



Information Presentation

Commission Meeting: September 4, 2014

PROJECT DC Water Seawall Improvement Project	NCPC FILE NUMBER 7592
5000 Overlook Avenue, SW Washington, DC 20032	NCPC MAP FILE NUMBER 84.40(03.40)43980
SUBMITTED BY District of Columbia Water and Sewer Authority	REVIEW AUTHORITY .
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As part of its ongoing efforts to improve water quality in the region, DC Water is investing over \$1 billion for new enhanced nitrogen removal facilities (ENRF) at Blue Plains. Most of the proposed infrastructure will be underground and below sea level. The site chosen for the new ENRF will be vulnerable to rising river levels in the future due to climate change (Attachment 1).

To protect this significant capital investment from rising water elevations, DC Water plans to build a 17.2 feet high sea wall (see Attachment 2). The sea wall height was designed to protect Blue Plains from a 500-year flood event. The 500-year flood event was used as a proxy for higher river elevations with storm surge inundation due to climate change.

Background

DC Water conducted an initial assessment of the potential impacts of climate change on its critical facilities. Blue Plains Wastewater Treatment Plant (Blue Plains) is a category III critical facility (as defined by ASCE 7-05) that currently lies within the 100-year floodplain and protected by a sea wall. Future rise in river elevations due to climate change can potentially increase Blue Plains' exposure to flood risks. Flood inundation could result in violations of the Clean Water Act National Pollutant Discharge Elimination System (NPDES) permit as well as threaten public and environmental health.

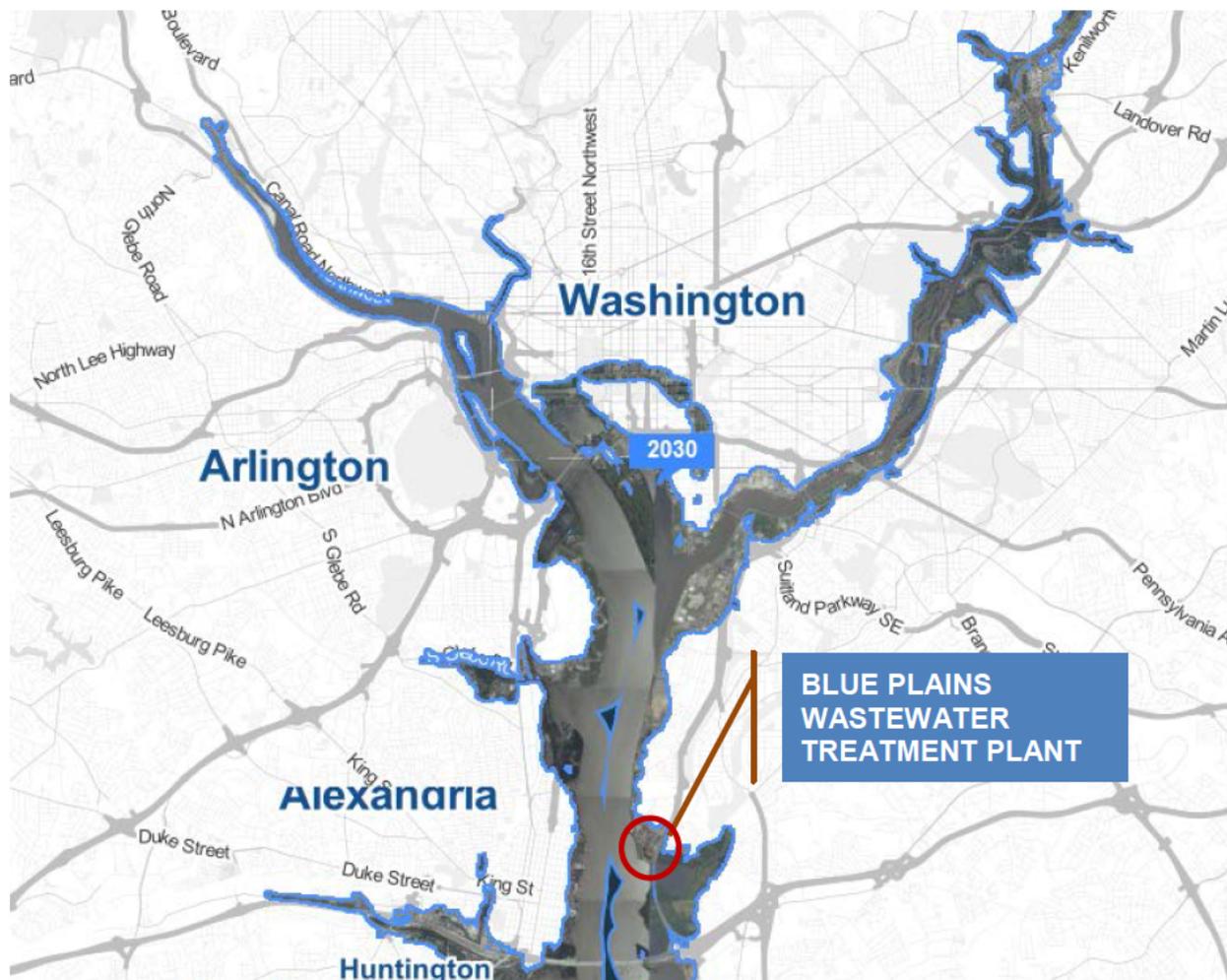
Attachment 2 provides an overview of the site and location of the existing and future seawall. The purple line at the southernmost location indicates the portion of the seawall that was constructed in 2011. The existing seawall is constructed with steel sheet piles and has an elevation of 16.9 FT (NAVD-88). Sections A, B, C and D (indicated by the red, blue, yellow, and tan lines) have not been constructed. Section D of the wall is inland, along the western boundary of Blue Plains and abutting the Naval Research Laboratory. Procurement of a design engineer will begin in late 2014. Construction is scheduled to begin in 2017 and finish in 2019.

ATTACHED:

Attachment 1: Location of Blue Plains Water Treatment Plant

Attachment 2: Blue Plains Water Treatment Plant Sea Wall Site Plan

Attachment 1: Location of Blue Plains Water Treatment Plant



Blue Plains Wastewater Treatment Plant is vulnerable to the impacts of storm surge and rising river levels due to climate change. This map is an analysis conducted by Climate Central showing parts of Washington, DC that will be inundated from a 10-foot rise in the Potomac River elevations (grey area) in the year 2030. This map is for illustrative purposes only.

