

**WASTE MANAGEMENT DISPOSAL SERVICES OF MAINE, INC.  
CROSSROADS FACILITY  
PHASE 14 SECURE LANDFILL  
DETERMINATION OF PUBLIC BENEFIT APPLICATION  
RESPONSE TO DEPARTMENT REVIEW COMMENTS  
SEPTEMBER 14, 2018**

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**Attachment:**  
**Department Review Comments on Application #S-010735-W5-XY-N,**  
**Application for a Determination of Public Benefit**

The *Waste Management Disposal Services of Maine, Inc. Crossroads Facility, Phase 14 Secure Landfill, Determination of Public Benefit Application* (PBD Application), dated July 2, 2018, was prepared by Waste Management for the Crossroads Landfill (Facility) owned and operated by Waste Management Disposal Services of Maine, Inc. (WMDSM) in Norridgewock, Maine.

The PBD Application was submitted under 38 M.R.S. § 1310-AA and 06-096 C.M.R. ch. 400, § 5, which, prior to the submission of an application for a license for a new or expanded solid waste disposal facility, requires a positive determination that the project provides a substantial public benefit. The PBD Application states that, as the existing capacity at the Facility will be fully utilized by 2024, WMDSM is proposing development of an additional 7 million cubic yards of capacity within a lined footprint of approximately 51 acres. This would provide disposal capacity and ancillary waste management services through 2040.

The following comments are based upon the Department’s PBD Application review.

1. *Section 1.4, Materials Managed at the Crossroads Facility.*

- a. Under the sub header of *Special Waste*, it should be clarified that the Maine Energy Recovery Company (MERC) ash has not been accepted in Phase 8 since the MERC facility closed in late 2012 and will not be included as a potential waste stream.

**The MERC facility closed in late 2012 and will not contribute special waste to the Crossroads Phase 14 Project. The MERC facility, however, was a primary generator of special waste throughout the life of Phase 8. Thus, it was included in the list of generators that contributed the largest amounts of special waste during operation of Phase 8 at the Crossroads Facility.**

- b. WMDSM should clarify whether they intend to take out-of-state municipal solid waste (MSW). WMDSM notes that out-of-state waste previously accepted has been “special waste, primarily [alternative daily cover], municipal wastewater sludge and contaminated soils.”

**WMDSM anticipates Phase 14 waste streams will be similar to those received during Phase 8, which did not include out-of-state MSW. Should exceptional circumstances arise requiring out-of-state MSW to be disposed of in Phase 14, WMDSM is willing to notify the Department in advance.**

- c. As a condition of the modified Phases 9, 11 and 12 and Phase 8 Public Benefit Determination License #S-010735-W5-UP-N, dated March 29, 2001, WMDSM is required to notify the Department, in part, when the amount of non-remediation

special waste accepted from out-of-state generators is more than 25 percent of the annual total of waste disposed at the Facility or when all wastes accepted from out-of-state generators is more than 35 percent of the annual total of waste disposed at the Facility to ensure that disposal capacity is available for Maine generated wastes. Is it WMDSM's intent to propose a similar reporting threshold for the proposed expansion if it is approved?

**WMDSM did not intend to propose a similar reporting threshold for Phase 14, however, the same reporting threshold would be an acceptable condition for the life of the proposed Project.**

- d. WMDSM notes that it “has not sought to expand its MSW customer base beyond the region it has traditionally served”, based on the fact that, landfilling is the lowest priority for solid waste management in Maine. How can WMDSM expand its recycling services throughout its service area and beyond, if its customer base is limited to the communities served by MSW collection?

