


New Solid Waste Disposal Site

DALTON, NEW HAMPSHIRE

Existing Chick Sand & Gravel Site - Route 116


May 2019

Giving Resources New Life®



Casella Company Overview:

- Founded in 1975 with a single truck
- Approximately 2,300 employees serving over 200,000 customers and 500,000 households across the Northeast
- Traded on NASDAQ as CWST
- \$677M in annual revenue
- Operations in MA, ME, NH, NY, PA, and VT
- Vertically integrated collection, transfer, disposal and recycling operations
- Provide professional resource management services to major businesses and industry throughout North America
- Recover over 800,000 tons of recycling and over 400,000 tons of organics for beneficial use each year = More than 1.2 million tons of recyclables and organics per year



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Reducing Our Carbon Footprint

We've cut our carbon footprint in half!

Through low emission landfills, energy efficient facilities and converting our collection fleet to run on CNG, we're constantly improving our environmental impact.



In January 2012, we were recognized by the EPA, the Association of Climate Change Officers (ACCO), the Center for Climate and Energy Solutions (C2ES), and The Climate Registry (TCR) with a Climate Leadership Award for Excellence in GHG Management.

Casella has been focused on reducing its company-wide carbon footprint since 2005. Compared to our 2005 baseline, we have cut our carbon footprint by nearly 50%, while growing our business.

NH Sustainability Award

- In 2016, New Hampshire Governor Maggie Hassan presented Casella and Hypertherm with the first ever *Partnership for Innovation* award for their work and innovation around industrial recycling and waste reduction



Innovation Award

- In 2013, the American Academy of Environmental Engineers and Scientists recognized our Site Manager Kevin Roy and CMA Engineers for developing “first of its kind” Landfill Based Geothermal Heating System at Casella’s NCES site in Bethlehem



Environmental Stewardship

- Casella is a proud member of NHBSR
- Also an advocate for NHBSR's "Clean Energy Principles" whose mission is to foster "Investments in Clean Energy to Help New Hampshire Businesses Thrive"



Casella in New Hampshire

- Casella is a regional solid waste resource management company with several operating locations across the state of New Hampshire:
 - Hauling divisions and transfer stations
 - Owned and operated solid waste disposal facility
- We directly employ **175 professionals** across our New Hampshire operations, with an annual payroll of roughly **\$10 million**.
- We provide solid waste recycling & disposal service to **5,500 businesses** and **50,000 households** across New Hampshire.

- Hauling Facilities
- Landfill
- Transfer Stations

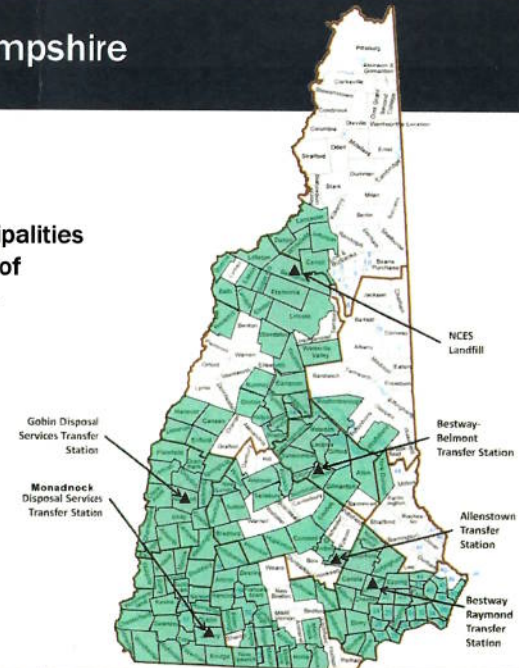


Employment	Annual Economic Impact	Materials Managed on Casella Trucks or through Facility Infrastructure
Total:	175	Total payroll spend: ~\$10M
		Recycling: ~37,000 tons
		Disposal: ~350,000 tons
	Host Community Benefits: ~\$800k	Transfer Stations: ~215,000 tons
	Capital Expenditures: ~\$8M	Direct Land Application: ~14,000 tons
	New Hampshire Taxes: ~\$735k	Collection fleet: nearly 100 vehicles
	Commercial Customers: ~17,000	
	Residential Customers: ~50,000	

