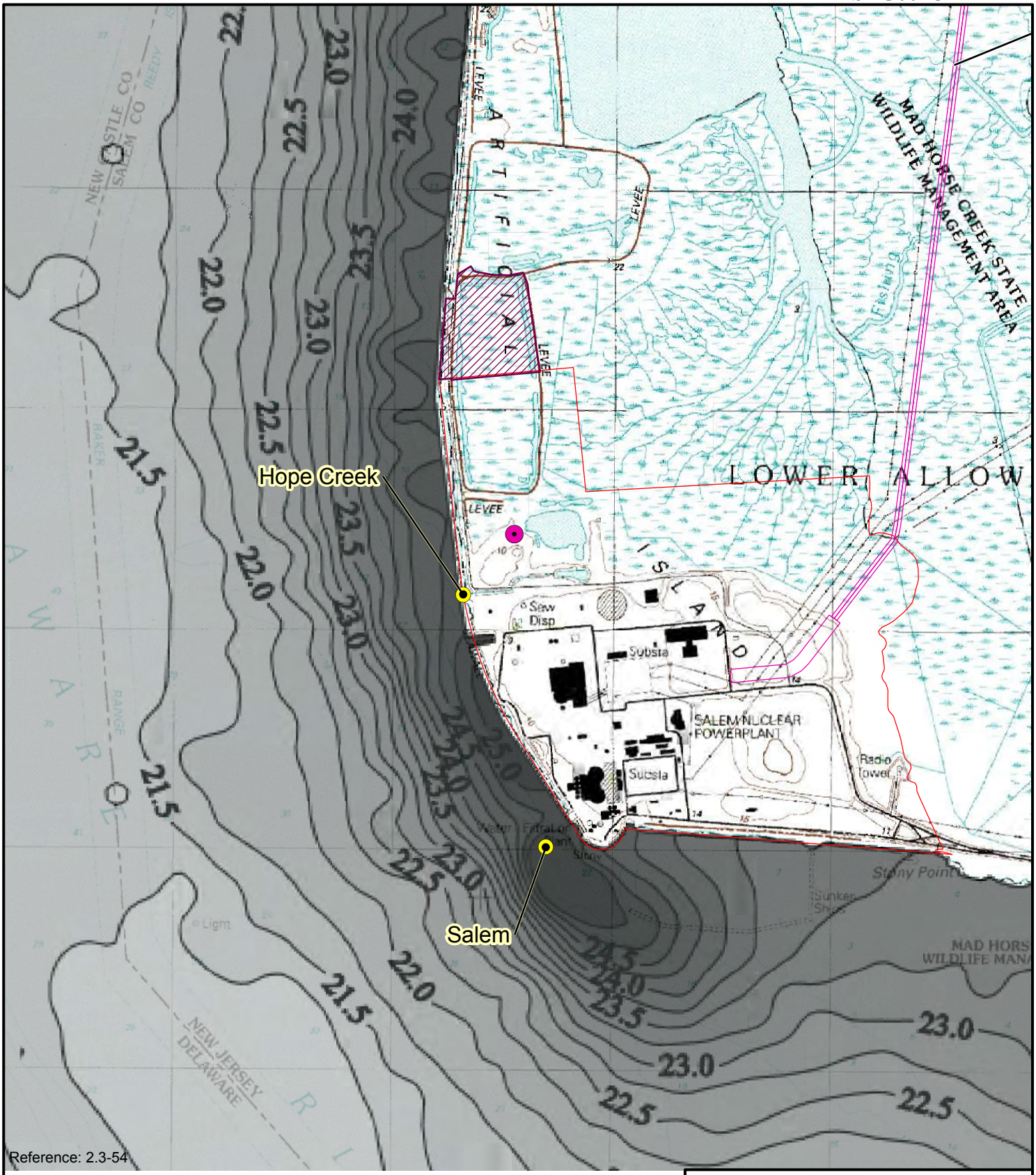


## Legend

- Site Location
- Plant Discharge
- Surface Temperature (deg C) Contour
- Site Boundary
- Adjacent Off-site Area
- Causeway

N
W E
S

0 250 500
Meters

0 1,000 2,000
Feet

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Contours of Modeled Surface Temperatures for Slack Phase (End of Flood Tide) on May 29,1998

