



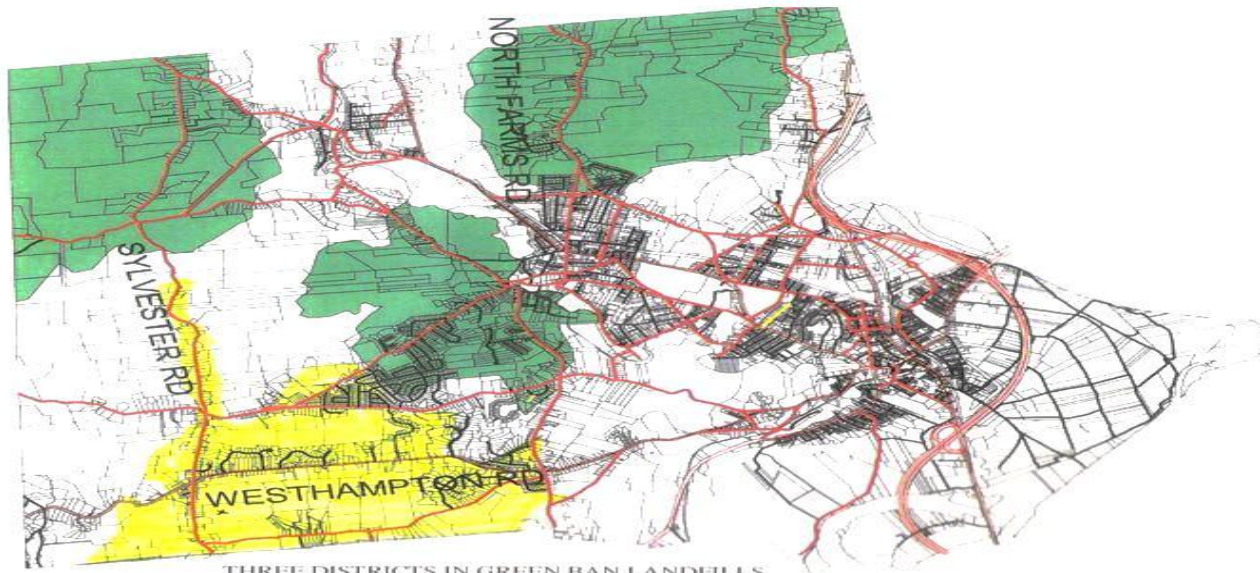
# Water Not Waste

July 1, 2010  
Presentation

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# Our Water Supply Protection Districts

