

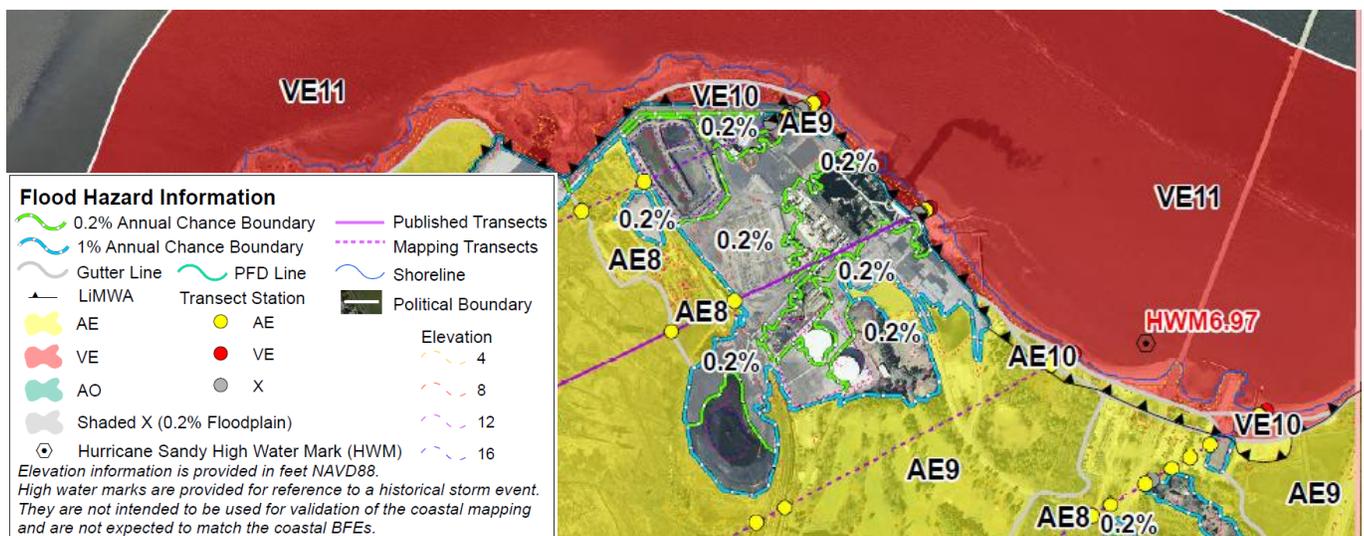


Concerns Regarding the Resiliency Argument for BL England Plant Repowering

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A point of argument made by South Jersey Gas in support of the construction of a pipeline through the Pinelands Forest Management Area to facilitate the full-time operation of the BL England power plant cites the need to ensure post-Sandy regional energy reliability. The draft Memorandum of Agreement between the Board of Public Utilities and the Pinelands Commission, in reference to the "Need for the BLE Plant," states that the re-powering of the plant will "ensure a reliable supply of energy" to the region. Given that the location of the BL England plant is just 3-11 feet above sea level on the coastline of Beesleys Point, the reliability of this facility should be questioned, especially when considering the anticipated impacts of future coastal storms.

FEMA has made available a Coastal Analysis and Mapping tool¹ which allows one to evaluate flood hazards for coastal areas of New Jersey. Below is the map of flood hazard risk for the BL England plant as generated by this tool.



Red areas labeled VE are designated "Coastal High Hazard Areas," which "represent the area subject to inundation by 1-percent-annual chance flood."² This might not sound very threatening, but structures located within this zone "have a 26-percent chance of flooding during the life of a standard 30-year mortgage." Yellow areas labeled AE are "Special Flood Hazard Areas." Structures in these zones also have a 26-percent chance of flooding during the life of a 30-year mortgage. The parts of the map outlined in green and labeled as 0.2% are zones of "Moderate Risk" within the 0.2-percent-annual-chance floodplain. FEMA states that "buildings in these zones could be flooded by severe, concentrated rainfall coupled with inadequate local drainage systems" and that "nearly 25-percent of all flood claims filed are for structures located within these zones."

It is important to note that the above map does not take into account anticipated sea level rise, which will increase the impact of coastal flooding during storms. The National Oceanic and Atmospheric Administration (NOAA), in partnership with FEMA, the US Army Corps of Engineers,

the US Global Change Research Program, and the White House Council on Environmental Quality, has produced a Sea Level Rise Planning Tool that integrates FEMA's flood hazard area maps with four scenarios of projected sea level rise.³ The map below shows the flood risk scenario by the year 2050 for the BL England plant (circled in red).



Areas in yellow are flood risk areas based on FEMA flood hazard maps plus the *most conservative* estimate of sea level rise (0.3 feet by 2050). The entire BL England plant is within this flood zone. As stated by the developers of this map, this tool supports "scenario planning that may help decision makers prepare for and adapt to uncertainties surrounding the future risks posed by sea level rise" and helps "make transparent the level of risk accepted under different scientific assumptions underlying the expected rate of sea level rise in the 21st century."⁴

Given the inherent vulnerabilities associated with the plant's location, is it really a defensible argument to say that re-powering the BL England plant will ensure regional energy reliability?

Sources

¹<http://www.region2coastal.com/sandy/table>

²<https://msc.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=10001&langId=-1&content=floodZones&title=FEMA%2520Flood%2520Zone%2520Designations>

³<http://geoplatform.maps.arcgis.com/home/webmap/viewer.html?webmap=2960f1e066544582ae0f0d988ccb3d27>

⁴<http://geoplatform.maps.arcgis.com/home/item.html?id=2960f1e066544582ae0f0d988ccb3d27>