



THE SALEM HARBOR POWER STATION SITE ASSESSMENT STUDY

PUBLIC MEETING
JUNE 30, 2011
CITY OF SALEM

JACOBS
SASAKI ASSOCIATES
LA CAPRA ASSOCIATES
ROBERT CHARLES LESSER & COMPANY

INTRODUCTION



TONIGHT'S AGENDA

Introductions

Summary of Existing Conditions

Overview of New England Energy Market

Development Challenges

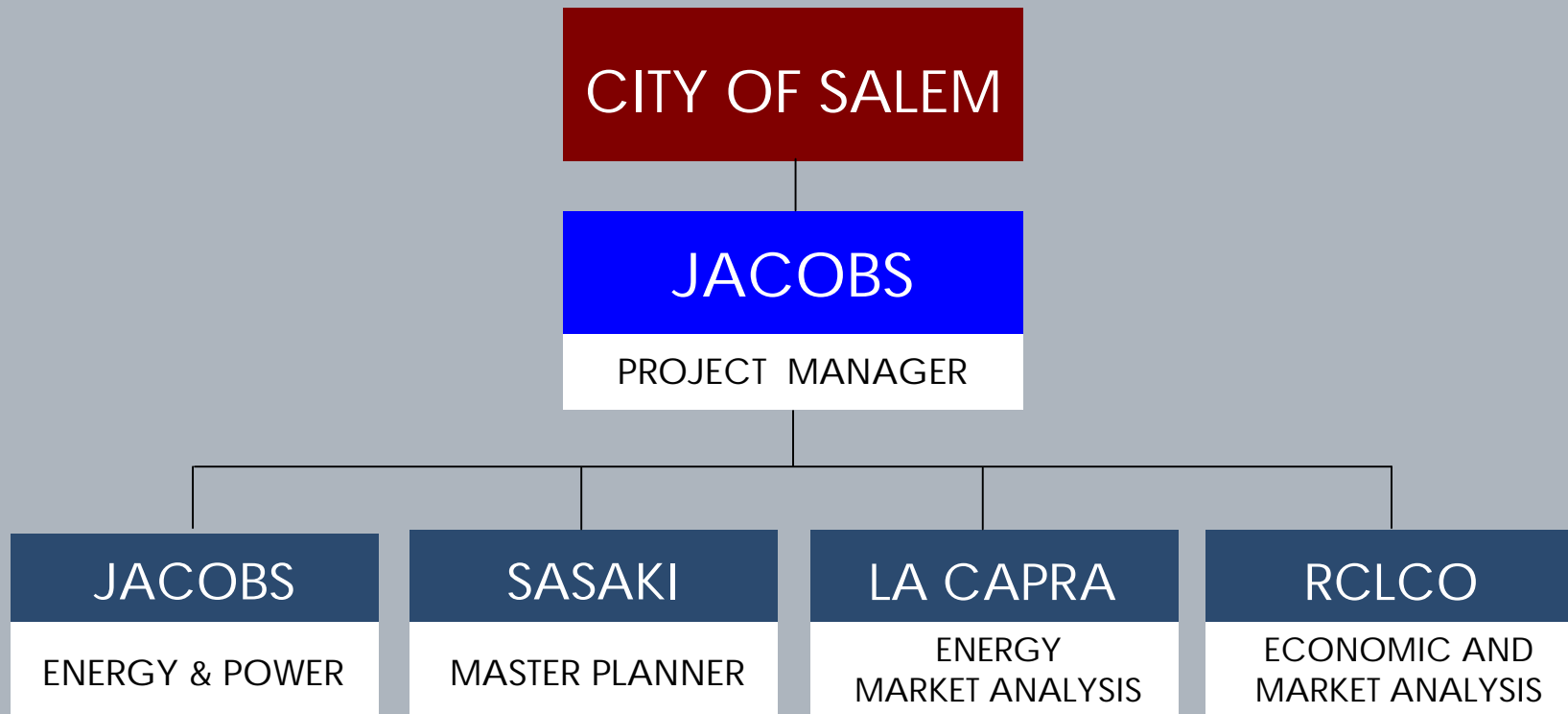
Development Opportunities

Final Report

Public Comment

Closing Remarks

TEAM ORGANIZATION