WATER SUPPLY PROTECTION DISTRICTS IN NORTHAMPTON

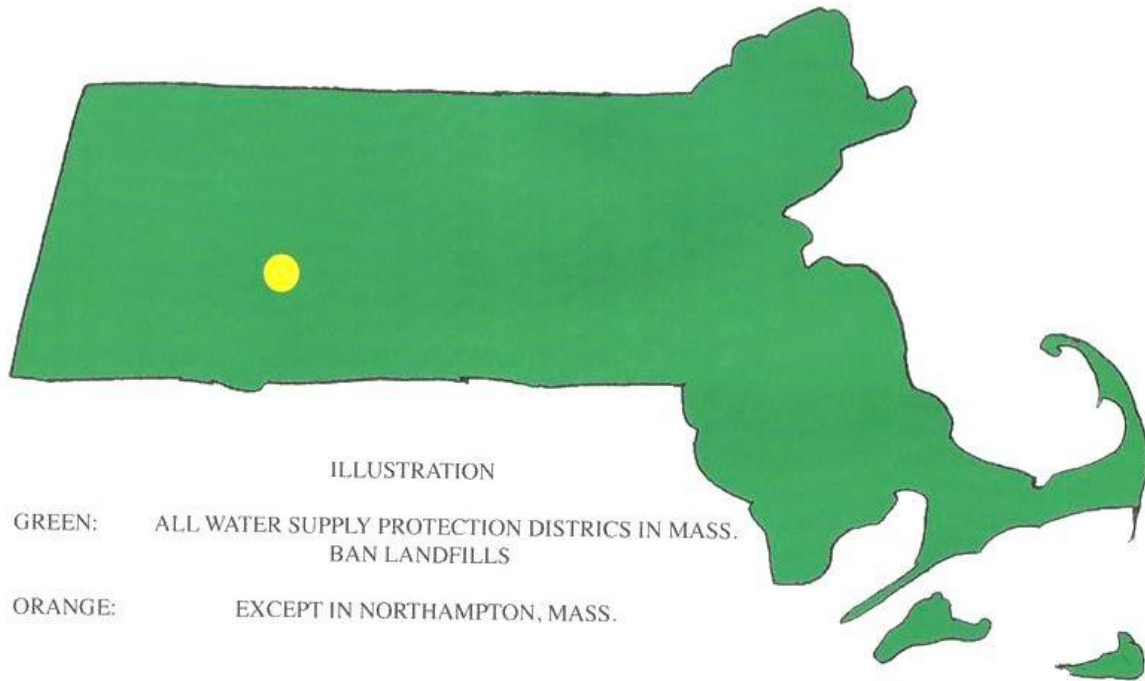


THREE DISTRICTS IN GREEN BAN LANDFILLS

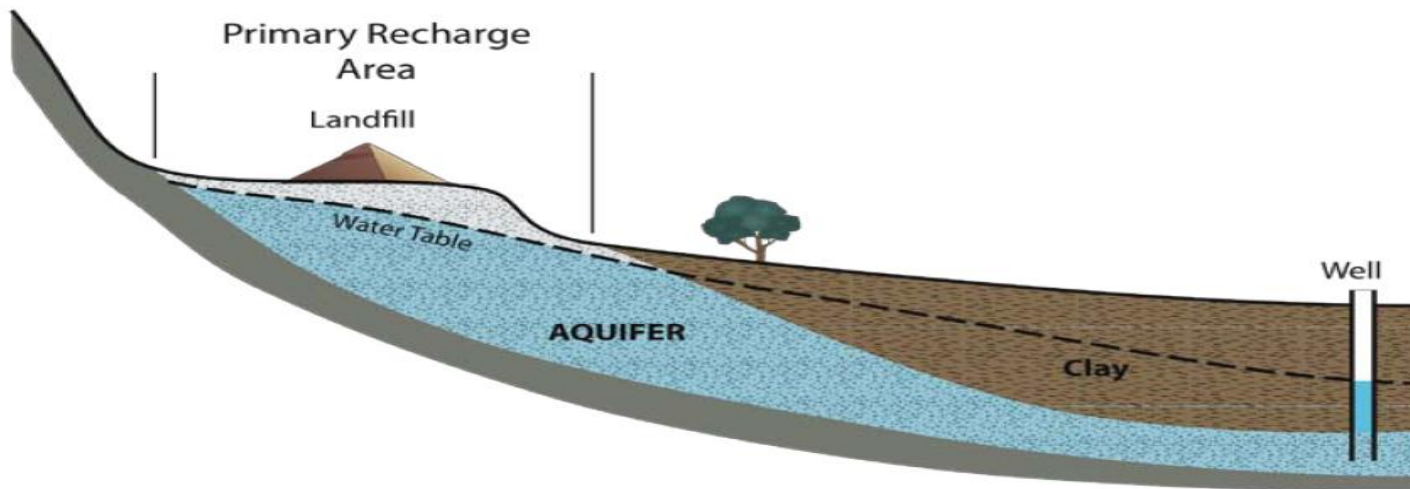
\*DISTRICT IN YELLOW OVER THE BARNES AQUIFER EXEMPTS  
THE LANDFILL EXPANSION under the current zoning ordinance

ALL WATER SUPPLY PROTECTION DISTRICTS IN MASS. BAN LANDFILLS

# Northampton Is Currently an Outlier in Massachusetts



# All Landfill Liners Fail in Time



- Michael Gorski, DEP regional director for Western Mass., publicly stated he cannot guarantee that the aquifer will not be contaminated if the Northampton landfill expands.
- Additional sources: Barnes Aquifer Protection Advisory Committee, Zero Waste America



# Landfill Legacy: Contamination

- These are wetlands south of the landfill. The orange color is from iron precipitates or **iron floc**, caused by landfill leachate. The leachate also causes the release of arsenic. High levels of arsenic have been found in sediments of these wetlands. Arsenic was also found in private wells downgradient of the landfill. The city provided an alternate water supply for one of these wells.
- Studies have revealed multiple toxic contaminants in surface water, wetlands, the Hannum Brook, private wells, and wells monitoring the aquifer.
- The Mass. DEP Office of Research and Standards has stated there is visible hazardous material in the Hannum Brook and wetlands south of the Northampton landfill that qualifies as “Readily Apparent Harm” and is a “risk to the environment”.
- The landfill legacy is environmental contamination.



# Landfill Finances

- The current landfill operation has resulted in the doubling of sticker fees for residents using the city's transfer station.
- About \$200,000 will be transferred from landfill revenues to the City's general fund this year.
- No money will be transferred to the general fund next year.

