

## Clean Watersheds Needs Survey – 2012 Data Dictionary

The data dictionary provides definitions of the data elements available in the CWNS 2012 Summary Reports, Detail Reports, and Access database. For each data element, the data element name is followed by the Access database column header name in parentheses. The Access database contains more data elements than the Summary and Detail Reports. Data elements that are only available in the Access database are marked with an asterisk (\*).

The data elements are in eight general data areas:

- **Facility Information** defines the name, point of contact, and permit data elements.
- **Needs Categories** define the various types of wastewater, stormwater management, and decentralized wastewater treatment, and their associated costs. Needs documentation information are also explained.
- **Facility Types** define the basic components of a CWNS facility and its present and/or projected status.
- **Population Data** describes the number of people present or planned to be present in the facility's service area.
- **Flow Data** describes the quantity of wastewater moving through a facility.
- **Discharge Data** describes the effluent and discharge data elements.
- **Location Data** defines the data elements describing a facility's geographic location.
- **Unit Process** describes the treatment technologies present or proposed for a facility.

### Facility Information

Data in the CWNS are organized by “facility.” For CWNS, the term facility used to describe a wastewater, stormwater management, and/or decentralized wastewater management project and location needed to address a water quality or a water quality related-public health problem. See Facility Types for a complete list of the kinds of facilities included in the CWNS 2012.

**CWNS Number (CWNS\_NUMBER):** Every facility has a unique 11-digit identification number assigned by the state. It also referred to as Facility ID or Authority/Facility (A/F) Number. The first 2 digits are required to be the state’s two digit Federal Information Processing Standards (FIPS) code.

**Facility Name (NAME):** Name of the water quality or water quality related-public health related to a CWNS facility assigned by the state. Facility Name must be unique within each state.

**Authority Name (AUTHORITY):** Name of the system (group of facilities) to which a CWNS facility has been assigned.

**System (SYSTEM\_NAME):** Name of the group of CWNS facilities, generally under the same management, to which a CWNS facility is a member. They may have the same Authority Name.

**Description (FACILITY\_DESCRIPTION):** A narrative providing additional information about the facility.

**Owner Code (OWNER\_TYPE):** The owner of a CWNS facility can be “private,” “public,” or “Federal.”

**Military Indicator (MILITARY\_IND):** Indicates if a CWNS facility is on a military base (Y or N).

**TDML Indicator (TMDL\_IND):** Indicates if a CWNS facility is associated with a Total Maximum Daily Load (Y or N).

**Source Water Protection Indicator (SOURCE\_WATER\_PROTECTION\_IND):** Indicates if a CWNS facility is associated with a Source Water Protection Plan (Y or N).

**Small Community Exception Indicator (SMALL\_COMMUNITY\_EXCEPTION\_IND):** Indicates whether a CWNS facility with a population less than 10,000 is part of a system with total population greater than or equal to 10,000 people (Y or N). If yes (Y), the facility is not considered to be a "small community" facility.

**Present POTW (POTW\_PRESENT\_IND):** Indicates if a facility is currently in operation.

**Projected POTW (POTW\_PROJECTED\_IND):** Indicates if a facility will be in operate or continued to operate

**Small Community (SMALL\_COMMUNITY\_IND):** Defined as a communities with population of fewer than 10,000 people

**Permit Numbers (PERMIT):** National Pollutant Discharge Elimination System (NPDES) permit number of a CWNS facility.

**Types (PERMIT\_TYPE):** This information describes the types of environmental permits the facility holds, as well as the associated permit numbers. Common permit types include municipal wastewater treatment plant (WWTP) discharge, Combined Sewer Overflows (CSOs), and stormwater Municipal Separate Storm Sewer System (MS4). The National Pollutant Discharge Elimination System (NPDES) permit number is an important link to other databases such as Integrated Compliance Information System (ICIS). Facilities with a type of **Treatment Plant** and a discharge of **Outfall to Surface Waters, Ocean Discharge, or Overland Flow with Discharge** should have permit information. Permit Type are listed as:

- 304 L Permit
- AFO/CAFO
- Associated Permit Record
- Combined Sewer Overflow
- Control/Approval Authority

- Dis Con Mech-Sprfnd Sites
- Discharge
- Dummy EDI
- General
- General Permit Covered Facility
- Ground Water
- Individual IU Permit (Non-NPDES)
- Individual Permit
- Pretreater
- SSO SateL-U
- SSO-SATEL-U
- Sludge Only
- Standard
- State Individual AFO/CAFO Permits
- State Individual Non-NPDES Permits
- State-wide General Permits
- Storm Water
- Storm Water General
- Test EDI
- Unpermitted
- Wetlands
- Land Application (Non-NPDES)
- Other (Non-NPDES)
- State (Non-NPDES)

**NPDES Indicator (PRIMARY\_IND):** Indicates that data sourced from the NPDES Permit has been used to update a CWNS facility's coordinates, address, county, and point of contact data fields (Y or N).

## Needs Categories

For CWNS 2012, "Need" is defined as the unfunded capital costs of projects that address a water quality or water quality-related public health problem existing as of January 2012, or expected to occur within the next 20 years.

**Need Type (NEED\_TYPE):** Indicates whether the costs are Official Needs (F) or Unofficial Cost Estimates

(S). Needs in Category XII that is identified as Official in the data entry system is reported as "Other Documented Needs" in the Report to Congress. For Cost Curves, the default is Official Needs.

- **Official Needs (OFFICIAL\_NEEDS):** A project that addresses the unfunded capital costs of projects as of January 2012 that address a water quality or water quality-related public

health problem existing as of January 2012, or expected to occur within the next 20 years and meet the meet the CWNS documentation requirements outlined in Chapter 1 of the Report to Congress. Official Needs can only be reported in Categories I, II, III, IV, V, VI, and X.

- **Other Documented Needs (OTHER\_DOCUMENTED\_NEEDS):** Meet the same criteria as Official Needs, but are for needs that are not explicitly required in the CWNS Report to Congress by Clean Water Act section 516(b)(1). Other Documented Needs can only be reported in Category XII.
- **Unofficial Cost Estimates (UNOFFICIAL\_COST\_EST):** These cost estimates do not meet the definition of need and/ or the documentation requirements outlined in the Report to Congress. States entered these cost estimates for purposes other than this Report, such as State-level planning and communication with State legislatures and other groups involved with addressing and preventing water quality problems. Costs in categories VIII, IX, and XIII are always considered Unofficial Cost Estimates. In addition, costs in all other categories may be Unofficial Cost Estimates.

**Cost Type (COST\_METHOD\_CODE):** indicates the source of the amount of needs entered in the field Need Base Amount.

- Documented (D): Costs are derived from documents, such as Capital Improvement Plans, Engineer Estimates, and Watershed Plans.
- Cost Curve (C): Costs are calculated by models in the CWNS Data Entry Portal (DEP).

**Base Amount (BASE\_AMOUNT):** Amount of reported needs as shown in the document, or calculated by a cost curve. This amount is not yet adjusted to January 2012 dollars.

**Adjusted Amount (Adjusted Amount):** The Base Amount adjusted to January 2012 dollars. All values in the Report to Congress are the adjusted amount. For CWNS 2012, the Construction Cost Index (CCI) Implicit Price Deflator is used to adjust the base cost to January 2012 dollars. This value is AFTER any adjustments were done based on the footnotable audit, if it applies.

**Classification (CLASSIFICATION):** The classification the Cost is associated with.

- Contaminated Sediment
- Contaminated Soils
- Groundwater Treatment
- NPS Problem/PS Solution
- NPS Solution/PS Problem
- Planning/Design
- Superfund
- Surface Water Quality
- Water Reuse

**SRF Eligible Percentage (SRF\_ELIGIBLE\_PERCENTAGE):** The percentage of the Cost base amount eligible for Clean Water State Revolving Fund (CWSRF) funding according to Federal CWSRF guidelines.

