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Comprehensive Wastewater Management Plan (CWMP) North Andover, Massachusetts

June 19, 2008

What is Driving This Study?

- Town's watershed sewer extensions complete
- On-going Infiltration/Inflow (I/I) removal
- Sewer system improvements
- Town's Master Plan for economic development
- Need to understand financial options to achieve Town's goals

CWMP Value to North Andover

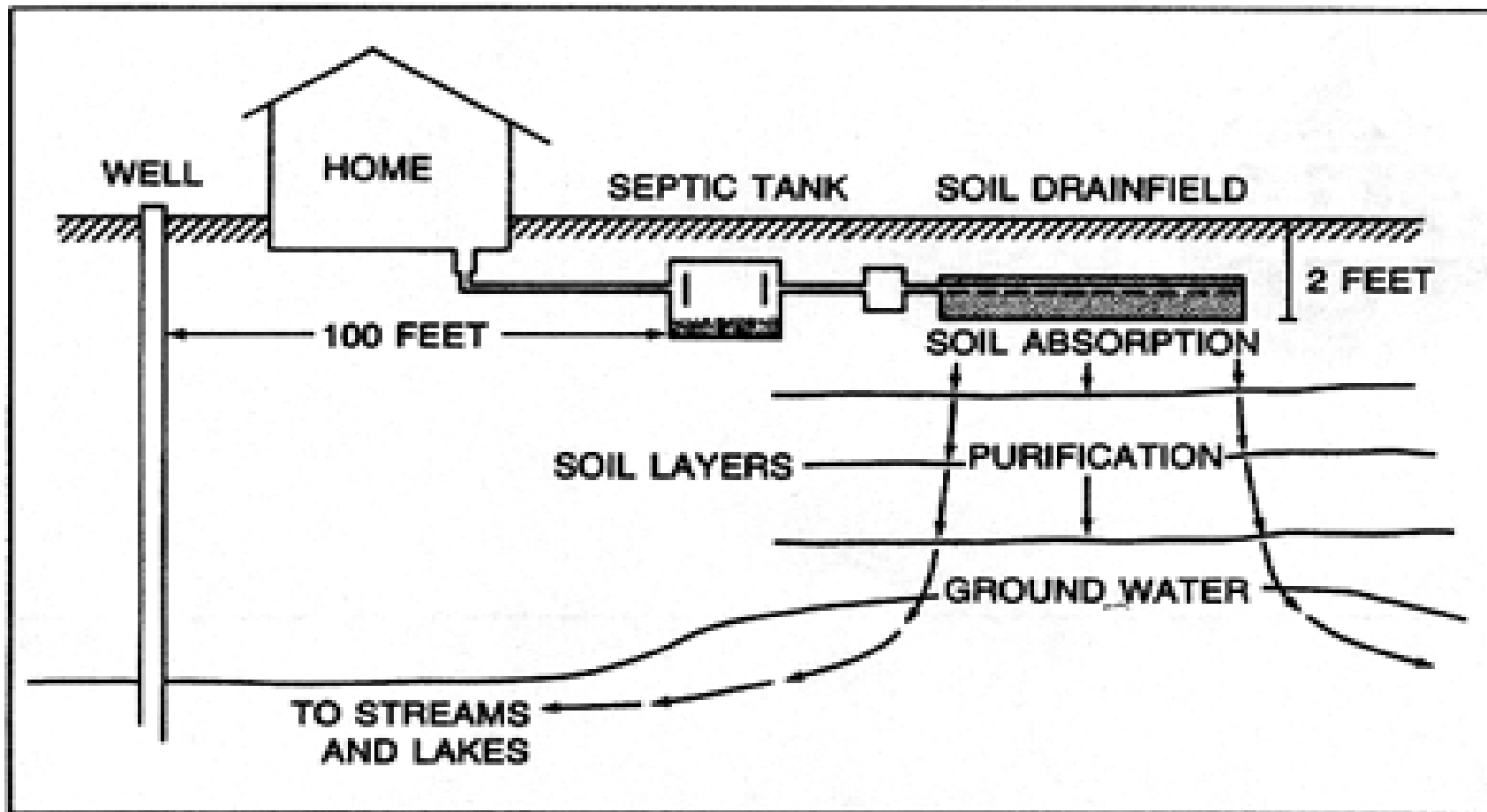


- A long range (20-year) wastewater management planning tool
- Team with DEP to achieve Town's goals
- Protect public health
- Environmental sustainability
- Understand financial investment options to achieve Town's wastewater management goals

