496	-	-	-	-	0.027	3
3497 - 3499	0.010	27	0.025	33	0.024	58
3511 - 3524	-	-	-	-	-	-
3531	0.007	1	0.134	3	0.000	1
3532 - 3537	-	-	-	-	-	-
3541 - 3549	0.010	27	0.025	33	0.024	58
3551 - 3555	-	-	-	-	-	-
3559	0.046	3	0.079	2	0.065	4
3561 - 3592	-	-	-	-	-	-
3599	0.010	27	0.025	33	0.024	58
3612	0.055	42	0.048	20	0.045	57
3613 - 3639	-	-	-	-	-	-
3641 - 3648	0.061	4	-	-	0.123	7
3651 - 3652	-	-	-	-	-	-
3661	0.280	3	-	-	0.560	4
3662	0.058	2	0.008	2	0.079	3
3671 - 3673	-	-	-	-	-	-
3674	0.085	4	0.125	8	0.095	4
3675 - 3679	-	-	-	-	-	-
3691 - 3692	0.019	2	0.695	3	0.069	2
3693 - 3713	-	-	-	-	-	-
3714	-	-	0.193	3	0.004	2
3715	-	-	-	-	-	-
3721	0.238	3	0.400	20	3.140	3
3724	-	-	-	-	-	-
3728	0.243	2	0.034	2	0.198	3
3731 - 3732	0.794	10	0.100	7	0.260	10
3743 - 3873	-	-	-	-	-	-
3911 - 3914	0.055	42	0.048	20	0.045	57
3915 - 3963	-	-	-	-	-	-

Appendix III. Typical Flow Values

SIC Code	Process Flow		Combined Process & Cooling Flow		Cooling Flow	
	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations
3964	0.096	3	-	-	-	-
3991 - 3999	-	-	-	-	-	-
4011	0.710	2	0.069	7	-	-
4013	-	-	0.008	3	-	-
4041 - 4142	-	-	-	-	-	-
4151	-	-	0.024	1	-	-
4171 - 4211	-	-	-	-	-	-
4212 - 4231	0.008	4	-	-	-	-
4311 - 4411	-	-	-	-	-	-
4412	0.095	6	0.168	3	-	-
4421 - 4423	-	-	-	-	-	-
4424	0.095	6	0.168	3	-	-
4425 - 4431	-	-	-	-	-	-
4432	0.095	6	0.168	3	-	-
4441	-	-	-	-	-	-
4449	0.095	6	0.168	3	-	-
4452 - 4464	-	-	-	-	-	-
4469	-	-	0.168	20	-	-
4481 - 4499	0.095	6	0.168	23	-	-
4511	-	-	-	-	-	-
4512 - 4513	-	-	0.001	23	-	-
4521	-	-	-	-	-	-
4522 - 4581	-	-	0.001	23	-	-
4582 - 4612	-	-	-	-	-	-
4613	-	-	0.010	1	-	-
4619 - 4723	-	-	-	-	-	-
4724 - 4741	-	-	0.001	23	-	-
4742 - 4782	-	-	-	-	-	-
4783	-	-	0.001	23	-	-
4784	-	-	-	-	-	-
4785 - 4789	-	-	0.001	23	-	-
4811 - 4899	-	-	-	-	-	-
4911	0.072	44	0.301	77	210.000	44
4922 - 4931	-	-	-	-	-	-
4932	-	-	0.217	2	-	-
4939 - 4941	-	-	-	-	-	-
4952	0.479	1212	-	-	-	-
4953	0.476	9	1.720	4	27.500	2
4959	-	-	-	-	-	-
4961	-	-	0.138	1	-	-
4971 - 5031	-	-	-	-	-	-
5039	-	-	0.038	2	-	-
5041 - 5043	-	-	-	-	-	-

Appendix III. Typical Flow Values

SIC Code	Process Flow		Combined Process & Cooling Flow		Cooling Flow	
	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations
5051 - 5052	0.055	42	0.048	20	0.045	57
5063 - 5088	-	-	-	-	-	-
5093 - 5094	0.055	42	0.038	20	0.045	57
5099 - 5122	-	-	0.038	2	-	-
5131 - 5134	-	-	-	-	-	-
5136 - 5145	-	-	0.038	2	-	-
5146	0.072	4	0.003	12	-	-
5147 - 5149	-	-	0.038	2	-	-
5152	-	-	-	-	-	-
5153 - 5159	-	-	0.038	2	-	-
5161	-	-	-	-	-	-
5171	0.015	19	0.009	70	0.014	51
5172	-	-	0.006	4	-	-
5181 - 5271	-	-	-	-	-	-
5311	0.018	2	-	-	-	-
5331 - 5531	-	-	-	-	-	-
5541	0.005	11	-	-	-	-
5551 - 5733	-	-	-	-	-	-
5812	0.007	41	0.004	6	-	-
5813 - 5943	-	-	-	-	-	-
5944	0.055	42	0.048	20	0.045	57
5945 - 6514	-	-	-	-	-	-
6515	0.150	126	-	-	-	-
6517 - 6799	-	-	-	-	-	-
7011	0.023	48	-	-	-	-
7021 - 7033	0.023	45	-	-	-	-
7041 - 7214	-	-	-	-	-	-
7215	0.007	18	-	-	-	-
7216 - 7379	-	-	-	-	-	-
7391	0.280	6	0.143	4	0.246	3
7392 - 7397	-	-	-	-	-	-
7399	0.003	2	0.010	4	-	-
7512 - 7539	-	-	-	-	-	-
7542	0.003	7	0.044	3	-	-
7549 - 7694	-	-	-	-	-	-
7699	0.055	42	0.048	20	0.045	57
7813 - 7996	-	-	-	-	-	-
7997	0.015	9	0.178	2	0.003	1
7999	0.010	5	-	-	-	-
8011 - 8049	-	-	-	-	-	-
8051 - 8059	0.020	12	-	-	-	-
8062	-	-	-	-	-	-
8063 - 8069	0.123	12	-	-	0.011	4

Appendix III. Typical Flow Values

SIC Code	Process Flow		Combined Process & Cooling Flow		Cooling Flow	
	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations	Typical Flow (MGD)	Number of Observations
8071 - 8111	-	-	-	-	-	-
8211	0.010	198	-	-	-	-
8221	0.115	7	-	-	-	-
8222 - 8321	-	-	-	-	-	-
8331	0.020	7	-	-	-	-
8351	-	-	-	-	-	-
8361	0.028	7	-	-	-	-
8399 - 8651	-	-	-	-	-	-
8661	0.009	4	-	-	-	-
8699 - 8811	-	-	-	-	-	-
8911	-	-	0.030	2	-	-
8922	0.030	2	-	-	-	-
8931 - 9222	-	-	-	-	-	-
9223 - 9621	0.030	35	-	-	-	-
9631 - 9661	-	-	-	-	-	-
9711	0.375	29	1.750	5	0.539	3
9721	-	-	-	-	-	-
9999	0.012	28	0.060	31	0.175	6

Appendix IV.
SAS Programs Used to Generate Point Source Pollutant Loading Estimates

Appendix IV. SAS Programs Used to Generate Point Source Pollutant Loading Estimates

The following is a summary of SAS programs written to produce point source pollutant loading estimates for the National Coastal Pollutant Discharge Inventory (NCPDI) Program. The program reference name is shown in bold type (e.g., PROGRAM A) and is the name used in Figure 2 (page 10), which details the inventory development process. The SAS program name is shown in parenthesis (e.g., [PROG_A.SAS]) next to the program reference name. Brief descriptions of program functions are listed as bullets. The summary also indicates in italics if the final program created one of the seven deliverable file in the inventory.

PROGRAM A (PROG_A.SAS)

Manipulates the PCS data obtained from EPA as follows:

- Reads state ASCII PCS file into the following SAS data sets:
  - ST91F (active facility file)
  - ST91F_I (inactive facility file)
  - ST91P (active permit file)
  - ST91P_I (inactive permit file)
  - ST91M (active monitoring file)
  - ST91M_I (inactive monitoring file)
- Creates the following variables: STTE, STATE, FIPS, FLAT1, and FLON1.
- Converts the latitude/longitude data (facility and pipe) reported as degrees/minutes/seconds to decimal degrees.
- Creates the active permit file by keeping only records where MLOC = 1 or MLOC = 2 and by deleting duplicates of parameter codes for a unique report designator (PDSG).
- Deletes any facility that does not have an NPDES number.
- Uses the value of the RCTY variable containing the facility's city name to fill out the variable CYNM when data are missing.
- Enters label names for each field element.

PROGRAM B (PROG_B.SAS)
Creates File I - Facility File Coastal Counties

Manipulates the Facility File Entire State (ST91F) to obtain the Facility File Coastal Counties (CC91ACT) as follows:

- Appends individual state files of active facilities to create a single facility file for the region.
- Keeps only those records in NCPDI coastal counties.
- Assigns SIC codes where missing.
- Creates variables for one-, two-, and three-digit SIC codes to the SIC text name.
- Assigns FIPS codes where missing and associated basis code.
- Assigns hydrologic cataloging units and associated basis code.
- Assigns EDA/CDA codes and associated basis code.
- Assigns a code indicating the accuracy of the facility latitude/longitude coordinates.
- Flags facilities in six study areas.
- Assigns latitude/longitude coordinates when missing using sources such as NPDES permit application forms, state files, city, and ZIP code centroid. Also assigns associated basis code.
- Creates standardized facility name.

- Flags a record to indicate that one or more variables were edited based on the quality control checks.

PROGRAM C (PROG_C.SAS)
Creates File II- Monitoring File

Manipulates the PCS Monitoring File (ST91M) to obtain the Monitoring File (ST91M_N) as follows:

- Creates SEASON and MONTH variables.
- Replaces missing data in the variable RCUN and RUNT (monitoring units) with LCUC and LQUC data (permit units), respectively.
- Changes the following characters in front of values to blanks:
  - (minus)
  < (less than)
  > (greater than)
  T (traces)
  E (estimate)
- Converts character data in the variables MCAV, MCMX, MCMN, MQAV, MQMX to numeric values MCAV1, MCMX1, MCMN1, MQAV1, MQMX1.
- Converts zero values to missing values.

PROGRAM D (PROG_D.SAS)
Creates File III - Permit File

Manipulates the PCS Permit File (ST91P) to obtain the Permit File (ST91P_N) as follows:

- Replaces non-numeric values with blanks for the variables LCAV, LCMX, LCMN, LQAV, and LQMX.
- Converts numeric data reported as character data to numerical values.
- Converts units from the PCS to units usable by the NCPDI (standardizes units).
- Back calculates flow in MGD from pollutant concentrations and pollutant loadings where concentration is in mg/l and loading is lbs./day.
- Obtains estimates of pipe flow from one of the following STORET parameter codes: 50050, 00056, 00058, 74060, 82220, 74020, 50049, 78932, 50047, 78720, 73676 (listed in order of preference).
- Computes permit-based pollutant loading estimates and assigns associated basis codes.
- Assigns label names for each field element.

PROGRAM E (PROG_E.SAS)

Manipulates the Monitoring File (ST91M_N) to obtain the Statistics File (ST_STAT1) as follows:

- Computes the following statistics for MCAV, MCMX, MCMN, MQAV and MQMX by NPID, DSCH, MLOC, and PRAM:
  N (Number of observations with no missing values)
  NMISS (Number of observations having missing values)
  MEAN (Mean)
  STD (Standard deviation)
  CV (Coefficient of variation)

MAX	(Maximum value)
MIN	(Minimum value)
RANGE	(Range)

- Corrects the coefficient of variation (CV) for small sample size bias. Where the number of observations is 12 or less, this correction can make an appreciable difference. The equations are:

  Coefficient of variation as computed: CV = (STD * 100/MEAN)
  Coefficient of variation as corrected: CV1 = CV * (1 + (1/(4*N)))

PROGRAM F (PROG_F.SAS)
Creates File IV - Final Statistics Load File

Manipulates the Statistics File (ST_STAT1) to obtain the Final Statistics Load File (ST_STAT2) as follows:

- Converts units from the PCS to units usable by the NCPDI (standardizes units).
- Back-calculates flow in MGD from pollutant concentrations and pollutant loadings where concentration is in mg/l and loading is in lbs./day.
- Obtains estimates of pipe flow from one of the following STORET parameter codes: 50050, 00056, 00058, 74060, 82220, 74020, 50049, 78932, 50047, 78720, 73676 (listed in order of preference).
- Computes average daily pollutant loading estimates for the year and summary statistics by pipe (DSCH and PDSG) and monitoring location (MLOC) and assigns associated basis codes.
- Selects the preferred form of the monitoring information to be used based on the following hierarchy: if available, use average mass estimates before maximum mass estimates before average concentration estimates before maximum concentration estimates before minimum concentration estimates.
- Enters label names for each field element.

PROGRAM G (PROG_G.SAS)

Manipulates the Monitoring File (ST91M_N) and Statistics File (ST_STAT2) to obtain the Daily Load by Month File (ST91MON1) as follows:

- Flags the following cases to delete monitoring pollutant loadings:
  - If coefficient of variation for flow is greater than 95, and the number of observations of flow is greater than two, and flow is greater than one MGD, flag is MF. This results in approximately five to 10 percent of the data being discarded.
  - If coefficient of variation for mass is greater than 133, and the number of observations of mass is greater than two, flag is MM. This results in approximately 10 percent of the data being discarded.
  - If coefficient of variation for concentration is greater than 157, and the number of observations for concentration is greater than two, flag MC. This results in approximately 10 percent of the data being discarded.
- Subsets the ST91M_N file to include only the following pollutants:

Pollutant	STORET Code
Flow	50050, 00056, 00058, 74060, 82220, 74020,

	50049, 78932, 50047, 78720, 73676
BOD, 5-day (20 deg. C)	00310
TSS	00530
Total Arsenic	01002
Total Cadmium	01027
Total Chromium	01034
Total Copper	01042
Total Iron	01045
Total Lead	01051
Total Mercury	71900
Total Zinc	01092
Oil & Grease	00556
Total Nitrogen	00600
Total Phosphorus	00665
Total Fecal Coliform Bacteria	74055
Nitrogen Ammonia Total (as N)	00610
Nitrogen, Inorganic Total	00640
Nitrogen Kjedhal Total (as N)	00625
Nitrogen, Nitrate Total (as N)	00620
Nitrogen, Nitrite Total (as N)	00615
Nitrogen, Organic Total (as N)	00605

- Standardizes units.
- Calculates flows by MLOC and by MONTH in MGD from pollutant concentrations (mg/l) and pollutant mass values (lbs./day) using all sources of data (average, maximum, and minimum).
- Obtains average daily pollutant-loading estimates for the month and assigns associated basis codes.

PROGRAM H (PROG_H.SAS)

Manipulates the Daily Load by Month File (ST91MON1) to obtain the Daily Load by Season File (ST91MON2) as follows:

- Deletes average daily loads for the month if flag for high CV value was assigned.
- Aggregates pollutant loads by MLOC and by SEASON in a pipe.
- Carries along the number of observations of pollutant loading estimates by season.
- Selects monitoring data based on monitoring location. Uses MLOC=2 data (effluent net value) as first choice and MLOC=1 data (effluent gross value) as second choice.
  NOTE: Most data are reported in MLOC=1.
- Subsets the ST91MON1 file to carry data only from MLOC=2 or MLOC=1.
- Transposes pollutants, basis codes, and number of observations by season.
- Carries only one flow variable with a basis code under a variable temporarily named PO50050.
- Computes average daily pollutant loading estimates for the year.
- Retains field elements in an established order.

PROGRAM I (PROG_I.SAS)

Manipulates the Permit File (ST91P_N) to obtain the Permit Loads File (ST91PERM) as follows:

- Subsets ST91P_N for same pollutants as Program G.

- Computes average daily pollutant loading estimates for the year.
- Transposes pollutants and basis codes.
- Obtains estimates of pipe flow from one of the following STORET parameter codes: 50050, 00056, 00058, 74060, 82220, 74020, 50049, 78932, 50047, 78720, 73676 (listed in order of preference).
- Carries only one flow variable with a basis code under a variable temporarily named PO50050.
- Carries the following permit data:

  PIPE
  WAST
  PIAC
  TRET
  PLAT
  PLAT1
  PLON
  PLON1

PROGRAM J (PROG_J.SAS)

Manipulates the Permit Application Form File (MID2C) to obtain the Daily Permit Application Loads File (POLL2C) as follows:

- As a first option, uses flow reported in the Intake and "Effluent Characteristics" section of the permit application form. If flow is not reported in this section, the sum of all operation contributing flows reported in the "Flows, Sources of Pollution and Treatment Technologies" section of the permit application form is used.
- Adjusts concentration values reported as detection limits to 1/10 the reported value.
- Computes loads using the concentrations and flows reported for each outfall. Adjusts loads for pipes identified as combined pipes (B pipes) using a P-factor assigned to the outfall discharge. If outfall was identified as a cooling water pipe, pollutant loads (except copper) were not computed because effluent discharge pollutant concentrations are gross values instead of net values. A net value is defined as an effluent concentration value subtracted from the intake concentration value. Copper effluent concentration was reduced by 50 percent to approximate the net discharge value for copper.
- Converts the one-digit pollutant basis code entered in the MID2C (Permit Application Form) File into two-digit pollutant basis code.

PROGRAM K (PROG_K.SAS)

Manipulates the Daily Load by Season File (ST91MON2), the Daily Permit Application Loads File (POLL2 C), the Permits Load File (ST91PERM), and the (ST91F) to obtain the Initial Permit/Monitoring/Permit Application File (STPERMO1). Up to this stage, the entire state has been processed.

PROGRAM L (PROG_L.SAS)

Manipulates the Initial Permit/Monitoring/Permit Application File (STPERMO1) and the Facility File Coastal Counties (CC91ACT) to obtain the Intermediate Permit/Monitoring/Permit Application File (STPERMO2) as follows:

- Subsets the STPERMO1 File to include only facilities in coastal counties.
- Deletes data in records where the variable DSCH contained the value FAC for cases where the facility had more than one pipe.
- Deletes any data for BOD, nitrogen (all forms), phosphorus, and FCB where SIC=4911.
- Prints a list of cases in which the variable DSCH contains the value FAC and the facility has only one pipe.
- Obtains listings to check the quality data according to the following conditions in each record:
  If there is only one flow value from all sources and it is greater than one MGD.
  If there is only one BOD or TSS value and it is greater than 10 lbs./day.
  If there is only one value for any of the eight heavy metals included in the inventory.
  If there is only one Oil & Grease value and it is greater than 30 lbs./day.
  If there is only one FCB value and it is greater than 5,000,000 cells/day.

PROGRAM M (PROG_M.SAS)

Edits the Intermediate Permit/Monitoring/Permit Application File (STPERMO2) as follows:

- In cases where the variable DSCH equals FAC and the facility has only one pipe, replaces "FAC" with "001."
- Deletes monitoring, permit, permit application, or design data if determined to be questionable based on best professional judgment.
- Assigns appropriate basis codes to track quality check edits.

PROGRAM N (PROG_N.SAS)

Manipulates the Intermediate Permit/Monitoring/Permit Application File (STPERMO2) to obtain the Final Permit/Monitoring/Permit Application Load File (STPERMON) as follows:

- Replaces missing monitoring data with pollutant loading estimates from POLL2C. Also, if monitoring data are less than 1/10 or greater than two times the permit application data, the permit application form data are used instead of the monitoring data.
- Replaces missing monitoring/permit application data with pollutant-loading estimates from ST91PERM. Also, if monitoring/permit application data are less than 1/100 or greater than two times the permit data, then the permit application form data are used instead of the monitoring/permit application form data.
- Replaces missing monitoring /permit/permit application flows with average design flow (FLOW) from the facilities file. Average design flow (FLOW) was not considered for the following cases:
  If facility is MAJOR and SIC code $\neq$ 4911 and FLOW > 400 or < 0.5 MGD
  If facility is MINOR and SIC code $\neq$ 4911 and FLOW > two MGD
  If facility is MAJOR and SIC code = 4911 and DSCH $\neq$ 001 and FLOW > 1,000 MGD
  If facility is MINOR and SIC = 4911 and DSCH $\neq$ 001 and FLOW > 500 MGD
- Assigns basis codes. A basis code could have a special character attached to it as follows:
  * replaced DMR data because of high flow coefficient of variation
  @ replaced DMR data because of high mass coefficient of variation
  $ replaced DMR data because of high concentration coefficient of variation
  # replaced DMR data because of decision rule
  { replaced DMR data because of questionable flow data
  / replaced DMR data because of questionable mass data
  % replaced DMR data because of questionable concentration data

- Assigns flow type codes, operating days, and P-factors based on permit application information.
- Enters label names for each variable.