**SSO Flag (SSO\_INDICATOR):** Indicates whether or not the Cost is associated with a Sanitary Sewer Overflow.

**Percent Needs Required by Permit (PERCENT\_NEEDS\_REQUIRED\_BY\_PRMT):** The percentage of the Need amount that is directly linked to activities required by a NPDES stormwater permit for Stormwater facilities with costs in categories VI including all subcategories.

**Energy Efficiency Percent (ENERGY\_EFFICIENCY\_PERCNT):** The percentage of the Need that will be used for implementing energy efficiency measures at the facility.

**Climate Change Adaptation Percent (CLIMATE\_CHANGE\_ADAPTION\_PERCNT):** The percentage of the Need amount that will be used to mitigate the impacts (e.g. floods, hurricanes) of climate change at the facility.

**Total Official Needs (TOTAL\_OFFICIAL\_NEEDS):** Total amount of Official Needs for a facility in all needs categories. This value is AFTER any adjustments were done on the footnotable audit, if it applies.

**Total Other Documented Needs (TOTAL\_OTHER\_DOCUMENTED\_NEEDS):** Total amount of Other Documented Needs for a facility in all needs categories.

**Total Unofficial Cost Estimates (TOTAL\_UNOFFICIAL\_COST\_EST):** Total amount of Unofficial Cost Estimates for a facility in all needs categories.

## **Official Needs Categories:**

### **I. Secondary Wastewater Treatment (CAT I)**

This category includes needs and costs necessary to meet the minimum level of treatment that must be maintained by all treatment facilities, except those facilities granted waivers of secondary treatment for marine discharges under section 301(h) of the Clean Water Act. Secondary treatment typically requires a treatment level that produces an effluent quality of 30 mg/l of both BOD5 and total suspended solids (secondary treatment levels required for some lagoon systems may be less stringent). In addition, the secondary treatment must remove 85 percent of BOD5 and total suspended solids from the influent wastewater.

### **II. Advanced Wastewater Treatment (CAT II)**

This category includes needs and costs necessary to attain a level of treatment that is more stringent than secondary treatment or produce a significant reduction in nonconventional or toxic pollutants present in the wastewater treated by a facility. A facility is considered to have Advanced Wastewater Treatment if its permit includes one or more of the following: Biochemical Oxygen Demand (BOD) less than 20mg/l; Nitrogen Removal; Phosphorous Removal; Ammonia Removal; Metal Removal; Synthetic Organic Removal.

### **III-A. Infiltration/ Inflow (I/I) Correction (CAT III A)**

This category includes needs and costs for correction of sewer system infiltration/inflow problems. Infiltration includes controlling the penetration of water into a sanitary or combined sewer system from the ground through defective pipes or manholes. Inflow includes controlling the penetration of water into the system from drains, storm sewers, and other improper entries. It also includes costs for preliminary sewer system analysis and detailed sewer system evaluation surveys.

### **III-B. Sewer Replacement/Rehabilitation (CAT III B)**

This category includes needs and costs for the maintenance, reinforcement, or reconstruction of structurally deteriorating sanitary or combined sewers. The corrective actions must be necessary to maintain the structural integrity of the system.

### **IV-A. New Collector Sewers and Appurtenances (CAT IV A)**

This category includes the needs and costs of new pipes used to collect and carry wastewater from a sanitary or industrial wastewater source to an interceptor sewer that will convey the wastewater to a treatment facility.

### **IV-B. New Interceptor Sewers and Appurtenances (CAT IV B)**

This category includes needs and costs for constructing new interceptor sewers and pumping stations to convey wastewater from collection sewer systems to a treatment facility or to another interceptor sewer. This category includes needs and costs for relief sewers.

### **V-A. Combined Sewer Overflow (CSO) Correction - Traditional Infrastructure (CAT V A)**

This category includes needs and costs to prevent or control the periodic discharges of mixed stormwater and untreated wastewater (CSOs) that occur when the capacity of a sewer system is exceeded during a wet weather event. This category includes traditional CSO control infrastructure such as collection, storage and treatment technologies. This category does not include needs and costs for overflow control allocated to flood

control, drainage improvement, or the treatment or control of stormwater in separate storm systems.

**V-B. Combined Sewer Overflow (CSO) Correction - Traditional Infrastructure (CAT V B)**

This category includes needs and costs to prevent or control the periodic discharges of mixed stormwater and untreated wastewater (CSOs) that occur when the capacity of a sewer system is exceeded during a wet weather event. This category includes green infrastructure CSO control infrastructure such as upland runoff control techniques. This category does not include needs and costs for overflow control allocated to flood control, drainage improvement, or the treatment or control of stormwater in separate storm systems.

**VI. Stormwater Management Program (pre-2008 needs only) (CAT VI)**

This category includes the needs and costs to plan and implement structural and nonstructural measures to control the runoff water resulting from precipitation (stormwater). It includes controlling stormwater pollution from diffuse sources by (1) reducing pollutants from runoff from commercial and residential areas that are served by the storm sewer, (2) detecting and removing illicit discharges and improper disposal into storm sewers, (3) monitoring pollutants in runoff from industrial facilities that flow into municipal separate storm sewer systems, and (4) reducing pollutants in construction site runoff discharged to municipal separate storm sewers.

Needs and costs may be reported for Phase I, Phase II, and non-traditional (e.g., universities, prisons, school districts) municipal separate storm sewer systems (MS4). Unregulated communities can also report needs and costs in this category (formerly reported in VII-D: NPS-Urban).

Only pre-2008 needs and costs are in Category VI. Beginning in the 2008 survey and continuing for future surveys, Stormwater Management Program needs and costs must be reported in sub-categories A-D described below.

**VI-A. Stormwater Conveyance Infrastructure (CAT VI A)**

This category includes the needs and costs to address the Stormwater Management Program activities associated with the planning, design, and construction of conveying stormwater via pipes, inlets, road side ditches, and other similar mechanisms.

**VI-B. Stormwater Treatment Systems (CAT VI B)**

This category includes the needs and costs to address the Stormwater Management Program activities associated with the planning, design, and construction of treating stormwater with wet ponds, dry ponds, manufactured devices, and other similar means.

#### **VI-C. Green Infrastructure (CAT VI C)**

This category includes the needs and costs to address the Stormwater Management Program activities associated with the planning, design, and construction of low impact development and green infrastructure, such as bioretention, constructed wetlands, permeable pavement, rain gardens, green roofs, cisterns, rain barrels, vegetated swales, restoration of riparian buffers and flood plains, etc. Projects in this category can be both publicly-owned and privately-owned.

#### **VI-D. General Stormwater Management (CAT VI D)**

This category includes the needs and costs to address the Stormwater Management Program activities associated with implementing a stormwater management program, such as Geographic Information Systems (GIS) and tracking systems, equipment (e.g., street sweepers, vacuum trucks, etc.), stormwater education program start-up costs (e.g., setting up a stormwater public education center, building a traveling stormwater education display), and stormwater management plan development.

#### **X. Recycled Water Distribution (CAT X)**

This category includes the needs and costs associated with conveyance of treated wastewater that is being reused (recycled water), including associated rehabilitation/replacement needs. Examples are pipes to convey treated water from the wastewater facility to the drinking water distribution system or the drinking water treatment facility and equipment for application of effluent on publicly-owned land.

The needs and costs associated with additional unit processes to increase the level of treatment to potable or less than potable but greater than that normally associated with surface discharge needs are reported in Category II.

