Appendix D. Facility/Project Type Information

Table D-1: Facility/Project Type Definitions

Facility/Project Type	Definition
Treatment Plant	A combination of unit processes designed to receive and treat wastewater and then discharge the treated wastewater (effluent) into the environment. This Included in this type are 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 DEP'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.
Biosolids Handling Facility	A combination of unit processes designed to thicken, stabilize, dewater, or store biosolids prior to disposal.
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.

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 2008. 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 2008. 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 2008. 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.
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.
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, storm water 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 in 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.
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.
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.
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).
Storage Facility	A facility that temporarily holds wastewater until it is transported and treated elsewhere.
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.
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.
Wastershed 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.

Table D-2: Facility/Project Change Definitions

Facility/Project Changes	Definitions
No Change	There are no planned modifications.
New	A new type is being proposed or implemented.
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.
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 a forebay 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.
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.
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.
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, Wastershed Management, and Source Water Protection Plans.

Table D-3: Indicates which Change Types can be assigned to a Facility Type; also dependant on the Present and/or Projected status of a Facility Type.

Facility Type:	Change Type										
	No Change	New	Increase Capacity	Increase Level of Treatment	Rehabilitation	Replacement	Abandonment	Expansion	Process Improvement	Instrumentation/ Electrical/ Laboratory	Updated
Treatment Plant	B	F	B	B	B	B	P		B	B	
Collection: Combined Sewers	B				B	B	P		B	B	
Collection: Separate Sewers	B	F	B		B	B	P	B	B	B	
Biosolids Handling	B	F	B	B	B	B	P	B	B	B	
Onsite Wastewater Treatment System	B	F			B	B	P		B	B	
Clustered System	B	F	B	B	B	B	P	B	B	B	
Phase I MS4	B	F	B	B	B	B	P	B	B	B	
Phase II MS4	B	F	B	B	B	B	P	B	B	B	
Non-traditional MS4	B	F	B	B	B	B	P	B	B	B	
Unregulated Community Stormwater	B	F	B	B	B	B	P	B	B	B	
Agriculture – Cropland	B	F	B	B	B	B	P	B	B	B	
Agriculture – Animals	B	F	B	B	B	B	P	B	B	B	
Silviculture	B	F	B	B	B	B	P	B	B	B	
Marinas	B	F	B	B	B	B	P	B	B	B	
Resource Extraction	B	F	B	B	B	B	P	B	B	B	
Brownfields	B	F	B	B	B	B	P	B	B	B	
Storage Tanks	B	F	B	B	B	B	P	B	B	B	
Sanitary Landfills	B	F	B	B	B	B	P	B	B	B	
Ground Water Unknown Source	B	F	B	B	B	B	P	B	B	B	
Hydromodification	B	F	B	B	B	B	P	B	B	B	
Confined Animals (Point Source)	B	F	B	B	B	B	P	B	B	B	
Mining (Point Source)	B	F	B	B	B	B	P	B	B	B	
Collection: Interceptor Sewer	B	F	B	B	B	B	P	B	B	B	
Recycled Water Distribution	B	F	B	B	B	B	P	B	B	B	
Estuary Management	B	F	B	B	B	B	P	B	B	B	
Treatment Lagoon or Pond	B	F	B	B	B	B	P		B	B	
Storage Facility	B	F	B		B	B	P		B	B	
Collection:Pump Stations	B	F	B		B	B	P	B	B	B	
TMDL Plan Development		B									B
Watershed Management Plan Development		B									B
Stormwater Project Plan Development		B									B

P = Present F = Projected B = Present and Projected

Table D-4: Indicates which Facility Types can be combined with which other Facility Types.

Facility Type:	Treatment Plant	Collection: Interceptor Sewers	Collection: Combined Sewers	Collection: Separate Sewers	Biosolids Handling	Recycled Water Distribution	Individual On-site System Area	Decentralized Treatment System	Treatment Lagoon or Pond	Storage Facility	Collection: Pump Stations	Phase I MS4	Phase II MS4	Non-traditional MS4	Unregulated Community	Agriculture - Cropland	Agriculture - Animals	Silviculture	Marinas	Resource Extraction	Brownfields	Storage Tanks	Sanitary Landfills	Ground Water Unknown Source	Hydromodification	Confined Animals(Point Source)	Mining (Point Source)	Estuary Management	TMDL Plan Development	Watershed Management Plan Development	Stormwater Project Plan Development
Treatment Plant	*	*	*	*	*	*	*	*	*	*	*																				
Collection: Interceptor Sewers	*	*			*	*	*	*	*	*	*																				
Collection: Combined Sewers	*		*	*	*	*	*	*	*	*	*																				
Collection: Separate Sewers	*		*	*	*	*	*	*	*	*	*																				
Biosolids Handling	*	*	*	*	*	*	*	*	*	*	*																				
Recycled Water Distribution	*	*	*	*	*	*	*	*	*	*	*																				
Onsite Wastewater Treatment System	*	*	*	*	*	*	*	*	*	*	*					*	*	*		*		*		*	*						
Clustered System	*	*	*	*	*	*	*	*	*	*	*					*	*	*		*		*		*	*						
Treatment Lagoon or Pond	*	*	*	*	*	*	*	*	*	*	*																				
Storage Facility	*	*	*	*	*	*	*	*	*	*	*																				
Collection:Pump Stations	*	*	*	*	*	*	*	*	*	*	*																				
Phase I MS4												*																			
Phase II MS4													*																		
Non-traditional MS4														*																	
Unregulated Community															*																
Agriculture - Cropland							*	*								*	*	*		*		*		*	*						
Agriculture - Animals							*	*								*	*	*		*		*		*	*						
Silviculture							*	*								*	*	*		*		*		*	*						
Marinas																			*												
Resource Extraction							*	*								*	*	*		*		*		*	*						
Brownfields																					*										
Storage Tanks							*	*								*	*	*		*		*		*	*						
Sanitary Landfills																							*								
Ground Water Unknown Source							*	*								*	*	*		*		*		*	*						

Facility Type:	Treatment Plant	Collection: Interceptor Sewers	Collection: Combined Sewers	Collection: Separate Sewers	Biosolids Handling	Recycled Water Distribution	Individual On-site System Area	Decentralized Treatment System	Treatment Lagoon or Pond	Storage Facility	Collection: Pump Stations	Phase I MS4	Phase II MS4	Non-traditional MS4	Unregulated Community	Agriculture - Cropland	Agriculture - Animals	Silviculture	Marinas	Resource Extraction	Brownfields	Storage Tanks	Sanitary Landfills	Ground Water Unknown Source	Hydromodification	Confined Animals(Point Source)	Mining (Point Source)	Estuary Management	TMDL Plan Development	Watershed Management Plan Development	Stormwater Project Plan Development
Hydromodification							*	*								*	*	*		*		*		*	*						
Confined Animals(Point Source)																										*					
Mining (Point Source)																											*				
Estuary Management																												*			
TMDL Plan Development																													*	*	*
Watershed Management Plan Development																													*	*	*
Stormwater Project Plan Development																													*	*	*