PROGRAM O (PROG_O.SAS)

Manipulates the Final Permit/Monitoring/Permit Application Load File (STPERMON), Power Plant File (POWER), Needs 1990, and NCPDI Typical Value Matrix File (REF10 and TPC Matrix) to obtain the Initial TPC File (STFIL5C 1) as follows:

- Assigns flow type codes using WAST (PCS).
- Assigns flow type = C where PIPE reads NONCONTACT COOLING WATER.
- Assigns flow type basis codes.
- Assigns special discharge activity codes (SDAC) and flow type codes to power plants based on the POWER data base.
- Assigns flows (where missing) and treatment level to WWTPs based on the Needs Survey data base.
- Replaces flow with flow from Needs Survey if following rules apply:
  If flow x 1.5 < NEEDS Survey flow then use NEEDS Survey Flow
  If flow x 0.5 > NEEDS Survey flow then use NEEDS Survey Flow
- Assigns treatment levels (WWTPs) in the SDAC code using treatment types (TRET).
- Assigns flows (where missing) based on BOD and TSS data for WWTPs.
- Globally assigns flow type codes for WWTP and WSTP as "P."
- Assigns flows (where missing) using typical flows. For minor facilities, typical flows are divided by four.
- Assigns flow type codes where FLOWTYPE is missing using the following rules:
  If facility is a major facility:
    If FLOW ≤ 2, FLOWTYPE = "P"
    If FLOW is greater than 2 and FLOW ≤ 4, FLOWTYPE = "B"
    If FLOW is greater than 4 and FLOW ≤ 25, FLOWTYPE = "C"
    If FLOW is greater than 25, FLOWTYPE = "O"
  If facility is a minor facility:
    If FLOW is ≤ 1, FLOWTYPE = "P"
    If FLOW is greater than 1 and FLOW ≤ 2, FLOWTYPE = "B"
    If FLOW is greater than 2 and FLOW ≤ 10, FLOWTYPE = "C"
    If FLOW is greater than 10, FLOWTYPE = "O"
- Assigns flow type basis codes.
- Assigns SDAC for residential and commercial facilities.
- Assigns NCPDI discharge category codes by SIC using REF10 data base.
- Assigns SDAC to canned and preserved seafood producers.
- Assigns SDAC to canned fruit and vegetables facilities.
- Assigns SDAC to WSTPs.
- Assigns SDAC to power plants if SDAC is missing.
- Assigns secondary treatment levels to WWTPs (SDAC code) if treatment level is still missing.
- Assigns operating days based on discharge category code from REF10. Any facility not covered by REF10 is assumed to operate 365 days per year.
- Assigns operating days source code.
- Assigns operating days as 63 where flow type = "O" and operating days is missing.
- Assigns P-factors.
- Assigns typical pollutant concentrations (TPC). TPC for tertiary WWTPs are half the value of

secondary WWTPs.
- Assigns seasonal coefficients.
- Produces listings to check for cases where there might be a misassignment of flow types (i.e., high flow rates with P pipes).

PROGRAM P (PROG_P.SAS)

Manipulates the Initial TPC File (STFIL5C1) to obtain the Intermediate TPC File (STFIL5C2) as follows:

- Corrects misassignments of flow types based on review of list produced in Program O.

PROGRAM Q (PROG_Q.SAS)
Creates File V - Final TPC Seasonal Loads File

Manipulates the Intermediate TPC File (STFIL5C2) to obtain the Final TPC Seasonal Loads File (STFILE5) as follows:

- Computes seasonal flow and pollutant loading estimates for each season (refer to Table 5 in Section 3).
- Assigns pollutant basis codes indicating that estimates for this file are based only on typical pollutant concentrations.
- Enters labels for each field element.

PROGRAM R (PROG_R.SAS)
Creates File VI - Pipe Level Loadings File

Manipulates the Final Permit/Monitoring/Permit Application Load File (STPERMON) and the Final TPC Seasonal Loads File (STFILE5) to obtain the Pipe-Level Loadings File (STFILE6) as follows:

- Computes seasonal loads from monitoring (DMR), permit, and permit application data (see Table 5 for general equations).
- Fills missing pollutant-loading data with loadings from information in File 5.
- Computes annual pollutant loadings by summing seasonal estimates.
- Deletes pollutant loading estimates and basis codes where the variable PIAC = I (indicates an inactive pipe) or the variable DSCH=INT (indicates an intake pipe).
- Deletes pollutant-loading estimates and basis codes (except copper estimates) where the variable SIC=4911 (power plants) and the variable FLOWTYPE=C (once-through cooling discharge).
- Creates a series of variables containing the short form of the pollutant basis code to be incorporated in STFILE7.
- Organizes the field elements in the data base.
- Enters label names for all field elements.

PROGRAM S (PROG_S.SAS)

Manipulates the Pipe Level Loadings File (STFILE6) as follows:

- Obtains listings of pollutants for pipes with 100 largest flows (in descending order) to identify questionable data to correct and rerun programs.
- Prints ranked order listing of pipes with the 100 largest flows and the 50 largest pollutant discharges for each state. Unacceptable estimates are identified based on best professional judgment, replaced with the next best alternative, and programs rerun starting with Program M or Program P.

PROGRAM T (PROG_T.SAS)
Creates File VII - Facility-Level Loadings File

Manipulates the Pipe Level Loadings File (STFILE6) and Facility File Coastal Counties (CC91ACT) to obtain the Facility-Level Loadings File (STFILE7) as follows:

- Aggregates seasonal and annual pipe-level loading estimates to the facility level and carries over the short form of the pollutant basis code from File 6.
- Adds several field elements from CC91ACT.
- Organizes the field in the data base.
- Enters label names for all field elements.

PROGRAM U (PROG_U.SAS)
Manipulates the facility level loadings file (STFILE7) as follows:

- Obtains listings of pollutants for facilities with the 100 largest flows (in descending order) to identify questionable data to correct and rerun programs.
- Prints a ranked order listing of pipes with the 50 largest pollutant discharges for each state. Unacceptable estimates are identified based on best professional judgment, replaced with the next best alternative, and programs are rerun starting with Program M or Program P.

Appendix V.
Data Fields Included in the Seven Deliverable Files

Appendix V. Data Fields Included in the Seven Deliverable Files

File I.
FACILITY FILE

This file contains information on the permit number, facility name, location, major/minor designation, and type of activity for major and minor facilities in the watersheds draining to the coastal states. It can be used as a reference for assessments of the number, location, and type of facilities in the coastal area drainage.

Variable	Type	Length	Description
NPID	Char	9	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NUMBER
FNML	Char	120	FACILITY NAME
FACILNM	Char	40	STANDARDIZED FACILITY NAME
MADI	Char	1	MAJOR DISCHARGE INDICATOR
MRAT	Char	3	MAJOR RATING CODE
FLOW	Char	5	FLOW FROM FACILITY FILE (PCS) - AVERAGE DESIGN FLOW IN MGD
STTE	Char	2	STATE CODE
STATE	Char	2	STATE FIPS CODE
FIPS	Char	5	FEDERAL INFORMATION PROCESSING SYSTEM CODE
CITY	Char	5	CITY CODE
CYNM	Char	20	CITY NAME
KEYPTNUM	Char	5	CENSUS CITY IDENTIFICATION CODE
CNTY	Char	3	COUNTY CODE
CNTYNM	Char	40	COUNTY NAME
CNTYSORS	Char	1	COUNTY SOURCE CODE
FCU	Char	8	FACILITY USGS HYDROLOGIC CATALOGING UNIT CODE
FCUSORS	Char	1	FACILITY USGS HYDROLOGIC CATALOGING UNIT SOURCE CODE
EDACLASS	Char	2	ESTUARINE/COASTAL DRAINAGE AREA (EDA/CDA) CLASSIFICATION CODE
EDACODE	Char	5	ESTUARINE/COASTAL DRAINAGE AREA (EDA/CDA) CODE
EDANAME	Char	60	ESTUARINE/COASTAL DRAINAGE AREA (EDA/CDA) NAME
EDASORS	Char	4	ESTUARINE/COASTAL DRAINAGE AREA (EDA/CDA) SOURCE CODE
FLAT	Char	6	FACILITY LATITUDE - DEGREES, MINUTES, SECONDS
FLAT1	Num	8	FACILITY LATITUDE - DECIMAL DEGREES
FLON	Char	7	FACILITY LONGITUDE - DEGREES, MINUTES, SECONDS
FLON1	Num	8	FACILITY LONGITUDE - DECIMAL DEGREES
FLLCODE1	Char	1	FACILITY LATITUDE/LONGITUDE QUALITY CONTROL CODE 1
FLLCODE2	Char	1	FACILITY LATITUDE/LONGITUDE QUALITY CONTROL CODE 2
FLLCODE3	Char	1	FACILITY LATITUDE/LONGITUDE QUALITY CONTROL CODE 3
FLLSORS	Char	1	FACILITY LATITUDE/LONGITUDE SOURCE CODE
REAC	Char	12	RIVER REACH NUMBER
BAS6	Char	6	RIVER BASIN
RWAT	Char	35	RECEIVING WATER
SIC	Char	4	SIC CODE - 1987 FACILITY DESCRIPTION
SICDG	Char	1	SIC DIVISION CODE
SICIG	Char	3	SIC INDUSTRY GROUP CODE
SICMG	Char	2	SIC MAJOR GROUP CODE
SICNM	Char	30	SIC NAME
EPST	Char	1	TYPE OF PERMIT ISSUED
EXMY	Char	5	EXPIRATION MONTH/YEAR
FFID	Char	12	FEDERAL FACILITY IDENTIFICATION NUMBER
GPCT	Char	2	GENERAL PERMIT INDUSTRIAL CATEGORY
IACC	Char	1	FACILITY INACTIVE CODE
IADT	Char	6	FACILITY INACTIVE DATE
PRET	Char	1	PRETREATMENT PROGRAM REQUIRED INDICATOR CODE
TYPA	Char	2	TYPE OF APPLICATION
TYPO	Char	3	TYPE OF OWNERSHIP
INCL	Char	1	INDUSTRIAL CLASSIFICATION CODE
DCCD	Char	2	DISCHARGE CATEGORY CODE
DCNM	Char	30	DISCHARGE CATEGORY NAME
PS	Char	1	POINT SOURCES CATEGORY
MST1	Char	30	PRIMARY MAILING STREET LINE 1 OF 2

MST2	Char	30	PRIMARY MAILING STREET LINE 2 OF 2
MSTT	Char	2	PRIMARY MAILING STATE
MZIP	Char	9	PRIMARY MAILING ZIP CODE
RST1	Char	30	FACILITY LOCATION STREET LINE 1 OF 2
RST2	Char	30	FACILITY LOCATION STREET LINE 2 OF 2
RZIP	Char	9	FACILITY LOCATION ZIP CODE
RTEL	Char	10	FACILITY LOCATION TELEPHONE NUMBER
OFFL	Char	30	COGNIZANT OFFICIAL
TELE	Char	10	COGNIZANT OFFICIAL TELEPHONE
STBA	Char	1	STANDARD BASIS
AREACODE	Char	1	AREA CODE
STUDY0	Char	1	STUDY AREA 0
STUDY1	Char	1	STUDY AREA 1
STUDY2	Char	1	STUDY AREA 2
STUDY3	Char	1	STUDY AREA 3
STUDY4	Char	1	STUDY AREA 4
STUDY5	Char	1	STUDY AREA 5
REGION	Char	1	REGION CODE
FACILQC	Char	1	FACILITY QUALITY CONTROL CODE

File II.
MONTHLY DISCHARGE MONITORING REPORT (DMR) FILE

The file contains up to 12 monthly values for each pipe/pollutant combination for the five reporting requirements (average, minimum, and maximum flow or concentration; average and maximum mass discharge), expressed in the original units from the NPDES permit and in NCPDI standardized units. This information is available for all parameters reported in PCS (over 1,600 pollutant parameters).

This file can be used to investigate the actual monitoring values reported by facilities in their monthly compliance monitoring reports.

Variable	Type	Length	Description
NPID	Char	9	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NUMBER
DSCH	Char	3	DISCHARGE NUMBER
PDSG	Char	4	LIMIT DISCHARGE NUMBER/REPORT DESIGNATOR
MLOC	Char	1	MONITORING LOCATION
SEASON	Char	1	SEASON CODE
MONTH	Char	2	MONTH CODE
MDML	Char	2	MINIMUM NUMBER OF DMR LINES
PRAM	Char	5	PARAMETER CODE
RCUN	Char	2	REPORTED CONCENTRATION UNIT
RUNT	Char	2	REPORTED QUANTITY UNIT
MVDT	Char	6	MEASUREMENT/VIOLATION - MONITORING PERIOD END DATE
NODI	Char	1	NO DATA INDICATOR
LCUC	Char	2	CONCENTRATION UNIT CODE
LQUC	Char	2	QUANTITY UNIT CODE
MCAV	Char	8	MEASUREMENT/VIOLATION - CONCENTRATION AVERAGE
MCMX	Char	8	MEASUREMENT/VIOLATION - CONCENTRATION MAXIMUM
MCMN	Char	8	MEASUREMENT/VIOLATION - CONCENTRATION MINIMUM
MQAV	Char	8	MEASUREMENT/VIOLATION - QUANTITY AVERAGE
MQMX	Char	8	MEASUREMENT/VIOLATION - QUANTITY MAXIMUM
MCAV1	Num	8	MEASUREMENT/VIOLATION - CONCENTRATION AVERAGE
MCMX1	Num	8	MEASUREMENT/VIOLATION - CONCENTRATION MAXIMUM
MCMN1	Num	8	MEASUREMENT/VIOLATION - CONCENTRATION MINIMUM
MQAV1	Num	8	MEASUREMENT/VIOLATION - QUANTITY AVERAGE
MQMX1	Num	8	MEASUREMENT/VIOLATION - QUANTITY MAXIMUM

File III.
PERMIT REQUIREMENTS AND LOADING FILE

This file contains two types of information. The first is the discharge requirements specified in each facility's NPDES permit. Each record includes information for a unique pipe/permit pollutant combination (i.e., the file is at the pipe level). The original units for concentration and mass used in the NPDES permit is retained. This information is available for all parameters reported in PCS (over 1,600 pollutant parameters).

A second block of data fields for each record contains the mass discharge estimated for each unique pipe/pollutant combination based on the flow, concentration, and mass values reported in the facility NPDES permit. Loading estimates are expressed in standard NCPDI units (for most pollutants, pounds per day), not the original permit units. A load basis code is assigned for each estimate, including which parameters (average, minimum, or maximum flow and concentration; average or maximum mass discharge) were used to estimate the load.

This file can be used to check the original discharge requirements issued in the facility permit and to investigate estimated loadings based on permit requirements.

Variable	Type	Length	Description
NPID	Char	9	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NUMBER
DSCH	Char	3	DISCHARGE NUMBER
PDSG	Char	4	LIMIT DISCHARGE NUMBER/REPORT DESIGNATOR
PIPE	Char	30	PIPE DESCRIPTION
PRAM	Char	5	PARAMETER CODE
SAMP	Char	2	SAMPLE TYPE
TRET	Char	24	TREATMENT TYPES
WAST	Char	2	TYPE OF EFFLUENT WASTE
WQUA	Char	1	WATER QUALITY LIMITS INDICATOR
PIAC	Char	1	PIPE INACTIVE CODE
PLAT	Char	6	PIPE LATITUDE - DEGREES, MINUTES, SECONDS
PLAT1	Num	8	PIPE LATITUDE - DECIMAL DEGREES
PLON	Char	7	PIPE LONGITUDE - DEGREES, MINUTES, SECONDS
PLON1	Num	8	PIPE LONGITUDE - DECIMAL DEGREES
LQAV	Char	8	QUANTITY AVERAGE LIMIT
LQMX	Char	8	QUANTITY MAXIMUM LIMIT
LQUC	Char	2	QUANTITY UNIT CODE
LCAV	Char	8	CONCENTRATION AVERAGE LIMIT
LCMX	Char	8	CONCENTRATION MAXIMUM LIMIT
LCMN	Char	8	CONCENTRATION MINIMUM LIMIT
LCUC	Char	2	CONCENTRATION UNIT CODE
LQAV1	Num	8	STANDARDIZED QUANTITY AVERAGE LIMIT
LQMX1	Num	8	STANDARDIZED QUANTITY MAXIMUM LIMIT
LQUC1	Char	2	STANDARDIZED QUANTITY UNIT CODE- QUANTITY
LCAV1	Num	8	STANDARDIZED CONCENTRATION AVERAGE LIMIT
LCMX1	Num	8	STANDARDIZED CONCENTRATION MAXIMUM LIMIT
LCMN1	Num	8	STANDARDIZED CONCENTRATION MINIMUM LIMIT
LCUC1	Char	2	STANDARDIZED CONCENTRATION UNIT CODE- CONCENTRATION
FLOWMGD	Num	8	FLOW IN MILLION GALLONS PER DAY
FLOWBASE	Char	3	POLLUTANT LOAD BASIS CODE - DETAILED DESCRIPTION
	Num	8	FOR FLOW
LOADBASE	Char	3	POLLUTANT LOAD BASIS CODE - DETAILED DESCRIPTION FOR LOAD
UNITSCD	Char	2	POLLUTANT LOAD UNITS CODE

File IV.
DISCHARGE MONITORING REPORT (DMR) LOADINGS FILE

This file contains two types of information - a statistical summary of the monthly self-monitoring conducted by the facility, and an estimate of the daily pollutant load discharged by the facility for each parameter specified in the NPDES permit. This information is available for all parameters reported in PCS (over 1,600 pollutants parameters).

The statistical summary portion of the file includes, for each pipe/permit pollutant combination, the number of observations (maximum of 12 monthly values), the number of missing values, the minimum value, the maximum value, the range, the average, the standard deviation, the coefficient of variation (CV), and a second CV adjusted for small sample size. These nine summary statistics are computed for each of the five reporting requirements (average, minimum, and maximum flow or concentration; average and maximum mass discharge). The original units from the NPDES permit are retained.

The load portion of the file contains the best estimate of pollutant discharge expressed in standard NCPDI units (for most pollutants, pound per day), not the original permit units. A load basis code is assigned for each estimate, indicating which parameters (average, minimum, or maximum mass discharge) were used to estimate the load.