### **Unofficial Needs or Other Documented Needs**

#### **XII. Decentralized Wastewater Treatment Systems (CAT XII)**

This category includes needs and costs associated with rehabilitating or replacing onsite wastewater treatment systems (OWTS) or clustered (community) systems. It also includes the treatment portion of other decentralized sewage disposal technologies. Costs related to developing and implementing onsite management districts are included (but not the costs of ongoing operations of such districts). Costs could also include the

limited collection systems associated with the decentralized system. Public ownership is not required for decentralized systems.

This category does not include the needs and costs to change a service area from decentralized wastewater treatment to a publicly owned centralized treatment system. Needs to construct a publicly owned centralized collection and treatment system should be reported in Secondary Wastewater Treatment (Category 1), Advanced Wastewater Treatment (Category II), or both. Needs to install sewers to connect the service area to an existing collection system are reported in New Collector Sewers and Appurtenances (Category IV-A) and New Interceptor Sewers and Appurtenances (Category IV-B).

## Needs Documentation

**Title (TITLE):** The name of the document which is used to demonstrate need or cost.

**Author Name (AUTHOR):** The person or firm who wrote the document used to demonstrate need or cost.

**Published Date (PUBLISHED\_DATE):** Date that the document used to justify a need or cost was published.

**Base Date of Cost Information (BASE\_DESIGN\_DATE):** The month and year, for the cost estimates which are included in the document. This data is used to adjust all costs to January 2012 dollars.

**Description (DESCRIPTION):** The narrative description of the documentation.

**Document Type Name (DOCUMENT\_TYPE):** Identifies the category of the document.

- Intended Use Plan
- State and Federal Loan and Grant Applications
- Clean Water State Revolving Fund (CWSRF) Loan Application
- Non-governmental Grant Applications
- Cost of Previous Comparable Construction
- State-Approved Area-wide or Regional Basin Plan
- State-Approved Local Comprehensive Water and Sewer Plan
- Total Maximum Daily Load (TMDL)
- Estuary Comprehensive Conservation and Management Plan
- Nutrient Criteria Studies
- Impaired Waters or TMDL Listing
- State Needs Surveys & other State forms
- Capital Improvement Plan (CIP)
- Facility Plan
- Preliminary Engineer's Estimate

- Final Engineer's Estimate
- Sewer System Evaluation Documents
- Diagnostic Evaluation
- Sanitary Survey
- State-Approved Municipal Wasteload Allocation Plan
- New State or Federal Regulation
- Future or Proposed Municipal, State, or Federal Regulation
- Administrative Orders, Court Orders, or Consent Decrees
- NPDES or State Permit Requirement (with Schedule)
- CSO Long-Term Control Plan (LTCP)
- Approved CSO Long-Term Control Plan (LTCP)
- Signed Draft LTCP from CSO LTCP-EZ Template
- State Approved LTCP from CSO LTCP EZ Template
- Watershed-based Plan
- Section 319 Funded or EPA Reviewed Watershed Management Plans
- Approved State Annual 319 Workplans
- Approved State 319 Project Implementation Plans
- Nonpoint source (NPS) Management. Program/Assessment Report
- NPS Management. Program/Ground Water Protection Strategy Report
- NPS Management. Program/Wellhead Protection Program and Plan
- NPS Management. Program/Delegated Underground Injection Control Program Plan
- Source Water Assessment/Source Water Protection Plans
- NRCS Conservation Plans and Farm Plans
- Electronic Field Office Technical Guide (eFOTOG)
- State/Federal Agricultural Cost-Share Program Cost Tables
- Professional Appraisals
- Municipal Stormwater Management Plan
- Small Community Needs Form
- Information from an Assistance Provider
- CUPSS (Check UP Program for Small Systems) Wastewater Asset Management Plan
- AARA Loan Applications
- GPR Business Cases
- Excel Spreadsheet Annotations
- State Use Documents
- CSO Cost Curve Needs
- EPA-HQ Approved
- Gap Analysis
- Extended Priority List

## Facility Types (Present and/or Projected)

**Facility Overall Type Name (FACILITY\_OVERALL\_TYPE):** The general physical class of a CWNS facility. A CWNS facility may have one or more of the following:

- Wastewater
- Stormwater
- Nonpoint Source (not available in CWNS 2012 report and data)
- Decentralized Wastewater Treatment
- Point Source
- Plan Development

**Facility Type (FACILITY\_TYPE):** The basic components of a CWNS facility (e.g., Treatment Plant, Large Municipal Separate Storm Sewer System (MS4), or Agriculture-Croplands). A facility may have more than one Facility Type. See complete list under “Facility Type Definitions.”

**Present Indicator (PRES\_IND):** For a Facility Type, indicates whether the type currently exists at a CWNS facility (Y or N).

**Projected Indicator (PROJ\_IND):** For a Facility Type, indicates whether the type will exist in the future at a CWNS facility (Y or N).

#### **Examples of Facility Types:**

- A proposed treatment plant would have a type of Treatment Plant (Projected)
- An enlargement to an existing collection system would have a type of Collection: Separate Sewers (Present and Projected)
- Abandoning a treatment plant would have a type of Treatment Plant (Present)

**Present Treatment Plant Type (PRES\_TREATMENT\_PLANT\_TYPE):** For the type Treatment Plant, indicates the current type of treatment as Mechanical, Lagoon, or None. An indication of either Lagoon or Mechanical is required to successfully calculate the wastewater cost curves. Treatment Plant-Lagoon indicates that a pond in which algae, aerobic, and anaerobic bacteria purify wastewater is used at the facility. Treatment Plant- Mechanical indicates that mechanical processes (e.g., tanks, screens, filters) are used to purify the wastewater.

**Projected Treatment Plant Type (PROJ\_TREATMENT\_PLANT\_TYPE):** For the type Treatment Plant, indicates the proposed future type of treatment as Mechanical, Lagoon, or None. An indication of either Lagoon or Mechanical is required to successfully calculate the wastewater cost curves. Treatment Plant-Lagoon indicates that a pond in which algae, aerobic, and anaerobic bacteria purify wastewater is used at the facility. Treatment Plant- Mechanical indicates that mechanical processes (e.g., tanks, screens, filters) are used to purify the wastewater.

#### **Facility Type Definitions**

**Treatment Plant:** A combination of unit processes designed to receive and treat wastewater and then discharge the treated wastewater (effluent) into the environment. This type includes unit processes intended solely to remove pollutants from CSOs prior to the discharge of the

overflow to the environment. This type does not include unit processes intended to thicken, stabilize, dewater, or store biosolids; they should be designated as Biosolids Handling Facilities.

The presence of Lagoon or Mechanical processes may be indicated; this is required to successfully run the Data Entry Portal's wastewater cost curves. Treatment Plant-Lagoon indicates that a pond in which algae, aerobic, and anaerobic bacteria purify wastewater is used at the facility. Treatment Plant-Mechanical indicates that mechanical processes (e.g. tanks, screens, filters) are used to purify the wastewater.

**Collection: Combined Sewers:** A combination of unit processes designed to collect and transport a combination of wastewater and stormwater. This type does not include sewers that were designed to carry only wastewater and infiltration/inflow, which should be designated as Collection: Separate Sewers.

**Collection: Separate Sewers:** A combination of unit processes designed to collect and transport only wastewater. This type includes sewer systems that collect and transport infiltration and inflow (I/I) as well as wastewater. This type does not include sewers designed to carry both stormwater and wastewater; they should be designated as Collection: Combined Sewers.

**Collection: Interceptor Sewers:** Large sewer lines that collect the flows from smaller main and trunk sewers and carry them to the treatment plant.

**Collection: Pump Stations:** Mechanical devices designed to move waste and other fluid from underground pipelines and storage areas to higher elevations to reach the treatment plant.

**Biosolids Handling Facility:** A combination of unit processes designed to thicken, stabilize, dewater, or store biosolids prior to disposal.

