CHALLENGE PROJECT:

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

By Kathleen Pearson
For The Town of Newbury, MA
March 27, 2013
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
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
Agenda

● Market Value
● Project Description
● Progress to Date
● Summary
● Questions
Town Budget

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

EXPENSES
• Education
• Debt Payments
• Employee Benefits
• Town Services

$17 Million Budget
Historical Poll Results for Override Request

<table>
<thead>
<tr>
<th>Date</th>
<th>Total Voters</th>
<th>Participating Voters</th>
<th>Votes In Favor</th>
<th>Votes Against</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-May-11</td>
<td>4,996</td>
<td>2,455</td>
<td>1,055</td>
<td>1,319</td>
</tr>
<tr>
<td>8-May-12</td>
<td>4,946</td>
<td>1,318</td>
<td>616</td>
<td>667</td>
</tr>
<tr>
<td>6-Nov-12</td>
<td>5,209</td>
<td>2,038</td>
<td>2,303</td>
<td></td>
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</tbody>
</table>
2013 Fiscal Year Revenue

- Residential Property Taxes: 86%
- Commercial Property Taxes: 5%
- Excise Taxes: 6%
- State Aid: 3%

*Image of pie chart showing sources of revenue.*
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
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.
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
Status Project

- Determine Maximum Build-out
- Evaluate Water Sources
- Design Distribution System
- Design Water Treatment Facility & Distribution System
Sites Evaluated within the B&LI District

- Site #1: 49 acres upland
- Site #2: 21 acres upland
- Site #3: 20 acres upland
- Site #4: 23 acres upland
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

<table>
<thead>
<tr>
<th>Type of Use</th>
<th>Total Building Area (sft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>432,283</td>
</tr>
<tr>
<td>Professional Office</td>
<td>1,113,834</td>
</tr>
<tr>
<td>Industrial</td>
<td>631,799</td>
</tr>
</tbody>
</table>

Water Demand = 70,000 gpd

Estimated Tax Revenue = ??
Potential Water Sources

1.4 miles from intersection Rt-1 & Boston Rd

LEGEND
- Well location
- 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
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