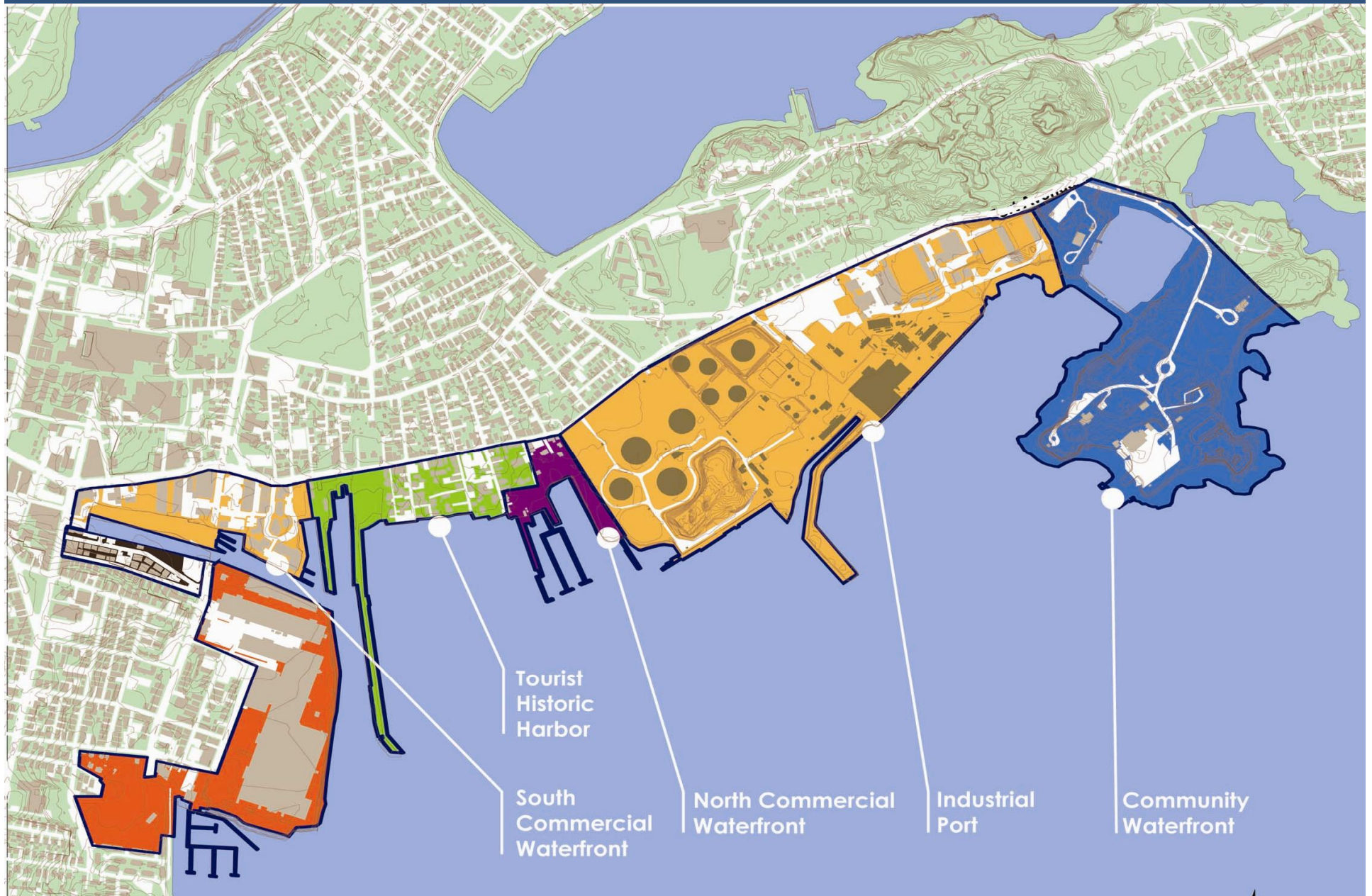
SUMMARY OF EXISTING CONDITIONS



EXISTING SITE PLAN



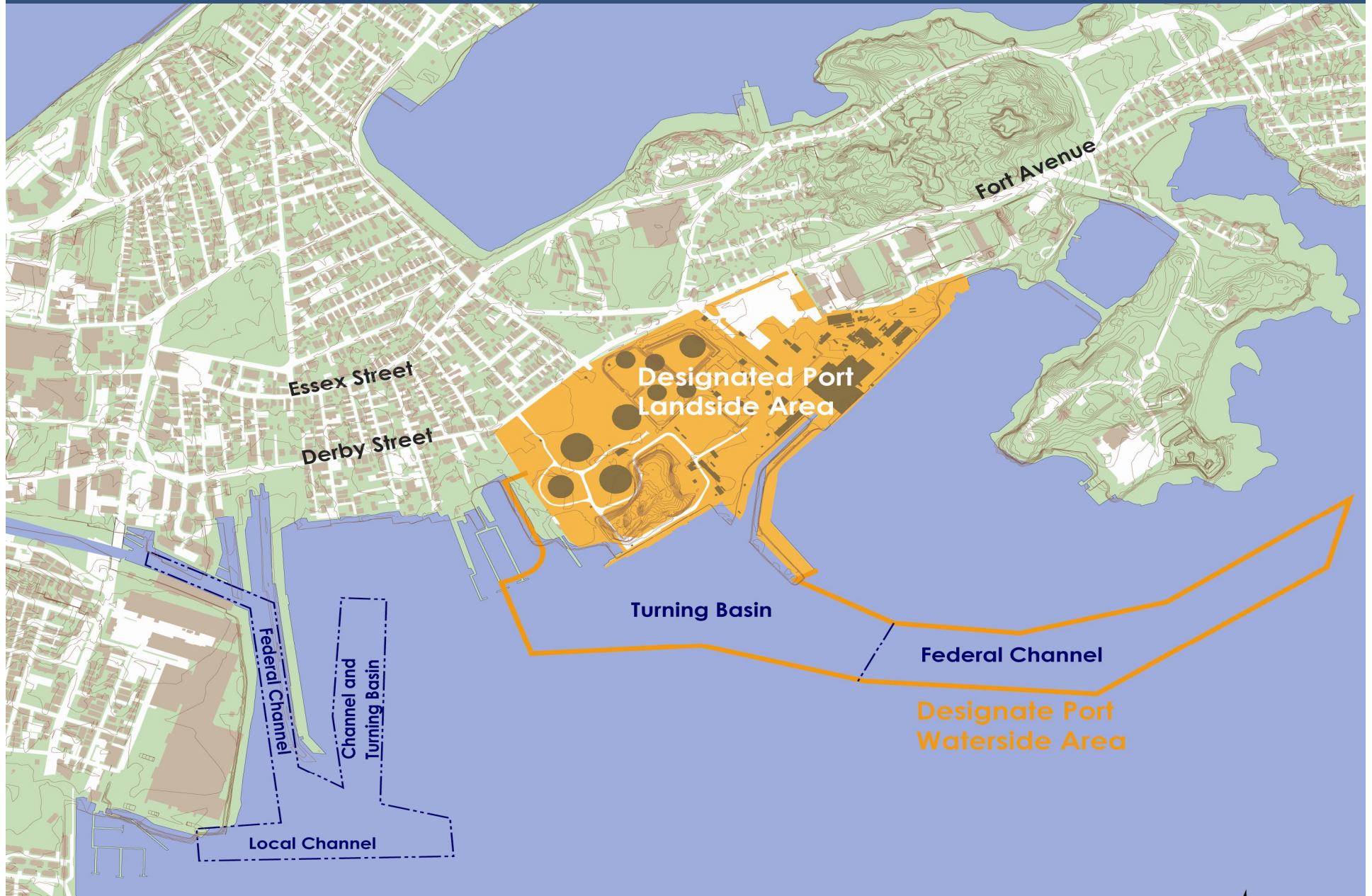
HARBOR PLAN



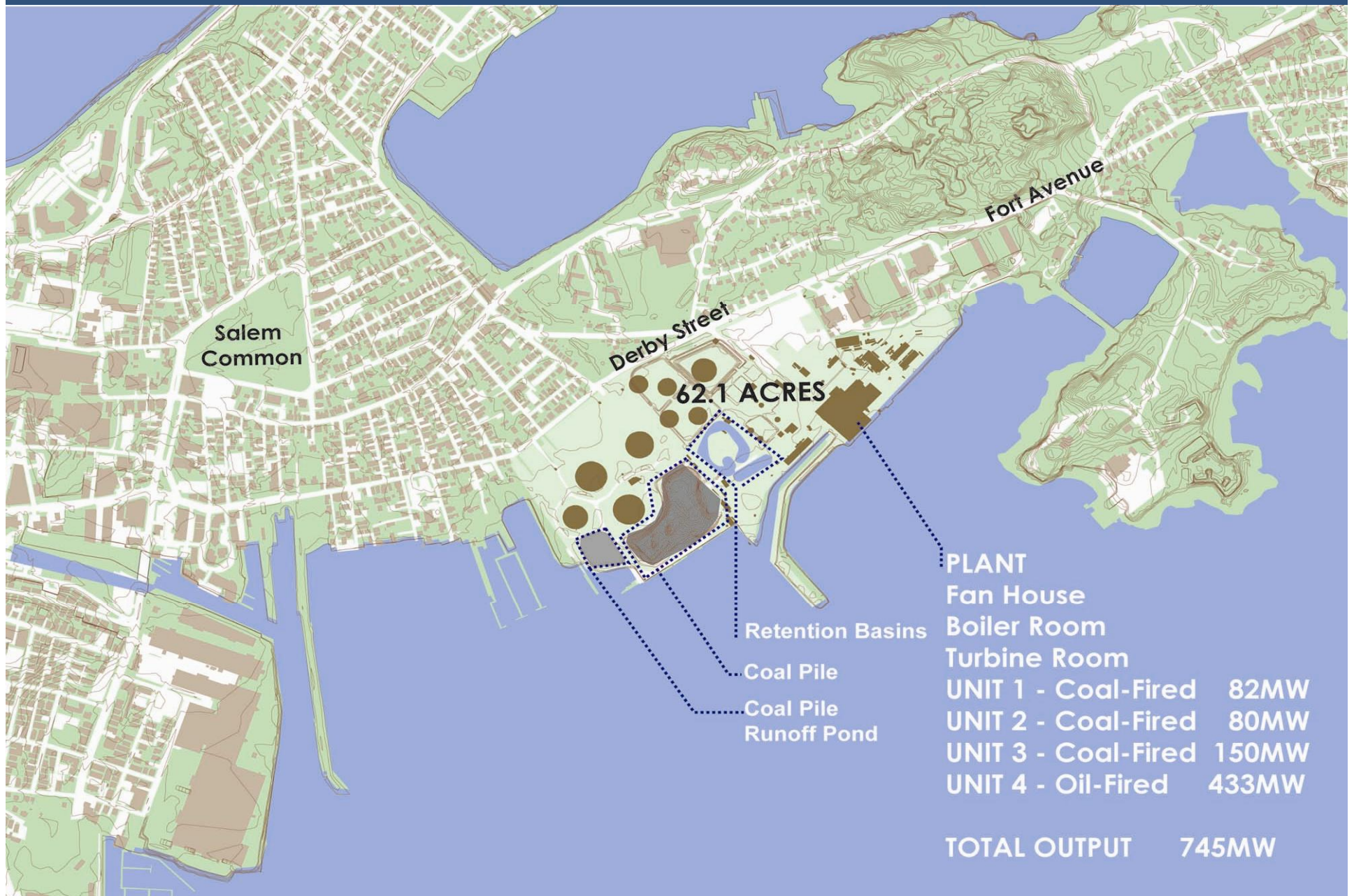
CHAPTER 91



DESIGNATED PORT AREA



EXISTING SITE PLAN

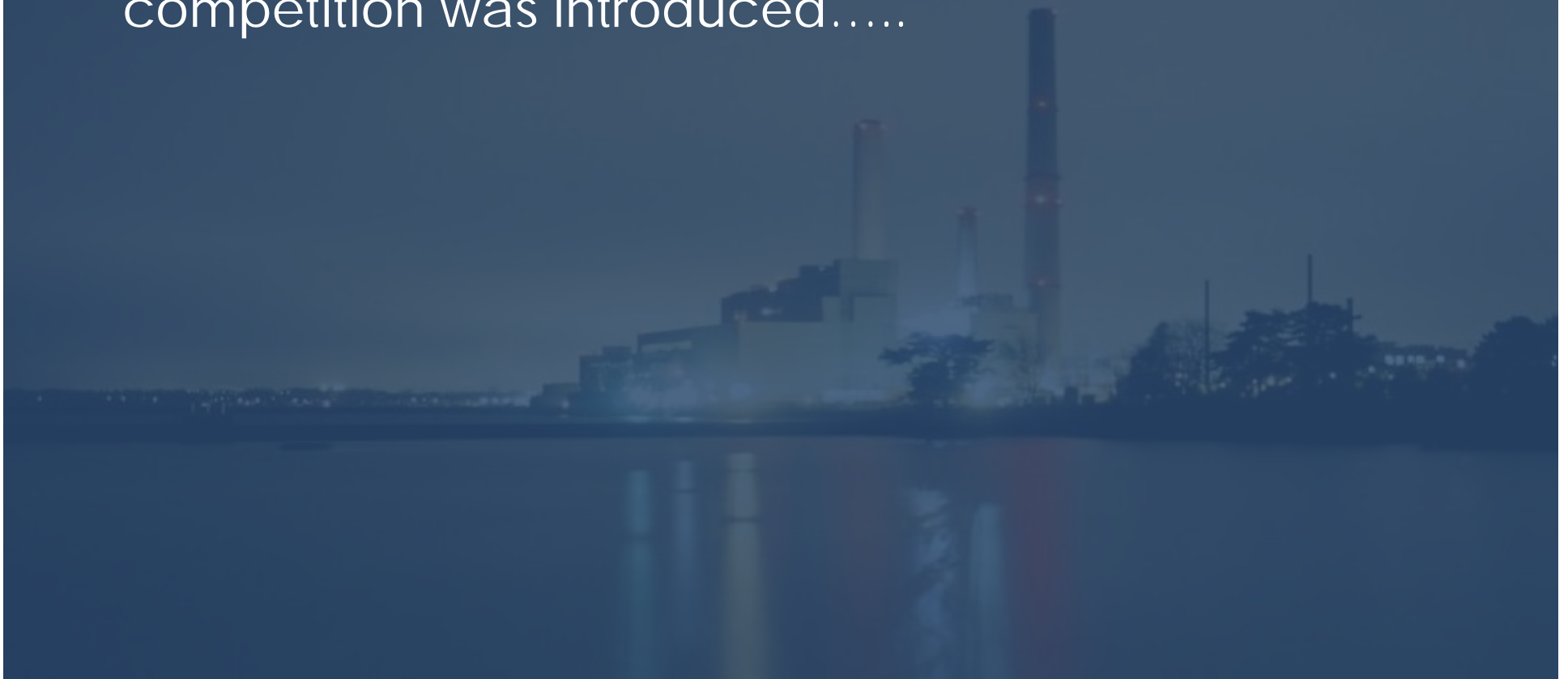


OVERVIEW OF ENERGY MARKET



ENERGY MARKET

New England power markets were restructured in 1999 and wholesale competition was introduced.....