**Recycled Water Distribution:** The combination of unit processes used to convey treated wastewater that will be reused.

**Storage Facility:** A facility that temporarily holds wastewater until it is transported and treated elsewhere.

**Treatment Lagoon or Pond:** A shallow man-made lagoon or pond used to treat wastewater using algae, aerobic and anaerobic bacteria, and aeration. Treatment Plants that use lagoons or ponds as part of the treatment process should not be assigned this type (see Treatment Plant).

**Onsite Wastewater Treatment System:** A combination of natural and mechanical processes designed to collect, treat, and disperse or reclaim wastewater from a single dwelling or building. Septic tanks and holding tanks are examples.

**Clustered System:** A combination of unit processes under some form of common ownership designed to collect wastewater from two or more dwellings or buildings and convey it to a treatment and dispersal system located on a suitable site near the dwellings or buildings

**Unregulated Community Stormwater:** In areas not regulated by a NPDES permit, a combination of unit processes or BMPs designed to address stormwater pollution control needs associated with new or existing development in urban or rural settings, such as erosion, sedimentation and discharge of pollutants (e.g., inadequately treated wastewater, oil, grease, road salts and toxic chemicals) into water resources from construction sites, roads, bridges, parking lots and buildings.

**Phase I Municipal Separate Storm Sewer System (MS4):** A combination of unit processes or Best Management Practices (BMPs) designed to collect, treat, and transport stormwater for entities regulated under the NPDES Phase I permit process. Phase I permits were required for medium (population 100,000 - 249,999) and large (population 250,000 or more) municipal separate storm sewer systems (MS4s) located in incorporated places or counties with populations of 100,000 or more. Capital projects to address primarily water quality-related needs are eligible for CWNS 2012. Projects with integrated water quality and water quantity benefits are also permitted, if the primary purpose is water quality. Only processes or practices that address water quality or public health problems are included in the CWNS.

**Phase II MS4:** A combination of unit processes or BMPs designed to collect, treat, and transport stormwater for entities regulated under the NPDES Phase II permit process. Phase II permits were required for small MS4s (population 99,999 or less) located in "urbanized areas" (UAs) as defined by the Bureau of the Census, and those small MS4s located outside of a UA that are designated by NPDES permitting authorities. Capital projects to address primarily water quality-related needs are eligible for CWNS 2012. Projects with integrated water quality and water quantity benefits are also permitted, if the primary purpose is water quality. Only processes or practices that address water quality or public health problems are included in the CWNS.

**Non-traditional MS4:** A combination of unit processes or BMPs designed to collect, treat, and transport stormwater for regulated MS4s owned by non-municipal, public entities (e.g., universities, Departments of Transportation, prisons, school districts). Capital projects to address primarily water quality-related needs are eligible for CWNS 2012. Projects with integrated water quality and water quantity benefits are also permitted, if the primary purpose is water quality. Only processes or practices that address water quality or public health problems are included in the CWNS.

**Agriculture-Cropland:** A combination of unit BMPs designed to address water quality or public health problems caused by agricultural activities such as plowing, pesticide spraying, irrigation, fertilizing, planting, and harvesting. The primary agricultural nonpoint source pollutants are nutrients, sediment, animal wastes, salts, and pesticides. Agricultural activities also have the potential to directly affect the habitat of aquatic species through physical disturbances of adjacent land caused equipment, or water management activities (e.g., dams, irrigation).

**Agriculture-Animals:** A combination of BMPs designed to address water quality or public health problems caused by agricultural activities related to grazing and animal production such as animal feeding operations that are not subject to the concentrated animal feeding operation (CAFO) regulations. Animal waste includes the fecal and urinary wastes of livestock and poultry; process water (such as that from a milking parlor); and the feed, bedding, litter, and soil with which they become intermixed. Pollutants such as organic solids, salts, bacteria, viruses, and other microorganisms, and sediments might be contained in animal waste transported by runoff water and process wastewater.

**Silviculture:** A combination of BMPs designed to address water quality or public health problems caused by forestry activities such as removal of streamside vegetation, road construction and use, timber harvesting, and site preparation for the planting of trees. Silvicultural activities can cause degradation of water quality and habitat quality if care is not taken to prevent adverse effects. Sediment from erosion due to tree harvesting activities and access road construction, temperature increases due to riparian shade removal, and pesticides and fertilizer used during timber operations are some of the major pollutants from timber harvesting sites. Silviculture BMPs include measures that control erosion from access roads, maintain the stability of stream banks, ensure the revegetation of harvested areas, and control the introduction of pesticides and fertilizers into waterways.

**Marinas:** A combination BMPs designed to address water quality or public health problems associated with boating and marinas, such as poorly flushed waterways, boat maintenance activities, discharge of sewage from boats, stormwater runoff from marina parking lots, and the physical alteration of shoreline, wetlands, and aquatic habitat during the construction and operation of marinas.

**Resource Extraction:** A combination of BMPs designed to address water quality or public health problems caused by mining and quarrying activities. Resource extraction management practices can prevent or reduce the availability, release, or transport of substances that adversely affect surface and ground waters. Resource Extraction includes mining and quarrying activities that are not identified under Mining Point Source.

**Brownfields:** A combination of BMPs designed to address water quality or public health problems at abandoned, idle, or underused industrial and commercial sites. Brownfields can be urban, suburban, or rural areas.

**Storage Tanks:** A combination of BMPs designed to address water quality or public health problems caused by tanks designed to hold gasoline or other petroleum products or chemicals. The tanks may be located above or below ground level.

**Sanitary Landfills:** A combination of BMPs designed to address water quality or public health problems at sanitary landfills. Sanitary landfills are landfills designed as disposal sites for nonhazardous solid wastes rather than hazardous solid waste or biosolids.

**Ground Water Unknown Source:** A combination of BMPs designed to address ground water protection needs from an unknown or otherwise undefined source. Any need that can be attributed to a specific cause of ground water pollution should be indicated with a more specific type, such as storage tanks, Brownfields, or sanitary landfills.

**Hydromodification:** A combination of BMPs designed to address water quality or public health problems associated with channelization and channel modification, dams, and stream bank and shoreline erosion.

**Estuary Management:** A combination of BMPs designed to protect the estuarine ecosystem. Examples include habitat for aquatic species, fisheries, oyster bed, and shellfish restocking and restoration, fish ladders, rejuvenation of submerged aquatic vegetation, artificial reef establishment, control of invasive vegetative and aquatic species, and water control structures for flow regime and salinity.

**Confined Animal Source:** A combination of unit processes or BMPs designed to address water quality or public health problems caused by point source agricultural activities related to animal production that are subject to the CAFO regulations. Animal waste includes the fecal and urinary wastes of livestock and poultry, process water (such as that from a milking parlor), and the feed, bedding, litter, and soil with which they become intermixed. Pollutants such as organic solids, salts, bacteria, viruses, and other microorganisms, and sediments might be contained in animal waste transported by runoff water and process wastewater.

**Mining Point Source:** A combination of unit processes or BMPs designed to address water quality or public health problems caused by point source mining and quarrying activities. Mining management practices can prevent or reduce the availability, release, or transport of substances that adversely affect surface and ground waters.

**TMDL Plan Development:** The effort to develop a plan to implement an established Total Maximum Daily Load (TMDL). A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources.

**Watershed Management Plan Development:** A watershed plan is a strategy and a work plan for achieving water resource goals that provides assessment and management information for a geographically defined watershed.

**Source Water Protection Plan Development:** The effort to develop a strategy to protect source water which includes assessing the problems in the protection area, identifying and prioritizing management measures for those problems, and then implementing the management measures.

