

Casella Waste Systems

Maine Construction & Demolition Debris Overview

*Presented to the Joint Standing Committee on
Environment & Natural Resources
October 17, 2022*



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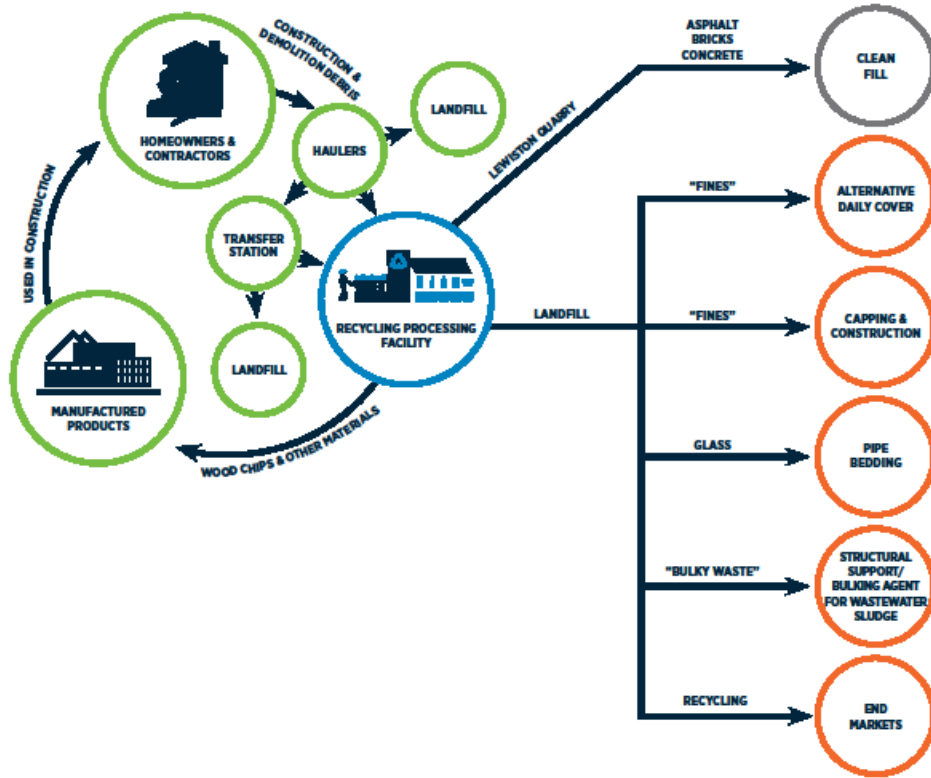
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Juniper Ridge Landfill (JRL) Operational Services Agreement (OSA)

- The Juniper Ridge Landfill (JRL) is owned by the State of Maine and is part of the solid waste disposal system within the state that provides for Maine's solid waste disposal needs.
- JRL accepts residues from waste-to-energy facilities, construction/demolition debris, and other wastes generated within the State.
- JRL is operated by Casella's wholly owned subsidiary, NEWSME Landfill Operations LLC, under the terms of a thirty (30) year Operation Services Agreement (OSA) signed in 2004, as amended, which includes:
 - non-discrimination provisions (no preferential pricing)
 - pricing caps
 - capacity and waste type limitations
 - reporting requirements
 - revenue neutral to the State

Pathways for Materials

MAINE'S CONSTRUCTION AND DEMOLITION DEBRIS PATHWAY



Benefits of C&D Processing:

- Recovers useable materials to return to marketplace
- Provides material that can be reused for landfill operation and construction
- Conserves natural resources by replacing sand, soil, and stone in landfill construction
- Reduces the airspace required for disposal of unprocessed CDD