NCES Serves New Hampshire

Needs Assessment:

- More than **150 NH Municipalities** rely on NCES for disposal of some or all of their waste



Declining Disposal Capacity

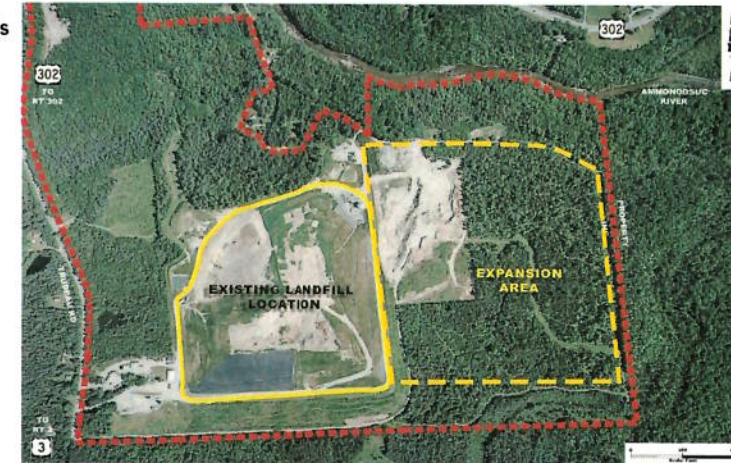
Needs Assessment:

- New capacity needed to provide home for waste now being disposed at NCES
- NCES to reach permitted disposal capacity by 2024
- 21M tons capacity shortfall in NH projected over 20 years
- Likely closure of additional disposal facilities will worsen capacity shortfall

Emerging capacity shortfall in northern NH North Country Environmental Services - Bethlehem, NH

- Bethlehem twice denied zoning that would allow NCES to expand. Site to be at capacity +/- 2024.

- 6 existing landfills in NH with 3 having regional service. 1 Regional WTE.
- NH is lacking capacity
- Other landfills regionally are closing



Statewide Landfill Siting Search

Statewide Search:

- Searched the state for viable sites except:
 - Existing waste disposal host communities
 - Active waste district municipal members
 - National Forest Land
- Site search process
- Published resources accessed in search



Regional Landfill Siting Search

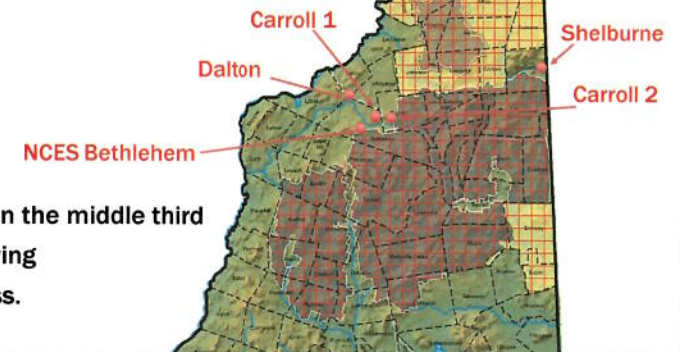
Public Solid Waste Districts



National Forest Service

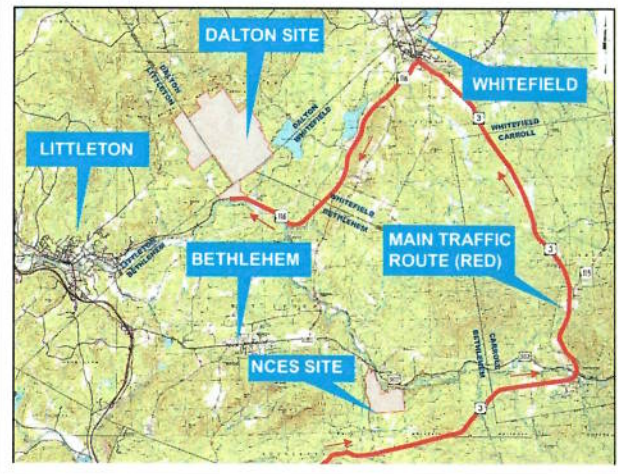


- Focused search in the middle third of the state and having good highway access.