On-site Systems Depend on Many Elements for Effective Wastewater Treatment

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CWMP Process

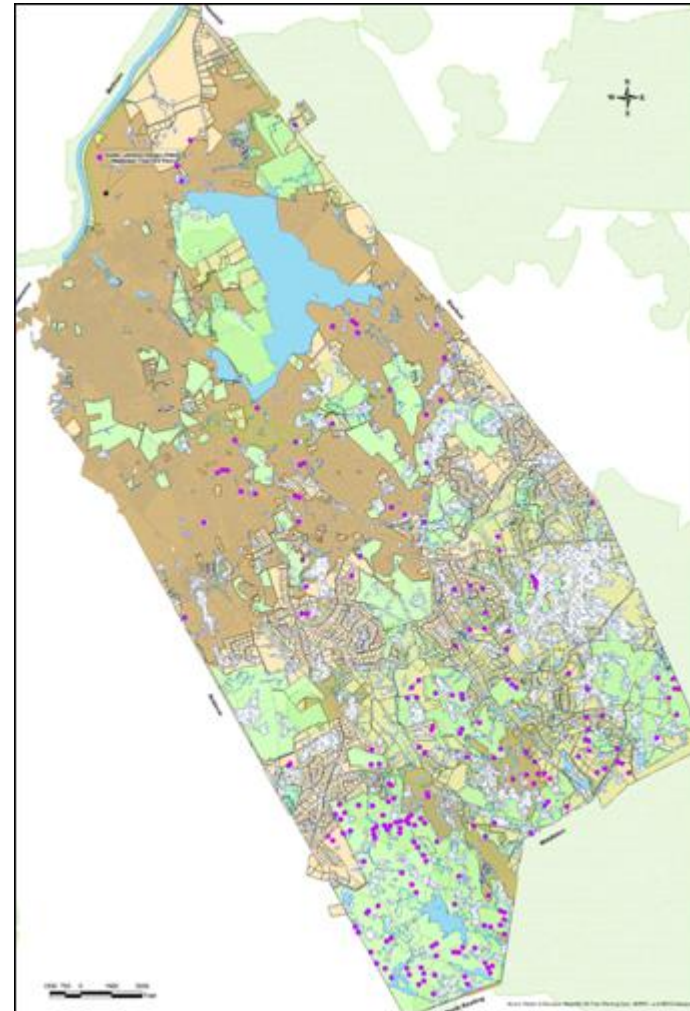
- Evaluate existing conditions
- Perform needs analysis
- Public participation
- Screen wastewater management alternatives
- Recommend feasible and cost-effective alternative
- Create implementation plan

North Andover Existing Conditions

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- Wetlands
- Existing sewerage areas
- Endangered species and vernal pools
- Ipswich River Watershed



