



January 29, 2022

Senator Stacy Brenner, Senate Chair  
Representative Ralph Tucker, House Chair  
Joint Standing Committee on Environment and Natural Resources  
100 State House Station  
Augusta, Maine 04333

**RE: LD 1639**

To the Members of the Joint Standing Committee on Environment and Natural Resources:

On behalf of Casella Waste Systems, thank you for the opportunity to provide this information in response to the questions and comments presented to us at the recent work session.

In addition to the State-owned landfill in Old Town, Casella operates eight landfills in four other states: Bethlehem, NH; Angelica, NY; Elmira, NY, Morrisonville, NY; Painted Post, NY; Stanley, NY; Kane, PA and Coventry, VT. Each landfill utilizes various types of cover strategies in accordance with the regulatory requirements and available materials in each state. In addition to clean soils for cover, approved alternate daily cover (ADC) materials can include processed C&D, lightly contaminated soils, auto shredder residue, wood chips, certain types of ash, spray foams, and other similar materials. The use of approved ADCs helps to efficiently manage landfill airspace by minimizing the need for use of clean soils.

In every state where we operate, wastewater treatment facilities face increasing difficulty in disposing of sludge. As the practice of spreading wastewater sludge as fertilizer is discontinued, communities are looking to place this material in a landfill. Several of the landfills we operate have a percentage limit of sludge they can accept and are already at that limit. Others, such as Juniper Ridge, are accepting a greater amount.

There are a number of strategies that landfills employ to meet this demand. Loads of sludge must be carefully scheduled so that there are sufficient bulking agents, such as oversized bulky waste, with which to stabilize them. Additionally, shipments of sludge are scheduled earlier in the day, so it is not close to the surface at end of day. Sludge also is kept away from fluff layers, outside slopes, and final grade.

Hawk Ridge, also known as Casella Organics, produces a variety of materials which have multiple sources. Among compost and compost blends, Hawk Ridge produces a biosolids-based compost comprised of sludges that have come from Maine and other New England states since the facility was opened in 1989. The sludges are mixed with locally sourced shavings, sawdust, and woodchips that come from mills and manufacturers of wood products. A portion of the woodchips are recycled from the compost screening process and used to 'jump start' the next batch of compost, as these chips contain some heat and are covered with bacteria beneficial to the composting/decomposition process.

While some compost is distributed in straight form, a significant portion of the total production is mixed (1:1 by volume) with either bark from Maine mills, virgin Maine peat (1:1), or forest humus (organic matter, sand, and bark fragments) and peat (1:1:1) to make Super-Mulch, Super-Peat, and GroMax respectively.

Other soil amendments include:

- Forest humus (organic matter, sand, and bark fragments) distributed unblended (Erosion Control Mix) and screened & unblended (Superhumus).
- Mill lime, used in pulp preparation, that is recovered from Maine mills and marketed as an ag lime substitute.
- Process waste and tailings from a seaweed processor in Maine that are used as a soil amendment and nutrient source.
- Wood ash from Maine wood-fired burners and boilers that is used as a lime substitute and source of nutrients. It may also be used as an ingredient in an animal bedding product manufactured at Hawk Ridge. That bedding is eventually added to farm soils to improve soil organic matter and provide crop nutrients.
- Short paper fiber (wood pulp with fibers too short to make paper) from Maine mills that is used as a soil amendment to build up soil organic matter. It may also be used as an ingredient in an animal bedding product manufactured at Hawk Ridge. That bedding is eventually added to farm soils to improve soil organic matter and provide crop nutrients; and
- Leaf and yard waste compost, generated by a Maine nursery and other New England sources, that is used for mulching and amending soils to improve organic matter.

There was a suggestion made during Monday's presentation that tarps should be used as alternative daily cover at the State-owned landfill. Tarps can be an effective mechanism for daily cover for periods of time for certain facilities. Tarps work best for facilities with small, compact active workfaces and when seasonal conditions support the daily placement and movement of the tarps. It is important to note that use of a tarp is only effective as a short-term (daily) temporary measure; eventually, some type of additional cover material must be placed over the waste that is landfilled prior to placement of intermediate or final covers.

Temporary tarps have not been found to be an effective mechanism for daily cover at Juniper Ridge, and similar facilities in the greater New England area. Based on both the size of the active workface and on the frequent higher wind conditions, the deployment of tarps is not effective or safe and would lead to frequent damage and replacement of the materials.

Juniper Ridge does utilize geosynthetic membranes as intermediate cover solutions for portions of the landfill. These membranes are much more durable than tarps and are implemented with anchoring systems to ensure stability and effective use in windy conditions. These types of systems have been

found to be highly effective for the longer-term intermediate conditions but are not appropriate as a daily cover system.

There also was a suggestion made during the presentation, albeit indirectly, that wastewater sludge could be landfilled as a liquid at the State-owned landfill, thereby removing the need for bulking agents. By federal and state regulation, free liquids may not be disposed in solid waste facilities such as Juniper Ridge without stabilization and bulking activities.

Please let me know if you have any further questions or if you need any additional information.

Sincerely,

Shelby D Wright  
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