

CHALLENGE PROJECT:

IMPACT OF A PUBLIC WATER SUPPLY ON ECONOMIC DEVELOPMENT IN NEWBURY, MA

By Kathleen Pearson
For The Town of Newbury, MA
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**GORDON ENGINEERING
LEADERSHIP PROGRAM**
at Northeastern University

Purpose

Project is to evaluate the Town of Newbury's ability to provide a public water supply to encourage economic development in the Town's largest commercial and industrial district located along Route-1 (B&LI District) in Newbury, MA.

B&LI District = Business & Light Industrial District



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Project Advisors

Town of Newbury Advisor = Tracy Blais

Gordon Mentor = Steve Klosterman

Faculty Advisor = Phillip Larese-Casanova

Planning & Development Advisor= John Weis

Civil PE Advisor = Brian Daly



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Agenda

- Market Value
- Project Description
- Progress to Date
- Summary
- Questions



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Town Budget

EXPENSES

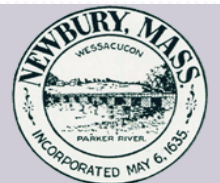
- Education
- Debt Payments
- Employee Benefits
- Town Services



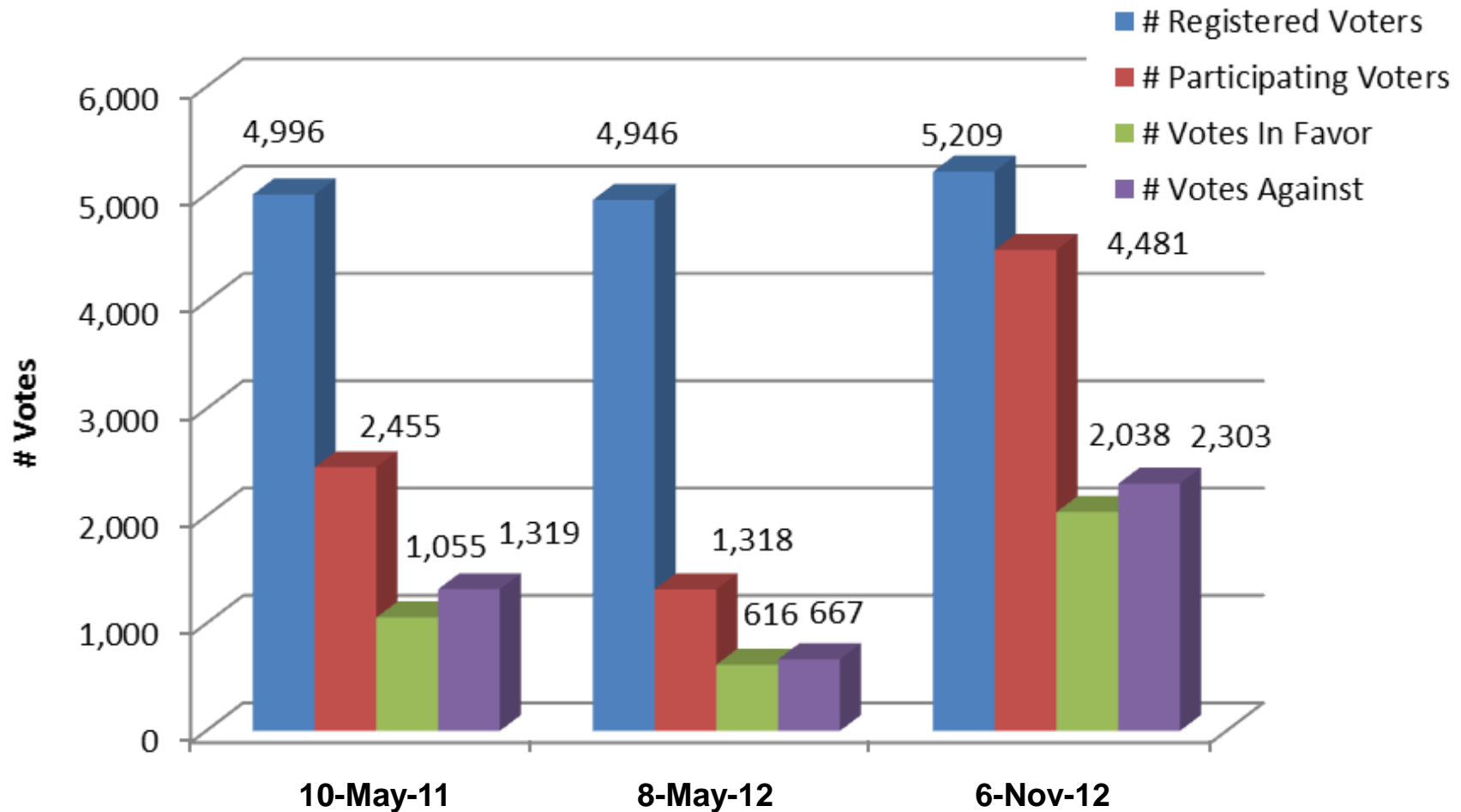
REVENUES

- Property taxes
- State Aid
- Local income
(excise taxes ,fees, & permits)
- Grants