Variable	Type	Length	Description
NPID	Char	9	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NUMBER
DSCH	Char	3	DISCHARGE NUMBER
PDSG	Char	4	LIMIT DISCHARGE NUMBER/REPORT DESIGNATOR
MLOC	Char	1	MONITORING LOCATION
PRAM	Char	5	PARAMETER CODE
NODI	Char	1	NO DATA INDICATOR
MDML	Char	2	MINIMUM NUMBER OF DMR LINES
MQAV_N	Num	8	MEASUREMENT QUANTITY AVERAGE - NUMBER OF OBSERVATIONS
MQAV_NMI	Num	8	MEASUREMENT QUANTITY AVERAGE - NUMBER OF MISSING VALUES
MQAV_MIN	Num	8	MEASUREMENT QUANTITY AVERAGE - MINIMUM VALUE
MQAV_MAX	Num	8	MEASUREMENT QUANTITY AVERAGE - MAXIMUM VALUE
MQAV_RAN	Num	8	MEASUREMENT QUANTITY AVERAGE - RANGE
MQAV_AVE	Num	8	MEASUREMENT QUANTITY AVERAGE - ANNUAL AVERAGE
MQAV_STD	Num	8	MEASUREMENT QUANTITY AVERAGE - STANDARD DEVIATION
MQAV_CV	Num	8	MEASUREMENT QUANTITY AVERAGE - COEFFICIENT OF VARIATION
MQAV_CV1	Num	8	MEASUREMENT QUANTITY AVERAGE - COEFFICIENT OF VARIATION ADJUSTED FOR SMALL SAMPLE
MQMX_N	Num	8	MEASUREMENT QUANTITY MAXIMUM - NUMBER OF OBSERVATIONS
MQMX_NMI	Num	8	MEASUREMENT QUANTITY MAXIMUM - NUMBER OF MISSING VALUES
MQMX_MIN	Num	8	MEASUREMENT QUANTITY MAXIMUM - MINIMUM VALUE
MQMX_MAX	Num	8	MEASUREMENT QUANTITY MAXIMUM - MAXIMUM VALUE
MQMX_RAN	Num	8	MEASUREMENT QUANTITY MAXIMUM - RANGE
MQMX_AVE	Num	8	MEASUREMENT QUANTITY MAXIMUM - ANNUAL AVERAGE
MQMX_STD	Num	8	MEASUREMENT QUANTITY MAXIMUM - STANDARD DEVIATION
MQMX_CV	Num	8	MEASUREMENT QUANTITY MAXIMUM - COEFFICIENT OF VARIATION
MQMX_CV1	Num	8	MEASUREMENT QUANTITY MAXIMUM - COEFFICIENT OF VARIATION ADJUSTED FOR SMALL SAMPLE
RUNT	Char	2	REPORTED QUANTITY UNIT
MCAV_N	Num	8	MEASUREMENT CONCENTRATION AVERAGE - NUMBER OF OBSERVATIONS
MCAV_NMI	Num	8	MEASUREMENT CONCENTRATION AVERAGE - NUMBER OF MISSING VALUES
MCAV_MIN	Num	8	MEASUREMENT CONCENTRATION AVERAGE - MINIMUM VALUE
MCAV_MAX	Num	8	MEASUREMENT CONCENTRATION AVERAGE - MAXIMUM VALUE
MCAV_RAN	Num	8	MEASUREMENT CONCENTRATION AVERAGE - RANGE
MCAV_AVE	Num	8	MEASUREMENT CONCENTRATION AVERAGE - ANNUAL AVERAGE
MCAV_STD	Num	8	MEASUREMENT CONCENTRATION AVERAGE - STANDARD DEVIATION
MCAV_CV	Num	8	MEASUREMENT CONCENTRATION AVERAGE - COEFFICIENT OF VARIATION
MCAV_CV1	Num	8	MEASUREMENT CONCENTRATION AVERAGE - COEFFICIENT OF VARIATION

			ADJUSTED FOR SMALL SAMPLE
MCMX_N	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - NUMBER OF OBSERVATIONS
MCMX_NMI	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - NUMBER OF MISSING VALUES
MCMX_MIN	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - MINIMUM VALUE
MCMX_MAX	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - MAXIMUM VALUE
MCMX_RAN	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - RANGE
MCMX_AVE	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - ANNUAL AVERAGE
MCMX_STD	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - STANDARD DEVIATION
MCMX_CV	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - COEFFICIENT OF VARIATION
MCMX_CV1	Num	8	MEASUREMENT CONCENTRATION MAXIMUM - COEFFICIENT OF VARIATION ADJUSTED FOR SMALL SAMPLE
MCMN_N	Num	8	MEASUREMENT CONCENTRATION MINIMUM - NUMBER OF OBSERVATIONS
MCMN_NMI	Num	8	MEASUREMENT CONCENTRATION MINIMUM - NUMBER OF MISSING VALUES
MCMN_MIN	Num	8	MEASUREMENT CONCENTRATION MINIMUM - MINIMUM VALUE
MCMN_MAX	Num	8	MEASUREMENT CONCENTRATION MINIMUM - MAXIMUM VALUE
MCMN_RAN	Num	8	MEASUREMENT CONCENTRATION MINIMUM - RANGE
MCMN_AVE	Num	8	MEASUREMENT CONCENTRATION MINIMUM - ANNUAL AVERAGE
MCMN_STD	Num	8	MEASUREMENT CONCENTRATION MINIMUM - STANDARD DEVIATION
MCMN_CV	Num	8	MEASUREMENT CONCENTRATION MINIMUM - COEFFICIENT OF VARIATION
MCMN_CV1	Num	8	MEASUREMENT CONCENTRATION MINIMUM - COEFFICIENT OF VARIATION ADJUSTED FOR SMALL SAMPLE
RCUN	Char	2	REPORTED CONCENTRATION UNIT
MQAV1	Num	8	STANDARDIZED MONITORED QUANTITY AVERAGE
MQMX1	Num	8	STANDARDIZED MONITORED QUANTITY MAXIMUM
RUNT1	Char	2	STANDARDIZED UNIT CODE - MONITORED QUANTITY
MCAV1	Num	8	STANDARDIZED MONITORED CONCENTRATION AVERAGE
MCMX1	Num	8	STANDARDIZED MONITORED CONCENTRATION MAXIMUM
MCMN1	Num	8	STANDARDIZED MONITORED CONCENTRATION MINIMUM
RCUN1	Char	2	STANDARDIZED UNIT CODE - MONITORED CONCENTRATION
FLOWMGD	Num	8	FLOW IN MILLIONS OF GALLONS PER DAY
FLOWBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR FLOW
FLOWCV	Num	8	FLOW - COEFFICIENT OF VARIATION
FLOWN	Num	8	FLOW - NUMBER OF OBSERVATIONS
LOAD	Num	8	POLLUTANT LOAD
LOADBASE	Char	3	POLLUTANT LOAD BASIS CODE - DETAILED DESCRIPTION FOR LOAD
MASSCV	Num	8	MASS VALUE - COEFFICIENT OF VARIATION
MASSN	Num	8	MASS VALUE - NUMBER OF OBSERVATIONS
CONCCV	Num	8	CONCENTRATION VALUE - COEFFICIENT OF VARIATION
CONCN	Num	8	CONCENTRATION VALUE - NUMBER OF OBSERVATIONS
UNITSCD	Char	2	POLLUTANT LOAD UNITS CODE

File V.
TYPICAL POLLUTANT CONCENTRATION (TPC) LOADINGS FILE

This file provides pollutant loading estimates using the National Coastal Pollutant Discharge Inventory TPC Matrix. Flows are from every available source. Flows and pollutant load basis codes are maintained along all assignment made to the record in order to obtain loads.

Variable	Type	Length	Description
NPID	Char	9	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NUMBER
DSCH	Char	3	DISCHARGE NUMBER
PSDG	Char	4	LIMIT DISCHARGE NUMBER/REPORT DESIGNATOR
MADI	Char	1	MAJOR DISCHARGE INDICATOR
SIC	Char	4	SIC CODE - 1987 FACILITY DESCRIPTION
SICMG	Char	2	SIC MAJOR GROUP CODE
SICIG	Char	3	SIC INDUSTRY GROUP CODE
SICDG	Char	1	SIC DIVISION CODE
SICNM	Char	30	SIC NAME
DCCD	Char	4	DISCHARGE CATEGORY CODE
DCNM	Char	30	DISCHARGE CATEGORY NAME
PIPE	Char	30	PIPE DESCRIPTION
PIAC	Char	1	PIPE INACTIVE CODE
FLOWANN	Num	8	FLOW - ANNUAL AVERAGE IN MG
FLOWFAL	Num	8	FLOW FALL IN MG
FLOWSPR	Num	8	FLOW SPRING IN MG
FLOWSUM	Num	8	FLOW SUMMER IN MG
FLOWWIN	Num	8	FLOW WINTER IN MG
FLOWPROC	Num	8	PROCESS FLOW- ANNUAL AVERAGE IN MG
FLOWFAL1	Num	8	PROCESS FLOW PIPE FALL IN MG
FLOWSPR1	Num	8	PROCESS FLOW PIPE SPRING IN MG
FLOWSUM1	Num	8	PROCESS FLOW PIPE SUMMER IN MG
FLOWWIN1	Num	8	PROCESS FLOW PIPE WINTER IN MG
FLOWPIPE	Num	8	FLOW PIPE AVERAGE IN MGD
FLOW4	Num	8	FLOW FROM NEEDS (MGD)
FLOWBAS4	Char	2	FLOW BASIS CODE FOR FLOW FROM NEEDS FOR FLOW
FLOWBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION
FLOWTYPE	Char	1	FLOW TYPE
FTBASE	Char	1	FLOW TYPE BASIS CODE
BODANN	Num	8	BIOCHEMICAL OXYGEN DEMAND ANNUAL (TOTAL0 IN LB
BODFAL	Num	8	BIOCHEMICAL OXYGEN DEMAND FALL IN LB
BODSPR	Num	8	BIOCHEMICAL OXYGEN DEMAND SPRING IN LB
BODSUM	Num	8	BIOCHEMICAL OXYGEN DEMAND SUMMER IN LB
BODWIN	Num	8	BIOCHEMICAL OXYGEN DEMAND WINTER IN LB
BODBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR BIOCHEMICAL OXYGEN DEMAND
TSSANN	Num	8	TOTAL SUSPENDED SOLIDS ANNUAL (TOTAL) IN LB
TSSFAL	Num	8	TOTAL SUSPENDED SOLIDS FALL IN LB
TSSSPR	Num	8	TOTAL SUSPENDED SOLIDS SPRING IN LB
TSSSUM	Num	8	TOTAL SUSPENDED SOLIDS SUMMER IN LB
TSSWIN	Num	8	TOTAL SUSPENDED SOLIDS WINTER IN LB
TSSBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR TOTAL SUSPENDED SOLIDS
NANN	Num	8	NITROGEN ANNUAL (TOTAL) IN LB
NFAL	Num	8	NITROGEN FALL IN LB
NSPR	Num	8	NITROGEN SPRING IN LB
NSUM	Num	8	NITROGEN SUMMER IN LB
NWIN	Num	8	NITROGEN WINTER IN LB
NBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR NITROGEN
PANN	Num	8	PHOSPHORUS ANNUAL (TOTAL) IN LB

PFAL	Num	8	PHOSPHORUS FALL IN LB
PSPR	Num	8	PHOSPHORUS SPRING IN LB
PSUM	Num	8	PHOSPHORUS SUMMER IN LB
PWIN	Num	8	PHOSPHORUS WINTER IN LB
PBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR PHOSPHORUS
ASANN	Num	8	ARSENIC ANNUAL (TOTAL) IN LB
ASFAL	Num	8	ARSENIC FALL IN LB
ASSPR	Num	8	ARSENIC SPRING IN LB
ASSUM	Num	8	ARSENIC SUMMER IN LB
ASWIN	Num	8	ARSENIC WINTER IN LB
ASBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR ARSENIC
CDANN	Num	8	CADMIUM ANNUAL (TOTAL) IN LB
CDFAL	Num	8	CADMIUM FALL IN LB
CDSPR	Num	8	CADMIUM SPRING IN LB
CDSUM	Num	8	CADMIUM SUMMER IN LB
CDWIN	Num	8	CADMIUM WINTER IN LB
CDBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR CADMIUM
CRANN	Num	8	CHROMIUM ANNUAL (TOTAL) IN LB
CRFAL	Num	8	CHROMIUM FALL IN LB
CRSPR	Num	8	CHROMIUM SPRING IN LB
CRSUM	Num	8	CHROMIUM SUMMER IN LB
CRWIN	Num	8	CHROMIUM WINTER IN LB
CRBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR CHROMIUM
CUANN	Num	8	COPPER ANNUAL (TOTAL) IN LB
CUFAL	Num	8	COPPER FALL IN LB
CUSPR	Num	8	COPPER SPRING IN LB
CUSUM	Num	8	COPPER SUMMER IN LB
CUWIN	Num	8	COPPER WINTER IN LB
CUBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR COPPER
FEANN	Num	8	IRON ANNUAL (TOTAL) IN LB
FEFAL	Num	8	IRON FALL IN LB
FESPR	Num	8	IRON SPRING IN LB
FESUM	Num	8	IRON SUMMER IN LB
FEWIN	Num	8	IRON WINTER IN LB
FEBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR IRON
HGANN	Num	8	MERCURY ANNUAL (TOTAL) IN LB
HGFAL	Num	8	MERCURY FALL IN LB
HGSPR	Num	8	MERCURY SPRING IN LB
HGSUM	Num	8	MERCURY SUMMER IN LB
HGWIN	Num	8	MERCURY WINTER IN LB
HGBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR MERCURY
PBANN	Num	8	LEAD ANNUAL (TOTAL) IN LB
PBFAL	Num	8	LEAD FALL IN LB
PBSPR	Num	8	LEAD SPRING IN LB
PBSUM	Num	8	LEAD SUMMER IN LB
PBWIN	Num	8	LEAD WINTER IN LB
PBBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR LEAD
ZNANN	Num	8	ZINC ANNUAL (TOTAL) IN LB
ZNFAL	Num	8	ZINC FALL IN LB
ZNSPR	Num	8	ZINC SPRING IN LB
ZNSUM	Num	8	ZINC SUMMER IN LB
ZNWIN	Num	8	ZINC WINTER IN LB
ZNBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR ZINC
OGANN	Num	8	OIL & GREASE ANNUAL (TOTAL) IN LB
OGFAL	Num	8	OIL & GREASE FALL IN LB

OGSPR	Num	8	OIL & GREASE SPRING IN LB
OGSUM	Num	8	OIL & GREASE SUMMER IN LB
OGWIN	Num	8	OIL & GREASE WINTER IN LB
OGBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR OIL & GREASE
FCBANN	Num	8	FECAL COLIFORM BACTERIA ANNUAL (TOTAL) IN CELLS
FCBFAL	Num	8	FECAL COLIFORM BACTERIA FALL IN CELLS
FCBSPR	Num	8	FECAL COLIFORM BACTERIA SPRING IN CELLS
FCBSUM	Num	8	FECAL COLIFORM BACTERIA SUMMER IN CELLS
FCBWIN	Num	8	FECAL COLIFORM BACTERIA WINTER IN CELLS
FCBBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR FECAL COLIFORM BACTERIA
PCBANN	Num	8	POLYCHLORINATED BIPHENYLS ANNUAL IN LB
PCBFAL	Num	8	POLYCHLORINATED BIPHENYLS FALL IN LB
PCBSPR	Num	8	POLYCHLORINATED BIPHENYLS SPRING IN LB
PCBSUM	Num	8	POLYCHLORINATED BIPHENYLS SUMMER IN LB
PCBWIN	Num	8	POLYCHLORINATED BIPHENYLS WINTER IN LB
PCBBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR POLYCHLORINATED BIPHENYLS
CHPANN	Num	8	CHLORINATED HYDROCARBONS PESTICIDES ANNUAL IN LB
CHPFAL	Num	8	CHLORINATED HYDROCARBONS PESTICIDES FALL IN LB
CHPSPR	Num	8	CHLORINATED HYDROCARBONS PESTICIDES SPRING IN LB
CHPSUM	Num	8	CHLORINATED HYDROCARBONS PESTICIDES SUMMER IN LB
CHPWIN	Num	8	CHLORINATED HYDROCARBONS PESTICIDES WINTER IN LB
CHPBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR CHLORINATED HYDROCARBONS PESTICIDES
PFACTOR	Num	8	PROCESS FACTOR
PLAT	Char	6	PIPE LATITUDE - DEGREES, MINUTES, SECONDS
PLAT1	Num	8	PIPE LATITUDE - DECIMAL DEGREES
PLON	Char	7	PIPE LONGITUDE - DEGREES, MINUTES, SECONDS
PLON1	Num	8	PIPE LONGITUDE - DECIMAL DEGREES
PLLSORS	Char	1	PIPE LATITUDE/LONGITUDE SOURCE CODE
FALCOEF	Num	8	SEASONALITY COEFFICIENT- FALL
SPRCOEF	Num	8	SEASONALITY COEFFICIENT- SPRING
SUMCOEF	Num	8	SEASONALITY COEFFICIENT- SUMMER
WINCOEF	Num	8	SEASONALITY COEFFICIENT- WINTER
TPCBOD	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR BOD (mg/L)
TPCTSS	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR TSS (mg/L)
TPCN	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR P (mg/L)
TPCP	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR N (mg/L)
TPCFCB	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR FCB (cell/100mL)
TPCAS	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR AS (mg/L)
TPCCD	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR CD (mg/L)
TPCCR	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR CR (mg/L)
TPCCU	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR CU (mg/L)
TPCFE	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR FE (mg/L)
TPCPB	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR PB (mg/L)
TPCHG	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR HG (mg/L)
TPCZN	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR ZN (mg/L)
TPCOG	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR OG (mg/L)
TPCPCB	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR PCB (mg/L)
TPCCHP	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR CHP (mg/L)
TRET	Char	24	TREATMENT TYPES
WAST	Char	2	TYPE OF EFFLUENT WASTE
SDAC	Char	2	SPECIAL DISCHARGE ACTIVITY CODES
OPDAYS	Num	8	OPERATING DAYS
OPDAYS_A	Num	8	OPERATING DAYS - ADJUSTED
OPDSORS	Char	1	OPERATING DAYS SOURCE CODE

File VI.
PERMIT, DMR, AND TYPICAL POLLUTANT CONCENTRATION (TPC) LOADING FILE (PIPE LEVEL)

This file contains daily, seasonal, and annual loading estimates for the 15 pollutant parameters in the NCPDI, along with the estimation basis code. The estimates will be at the pipe level. In addition, the file contains information on assumed operating days, type of pipe discharge, and pollutant concentration associated with the type of discharge activity.