North Andover Existing Conditions

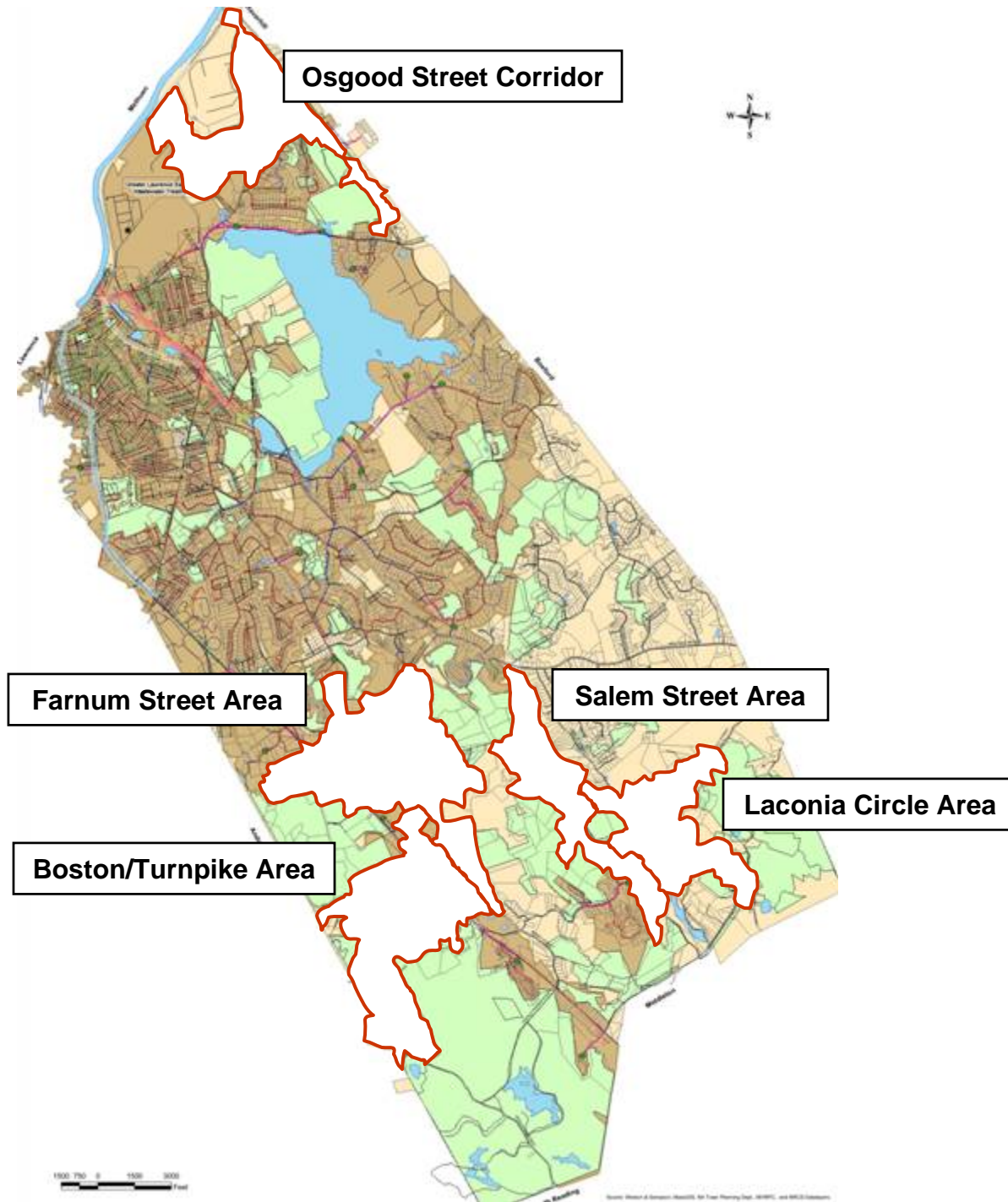


- 1,711 homes unsewered
- 3,828 acres of land unsewered
- 653 acres of wetlands
- 60% of soils severe limitations for septic systems
- Septic system replacement costs \$25k - \$40k

- Osgood Street Corridor
 - Need for commercial/industrial development
 - Bradford Street residential parcels surrounded by sewer

- Unsewered Areas in South Half of Town
 - Located in stressed Ipswich River watershed
 - Rare species and vernal pools
 - 17% of wetlands
 - Septic system failures

