

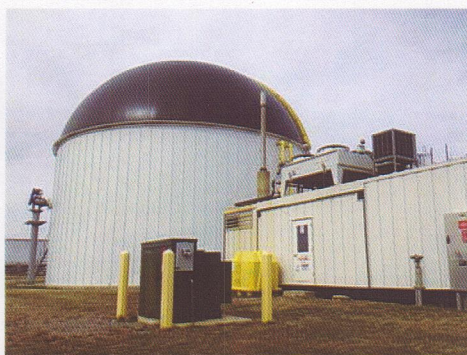
Sustainable Technologies for Organic Materials Processing

June 13, 2013



Presentation Outline

- Current Uses of Hartwell Avenue Landfill Site
- Potential Additional Use of Site for an organics materials processing facility
- Next Steps



Rutland, MA Jordan's Farm Organics Facility
(Courtesy Casella Waste)



Current Uses – Hartwell Avenue Landfill Site



- Regional leaf and yard waste composting (10,000± tpy)
- Regional household hazardous waste facility
- Regional emergency equipment storage
- DPW materials storage and processing
- Police firing range
- Construction lay-down areas for municipal projects

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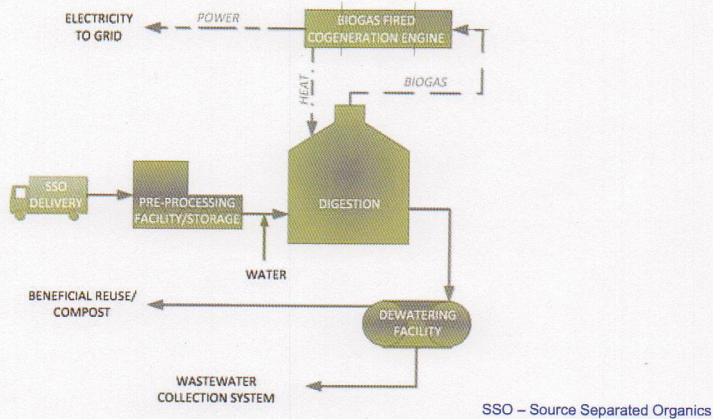
Current Uses, continued



Total Usable Area – 25± acres

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Organic Material Processing through Anaerobic Digestion



Note: Specific technologies are proprietary and may vary



Richmond, British Columbia Plant Under Construction
(Courtesy Harvest Power)

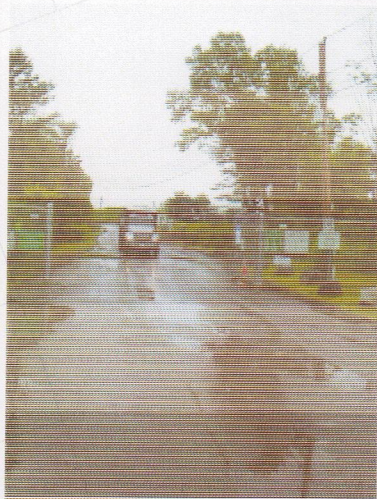


Fremont, Michigan USA Food Waste Facility
(Courtesy Biomass Magazine)



DRAFT for Internal Review & Comment

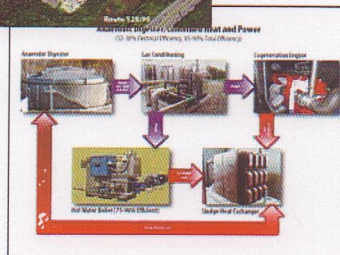
Why does this facility potentially make sense at the Hartwell Avenue Landfill Site



- Direct access from Route 128 through commercial area
- Proximity to organic sources – requires out-of-town materials to be viable
- Builds on success of existing leaf and yard waste composting operation
- MassDEP landfill closure allows flexibility in site uses
- Proximity to on-site utilities
 - Electrical substation
 - Water and sewer
 - Natural gas transmission line

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How will viability of a facility be determined?

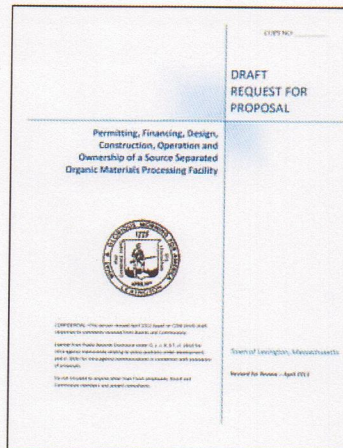


- Town is evaluating leasing a portion of the closed Hartwell Avenue landfill to a private firm to design, permit, construct and operate a facility and possibly an enhanced composting operation.
- Lease would be completed through competitive RFP process
- All RFP requirements will be established by the Town of Lexington

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Responses to RFP will provide information to Town needed to fully evaluate a facility

- Specific environmental controls
 - Traffic, Odors, Noise, Stormwater, Vermin, Aesthetics
- Detailed design and permitting approach
 - Local approvals (Conservation, Board of Health, Zoning)
- Project team experience financial benefits
 - Lease Payments
 - Use of generated electricity (net metering)
 - Residential organics collection
- Area to be leased
 - Include existing composting?



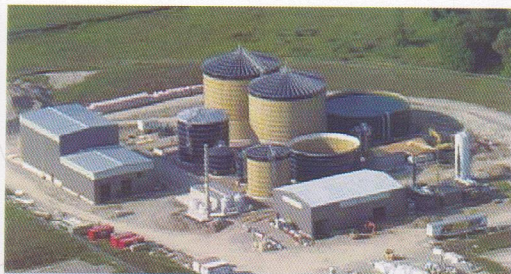
Potential environmental benefits of facility

- Increased recycling
- Lower greenhouse gas emissions compared to waste disposal by up to 50%
- Locally-generated sustainable source of electricity
 - Preliminary estimate 1 to 3 MW net power
 - 1MW facility can power approximately 1,000 homes
- Support local businesses by providing local disposal option
- Potential education programs
- Improve site entrance aesthetics



Rutland, MA Jordan's Farm Facility
(Courtesy Casella Waste)

Next Steps



*Harvest Energy Garden, London Ontario
(Courtesy Harvest Power)*

- Receive public input
- Evaluate whether facility is consistent with Town's sustainability and recycling goals
- Continue discussions with Town boards and commissions
- Board of Selectmen consider issuance of RFP
- Town Meeting approval needed for re-zoning