Variable	Type	Length	Description
NPID	Char	9	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NUMBER
DSCH	Char	3	DISCHARGE NUMBER
PSDG	Char	4	LIMIT DISCHARGE NUMBER/REPORT DESIGNATOR
MADI	Char	1	MAJOR DISCHARGE INDICATOR
MLOC	Char	1	MONITORING LOCATION
MDML	Char	2	MINIMUM NUMBER OF DMR LINES
SIC	Char	4	SIC CODE - 1987 FACILITY DESCRIPTION
SICMG	Char	2	SIC MAJOR GROUP CODE
SICIG	Char	3	SIC INDUSTRY GROUP CODE
SICDG	Char	1	SIC DIVISION CODE
SICNM	Char	30	SIC NAME
DCCD	Char	4	DISCHARGE CATEGORY CODE
DCNM	Char	30	DISCHARGE CATEGORY NAME
PIPE	Char	30	PIPE DESCRIPTION
PIAC	Char	1	PIPE INACTIVE CODE
FLOWANN	Num	8	FLOW - ANNUAL AVERAGE IN MG
FLOWFAL	Num	8	FLOW FALL IN MG
FLOWSPR	Num	8	FLOW SPRING IN MG
FLOWSUM	Num	8	FLOW SUMMER IN MG
FLOWWIN	Num	8	FLOW WINTER IN MG
NUFLOFAL	Num	8	FLOW FALL - NUMBER OF OBSERVATIONS
NUFLOSPR	Num	8	FLOW SPRING - NUMBER OF OBSERVATIONS
NUFLOSUM	Num	8	FLOW SUMMER - NUMBER OF OBSERVATIONS
NUFLOWIN	Num	8	FLOW WINTER - NUMBER OF OBSERVATIONS
FLOWPROC	Num	8	PROCESS FLOW- ANNUAL AVERAGE IN MG
FLOWFAL1	Num	8	PROCESS FLOW PIPE FALL IN MG
FLOWSPR1	Num	8	PROCESS FLOW PIPE SPRING IN MG
FLOWSUM1	Num	8	PROCESS FLOW PIPE SUMMER IN MG
FLOWWIN1	Num	8	PROCESS FLOW PIPE WINTER IN MG
FLOWPIPE	Num	8	FLOW PIPE AVERAGE IN MGD
FLOWBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR FLOW
FLOWCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR FLOW
FLOWTYPE	Char	1	FLOW TYPE
FTBASE	Char	1	FLOW TYPE BASIS CODE
BODANN	Num	8	BIOCHEMICAL OXYGEN DEMAND ANNUAL (TOTAL) IN LB
BODFAL	Num	8	BIOCHEMICAL OXYGEN DEMAND FALL IN LB
BODSPR	Num	8	BIOCHEMICAL OXYGEN DEMAND SPRING IN LB
BODSUM	Num	8	BIOCHEMICAL OXYGEN DEMAND SUMMER IN LB
BODWIN	Num	8	BIOCHEMICAL OXYGEN DEMAND WINTER IN LB
NUBODFAL	Num	8	BIOCHEMICAL OXYGEN DEMAND FALL - NUMBER OF OBSERVATIONS
NUBODSPR	Num	8	BIOCHEMICAL OXYGEN DEMAND SPRING - NUMBER OF OBSERVATIONS
NUBODSUM	Num	8	BIOCHEMICAL OXYGEN DEMAND SUMMER - NUMBER OF OBSERVATIONS
NUBODWIN	Num	8	BIOCHEMICAL OXYGEN DEMAND WINTER - NUMBER OF OBSERVATIONS
BODBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR BIOCHEMICAL OXYGEN DEMAND
BODCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR BIOCHEMICAL OXYGEN DEMAND
TSSANN	Num	8	TOTAL SUSPENDED SOLIDS ANNUAL (TOTAL) FIN LB
TSSFAL	Num	8	TOTAL SUSPENDED SOLIDS FALL IN LB

TSSSPR	Num	8	TOTAL SUSPENDED SOLIDS SPRING IN LB
TSSSUM	Num	8	TOTAL SUSPENDED SOLIDS SUMMER IN LB
TSSWIN	Num	8	TOTAL SUSPENDED SOLIDS WINTER IN LB
NUTSSFAL	Num	8	TOTAL SUSPENDED SOLIDS FALL - NUMBER OF OBSERVATIONS
NUTSSSPR	Num	8	TOTAL SUSPENDED SOLIDS SPRING - NUMBER OF OBSERVATIONS
NUTSSSUM	Num	8	TOTAL SUSPENDED SOLIDS SUMMER - NUMBER OF OBSERVATIONS
NUTSSWIN	Num	8	TOTAL SUSPENDED SOLIDS WINTER - NUMBER OF OBSERVATIONS
TSSBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR TOTAL SUSPENDED SOLIDS
TSSCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR TOTAL SUSPENDED SOLIDS
NANN	Num	8	NITROGEN ANNUAL (TOTAL) IN LB
NFAL	Num	8	NITROGEN FALL IN LB
NSPR	Num	8	NITROGEN SPRING IN LB
NSUM	Num	8	NITROGEN SUMMER IN LB
NWIN	Num	8	NITROGEN WINTER IN LB
NUNFAL	Num	8	NITROGEN FALL - NUMBER OF OBSERVATIONS
NUNSPR	Num	8	NITROGEN SPRING - NUMBER OF OBSERVATIONS
NUNSUM	Num	8	NITROGEN SUMMER - NUMBER OF OBSERVATIONS
NUNWIN	Num	8	NITROGEN WINTER - NUMBER OF OBSERVATIONS
NBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR NITROGEN
NCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR NITROGEN
PANN	Num	8	PHOSPHORUS ANNUAL (TOTAL) IN LB
PFAL	Num	8	PHOSPHORUS FALL IN LB
PSPR	Num	8	PHOSPHORUS SPRING IN LB
PSUM	Num	8	PHOSPHORUS SUMMER IN LB
PWIN	Num	8	PHOSPHORUS WINTER IN LB
NUPFAL	Num	8	PHOSPHORUS FALL - NUMBER OF OBSERVATIONS
NUPSPR	Num	8	PHOSPHORUS SPRING - NUMBER OF OBSERVATIONS
NUPSUM	Num	8	PHOSPHORUS SUMMER - NUMBER OF OBSERVATIONS
NUPWIN	Num	8	PHOSPHORUS WINTER - NUMBER OF OBSERVATIONS
PBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR PHOSPHORUS
PCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR PHOSPHORUS
ASANN	Num	8	ARSENIC ANNUAL (TOTAL) IN LB
ASFAL	Num	8	ARSENIC FALL IN LB
ASSPR	Num	8	ARSENIC SPRING IN LB
ASSUM	Num	8	ARSENIC SUMMER IN LB
ASWIN	Num	8	ARSENIC WINTER IN LB
NUASFAL	Num	8	ARSENIC FALL - NUMBER OF OBSERVATIONS
NUASSPR	Num	8	ARSENIC SPRING - NUMBER OF OBSERVATIONS
NUASSUM	Num	8	ARSENIC SUMMER - NUMBER OF OBSERVATIONS
NUASWIN	Num	8	ARSENIC WINTER - NUMBER OF OBSERVATIONS
ASBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR ARSENIC
ASCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR ARSENIC
CDANN	Num	8	CADMIUM ANNUAL (TOTAL) IN LB
CDFAL	Num	8	CADMIUM FALL IN LB
CDSPR	Num	8	CADMIUM SPRING IN LB
CDSUM	Num	8	CADMIUM SUMMER IN LB
CDWIN	Num	8	CADMIUM WINTER IN LB
NUCDFAL	Num	8	CADMIUM FALL - NUMBER OF OBSERVATIONS
NUCDSPR	Num	8	CADMIUM SPRING - NUMBER OF OBSERVATIONS
NUCDSUM	Num	8	CADMIUM SUMMER - NUMBER OF OBSERVATIONS
NUCDWIN	Num	8	CADMIUM WINTER - NUMBER OF OBSERVATIONS
CDBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR CADMIUM
CDCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR CADMIUM
CRANN	Num	8	CHROMIUM ANNUAL (TOTAL) IN LB

CRFAL	Num	8	CHROMIUM FALL IN LB
CRSPR	Num	8	CHROMIUM SPRING IN LB
CRSUM	Num	8	CHROMIUM SUMMER IN LB
CRWIN	Num	8	CHROMIUM WINTER IN LB
NUCRFAL	Num	8	CHROMIUM FALL - NUMBER OF OBSERVATIONS
NUCRSPR	Num	8	CHROMIUM SPRING - NUMBER OF OBSERVATIONS
NUCRSUM	Num	8	CHROMIUM SUMMER - NUMBER OF OBSERVATIONS
NUCRWIN	Num	8	CHROMIUM WINTER - NUMBER OF OBSERVATIONS
CRBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR CHROMIUM
CRCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR CHROMIUM
CUANN	Num	8	COPPER ANNUAL (TOTAL) IN LB
CUFAL	Num	8	COPPER FALL IN LB
CUSPR	Num	8	COPPER SPRING IN LB
CUSUM	Num	8	COPPER SUMMER IN LB
CUWIN	Num	8	COPPER WINTER IN LB
NUCUFAL	Num	8	COPPER FALL - NUMBER OF OBSERVATIONS
NUCUSPR	Num	8	COPPER SPRING - NUMBER OF OBSERVATIONS
NUCUSUM	Num	8	COPPER SUMMER - NUMBER OF OBSERVATIONS
NUCUWIN	Num	8	COPPER WINTER - NUMBER OF OBSERVATIONS
CUBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR COPPER
CUCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR COPPER
FEANN	Num	8	IRON ANNUAL (TOTAL) IN LB
FEFAL	Num	8	IRON FALL IN LB
FESPR	Num	8	IRON SPRING IN LB
FESUM	Num	8	IRON SUMMER IN LB
FEWIN	Num	8	IRON WINTER IN LB
NUFEFAL	Num	8	IRON FALL - NUMBER OF OBSERVATIONS
NUFESPR	Num	8	IRON SPRING - NUMBER OF OBSERVATIONS
NUFESUM	Num	8	IRON SUMMER - NUMBER OF OBSERVATIONS
NUFEWIN	Num	8	IRON WINTER - NUMBER OF OBSERVATIONS
FEBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR IRON
FECODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR IRON
HGANN	Num	8	MERCURY ANNUAL (TOTAL) IN LB
HGFAL	Num	8	MERCURY FALL IN LB
HGSPR	Num	8	MERCURY SPRING IN LB
HGSUM	Num	8	MERCURY SUMMER IN LB
HGWIN	Num	8	MERCURY WINTER IN LB
NUHGFAL	Num	8	MERCURY FALL - NUMBER OF OBSERVATIONS
NUHGSPR	Num	8	MERCURY SPRING - NUMBER OF OBSERVATIONS
NUHGSUM	Num	8	MERCURY SUMMER - NUMBER OF OBSERVATIONS
NUHGWIN	Num	8	MERCURY WINTER - NUMBER OF OBSERVATIONS
HGBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR MERCURY
HGCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR MERCURY
PBANN	Num	8	LEAD ANNUAL (TOTAL) IN LB
PBFAL	Num	8	LEAD FALL IN LB
PBSPR	Num	8	LEAD SPRING IN LB
PBSUM	Num	8	LEAD SUMMER IN LB
PBWIN	Num	8	LEAD WINTER IN LB
NUPBFAL	Num	8	LEAD FALL - NUMBER OF OBSERVATIONS
NUPBSPR	Num	8	LEAD SPRING - NUMBER OF OBSERVATIONS
NUPBSUM	Num	8	LEAD SUMMER - NUMBER OF OBSERVATIONS
NUPBWIN	Num	8	LEAD WINTER - NUMBER OF OBSERVATIONS
PBBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR LEAD
PBCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR LEAD

ZNANN	Num	8	ZINC ANNUAL (TOTAL) IN LB
ZNFAL	Num	8	ZINC FALL IN LB
ZNSPR	Num	8	ZINC SPRING IN LB
ZNSUM	Num	8	ZINC SUMMER IN LB
ZNWIN	Num	8	ZINC WINTER IN LB
NUZNFAL	Num	8	ZINC FALL - NUMBER OF OBSERVATIONS
NUZNSPR	Num	8	ZINC SPRING - NUMBER OF OBSERVATIONS
NUZNSUM	Num	8	ZINC SUMMER - NUMBER OF OBSERVATIONS
NUZNWIN	Num	8	ZINC WINTER - NUMBER OF OBSERVATIONS
ZNBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR ZINC
ZNCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR ZINC
OGANN	Num	8	OIL & GREASE ANNUAL (TOTAL) IN LB
OGFAL	Num	8	OIL & GREASE FALL IN LB
OGSPR	Num	8	OIL & GREASE SPRING IN LB
OGSUM	Num	8	OIL & GREASE SUMMER IN LB
OGWIN	Num	8	OIL & GREASE WINTER IN LB
NUOGFAL	Num	8	OIL & GREASE FALL - NUMBER OF OBSERVATIONS
NUOGSPR	Num	8	OIL & GREASE SPRING - NUMBER OF OBSERVATIONS
NUOGSUM	Num	8	OIL & GREASE SUMMER - NUMBER OF OBSERVATIONS
NUOGWIN	Num	8	OIL & GREASE WINTER - NUMBER OF OBSERVATIONS
OGBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR OIL & GREASE
OGCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR OIL & GREASE
FCBANN	Num	8	FECAL COLIFORM BACTERIA ANNUAL IN CELLS
FCBFAL	Num	8	FECAL COLIFORM BACTERIA FALL IN CELLS
FCBSPR	Num	8	FECAL COLIFORM BACTERIA SPRING IN CELLS
FCBSUM	Num	8	FECAL COLIFORM BACTERIA SUMMER IN CELLS
FCBWIN	Num	8	FECAL COLIFORM BACTERIA WINTER IN CELLS
NUFCBFAL	Num	8	FECAL COLIFORM BACTERIA FALL - NUMBER OF OBSERVATIONS
NUFCBSPR	Num	8	FECAL COLIFORM BACTERIA SPRING - NUMBER OF OBSERVATIONS
NUFCBSUM	Num	8	FECAL COLIFORM BACTERIA SUMMER - NUMBER OF OBSERVATIONS
NUFCBWIN	Num	8	FECAL COLIFORM BACTERIA WINTER - NUMBER OF OBSERVATIONS
FCBBASE	Char	3	POLLUTANT BASIS CODE - DETAILED DESCRIPTION FOR FECAL COLIFORM BACTERIA
FCBCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR FECAL COLIFORM BACTERIA
PFACTOR	Num	8	PROCESS FACTOR
PLAT	Char	6	PIPE LATITUDE - DEGREES, MINUTES, SECONDS
PLAT1	Num	8	PIPE LATITUDE - DECIMAL DEGREES
PLON	Char	7	PIPE LONGITUDE - DEGREES, MINUTES, SECONDS
PLON1	Num	8	PIPE LONGITUDE - DECIMAL DEGREES
PLLSORS	Char	1	PIPE LATITUDE/LONGITUDE SOURCE CODE
FALCOEF	Num	8	SEASONALITY COEFFICIENT- FALL
SPRCOEF	Num	8	SEASONALITY COEFFICIENT- SPRING
SUMCOEF	Num	8	SEASONALITY COEFFICIENT- SUMMER
WINCOEF	Num	8	SEASONALITY COEFFICIENT- WINTER
TPCBOD	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR BOD (mg/L)
TPCTSS	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR TSS (mg/L)
TPCN	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR N (mg/L)
TPCP	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR P (mg/L)
TPCAS	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR AS (mg/L)
TPCCD	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR CD (mg/L)
TPCCR	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR CR (mg/L)
TPCCU	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR CU (mg/L)
TPCFE	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR FE (mg/L)
TPCHG	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR HG (mg/L)
TPCPB	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR PB (mg/L)
TPCZN	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR ZN (mg/L)
TPCOG	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR OG (mg/L)
TPCFCB	Num	8	TYPICAL POLLUTANT CONCENTRATION FOR FCB (cell/100mL)
TRET	Char	24	TREATMENT TYPES

WAST	Char	2	TYPE OF EFFLUENT WAST FROM A PIPE
SDAC	Char	2	SPECIAL DISCHARGE ACTIVITY CODE
OPDAYS	Num	8	OPERATING DAYS
OPDAYS_A	Num	8	OPERATION DAYS - ADJUSTED
OPDSORS	Char	1	OPERATING DAYS SOURCE CODE

File VII.
PERMIT, DMR, AND TYPICAL POLLUTANT CONCENTRATION (TPC) LOADING FILE (FACILITY LEVEL)

This file summarizes the information in File VI to the facility level. It contains seasonal and annual loading estimates for the 15 pollutant parameters carried in the NCPDI, along with the estimation basis code. It will also contain additional information on facility location and activity merged from the Facility File (File I).

Variable	Type	Length	Description
NPID	Char	9	NATIONAL POLLUTANT DISCHARGE ELMINATION SYSTEM (NPDES) NUMBER
FACILNM	Char	40	STANDARDIZED FACILITY NAME
NUMPIPES	Num	8	NUMBER OF PIPES
MADI	Char	1	MAJOR DISCHARGE INDICATOR
SIC	Char	4	SIC CODE - 1987 FACILITY DESCRIPTION
SICMG	Char	2	SIC MAJOR GROUP CODE
SICIG	Char	3	SIC INDUSTRY GROUP CODE
SICDG	Char	1	SIC DIVISION CODE
SICNM	Char	30	SIC NAME
DCCD	Char	4	DISCHARGE CATEGORY CODE
DCNM	Char	30	DISCHARGE CATEGORY NAME
PS	Char	1	POINT SOURCES CATEGORY
SDAC	Char	2	SPECIAL DISCHARGE ACTIVITY CODES
STTE	Char	2	STATE CODE
FIPS	Char	5	FEDERAL INFORMATION PROCESSING SYSTEM CODE
FLAT	Char	6	FACILITY LATITUDE - DEGREES, MINUTES, SECONDS
FLAT1	Num	8	FACILITY LATITUDE - DECIMAL DEGREES
FLON	Char	7	FACILITY LONGITUDE - DEGREES, MINUTES, SECONDS
FLON1	Num	8	FACILITY LONGITUDE - DECIMAL DEGREES
FLLSORS	Char	1	FACILITY LATITUDE/LONGITUDE SOURCE CODE
FCU	Char	8	FACILITY U.S.G.S HYDROLOGIC CATALOGING UNIT CODE
FCUSORS	Char	1	FACILITY U.S.G.S HYDROLOGIC CATALOGING UNIT SOURCE CODE
EDACODE	Char	5	ESTUARINE/COASTAL DRAINAGE AREA (EDA/CDA) CODE
EDASORS	Char	4	ESTUARINE/COASTAL DRAINAGE AREA (EDA/CDA) SOURCE CODE
RWAT	Char	35	RECEIVING WATER
STUDY0	Char	1	STUDY AREA 0
STUDY1	Char	1	STUDY AREA 1
STUDY2	Char	1	STUDY AREA 2
STUDY3	Char	1	STUDY AREA 3
STUDY4	Char	1	STUDY AREA 4
STUDY5	Char	1	STUDY AREA 5
FLOWANN	Num	8	FLOW - ANNUAL AVERAGE IN MG
FLOWFAL	Num	8	FLOW FALL IN MG
FLOWSPR	Num	8	FLOW SPRING IN MG
FLOWSUM	Num	8	FLOW SUMMER IN MG
FLOWWIN	Num	8	FLOW WINTER IN MG
FLOWPROC	Num	8	PROCESS FLOW - ANNUAL AVERAGE IN MG
FLOWFAL1	Num	8	PROCESS FLOW PIPE FALL IN MG
FLOWSPR1	Num	8	PROCESS FLOW PIPE SPRING IN MG
FLOWSUM1	Num	8	PROCESS FLOW PIPE SUMMER IN MG
FLOWWIN1	Num	8	PROCESS FLOW PIPE WINTER IN MG
FLOWPIPE	Num	8	FLOW PIPE AVERAGE IN MGD
FLOW	Char	5	FLOW FROM FACILITY FILE (PCS) - AVERAGE DESIGN FLOW IN MGD
FLOWCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR FLOW
BODANN	Num	8	BIOCHEMICAL OXYGEN DEMAND ANNUAL (TOTAL) IN LB
BODFAL	Num	8	BIOCHEMICAL OXYGEN DEMAND FALL IN LB
BODSPR	Num	8	BIOCHEMICAL OXYGEN DEMAND SPRING IN LB
BODSUM	Num	8	BIOCHEMICAL OXYGEN DEMAND SUMMER IN LB
BODWIN	Num	8	BIOCHEMICAL OXYGEN DEMAND WINTER IN LB
BODCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION