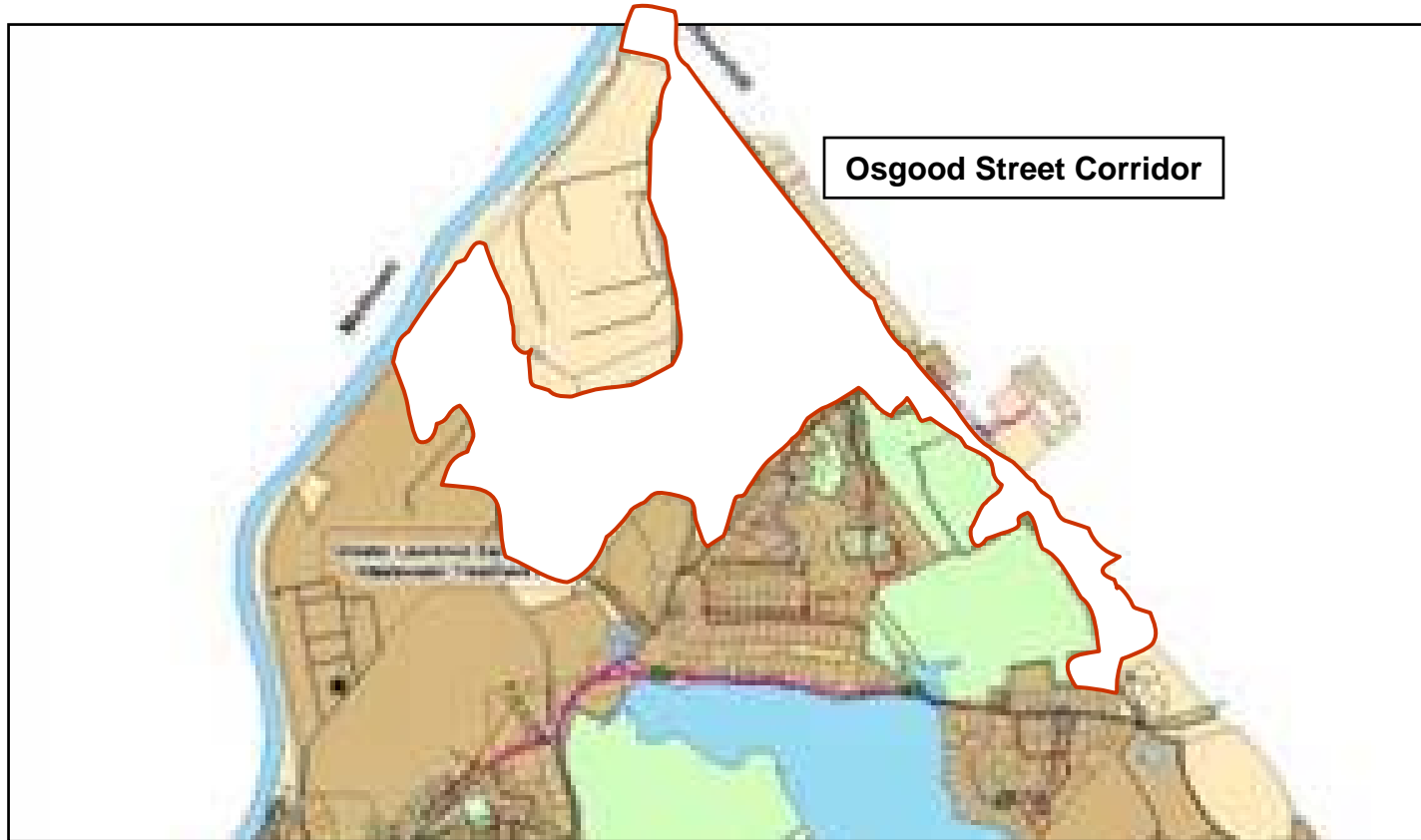
North Andover Priority Areas



Wastewater Management Options

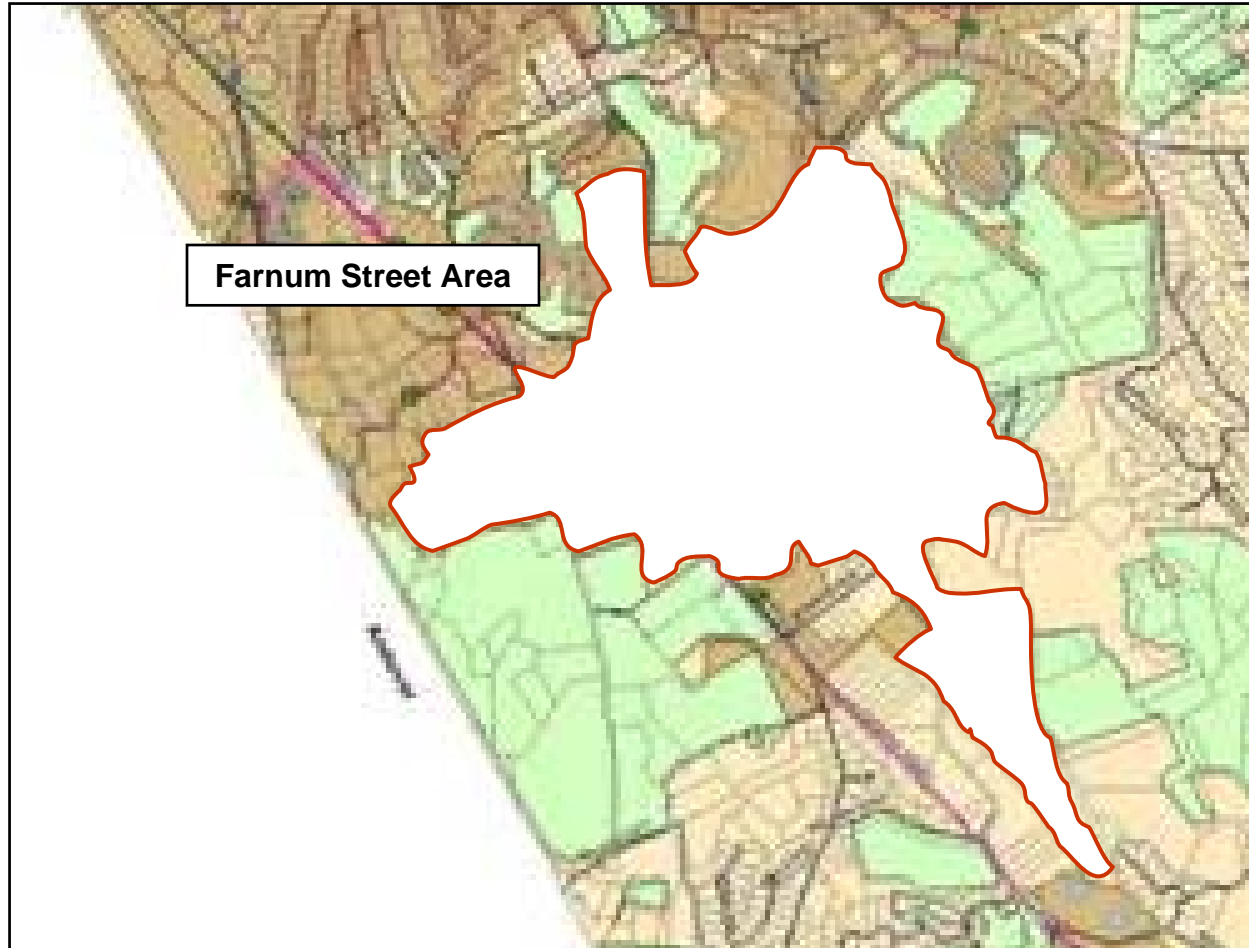
- Continued use of septic systems
- Comprehensive Septage Management Plan
- Small cluster systems
- Centralized WWTP
- Extend sewers to GLSD
 - Sewer is most viable to manage wastewater