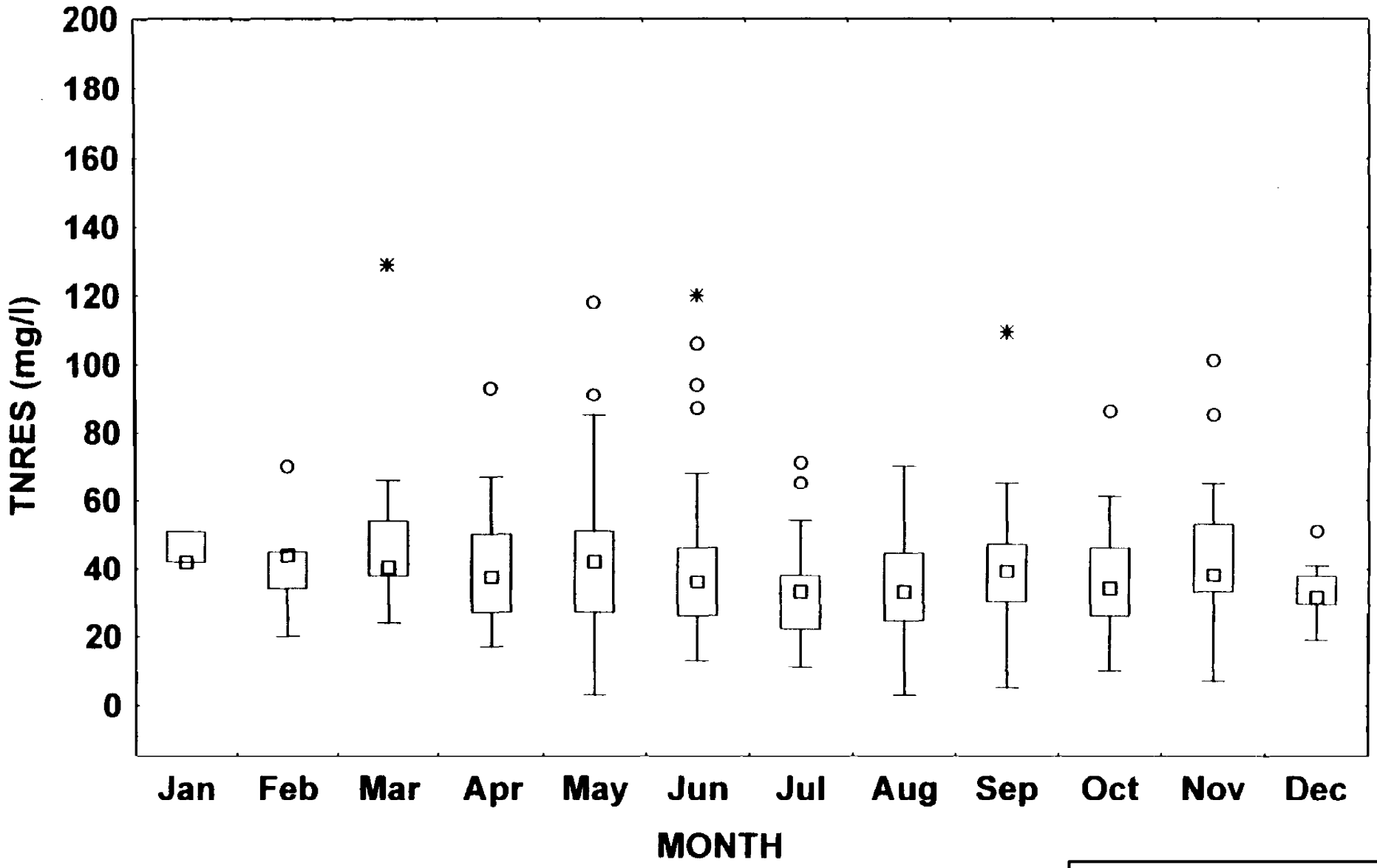
FIGURE 2.3-13

Rev 0

United States Nuclear Regulatory Commission Official Hearing Exhibit

In the Matter of: PSEG POWER, LLC AND PSEG NUCLEAR, LLC (Early Site Permit Application)

| | | | |
|---|---|---|---|
| ASLBP #: | 15-943-01-ESP-BD01 | | |
| Docket #: | 05200043 | | |
| Exhibit #: | PSEG004U-MA-BD01 | Identified: | 03/24/2016 |
| Admitted: | 03/24/2016 | Withdrawn: | |
| Rejected: | | Stricken: | |
| Other: | | | |