Criteria Assessment: Site is Well Suited for Landfill

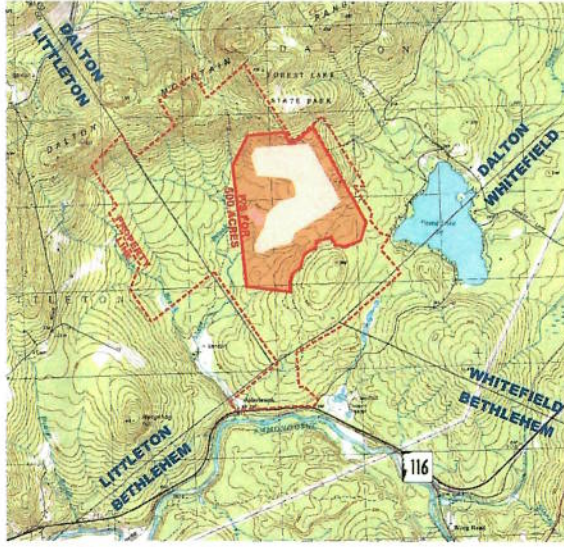
- +/- 1,800 Acre Site
- Willing Landowner
- Direct access to state highway



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Existing Parcel & Subdivided Landfill Development Parcel

- Viable 180-acre landfill footprint
- No NWI Sited
- Direct access to state highway ~ NH Route 116
- Visual/noise impacts screened by ridge lines
- Industrial Area of Dalton
- Construction Materials available on Site



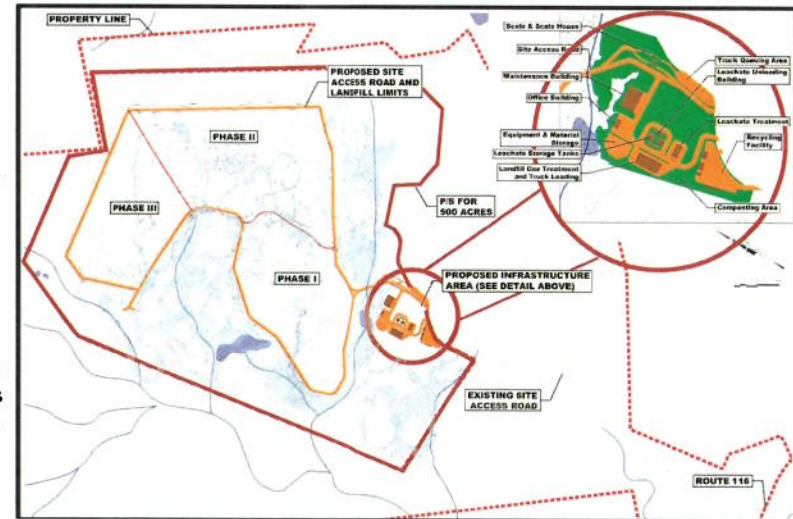
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Existing Conditions



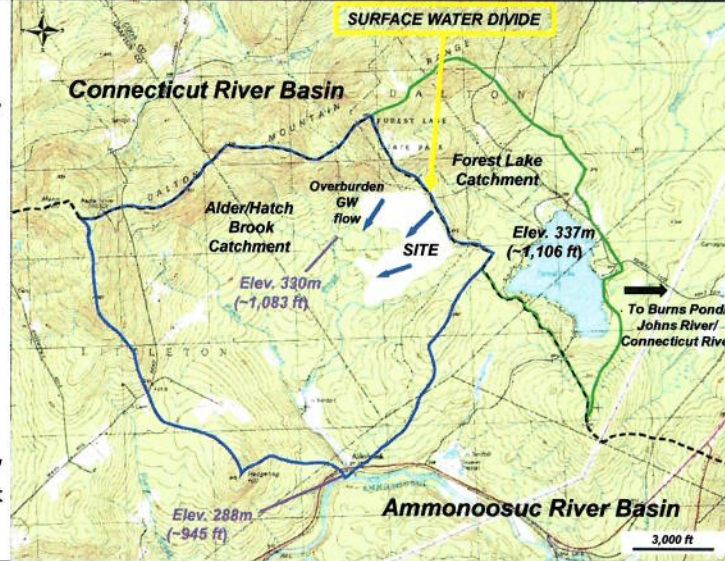
Site Investigation ~ 2018

- 3 Phase ~ 180-acre Footprint
- 30+ years capacity for NH towns
- Wetlands delineated on site
- Many mitigation alternatives for 18 acres of wetlands