## **Change Type Definitions**

**Facility Type Change (CHANGE\_TYPE):** Description of needed modifications to the facility type selected:

**No Change:** There are no planned modifications.

**New:** A new type is being proposed or implemented.

**Increase Capacity:** Increasing the treatment capacity for existing treatment plants, biosolids handling facilities, municipal separate storm sewer systems, decentralized treatment systems, and NPS BMPs with respect to flow or tonnage. Examples are:

- Increasing a wastewater treatment plant's design flow from 1 MGD to 2 MGD.
- Increasing a biosolids handling facility's capacity from 0.25 ton per day to 0.35 ton per day.
- Increasing the size of a multiple-unit leach field to handle additional flow.
- Increasing the size of a sediment basin used to capture runoff from a construction site.
- Replacing existing sewers with larger-capacity sewers or expanding existing pump stations to pump more flow

This change does not include:

- Increasing the level of treatment to meet more stringent effluent limits.
- This change should be categorized as Increase Level of Treatment.
- Increasing the size of a sewer system by adding new sewers and expanding the service area. This change should be categorized as Expansion.
- Adding sand filtration to an existing non-centralized treatment system. This change should be categorized as Process Improvement.

**Increase Level of Treatment:** Improving the degree of treatment. This refers to any improvement in unit processes or BMPs that improves the effluent quality or decreases the concentration of most water quality variables from runoff or other nonpoint sources. The addition of nutrient removal is considered to be an improvement in effluent quality (e.g., secondary effluent with nutrient removal represents higher-quality effluent than secondary effluent without nutrient removal).

**Rehabilitation:** Restoring or repairing parts of existing treatment plants, combined or separate sewer systems, biosolids handling facilities, municipal separate storm sewer systems, individual on-site systems, and NPS BMPs with no increase in capacity or level of treatment. Examples are:

- Performing extensive repair of existing sewers beyond the scope of normal maintenance programs.
- Repairing deteriorating tank walls at a treatment plant.
- Replacing a deteriorated cover on an anaerobic digester.
- Adding an approved structure to prevent sediment from entering a retention pond.

This change does not include:

- Replacing of one or more sewers with another while maintaining the same capacity. These changes should instead be categorized as Replacement.
- Performing any work that could be considered normal operation and maintenance.

**Replacement:** An existing facility is considered obsolete and is demolished, and a new facility is constructed on the same site. For treatment plants, this generally implies the same degree of treatment as the demolished plant.

**Abandonment:** All unit processes or BMPs that make up the facility type will no longer be used or will be demolished in the future. Examples are:

- Taking a treatment plant out of service. Its flows are redirected to another treatment plant.
- Taking a biosolids handling facility out of service and centralizing all biosolids treatment at one regional biosolids handling facility.
- Replacing onsite wastewater treatment systems with a central collection and treatments system.

Abandonment does not include taking single unit processes or BMPs out of service while still maintaining the overall type of the facility (e.g., switching from chlorination to ultraviolet disinfection). This change should be categorized as Process Improvement.

**Expansion:** Increasing the service area of an existing sewer system or NPS BMP. It also includes the addition of new OWTS in a municipality where there are presently OWTS with the change Rehabilitation. This change does not include:

- The construction of an entirely new sewer system, which should be categorized as New.
- Increasing the treatment capacity for existing treatment plants, biosolids handling facilities, municipal separate storm sewer systems, decentralized treatment systems, and NPS BMPs. These changes should be categorized as Increase Capacity.

**Process Improvement:** Any improvement to a facility that does not increase the capacity, increase the level of treatment, expand the service area, or make a similar change for existing treatment plants, biosolids handling facilities, municipal separate storm sewer systems, decentralized treatment systems, and NPS BMPs. Examples are:

- Replacing coarse bubble diffusers with fine bubble diffusers at a wastewater treatment plant.
- Replacing pumps in a pump station.
- Adding sand filters to an existing decentralized cluster system.

If a more detailed or more appropriate change type is available, it should be used.

**Instrumentation/Electrical/Laboratory:** Adding new or modifying existing instrumentation systems (e.g., SCADA), electrical systems, or laboratory facilities at an existing facility of any type.

**Updated:** Reviewing and changing existing TMDL, Watershed Management, and Source Water Protection Plans.

**Improve Energy Efficiency:** Implementing improvements to the facility in order to be more energy efficient (e.g., reduced need for chemical or O&M costs measures at a facility). The energy and other economic efficiencies will be sufficient in and of themselves to document need for projects in CWNS 2012. The energy efficiencies are not required to be linked to a water quality or public health benefit.

**Climate Change Adaption:** Implementing changes at the facility to mitigate the impacts (e.g., floods, hurricanes) of climate change. The climate change adaption strategies do not need to be linked to water quality or public benefit, but the link to climate change must be explicit in documentation.

**Present or Projected Indicator (PRES\_OR\_PROJ\_IND):** Indicates that the facility type currently exists (present-P), will exist in the future (projected-F), or both (present and projected-B).

## Population Data

Population data describe the number of people present (or potentially present) within the service area of the facility, or the planned number of people in that service area. Population data are reported in the CWNS Report to Congress and are also essential for use in the wastewater treatment and sewer cost curve needs estimates.

The population data are required if the facility has a Present and/or Projected Type of **Treatment Plant, Collection: Combined Sewer, Collection: Separate Sewers, Onsite Wastewater Treatment System, Clustered System, Treatment Lagoon or Pond, Storage Facility, and Collection: Pump Station.**

Note that the population for Facility Types: Treatment Plants, Collection: Interceptor Sewer, and Treatment Lagoon or Pond must come from a collection system linked to a facility (in the same Facility or an upstream facility). Population receiving collection is not enabled in the data entry system for facilities with Facility Types: Treatment Plants, Collection: Interceptor Sewer, and Treatment Lagoon or Pond.

The following population information is available in CWNS (see definitions below):

- Receiving Collection (i.e., sewershed)
- Upstream Collection
- Total Receiving Treatment

- Clustered Systems
- Onsite Wastewater Treatment Systems

For each of the five categories of population, data is collected for both **Present** and **Projected**, as well as **Resident** and **Non-resident** populations.

- **Present Population:** Refers to the population currently associated with the facility
- **Projected Population:** Refers to the population that that is forecasted to be associated with the facility in the design year
- **Projection Year:** Identifies the basis for the future population values which must be between 2012 and 2032
- **Resident Population:** Applies to people who live within the service area of the selected facility
- **Non-resident population:** Applies to people who do not live within the service area of the selected facility, but still use or are served by the associated sewers, treatment plants, or decentralized wastewater treatment systems. This population includes transient, seasonal, and commuter workers and tourists

**Receiving Collection:** Describes the total number of who are connected to a sewer system which empties into a treatment plant. This data is collected for the following facility types: Collection: Combined Sewers, Collection: Separate Sewers, Treatment Lagoon or Pond, Storage Facility, and Collection: Pump Station. This does not include populations served by acceptable decentralized wastewater treatment systems, or populations connected to sewers that do not discharge to a treatment plant. For reporting purposes, population included in this category is considered to have its wastewater disposed of in an acceptable manner. The following Receiving Collection population data may be reported for a facility:

- Present Resident Population Receiving Collection (PRES\_RES\_RECEIVING\_COLLCTN)
- Present Resident Population Receiving Collection Year (PROJ\_RES\_REC\_COLLCTN\_YEAR)
- Present Non-resident Population Receiving Collection (PRES\_N\_RES\_RECEIVING\_COLLCTN)
- Projected Resident Population Receiving Collection (PROJ\_RES\_RECEIVING\_COLLCTN)
- Projected Resident Population Receiving Collection Year (PROJ\_N\_RES\_REC\_COLLCTN\_YEAR)
- Projected Non-resident Population Receiving Collection (PROJ\_N\_RES\_RECEIVING\_COLLCTN)