**LEGEND**

- Non-Outlier Max
- Non-Outlier Min
- 75%
- 25%
- Median
- Outliers
- Extremes

Reference: 2.3-54

Note - TNRES is total non-filterable residue, equivalent to TSS

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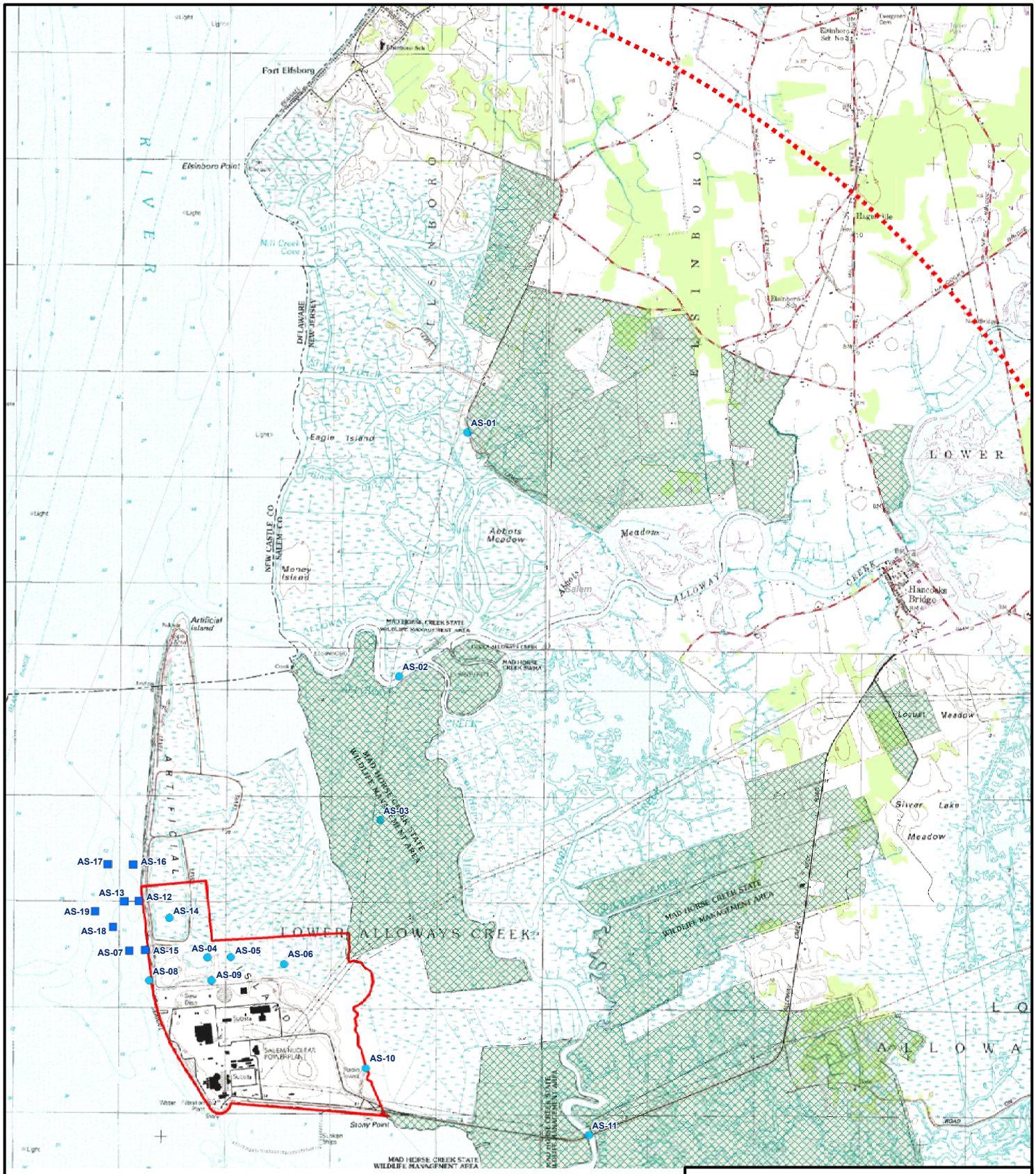
Monthly TSS Concentrations
near PSEG Site