**WMDSM has worked to facilitate recycling in the communities served by MSW collection through its Single-Sort Recycling Program and other initiatives described in Section 3.0 of its Application. Many of these initiatives utilize existing infrastructure that is in place as part of WMDSM's MSW collection services, including the transfer station located at the Crossroads Landfill, as well as other regional collection locations. WMDSM believes it is appropriate to focus these initiatives on the communities currently served by WMDSM to maximize their effectiveness. After assessment of the effectiveness of the initiatives described in its Application, WMDSM will evaluate whether there are opportunities to expand the geographic reach of the programs. WMDSM does not think it would be appropriate to expand its recycling services into areas where its efforts would be duplicative, would undermine the effectiveness of existing local or regional recycling programs or where local communities have not requested our services and therefore has not sought to do so.**

**Importantly, WMDSM's recycling services are not limited to its MSW customers. The beneficial tire reuse program and its ongoing waste evaluation and sustainability consulting focuses on commercial and industrial customers located throughout the State. WMDSM is working with Fiberight to ensure the success of that facility, which will open up new market for recycling materials such as plastics and fiber-based materials in late 2018. Recycling materials currently collected, consolidated and transported by WMDSM could be diverted to Fiberight if the facility's recycling initiatives are successful. WMDSM's use of special waste as alternative daily cover and its gas plant are both forms of recycling, and both programs exceed the geographic reach of its MSW customer base.**

**Finally, WMDSM welcomes the opportunity to work with the DEP and other stakeholders to address the recycling challenges faced throughout the State**

**precipitated by the global recycling crisis. While there are inherent limitations on what any individual company such as WMDSM can do to address these challenges, there are initiatives that could be implemented at the State level. For example, state law could require specific quantities of crushed glass in asphalt and concrete civil infrastructure projects. Additionally, the New York State Department of Environmental Conservation recently convened a broad-based stakeholder effort to address recycling challenges. The Massachusetts Department of Environmental Protection has also launched a state-wide “Recycle Smart” campaign aimed at reducing contamination. Similar state-level initiatives may be effective and appropriate in Maine.<sup>1</sup>**

- e. WMDSM should evaluate or establish criteria for evaluating and developing collaborations to utilize excess waste-to-energy capacity currently available in the State to reduce the volume of MSW going into the Crossroads landfill.

**The waste disposal market in Maine is competitive and dynamic. To the extent that waste-to-energy plants have available capacity at competitive rates, then the volumes of MSW directed to those facilities will increase. WMDSM already works with MMWAC to facilitate the success of that facility and will continue to do so going forward. More recently, WMDSM has also entered into preliminary discussions with Fiberight to determine if its facility could also benefit from a similar arrangement for the supply of MSW during off-peak months. WMDSM has also worked with Fiberight, PERC and JRL to divert Bridge Capacity MSW from the Crossroads Landfill to PERC. Finally, the programs proposed by WMDSM in Section 3.0 of its Application, such as the organics and textile diversion and reuse programs, have the potential to further reduce the volume of MSW sent to the Crossroads Landfill. To remain competitive, however, WMDSM must balance its business needs with partnerships or agreements that divert waste from the Crossroads Landfill to other facilities.**

- 2. *Section 2.1, Landfills Play an Essential Role in Management of the State’s Solid Waste.* WMDSM should provide a copy of their contractual agreements with MMWAC and Fiberight as part of the record.

**WMDSM objects to providing copies of contractual agreements. The terms of such agreements (including pricing) are proprietary and their disclosure would place WMDSM at a competitive disadvantage. It is also not clear what relevance the contract terms have to the applicable review criteria.**

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<sup>1</sup> Cole Rosengren, *New York Governor Calls For Statewide Plan On Recycling Market Collapse*, Waste Dive, (Aug. 14, 2018). <https://www.wastedive.com/news/new-york-governor-statewide-plan-recycling-market-collapse/530040/>; Cole Rosengren, *Massachusetts DEP Launches ‘Recycle Smart’ Campaign with Standardized List*, Waste Dive, (Aug. 21, 2018). <https://www.wastedive.com/news/massachusetts-dep-recycle-smart-campaign-standardized-list/530510/>.