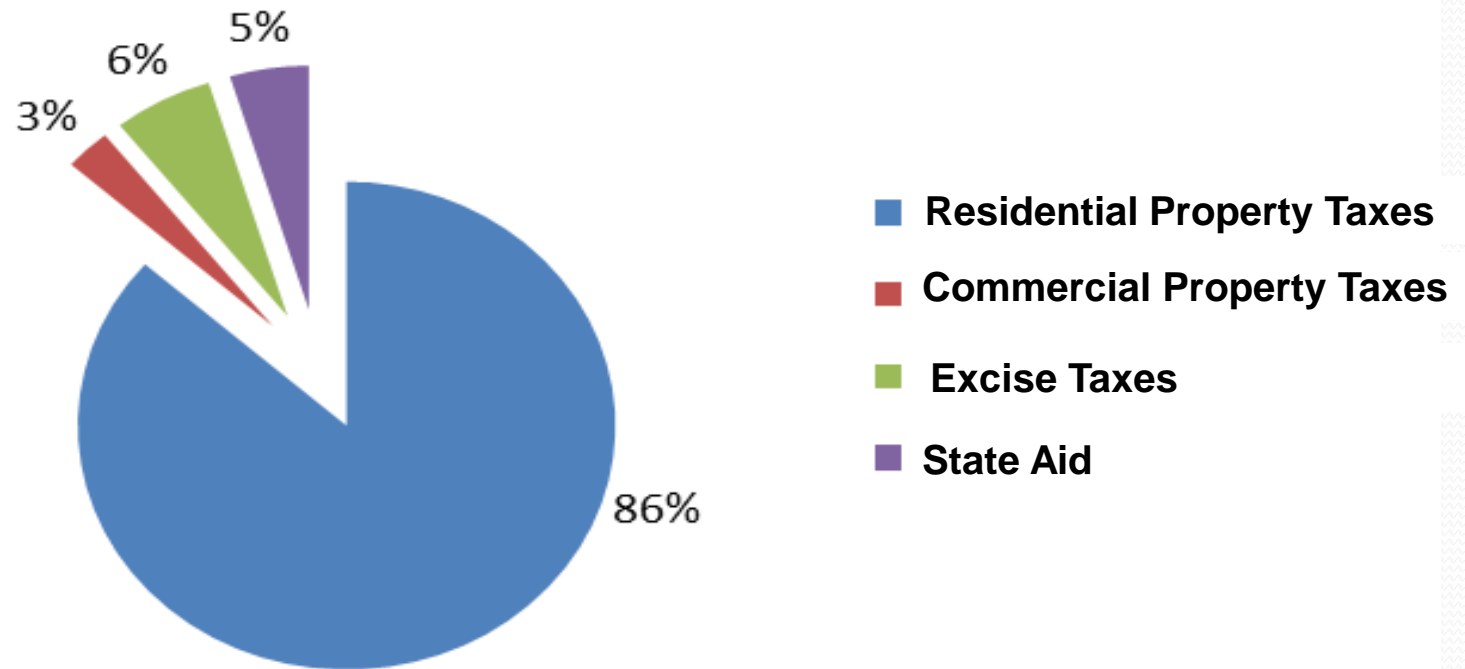
\$17 Million Budget



Historical Poll Results for Override Request

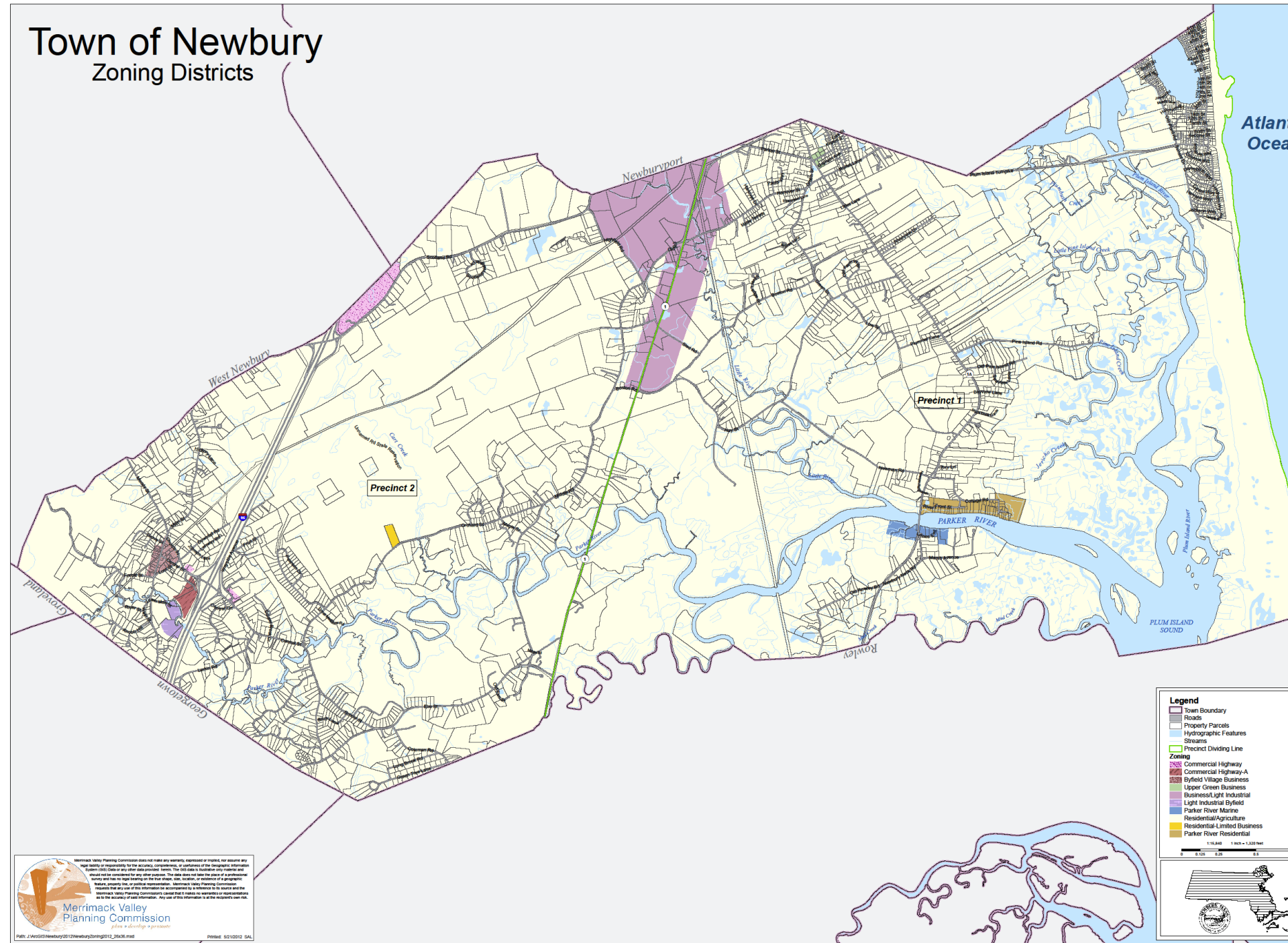


2013 Fiscal Year Revenue



Town of Newbury

Zoning Districts



Business & Light Industrial District

Why is there little development in the B&LI District?

- Lack of water and sewer
- Wetlands
- Poor soils

Why is this a water project and not a water & sewer project?

- Project completion by July
- Meeting with Town leaders



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Market Value

- Identify the ability & \$\$ to encourage economic development in the B&LI District
- Respond to demands of the Newbury voters.
- Provide direction to the Town when focusing future economic development efforts.



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Project Description

- Determine Maximum Build-out of the B&LI District
- Evaluate Water Sources
- Design Distribution System
- Design Water Treatment Facility & Distribution System
- Conduct Engineering Economic Analysis
 - ❖ Construction \$\$ between the Two Designs
 - ❖ Construction \$\$ vs. Potential Tax Revenue Gain