			FOR BIOCHEMICAL OXYGEN DEMAND
TSSANN	Num	8	TOTAL SUSPENDED SOLIDS ANNUAL (TOTAL) IN LB
TSSFAL	Num	8	TOTAL SUSPENDED SOLIDS FALL IN LB
TSSSPR	Num	8	TOTAL SUSPENDED SOLIDS SPRING IN LB
TSSSUM	Num	8	TOTAL SUSPENDED SOLIDS SUMMER IN LB
TSSWIN	Num	8	TOTAL SUSPENDED SOLIDS WINTER IN LB
TSSCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR TOTAL SUSPENDED SOLIDS
NANN	Num	8	NITROGEN ANNUAL (TOTAL) IN LB
NFAL	Num	8	NITROGEN FALL IN LB
NSPR	Num	8	NITROGEN SPRING IN LB
NSUM	Num	8	NITROGEN SUMMER IN LB
NWIN	Num	8	NITROGEN WINTER IN LB
NCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR NITROGEN
PANN	Num	8	PHOSPHORUS ANNUAL (TOTAL) IN LB
PFAL	Num	8	PHOSPHORUS FALL IN LB
PSPR	Num	8	PHOSPHORUS SPRING IN LB
PSUM	Num	8	PHOSPHORUS SUMMER IN LB
PWIN	Num	8	PHOSPHORUS WINTER IN LB
PCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR PHOSPHORUS
ASANN	Num	8	ARSENIC ANNUAL (TOTAL) IN LB
ASFAL	Num	8	ARSENIC FALL IN LB
ASSPR	Num	8	ARSENIC SPRING IN LB
ASSUM	Num	8	ARSENIC SUMMER IN LB
ASWIN	Num	8	ARSENIC WINTER IN LB
ASCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR ARSENIC
CDANN	Num	8	CADMIUM ANNUAL (TOTAL) IN LB
CDFAL	Num	8	CADMIUM FALL IN LB
CDSPR	Num	8	CADMIUM SPRING IN LB
CDSUM	Num	8	CADMIUM SUMMER IN LB
CDWIN	Num	8	CADMIUM WINTER IN LB
CDCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR CADMIUM
CRANN	Num	8	CHROMIUM ANNUAL (TOTAL) IN LB
CRFAL	Num	8	CHROMIUM FALL IN LB
CRSPR	Num	8	CHROMIUM SPRING IN LB
CRSUM	Num	8	CHROMIUM SUMMER IN LB
CRWIN	Num	8	CHROMIUM WINTER IN LB
CRCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR CHROMIUM
CUANN	Num	8	COPPER ANNUAL (TOTAL) IN LB
CUFAL	Num	8	COPPER FALL IN LB
CUSPR	Num	8	COPPER SPRING IN LB
CUSUM	Num	8	COPPER SUMMER IN LB
CUWIN	Num	8	COPPER WINTER IN LB
CUCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR COPPER
FEANN	Num	8	IRON ANNUAL (TOTAL) IN LB
FEFAL	Num	8	IRON FALL IN LB
FESPR	Num	8	IRON SPRING IN LB
FESUM	Num	8	IRON SUMMER IN LB
FEWIN	Num	8	IRON WINTER IN LB
FECODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR IRON
HGANN	Num	8	MERCURY ANNUAL (TOTAL) IN LB
HGFAL	Num	8	MERCURY FALL IN LB
HGSPR	Num	8	MERCURY SPRING IN LB
HGSUM	Num	8	MERCURY SUMMER IN LB
HGWIN	Num	8	MERCURY WINTER IN LB
HGCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR MERCURY

PBANN	Num	8	LEAD ANNUAL (TOTAL) IN LB
PBFAL	Num	8	LEAD FALL IN LB
PBSPR	Num	8	LEAD SPRING IN LB
PBSUM	Num	8	LEAD SUMMER IN LB
PBWIN	Num	8	LEAD WINTER IN LB
PBCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR LEAD
ZNANN	Num	8	ZINC ANNUAL (TOTAL) IN LB
ZNFAL	Num	8	ZINC FALL IN LB
ZNSPR	Num	8	ZINC SPRING IN LB
ZNSUM	Num	8	ZINC SUMMER IN LB
ZNWIN	Num	8	ZINC WINTER IN LB
ZNCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR ZINC
OGANN	Num	8	OIL & GREASE ANNUAL (TOTAL) IN LB
OGSPR	Num	8	OIL & GREASE SPRING IN LB
OGSUM	Num	8	OIL & GREASE SUMMER IN LB
OGWIN	Num	8	OIL & GREASE WINTER IN LB
OGFAL	Num	8	OIL & GREASE FALL IN LB
OGCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR OIL & GREASE
FCBANN	Num	8	FECAL COLIFORM BACTERIA ANNUAL IN CELLS
FCBFAL	Num	8	FECAL COLIFORM BACTERIA FALL IN CELLS
FCBSPR	Num	8	FECAL COLIFORM BACTERIA SPRING IN CELLS
FCBSUM	Num	8	FECAL COLIFORM BACTERIA SUMMER IN CELLS
FCBWIN	Num	8	FECAL COLIFORM BACTERIA WINTER IN CELLS
FCBCODE	Char	1	POLLUTANT BASIS CODE - SHORT DESCRIPTION FOR FECAL COLIFORM BACTERIA

Appendix VI.
Estuarine and Coastal Drainage Areas in the NCPDI

Appendix VI. Estuarine and Coastal Drainage Areas in the NCPDI

Region	EDA/CDA Name	EDA/CDA Code
North Atlantic		
	Passamaquoddy Bay	N010
	Coastal Drainage Area (N016)	N016
	Englishman Bay	N020
	Coastal Drainage Area (N025)	N025
	Narraguagus Bay	N030
	Coastal Drainage Area (N033)	N033
	Coastal Drainage Area (N036)	N036
	Blue Hill Bay	N040
	Coastal Drainage Area (N045)	N045
	Penobscot Bay	N050
	Coastal Drainage Area (N052)	N052
	Coastal Drainage Area (N055)	N055
	Coastal Drainage Area (N058)	N058
	Muscongus Bay	N060
	Coastal Drainage Area (N065)	N065
	Sheepscot Bay	N070
	Coastal Drainage Area (N075)	N075
	Casco Bay	N080
	Coastal Drainage Area (N083)	N083
	Coastal Drainage Area (N086)	N086
	Saco Bay	N090
	Coastal Drainage Area (N093)	N093
	Coastal Drainage Area (N096)	N096
	Great Bay	N100
	Coastal Drainage Area (N103)	N103
	Coastal Drainage Area (N105)	N105
	Coastal Drainage Area (N106)	N106
	Merrimack River	N110
	Coastal Drainage Area (N115)	N115
	Massachusetts Bay	N120
	Massachusetts Bay - Boston Bay	N120a
	Coastal Drainage Area (N125)	N125
	Cape Cod Bay	N130
	Coastal Drainage Area (N135)	N135

Appendix VI. Estuarine and Coastal Drainage Areas in the NCPDI

Region	EDA/CDA Name	EDA/CDA Code
Middle Atlantic		
	Buzzards Bay	M010
	Coastal Drainage Area (M011)	M011
	Coastal Drainage Area (M013)	M013
	Coastal Drainage Area (M106)	M016
	Narragansett Bay	M020
	Coastal Drainage Area (M021)	M021
	Coastal Drainage Area (M023)	M023
	Coastal Drainage Area (M026)	M026
	Gardiners Bay	M030
	Coastal Drainage Area (M033)	M033
	Coastal Drainage Area (M036)	M036
	Connecticut River	M040
	Long Island Sound - Connecticut River	M040a
	Coastal Drainage Area (M045)	M045
	Great South Bay	M050
	Coastal Drainage Area (M055)	M055
	Hudson River/Raritan Bay	M060
	Coastal Drainage Area (M063)	M063
	Coastal Drainage Area (M065)	M065
	Barnegat Bay	M070
	Coastal Drainage Area (M075)	M075
	New Jersey Inland Bays	M080
	Coastal Drainage Area (M085)	M085
	Delaware Bay	M090
	Coastal Drainage Area (M093)	M093
	Coastal Drainage Area (M095)	M095
	Delaware Inland Bays	M100
	Coastal Drainage Area (M103)	M103
	Coastal Drainage Area (M105)	M105
	Chincoteague Bay	M110
	Coastal Drainage Area (M112)	M112
	Coastal Drainage Area (M115)	M115
	Coastal Drainage Area (M118)	M118
	Chesapeake Bay	M120
	Chesapeake Bay - Patuxent River	M120a
	Chesapeake Bay - Potomac River	M120b
	Chesapeake Bay - Rappahannock River	M120c
	Chesapeake Bay - York River	M120d
	Chesapeake Bay - James River	M120e

Appendix VI. Estuarine and Coastal Drainage Areas in the NCPDI

Region	EDA/CDA Name	EDA/CDA Code
	Chesapeake Bay - Chester River	M120f
	Chesapeake Bay - Choptank River	M120g
	Chesapeake Bay - Tangier/Pocomoke Sounds	M120h
	Coastal Drainage Area (M122)	M122
	Coastal Drainage Area (M125)	M125
	Coastal Drainage Area (M128)	M128
South Atlantic		
	Albemarle/Pamlico Sounds	S010
	Albemarle/Pamlico Sounds - Pamlico/Pungo Rivers	S010a
	Albemarle/Pamlico Sounds - Neuse River	S010b
	Coastal Drainage Area (S013)	S013
	Coastal Drainage Area (S016)	S016
	Bogue Sound	S020
	Coastal Drainage Area (S025)	S025
	New River	S030
	Coastal Drainage Area (S032)	S032
	Coastal Drainage Area (S035)	S035
	Coastal Drainage Area (S038)	S038
	Cape Fear River	S040
	Coastal Drainage Area (S043)	S043
	Coastal Drainage Area (S046)	S046
	Winyah Bay	S050
	Coastal Drainage Area (S053)	S053
	Coastal Drainage Area (S055)	S055
	North/South Santee Rivers	S060
	Coastal Drainage Area (S063)	S063
	Coastal Drainage Area (S066)	S066
	Charleston Harbor	S070
	Coastal Drainage Area (S071)	S071
	Coastal Drainage Area (S073)	S073
	Coastal Drainage Area (S076)	S076
	St. Helena Sound	S080
	Coastal Drainage Area (S085)	S085
	Broad River	S090
	Coastal Drainage Area (S095)	S095
	Savannah River	S100
	Coastal Drainage Area (S103)	S103
	Coastal Drainage Area (S105)	S105
	Ossabaw Sound	S110

Appendix VI. Estuarine and Coastal Drainage Areas in the NCPDI

Region	EDA/CDA Name	EDA/CDA Code
	Coastal Drainage Area (S113)	S113
	Coastal Drainage Area (S115)	S115
	St. Catherines/Sapelo Sounds	S120
	Coastal Drainage Area (S123)	S123
	Coastal Drainage Area (S126)	S126
	Altamaha River	S130
	Coastal Drainage Area (S135)	S135
	St. Andrew/St. Simons Sounds	S140
	Coastal Drainage Area (S143)	S143
	Coastal Drainage Area (S146)	S146
	St. Marys River/Cumberland Sound	S150
	Coastal Drainage Area (S153)	S153
	Coastal Drainage Area (S155)	S155
	St. Johns River	S160
	Coastal Drainage Area (S163)	S163
	Coastal Drainage Area (S166)	S166
	Indian River	S170
	Coastal Drainage Area (S173)	S173
	Coastal Drainage Area (S176)	S176
	Biscayne Bay	S180
	Coastal Drainage Area (S183)	S183
	Coastal Drainage Area (S186)	S186
Gulf of Mexico		
	Florida Bay	G010
	South Ten Thousand Islands	G020
	Coastal Drainage Area (G025)	G025
	North Ten Thousand Islands	G030
	Coastal Drainage Area (G033)	G033
	Coastal Drainage Area (G036)	G036
	Rookery Bay	G040
	Coastal Drainage Area (G045)	G045
	Charlotte Harbor	G050
	Charlotte Harbor - Caloosahatchee River	G050a
	Coastal Drainage Area (G053)	G053
	Coastal Drainage Area (G056)	G056
	Sarasota Bay	G060
	Coastal Drainage Area (G065)	G065
	Tampa Bay	G070
	Coastal Drainage Area (G072)	G072

Appendix VI. Estuarine and Coastal Drainage Areas in the NCPDI

Region	EDA/CDA Name	EDA/CDA Code
	Coastal Drainage Area (G074)	G074
	Coastal Drainage Area (G076)	G076
	Coastal Drainage Area (G078)	G078
	Suwannee River	G080
	Coastal Drainage Area (G083)	G083
	Coastal Drainage Area (G086)	G086
	Apalachee Bay	G090
	Coastal Drainage Area (G095)	G095
	Apalachicola Bay	G100
	Coastal Drainage Area (G102)	G102
	Coastal Drainage Area (G105)	G105
	Coastal Drainage Area (G108)	G108
	St. Andrew Bay	G110
	Coastal Drainage Area (G112)	G112
	Coastal Drainage Area (G115)	G115
	Coastal Drainage Area (G118)	G118
	Choctawhatchee Bay	G120
	Coastal Drainage Area (G125)	G125
	Pensacola Bay	G130
	Coastal Drainage Area (G135)	G135
	Perdido Bay	G140
	Coastal Drainage Area (G145)	G145
	Mobile Bay	G150
	Coastal Drainage Area (G155)	G155
	Mississippi Sound	G160
	Mississippi Sound - Lake Borgne/Lake Pontchartrain	G160a
	Coastal Drainage Area (G165)	G165
	Breton/Chandeleur Sound	G170
	Coastal Drainage Area (G175)	G175
	Mississippi River	G180
	Coastal Drainage Area (G185)	G185
	Barataria Bay	G190
	Coastal Drainage Area (G195)	G195
	Terrebonne/Timbalier Bays	G200
	Coastal Drainage Area (G205)	G205
	Atchafalaya/Vermilion Bays	G210
	Coastal Drainage Area (G212)	G212
	Coastal Drainage Area (G215)	G215
	Coastal Drainage Area (G218)	G218
	Calcasieu Lake	G220
	Coastal Drainage Area (G225)	G225

Appendix VI. Estuarine and Coastal Drainage Areas in the NCPDI

Region	EDA/CDA Name	EDA/CDA Code
	Sabine Lake	G230
	Coastal Drainage Area (G235)	G235
	Galveston Bay	G240
	Coastal Drainage Area (G242)	G242
	Coastal Drainage Area (G245)	G245
	Coastal Drainage Area (G248)	G248
	Brazos River	G250
	Coastal Drainage Area (G253)	G253
	Coastal Drainage Area (G256)	G256
	Matagorda Bay	G260
	Coastal Drainage Area (G263)	G263
	Coastal Drainage Area (G266)	G266
	San Antonio Bay	G270
	Coastal Drainage Area (G275)	G275
	Aransas Bay	G280
	Coastal Drainage Area (G285)	G285
	Corpus Christi Bay	G290
	Coastal Drainage Area (G293)	G293
	Coastal Drainage Area (G296)	G296
	Upper Laguna Madre	G300
	Upper Laguna Madre - Baffin Bay	G300a
	Coastal Drainage Area (G305)	G305
	Lower Laguna Madre	G310
	Coastal Drainage Area (G312)	G312
	Coastal Drainage Area (G315)	G315
	Coastal Drainage Area (G318)	G318
Pacific		
	Coastal Drainage Area (P005)	P005
	Tijuana Estuary	P010
	Coastal Drainage Area (P011)	P011
	Coastal Drainage Area (P013)	P013
	Coastal Drainage Area (P016)	P016
	San Diego Bay	P020
	Coastal Drainage Area (P021)	P021
	Coastal Drainage Area (P022)	P022
	Coastal Drainage Area (P023)	P023
	Coastal Drainage Area (P025)	P025
	Coastal Drainage Area (P027)	P027
	Coastal Drainage Area (P029)	P029

Appendix VI. Estuarine and Coastal Drainage Areas in the NCPDI

Region	EDA/CDA Name	EDA/CDA Code
	Mission Bay	P030
	Newport Bay	P040
	Coastal Drainage Area (P042)	P042
	Coastal Drainage Area (P045)	P045
	Coastal Drainage Area (P048)	P048
	San Pedro Bay	P050
	San Pedro Bay - Alamitos Bay	P050a
	San Pedro Bay - Anaheim Bay	P050b
	Coastal Drainage Area (P053)	P053
	Coastal Drainage Area (P056)	P056
	Coastal Drainage Area (P058)	P058
	Santa Monica Bay	P060
	Coastal Drainage Area (P061)	P061
	Coastal Drainage Area (P062)	P062
	Coastal Drainage Area (P063)	P063
	Coastal Drainage Area (P064)	P064
	Coastal Drainage Area (P065)	P065
	Coastal Drainage Area (P066)	P066
	Coastal Drainage Area (P067)	P067
	Coastal Drainage Area (P068)	P068
	Coastal Drainage Area (P069)	P069
	Morro Bay	P070
	Coastal Drainage Area (P073)	P073
	Coastal Drainage Area (P076)	P076
	Monterey Bay	P080
	Monterey Bay - Elkhorn Slough	P080a
	Coastal Drainage Area (P083)	P083
	Coastal Drainage Area (P086)	P086
	San Francisco Bay	P090
	San Francisco Bay - San Pablo/Suisin Bay	P090a
	Coastal Drainage Area (P093)	P093
	Coastal Drainage Area (P095)	P095
	Drakes Estero	P100
	Coastal Drainage Area (P105)	P105
	Tomales Bay	P110
	Coastal Drainage Area (P111)	P111
	Coastal Drainage Area (P112)	P112
	Coastal Drainage Area (P113)	P113
	Coastal Drainage Area (P114)	P114
	Coastal Drainage Area (P116)	P116
	Coastal Drainage Area (P117)	P117

Appendix VI. Estuarine and Coastal Drainage Areas in the NCPDI

Region	EDA/CDA Name	EDA/CDA Code
	Coastal Drainage Area (P118)	P118
	Eel River	P120
	Coastal Drainage Area (P123)	P123
	Coastal Drainage Area (P126)	P126
	Humboldt Bay	P130
	Coastal Drainage Area (P135)	P135
	Klamath River	P140
	Coastal Drainage Area (P143)	P143
	Coastal Drainage Area (P146)	P146
	Rogue River	P150
	Coastal Drainage Area (P152)	P152
	Coastal Drainage Area (P155)	P155
	Coastal Drainage Area (P158)	P158
	Coos Bay	P160
	Coastal Drainage Area (P165)	P165
	Umpqua River	P170
	Coastal Drainage Area (P175)	P175
	Siuslaw River	P180
	Coastal Drainage Area (P185)	P185
	Alsea River	P190
	Coastal Drainage Area (P195)	P195
	Yaquina Bay	P200
	Coastal Drainage Area (P205)	P205
	Siletz Bay	P210
	Coastal Drainage Area (P213)	P213
	Coastal Drainage Area (P216)	P216
	Netarts Bay	P220
	Coastal Drainage Area (P225)	P225
	Tillamook Bay	P230
	Coastal Drainage Area (P235)	P235
	Nehalem River	P240
	Coastal Drainage Area (P245)	P245
	Columbia River	P250
	Coastal Drainage Area (P253)	P253
	Coastal Drainage Area (P255)	P255
	Willapa Bay	P260
	Coastal Drainage Area (P265)	P265
	Grays Harbor	P270
	Coastal Drainage Area (P272)	P272
	Coastal Drainage Area (P274)	P274
	Coastal Drainage Area (P276)	P276

Appendix VI. Estuarine and Coastal Drainage Areas in the NCPDI

Region	EDA/CDA Name	EDA/CDA Code
	Coastal Drainage Area (P278)	P278
	Puget Sound	P280
	Puget Sound - Hood Canal	P080a
	Puget Sound - Skagit Bay	P080b
	Coastal Drainage Area (P281)	P281
	Coastal Drainage Area (P282)	P282
	Coastal Drainage Area (P283)	P283
	Coastal Drainage Area (P284)	P284
	Coastal Drainage Area (P286)	P286
	Coastal Drainage Area (P287)	P287
	Coastal Drainage Area (P288)	P288
Great Lakes		
	Baptism-Brule MN	L011
	Beaver-Lester MN	L012
	St. Louis MN, WI	L013
	Beartrap-Nemadji MN, WI	L014
	Bad-Montreal MI, WI	L015
	Black-Presque Isle MI, WI	L016
	Ontonagon MI, WI	L017
	Keweenaw Peninsula MI	L018
	Dead-Kelsey MI	L019
	Betsy-Chocolay MI	L020
	Tahquamenon MI	L021
	Waiska MI	L022
	Brevoort-Millecoquins MI	L031
	Manistique MI	L032
	Fishdam-Sturgeon MI	L033
	Tacoosh-Whitefish MI	L034
	Escanaba MI	L035
	Tacoosh-Whitefish MI	L036
	Cedar-Ford MI	L037
	Brule MI, WI	L038
	Peshtigo WI	L039
	Oconto WI	L040
	Duck-Pensaukee WI	L041
	Upper Fox WI	L042
	Door-Kewaunee WI	L043
	Manitowoc-Sheboygan WI	L044
	Milwaukee WI	L045