3. *Section 2.2.2, Current and Future Landfill Disposal Capacity in Maine.* From the State capacity report<sup>2</sup>, WMDSM concludes that without approval of Phase 14, 80% of available State-wide landfill capacity would remain with the Juniper Ridge Landfill (JRL) and Presque Isle and Tri-Community landfills. WMDSM asserts that the remaining municipal incinerators and landfills “do not provide disposal options for the MSW or special waste that is currently sent to the Crossroads Facility.” Further, WMDSM asserts that “[in] the region served by Crossroads, for many municipalities and businesses, the Facility is the only economically-feasible disposal option.” Please clarify and support this conclusion in consideration of feasible access to Fiberight, when it is projected to become operational, and PERC.

**WMDSM does not generally enter into long-term contracts with municipalities for waste disposal and therefore customers are able to shift to more competitive disposal options if they exist. The Fiberight facility has contracted with the MRC communities for their waste, however, it is difficult to predict if the facility will have excess capacity until it is fully operational. The future of the PERC facility may be challenged by the poor economics of waste-to-energy plants generally, and the costs of operations and resulting higher tip fees it must charge to recoup such costs.<sup>3</sup> As noted by the Department, “low electrical and tipping fee revenues will not support the viability of the plant at significantly higher [MSW] levels.”<sup>4</sup> Assuming either or both facilities have future capacity, they nonetheless may not be feasible options for many communities served by the Crossroads Facility. The cost and logistics involved in transporting waste to those locations, combined with the tip fees charged by those facilities, may render them infeasible for many of the communities utilizing Crossroads for MSW disposal.**

4. *Section 2.2.3, Regional Considerations.*
  - a. Considering the distances that waste is transported to the Facility from all sources, what in WMDSM’s professional opinion, constitutes a reasonable transportation distance in Maine for MSW and special waste disposal that would not be considered cost-prohibitive?

**Pricing within the waste disposal market is based upon a multitude of factors, including the type of facility loading waste, the type of vehicle transporting waste, the volume, composition and density of waste, the number of customers served by a central collection/consolidation point, equipment needs, fuel costs, labor costs, and the distance between the generation and disposal points. Additionally, special waste is often bid as a single job in which the**

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<sup>2</sup> Maine Solid Waste Generation and Disposal Capacity Report for Calendar Year 2016, prepared by the Maine Department of Environmental Protection, dated January 2018.

<sup>3</sup> Matthew Stone, *Two Companies Are Headed For A Showdown You’re your Trash*, Bangor Daily News, (Jan. 16, 2016). <https://bangordailynews.com/2016/01/16/the-point/how-these-two-companies-are-headed-for-a-showdown-over-your-trash/>.

<sup>4</sup> Juniper Ridge Landfill, Solid Waste License – Partial Approval with Conditions, #S-020700-WD-BL-A (March 31, 2018) at 29. [https://www.maine.gov/dep/waste/juniperridge/documents/2017amendment/2018\\_03\\_31%20JRL%20MSW%20Amendment.pdf](https://www.maine.gov/dep/waste/juniperridge/documents/2017amendment/2018_03_31%20JRL%20MSW%20Amendment.pdf).

**transportation distance is one of but not the most significant variable affecting cost, and therefore special waste may be less sensitive to transportation costs than MSW. However most of the alternative waste processing facilities may have limited ability to accept special waste and therefore it typically is disposed at a landfill. Finally, the potential to realize synergies by having transportation vehicles utilized on the return trip also impacts the effective transportation costs. This various factor analysis and the disposal fees at a receiving facility makes it difficult to identify a “reasonable transportation distance” that applies to all MSW or special waste. If the State limits capacity for these wastes, it likely will result in increased costs to the residents of Maine due to increased hauling costs and decreased competition.**

**By way of example, the City of Bangor has struggled with transporting waste materials to Norridgewock. Bangor lacks adequate transfer stations and transportation vehicles, forcing it to use curbside trucks for both collection and long-distance transportation. As a result, the cost to transport waste from Bangor to Norridgewock is significant, whereas if the City had available infrastructure and trucks more suitable to distance hauling, the transportation costs would decrease.**

**As a general rule, when all variables are equal, greater transportation distances will always result in greater overall costs. Thus, if communities and businesses currently served by WMDSM’s disposal network were forced to transport waste two and three times the current distance, they would experience significant cost increases. The extent of the increase would depend on the various factors identified above and would likely make disposal at PERC or the Fiberight facility cost prohibitive. Increasing disposal costs at the same time that recycling costs are increasing would have a significant adverse impact on municipal solid waste budgets.**

- b. WMDSM asserts that the acceptance of residuals from MMWAC and the future Fiberight facility “is critical to their long-term success.” Please expand upon and provide support for this assertion.