FIGURE 2.3-14

Rev 0




**LEGEND**

- Surface Water Quality
- Sediment
- Federal/State Owned Land
- Site Boundary
- Vicinity Boundary (6-mile)

N
W E
S

0 0.5 1
Kilometers

0 0.5
Miles

Reference: 2.3-80

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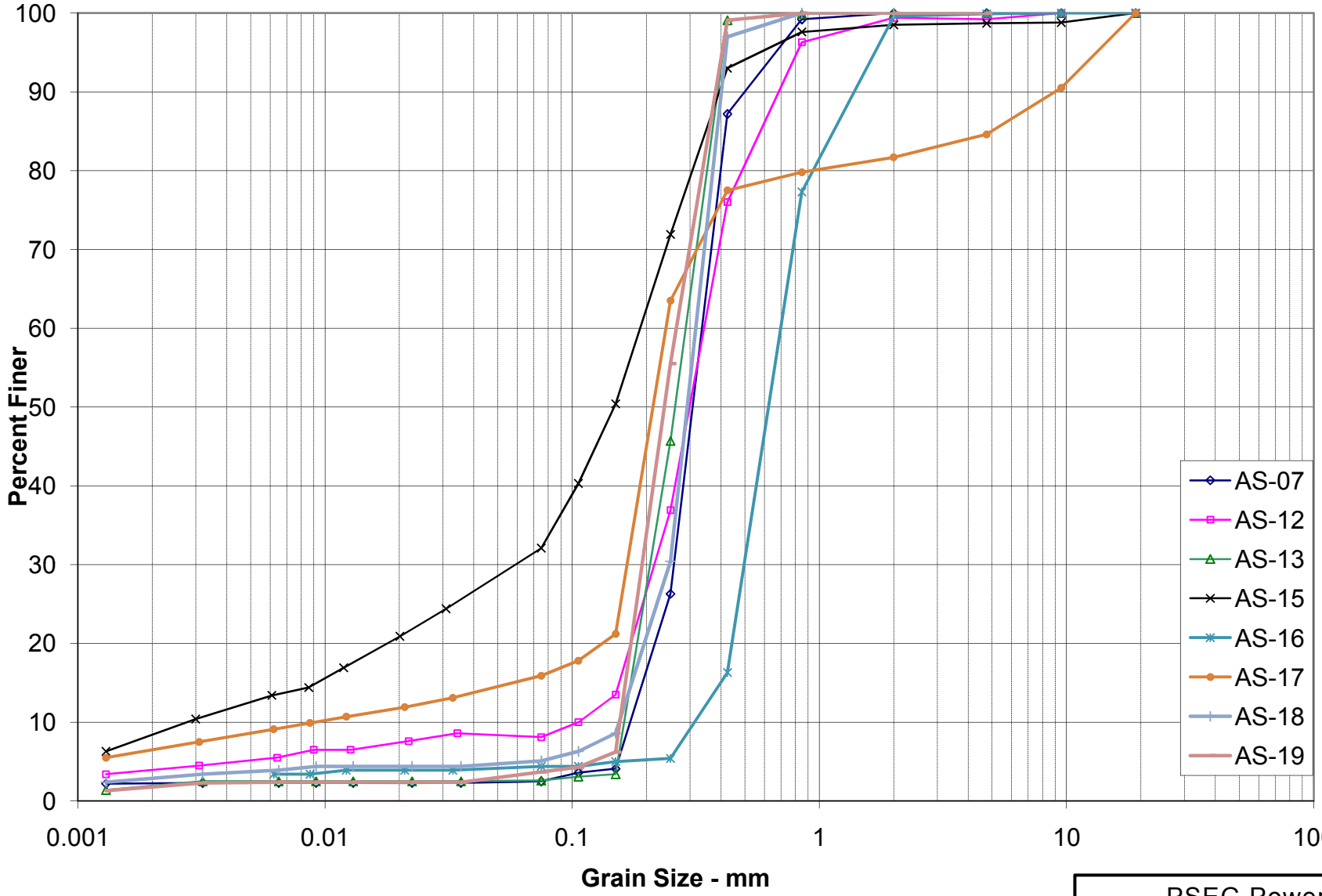
Surface Water and
Sediment Grain-Size
Sampling Locations

