

Joint Standing Committee on Natural Resources
May 26, 2010
Meeting Summary

Convened 9:00 a.m., Room 214, Cross Office Building, Augusta

Present:

Sen. Seth Goodall, Senate Chair
Sen. Doug Smith
Rep. Bob Duchesne, House Chair
Rep. John Martin
Rep. Jane Eberle
Rep. Brian Bolduc
Rep. Melissa Walsh Innes
Rep. Joan Welsh
Rep. Jim Hamper
Rep. Peter Edgecomb

Absent:

Sen. Deborah Simpson
Rep. Bernard Ayotte
Rep. Jane Knapp

Committee Chair Senator Seth Goodall convened the first 2010 interim meeting of the Joint Standing Committee on Natural Resources and asked the members to introduce themselves. Senator Goodall then directed the Committee through the agenda.

How Waste Moves in and into Maine from the Perspective of Maine Disposal Facilities and Organizations

The Committee invited a panel of presenters to brief the Committee on how waste moves in and into Maine from the perspective of each presenter's company.

Brian Oliver, Casella Waste Systems. Mr. Oliver provided the following overview of Casella facilities in Maine in 2009 and Casella's contribution to Maine's economy. Mr. Oliver explained that within Casella, material movement is dictated by customer behavior and vertical integration.

Recycling: In 2009 Casella handled 70,300 tons of recyclable materials in the State; zero-sort recycling collected in Ecomaine communities is delivered directly to Ecomaine; zero-sort recycling in all other communities is delivered to Charlestown, MA. In 2009, Casella companies in the State collected over 101 tons of electronic waste for recycling, over 35,000 fluorescent bulbs and lamps, and several thousand pounds of batteries, ballasts and other PCB and mercury containing devices.

Composting: Casella's New England Organics Hawk Ridge Compost Facility has an annual input of 55,000 tons of biosolids of which 88% is from in-state and 12% is from out-of-state and an annual output of 80,000 cubic yards of compost & mulch of which 50% is sold in-state and 50% is sold out-of-state. In addition, over 160,000 tons per year of Class B biosolids, short paper fiber, wood ash, food waste and other Maine generated materials are reused for land application, animal bedding and topsoil manufacturing programs.

C&D Processing at Casella's KTI Bio-Fuels, Inc:

- 2009 inbound material =115,900 tons (27,300 tons in-state and 88,600 out-of-state)
- 2009 outbound material:
 - 22,000 tons of wood chips (to Boralex & Sappi)
 - 1,800 tons of metal
 - 41,500 tons of fines alternative daily cover
 - 2,400 tons aggregate, brick, concrete
 - 51,100 tons disposed (non-recyclable material)
 - 55% recycling percentage

Transfer stations: In 2009, 95,900 tons of material handled; 81,200 tons of waste handled including universal & E-waste (monitors & TVs, mercury tubes and computers/laptops), tires, white goods & scrap metal. Disposal locations are Tri-Community, PERC, Ecomaine, MERC and JRL.

Waste-to-energy at MERC: Of the 288,000 tons processed in 2009, 112,000 tons from in-state and 176,000 tons from out-of-state. Waste that was landfilled in 2009 included: 51,000 tons of ash, 8,000 tons of metal (exported out-of-state), 62,000 tons of FEPR, non-processible MSW and 20,000 tons MSW bypassed to in-state landfill. Benefits include 21 MW of power produced, reduction in landfill air-space.

Landfill: Pine Tree Landfill. 2009 disposal statistics for Pine Tree Landfill include: 118,000 tons of in-state waste and 295,000 tons of out-of-state waste. Pine Tree ceased accepting waste December 31, 2009. In-state waste is now directed to Juniper Ridge Landfill; 120,000 tons of C&D in 2010 is going to KTI Bio-fuels; 175,000 tons of C&D in 2010 stays in out-of-state markets. Juniper Ridge Landfill. 2009 disposal statistics for Juniper Ridge Landfill include: 529,000 tons of in-state waste; 360,000 tons of post processing/recycling residue. \$11.3 million in community benefits and state special waste fees since 2004.

Mr. Oliver provided a copy of his PowerPoint presentation which is attached.