ISO – NEW ENGLAND

- ISO – NE is the Independent System Operator of New England
- A regional transmission organization (RTO) serving the six New England States
- An independent, not for profit organization

ISO – NE RESPONSIBILITIES

- RELIABILITY – minute to minute reliable operation of New England's bulk electric power system
- MARKET ADMINISTRATION – development, oversight and fair administration of New England's wholesale electricity marketplace
- PLANNING– establishing and monitoring a process to address New England's electricity needs well into the future

ENERGY MARKETS

- ENERGY MARKET
- FORWARD CAPACITY MARKET
- ANCILLARY MARKET



RECENT DEVELOPMENTS

Salem Harbor Power Station

- FCA5 – Units 1 and 2 non-price retirement; no capacity obligations

Units 3 and 4 non-price retirement
and Dominion refuses Cost of Service;
no capacity obligations

CURRENT STATUS

- Salem Harbor Power Station will be shut down by June, 2014
- ISO-NE establishes transmission upgrade cost estimate
- ISO-NE establishes transmission upgrade schedule



DEVELOPMENT CHALLENGES



FULL SITE CLEAN - UP



SITE CLEARING AND PREPARATION

Estimated Site Clean-up Cost	\$20,000,000
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Estimated Demolition Cost of Power Station Structures	TBD
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(final demolition budget to be determined after on site observation and detailed survey. Similar facilities typically contain significant amounts of asbestos and lead paint.)

Total Estimated Cost	TBD
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CHAPTER 91



CHAPTER 91 SUMMARY

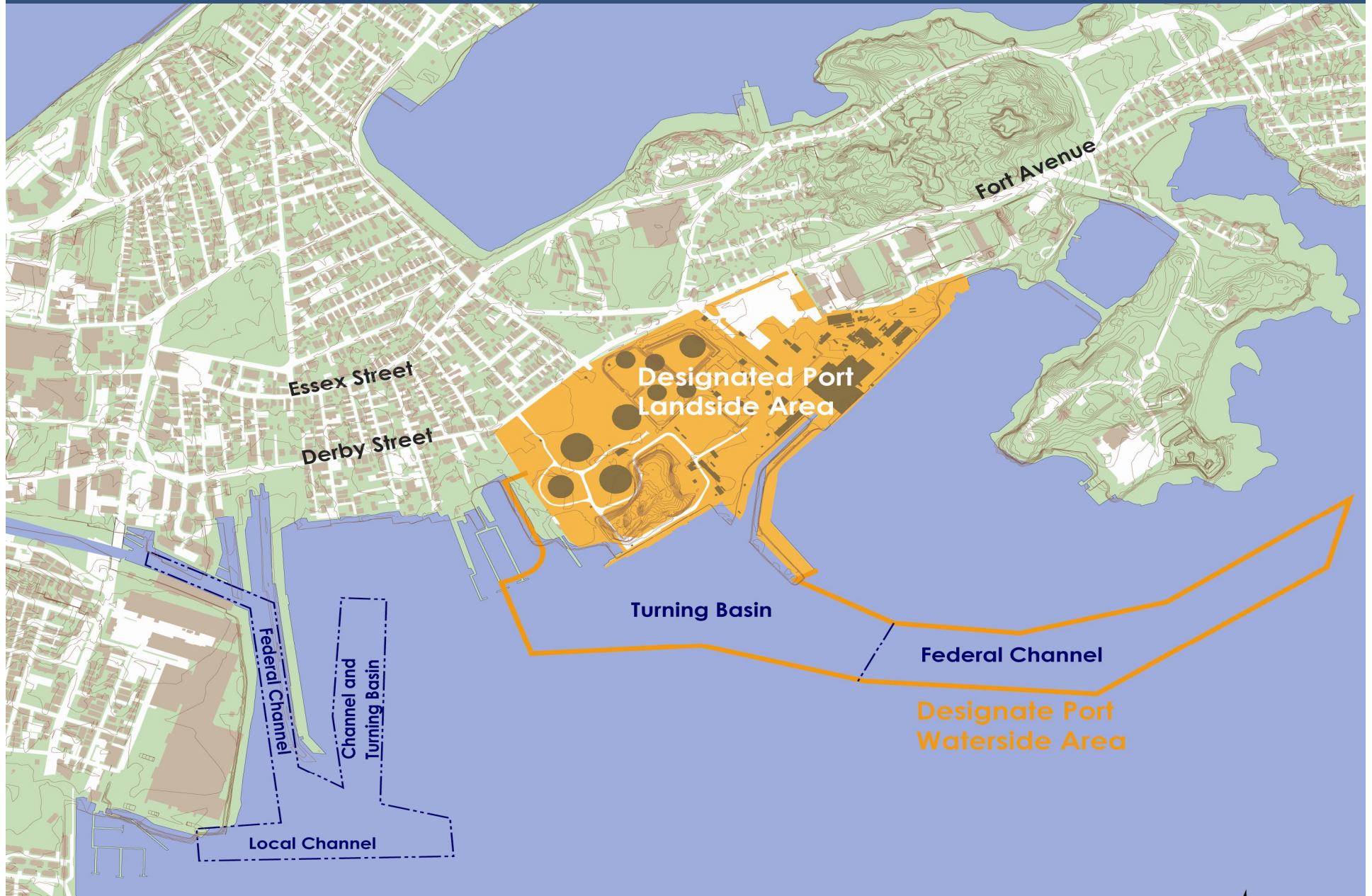
Massachusetts General Law Chapter 91 (Public Waterfront Act)

- Ensure that “tidelands are utilized only for water-dependent uses” or “serve a proper public purpose which provides greater benefit than detriment”.
- Applies to tidelands which are defined by the historic high tide line (“the farthest landward tide line which existed prior to human alteration by filling, dredging, impoundment or other means”)

CHAPTER 91 WATER-DEPENDENT USES

- Marinas
- Facilities for fishing & water based recreation
- Parks and boardwalks
- Aquariums & marine research, training & education
- Passenger transportation
(ferries, taxis, shuttles, cruise ships)
- Waterway public safety & law enforcement
- Shore protection related structures
- Marine industrial facilities

DESIGNATED PORT AREA



DESIGNATED PORT AREA (DPA) SUMMARY

- 11 Designated Port Areas in Massachusetts.
- Prevents development that excludes water-dependent industries
- Promote water-dependent (marine) industrial uses: infrastructure facilities dependent on marine transportation or large volumes of water for cooling, process or treatment
- Allowable Supporting Uses may occupy 25% of property

DPA WATER-DEPENDENT INDUSTRIAL USES

- Marine terminals for transfer/storage of goods transported by ship
- Facilities associated with commercial vessel operations
- Manufacturing facilities relying on goods shipped by water
- Commercial fishing & processing
- Boatyards, dry docks (construction, maintenance, service & repair)
- Industrial & infrastructure facilities dependent on water
- Promote water-dependent (marine) industrial uses

DPA SUPPORTING & EXCLUDED USES

SUPPORTING USES

- Shops operated by self-employed tradespersons
- Eating and drinking establishments
- Storefront retail & service facilities
- Small scale administrative offices

EXCLUDED USES

- Residential
- Hotels & motels
- Recreational boat facilities
- Large sport complexes

DESIGNATED PORT AREA (DPA)

PROCESS FOR AMENDING DPA DESIGNATION

Precedent – Gloucester

Changes initiated through Gloucester's Municipal Harbor Plan

2009 Gloucester Municipal Harbor Plan achieved more flexibility within DPA – increased % of supporting uses.

Approval of - Energy and Environmental Affairs (EOEEA)
- Mass. Dept of Environmental Protection (DEP)
- Coastal Zone Management (CZM)