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Status Project

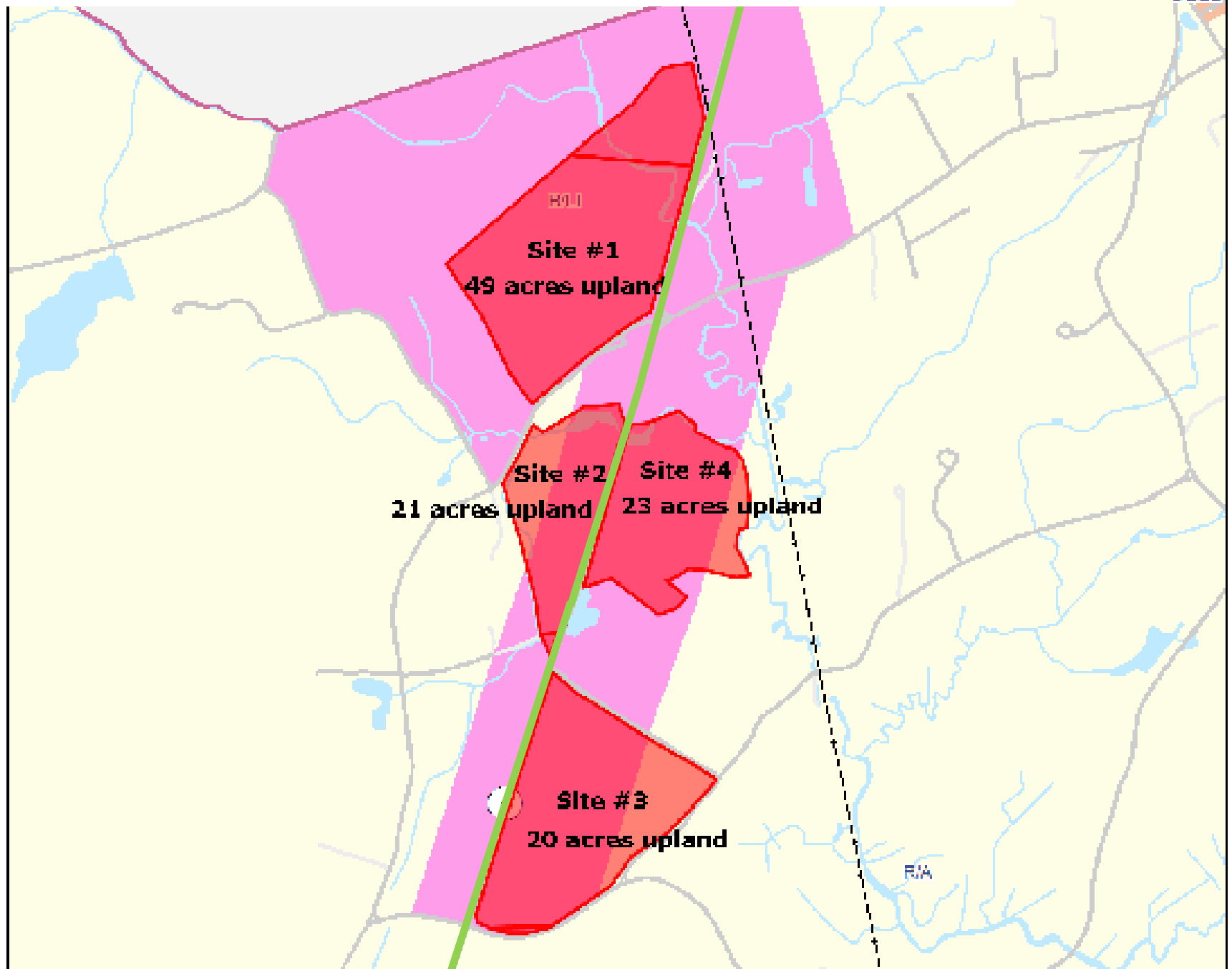
- Determine Maximum Build-out
- Evaluate Water Sources
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Sites Evaluated within the B&L District

USFWS
DEED



Maximum Build-out Assumptions & Design Criteria

Assumptions

- 25% Retail, 50% Professional Office & 25% Industrial Use
- Parcels assembled
- Septic systems are possible
- Septic systems will be under parking lots

Design Criteria

- Newbury Zoning Bylaw
- MassDEP setbacks for water courses & wetlands
- MassDEP Title V Design Requirements