Kevin Roche, Ecomaine. Mr. Roche provided the following overview of Ecomaine. Ecomaine is a nonprofit quasi-municipal organization that is owned by 21 communities. In addition, Ecomaine has 18 Associate Member or Contract Communities that participate in its programs and utilize its facilities. Ecomaine owns and operates a single sort recycling facility, a waste-to-energy facility, and a landfill/ashfill. It accepts waste and recyclable materials mostly in southern Maine, but its waste shed reaches north into central Maine. At times, it accepts waste from out of state, mostly due to the fact that so much waste that is generated in Maine is ending up at landfills, which forces Ecomaine to look elsewhere for waste. Recyclables are shipped to markets in Maine, other New England states, across the country and in some cases exported to other countries. Ecomaine's solid waste priorities are similar to the State of Maine's priorities as well as EPA's priorities. However, State policies have made the landfilling of unprocessed waste (the least preferable solid waste management method) the cheapest option available.

Ecomaine thinks the State needs to incentivize recycling at a higher level. Ecomaine has begun to address this through investment in single sort recycling. Single sort has made recycling easier for the public which has increased participation. However, much more can be done. Commercial recycling is an area that remains weak except for the low hanging fruit. More education and outreach is needed to encourage businesses and institutions, as well as residents, to recycle more.

Composting, particularly food waste composting is a huge untapped item in the waste stream that could be recovered and have a significant positive influence on the State's recycling rates. This opportunity would get us to our recycling goal of 50%.

Waste-to-energy (WTE) is identified as a preferable solid waste management strategy over landfilling by the EPA and most States, including Maine. However, our State policy doesn't encourage it. Waste-to-energy is important because:

- 90% volume reduction of the waste material needed to be landfilled.
- No landfill odors or gas.
- Virtually no methane gas (a GHG).
- WTE stabilizes the waste and makes it suitable for landfilling.
- Less leachate produced that needs treatment.
- Less transportation to faraway landfills.
- The World Economic Forum's recent (2009) report, Green Investing – Towards a Green Energy Infrastructure recognizes WTE as one of the eight “key renewable energy sectors.”
- USEPA recognizes WTE as a renewable energy source (an energy resource that is replaced rapidly by recurring processes) that produces significant megawatts of electricity with less environmental impact than any other source.
- Without this source of electricity, chances are we would replace some of it with electricity from fossil fuels.
- WTE recovers 600 kWh of electricity per ton of waste, which is about 10 times the amount of energy recovered from a ton of landfilled waste through landfill gas recovery.
- WTE fuel and the electricity we make from it is both generated here locally and distributed here.
- Neither the wind nor the clouds have an impact on a WTE electrical generation.
- Rick Brandes, EPA's Chief of the Energy Recovery Branch recently emphasized “if you want to have an impact on greenhouse gas mitigation, focus on MSW because there's nationally significant energy available from MSW combustion, even if you have greater than 50% recycling.”
- WTE reduces carbon emissions from the alternative of using fossil fuel based electricity and from the reduction of methane generated from landfills.

We still need landfills, but we should preserve them for what we can't reduce, reuse, recycle, compost or produce electricity from. Ecomaine has a landfill located 2 miles from Portland's City line. If Ecomaine had not recycled or utilized the WTE facility, the landfill would have been filled long ago and Ecomaine would now be shipping its waste to faraway places.

Where do we go from here? We need to use the waste hierarchy effectively. We need to incentivize it, encourage "Reduce, Reuse, and Recycling" first, encourage composting, encourage making electricity from waste for those items that can't be recycled or composted, discourage landfilling of unprocessed waste. This could be accomplished through fees on landfilling raw trash. The results from enforcing the waste hierarchy would be to: increase the recycling rate, decrease the amount of waste stored in landfills, decrease out of state waste from coming into Maine, decrease trucks & hauling on our roads and highways and improve our environment.

Greg Louder. Mr. Louder provided the following overview of the Municipal Review Committee.

