

Electric Boat

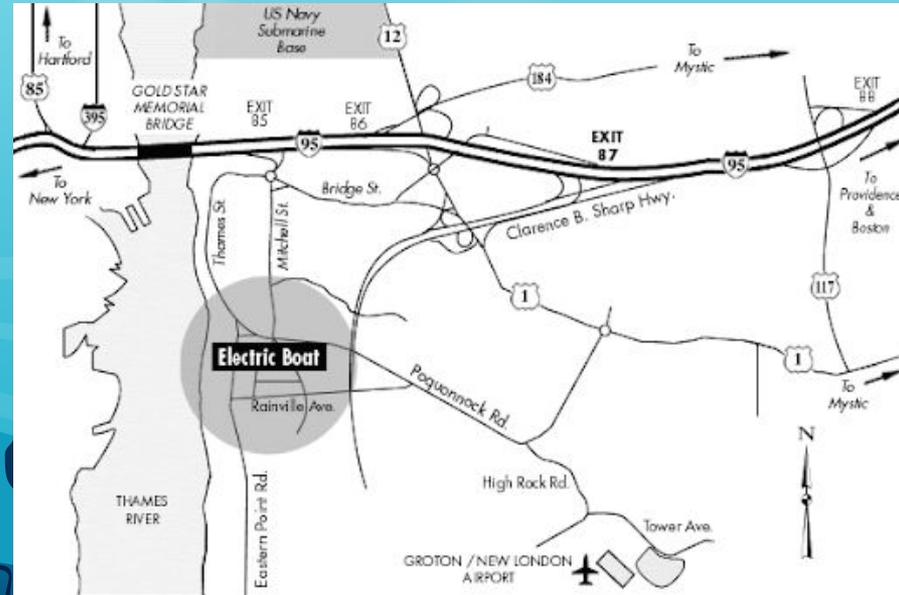
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HERE IS THE LINK TO THE DOC FOR THE REPORT

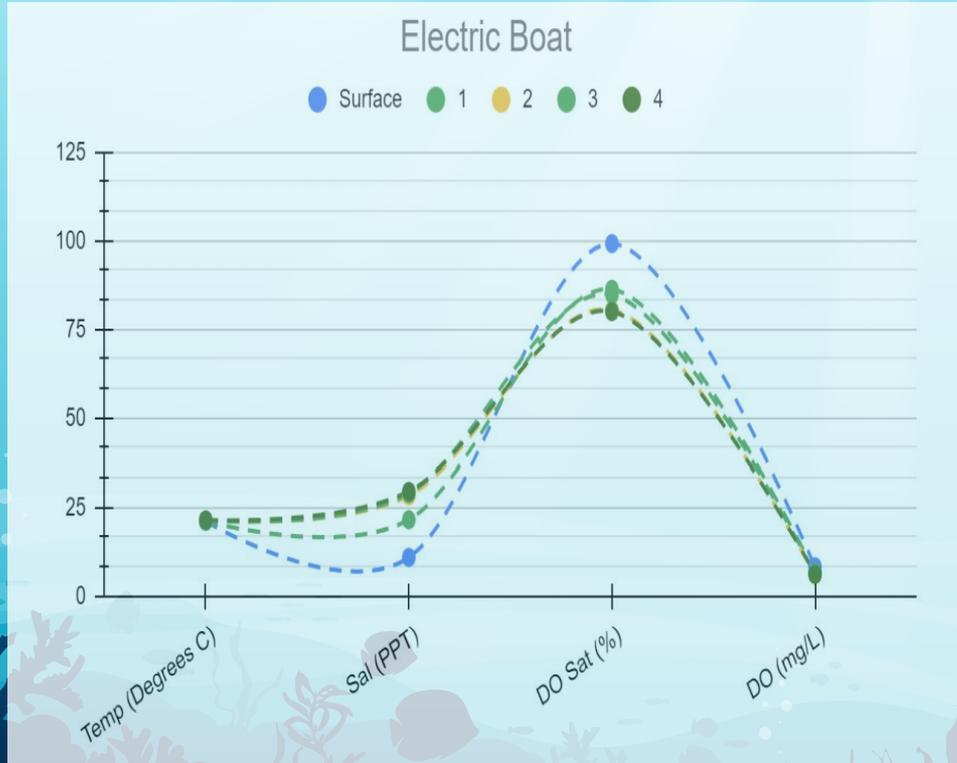
https://docs.google.com/document/d/1MMtIG_hVJcPwKHkJMIlvMJvV4IYOimEOrzGSTc6mRMc/edit?usp=sharing