Appendix VI. Estuarine and Coastal Drainage Areas in the NCPDI

Region	EDA/CDA Name	EDA/CDA Code
	Pike-Root IL WI	L046
	Little Calumet-Galien IL, IN, MI	L047
	St. Joseph IN, MI	L048
	Black-Macatawa MI	L049
	Kalamazoo MI	L050
	Black-Macatawa MI	L051
	Upper Grand MI	L052
	Pere Marquette-White MI	L053
	Muskegon MI	L054
	Pere Marquette-White MI	L055
	Manistee MI	L056
	Betsie Platte MI	L057
	Boardman-Charlevoix MI	L058
	St. Marys MI	L061
	Carp-Pine MI	L062
	Cadottes Point MI	L063
	Cheboygan MI	L064
	Lone Lake-Ocqueoc MI	L065
	Thunder Bay MI	L066
	South Point MI	L067
	Au Sable MI	L068
	Au Gres-Rifle MI	L069
	Kawkawlin-Pine MI	L070
	Saginaw MI	L071
	Pigeon-Wiscoggin MI	L072
	Birch-Willow MI	L073
	St Clair MI	L081
	Lake St Clair North MI	L082
	Clinton MI	L083
	Lake St Clair South MI	L084
	Detroit MI	L085
	Huron MI	L086
	Stony Creek MI OH	L091
	Raisin MI OH	L092
	Ottawa-Stony MI, OH	L093
	Lower Maumee IN, MI, OH	L094
	Cedar-Portage OH	L095
	Sandusky OH	L096
	Huron-Vermilion OH	L097
	Black-Rocky OH	L098
	Cuyahoga OH	L099

Appendix VI. Estuarine and Coastal Drainage Areas in the NCPDI

Region	EDA/CDA Name	EDA/CDA Code
	Ashtabula-Chagrin	L100
	Grand OH	L101
	Ashtabula-Chagrin OH, PA	L102
	Chautauqua-Connaut NY, OH, PA	L103
	Cattaraugus NY	L104
	Buffalo-Eighteenmile NY	L105
	Niagara NY	L106
	Oak Orchard-Twelvemile NY	L111
	Lower Genesee NY, PA	L112
	Irondequoit-Ninemile NY	L113
	Oswego NY	L114
	Salmon-Sandy NY	L115
	Chaumont-Perch NY	L116
	Black NY	L117
	Chaumont-Perch NY	L118
	St. Lawrence River	L121
	Oswegatchie NY	L122
	Upper St. Lawrence River	L123
	Grass NY	L124
	Raquette NY	L125
	St. Regis NY	L126
	English-Salmon NY	L127

Appendix VII.
USGS Hydrologic Cataloging Units in the NCPDI

Appendix VII. USGS Hydrologic Cataloging Units in the NCPDI

Cataloging Unit	Cataloging Unit Name	Cataloging Unit Area (sq. mi.)
01020005	LOWER PENOBSCOT. ME	2,360
01030003	LOWER KENNEBEC. ME	3,450
01040002	LOWER ANDROSCOGGIN. ME, NH	2,060
01050001	ST. CROIX. ME	999
01050002	ME COASTAL. ME	4,800
01050003	ST. GEORGE-SHEEPSCOT. ME	1,250
01060001	PRESUMPSCOT. ME	1,240
01060002	SACO. ME, NH	1,690
01060003	PISCATAQUA-SALMON FALLS. ME, NH, MA	1,400
01070002	MERRIMACK. MA, NH	2,300
01080205	LOWER CT. CT, MA	1,090
01090001	CHARLES. MA	1,130
01090002	CAPE COD. MA, RI	2,220
01090004	NARRAGANSETT. MA, RI	1,330
01090005	PAWCATUCK-WOOD. CT, RI	383
01100001	QUINEBAUG. CONN., MASS., RI	729
01100002	SHETUCKET. CT, MA	517
01100003	THAMES. CT	381
01100004	QUINNIPIAC. CT	516
01100005	HOUSATONIC. CT, MA, NY	1,930
01100006	SAUGATUCK. CT, NY	436
02020006	MIDDLE HUDSON. MA, NY	2,390
02020007	RONDOUT. NY, NJ	1,190
02020008	HUDSON-WAPPINGER. NY	928
02030101	LOWER HUDSON. CT, NJ, NY	720
02030102	BRONX. NY	190
02030103	HACKENSACK-PASSAIC. NJ, NY	1,120
02030104	SANDY HOOK-STATEN ISLAND. NJ, NY	679
02030105	RARITAN. NJ	1,080
02030201	NORTHERN LONG ISLAND. NY	915
02030202	SOUTHERN LONG ISLAND. NY	1,660
02040201	CROSSWICKS-NESHAMINY. NJ, PA	521
02040202	LOWER DE. NJ, PA	1,050
02040203	SCHUYLKILL. PA	1,900
02040204	DE BAY. NJ	744
02040205	BRANDYWINE-CHRISTINA. DE, MD, PA	745
02040206	COHANSEY-MAURICE. NJ	1,060
02040207	BROADKILL-SMYRNA	628
02040301	MULLICA-TOMS. NJ	1,350
02040302	GREAT EGG HARBOR. NJ	717
02050306	LOWER SUSQUEHANNA. MD, PA	2,440
02060002	CHESTER-SASSAFRAS. DE, MD, PA	1,290
02060003	GUNPOWDER-PATAPSCO. MD, PA	1,370
02060004	SEVERN. MD	325
02060005	CHOPTANK. DE, MD	931
02060006	PATUXENT. MD	922
02060007	BLACKWATER-WICOMICO. DE, MD	537
02060008	NANTICOKE. DE, MD	821
02060009	POCOMOKE. DE, MD, VA	771
02060010	CHINCOTEAGUE. DE, MD, VA	742
02070010	MIDDLE POTOMAC, ANACOSTIA, OCCOQUAN. DC, MD, VA	1,280
02070011	LOWER POTOMAC. MD, VA	1,800
02080101	LOWER CHESAPEAKE BAY. VA	1,390
02080102	GREAT WICOMICO-PLANKATANK. VA	605

Appendix VII. USGS Hydrologic Cataloging Units in the NCPDI

Cataloging Unit	Cataloging Unit Name	Cataloging Unit Area (sq. mi.)
02080104	LOWER RAPPAHANNOCK. VA	1,160
02080105	MATTAPONI. VA	901
02080106	PAMUNKEY. VA	1,450
02080107	YORK. VA	275
02080108	LYNNHAVEN-POQUOSON. VA	213
02080109	WESTERN LOWER DELMARVA. VA	338
02080110	EASTERN LOWER DELMARVA. VA	457
02080205	MIDDLE JAMES-WILLIS. VA	948
02080206	LOWER JAMES. VA	1,440
02080207	APPOMATTOX. VA	1,590
02080208	HAMPTON ROADS. VA	425
03010107	LOWER ROANOKE. NC	1,290
03010203	GHOWAN. NC, VA	857
03010205	ALBEMARLE. NC, VA	3,750
03020103	LOWER TAR. NC	967
03020104	PAMLICO. NC	1,140
03020105	PAMLICO SOUND. NC	2,060
03020106	BOGUE-CORE SOUNDS. NC	1,150
03020202	MIDDLE NEUSE. NC	1,080
03020204	LOWER NEUSE. NC	1,120
03030001	NEW. NC	613
03030005	LOWER CAPE FEAR. NC	1,030
03030006	BLACK. NC	1,570
03030007	NORTHEAST CAPE FEAR. NC	1,740
03040201	LOWER PEE DEE. NC, SC	2,830
03040202	LYNCHES. NC, SC	1,390
03040204	LITTLE PEE DEE. NC, SC	1,340
03040205	BLACK. SC	2,040
03040206	WACCAMAW. NC, SC	1,640
03040207	CAROLINA COASTAL-SAMPIT. NC, SC	682
03050112	SANTEE. SC	718
03050201	COOPER. SC	837
03050202	SC COASTAL. SC	955
03050205	EDISTO. SC	846
03050208	BROAD-ST. HELENA. SC	2,330
03060109	LOWER SAVANNAH. GA, SC	916
03060202	LOWER OGEECHEE. GA	1,220
03060204	OGEECHEE COASTAL. GA	1,370
03070106	ALTAMAHA. GA	1,510
03070201	SATILLA. GA	2,630
03070203	CUMBERLAND-ST.SIMONS. GA	768
03070204	ST. MARYS. FL, GA	1,610
03070205	NASSAU. FL	439
03080101	UPPER ST. JOHNS. FL	3,700
03080103	LOWER ST. JOHNS. FL	2,800
03080201	DAYTONA-ST. AUGUSTINE. FL	760
03080202	CAPE CANAVERAL. FL	760
03080203	VERO BEACH. FL	670
03090202	EVERGLADES. FL	8,400
03090203	FL BAY-FL KEYS	1,230
03090204	BIG CYPRESS SWAMP. FL	2,710
03090205	CALOOSAHATCHEE. FL	1,420
03100101	PEACE. FL	2,420
03100102	MYAKKA. FL	606

Appendix VII. USGS Hydrologic Cataloging Units in the NCPDI

Cataloging Unit	Cataloging Unit Name	Cataloging Unit Area (sq. mi.)
03100103	CHARLOTTE HARBOR. FL	587
03100201	SARASOTA BAY. FL	428
03100202	MANATEE. FL	375
03100203	LITTLE MANATEE. FL	217
03100204	ALAFIA. FL	434
03100205	HILLSBOROUGH. FL	678
03100206	TAMPA BAY. FL	894
03100207	CRYSTAL-PITHLACHASCOTEE. FL	1,290
03100208	WITHLACOOCHEE. FL	2,090
03110101	WACCASASSA. FL	936
03110102	ECONFINA-STEINHATCHEE. FL	1,930
03110103	AUCILLA. FL	1,000
03110205	LOWER SUWANNEE. FL	1,590
03120001	APALACHEE BAY-ST. MARKS. FL	1,180
03120003	LOWER OCHLOCKONEE. FL	1,540
03130011	APALACHICOLA. FL, GA	1,130
03130013	NEW. FL	569
03130014	APALACHIOLA BAY. FL	266
03140101	ST. ANDREW-ST. JOSEPH BAYS. FL	1,350
03140102	CHOCTAWHATCHEE BAY. FL	699
03140103	YELLOW. AL, FL	1,380
03140104	BLACKWATER. AL, FL	860
03140105	PENSACOLA BAY. FL	543
03140106	PERDIDO. AL, FL	913
03140107	PERDIDO BAY. AL, FL	313
03140203	LOWER CHOCTAWHATCHEE. AL, FL	1,560
03140305	ESCAMBIA. AL, FL	780
03150204	LOWER AL. AL	1,420
03160203	LOWER TOMBIGBEE. AL	1,600
03160204	MOBILE-TENSAW. AL	972
03160205	MOBILE BAY. AL	883
03170006	PASCAGOULA. MS	620
03170008	ESCATAWPA. AL, MS	1,080
03170009	MS COASTAL. AL, MS	2,480
03180004	LOWER PEARL. LA, MS	1,810
08070100	LOWER MS-BATON ROUGE. LA	270
08070201	BAYOU SARA-THOMPSON. LA, MS	698
08070202	AMITE. LA, MS	1,890
08070203	TICKFAW. LA, MS	729
08070204	LAKE MAUREPAS. LA	719
08070205	TANGIPAHOA. LA, MS	771
08080101	ATCHAFALAYA. LA	1,930
08080102	BAYOU TECHE. LA	2,210
08080103	VERMILION. LA	1,760
08080202	MERMENTAU. LA	2,390
08080206	LOWER CALCASIEU. LA	1,080
08090100	LOWER MS-NEW ORLEANS. LA	587
08090201	LIBERTY BAYOU-TCHEFUNCTA. LA	708
08090202	LAKE PONTCHARTRAIN. LA	648
08090203	EASTERN LA COASTAL. LA	2,160
08090301	EAST CENTRAL LA COASTAL. LA	2,460
08090302	WEST CENTRAL LA COASTAL. LA	2,890
12010005	LOWER SABINE. LA, TX	2,640
12020003	LOWER NECHES. TX	1,130

Appendix VII. USGS Hydrologic Cataloging Units in the NCPDI

Cataloging Unit	Cataloging Unit Name	Cataloging Unit Area (sq. mi.)
12030203	LOWER TRINITY. TX	815
12040104	BUFFALO-SAN JACINTO. TX	1,130
12040201	SABINE LAKE. LA, TX	1,040
12040202	EAST GALVESTON BAY. TX	795
12040203	NORTH GALVESTON BAY. TX	395
12040204	WEST GALVESTON BAY. TX	1,130
12040205	AUSTIN-OYSTER. TX	637
12070104	LOWER BRAZOS. TX	1,650
12090302	LOWER COLORADO. TX	706
12090401	SAN BERNARD. TX	1,050
12090402	EAST MATAGORDA BAY. TX	865
12100101	LAVACA. TX	903
12100102	NAVIDAD. TX	1,440
12100204	LOWER GUADALUPE. TX	1,060
12100401	CENTRAL MATAGORDA BAY. TX	1,300
12100402	WEST MATAGORDA BAY. TX	922
12100403	EAST SAN ANTONIO BAY. TX	392
12100404	WEST SAN ANTONIO BAY. TX	155
12100405	ARANSAS BAY. TX	855
12100406	MISSION. TX	1,050
12100407	ARANSAS. TX	863
12110111	LOWER NUECES. TX	1,370
12110201	NORTH CORPUS CHRISTI BAY. TX	170
12110202	SOUTH CORPUS CHRISTI BAY. TX	451
12110203	NORTH LAGUNA MADRE. TX	229
12110204	SAN FERNANDO. TX	1,350
12110205	BAFFIN BAY. TX	2,150
12110206	PALO BLANCO. TX	1,010
12110207	CENTRAL LAGUNA MADRE. TX	3,650
12110208	SOUTH LAGUNA MADRE. TX	2,960
18010102	MAD-REDWOOD. CA	1,130
18010105	LOWER EEL. CA	1,510
18010107	MATTOLE. CA	485
18010108	BIG-NAVARRO-GARCIA. CA	1,230
18010109	GUALALA-SALMON. CA	343
18010110	RUSSIAN. CA	1,470
18010111	BODEGA BAY. CA	147
18010209	LOWER KLAMATH. CA, OR	1,520
18020109	LOWER SACRAMENTO. CA	1,720
18040003	SAN JOAQUIN DELTA. CA	938
18050001	SUISUN BAY. CA	644
18050002	SAN PABLO BAY. CA	1,200
18050003	COYOTE. CA	831
18050004	SAN FRANCISCO BAY. CA	1,200
18050005	TOMALES-DRAKE BAYS. CA	339
18050006	SAN FRANCISCO COASTAL SOUTH. CA	256
18060001	SAN LORENZO-SOQUEL. CA	374
18060002	PAJARO. CA	1,290
18060003	CARRIZO PLAIN. CA	440
18060005	SALINAS. CA	3,250
18060006	CENTRAL COASTAL. CA	1,070
18060008	SANTA MARIA. CA	675
18060009	SAN ANTONIO. CA	219
18060010	SANTA YNEZ. CA	893

Appendix VII. USGS Hydrologic Cataloging Units in the NCPDI

Cataloging Unit	Cataloging Unit Name	Cataloging Unit Area (sq. mi.)
18060011	ALISAL-ELKHORN SLOUGHS. CA	232
18060012	CARMEL. CA	305
18060013	SANTA BARBARA COASTAL. CA	381
18060014	SANTA BARBARA CHANNEL ISLANDS. CA	187
18070101	VENTURA. CA	279
18070102	SANTA CLARA. CA	1,610
18070103	CALLEGUAS. CA	377
18070104	SANTA MONICA BAY. CA	575
18070105	LOS ANGELES. CA	819
18070106	SAN GABRIEL. CA	713
18070107	SAN PEDRO CHANNEL ISLANDS. CA	154
18070201	SEAL BEACH. CA	90
18070202	SAN JACINTO. CA	757
18070203	SANTA ANA. CA	1,680
18070204	NEWPORT BAY. CA	154
18070301	ALISO-SAN ONOFRE. CA	498
18070302	SANTA MARGARITA. CA	731
18070303	SAN LUIS REY-ESCONDIDO. CA	766
18070304	SAN DIEGO. CA	1,390
18070305	COTTONWOOD-TIJUANA. CA	477
17080001	LOWER COLUMBIA-SANDY. OR, WA	1,110
17080002	LEWIS. WA	1,080
17080003	LOWER COLUMBIA-CLATSKANIE. OR, WA	896
17080005	LOWER COWLITZ. WA	1,460
17080006	LOWER COLUMBIA. OR, WA	672
17090012	LOWER WILLAMETTE. OR	407
17100101	HOH-QUILLAYUTE. WA	1,230
17100102	QUEETS-QUINAULT. WA	1,190
17100104	LOWER CHEHALIS. WA	838
17100105	GRAYS HARBOR. WA	568
17100106	WILLAPA BAY. WA	1,100
17100201	NECANIUM. OR	129
17100202	NEHALEM. OR	860
17100203	WILSON-TRUSK-NESTUCCU. OR	973
17100204	SILETZ-YAQUINA. OR	753
17100205	ALSEA. OR	697
17100206	SIUSLAW. OR	769
17100207	SILTCOOS. OR	129
17100303	UMPQUA. OR	1,500
17100304	COOS. OR	739
17100305	COQUILLE. OR	1,030
17100306	SIXES. OR	467
17100310	LOWER ROGUE. OR	898
17100312	CHETCO. CA, OR	630
17110001	FRASER. WA	249
17110002	STRAIT OF GA. WA	955
17110003	SAN JUAN ISLANDS. WA	626
17110004	NOOKSACK. WA	795
17110007	LOWER SKAGIT. WA	447
17110008	STILLAGUAMISH. WA	704
17110011	SNOHOMISH. WA	278
17110012	LAKE WA. WA	619
17110013	DUWAMISH. WA	487
17110014	PUYALLUP. WA	996

Appendix VII. USGS Hydrologic Cataloging Units in the NCPDI

Cataloging Unit	Cataloging Unit Name	Cataloging Unit Area (sq. mi.)
17110015	NISQUALLY. WA	726
17110017	SKOKOMISH. WA	248
17110018	HOOD CANAL. WA	957
17110019	PUGET SOUND. WA	2,550
17110020	DUNGENESS-ELWHA. WA	1,270
17110021	CRESCENT-HOKO. WA	774
18010101	SMITH. CA, OR	788
04010101	BAPTISM-BRULE. MN	1,620
04010102	BEAVER-LESTER. MN	635
04010201	ST. LOUIS. MN, WI	3,010
04010301	BEARTRAP-NEMADJI. MN, WI	1,850
04010302	BAD-MONTREAL. MI, WI	1,330
04020101	BLACK-PRESQUE ISLE. MI, WI	1,030
04020102	ONTONAGON. MI, WI	1,390
04020103	KEWEENAW PENNINSULA. MI	1,130
04020105	DEAD-KELSEY. MI	946
04020201	BETSY-CHOCOLAY. MI	1,180
04020202	TAHQUAMENON. MI	832
04020203	WAISKA. MI	324
04030101	MANITOWOC-SHEBOYGAN. WI	1,650
04030102	DOOR-KEWAUNEE. WI	776
04030103	DUCK-PENSAUKEE	483
04030104	OCONTO. WI	1,040
04030105	PESHTIGO. WI	1,170
04030108	MENOMINEE. MI, WI	2,310
04030109	CEDAR-FORD. MI	1,010
04030110	ESCANABA. MI	935
04030111	TACOOSH-WHITEFISH. MI	56
04030112	FISHDAM-STURGEON. MI	556
04030204	LOWER FOX. WI	438
04040001	LITTLE CALUMET-GALIEN. ILLINOIS, INDIANA, MI	705
04040002	PIKE-ROOT. ILLINOIS, WI	399
04040003	MILWAUKEE. WI	861
04050001	ST. JOSEPH. INDIANA, MI	4,670
04050002	BLACK-MACATAWA. MI	600
04050003	KALAMAZOO. MI	2,030
04050006	LOWER GRAND. MI	1,990
04060101	PERE MARQUETTE-WHITE. MI	2,100
04060102	MUSKEGON. MI	2,680
04060103	MANISTEE. MI	1,970
04060104	BETSIE-PLATTE. MI	819
04060105	BOARDMAN-CHARLEVOIX. MI	1,650
04060106	MANISTIQUE. MI	1,480
04060107	BREVOORT-MILLECOQUINS. MI	578
04070001	ST. MARYS. MI	853
04070002	CARP-PINE. MI	641
04070003	LONE LAKE-OCQUEOC. MI	810
04070004	CHEBOYGAN. MI	918
04070006	THUNDER BAY. MI	1,270
04070007	AU SABLE. MI	2,000
04080101	AU GRES-RIFLE. MI	1,030
04080102	KAWKAWLIN. MI	303
04080103	PIGEON-WISCOGGIN. MI	853
04080104	BIRCH-WILLOW. MI	572

