

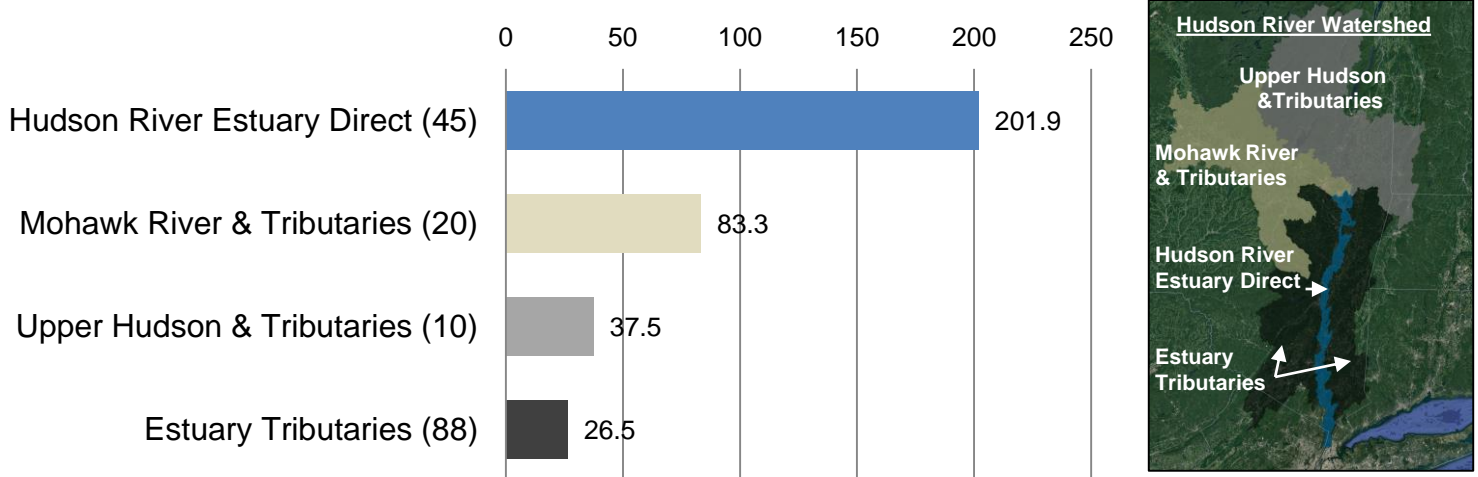
Municipal Wastewater Infrastructure in the Hudson River Watershed

The Hudson River is an engine of life, the source of drinking water for more than 100,000 people, and home to the longest open water swim event in the world. It is the backbone of the region's \$5.3 billion tourism economy.

When it reaches New York City, as much as 5-10% of its freshwater inputs have passed through municipally owned wastewater treatment plants. Effective and consistent treatment is therefore vitally important to the river, its wildlife and users, and the ecological services it provides.

As of 2018, communities in the Hudson River Watershed (outside of New York City) had identified \$1.4 billion in investments needed to maintain and improve wastewater treatment plants, pipes, pump stations and other infrastructure. Summarizing the distribution of municipally owned wastewater treatment plants, together with their discharge volume may assist prioritizing infrastructure investments, though additional factors are also important to consider.

Volume of Municipal Discharge (MGD)



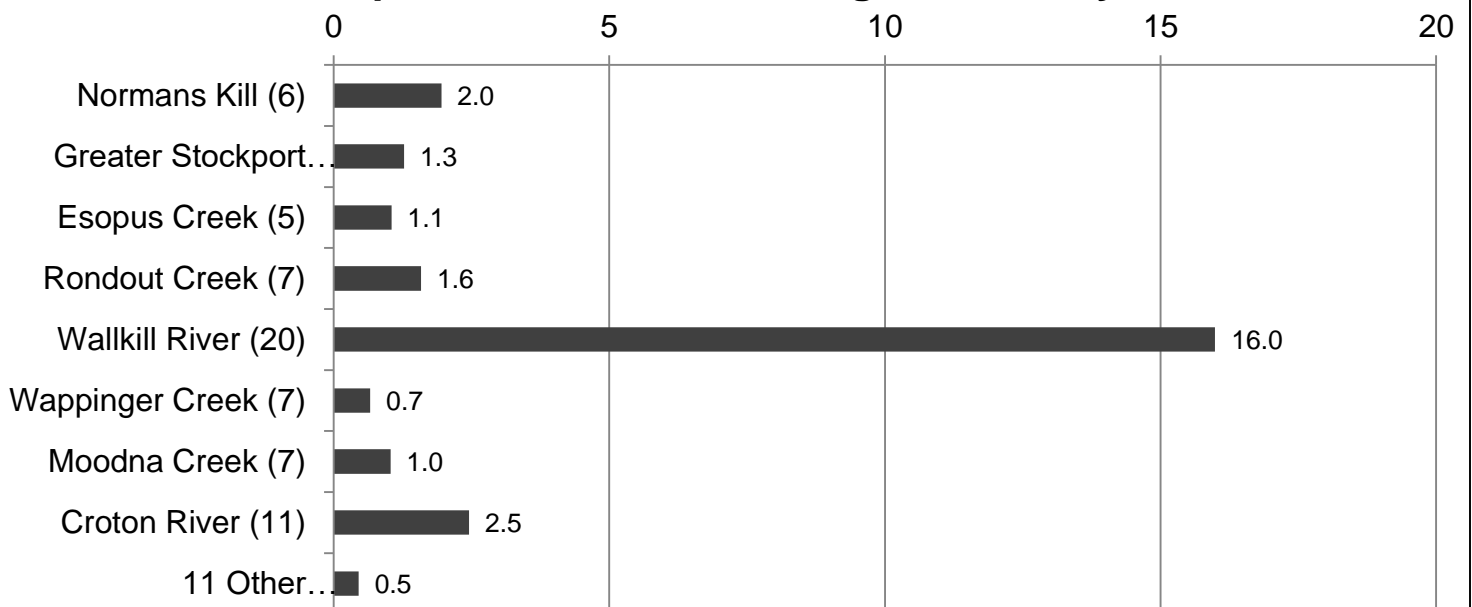
The number of facilities discharging to each basin is listed in parentheses. Municipally owned wastewater treatment plants discharge, on average, 349 million gallons per day (MGD). Most (58%) discharges are directly to the estuary (including the tidal portion of its tributaries), followed by discharges to the Mohawk River and its tributaries (24%), the Upper Hudson and its tributaries (10%) and Estuary tributaries (8%). However, most of the 163 municipal treatment plants are found in Estuary tributaries (54%), followed by the Estuary (28%), Mohawk (12%) and Upper Hudson (6%).