MassDEP = Massachusetts Department of Environmental Protection

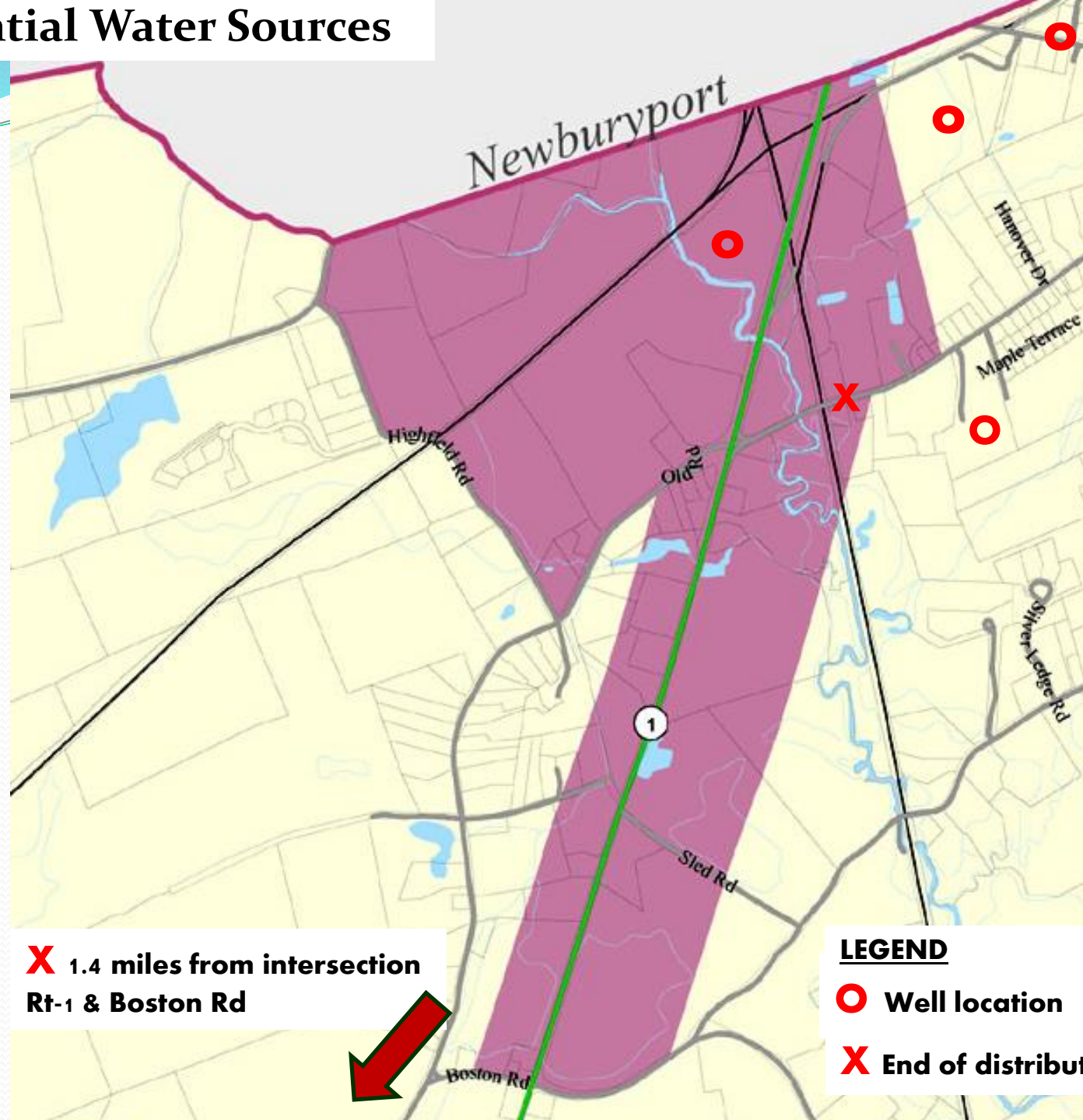
Maximum Build-out Results

Type of Use	Total Building Area (sft)
Retail	432,283
Professional Office	1,113,834
Industrial	631,799

Water Demand = 70,000 gpd

Estimated Tax Revenue = ??

Potential Water Sources



X 1.4 miles from intersection
Rt-1 & Boston Rd

LEGEND

○ Well location

X End of distribution system

Status of Project Completion

- Design of Distribution System connecting to an existing public water supply to the B&LI District:

Byfield Water District

- Design of water treatment facility & distribution system connecting to the B&LI District:

Well location on Parcel U-07-17A

Other

- Old Town Water Commission
 - Chapter 808 Acts of 1972 describing the act establishing the Old Town Water District
 - Chapter 403 Acts of 1908 describing the act relative to the water supply of Newburyport and the relationship with the Town of Newbury
 - Chapter 56 Acts of 1956 describing the amendment to Chapter 403 Acts of 1908 – water rates.

Summary

- Maximum Build-out
 - Retail Use = 432,283 sft
 - Professional Office Use = 1,113,834 sft
 - Industrial Use = 631,799 sft
- Design of Distribution System based on the Byfield Water District
- Design of Water Treatment Facility based of well location on parcel U-07-17A

Questions



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