SUBSTATION EASEMENT



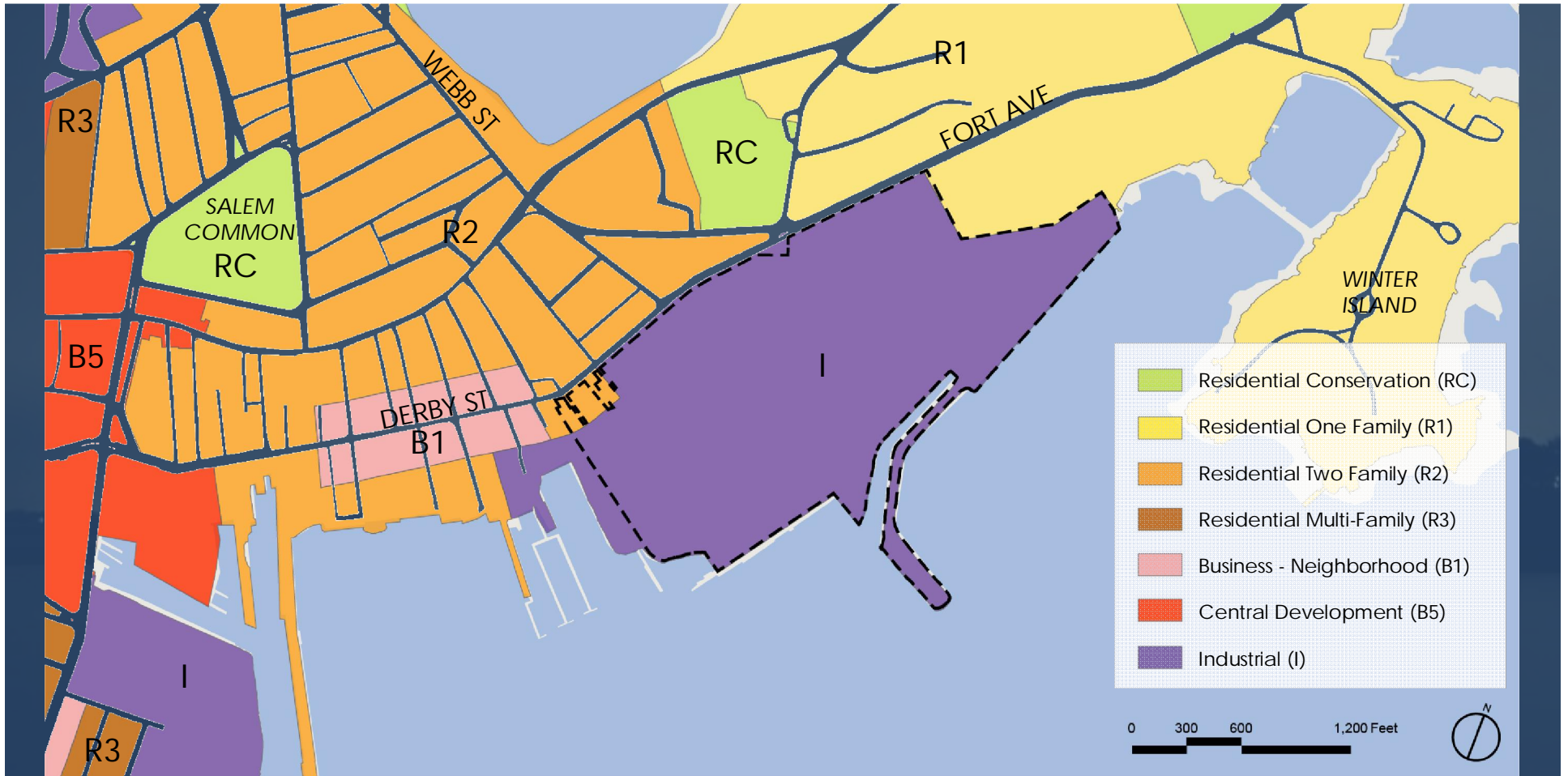
CITY OF SALEM LOCAL REGULATIONS

- Existing Zoning Ordinance
Currently Zoned Industrial
Plan Unit Development
- Derby Street Local Historic District



ZONING

AREA ZONING CONTEXT



DEVELOPMENT OPPORTUNITIES



REDEVELOPMENT PRECEDENTS

- ALTERNATIVE POWER

Bartow Power Plant, St. Petersburg, Florida
Fore River Station, Weymouth, Massachusetts
Mystic Station, Everett, Massachusetts

