A Complex Web of Jurisdictions in New Jersey's CSO Munciplities¹

When viewed together, New Jersey's CSO characteristics are roughly comparable to Philadelphia, which has 164 outfalls and annual discharges estimated between 10.3 and 15.8 billion gallons. But unlike the Philadelphia Water Department, which provides integrated water, wastewater and stormwater services, the water infrastructure in New Jersey's CSO cities is located in 21 municipalities across eight counties (many of which are small; the group's median municipal population is 60,000). Further complicating matters, this infrastructure is owned by a complex web of jurisdictions, including:

- Six municipalities that own their **water source** operations; the remaining municipalities receive their water from United Water and three regional public water agencies
- 12 municipal water distribution departments or utilities, one investor-owned utility (United Water) and one regional water purveyor (Passaic Valley Water Commission)
- 17 municipal departments or utilities and one regional utility that handle **sewage collection**. (Note that in areas with combined sewer systems, these entities are responsible for stormwater collection as well.)
- Eight wastewater treatment utilities, seven of which serve more than one municipality.

In addition, six cities contract with an outside entity to conduct operations and maintenance (O&M) for their water distribution and/or sewage collection systems. However, there is some overlap: Eight municipalities manage both water distribution and sewer collection under one department or utility. And three small wastewater utilities own both the collection system and the wastewater treatment system.

Service Areas of Wastewater Treatment Plants				
	Number of	Number of		
	Member	Other		
	Municipalities	Member		
	with CSOs ⁱ	Municipalities		
Passaic Valley Sewerage Commissioners	8	41		
North Hudson Sewer Authority	4	0		
Bergen County Utility Authority	3	44		
Camden County Municipal Utility Authority	2	38		
Joint Meeting of Essex & Union Counties	1	14		
North Bergen Municipal Utility Authority	2	1		
Middlesex County Utility Authority	1	34		
Trenton Sewer Utility	1	0		

Five of the regional wastewater treatment systems serving New Jersey's CSO cities have large service areas that include many more municipalities with separate sewer systems. Regional coordination is possible. The Camden County Municipal Utility Authority will prepare the Long Term Control Plan for Camden City and Gloucester.

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¹ Ripple Effects, New Jersey Future, 2014, page 4.

Water Infrastructure Ownership and Capacity in CSO Municipalities²

Water infrastructure systems in New Jersey are often not in common management within a single municipality. This is certainly true in the CSO municipalities. Municipalities are generally responsible for municipal separate storm sewer systems (MS4s) where they exist. Many of the CSO municipalities have at least some areas of MS4s, while other parts of the municipality are served by combined sewers (see **Table 3-12**).

Public community water supply (PCWS) systems may be owned by the municipality, a municipal utility authority, a regional agency or an investor-owned company such as NJ American Water or United Water New Jersey. Where either a municipality or municipal utilities authority owns the PCWS system, they may in turn contract out operations and maintenance of the system to a private firm. The distribution system may be owned by a different entity than the water supply source or water treatment plant. The source of the water may be controlled by the local PCWS system (e.g., Newark, Jersey City, Camden), or it may be in turn provided by a separate entity by contract. Regarding CSO municipalities, the two major sources of bulk water by contract are North Jersey District Water Supply Commission (NJDWSC; treated water) and New Jersey Water Supply Authority (NJWSA; untreated water), both of which were established by special State legislation and cannot by law operate distribution systems.

Public sewerage utilities have a fairly similar ownership and management pattern, with the major exception that no CSO municipality has sewer collection or treatment system that is <u>owned</u> by an investor-owned company. However, contracts for services do exist in the provision of public sewerage services. Sewage collection systems are often owned by a municipality or municipal utility authority, but in turn only Trenton directly owns and operates a sewage treatment facility; the others contribute flows to a regional facility owned by another agency³.

Table 3-2 lists the CSO municipalities and the relevant owners/operators of PCWS and public sewerage systems, including the primary water source and the ultimate sewage treatment utility.