Appendix VII. USGS Hydrologic Cataloging Units in the NCPDI

Cataloging Unit	Cataloging Unit Name	Cataloging Unit Area (sq. mi.)
04080206	SAGINAW. MI	250
04090001	ST. CLAIR. MI	1,210
04090002	LAKE ST. CLAIR. MI	413
04090003	CLINTON. MI	742
04090004	DETROIT. MI	685
04090005	HURON. MI	909
04100001	OTTAWA-STONY. MI, OH	689
04100002	RAISIN. MI, OH	1,070
04100009	LOWER MAUMEE. OH	1,080
04100010	CEDAR-PORTAGE. OH	958
04100011	SANDUSKY. OH	1,850
04100012	HURON-VERMILION. OH	754
04110001	BLACK-ROCKY. OH	888
04110002	CUYAHOGA. OH	804
04110003	ASHTABULA-CHAGRIN. OH, PA	630
04110004	GRAND. OH.	710
04120101	CHAUTAUQUA-CONNEAUT. NY, OH, PA	874
04120102	CATTARAUGUS. NY	548
04120103	BUFFALO-EIGHTEENMILE. NY	732
04120104	NIAGARA. NY	774
04130001	OAK ORCHARD-TWELVEMILE. NY	1,040
04130003	LOWER GENESEE. NY	1,070
04140101	IRONDEQUOIT-NINEMILE. NY	708
04140102	SALMON-SANDY. NY	969
04140203	OSWEGO. NY	131
04150101	BLACK. NY	1,920
04150102	CHAUMONT-PERCH	380
04150301	UPPER ST. LAWRENCE. NY	506
04150302	OSWEGATCHIE. NY	1,040
04150304	GRASS. NY	630
04150305	RAQUETTE. NY	1,250
04150306	ST. REGIS. NY	853
04150307	ENGLISH-SALMON. NY	811

Appendix VIII.
Counties Comprising the NCPDI Study Area

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
Maine					
	23001	Androscoggin	105,259	477	100
	23003	Aroostook	86,936	6,721	2
	23005	Cumberland	243,135	876	100
	23007	Franklin	29,008	1,699	52
	23009	Hancock	46,948	1,537	100
	23011	Kennebec	115,904	876	100
	23013	Knox	36,310	370	100
	23015	Lincoln	30,357	458	100
	23017	Oxford	52,602	2,053	73
	23019	Penobscot	146,601	3,430	58
	23021	Piscataquis	18,653	3,986	3
	23023	Sagadahoc	33,535	257	100
	23025	Somerset	49,767	3,930	33
	23027	Waldo	33,018	730	100
	23029	Washington	35,308	2,586	92
	23031	York	164,587	1,008	100
		Total	**1,227,928**	**30,994**	
New Hampshire					
	33001	Belknap	49,216	404	76
	33003	Carroll	35,410	933	95
	33007	Coos	34,828	1,804	6
	33009	Grafton	74,929	1,719	3
	33011	Hillsborough	336,073	876	65
	33013	Merrimack	120,005	936	44
	33015	Rockingham	245,845	699	100
	33017	Strafford	104,233	370	100
		Total	**1,000,539**	**7,741**	
Massachusetts					
	25001	Barnstable	186,605	400	100
	25003	Berkshire	139,352	929	60
	25005	Bristol	506,325	557	98
	25007	Dukes	11,639	102	100

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	25009	Essex	670,080	495	100
	25013	Hampden	456,310	618	18
	25017	Middlesex	1,398,468	822	48
	25019	Nantucket	6,012	47	100
	25021	Norfolk	616,087	400	95
	25023	Plymouth	435,276	655	100
	25025	Suffolk	663,906	57	100
	25027	Worcester	709,705	1,513	14
		Total	**5,799,765**	**6,595**	
Rhode Island					
	44001	Bristol	48,859	26	100
	44003	Kent	161,135	172	100
	44005	Newport	87,194	107	100
	44007	Providence	596,270	416	69
	44009	Washington	110,006	333	100
		Total	**1,003,464**	**1,054**	
Connecticut					
	09001	Fairfield	827,645	632	100
	09003	Hartford	851,783	739	57
	09005	Litchfield	174,092	921	85
	09007	Middlesex	143,196	373	100
	09009	New Haven	804,219	610	100
	09011	New London	254,957	669	100
	09013	Tolland	128,699	412	100
	09015	Windham	102,525	515	100
		Total	**3,287,116**	**4,871**	
New York					
	36003	Allegany	50,470	1,032	<1
	36001	Albany	292,594	524	74
	36005	Bronx	1,203,789	42	100
	36009	Cattaraugus	84,234	1,306	24

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	36011	Cayuga	82,313	695	15
	36013	Chautauqua	141,895	1,064	30
	36019	Clinton	85,969	1,043	15
	36021	Columbia	62,982	638	100
	36027	Dutchess	259,462	804	100
	36029	Erie	968,532	1,046	100
	36031	Essex	37,152	1,806	3
	36033	Franklin	46,540	1,642	81
	36037	Genesee	60,060	495	100
	36039	Greene	44,739	648	55
	36041	Hamilton	5,279	1,721	39
	36043	Herkimer	65,797	1,416	48
	36045	Jefferson	110,943	1,273	100
	36047	Kings	2,300,664	70	100
	36049	Lewis	26,796	1,283	89
	36051	Livingston	62,372	633	59
	36055	Monroe	713,968	663	100
	36059	Nassau	1,287,348	287	100
	36061	New York	1,487,536	22	100
	36063	Niagara	220,756	526	100
	36065	Oneida	250,836	1,219	11
	36067	Onondaga	468,973	784	5
	36069	Ontario	95,101	644	27
	36071	Orange	307,647	826	90
	36073	Orleans	41,846	391	100
	36075	Oswego	121,771	954	76
	36079	Putnam	83,941	231	100
	36081	Queens	1,951,598	109	100
	36083	Rensselaer	154,429	655	55
	36085	Richmond	378,977	59	100
	36087	Rockland	265,475	175	100
	36089	St. Lawrence	111,974	2,728	100
	36093	Schenectady	149,285	206	14
	36095	Schoharie	31,859	624	4
	36103	Suffolk	1,321,864	911	100
	36105	Sullivan	69,277	976	8
	36111	Ulster	165,304	1,131	84
	36117	Wayne	89,123	605	55

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	36119	Westchester	874,866	438	100
	36121	Wyoming	42,507	595	74
		Total	**16,628,373**	**33,908**	
New Jersey					
	34001	Atlantic	224,327	568	100
	34003	Bergen	825,380	237	100
	34005	Burlington	395,066	808	100
	34007	Camden	502,824	223	100
	34009	Cape May	95,089	263	100
	34011	Cumberland	138,053	498	100
	34013	Essex	778,206	127	100
	34015	Gloucester	230,082	327	100
	34017	Hudson	553,099	46	100
	34019	Hunterdon	107,776	426	58
	34021	Mercer	325,824	227	51
	34023	Middlesex	671,780	316	100
	34025	Monmouth	553,124	472	98
	34027	Morris	421,353	470	88
	34029	Ocean	433,203	641	100
	34031	Passaic	453,060	187	100
	34033	Salem	65,294	338	100
	34035	Somerset	240,279	305	100
	34037	Sussex	130,943	526	41
	34039	Union	493,819	103	100
		Total	**7,638,581**	**7,108**	
Pennsylvania					
	42001	Adams	78,274	521	43
	42011	Berks	336,523	861	89
	42017	Bucks	541,174	610	59
	42025	Carbon	56,846	384	<1
	42029	Chester	376,396	758	100
	42039	Crawford	86,169	1,011	13
	42041	Cumberland	195,257	547	<1
	42045	Delaware	547,651	184	100

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	42049	Erie	275,572	804	56
	42071	Lancaster	422,822	952	97
	42075	Lebanon	113,744	363	23
	42077	Lehigh	291,130	348	24
	42091	Montgomery	678,111	486	100
	42101	Philadelphia	1,585,577	136	100
	42107	Schuylkill	152,585	782	39
	42133	York	339,574	906	91
		Total	**6,077,405**	**9,653**	
Delaware					
	10001	Kent	110,993	595	100
	10003	New Castle	441,946	396	100
	10005	Sussex	113,229	942	100
		Total	**666,168**	**1,933**	
Maryland					
	24003	Anne Arundel	427,239	418	100
	24005	Baltimore	692,134	598	100
	24009	Calvert	51,372	213	100
	24011	Caroline	27,035	321	100
	24013	Carroll	123,372	452	48
	24015	Cecil	71,347	360	100
	24017	Charles	101,154	452	100
	24019	Dorchester	30,236	593	100
	24025	Harford	182,132	448	100
	24027	Howard	187,328	251	100
	24029	Kent	17,842	278	100
	24031	Montgomery	757,027	495	37
	24033	Prince George's	729,268	487	100
	24035	Queen Anne's	33,953	372	100
	24037	St. Mary's	75,974	373	100
	24039	Somerset	23,440	338	100
	24041	Talbot	30,549	259	100
	24045	Wicomico	74,339	379	100

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	24047	Worcester	35,028	475	100
	24510	Baltimore City	736,014	80	100
		Total	**4,406,783**	**7,642**	
District of Columbia					
	11001	District of Columbia	606,900	63	100
Virginia					
	51001	Accomack	31,703	476	100
	51003	Albemarle	68,040	725	1
	51007	Amelia	8,787	357	100
	51011	Appomattox	12,298	336	32
	51013	Arlington	170,936	26	90
	51029	Buckingham	12,873	583	26
	51033	Caroline	19,217	535	100
	51036	Charles City	6,282	181	100
	51041	Chesterfield	209,274	434	100
	51049	Cumberland	7,825	300	93
	51053	Dinwiddie	20,960	507	15
	51057	Essex	8,689	263	100
	51059	Fairfax	818,584	394	66
	51061	Fauquier	48,741	651	35
	51065	Fluvanna	12,429	290	16
	51073	Gloucester	30,131	225	100
	51075	Goochland	14,163	281	99
	51085	Hanover	63,306	467	100
	51087	Henrico	217,881	238	100
	51093	Isle of Wight	25,053	319	55
	51095	James City	34,859	153	100
	51097	King and Queen	6,289	317	100
	51099	King George	13,527	180	100
	51101	King William	10,913	278	100
	51103	Lancaster	10,896	133	100
	51107	Loudoun	86,129	521	4
	51109	Louisa	20,325	497	96
	51115	Mathews	8,348	87	100
	51119	Middlesex	8,653	134	100

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	51127	New Kent	10,445	213	100
	51131	Northampton	13,061	226	100
	51133	Northumberland	10,524	185	100
	51135	Nottoway	14,993	316	54
	51137	Orange	21,421	342	32
	51145	Powhatan	15,328	261	100
	51147	Prince Edward	17,320	354	91
	51149	Prince George	27,394	266	40
	51153	Prince William	215,686	339	100
	51159	Richmond	7,273	193	100
	51175	Southampton	17,550	603	<1
	51177	Spotsylvania	57,403	404	91
	51179	Stafford	61,236	271	90
	51181	Surry	6,145	281	35
	51193	Westmoreland	15,480	227	100
	51199	York	42,422	113	100
		Independent Cities			
	51510	Alexandria	111,183	15	100
	51550	Chesapeake	151,976	340	100
	51570	Colonial Heights	16,064	8	100
	51600	Fairfax	19,622	6	43
	51610	Falls Church	9,578	2	90
	51630	Fredericksburg	19,027	6	100
	51650	Hampton	133,793	51	100
	51670	Hopewell	23,101	10	100
	51683	Manassas	27,957	8	100
	51685	Manassas Park	6,734	2	100
	51700	Newport News	170,045	65	100
	51710	Norfolk	261,229	53	100
	51730	Petersburg	38,386	23	51
	51735	Poquoson	11,005	17	100
	51740	Portsmouth	103,907	30	100
	51760	Richmond	203,056	60	100
	51800	Suffolk	52,141	409	87
	51810	Virginia Beach	393,069	256	100
	51830	Williamsburg	11,530	5	100
		Total	**93,705,461**	**162,581**	

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
North Carolina					
	37007	Anson	23,474	533	35
	37013	Beaufort	42,283	826	100
	37015	Bertie	20,388	701	100
	37017	Bladen	28,663	879	84
	37019	Brunswick	50,985	860	100
	37029	Camden	5,904	240	100
	37031	Carteret	52,556	526	100
	37041	Chowan	13,506	182	100
	37047	Columbus	49,587	938	83
	37049	Craven	81,613	701	100
	37051	Cumberland	274,566	657	30
	37053	Currituck	13,736	256	100
	37055	Dare	22,746	391	100
	37061	Duplin	39,995	819	100
	37065	Edgecombe	56,558	506	49
	37073	Gates	9,305	338	99
	37079	Greene	15,384	266	6
	37083	Halifax	55,516	724	29
	37085	Harnett	67,822	601	14
	37091	Hertford	22,523	356	51
	37095	Hyde	5,411	624	100
	37101	Johnston	81,306	795	5
	37103	Jones	9,414	470	100
	37107	Lenoir	57,274	402	86
	37117	Martin	25,078	461	99
	37127	Nash	76,677	540	48
	37129	New Hanover	120,284	185	100
	37131	Northampton	20,798	538	30
	37133	Onslow	149,838	763	100
	37137	Pamlico	11,372	341	100
	37139	Pasquotank	31,298	228	100
	37141	Pender	28,855	875	100
	37143	Perquimans	10,447	246	100
	37147	Pitt	107,924	657	81
	37153	Richmond	44,518	477	63
	37155	Robeson	105,179	949	10
	37163	Sampson	47,297	947	99
	37165	Scotland	33,754	319	85

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	37177	Tyrrell	3,856	407	100
	37179	Union	84,211	639	3
	37183	Wake	423,380	854	<1
	37187	Washington	13,997	332	100
	37191	Wayne	104,666	554	35
	37195	Wilson	66,061	374	15
		Total	**2,610,005**	**24,277**	
South Carolina					
	45005	Allendale	11,722	413	20
	45009	Bamberg	16,902	395	7
	45013	Beaufort	86,425	579	100
	45015	Berkeley	128,776	1,108	94
	45019	Charleston	295,039	938	100
	45025	Chesterfield	38,577	802	99
	45027	Clarendon	28,450	602	62
	45029	Colleton	34,377	1,052	72
	45031	Darlington	61,851	563	100
	45033	Dillon	29,114	406	83
	45035	Dorchester	83,060	575	77
	45041	Florence	114,344	804	100
	45043	Georgetown	46,302	822	100
	45049	Hampton	18,191	561	84
	45051	Horry	144,053	1,143	95
	45053	Jasper	15,487	655	100
	45055	Kershaw	43,599	723	32
	45057	Lancaster	54,516	552	34
	45061	Lee	18,437	411	95
	45067	Marion	33,899	493	98
	45069	Marlboro	29,361	483	100

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	45075	Orangeburg	84,803	1,111	11
	45085	Sumter	102,637	665	64
	45089	Williamsburg	36,815	934	100
		Total	**1,556,737**	**16,790**	
Georgia					
	13001	Appling	15,744	510	100
	13003	Atkinson	6,213	344	78
	13005	Bacon	9,566	286	100
	13017	Ben Hill	16,245	254	9
	13025	Brantley	11,077	445	95
	13027	Brooks	15,398	491	21
	13029	Bryan	15,438	441	57
	13031	Bulloch	43,125	678	66
	13039	Camden	30,167	649	100
	13049	Charlton	8,496	780	69
	13051	Chatham	216,935	443	100
	13065	Clinch	6,160	821	2
	13069	Coffee	29,592	602	89
	13087	Decatur	25,511	586	29
	13103	Effingham	25,687	482	100
	13107	Emanuel	20,546	688	1
	13127	Glynn	62,496	412	100
	13131	Grady	20,279	459	23
	13155	Irwin	8,649	362	18
	13161	Jeff Davis	12,032	335	83
	13165	Jenkins	8,247	353	38
	13179	Liberty	52,745	517	62
	13183	Long	6,202	402	86
	13191	McIntosh	8,634	425	100
	13209	Montgomery	7,163	244	28
	13229	Pierce	13,328	344	100
	13251	Screven	13,842	655	62
	13267	Tattnall	17,722	484	42
	13275	Thomas	38,986	551	47

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	13279	Toombs	24,072	371	46
	13299	Ware	35,471	907	45
	13305	Wayne	22,356	647	100
		Total	**848,124**	**15,968**	
Florida					
	12001	Alachua	181,596	901	17
	12003	Baker	18,486	585	81
	12005	Bay	126,994	758	99
	12007	Bradford	22,515	293	2
	12009	Brevard	398,978	995	100
	12011	Broward	1,255,488	1,211	100
	12013	Calhoun	11,011	568	29
	12015	Charlotte	110,975	690	98
	12017	Citrus	93,515	629	100
	12019	Clay	105,986	592	97
	12021	Collier	152,099	1,994	100
	12023	Columbia	42,613	796	4
	12025	Dade	1,937,094	1,955	100
	12027	DeSoto	23,865	636	100
	12029	Dixie	10,585	701	100
	12031	Duval	672,971	776	100
	12033	Escambia	262,798	660	100
	12035	Flagler	28,701	491	100
	12037	Franklin	8,967	545	100
	12039	Gadsden	41,105	518	100
	12041	Gilchrist	9,667	354	67
	12043	Glades	7,591	763	32
	12045	Gulf	11,504	559	85
	12049	Hardee	19,499	637	100
	12051	Hendry	25,773	1,163	98
	12053	Hernando	101,115	477	100
	12055	Highlands	68,432	1,029	13
	12057	Hillsborough	834,054	1,053	100
	12059	Holmes	15,778	488	96
	12061	Indian River	90,208	497	100
	12063	Jackson	41,375	942	19
	12065	Jefferson	11,296	609	100

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	12067	Lafayette	5,578	545	100
	12069	Lake	152,104	954	50
	12071	Lee	335,113	803	100
	12073	Leon	192,493	676	100
	12075	Levy	25,923	1,100	85
	12077	Liberty	5,569	837	100
	12079	Madison	16,569	710	76
	12081	Manatee	211,707	747	100
	12083	Marion	194,833	1,610	27
	12085	Martin	100,900	555	75
	12087	Monroe	78,024	1,034	100
	12089	Nassau	43,941	649	100
	12091	Okaloosa	143,776	936	100
	12093	Okeechobee	29,627	770	18
	12095	Orange	677,491	910	50
	12097	Osceola	107,728	1,350	37
	12099	Palm Beach	863,518	1,993	88
	12101	Pasco	281,131	738	100
	12103	Pinellas	851,659	280	100
	12105	Polk	405,382	1,823	65
	12107	Putnam	65,070	733	80
	12109	St. Johns	83,829	617	100
	12111	St. Lucie	150,171	581	97
	12113	Santa Rosa	81,608	1,024	99
	12115	Sarasota	277,776	573	100
	12117	Seminole	287,529	298	100
	12119	Sumter	31,577	561	98
	12121	Suwannee	26,780	690	80
	12123	Taylor	17,111	1,058	100
	12125	Union	10,252	246	5
	12127	Volusia	370,712	1,113	100
	12129	Wakulla	14,202	601	100
	12131	Walton	27,760	1,066	93
	12133	Washington	16,919	590	97
		Total	**12,926,996**	**53,636**	