- RENOVATION AND CHANGE OF USE

The Power Plant, Baltimore, Maryland
Seaholm Power Plant, Austin, Texas

- DEMOLITION AND REDEVELOPMENT

Edgewater, Webster, Texas

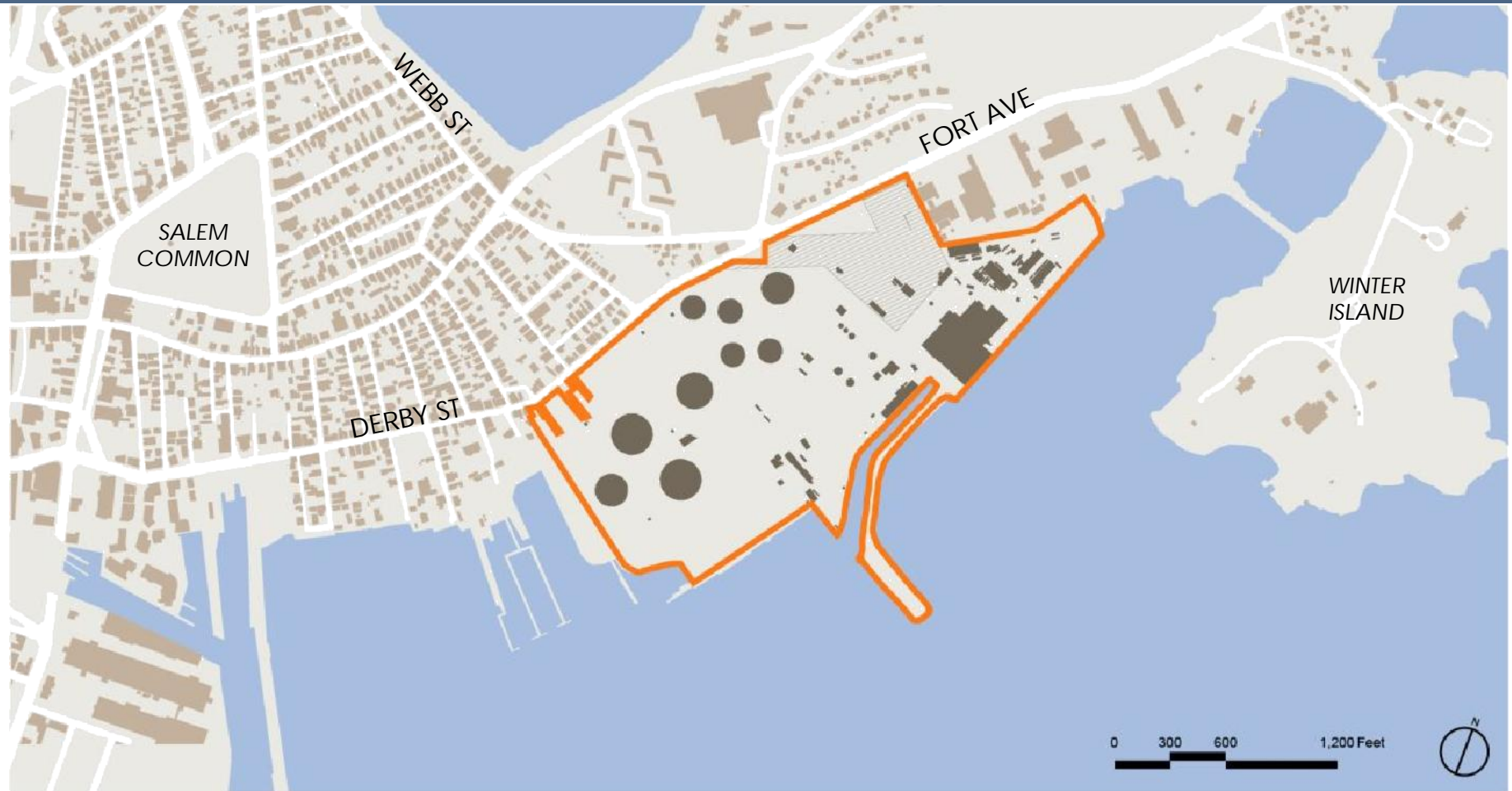
REDEVELOPMENT PRECEDENTS

The Power Plant, Baltimore Maryland



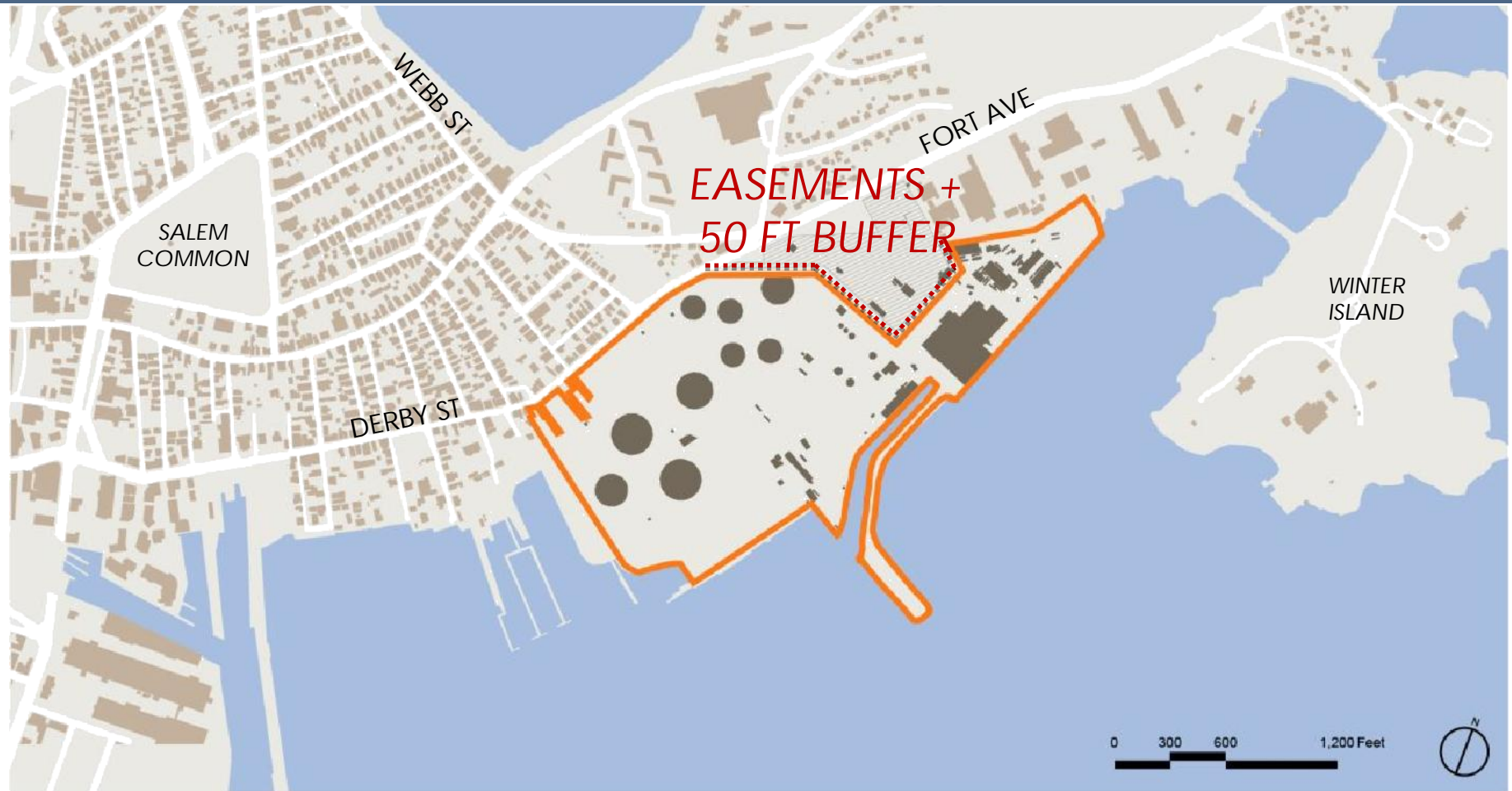
UNDERSTANDING SCALE

62 ACRE INDUSTRIAL SITE ON SALEM'S WATERFRONT



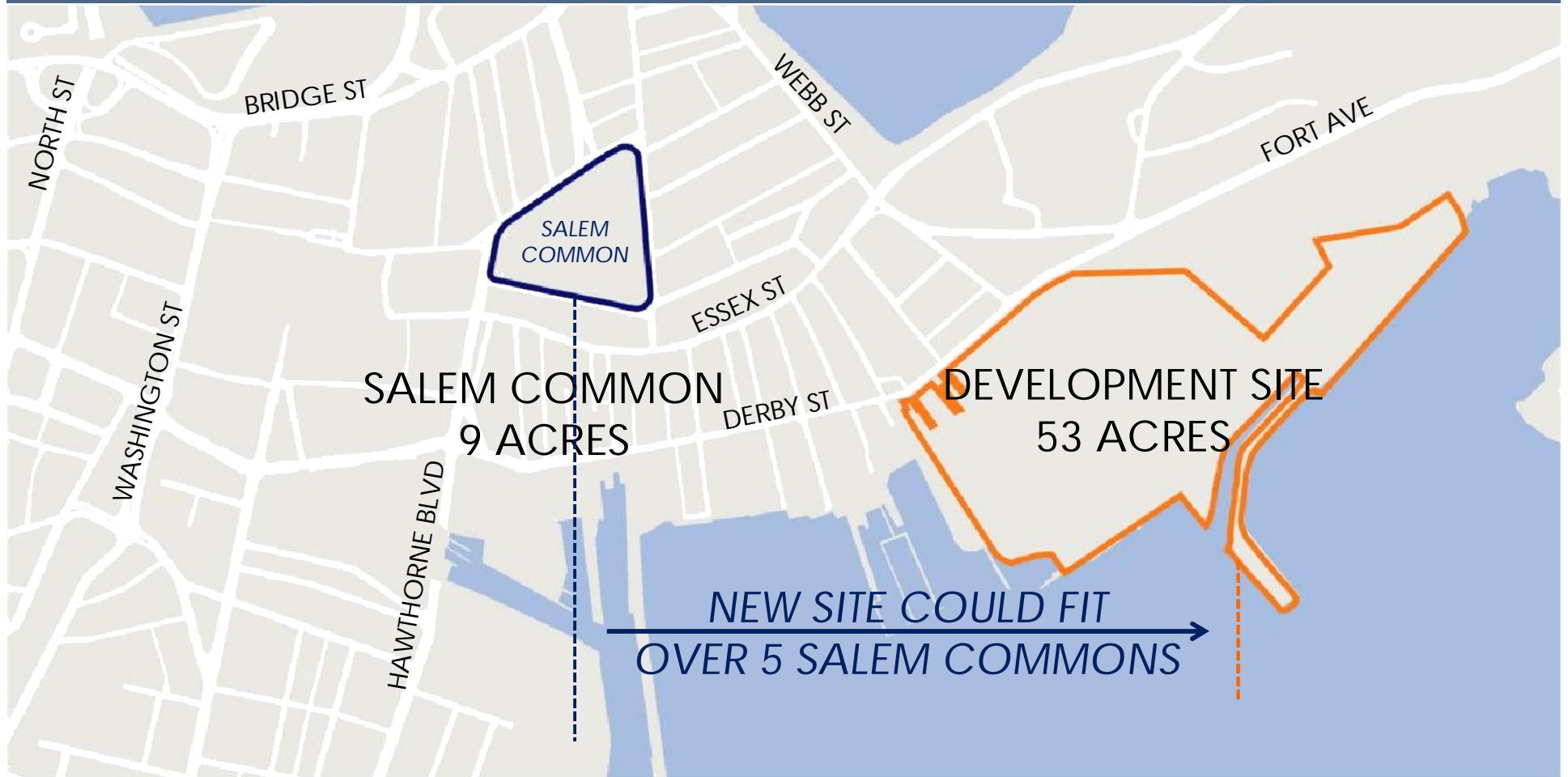
UNDERSTANDING SCALE

53 ACRES OF DEVELOPMENT



UNDERSTANDING SCALE

SITE VS. SALEM COMMON



UNDERSTANDING SCALE

SITE VS. TWO SALEM NEIGHBORHOODS



LAND USE OPTIONS

- Marine Industrial (port-related, cruise terminal, supporting retail)
- Alternative Energy (wind, solar, natural gas)
- Higher education / research
- Park / open space
- Tourism (resort, hotel)
- Commercial / Office / Retail
- Residential (single family, multi-family, townhouses, condos, apartments)

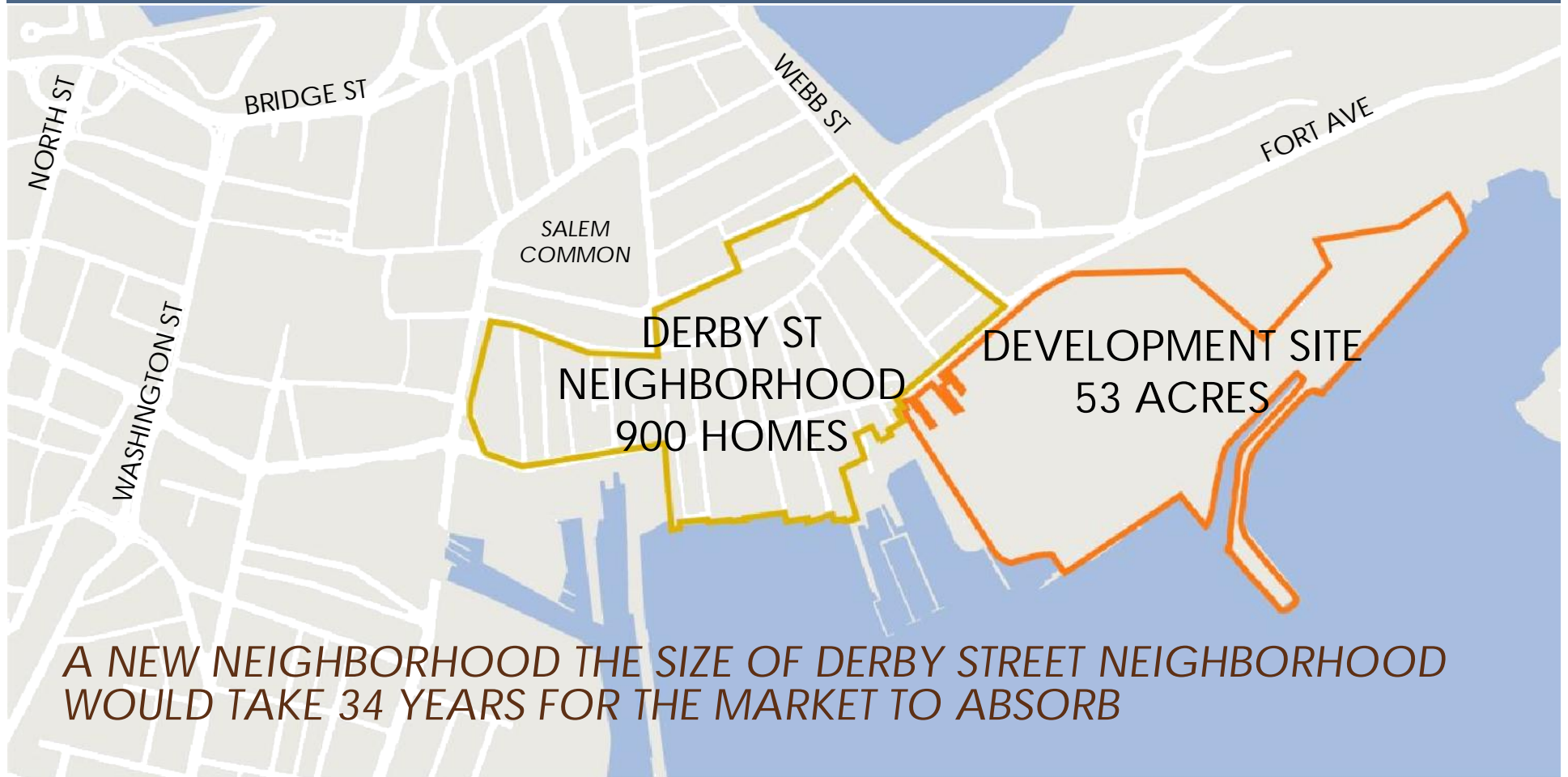
LAND USE OPTIONS

1,900,000 SQUARE FEET OF
NEW COMMERCIAL/OFFICE DEVELOPMENT



LAND USE OPTIONS

900 NEW HOMES (SMALL-SCALE RESIDENTIAL)



LAND USE OPTIONS

MARINE USES



Hingham marina. Source: BoatingLocal.com

- Uses to support Blaney Street terminal
- Include up to 100 parking spots
- Ferry and cruise supporting retail
- Boat repair and storage