Background information:

- Mid 1980's – Maine dumps required to close with a transition to waste-to-energy.
- Penobscot Valley towns organized to develop regional solution (45 or so communities).
- 30 year contracts established with private entity – Penobscot Energy Recovery Company (PERC).
- 30 year municipal contracts run concurrent with 30 year Bangor Hydro Electric Co. (BHE) power purchase agreement.
- PERC opens for business in 1988 – very little worldwide commercial experience with refuse derived fuel (RDF) technology.
- After one year, PERC approaches communities with need to restructure contracts to keep plant open – citing a number of unforeseen operating costs.
- 1990 – Committee to Analyze PERC formed to negotiate workout with PERC.
- Tom Sawyer Inc. (TSI) commercial contracts for direct delivery to PERC are reconstituted as municipal waste disposal contracts with PERC.
- Most municipal waste disposal contracts restructured in 1991. MRC formed as ongoing oversight entity for about 90 communities.
- 1993 – Lawsuit with 8 holdout towns settled.
- 1996 – In face of pending utilities deregulation BHE approaches the MRC and PERC in effort to mitigate cost of power purchase.
- 1997 – MRC establishes open door policy including revenue sharing and 40 more towns join.
- 1998 – MRC towns ‘unanimously’ (one defector to NB) approve restructured contracts to mitigate power cost to BHE while providing for additional rights of participation for MRC if they buy in as an owner.
- 2001 – PERC general partner changes via merger.
- 1999 – 2004. MRC purchases about \$13,000,000 PERC LP interest on members' behalf.
- 2001 – Ash contracting lawsuit settled – general partner leaves PERC partnership. PERC Partnership significantly restructured to secure MRC rights of control participation. Single general partner format implemented. Current private partner with LP interests seated.
- 2003 – Sole PERC general partner announces it is selling its interest in PERC in connection with larger corporate trend.
- 2004 - Sale completed and current general partner seated.

Through all of the ups and downs, and twists and turns - the MRC Equity Charter Communities have enjoyed a stable net disposal cost of \$45.00 since 1998. This can continue until 2018, but rates may need to increase near term to provide post 2018 cost stabilization.

Key points:

- A static 30 year arrangement in today's world is unrealistic – things will change.
- Private players come and go.
- The MRC communities supported the “pay to play” approach.
- Active, earnest, focused participation in public/private partnerships can earn control over time.
- While it may not seem the case year-to-year, Maine's solid waste policy framework has remained relatively stable compared to all of the other flux the MRC managed with over the years.

Movement of waste:

- State law requires municipalities to arrange for MSW disposal.
- MSW from 187 Charter Municipalities is contracted to PERC until 2018 (about 67% of PERC volume).
- Each MRC member sets (and can trade) a Guaranteed Annual Tonnage (GAT) delivery obligation in their contract to secure appropriate plant capacity share.

- Delivery obligation applies to all waste generated within a municipality's borders including residential and commercial quantities.
- MRC members are responsible for arrangements to deliver MSW to PERC: 1) curbside collection sponsored by municipality; 2) self & commercial delivery to transfer station sponsored by municipality; 3) delivery by commercial haulers. Delivery methods by 2 and 3 can be subject to diversion despite waste disposal agreements.
- MRC is always open to including new Charter Municipalities.
- Other sources of PERC MSW include: host & other municipal 5%, in-state commercial 8%, out-of-state 20% commercial or on demand.

Outflow of PERC residuals:

- 45,000 to 50,000 tons of ash annually to Juniper Ridge.
- 45,000 to 50,000 tons of FEPR annually to Juniper Ridge.
- Contract term until 2018. PERC can go elsewhere if airspace in vertical expansion runs short

Jeff McGown, Waste Management. Mr. McGown provided the following overview of Crossroads Landfill which is located on Route 2 in Norridgewock and operated by Waste Management. Crossroads serves a critical role in the state's solid waste infrastructure, competing with other permitted facilities thereby ensuring cost-effective disposal options for the State. Crossroads provides vital back-up capacity to private landfills serving major industrial operations, municipal waste incinerators, generators of C&D and asbestos wastes and other industrial and municipal waste generators.

Waste Management purchased the landfill from CWS in 1990. Since then, the company has invested in excess of \$50 million at the facility. Construction of the Phase 8 expansion – licensed in 2002 – involved moving waste from an old, unlined landfill to a secure, lined landfill, and yields 5.5 million yards of capacity. Conditions of the permit on Phase 8 require that Crossroads provide available disposal capacity until May, 2012. Currently, Crossroads has approximately 4 million cubic yards of capacity with remaining site life until 2022, ensuring disposal capacity well past the terms of the permit.