Municipality	PCWS Supply	Primary Water	Sewer Collection	Sewage Treatment
		Source	System	Utility
Bayonne City	Bayonne MUA:	North Jersey District	Bayonne MUA	Passaic Valley Sewerage
	O&M by United Water-	Water Supply		Commissioners (PVSC)
	Jersey City	Commission (NJDWSC)		
Camden City*	Camden (City): O&M by	Ground Water	Camden (City): O&M by	Camden County MUA
	United Water		United Water	(CCMUA)
East Newark	East Newark Water	NJDWSC	East Newark Water	PVSC
Boro	Department		Department	
Elizabeth City	Elizabeth:	NJ Water Supply	Elizabeth: O&M by	Joint Meeting of Essex &
	O&M by Liberty Water	Authority-Raritan	Elizabethtown Services	Union Counties
	(American Water)	System (via NJ	LLC (American Water)	
		American Water);		
		NJDWSC (via Newark)		
Fort Lee	United Water-NJ	United Water	Fort Lee	Bergen County Utilities
Borough		(Hackensack System)		Authority (BCUA)
Gloucester City*	Gloucester City	Ground Water	Gloucester City	CCMUA
Guttenberg	United Water-NJ	United Water	Guttenberg	NBMUA – Woodcliff
Town		(Hackensack System)		WWTP

² Water Infrastructure in New Jersey's CSO Cities: Elevating the Importance of Upgrading New Jersey's Urban Water Systems, New Jersey Future, 2014, p. 59.

Note that in CSO communities the entity responsible for the sewer collection system is by definition also responsible for stormwater collection.

Municipality	PCWS Supply	Primary Water Source	Sewer Collection System	Sewage Treatment Utility
Hackensack City	United Water-NJ	United Water (Hackensack System)	Hackensack	BCUA
Harrison Town	Harrison Water & Sewer Department	Passaic Valley Water Commission (PVWC)	Harrison Water & Sewer Department	PVSC
Hoboken City	Hoboken: O&M by United Water-Jersey City	Jersey City (Reservoirs)	North Hudson SA (NHSA): O&M by CH2M HILL	NHSA – Adams Street WWTP
Jersey City	Jersey City MUA: O&M by United Water-Jersey City	Jersey City (Reservoirs)	Jersey City MUA	PVSC
Kearny Town	Kearny Water Department	NJDWSC	Kearny, and Kearny MUA	PVSC
Newark City	Newark Water and Sewer Department	Newark (Pequannock Reservoirs); NJDWSC	Newark Water and Sewer Department	PVSC
North Bergen Twp	United Water-NJ (Hackensack)	United Water (Hackensack System)	North Bergen MUA	NBMUA – Woodcliff WWTP; PVSC
Paterson City	PVWC	PVWC	Paterson	PVSC
Perth Amboy City	Perth Amboy: O&M by Middlesex Water Company ⁴	Ground Water (Runyon Well Field)	Perth Amboy: O&M by Middlesex Water Company	Middlesex County Utilities Authority
Ridgefield Park Village	United Water-NJ	United Water (Hackensack System)	Ridgefield Park	BCUA
Trenton City*	Trenton Water Department	Delaware River (Trenton Intake)	Trenton Sewer Utility	Trenton Sewer Utility
Union City	United Water-NJ	United Water (Hackensack System)	NHSA	NHSA – Adams Street WWTP
Weehawken	United Water-NJ	United Water (Hackensack System)	NHSA	NHSA – Adams Street WWTP
West New York	United Water-NJ	United Water (Hackensack System)	NHSA	NHSA –West NY WWTP

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¹ This list includes member municipalities that send combined sewer and stormwater flows to the plant for treatment. (It does not include member municipalities that only send sewage from separate sewer systems for treatment, even if they also have combined sewer and stormwater flows that are treated elsewhere.)

 $^{^{\}rm 4}$ Doing business as Utility Service Affiliates (Perth Amboy), Inc.