16 communities in the Hudson River Watershed rely on combined sewer systems that overflow into the Hudson or its tributaries at more than **210** combined sewer overflows (CSOs).

1,500 miles of sewer pipe are in the Hudson River Estuary and Estuary Tributaries, more than half of which are **60 years old** or greater.

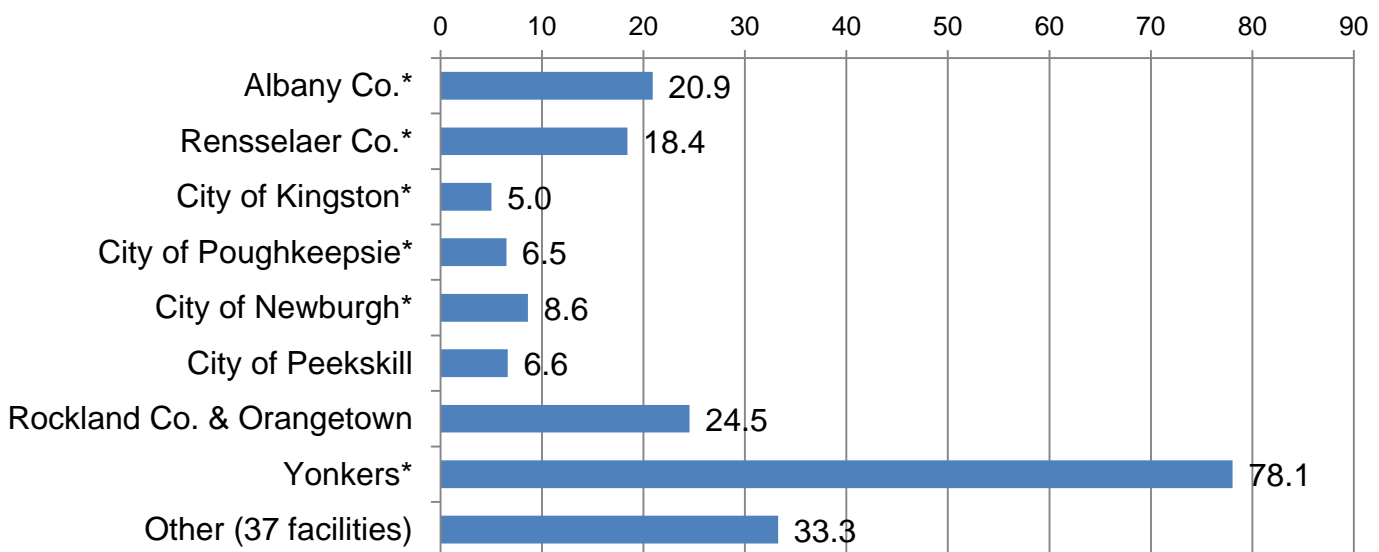
10% of wastewater treatment plants that discharge directly to the Hudson River are at or above **75%** capacity, and roughly **1 in 4** is at risk of inundation from sea-level rise, storm surge or both.

Municipal Wastewater Discharge to Estuary Tributaries



The number of facilities discharging to each tributary watershed is listed in parentheses. Wastewater discharges to the Rondout/Walkkill watershed, the largest Estuary tributary, account for two-thirds (66%) of discharges to Estuary tributaries, and 5% of Hudson River Watershed discharges overall. The Walkkill River is tributary to the Rondout Creek, but they are listed separately here. The City of Kingston, which discharges 5 MGD to the tidal portion of the Rondout Creek, is included in the Estuary direct category, not here.

Municipal Wastewater Discharge Direct to Hudson River Estuary (MGD)



Plants serving combined sewer systems (whole or in part) are marked with an asterisk. Rockland County SD No. 1 (16.5 MGD) and Orangetown SD No. 1 (8.0 MGD) discharge at the same point, and are combined in this chart. At 78.1 MGD, the Yonkers treatment plant, which serves 506,000 people in 22 Westchester County municipalities, accounts for 39% of all municipal discharges direct to the Hudson River Estuary, and 22% of all discharges to the Hudson River Watershed overall.