FIGURE 2.3-15

Rev 0

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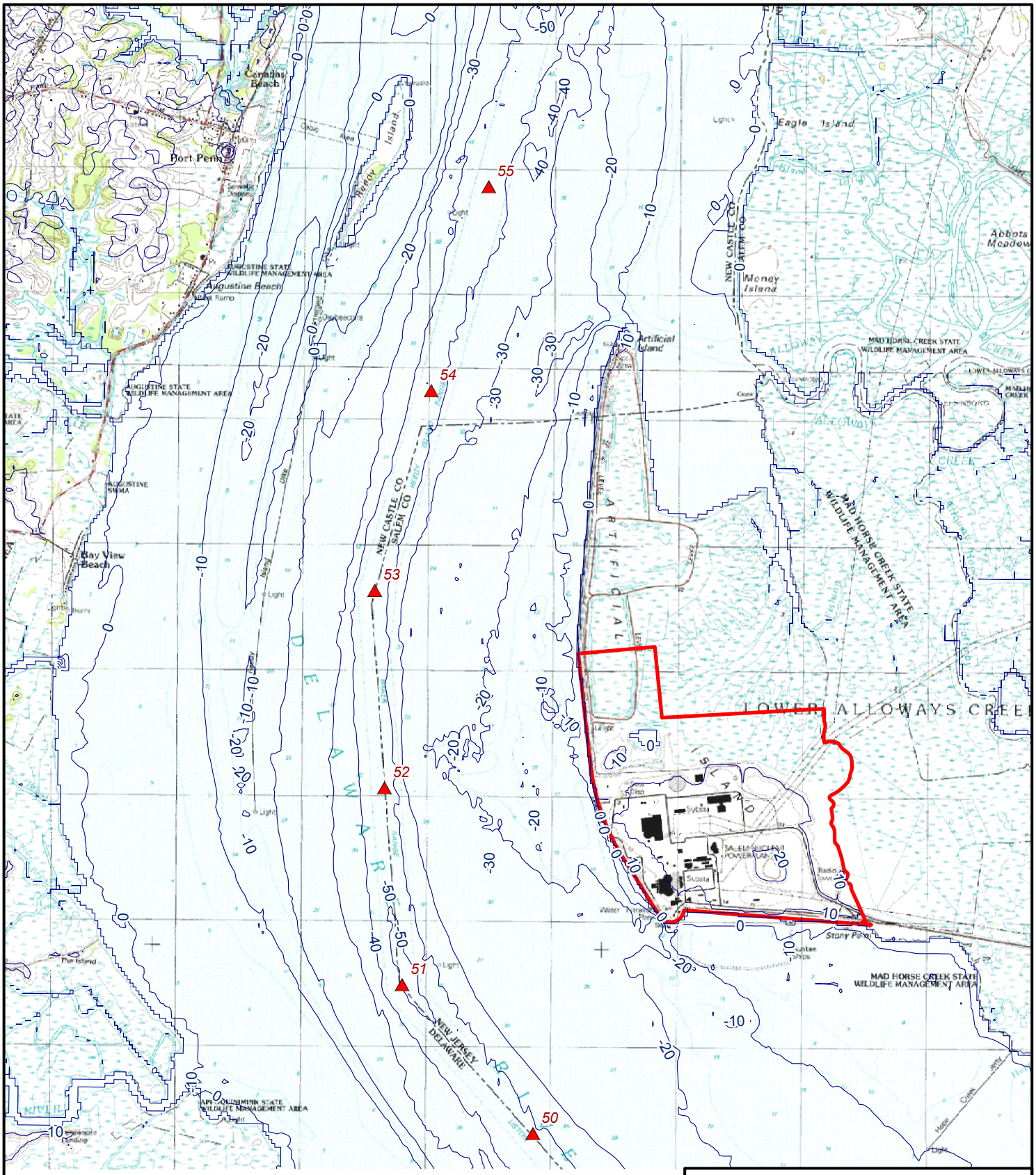
Grain Size Distribution -
Estuary Sediments (0-6 inches)

