

Evaluating the Vulnerability of Boston's Inner Harbor Designated Port Areas to Sea Level Rise and Coastal Storms

Advisor: Professor Seth Tuler (International Global Studies), Jennifer deWinter (HUA) **Sponsor: Jill Valdes Horwood (Boston Harbor Now)**

Exposure

• Elevation From Sea Level at High Tide

• 590,000 barrels of

natural gas

petroleum and liquid

KHB Bulkhead

Abandoned

Bulkhead

Vacant

Boston Forging

Boat Repair

and Welding

Boston Towing and

Transport

Lacks Ability to Cope

Is Exposed

Is Sensitive

• Boat Repair

Location in Predicted Flood Zone

Area

Prolerized New

Wharf

Warf

Fuel

natural gas

Eastern Salt

Salt & Fuel

and coal

170,000 tons of salt

nitrogen

Cargo

England Co. Everett

Distrigas of Massachusetts

Everett Marine LNG Termina

• 974,000 barrels of liquid

25,000 gallons of liquid

Shore Length



The Problem

Boston's Designated Port Area's vulnerability to sea level rise (SLR) and coastal storms has not been evaluated.



Flooding in East Boston DPA August 2, 2017

Finding-Based Problems and Recommendations

- Lack of Transparency- Centralized regulations and review of emergency plans for flooding within DPAs as well as the formation of a committee to oversee this
- Gap of Knowledge of Vulnerability of DPAs- More in depth evaluation should be completed. This is a very relevant problem within Boston and more time should be dedicated to this issue

"... [DPA facility] has not had a problem with flooding at this facility in the past, nor do we foresee any problems for the future... [Our] contingency plans are not public information. "

-DPA Business Representative

www.bostonharbornow.org

www.mass.gov

References

- www.boston.gov
- ss2.climatecentral.org

Jacob Bouchard (PH), Austen Crawford (CE), Caroline Warchol (CH), Kyle Whittaker (ME)

What Makes a Site Vulnerable

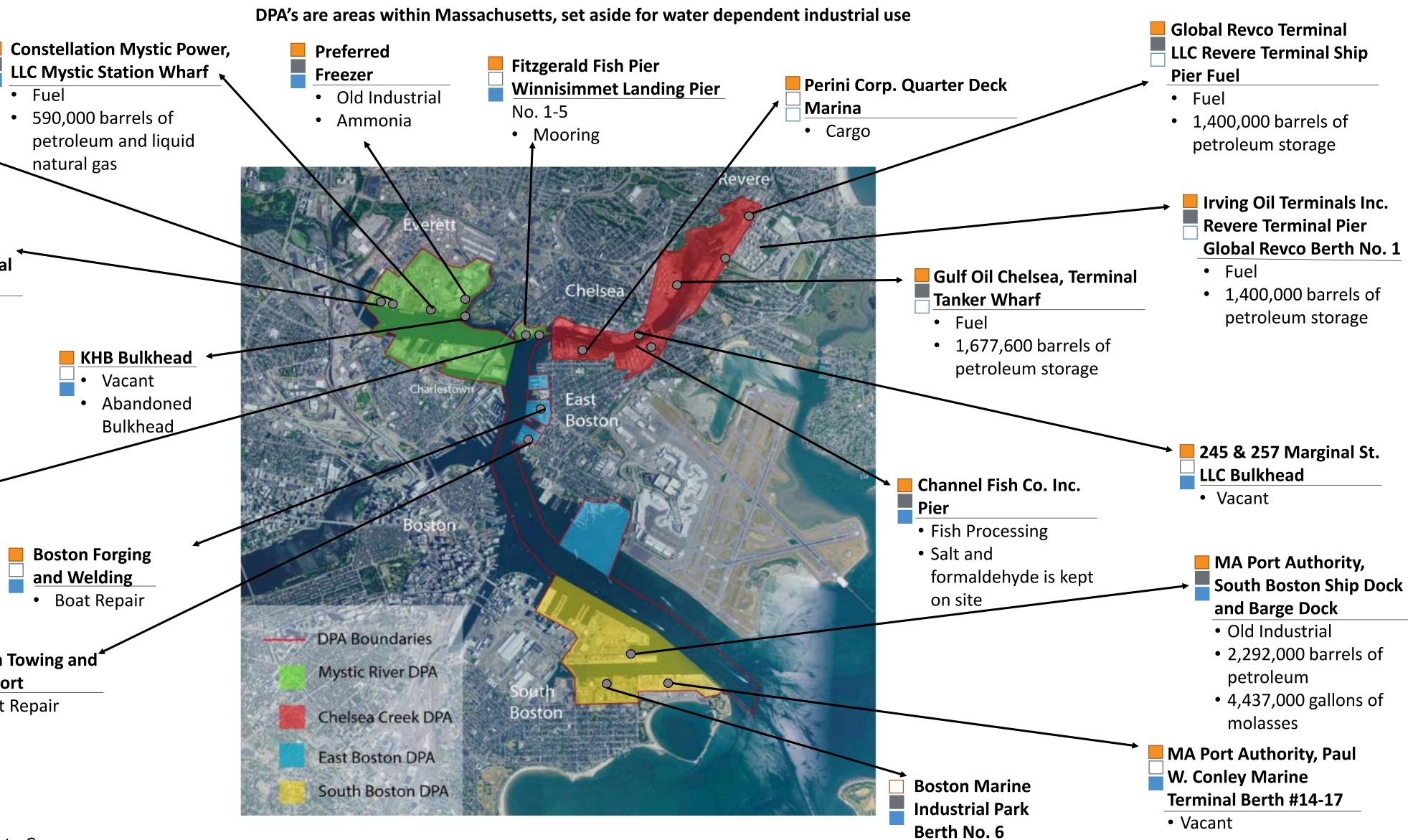
Sensitivity

- SLR Infrastructure
- Chemicals on Site
- Chemical Storage
- Building Condition

Ability to Cope

- Predicted Property Damage
- Net Worth of Business
- Emergency Plans

Map of Boston Inner Harbor DPAs and Selected Parcels



Cargo