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
Alabama					
	01003	Baldwin	98,280	1,589	100
	01023	Choctaw	16,018	909	2
	01025	Clarke	27,240	1,230	79
	01031	Coffee	40,240	680	2
	01035	Conecuh	14,054	854	9
	01039	Covington	36,478	1,038	51
	01041	Crenshaw	13,635	611	4
	01053	Escambia	35,518	951	45
	01061	Geneva	23,647	578	18
	01069	Houston	81,331	577	<1
	01097	Mobile	378,643	1,238	100
	01099	Monroe	23,968	1,019	89
	01129	Washington	16,694	1,081	96
	01131	Wilcox	13,568	883	4
		Total	**819,314**	**13,238**	
Mississippi					
	28005	Amite	13,328	732	84
	28037	Franklin	8,377	566	3
	28039	George	16,673	483	77
	28041	Greene	10,220	718	11
	28045	Hancock	31,760	478	100
	28047	Harrison	165,365	581	100
	28059	Jackson	115,243	731	92
	28073	Lamar	30,424	499	35
	28085	Lincoln	30,278	587	6
	28091	Marion	25,544	548	75
	28109	Pearl River	38,714	818	93
	28111	Perry	10,865	651	5
	28113	Pike	36,882	410	51
	28131	Stone	10,750	446	34
	28147	Walthall	14,352	404	21
	28153	Wayne	19,517	813	1
	28157	Wilkinson	9,678	678	29
		Total	**587,970**	**10,143**	

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
Louisiana					
	22001	Acadia	55,882	657	21
	22003	Allen	21,226	765	<1
	22005	Ascension	58,214	296	100
	22007	Assumption	22,753	342	100
	22009	Avoyelles	39,159	846	56
	22011	Beauregard	30,083	1,163	23
	22019	Calcasieu	168,134	1,082	53
	22023	Cameron	9,260	1,417	100
	22033	East Baton Rouge	380,105	458	100
	22037	East Feliciana	19,211	455	100
	22039	Evangeline	33,274	667	36
	22045	Iberia	68,297	589	100
	22047	Iberville	31,049	638	100
	22051	Jefferson	448,306	348	100
	22053	Jefferson Davis	30,722	655	59
	22055	Lafayette	164,762	270	99
	22057	Lafourche	85,860	1,141	100
	22063	Livingston	70,526	661	100
	22071	Orleans	496,938	199	100
	22075	Plaquemines	25,575	1,035	100
	22077	Pointe Coupee	22,540	566	99
	22079	Rapides	131,556	1,341	43
	22085	Sabine	22,646	855	17
	22087	St. Bernard	66,631	486	100
	22089	St. Charles	42,437	286	100
	22091	St. Helena	9,874	409	100
	22093	St. James	20,879	248	100
	22095	St. John the Baptist	39,996	213	100
	22097	St. Landry	80,331	936	83
	22099	St. Martin	43,978	749	100
	22101	St. Mary	58,086	613	100
	22103	St. Tammany	144,508	873	96
	22105	Tangipahoa	85,709	783	99
	22109	Terrebonne	96,982	1,367	100
	22113	Vermilion	50,055	1,205	100
	22115	Vernon	61,961	1,332	44
	22117	Washington	43,185	676	53

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	22121	West Baton Rouge	19,419	194	100
	22125	West Feliciana	12,915	406	99
		Total	**3,313,024**	**27,222**	
Texas					
	48005	Angelina	69,884	807	6
	48007	Aransas	17,892	280	100
	48015	Austin	19,832	656	98
	48025	Bee	25,135	880	100
	48039	Brazoria	191,707	1,407	100
	48047	Brooks	8,204	942	100
	48057	Calhoun	19,053	540	98
	48061	Cameron	260,120	906	100
	48071	Chambers	20,088	616	100
	48089	Colorado	18,383	965	78
	48123	DeWitt	18,840	910	59
	48131	Duval	12,918	1,795	78
	48149	Fayette	20,095	950	20
	48157	Fort Bend	225,421	876	100
	48167	Galveston	217,399	399	100
	48175	Goliad	5,980	859	58
	48177	Gonzales	17,205	1,068	1
	48199	Hardin	41,320	898	8
	48201	Harris	2,818,199	1,734	71
	48215	Hidalgo	383,545	1,569	91
	48239	Jackson	13,039	844	100
	48241	Jasper	31,102	921	79
	48245	Jefferson	239,397	937	92
	48247	Jim Hogg	5,109	1,136	72
	48249	Jim Wells	37,679	867	100
	48255	Karnes	12,455	753	5
	48261	Kenedy	460	1,389	100
	48273	Kleberg	30,274	853	100
	48285	Lavaca	18,690	971	99
	48291	Liberty	52,726	1,174	72
	48297	Live Oak	9,556	1,057	68
	48311	McMullen	817	1,163	1
	48321	Matagorda	36,928	1,127	100

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	48351	Newton	13,569	935	90
	48355	Nueces	291,145	847	100
	48361	Orange	80,509	362	100
	48391	Refugio	7,976	771	94
	48407	San Jacinto	16,372	572	2
	48409	San Patricio	58,749	693	100
	48427	Starr	40,518	1,226	18
	48457	Tyler	16,646	922	37
	48469	Victoria	74,361	887	95
	48473	Waller	23,390	514	63
	48477	Washington	26,154	610	29
	48479	Webb	133,239	3,362	6
	48481	Wharton	39,955	1,086	100
	48489	Willacy	17,705	589	100
		Total	**5,739,740**	**45,625**	
California					
	06001	Alameda	1,279,182	736	100
	06013	Contra Costa	803,732	730	100
	06015	Del Norte	23,460	1,007	95
	06023	Humboldt	119,118	3,579	79
	06029	Kern	543,477	8,130	<1
	06033	Lake	50,631	1,262	2
	06037	Los Angeles	8,863,164	4,070	71
	06041	Marin	230,096	523	100
	06045	Mendocino	80,345	3,512	61
	06053	Monterey	355,660	3,303	93
	06055	Napa	110,765	744	53
	06059	Orange	2,410,556	798	100
	06061	Placer	172,796	1,416	14
	06065	Riverside	1,170,413	7,214	15
	06067	Sacramento	1,041,219	971	35
	06069	San Benito	36,697	1,388	74
	06071	San Bernardino	1,418,380	20,064	5
	06073	San Diego	2,498,016	4,212	71
	06075	San Francisco	723,959	46	100
	06077	San Joaquin	480,628	1,415	41
	06079	San Luis Obispo	217,162	3,308	53

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	06081	San Mateo	649,623	447	100
	06083	Santa Barbara	369,608	2,748	84
	06085	Santa Clara	1,497,577	1,293	99
	06087	Santa Cruz	229,734	446	100
	06093	Siskiyou	43,531	6,281	12
	06095	Solano	340,421	834	100
	06097	Sonoma	388,222	1,604	100
	06101	Sutter	64,415	602	19
	06105	Trinity	13,063	3,190	17
	06111	Ventura	669,016	1,862	87
	06113	Yolo	141,092	1,014	49
	06115	Yuba	58,228	640	10
		Total	**27,093,986**	**89,389**	
Oregon					
	41003	Benton	70,811	679	33
	41005	Clackamas	278,850	1,870	24
	41007	Clatsop	33,301	805	100
	41009	Columbia	37,557	651	100
	41011	Coos	60,273	1,606	99
	41015	Curry	19,327	1,629	92
	41019	Douglas	94,649	5,044	36
	41027	Hood River	16,903	521	5
	41029	Jackson	146,389	2,787	1
	41033	Josephine	62,649	1,640	30
	41039	Lane	282,912	4,562	22
	41041	Lincoln	38,889	980	99
	41051	Multnomah	583,887	431	93
	41053	Polk	49,541	741	14
	41057	Tillamook	21,570	1,101	99
	41067	Washington	311,554	725	15
	41071	Yamhill	65,551	715	10
		Total	**2,174,613**	**26,487**	

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
Washington					
	53009	Clallam	56,464	1,753	100
	53011	Clark	238,053	627	100
	53015	Cowlitz	82,119	1,140	100
	53027	Grays Harbor	64,175	1,918	100
	53029	Island	60,195	212	100
	53031	Jefferson	20,146	1,805	100
	53033	King	1,507,319	2,128	55
	53035	Kitsap	189,731	393	100
	53041	Lewis	59,358	2,409	70
	53045	Mason	38,341	961	100
	53049	Pacific	18,882	908	100
	53053	Pierce	586,203	1,675	96
	53055	San Juan	10,035	179	100
	53057	Skagit	79,555	1,735	52
	53059	Skamania	8,289	1,672	51
	53061	Snohomish	465,642	2,098	46
	53067	Thurston	161,238	727	100
	53069	Wahkiakum	3,327	261	100
	53073	Whatcom	127,780	2,125	56
	53077	Yakima	188,823	4,287	<1
		Total	**3,965,675**	**29,013**	
Minnesota					
	27001	Aitkin	12,425	1,834	4
	27017	Carlton	29,259	864	46
	27031	Cook	3,868	1,412	79
	27061	Itasca	40,863	2,661	3
	27075	Lake	10,415	2,053	33
	27115	Pine	21,264	1,421	5
	27137	St. Louis	198,213	6,125	40
		Total	**316,307**	**16,370**	

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
Wisconsin					
	55003	Ashland	16,307	1,048	61
	55007	Bayfield	14,008	1,462	77
	55009	Brown	194,594	524	100
	55015	Calumet	34,291	326	63
	55027	Dodge	76,559	887	<1
	55029	Door	25,690	492	100
	55031	Douglas	41,758	1,305	58
	55037	Florence	4,590	486	75
	55039	Fond du Lac	90,083	725	37
	55041	Forest	8,776	1,011	66
	55051	Iron	6,153	751	54
	55059	Kenosha	128,181	273	21
	55061	Kewaunee	18,878	343	100
	55067	Langlade	19,505	873	4
	55071	Manitowoc	80,421	594	100
	55075	Marinette	40,548	1,395	100
	55078	Menominee	3,890	359	23
	55079	Milwaukee	959,275	241	99
	55083	Oconto	30,226	1,002	100
	55087	Outagamie	140,510	642	24
	55089	Ozaukee	72,831	235	100
	55101	Racine	175,034	335	46
	55115	Shawano	37,157	897	14
	55117	Sheboygan	103,877	515	100
	55125	Vilas	17,707	867	14
	55131	Washington	95,328	430	58
	55133	Waukesha	304,715	554	9
	55139	Winnebago	140,320	449	5
		Total	**2,881,212**	**19,021**	
Illinois					
	17031	Cook	5,105,067	958	6
	17097	Lake	516,418	454	13
		Total	**5,621,485**	**1,412**	

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
Indiana					
	18033	De Kalb	35,324	364	4
	18039	Elkhart	156,198	466	98
	18085	Kosciusko	65,294	540	24
	18087	Lagrange	29,477	380	100
	18089	Lake	475,594	501	40
	18091	La Porte	107,066	600	24
	18113	Noble	37,877	413	81
	18127	Porter	128,932	418	49
	18141	St. Joseph	247,052	459	36
	18151	Steuben	27,446	308	75
		Total	**1,310,260**	**4,449**	
Michigan					
	26001	Alcona	10,145	679	100
	26003	Alger	8,972	912	100
	26005	Allegan	90,509	832	100
	26007	Alpena	30,605	567	100
	26009	Antrim	18,185	480	100
	26011	Arenac	14,931	367	93
	26013	Baraga	7,954	901	39
	26015	Barry	50,057	560	32
	26017	Bay	111,723	447	98
	26019	Benzie	12,200	322	100
	26021	Berrien	161,378	576	90
	26023	Branch	41,502	508	100
	26025	Calhoun	135,982	712	100
	26027	Cass	49,477	496	100
	26029	Charlevoix	21,468	421	100
	26031	Cheboygan	21,398	720	100
	26033	Chippewa	34,604	1,590	100
	26035	Clare	24,952	570	46
	26039	Crawford	12,260	559	100
	26041	Delta	37,780	1,173	100
	26043	Dickinson	26,831	770	94
	26045	Eaton	92,879	579	22
	26047	Emmet	25,040	468	100

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	26051	Gladwin	21,896	505	5
	26053	Gogebic	18,052	1,105	91
	26055	Grand Traverse	64,273	466	100
	26059	Hillsdale	43,431	603	40
	26061	Houghton	35,446	1,014	68
	26063	Huron	34,951	830	98
	26065	Ingham	281,912	560	<1
	26067	Ionia	57,024	577	66
	26069	Iosco	30,209	546	100
	26071	Iron	13,175	1,163	6
	26075	Jackson	149,756	705	34
	26077	Kalamazoo	223,411	562	100
	26079	Kalkaska	13,497	563	100
	26081	Kent	500,631	862	87
	26083	Keweenaw	1,701	543	100
	26085	Lake	8,583	568	100
	26087	Lapeer	74,768	658	28
	26089	Leelanau	16,527	341	100
	26091	Lenawee	91,476	753	81
	26093	Livingston	115,645	574	36
	26095	Luce	5,763	904	100
	26097	Mackinac	10,674	1,025	100
	26099	Macomb	717,400	482	100
	26101	Manistee	21,265	543	100
	26103	Marquette	70,887	1,821	88
	26105	Mason	25,537	494	100
	26107	Mecosta	37,308	560	76
	26109	Menominee	24,920	1,045	100
	26111	Midland	75,651	525	5
	26113	Missaukee	12,147	565	100
	26115	Monroe	133,600	557	100
	26117	Montcalm	53,059	713	71
	26119	Montmorency	8,936	550	100
	26121	Muskegon	158,983	507	100
	26123	Newaygo	38,202	847	100
	26125	Oakland	1,083,592	875	83
	26127	Oceana	22,454	541	100
	26129	Ogemaw	18,681	570	85
	26131	Ontonagon	8,854	1,311	99
	26133	Osceola	20,146	569	96

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	26135	Oscoda	7,842	568	100
	26137	Otsego	17,957	516	100
	26139	Ottawa	187,768	567	100
	26141	Presque Isle	13,743	656	100
	26143	Roscommon	19,776	528	91
	26145	Saginaw	211,946	815	21
	26147	St. Clair	145,607	734	100
	26149	St. Joseph	58,913	503	100
	26151	Sanilac	39,928	964	67
	26153	Schoolcraft	8,302	1,173	100
	26157	Tuscola	55,498	812	42
	26159	Van Buren	70,060	611	100
	26161	Washtenaw	282,937	710	97
	26163	Wayne	2,111,687	615	100
	26165	Wexford	26,360	566	100
		Total	**8,643,579**	**54,049**	
Ohio					
	39005	Ashland	47,507	424	19
	39007	Ashtabula	99,821	703	87
	39033	Crawford	47,870	403	75
	39035	Cuyahoga	1,412,140	459	100
	39039	Defiance	39,350	414	16
	39043	Erie	76,779	264	100
	39051	Fulton	38,498	407	59
	39055	Geauga	81,129	408	100
	39063	Hancock	65,536	532	27
	39065	Hardin	31,111	471	7
	39069	Henry	29,108	415	95
	39077	Huron	56,240	494	100
	39085	Lake	215,499	231	100
	39093	Lorain	271,126	495	100
	39095	Lucas	462,361	341	100
	39101	Marion	64,274	403	15
	39103	Medina	122,354	422	65
	39123	Ottawa	40,029	253	100
	39133	Portage	142,585	493	50
	39137	Putnam	33,819	484	8

Appendix VIII. Counties Comprising the NCPDI Study Area

State	FIPS	County	Population 1990	Area (sq. mi)	Percent in EDA/CDA
	39139	Richland	126,137	497	14
	39143	Sandusky	61,963	409	100
	39147	Seneca	59,733	553	97
	39151	Stark	367,585	574	1
	39153	Summit	514,990	412	63
	39155	Trumbull	227,813	612	26
	39173	Wood	113,269	619	100
	39175	Wyandot	22,254	406	92
		Total	**4,870,880**	**12,598**	

Appendix IX.
List of Acronyms

Appendix IX. List of Acronyms

As	arsenic
ASCII	American Standard Code for Information Interchange
BOD	biochemical oxygen demand
BPT	best practicable technology
C-pipe	cooling flow
Cd	cadmium
CDA	coastal drainage area
CF	species processed unknown (canned and preserved seafood products)
CHP	chlorinated hydrocarbon pesticide
Cr	chromium
Cu	copper
CV	plants processing finfish and shellfish (canned and preserved seafood products)
CW	plants processing a diversity of shellfish (canned and preserved seafood products)
CX	plants processing a diversity of finfish (canned and preserved seafood products)
CY	plants processing a limited number of shellfish (canned and preserved seafood products)
CZ	plants processing a limited number of finfish (canned and preserved seafood products)
DE	data entry
DCCD	discharge category code
DMRs	discharge monitoring reports
EDA	estuarine drainage area
EMAP	Environmental Monitoring and Assessment Program
EPA	Environmental Protection Agency
FCB	fecal coliform bacteria
Fe	iron
FIPS	Federal Information Processing Standards
FP	highly seasonal operation (canned and preserved fruits and vegetables industries)
FQ	year-round operation, some seasonal variation (canned and preserved fruits and vegetables industries)
FT	year-round operation, minor seasonal variation (canned and preserved fruits and vegetables industries)
GIS	geographic information system
MCAV	concentration average value
MCMN	concentration minimum value
MQAV	mass average value
MQMX	mass maximum value
NCPDI	National Coastal Pollutant Discharge Inventory
NEI	National Estuarine Inventory
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRPU	number of units in reporting period
O&G	oil and grease
O-pipe	other flow
P-factor	process pipe factor
P-pipe	process flow
Pb	lead
PCB	polychlorinated biphenyls
PCS	Permit Compliance System
PQ	year-round operation with some seasonal variation
PSC Branch	Pollution Sources Characterization Branch
SAS	Statistical Analysis System
SDAC	special discharge activity codes
SE	base load plant (steam electric)
SIC code	Standard Industrial Classification code

Appendix IX. List of Acronyms

SP	peak load plant (steam electric)
TN	total nitrogen
TP	total phosphorus
TP	primary treatment process
TPC	typical pollutant concentration
TS	secondary treatment process
TSS	total suspended solids
TT	tertiary treatment process
TU	untreated wastewater
USGS	United States Geological Survey
WA	alum coagulation is the main process (water supply treatment plants)
WF	iron treatment is the main process (water supply treatment plants)
WN	nuclear steam electric power plant
WR	residential wastewater discharge
WWTP	wastewater treatment plant
Zn	zinc

NOAA's SEA Division

NOAA's Strategic Environmental Assessments (SEA) Division mission is to conduct comprehensive, interdisciplinary assessments of multiple resource uses for the Nation's coastal and oceanic waters, including the Exclusive Economic Zone. Assessments are made in the areas of pollution sources, human activities, physical environments, and biogeography and are intended to help identify strategies to enable decision-makers to balance conservation and development. To accomplish this objective, the SEA Division conducts environmental assessments, synthesizes data into information systems, and organizes this material into regional and national environmental reports and data bases.

PSC Branch

The Pollution Sources Characterization (PSC) Branch of NOAA's SEA Division conducts assessments of coastal pollution sources and discharges. Information is organized by region and state for point, nonpoint, and riverine sources. Seasonal and annual discharge estimates are currently made for nine major source categories and 15 pollutant parameters. Pollutant information is stored and accessed through the *National Coastal Pollutant Discharge Inventory*, maintained on personal computers within the Branch. The estimates of pollution discharges can be aggregated by county, USGS hydrologic cataloging unit, or estuarine watershed. Pollutant estimates contained within the inventory are for a base year of 1991.

For more information contact:

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