

Town of Acton Sewer District West Acton Continuation



19 November 2019
Finance Committee

Middle Fort Pond Brook Sewer District
David Martin, WASAAC Chair
Paul Campbell P.E., Town Engineer

Article 3: Sewer District Expansion to West Acton

- Good for Businesses
- Good for Property Owners
- Good for Acton



Addresses Problems for Businesses

Lack of sewers severely impacts village businesses

- Building owners cannot host other types of businesses
- Existing septic systems must be nursed along
- Extraordinary measures must be taken for normal business use
- Limited seat count in restaurants
- Some restaurants cannot have dishwashers



A logistic and financial burden for West Acton businesses

Strongly supported by W. Acton Businesses



- *“West Acton [is] a district where zoning specifically promotes and encourages the kind of vibrant mix of uses that a sewer [would] enable.”* – Mathias Rosenfeld, West Acton Villageworks
- *“Town sewer in West Acton would give us an opportunity to grow our business in new ways.”* – Chris Powell, Orange Door Kitchen
- *“There is a lot of momentum and excitement in West Acton, but in order for it to reach its potential as a vibrant, walkable commercial district, and attract more high quality businesses, we need sewer services.”* – Lucy Goldstein, Wellness at Villageworks

Supported by Acton's Economic Development Committee



Advantages for Property Owners

- Puts a ceiling on costs, especially in cases where advanced treatment systems are required
- Guards against having a mounded/pumped septic field in your yard
- Prevents major tree clearing and landscaping, when relocating septic systems
- Allows changes, such as accessory dwellings
- Makes it easier to sell your house –new home buyers are nervous about septic
- Avoids having to deal with unexpected break out or back up failures – sewers are reliable

Value for Property Owners

- Betterments from residences pay less than 50% of the project cost
- Leverages state funding – priority project for the state’s Clean Water Trust
- \$13M low-interest loan is available to Acton, likely 1.9%
- Betterments are fixed in 2023; septic replacement cost goes up with inflation
- Avoids having to replace septic due to Title 5 quiet failures, when selling
- Cases are individual, but costs are similar to septic replacement

Example – Septic Recently Replaced

Septic replaced in 2015; planning to stay indefinitely

Continue to use septic

- \$0 hook up
- \$0 sewer fee
- <\$56K total betterment payments for 30 years



Septic fails a couple of years after betterment payments

- \$12K hookup in 2055
- avoiding \$77K septic replacement in 2055

Example – Septic In Need

Septic system fails in 2021; planning to move in 10 years



- \$6.5K hook up in 2023
- \$800/year sewer fees for 10 years
- <\$19K total betterment payments for 10 years – pass payments on to future owner

Board of Health practice is to work with homeowners when sewers are coming

Septic System Replacements

- >80% of septic system repairs in W. Acton have mounded leach fields, averaging 2', but as high as 6'
- ~50% of septic system repairs in W. Acton have required variances or have implemented I/A technology which receives reductions in sizing or offset to the groundwater table
- ~20% of septic systems in W. Acton have required either an advanced treatment unit (for leach field size reduction) or nitrogen reduction technology (for reduction in setback to wetlands)

Because of the permeable soils and high water in W. Acton, many systems have quietly failed, discharging from the tank directly into groundwater

2019 General Septic Costs (incl. design)

- ~\$30K is the cost of a simple passive septic system
- ~\$35K for an active dispersal system (Perc-Rite)
- ~\$35K for infiltration treatment (Presby)
- ~\$40K for passive advanced treatment (Presby advanced)
- ~\$45K for active advanced treatment (Jet, etc.)
- +\$5-10K for mounding, which often requires pumping
- +\$?K for tree removal & landscaping
- \$200-2000/year maintenance

Recent Septic Quotes

| | Quote #1 | Quote #2 | Quote #3 | Quote #4 | Quote #5 |
|---------------------|----------------|-------------|------------|----------------|-------------|
| Date | 2016 | 2016 | 2016 | 2014 | 2014 |
| Property | Spencer Rd | Spencer Rd | Spencer Rd | Mohegan Rd | Mohegan |
| Historic Cost | \$37,400 | \$37,900 | \$46,150 | \$27,900 | \$27,900 |
| 2023 (2%) | \$42,960 | \$43,535 | \$53,011 | \$32,048 | \$32,048 |
| Landscape Included? | Yes (existing) | No (\$4500) | No | Yes (existing) | No (\$1300) |
| Design? | No | No | No | No | No |

- ❖ Sewer Betterment (2023) = \$35,000 to \$39,000
- ❖ Spencer & Mohegan Roads in High Need Areas (CWRMP) like W.Acton
- ❖ Betterment payments can be passed to next owner

Acton Environmental Benefits

- Prevents direct discharge into groundwater from quiet failures of older septic systems
- WWTP discharges much cleaner water than septic
- WWTP removes nitrogen and phosphorous
 - Nitrates are a problem for babies & pregnant women
 - Nutrient pollution is a worldwide problem
- Water District may locate a well in West Acton
- Disposable utensils at restaurants without dishwashers increases solid waste
- Coordination with National Grid to fix gas leaks
- Unanimously supported by Acton's Board of Health

Project Cost Estimate

- \$14.7M - \$15.2M Total Project Cost
 - \$12M Construction
 - \$1M Construction Contingency
 - \$1M Design Costs (including repayment of preliminary design costs)
 - \$1M Treatment Plant Buy-In for upgrades
- Paid by:
 - District Property Owner (78%)
 - Commercial (30%)
 - Residential (48%)
 - General Benefit (22%)
 - Town Responsibility (18%)
 - School District & other public entities (4%)



General Benefit Estimates

- \$2,450-3,150K Town Responsibility
 - \$1,250-1,550K Paving
 - Mass. Ave. and others are already in DPW plans
 - \$700-900K Police Details
 - \$100-200K Town Avoided Cost
 - Fire Station, Citizen's Library, etc.
 - \$400-500K Pipe/Pump Reserve Capacity
- \$570-800K Other Public Entities Avoided Cost
 - \$20-50K Acton Housing Authority
 - \$550-?K Twin School

(By law the public buildings use avoided cost – costs that they would otherwise pay for septic)



Financing

Design and construction

- \$750K at ~3% bond for completing design
- 0% Clean Water Trust loan covers costs during construction

Upon Completion

- \$1.5M at 1.9% Clean Water Trust bond for Phase 1 approved
- \$11.5M at ~1.9% Clean Water Trust bond for Phase 2 pending
- \$107-137K annual debt service for town responsibilities starting 2023

Please Support Sewers



- Supports a unique walkable shopping district in Acton
- Prevents aesthetic impact from mounding, including parts of the historic district
- Does not cause residential build-out
- West Acton expansion estimated to moderate sewer rates by 8-12%
- \$1.3M of W. Acton betterments support existing sewer district