Drainage Basins Near Proposed Site Sanborn, Head & Associates

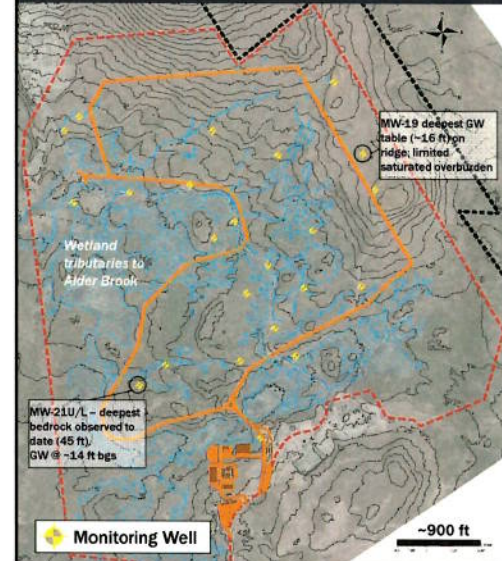
- Surface water flows to Alder Brook, then to Ammonoosuc R.
- Overburden GW flow is SW toward Alder Brook/tributaries
- Bedrock GW flow also inferred to be SW toward Alder Brook
- Alder Brook is lower than Forest Lake in much of the area west of the site (<330 m).
- Prelim. results = GW and surface water at the site flow away from Forest Lake



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17

Geological & Hydrogeological Preliminary Sanborn, Head & Associates



- 2018 drilling program: Confirm overburden thickness/type; depth to GW; general GW flow direction
- 28 monitoring wells installed (25 overburden; 3 bedrock)
- Overburden typically glacial till, some outwash sands and gravels
- Shallow granitic bedrock – typically 7 to 25 feet, except MW-21L (45 feet).
- Shallow GW – typically 2 to 16 feet bgs
- Overall southwesterly flow – inferred discharge to Alder Brook wetland complex
- Permeability (slug) testing indicates hydraulic conductivities consistent with published values for glacial deposits
- No Geologic Siting Limitations identified (Env-Sw 804.05) identified to date

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18

Wetlands Investigation, Delineation & Mitigation BH Keith Associates

COMPENSATORY MITIGATION OPTIONS

Compensatory wetland mitigation options are to be developed based on the scope of the overall (direct and secondary) impacts to the functions and values of the wetland resources to be affected by the project.

The following Compensatory Mitigation Options are under consideration:

PRESERVATION

- On-site preservation of remaining lands within the project area.
- Preservation of other Chick lands (eg. land bordering Alder Brook) and/or other lands in the watershed.
- Lands abutting other conservation lands in the Ammonoosuc River watershed within the 4 town area.
- Lands abutting DES ARM funded conservation projects.
- NCES Ammonoosuc River land and/or other lands in fee or easement.
- Lands which provide connectivity of habitats containing high priority wetland resources.

Wetlands Investigation, Delineation & Mitigation Continued

RESTORATION

- Re-route streams to restore former stream channel/s on-site.
- On-site former wetland fill removals and restoration measures.
- On-site wetland and stream buffer restoration.
- Other off-site restoration opportunities such as dam and culvert removals to enhance aquatic passage, floodplain and riverbank restoration and upland buffer restoration.

Wetlands Investigation, Delineation & Mitigation *Continued*

CREATION

- On-site stormwater treatment wetlands.
- On-site sand and gravel pit wetland creation.

IN-LIEU FEE

Options may include financial payment to the DES Aquatic Resource Management (ARM) fund and/or collaborating with others on conservation project/s in the watershed.

COMBINATION

Develop a combination of on-site and off-site mitigation options to meet overall mitigation goals.

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Schedule

Site Visit?

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To learn more, please visit:

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