Description of Site

- Company founded in 1899
- Groton location purchased in 1911
- Primary designer and builder of submarines for the United States Navy
- Submarine testing site
- Over 118 acres across the Groton side of the Thames River



Summary of Data



Depth	Temp (Degrees C)	Sal (PPT)	DO Sat (%)	DO (mg/L)
SURFACE	21.12	10.90	99.2	8.26
1	21.11	21.55	86.3	6.67
2	21.46	28.35	80.5	5.98
3	21.44	29.01	84.8	6.20
4	21.45	29.52	80.0	6.18

What environmental amenities are located near the area?

Electric Boat	Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)= 2
Eastern Point Beach	Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)= 1
Winthrop Cove	Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)= 3
Private New London Beaches	Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)= 0

Electric Boat Offers:

- Bioscience Jobs
- Promotion of tourism in area
- Visitor Parking
- Libraries
- Fire Department
- Family Pharmacy for employees
- Residency for employees
- Optical Shop
- Guaranteed Ride Home Program for employees
- At least 19 parking lots

What environmental hazards are located near the area?

- Use of dry docks
- Oil and gas spills
- Co2 emissions from warehouses
- Any run-off
- Use of lead paint and asbestos
 - Risk of workers or visitors developing mesothelioma, asbestos cancer, or asbestos related illnesses



What factors are driving these distributions (of amenities and hazards; of varying degrees of pollution, quality of life)?

- Need for a lot of space leaves little room for homes.
- Lower class homes located closer to EB than wealthier homes
- Less restaurants
- Older buildings
- Surrounding areas can be exposed to hazardous chemicals
- The wealthier neighborhoods are located closer to the beaches lower class homes



How do past land uses influence this?

1911: EB purchases the land in Groton for building diesel engines and other machinery parts

1934: U.S.S Cuttlefish is built, first submarine built at Groton. Beginning of submarine production in Groton.

WWII: EB produces 74 submarines. Mass production leads to environmental neglect. Materials needed included lead-acid batteries, leaded paint, and asbestos. Possibility of fuel leakage.

1954: U.S.S Nautilus, first nuclear powered submarine is built. Now EB has to deal with radioactive elements

1975: Construction of the land-level submarine facility begins

1977: Land level submarine facility becomes operational

2014: EB is awarded contracts to build two submarines per year. Still in effect today

How do present land uses influence this?

2019: contract valued at \$22.2 billion for the construction of 9 new Virginia-class submarines. The contract also includes the option of a tenth ship to be constructed within the contract time frame, bringing the total potential contract value to approximately \$24.1 billion.

- More jobs created/ in use

2020: expansion of the south yard assembly building

2021: Modifying contracts to continue expansion,
Execute tests, and fund the production of
Building



What other questions are raised by your research?

- How significant is the assembly/
building affecting the land and the
gradual breakdown of the
land/rocks
 - Affecting the salinity?
- What can be done to improve the
ecosystems nearby?



What future data should be collected to answer these question?

- Calculate the amount of biosolids produced by the Electric Boat site
- Identify specific discharge standards and requirements that apply to sources of non-domestic wastewater
- Measure the amount of non-renewable gases used to understand the rate of rocks weathering
- Gradually measure the amount of vegetation close to Electric Boat



Sources

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