**Upstream Collection:** Describes the total number of people whose wastewater is discharged to this facility from other facilities upstream in the sewershed. The total is calculated from the population Receiving Collection of all facilities which discharge to the selected facility, directly or indirectly. The following Upstream Collection population data may be calculated for a facility:

- Present Resident Upstream Population (PRES\_RES\_UPSTREAM)
- Present Non-Resident Upstream Population (PRES\_N\_RES\_UPSTREAM)

- Projected Resident Upstream Population (PROJ\_RES\_UPSTREAM)
- Projected Non-Resident Upstream Population (PROJ\_N\_RES\_UPSTREAM)

**Total Receiving Treatment (TOTAL\_RECEIVNG\_TRMT):** Describes the total population (in this Facility and upstream) receiving wastewater treatment at this facility. It is calculated by summing **Receiving**

**Collection** population for the facility and the **Upstream Collection:** The Present and/or Projected Total Receiving Treatment are only calculated if the facility has a Present and/or Projected Type of Treatment Plant. This does not include populations served by acceptable decentralized wastewater treatment systems. The following Total Receiving Treatment population data may be calculated for a facility:

- Present Resident Total Receiving Treatment Population (PRES\_RES\_TOTAL\_RECEIVNG\_TRMT)
- Present Non-Resident Total Receiving Treatment Population (PRES\_N\_RES\_TOTAL\_RECEIVNG\_TRMT)
- Projected Resident Total Receiving Treatment Population (PROJ\_RES\_TOTAL\_RECEIVNG\_TRMT)
- Projected Non-Resident Total Receiving Treatment Population (PROJ\_N\_RES\_TOTAL\_RECEIVNG\_TRMT)

**Clustered Systems Population:** Indicates the number of people whose wastewater is treated by this type of decentralized wastewater treatment system. The population data is entered by unit (number of homes served) and then multiplied by the average number of people per home (based on state- or county-level Census data) to calculate the population.

- Present Resident Cluster Population (PRES\_RES\_CLUSTER)
- Number of Present Resident Cluster Units (PRES\_RES\_CLUSTER\_UNITS)
- Present Resident Cluster Population per Unit (PRES\_RES\_CLUSTER\_POP\_P\_UT)
- Present Non-Resident Cluster Population (PRES\_N\_RES\_CLUSTER)
- Number of Present Non-Resident Cluster Units (PRES\_N\_RES\_CLUSTER\_UNITS)
- Present Non-Resident Cluster Population per Unit (PRES\_N\_RES\_CLUSTER\_POP\_P\_UT)
- Projected Resident Cluster Population (PROJ\_RES\_CLUSTER)
- Number of Projected Resident Cluster Units (PROJ\_RES\_CLUSTER\_UNITS)
- Projected Resident Cluster Population per Unit (PROJ\_RES\_CLUSTER\_POP\_P\_UT)
- Projected Resident Cluster Year (PROJ\_RES\_CLUSTER\_YEAR)
- Projected Non-Resident Cluster Population (PROJ\_N\_RES\_CLUSTER)
- Number of Projected Non-Resident Cluster Units (PROJ\_N\_RES\_CLUSTER\_UNITS)
- Projected Non-Resident Cluster Population per Unit (PROJ\_N\_RES\_CLUSTER\_\_POP\_P\_UT)
- Projected Non-Resident Cluster Population (PROJ\_N\_RES\_CLUSTER\_YEAR)

**Onsite Wastewater Treatment Systems (OWTS) Population:** Indicates the number of people whose wastewater is treated by type of decentralized wastewater treatment system. The population data is entered by unit (number of homes served) and then multiplied by the average number of people per home (based on state- or county-level Census data) to calculate the population.

- Present Resident OWTS Population (PRES\_RES\_ONSITE\_WTS)
- Number of Present Resident OWTS Units (PRES\_RES\_ONSITE\_WTS\_UNITS)
- Present Resident OWTS Population per Unit (PRES\_RES\_ONSITE\_WTS\_POP\_P\_UT)
- Present Non-Resident OWTS Population (PRES\_N\_RES\_ONSITE\_WTS)
- Number of Present Non-Resident OWTS Units (PRES\_N\_RES\_ONSITE\_WTS\_UNITS)
- Present Non-Resident OWTS Population per Unit (PRES\_N\_RES\_ONSITE\_WTS\_POP\_P\_UT)
- Projected Non-Resident OWTS Population (PROJ\_N\_RES\_ONSITE\_WTS)
- Number of Projected Resident OWTS Units (PROJ\_N\_RES\_ONSITE\_WTS\_UNITS)
- Projected Resident OWTS Population per Unit (PROJ\_N\_RES\_ONSITE\_WTS\_POP\_P\_UT)
- Projected Resident OWTS Population Year (PROJ\_RES\_ONSITE\_WTS\_YEAR)

OWTS and Clustered System population data fields are:

- **Population per Unit:** is the average population per unit for the facility's Primary County if indicated or for the State
- **Number of Units:** (e.g., dwellings) that are being served by the Clustered System or OWTS assuming that the (present or projected) population (resident or non-resident) is greater than zero and there is at least one present or projected Facility Type.

**Total (Excluding Upstream):** The total CWNS population for a facility is equal to the sum of the **Receiving Collection, Clustered Systems, and Onsite Wastewater Treatment Systems** populations.

**Small Community Exception Flag:** Indicated if the facility's population is fewer than 10,000 persons and meets one of the following:

- One of the several facilities serving a community of 10,000 persons or more
- Its wastewater system and its location within an urbanized area make it a component of, and virtually indistinguishable from, surrounding or adjacent entities
- Its wastewater system is physically connected to a regional treatment authority serving 10,000 persons or more

Regardless of the facility's status, the facility is not considered a small community for the purpose of CWNS.

## Flow Data

Flow data describe the quantity of wastewater moving through the facility, or the present or planned design capacity of that facility. These data are measured in units of millions gallons per day (MGD). Flow data are reported in the CWNS Report to Congress and are essential for use in the wastewater treatment cost curve needs estimates.

The data area Flow is available for facilities with the following Facility Types: **Treatment Plant, Treatment Lagoon or Pond, and Storage Facility**. The data can be entered for Existing and Present Design Flow when the facility has an applicable present Facility Type. Future Design Flow can be entered if the facility has an applicable projected Facility Type. It is not shown for other Facility Types.

**Municipal Flow (EXIST\_MUNICIPAL, PRES\_MUNICIPAL, PROJ\_MUNICIPAL):** The portion of the wastewater flows generated by residential, commercial and/or institutional sources within the service area of the facility in millions of gallons per day (MGD).

**Industrial Flow (EXIST\_INDUSTRIAL, PRES\_INDUSTRIAL, PROJ\_INDUSTRIAL):** The portion of the wastewater flows generated by industrial sources within the service area of the facility in MGD. This should include all industrial sources greater than 0.025 MGD (25,000 gallons per day).

**Infiltration Flow (EXIST\_INFILTRATION, PRES\_INFILTRATION, PROJ\_INFILTRATION):** The estimated portion of the wastewater flow that is entering the collection system via defective joints, connections, or manhole walls (as a result of infiltration and inflow, or I&I) in MGD.

**Total Flow (EXISTIT\_TOTAL, PRES\_TOTAL, PROJ\_TOTAL):** The sum of the **Municipal Flow, Industrial Flow, and Infiltration Flow** in MGD. States had the option to enter (1) Total Flow or (2) individual values for Municipal Flow, Industrial Flow, and Infiltration Flow. For option 2, the data entry system calculated the Total Flow.