JRL Operations

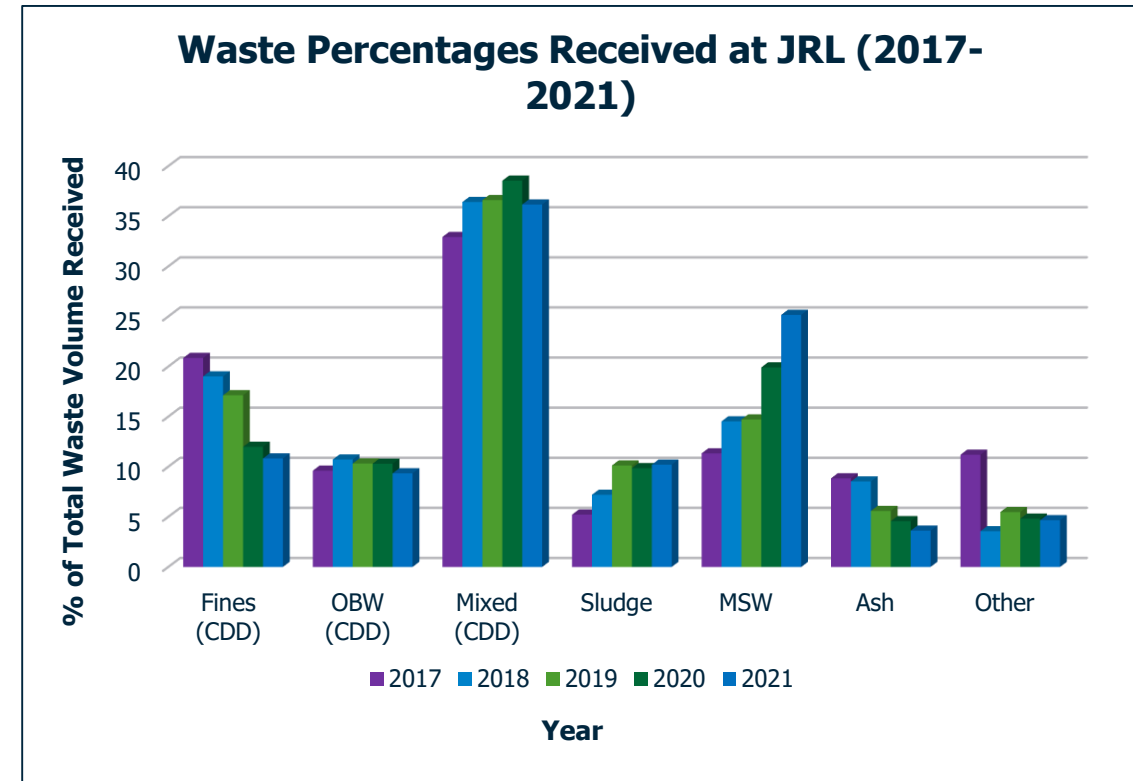
- Hours of Operation: Mon- Fri. 6AM–6PM / Sat. 7AM–12 PM
- Daily Waste Received: 2500-4000 tons
 - Annual 882,124 tons (2021)
- Typical Working Area: 6 – 10 acres
- Permitted Landfill Footprint: 122 acres
 - 102 acres developed (Cells 1-14)
 - 20 acres undeveloped (Cells 15-17)
- Current Permitted Remaining Capacity: 6-7 million CY
- Current Permitted Capacity Lifespan: 6 years (estimated)



Waste Received

JRL is licensed to accept in-state non-hazardous waste streams identified in its operating permits and licenses. Waste streams primarily consist of the following:

- Construction and Demolition Debris (CDD)
- Municipal Solid Waste (bypassed from Maine incinerators and Coastal Resources of Maine)
- CDD Processing Fines
- CDD Processing Oversized Bulky Waste (OBW)
- Municipal/Industrial WWTP Sludges
- Various types of Ash
- Other pre-approved Special Wastes



Year	Waste Percentages Received at JRL (%)						
	Fines (CDD)	OBW (CDD)	Mixed (CDD)	Sludge	MSW	Ash	Other
2017	21	10	33	5	11	9	11
2018	19	11	36	7	15	9	4
2019	17	10	37	10	15	6	5
2020	12	10	39	10	20	5	5
2021	11	9	36	10	25	4	5



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Construction and Operational Use of Waste Materials

Examples of the reuse of waste as a substitute for natural resource materials:

- Fines – alternative daily cover (ADC)/slide slope grading/capping
- OBW - material bulking (sludge)
- Mixed CDD – side slope stability/material bulking
- Ash – pipe bedding / odor neutralizer (sludge)
- Bypass MSW – soft protective layer material (five feet area above liner)

Challenges

- Lack of suitable materials necessary for stabilization
- Lack of suitable waste materials to re-use as alternative daily cover (ADC). Typically, 20-25% of total waste volumes are required. Tarps are inadequate due to the size of the working area, weather conditions, and uneven waste mix.
- Virgin materials are currently being used to supplement ADC - expected to increase as C & D fines availability is declining
- Capacity: more sludge ► increased need for more stabilization materials ► decreased landfill space
- Market conditions and changing waste mix

Summary

Encourage practices and infrastructure that:

- Conserves landfill capacity
- Preserves natural resources by supporting the beneficial reuse of waste materials
- Provides sources of materials for sludge stabilization

Thank You!



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