North Andover Priority Areas Osgood Street Corridor



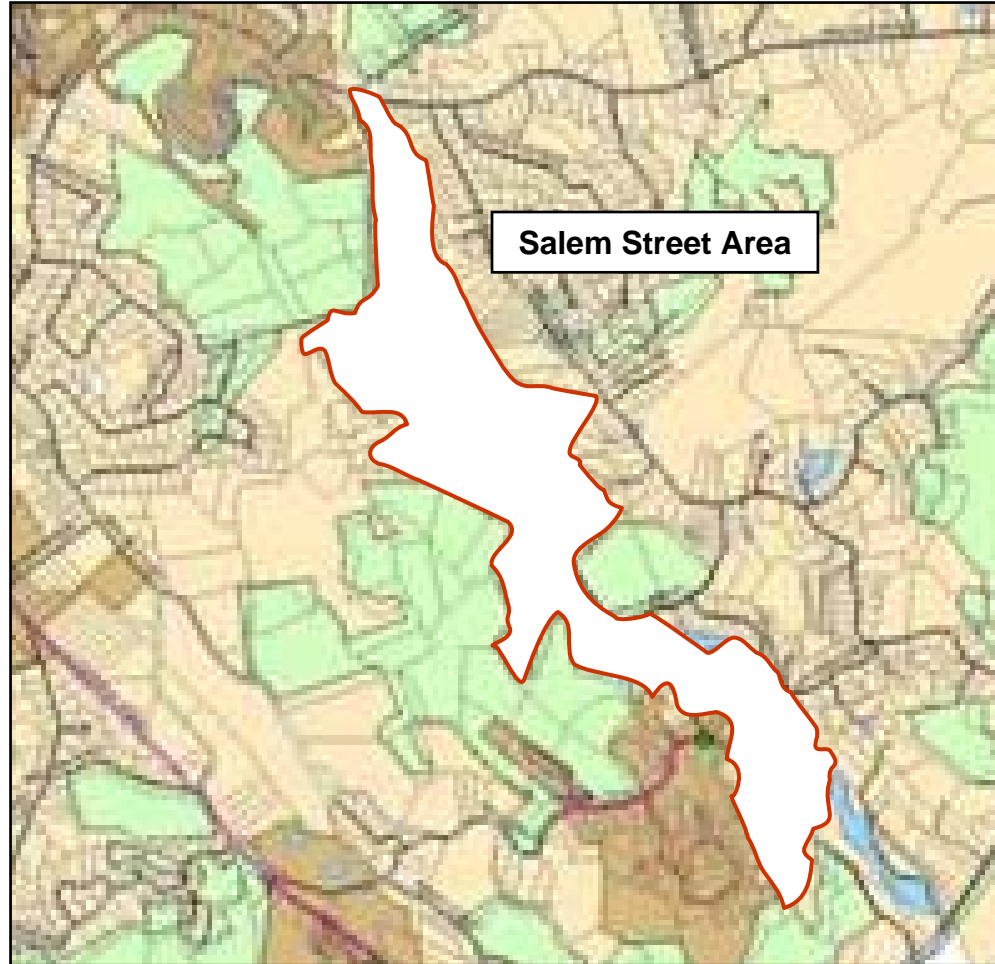
North Andover Priority Areas

Farnum Street Area



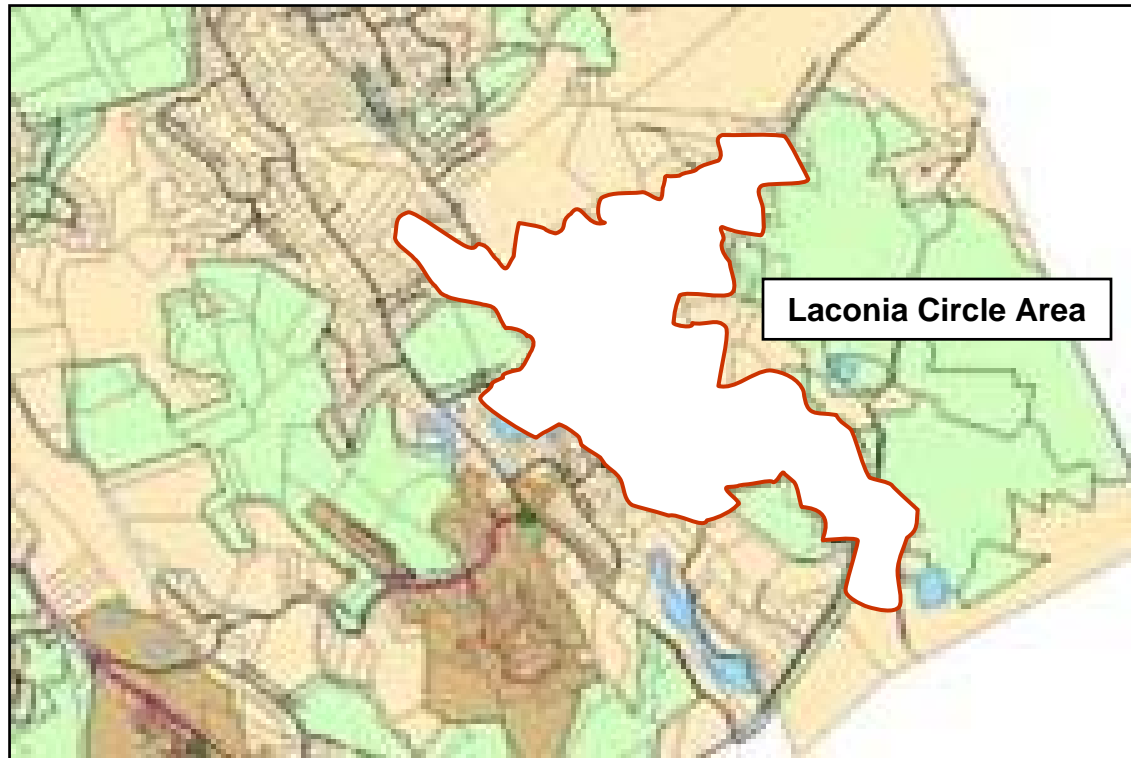
North Andover Priority Areas

Salem Street Area



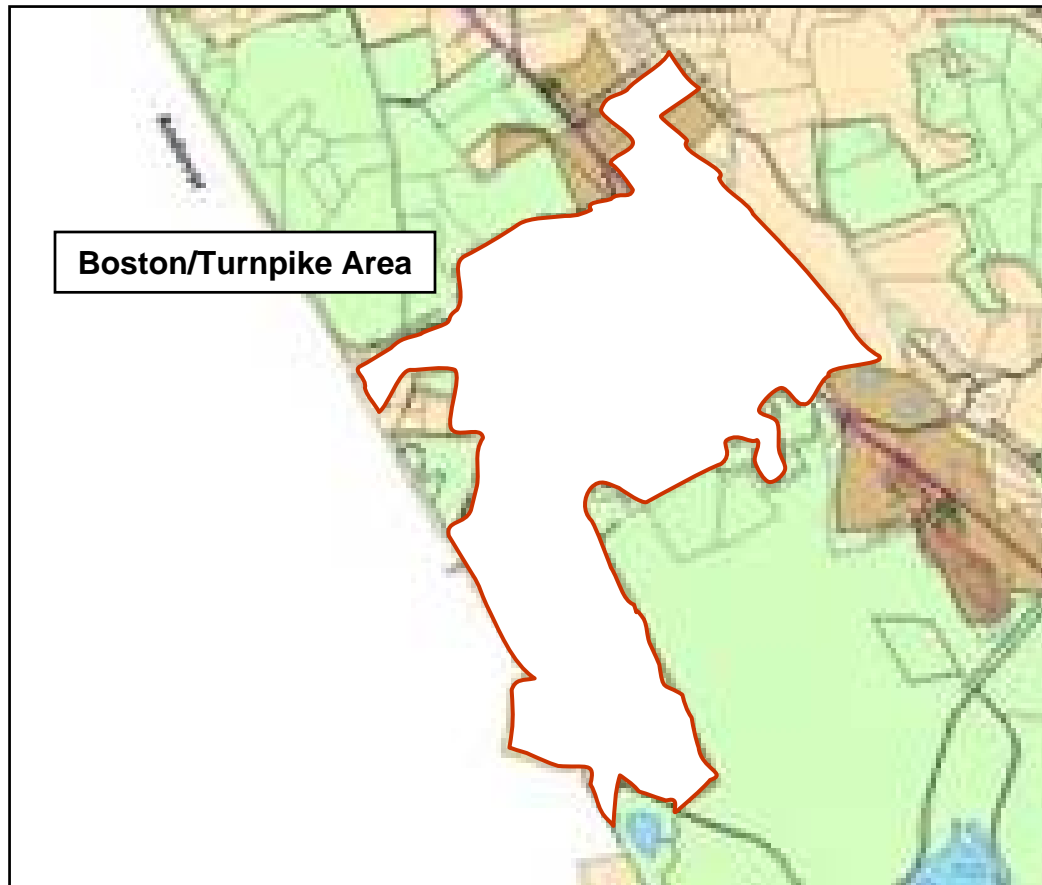
North Andover Priority Areas

Laconia Circle Area



North Andover Priority Areas

Boston/Turnpike Area



Phasing and Investments

Phase	Area	Project Cost
I	Encapsulated Areas	\$4,500,000
II	Osgood Street Corridor	Components under negotiation
III	Farnum Street	\$24,000,000
IV	Salem/Laconia	\$20,500,000
V	Boston Turnpike	\$14,000,000
Contingency for Potential System Upgrades		\$15,000,000