FIGURE 2.3-16

Rev 0




**LEGEND**

- Delaware River Miles
- 10 Foot Contour
- Site Boundary

N
W E
S

0 0.5 1
Kilometers

0 0.5
Miles

Reference: 2.3-80 and 2.3-98

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Delaware River Bathymetric Map - RM 51 to RM 55

FIGURE 2.3-17

Rev 0

| ERA | PERIOD | EPOCH | SITE STRATIGRAPHIC UNIT | LITHOLOGIES | HYDROGEOLOGIC PROPERTIES |
|---|---|---|---|---|---|
| CENOZOIC | QUATERNARY | HOLOCENE (RECENT) | ARTIFICIAL & HYDRAULIC FILL | *AF* - clays, silts, and sands of various proportions along with clayey and silty gravels.<br>*HF* - soft clayey silts, sandy silts, and organic clays. | Leaky confining units |
| | | ***UNCONFORMITY*** | | | |
| | | PLEISTOCENE | ALLUVIUM | Fine to coarse sand and gravel; peat and organic rich soils; silt and clay near base. | Upper portion is a water-bearing zone; lower silts and clays, when present, act as a leaky confining unit |
| | | ***UNCONFORMITY*** | | | |
| | NEOGENE | MIOCENE | KIRKWOOD FORMATION | *Upper* - greenish-gray, silty, fine sand, fine sand and greenish-gray to brown organic clay with organic material and shell fragments. | Leaky confining unit |
| | | | | *Lower* - fine to coarse sand and gravel with variable amounts of silt and clay. | Water-bearing zone, part of the Vincentown aquifer |
| | | ***UNCONFORMITY*** | | | |
| | PALEOGENE | PALEOCENE | VINCENTOWN FORMATION | Greenish-gray, fine to medium grained silty sand with some zones of clayey sand; variably glauconitic; cemented zones. | Water-bearing zone |
| | | | HORNERSTOWN FORMATION | Greenish-gray to dark green, silty and clayey quartz and glauconitic sand with indurated zones. | Upper portion is a water-bearing zone and part of the Vincentown Aquifer. Lower portion, along with the Navesink Formation act as a leaky confining unit. |
| MESOZOIC | CRETACEOUS | UPPER CRETACEOUS | NAVESINK FORMATION | Fossiliferous, dark green to greenish-black, glauconitic sand; pelecypod fragments. | Leaky confining unit |
| | | | MOUNT LAUREL FORMATION | Brownish gray to dark green, fine to coarse grained sand; variable amounts of silt and clay; coarsening upward sequence. | Water-bearing zone, with the Wenonah Formation comprise the Wenonah-Mt. Laurel Aquifer |
| | | | WENONAH FORMATION | Sandy clay with clayey sand. | Water-bearing-zone |
| | | | MARSHALLTOWN FORMATION | Glauconitic, silty and clayey fine sand. | Confining unit |
| | | | ENGLISHTOWN FORMATION | Dark gray to black, sandy clay to clayey sand with shell fragments. Grades to black silt with trace amounts of mica and glauconite. | Water-bearing zone |
| | | | WOODBURY FORMATION | Black, micaceous clay. | Confining unit |
| | | | MERCHANTVILLE FORMATION | Dark greenish-black, glauconitic silts and clays with variable amounts of sand. | Confining unit |
| | | | MAGOTHY FORMATION | Interbeds of gray to dark gray, locally mottled silts and clays that are interbedded with sands; trace amounts of lignite and carbonaceous material. | Water-bearing zone |
| | | ***UNCONFORMITY*** | | | |
| | | LOWER CRETACEOUS | POTOMAC FORMATION | Red, gray, and white mottled clay. | Confining unit |