MARINE USES
5 ACRES



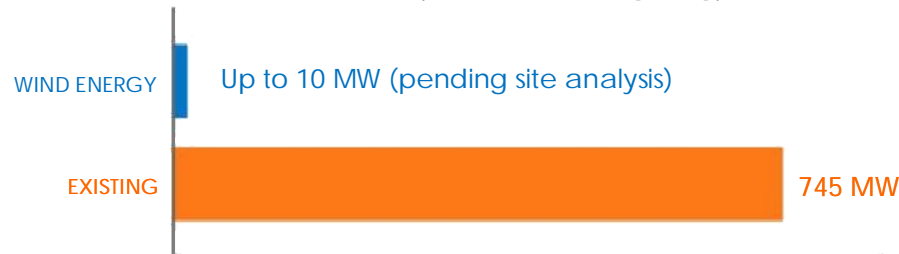
DEVELOPMENT SITE
53 ACRES

LAND USE OPTIONS

A WIND POWER PLANT ON THE SITE COULD
GENERATE UP TO 10 MW OF ENERGY

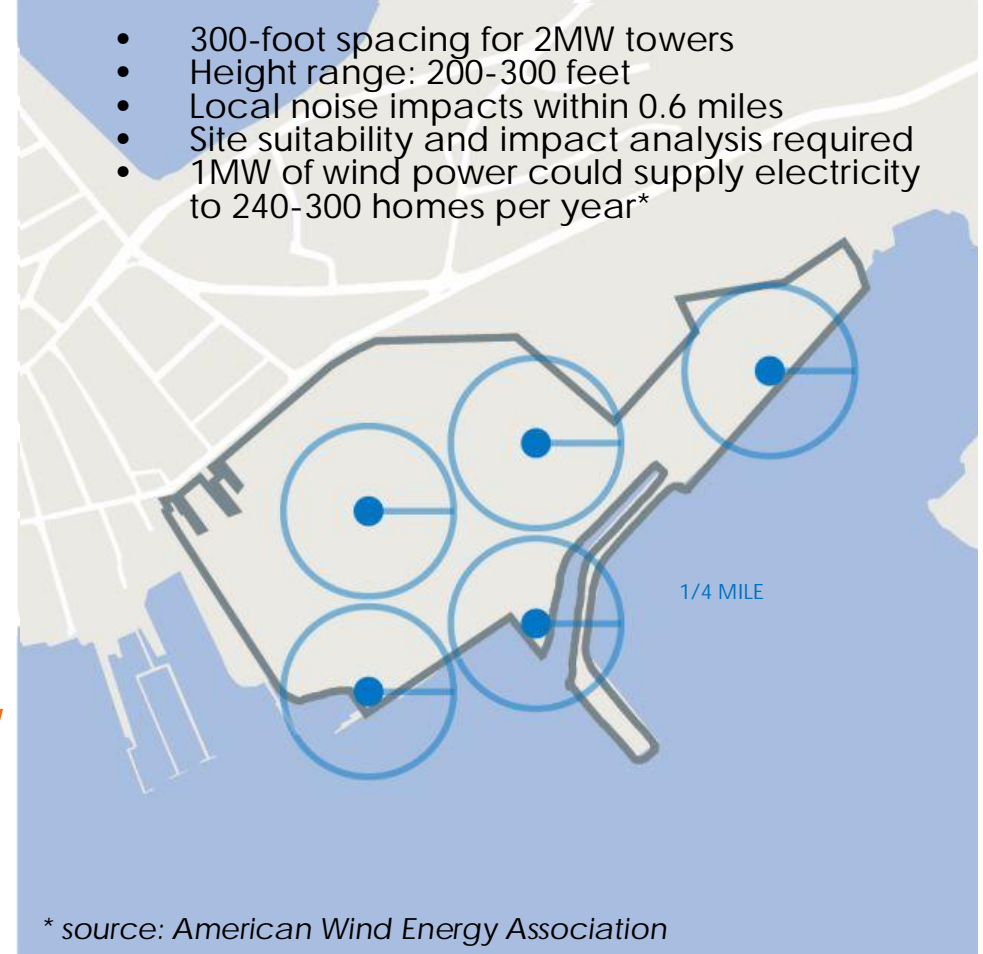


2 MW turbine in Lewes, Delaware (Source: Flickr user J3[Photo])



ON-SITE WIND ENERGY
GENERATION

- 300-foot spacing for 2MW towers
- Height range: 200-300 feet
- Local noise impacts within 0.6 miles
- Site suitability and impact analysis required
- 1MW of wind power could supply electricity to 240-300 homes per year*

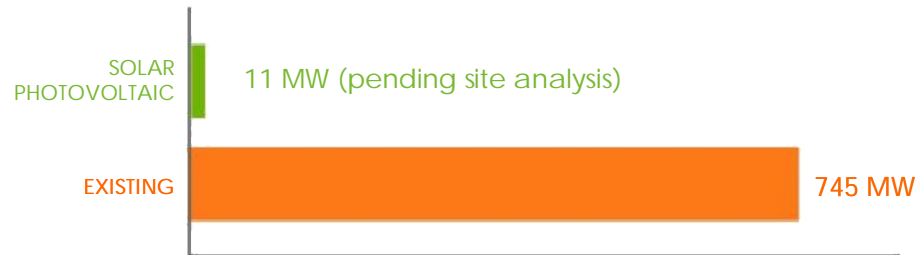


LAND USE OPTIONS

A SOLAR ENERGY PLANT ON THE SITE COULD
GENERATE APPROXIMATELY 11 MW OF ENERGY



WMEC's South Lake solar facility in Pittsfield, MA
(Source: American Capital Energy)



ON-SITE SOLAR ENERGY GENERATION
53 ACRES



LAND USE OPTIONS

AS A NATURAL GAS POWER PLANT, THE SITE COULD
GENERATE UP TO 750 MW OF ENERGY



Fore River Station, Weymouth, MA (Source: Patriot Ledger)