Cost Sharing Alternatives

Allocating Costs to Owner & User



- Current Betterment Policy
 - Collecting \$3,858 Per Parcel
 - Priority was to Protect Town's Drinking Water
 - Sewer Rates Absorbed Project Costs
- Betterment Policy Comparison

Betterment Comparison

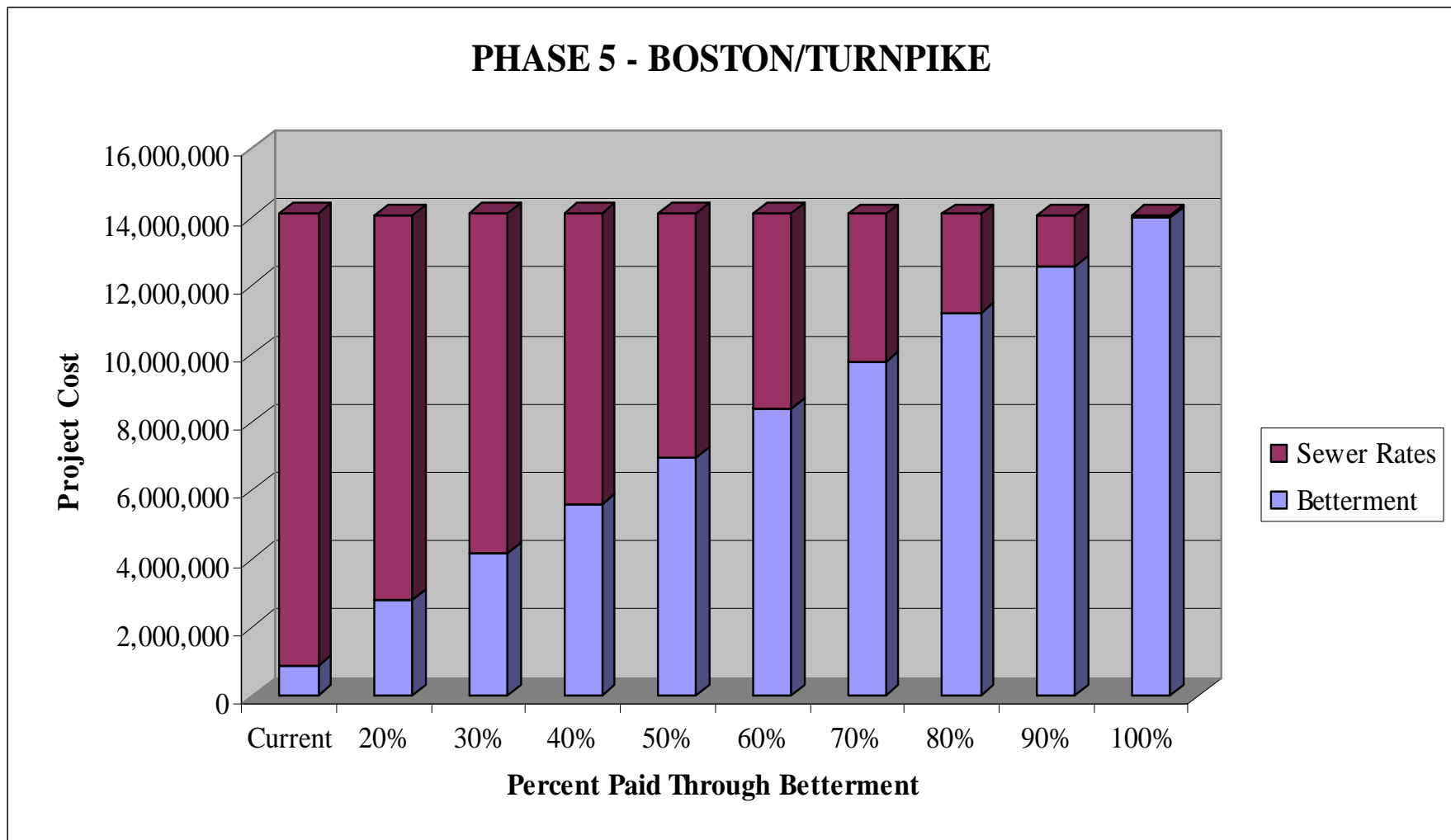


TOWN/CITY	BETTERMENT	
	SEWER ENTERPRISE FUND	RESIDENT
Andover	33%	66%
Billerica	50%	50%
Haverhill	55%	45%
Medfield	5%	95%
Methuen	0%	100%
Newburyport	50%	50%
North Andover	-	\$3,858
Tewksbury	-	\$3,000