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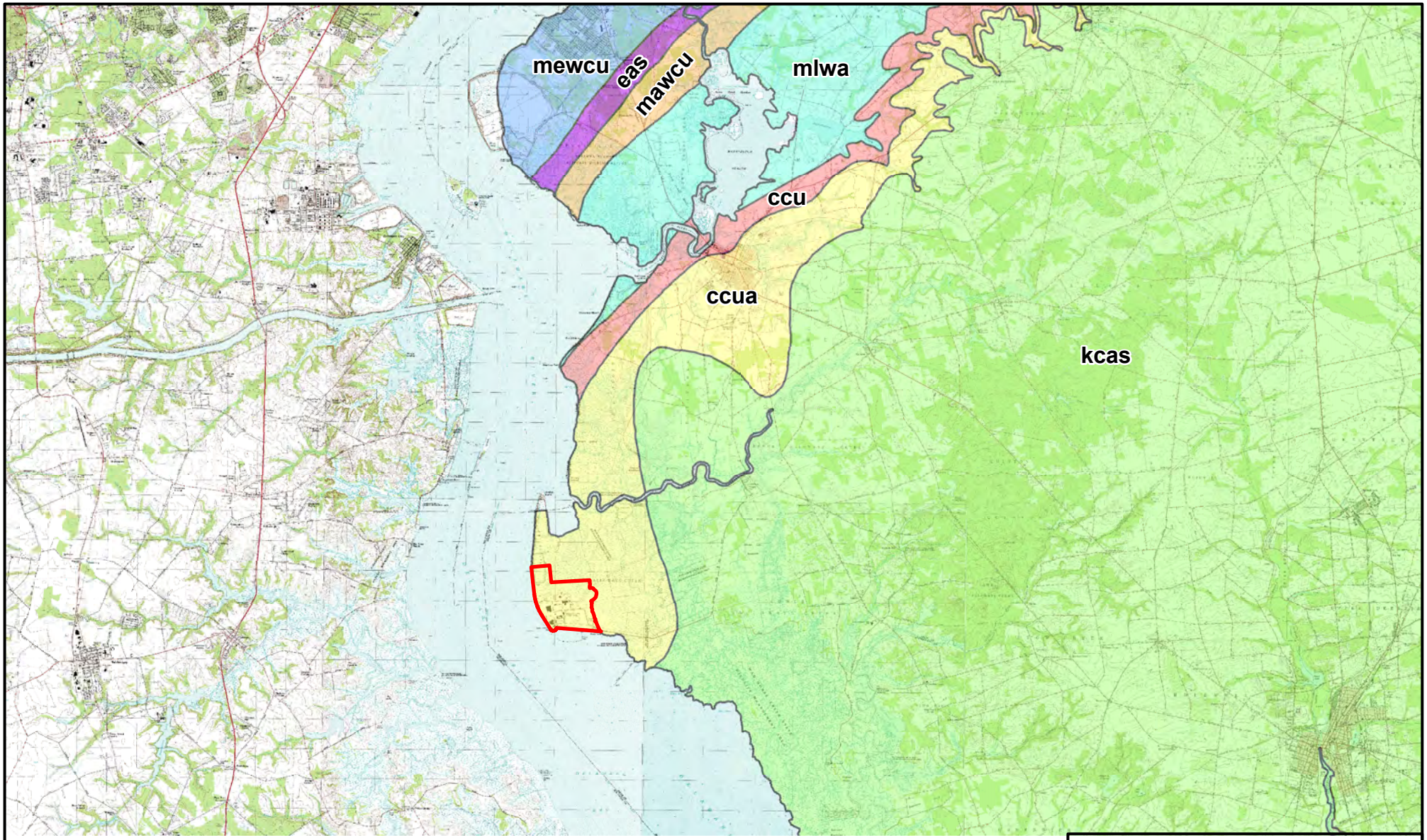
Hydrostratigraphic Classification for the PSEG Site

FIGURE 2.3-18

Rev 0




**LEGEND**

Site Boundary

Major Aquifer

- ccu-Composite confining unit
- ccua-Composite confining unit aquifer
- eas-Englishtown aquifer system
- kcas-Kirkwood-Cohansey aquifer system
- mawcu-Marshalltown-Wenonah confining unit
- mewcuMerchantville-Woodbury confining unit
- mlwa-Mt. Laurel-Wenonah aquifer