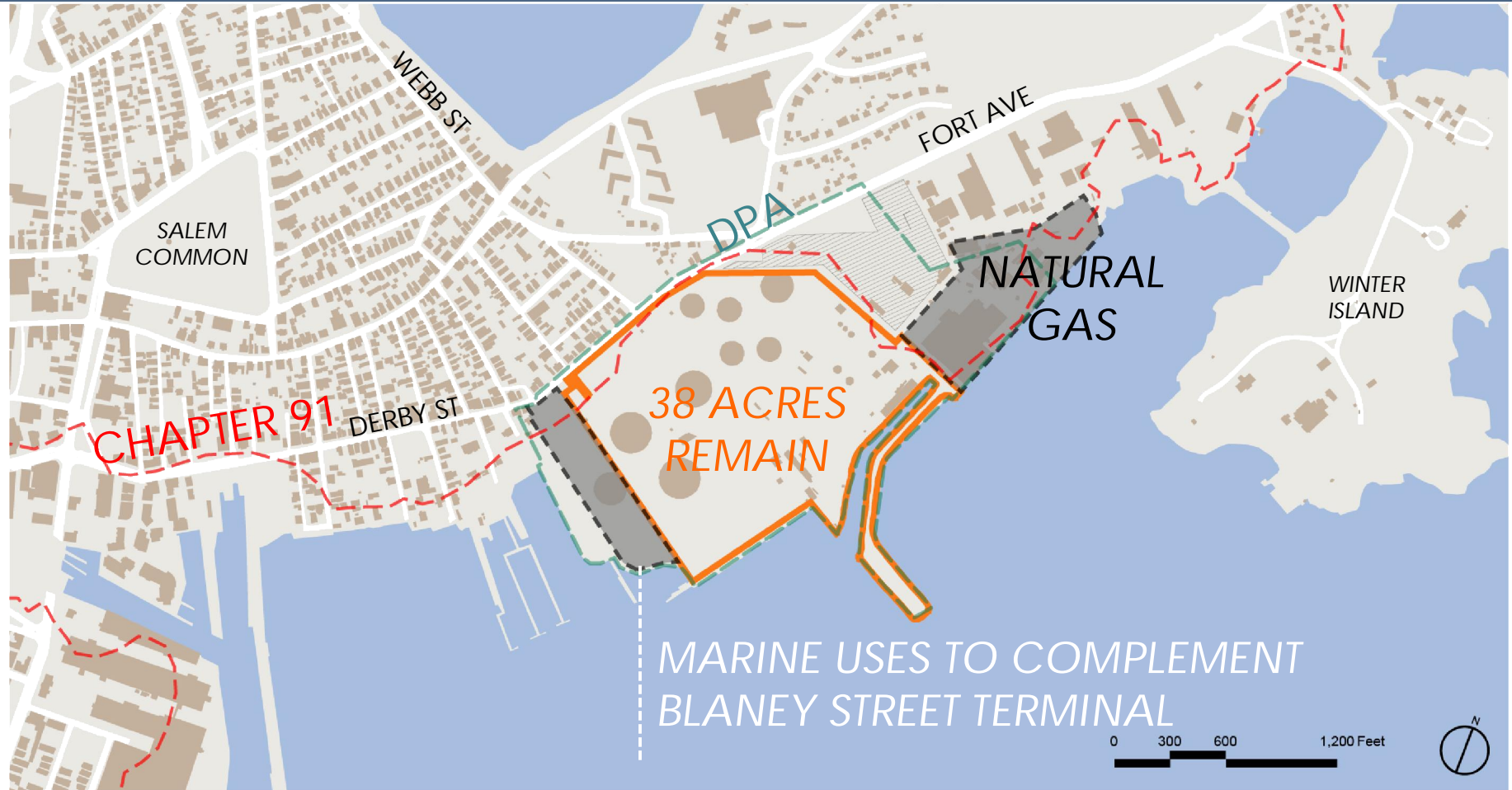


ON-SITE NATURAL GAS
ENERGY GENERATION
10 ACRES



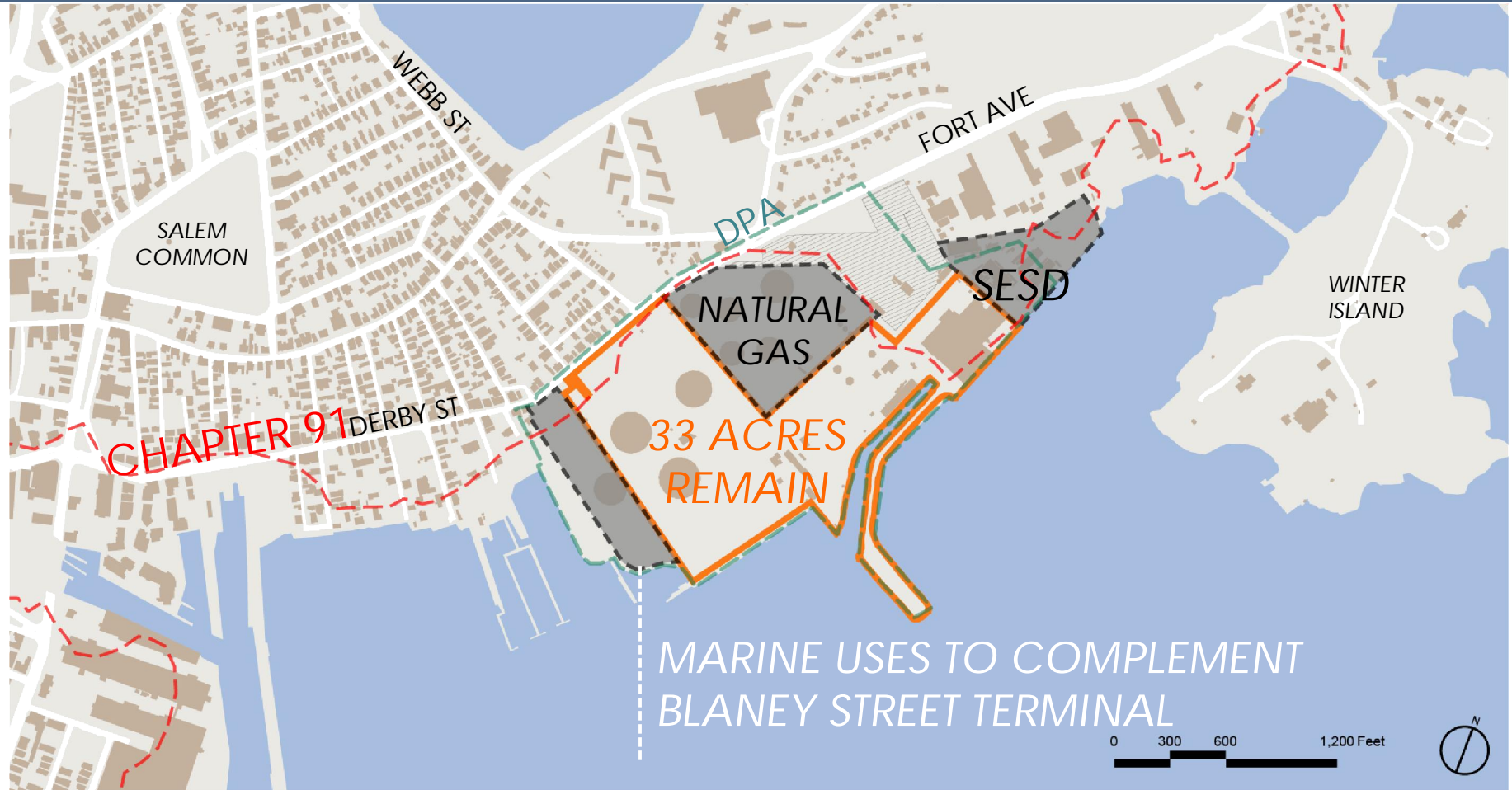
LAND USE OPTIONS

SCENARIO: MARINE USES AND NATURAL GAS POWER GENERATION



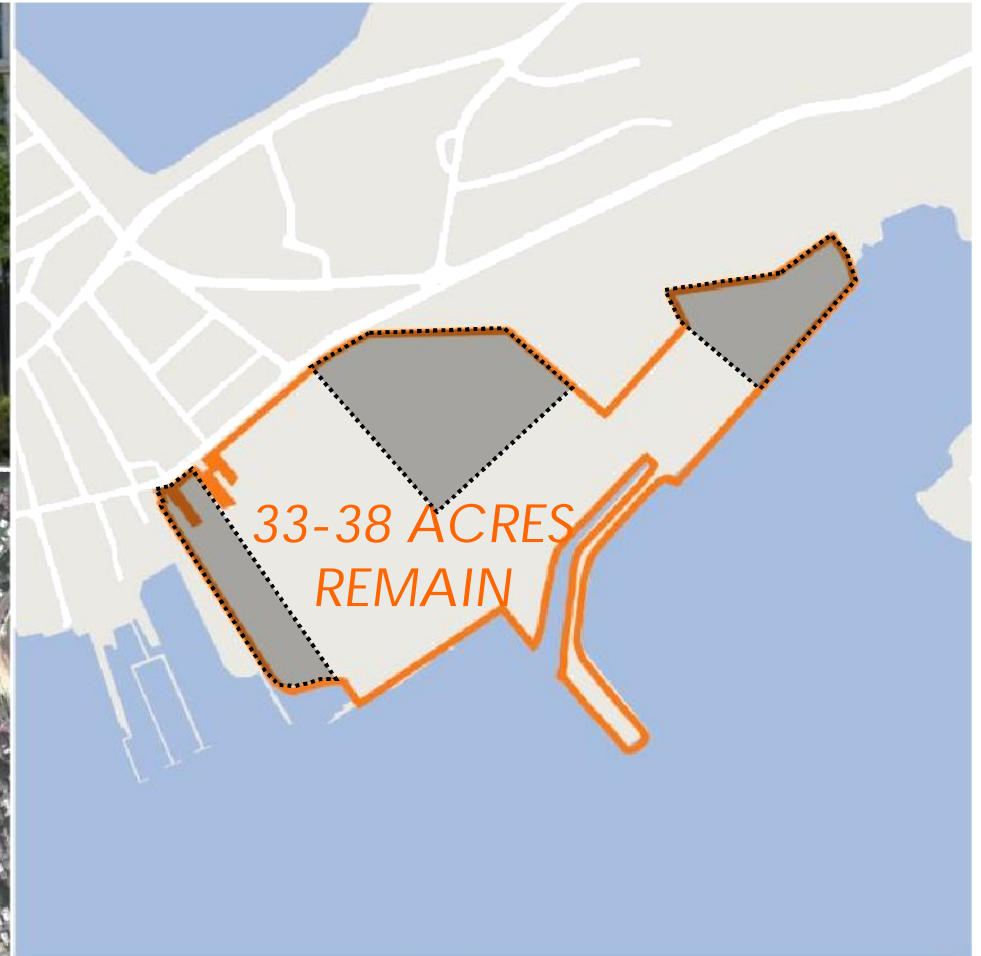
LAND USE OPTIONS

SCENARIO: MARINE USES, NATURAL GAS POWER GENERATION, AND SESD EXPANSION



LAND USE OPTIONS

MULTI-FAMILY APARTMENT BUILDINGS



LAND USE OPTIONS

RESORT HOTEL



Source: Flickr user chipgriffin



WENTWORTH BY THE SEA RESORT
NEW CASTLE, NH
12 ACRES, 161 ROOMS



LAND USE OPTIONS

HIGHER EDUCATION/RESEARCH



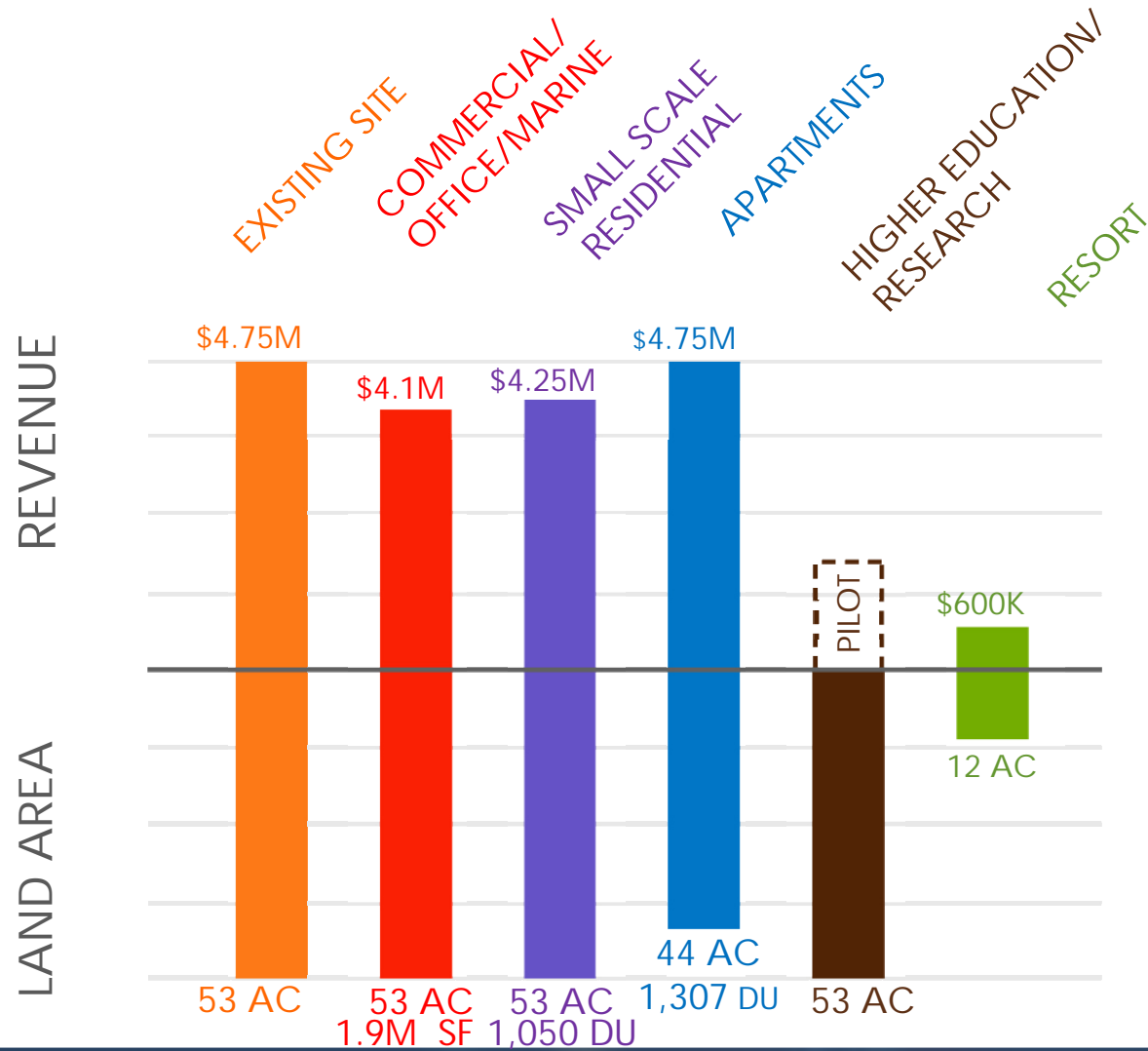
WOODS HOLE
OCEANOGRAPHIC INSTITUTE
FALMOUTH, MA
62 ACRES



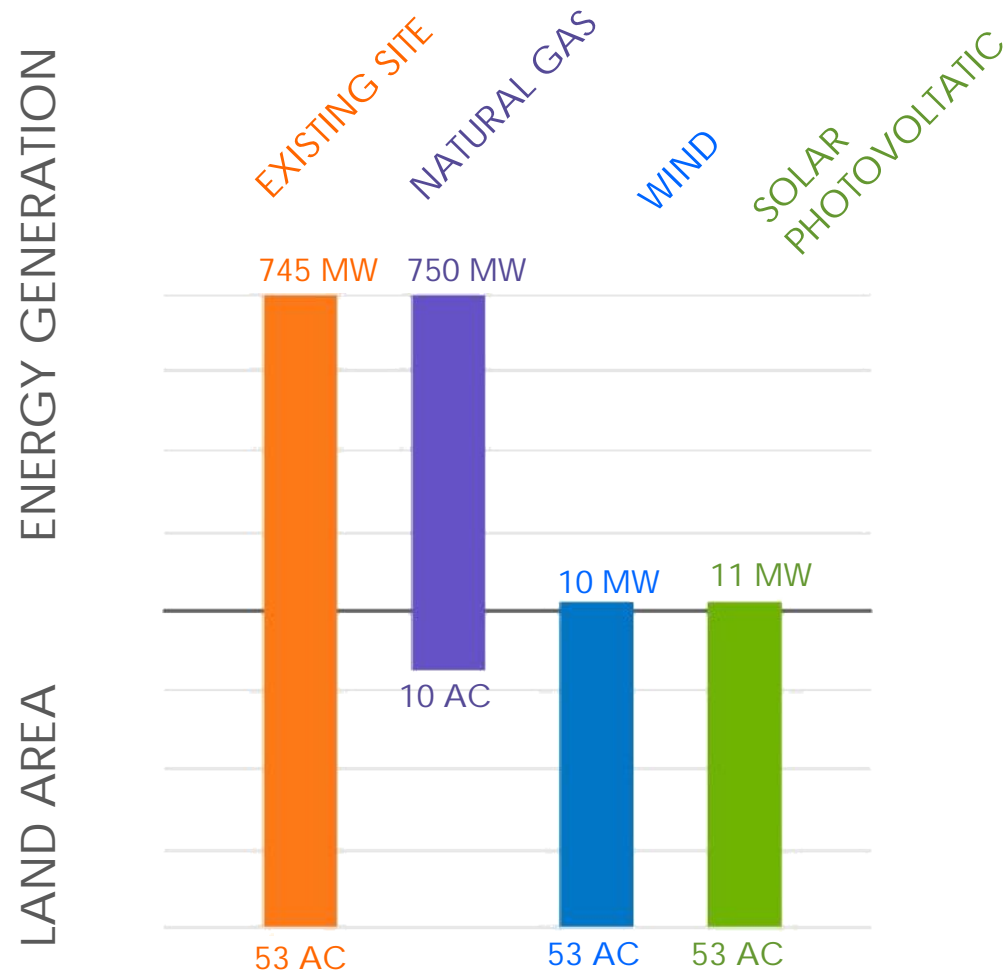
REVENUE

Tax Revenue and Land Use

REVENUE BY USE



ENERGY GENERATION



COSTS AND OTHER IMPACTS

Site Uses and Impacts

COSTS AND OTHER IMPACTS

Cost considerations and other potential impacts:

- Residential service costs
- Public safety
- Fire / rescue
- Public buildings (e.g. libraries)
- Parks and recreation

- Additional school spending
- Average annual residential property tax bill is between \$4,000 and \$5,000
- Annual school spending per pupil is approximately \$13,000

- Compatibility of residential use with adjacent land uses
- Potential expansion of SESD wastewater treatment facility
- Potential on-site alternative energy generation
- Marine industrial uses

COSTS AND OTHER IMPACTS

Cost considerations and other potential impacts:

- Site infrastructure
- Water and sewer demands for new development may exceed available capacity
- Traffic and roadway improvements
- 1,000 new units of housing would increase the existing traffic on Derby Street by three times