**Wet Weather Flow (Peak) (EXIST\_WET\_WEATHER\_PEAK, PRES\_WET\_WEATHER\_PEAK, PROJ\_WET\_WEATHER\_PEAK):** The peak flow that the treatment plant either can or does treat (MGD). This is an optional field and is not included in the calculation of Total Flow.

**Existing, Present Design, and Future Design** flows may be reported for each of the five categories listed above.

**Existing Flow (EXIST):** The calculated average flow for a recent 12-month period

**Present Design Flow (PRES):** The current designed hydraulic capacity of the existing treatment plant

**Projected Design Flow (PROJ):** The planned hydraulic capacity of the plant in the design year

## Effluent Data

Effluent data describes the quality of wastewater discharged from the facility. Treatment levels are further clarified by the states indicating whether the plant has disinfection and/or advanced treatment indicators. Effluent data is reported in the CWNS *Report to Congress* and is also essential for use in the wastewater treatment cost curve needs. Data is available in all facilities with a facility type of **Treatment Plant**. It may be available for facilities with a facility type of **Treatment Lagoon or Pond, and Storage Facility**.

**Present Effluent Treatment Level (PRES\_EFFLUENT\_TREATMENT\_LEVEL):** Describes the general level of effluent quality that the facility is currently designed to discharge.

**Projected Effluent Treatment Level (PROJ\_EFFLUENT\_TREATMENT\_LEVEL):** Describes the general level of effluent quality that the facility is plans to discharge in the future.

Below is a summary of possible Effluent Treatment Levels:

**Raw Discharge:** Wastewater discharged without receiving any form of treatment. Pollutant concentrations in a raw discharge can vary depending on the source of the pollutant(s).

**Primary (45mg/l is less than BOD):** It is a process in which the effluent that is treated to remove floating debris and solids by screening and sedimentation. Wastewater discharged after receiving some preliminary and/or primary treatment. For example, the effluent that is treated to remove floating debris and solids by screening and sedimentation. A wastewater treatment plant with a 5-day biochemical oxygen demand (BOD5) concentration greater than 45 mg/l (30-day average) in its NPDES permit is considered to be providing primary treatment.

**Advanced Primary:** It is a process in which chemicals are added to further treat primary effluent and increase the amount of solid matter removed. Wastewater discharged after receiving extensive primary treatment (e.g., screening, grit removal, primary settling). In addition, chemicals are often added to further treat primary effluent and increase the amount of solids matter removed. A wastewater treatment plant with a BOD5 concentration greater than 30 mg/l but less than or equal to 45 mg/l (30 day average) in its NPDES permit is considered to be providing advanced primary treatment.

**Secondary Wastewater Treatment:** The minimum level of treatment required for discharges from all municipal wastewater treatment facilities by the Clean Water Act; facilities granted ocean discharge waivers under section 301(h) are exempt from this requirement (Appendix D of the CWNS 2012 Report to Congress). The effluent must meet the minimum removal standards for Biochemical Oxygen Demand (less than or equal to 30 mg/l), total suspended solids (TSS), and pH in from municipal wastewater treatment facilities defined in Federal regulations.

**Advanced Treatment:** A level of treatment that is more stringent than secondary treatment or produces a significant reduction in nonconventional or toxic pollutants present in the facility's effluent. The treatment level is considered advanced if BOD is less than or equal to 20 mg/l or one or more advanced treatment indicators are in the facility's permit.

**Disinfection Indicator (PRES\_DISINFECTION), PROJ\_DISINFECTION):** Indicates if the facility uses a process (e.g. chlorination) to destroy or inactivate pathogens (Y or N).

**Advanced Treatment Type ID and Name:** For facilities with the present and/or projected effluent treatment level of Advanced Treatment, states were required to indicate one or more Advanced Treatment Indicators that are present and/or projected at the facility from the following list:

- 1. BOD (Biochemical Oxygen Demand) (levels less than or equal to 20 mg/L)
- 2. Nitrogen Removal
- 3. Phosphorous Removal
- 4. Ammonia Removal
- 5. Metal Removal
- 6. Synthetic Organic Removal

**Increased Removal Indicator:** Indicating more stringent removal for the advanced treatment (Y or N).

## Discharge Data

Discharge data for the facility describe details of the method(s) used to discharge water or wastewater from the facility, as well as the geographic location of the discharge(s). One or more of the following methods of disposal may be selected depending on the type of facility. Discharge information is found in the following Facility Types:

- Confined Animals (Point Source)
- Mining (Point Source)
- Treatment Lagoon or Pond
- Storage Facility
- Collection: Pump Station
- Phase I MS4
- Phase II MS4
- Non-traditional MS4
- Unregulated Community
- Collection: Separate Sewers
- Collection: Combined Sewers
- Collection: Interceptor Sewer
- Treatment Plant
- Recycled Water Distribution
- Onsite Wastewater Treatment Systems
- Decentralized Wastewater Treatment System
- Clustered System

**Discharge Method (DISCHARGE\_METHOD):** The name of the disposal methods. The discharge method could be one or more of the following:

- Outfall to Surface Waters
- Ocean Discharge
- Deep Well
- Reuse: Industrial
- Evaporation
- Spray Irrigation
- Overland Flow No Discharge
- Overland Flow With Discharge
- Discharge to Another Facility
- Combined Sewer Overflow (CSO) Discharge
- Other
- Discharge to Ground Water
- No Discharge, Unknown
- Reuse: Irrigation
- Reuse: Other Non-Potable
- Reuse: Indirect Potable
- Reuse: Potable
- Reuse: Ground Water Recharge

**Status:** Indicates that the discharge method is the current disposal method or is proposed to be the future disposal method.

**Present Flow Percentage (PRES\_FLOW\_PERCENTAGE):** A percentage of the present total flow apportioned to this particular Discharge Method.

**Projected Flow Percentage (PROJ\_FLOW\_PERCENTAGE):** A percentage of the projected total flow apportioned to this particular Discharge Method. This will occur if present Discharge to Another Facility is provided.

**Discharge Location and Discharge CWNS Number (PRES\_DISCHARGE\_TO\_FACILITY, PROJ\_DISCHARGE\_TO\_FACILITY):** This is the CWNS number of the facility that receives the discharge from the current facility. It is only applicable for the discharge method - **Discharge to Another Facility**.

## Location Data

**State (STATE):** State abbreviation where the facility is located.

**Region (REGION):** Number of the EPA region where facility is located.

**Tribe Indicator (TRIBE\_IND):** indicates whether the facility is within tribal lands (Y or N).

**Primary County (PRIMARY\_COUNTY):** Name of the county where the majority of a CWNS facility is located.

**Secondary County(ies) (SECONDARY\_COUNTIES):** Name of the county(ies) where the rest of a CWNS facility is located.

**Primary Indicator (PRIMARY\_IND):** Indicates whether the county is a primary county where a CWNS facility is located.

**Congressional District (CONGRESSIONAL\_DISTRICT):** Name of the Congressional District for the 113th Congress (January 3, 2013 - January 3, 2015) where the facility is located. If the facility is in more than one Congressional District, then the state is required to indicate the Primary Congressional District (PRIMARY\_CONGRESSIONAL\_DISTRICT) where the majority of the facility is located. All other Congressional Districts are considered Secondary Congressional Districts (SECONDARY\_CONGRESSIONAL\_DIST). In the Apex reports, the primary Congressional District is listed under the heading "Congressional District." In the database, the primary Congressional District is listed in the column "PRIMARY\_CONGRESSIONAL\_DISTRICT" of the SUMMARY\_FACILITY table or by a Y in the "PRIMARY\_IND" column of the SUMMARY\_CONGRESSIONAL\_DISTRICT table.