# Closed Landfills and Solar Energy

- The Mass. DEP and the Mass. Dept. of Energy Resources are promoting the siting of solar arrays on closed landfills. There are state and federal financial incentives to support these projects.
- **Fairhaven MA** has signed a contract with Blue Sky Power to construct a solar array on 20 acres of its closed landfill. Fairhaven will receive \$300,000/year for the next 20 years in the lease arrangement.
- **Greenfield MA** has signed a contract with Axio Energy to install solar panels on its closed landfill (a 21-acre site). The town expects to save \$250,000 on its electric bill during the first full year of operation.
- **Northampton's landfill site** might have 50 acres or more available to lease for a solar array.



# Clean Water: Increasing Value

- Two-thirds of the world's population is projected to face a scarcity of water by 2025, according to the U.N.
- In the U.S., 36 states anticipate water shortages by 2013 according to a General Accounting Office report. (Wall Street Journal, 2/17/09)
- The water in Western Mass. is likely to become increasingly valuable with time.



# Waste Disposal Alternatives

# Current Local Options

- Among the hilltowns, popular disposal options include the landfill at South Hadley and the Covanta Waste-to-Energy plant in Springfield
- (Eric Weiss, Administrator, Hilltown Resource Management Cooperative, May 19, 2010)

# Future Local Options

- Volume Reduction Associates plans to open a private transfer station in Northampton soon, a 20+ acre facility on Easthampton Road
- VRA will start by accepting construction and demolition waste from commercial haulers
- VRA then expects to accept waste and recyclables from residents at competitive rates

# Out-of-State Options

## Haul, Transfer & Disposal Options

### Transfer and Out-of-State Disposal Costs

(FY08)

State	Facility	Hauling Distance (one-way miles)	Total Transfer and Transportation Cost (\$/Ton)		Estimated Range of Tipping Fees (\$/Ton)		Total System Costs (\$/Ton)	
<b>New York</b>								
	Seneca Meadows - Seneca Falls	227	\$37.60	- \$39.10	\$28.00	- \$30.00	\$65.60	- \$69.10
	High Acres - Fairport	395	\$59.52	- \$61.02	\$28.00	- \$30.00	\$87.52	- \$91.02
	Ontario County - Stanley	379	\$57.70	- \$59.20	\$28.00	- \$30.00	\$85.70	- \$89.20
	Monroe County - Riga	422	\$62.59	- \$64.09	\$28.00	- \$30.00	\$90.59	- \$94.09
	Hyland - Angelica	397	\$58.70	- \$60.20	\$28.00	- \$30.00	\$86.70	- \$90.20
	Average						<b>\$83.22</b>	<b>\$86.72</b>
<b>Pennsylvania</b>								
	Alliance Sanitary - Lanckawanna Co.	236	\$43.02	- \$44.52	\$30.00	- \$35.00	\$73.02	- \$79.52
	Grand Central - Pen Argyl	230	\$41.67	- \$43.17	\$30.00	- \$35.00	\$71.67	- \$78.17
	Keystone - Dunmore	229	\$42.36	- \$43.86	\$30.00	- \$35.00	\$72.36	- \$78.86
	GROWS - Morrisville Bucks Co.	229	\$42.14	- \$43.64	\$30.00	- \$35.00	\$72.14	- \$78.64
	BFI Conestoga - Morgantown	294	\$47.63	- \$49.13	\$30.00	- \$35.00	\$77.63	- \$84.13
	Average						<b>\$73.36</b>	<b>\$79.86</b>

Even including transportation costs, out-of-state disposal is competitive with the \$68.07/ton Northampton charged its commercial customers in 2008 (Stantec/HDR presentation)

# Money-Saving Opportunities

- If Northampton contracts with one commercial hauler to pick up all residential trash at curbside, the resulting efficiency is likely to reduce costs for many residents (and use less fuel)

# Getting the Financial Incentives Right

- Northampton's recycling rate lags many of its neighbors and the statewide average of 47%
- The Sustainable Northampton plan calls for 75% recycling by 2017 (page 20)
- If the city operates a landfill, it has an incentive to tip more tons, not recycle them, to meet its revenue targets

Municipal Waste Programs

Municipality	Direct Haul, Tons	Recycling Rate
Amherst	349	16%
Ashfield	417	48%
Chesterfield	181	51%
Cummington	249	41%
Gill	214	44%
Goshen	169	53%
Granville	242	40%
Hadley	430	n/a*
Hatfield	315	n/a*
Huntington	491	45%
Middlefield	149	39%
Plainfield	116	58%
Southampton	825	64%
Westhampton	345	46%
Williamsburg	577	38%
Worthington	272	53%
<b>Subtotal</b>	<b>5,399</b>	
Northampton	3,925	34%
<b>Total</b>	<b>9,324</b>	



# Water Not Waste

- Please support the Drinking Water Protection Ordinance