

## \$800M sought for upgrades to Passaic Valley wastewater plant

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The state's largest sewage treatment facility has asked for nearly \$800 million in federal grants to pay for upgrades after the plant was crippled by Superstorm Sandy and millions of gallons of raw sewage spilled into the Passaic River.

To protect the facility from future storms, the Passaic Valley Sewerage Commission wants to move crucial equipment to higher ground and build a flood wall around the perimeter of its 140-acre campus in Newark. The commission also wants to install its own power generation plant so it doesn't have to rely on Public Service Electric & Gas Co.

The request by the fifth-largest sewage treatment facility in the nation comes as agencies throughout the state are weighing their options for making similar facilities more resistant to storm-related damage.

Sewage treatment facilities are vulnerable to storm-related flooding because they are often located in low-lying wetlands to take advantage of gravity that helps maintain flow through sewer lines. They also need to discharge their treated effluent into a river or bay.

The Passaic Valley Sewerage Commission handles wastewater treatment for nearly 1.5 million residents in towns along the river in Bergen and Passaic counties as well as the city of Newark — about 25 percent of all of the state's sewage.

The plant was originally constructed along Newark Bay back in 1924 — long before there was concern or discussion about climate change, sea level rise and storm surges. The most recent improvements to the facility took place in the late 1970s.

When Sandy struck last October, it pushed a five-foot surge of water across the treatment facility's low-lying campus at the edge of Newark Bay. The saltwater flooded a network of tunnels and equipment and knocked out power and backup emergency generators.

Raw sewage backed up in the lines, and for several days 840 million gallons flowed untreated into the Passaic River. Over the next three weeks, as the facility was brought back into service, an estimated 4.4 billion gallons of partially treated sewage entered New York Harbor.

Among the projects the agency is proposing is a \$65 million onsite power generating facility to provide power and steam generation, eliminating the need to rely on PSE&G. During Sandy, the Newark plant lost all power for nearly three days; it was not able to operate or pump floodwaters out of the facility.

If it can't build its own power plant, Passaic Valley has asked for \$45 million to buy backup generators to operate strategic pieces of equipment should the facility lose power from PSE&G.

The agency also wants to build a flood wall around the perimeter of the treatment facility, with flood gates at the facility entrances. That project is estimated to cost \$83 million.

The most expensive project would be the construction of a \$526 million biosolids treatment facility at higher elevation than its current facility.

Biosolids are the byproduct of treating sewage — the semisolid or solid sludge that gets removed from the liquid during the treatment process. The facility would have equipment to remove remaining water from the solids, as well as driers to produce an end product that could be reused for fertilizer.

The request for large grants for upgrades is necessary because Passaic Valley has not been charging its customers more in anticipation of major capital projects.

The user fees that Passaic Valley charges its 48 municipalities generate about 80 percent of the revenue needed to cover the sewage agency's annual \$160 million operating budget. The operating budget has only minor allocations — about \$1.2 million — for construction projects, principally maintenance work on the existing equipment, officials said.

In January, the commission received nearly \$15 million in Sandy grant money from the Federal Emergency Management Agency to cover the cost of interim repairs as well as the cost of shipping untreated sludge to other facilities while Passaic Valley's system was down.

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