**Primary Watershed HUC (PRIMARY\_WATERSHED\_HUC):** A watershed is identified using the US Geological Survey's 8-digit Hydrological Unit Code (HUC) system. An eight-digit code identifies each of the four levels of classification within four two-digit fields:

- first two digits - the water-resources region
- first four digits - the sub-region
- first six digits - the accounting unit
- last two digits for the cataloging unit completes the eight-digit code

**Primary Watershed Name (PRIMARY\_WATERSHED\_NAME):** Name of the watershed where a CWNS facility is located.

**Secondary Watershed HUCs (SECONDARY\_WATERSHEDS):** Secondary Watershed HUCs where the rest of a CWNS facility is located.

**Primary Indicator (PRIMARY\_INDICATOR):** Indicates whether the watershed HUC is a primary Watershed HUC where a CWNS facility is located.

**Special Program Areas (SPECIAL\_PROGRAM\_AREAS):** Indicates the name of the National Estuary Program in which the facility is located, if applicable.

**Location Description (LOCATION\_DESCRIPTION):** The name of the place where the coordinates were measured. The options are: Lagoon or Settling Pond; Facility/Station Location; or Center/Centroid

**Horizontal Collection Method (HORIZONTAL\_COLLECTION\_METHOD):** The text that describes the method used to determine the latitude and longitude coordinates for a point on the earth.

**Horizontal Coordinate Datum Name (HORIZONTAL\_COORDINATE\_DATUM):** The name of the reference datum used in determining latitude and longitude coordinates. The options are:

- North American Datum of 1927
- North American Datum of 1983
- World Geodetic System of 1984
- North American Datum of 1927

**Geographic Location Source Code (GEOGRAPHIC\_LOCATION\_SOURCE):** Indicates how the point was entered:

- Manual: The state user entered the coordinate information.
- WLW (WATERS Lite Viewer): A tool available to state users during data entry that allowed them to select a point or draw a polygon(s) on a map to indicate the location of a facility.
- NPDES Permit: The coordinates were sourced from the information provided on the NPDES permit.

**Latitude (LATITUDE):** The latitude decimal degree for a point. Positive values are used for both Northern and Southern hemisphere and have to be used in conjunction with the Latitude direction. The measure of the degree portion of a latitude measurement (0 to 90 degrees), indicating angular distance North or South of the equator. One degree of latitude equals 111.1 Kilometers or approximately 60 Nautical Miles. Includes the direction of the latitude measurement, being either: N - North, or S - South.

**Longitude (LONGITUDE):** The longitude decimal degree for a point. Positive values are used for both Eastern and Western hemisphere and have to be used in conjunction with the Longitude direction. The measure of the degree portion of longitude (000 to 180 degrees), indicating angular distance West or East of the prime meridian drawn from pole to pole around the Earth and passing through Greenwich, England. Includes the direction of the longitude measurement, being either: E - East, or W - West.

**Measurement Date (MEASUREMENT\_DATE):** The date the latitude/longitude point was measured.

**Scale (SCALE):** The text that describes the ge positioning or Scale of a map, e.g. 1:1000.

**Coordinate Type (COORDINATE\_TYPE):** indicates whether the Coordinate(s) are represented by a Single Point, Polygon, County, Watershed or Cities/Towns. In the case of Polygon, County, or Watershed, the latitude and longitude represents the centroid of the area.

**Physical Address:** This data, required for treatment plants, indicate the physical location of the facility.

**Facility Street Address 1 (FACILITY\_STREET\_1):** First line of street address of a facility

**Facility Street Address 2 (FACILITY\_STREET\_2):** Second line of street address of a facility

**Facility City (FACILITY\_CITY):** City in which the facility is located

**Facility State (FACILITY\_STATE):** State in which the facility is located

**Facility Zip Code (FACILITY\_ZIP):** Zip Code in which the facility is located

**Point of Contact:** The name(s) of the person, organization and their contact information responsible for the facility.

**Authority Name (AUTHORITY):** The organization responsible for managing the facility.

**Point of Contact Name (POINT\_OF\_CONTACT\_NAME; NAME):** The name of a person to contact regarding a facility.

**Point of Contact Role or Title (ROLE\_OR\_TITLE):** The role or title of the Point of Contact person.

**Point of Contact Street 1 (POINT\_OF\_CONTACT\_STREET\_1; STREET\_1):** First line of street address of the point of contact

**Point of Contact Street 2 (POINT\_OF\_CONTACT\_STREET\_2; STREET\_2):** Second line of street address of the point of contact

**Point of Contact City (POINT\_OF\_CONTACT\_CITY; CITY):** City of the point of contact.

**Point of Contact State (POINT\_OF\_CONTACT\_STATE; STATE):** State of the point of contact.

**Point of Contact Zip Code (POINT\_OF\_CONTACT\_ZIP; ZIP):** Zip Code of the point of contact.

**Point of Contact Phone (POINT\_OF\_CONTACT\_PHONE; PHONE):** Phone number of the point of contact.

**Point of Contact Fax (POINT\_OF\_CONTACT\_FAX; FAX):** Fax number of the point of contact.

**Point of Contact Email (POINT\_OF\_CONTACT\_EMAIL; EMAIL):** Email address for point of contact

**Tribe Indicator (TRIBE\_INDICATOR):** Indicates whether the point of contact person is a member of a Tribe: Y or N.

**Primary Indicator (PRIMARY\_INDICATOR):** Indicates if this Point of Contact is the responsible entity for the facility: Y or N. In the Apex Reports and the SUMMARY\_FACILITY table of the database, only the responsible entity is listed.

**Sourced from NPDES Indicator (SOURCED\_FROM\_NPDES\_IND):** Indicates that the Point of Contact information was obtained from the NPDES permit designated by the user: Y or N.

**Superfund Responsible Party Indicator (SUPERFUND\_RESPONSIBLE\_PARTY):** Indicates that the Point of Contact is one of the parties responsible for, in whole or in part, the presence of hazardous substances at a facility under the Superfund law (officially the Comprehensive Environmental Response, Compensation and Liability Act, "CERCLA): Y or N.

## Unit Process

**Unit Process or Best Management Practice (BMP):** A practice or combination of practices determined to be an effective and practicable (including technological, economic, and institutional considerations) means of controlling point and nonpoint source pollutants at levels compatible with environmental quality goals. Complete list of Unit Process or BMP is available in the Permissible Value link.

**Unit Process (UNIT\_PROCESS):** The name of the treatment technology.

**Treatment Type (TREATMENT\_TYPE):** The name of the Treatment Type.

- Preliminary
- Primary
- Secondary
- Advanced
- Disinfection
- Solids Handling
- Conventional (Gravity) Septic Tank & Leach Field
- Multiple Unit Leach Field (Soil Absorption)
- Mound
- Sand Filtration/Recirculating

- Erosion Control
- Structural
- Construction Site
- Agriculture Sources
- Forestry Management Practices
- Marinas
- Resource Extraction
- Hydromodification
- Sanitary Landfill Practices
- Ground Water Protection

**Change Type (CHANGE\_TYPE):** Description of the modifications needed for the unit process. The definitions of the change types for unit processes are the same as the facility change types.

**Sort Sequence (SORT\_SEQUENCE):** The order of the unit processes (numeric values with 1=first, 2= second, etc)

**Present Indicator (PRES\_IND):** Indicates if the unit process is currently in use: Y or N.

**Projected Indicator (PROJ\_IND):** Indicates if the unit process is planned to be used in the future (Y or N).

**Backup Indicator (BACKUP\_IND):** Indicates if the Unit Process is not regularly used and serves as a backup for another Unit Process (Y or N).

**Planned Year (PLANNED\_YEAR):** For projected unit processes, the year that the Unit Process will be implemented. The planned Year must be the current or a future year.

**Additional Notes (ADDITIONAL\_NOTES):** Additional narrative description of the unit process.

**Last Updated Timestamp (LAST UPDATED TIMESTAMP):**