- Office and retail uses could further increase traffic impacts
- Site remediation
- Different types of land uses require different levels of environmental remediation
- Residential uses demand the highest level of site cleanup

SCHEDULE



FINAL REPORT

BACKGROUND/ANALYSIS

History

New England Energy Market

Cost for Demolition/Clean up

Market Analysis/Potential Uses

Development Precedents

DEVELOPMENT OPTIONS



Public Comment

GROUND RULES FOR PUBLIC COMMENT

Identify yourself – state your name and address

Be brief – be clear and quick – no speeches

Respect others' contributions – no debates

Avoid repetition – no piling on

Let others speak – no hogging the floor

Speak in turn – raise your hand to attract a microphone

Use the index cards to comment

QUESTION 1

What are your priorities for redevelopment of the Salem Harbor Power Station site?

Please rank each item below in order of priority with #1 representing your highest priority.

- ☐ Generating significant tax revenue to the City
- ☐ Clearing the site and remediating soil contamination
- ☐ Minimizing impacts from traffic or noise on the nearby residential neighborhoods
- ☐ Providing waterfront access for the public
- ☐ Other

QUESTION 2

What use would you like to see?

Please rank each use below in order of preference with #1 representing your strongest preference.

- ☐ Highest market value
- ☐ Tourism-related activity
- ☐ Natural gas power generation facility
- ☐ Renewable energy related
- ☐ An expanded port
- ☐ Marine facility
- ☐ An activity that will generate many jobs
- ☐ Residential
- ☐ Commercial
- ☐ Open space
- ☐ Other

CLOSING REMARKS



Mayor Kimberley Driscoll