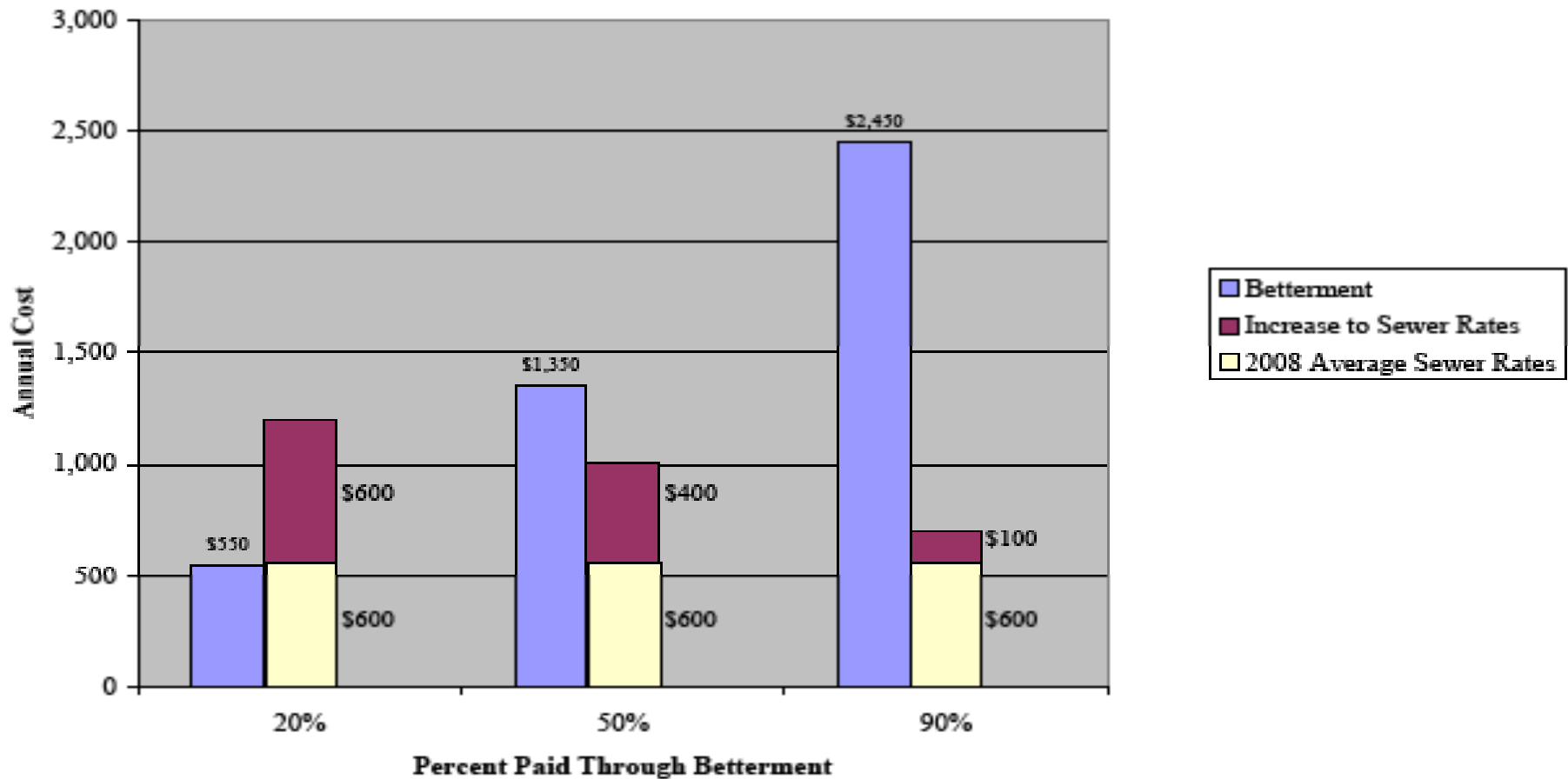
Sewer Rate Impact Evaluation

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Sewer Rate versus Betterment Cost Impact Comparison



Evaluate Financing Options

- Allocate costs between existing and new users
- Use betterment to allocate costs to benefactors
- Sharing costs to all users through usage fees
- Phase projects to maintain existing debt schedule
- Establish criteria for commercial and/or industrial property contribution

Question and Answer

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