Crossroads has direct disposal contracts with just over 50 municipalities in central and western Maine. Demolition debris from transfer stations in the Bangor region, Lewiston-Auburn and the greater Portland area is also landfilled at Crossroads. Special wastes – ash, sludge and industrial waste – come to Crossroads from across the state. All of BIW's waste streams are processed at the site. On average the waste mix at Crossroads is 25% MSW, 25% special waste and 50% C&D.

Crossroads' permit limits out-of-state waste to 35%. Over the last 10 years, out-of-state waste landfilled at Crossroads has fallen below those limits – approximately 20%. It doesn't make economic sense for WM to transport waste from the south past the Turnkey Landfill in Rochester, NH and to Norridgewock. Virtually no out-of-state MSW is landfilled at Crossroads; limited C&D in the form of utility poles is taken. Most out-of-state waste is special waste from industrial processes that requires special handling.

As North America's largest recycler, Waste Management is committed to the State's solid waste hierarchy. WM diverts approximately 8,000 tons of spot market municipal solid waste to Maine incinerators annually. The tire-chipping operation at Crossroads is the only one in the state and touches nearly every community in Maine.

The landfill-gas-to-energy facility at Crossroads currently produces 3.2 megawatts of electricity and when fully operational will generate 4 megawatts.

Waste Management has had no environmental infractions at the landfill in over 15 years and has had no area complaints in over 2 years.

All truckers delivering waste to Crossroads are required to enter into a transportation agreement which they must abide by before they are allowed access to the site.

Waste Management provides approximately \$1 million to the Town of Norridgewock annually in host community fees, recycling and disposal services and taxes.

As part of the sweeping, landmark 1989 law, the Legislature adopted the following declaration of policy: “The Legislature finds that environmentally suitable sites for waste disposal are in limited supply and represent a critical resource.” Waste Management agrees and that’s why they think providing the possibility for Crossroads to continue operating in the future makes sense for Maine.

Solid Waste Disposal Capacity Needs and Issues

Sue Inches, Deputy Director of the State Planning Office presented an overview of solid waste governance, capacity trends and projections and policy questions. Ms. Inches reiterated the solid waste management hierarchy and noted that the State is responsible for providing landfill capacity to dispose of municipal solid waste and its residues with commercial landfills being phased out. Municipalities are responsible for providing disposal of solid wastes generated by residents and commercial activities within their boundaries. Ms. Inches noted that the sources of SPO's data include: waste to energy facilities reports, landfill license reports, municipal recycling and disposal reports and a commercial recycling survey. Maine's solid waste management methods for 2008 were 24.7% landfilled, 33.3% waste to energy, 38.7% recycled and 3.3% exported. A graph showing waste generation trends from 1993 to 2008 shows waste generation since 2003 hovering around 2,000,000 tons per year with a decrease to approximately 1,850,000 tons in 2008.

Landfills: Municipally-owned landfills include: Tri-Community (Fort Fairfield), Presque Isle, Greenville, Hatch Hill (Augusta), Bath, Brunswick, Lewiston (ash only) and Ecomaine (ash only). State-owned landfills include: Juniper Ridge and Carpenter Ridge (not in operation). Privately-owned commercial landfills include: Crossroads Landfill. A graph of landfill disposal shows 2008 disposal at Juniper Ridge at approximately 600,000 tons, Crossroads at less than 300,000 tons and the municipal landfills combined at over 100,000 tons.

Waste-to-energy facilities: Ecomaine in Portland (publicly owned) received 162,680 tons in 2008 with an energy generation capacity of 14 MW; MERC in Biddeford (privately owned) received 287,943 tons in 2008 with an energy generation capacity of 21 MW; MMWAC in Auburn (publicly owned) received 87,872 tons in 2008 with an energy generation capacity of 3.6 MW and PERC in Orrington (private/public ownership) received 312,365 tons in 2008 with an energy generation capacity of 63.6 MW.