N
W E
S

0 1 2
Kilometers

0 1 2
Miles

Reference: 2.3-41

PSEG Power, LLC

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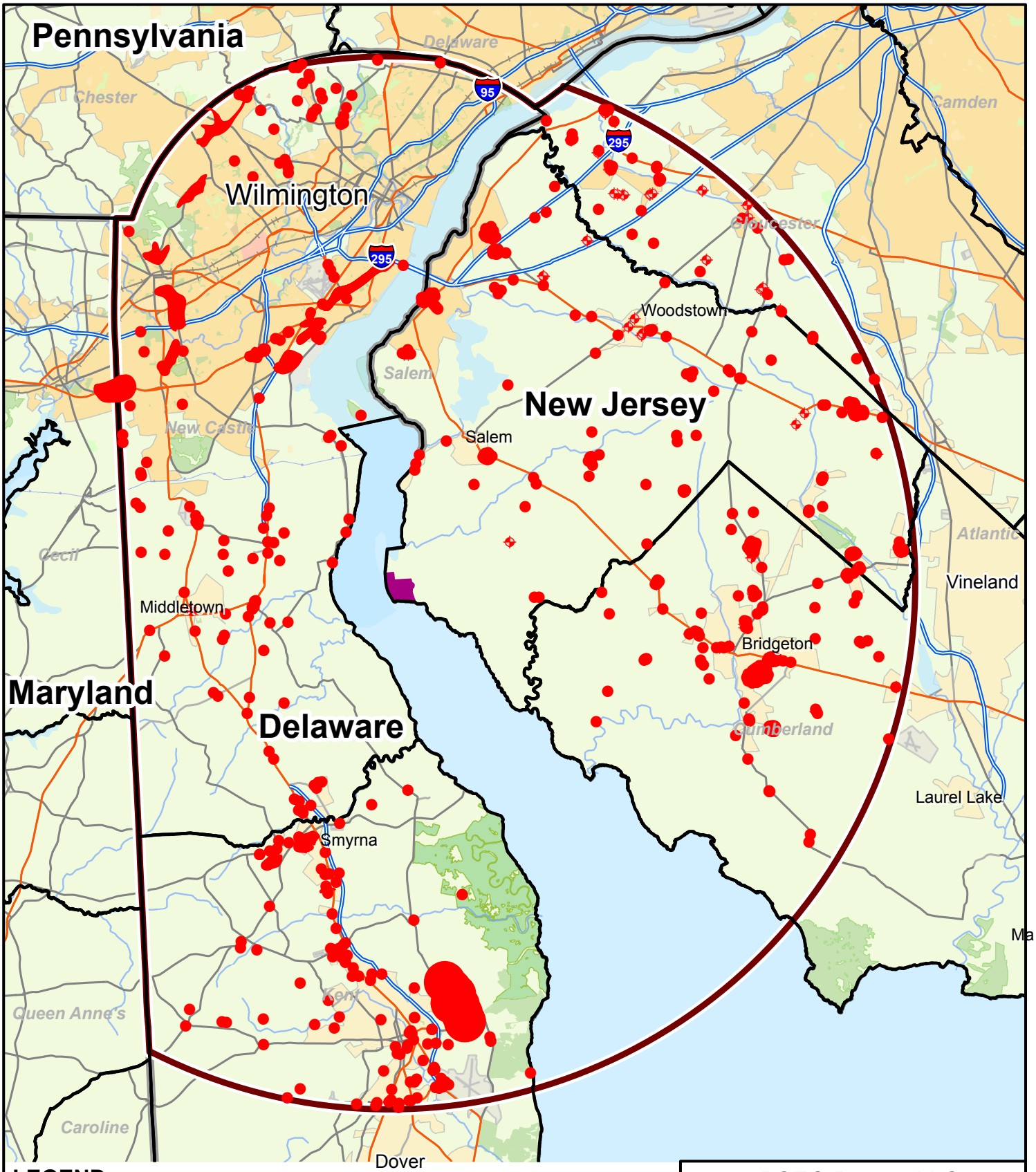
Hydrogeology,
Extent of Major Aquifers or
Aquifer Systems in NJ

FIGURE 2.3-19

Rev 0




**LEGEND**

- Public Water Supply Well
- Well Head Protection Area
- 25-mile Vicinity Boundary within New Jersey and Delaware
- Site Boundary

N
W E
S

0 5 10
Kilometers

0 5 10
Miles

PSEG Power, LLC

PSEG Site ESPA
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NJ & DE Well Head Protection Areas and NJ Public Supply Wells Within 25 Miles of the PSEG Site

FIGURE 2.3-20 Rev 0