Capacity key findings: Solid waste volume decreased with the economic downturn - decrease of 8.7% in 2008 from 2007 rate. Mainers continue to recycle more. Waste-to-energy facilities decrease the volume of waste requiring landfilling by about 85-90%. Waste-to-energy plants import waste to meet operational needs and requirements for power contracts. Increased recycling will reduce landfill capacity needs but may increase imports to waste-to-energy plants. Recycling is more cost effective than building new landfill capacity (preliminary estimates: \$5-6 million to build recycling to 50%, \$30 million to build equivalent landfill capacity). Maine has sufficient overall disposal capacity, assuming status quo activity, until 2018. The process to permit additional landfill capacity needs to commence within the next 1-2 years. Overall Maine's solid waste industry is diverse and competitive with a mix of public and private investments and services. Landfill disposal prices have remained stable from 2005-2008.

Permitting process for new landfill capacity - Assumptions: 1 year for legislative consideration; 1 year for public benefit determination and application; 2.5 years for DEP permit review; 1.5 years for appeals and legal challenges; and 2 years for construction. Total time needed = 8 years.

SPO recommendations: Extend disposal ban to include recycling corrugated cardboard and recycling rate is projected to increase to 44%. Encourage towns to compost yard waste, recycle CDD, join regional programs for recycling, etc.

Greg Louder, chair of the Solid Waste Management Advisory Council, noted that the Council reviewed the numbers used by the SPO in SPO's analysis. He also noted that MRC expected the vertical air space at Juniper Ridge to last to 2018, not 2016 as suggested by SPO.

Ms. Inches provided a copy of her PowerPoint presentation which is attached.

Juniper Ridge Landfill

Bill Laubenstein, Assistant Attorney General provided the Committee with an overview of the Juniper Ridge Landfill operating services agreement. Mr. Laubenstein noted that under the contractual obligations of the agreement Casella paid \$26 million toward the purchase of the landfill. Casella has full operational control of the landfill with certain conditions including a C&D commitment to the mill. Casella assumed all responsibility for the site, including environmental responsibility. Casella also has a 30 year commitment to monitor the site after the capacity is all used. The agreement contemplates an understanding that changes in law may occur overtime. The agreement contemplates that Juniper Ridge will be available for disposal of 500,000 tons per year for 20 years. If there is a change in law that prohibits expansion (a "Capacity Limiting Event"), FJ has to give up capacity so Casella can operate at a level of 500,000 tons for 20 years. Casella has to accept an expansion permit so long as it, plus the existing permit, allows for disposal of 500,000 tons for 20 years. Casella cannot terminate if the expansion permit and the existing permit are insufficient to allow disposal of 500,000 tons for 20 years. The landfill is permitted by DEP.

Sue Inches, Deputy Director at State Planning Office provided the Committee with a summary of Juniper Ridge's history, restrictions, benefits to the State and SPO's role in monitoring the operating services agreement. The restrictions include: can only accept Maine generated waste as defined in statute, cannot accept MSW unless bypassed from a Maine waste-to-energy facility; cannot discriminate on price at the gate; must provide CDD fuel to Old Town facility at below

market price; must abide by a cap on tipping fees; must adhere to below market tipping fees for Old Town Fuel & Fiber and Lincoln Pulp & Paper; must reserve capacity for Old Town Fuel & Fiber and Lincoln Pulp and Paper; and must provide a performance guarantee in addition to closure/post-closure funding. The benefits to the State include: dedicated to Maine customers; provides stable predictable disposal pricing; provides host community benefits to the City of Old Town and Town of Alton; avoids construction of a new landfill on a greenfield site and reduces need to expand existing landfills; no cost to state budget since operator covers expenses, including landfill purchase, maintenance, improvements and future expansion; operator assumes environmental liability from day 1; and operator pays for closure costs. In its monitoring role, SPO: monitors operations including type, volume, weight and fill rate; is informed of variations in the waste stream; makes community relations a top priority; conducts on-site inspections, conducts price checks; collects monthly data, provides monthly reports, reviews Casella's annual reports; and responds to media, citizens and policy makers.

Scheduling

The Joint Standing Committee on Natural Resources scheduled its next meeting for June 14, 2010 starting at 9:00 a.m.