**As discussed in Section 2.1 of WMDSM’s Application, disposal capacity at the Crossroads Facility directly supports MMWAC and will support Fiberight upon startup. Crossroads supports MMWAC at its most critical times: during MSW shortages and MSW excesses and has done so for a decade. WMDSM also operates a transfer station for non-processible solid waste and by-passed processible solid waste for MMWAC and transports and disposes of those waste streams such as bulky waste, construction and demolition debris, and bypass that cannot be processed at the MMWAC facility.**

**Crossroads will play an equally important role for Fiberight by accepting 20 to 30% of process residues that cannot be recycled or converted into fuel by its system and MSW bypass when the facility is unable to accept waste due**

to their type, outages, or other causes. As recognized in Fiberight’s license from the DEP, “landfill disposal capacity is an integral part of the development of an integrated system for solid waste management in accordance with the hierarchy . . .”<sup>5</sup>

**In sum, without the disposal capacity provided by the Crossroads Facility, both MMWAC and Fiberight may experience operational challenges, which could impact the long-term viability of each facility.**

5. *Section 3.2.1, Waste Reduction Programs.*

- a. All existing and proposed recycling programs could benefit from wider application. Expansive success of the single-sort programs suggests that more is possible. Has WMDSM considered the expansion of their current recycling programs? Please describe the benefits and limitations, if any, associated with program expansion.

**As described in its Application, WMDSM is proposing to improve and therefore expand the success of its recycling efforts through improvements to the Crossroads Facility as well as expanding and in some instances commencing new initiatives, which are described in Section 3.0 of the Application. WMDSM believes it is important to proceed in an iterative manner and ensure the success of these programs on a local/regional level before seeking to expand them further. A key component will be data collection to evaluate what is working and to make adjustments to improve the utilization and success of these initiatives.**

**Currently, one of the key challenges to improving recycling rates is cost, which is being driven by global circumstances and the willingness of generators to pay for these services. Unfortunately, Maine’s recycling markets have not been insulated from global challenges. As a result, tip fees for recycling services have increased approximately \$ 50 per ton in last 12 months. Contamination rates have also adversely impacted recycling. Recycling loads are now scrutinized for contamination and fees are assessed based upon observed levels. To combat this trend, WMDSM is actively working to improve recycling and reduce contamination within recycling materials in a number of ways. WMDSM has circulated educational materials to communities, commercial haulers and businesses describing the importance of removing contamination from recycling materials. Waste Management has also developed an education and outreach website, “Recycle Often. Recycle Right,” that includes best practices and tools to help communities properly recycle and reduce contamination which will be highlighted in WMDSM’s educational materials.<sup>6</sup> WMDSM is also providing additional training to its employees who**

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<sup>5</sup> Municipal Review Committee, Inc. and Fiberight, LLC Hampden, Penobscot County, Maine Solid Waste Processing Facility, *Solid Waste License*, #S-022458-WK-A-N, at 29, (July 14, 2016). [http://www.hampdenmaine.gov/vertical/sites/%7B1FCAF0C4-5C5E-476D-A92E-1BED5B1F9E05%7D/uploads/160714\\_DEP\\_Solid-Waste-License\\_7-14-16.pdf](http://www.hampdenmaine.gov/vertical/sites/%7B1FCAF0C4-5C5E-476D-A92E-1BED5B1F9E05%7D/uploads/160714_DEP_Solid-Waste-License_7-14-16.pdf) .

<sup>6</sup> Waste Management’s “Recycle Often. Recycle Right” website can be accessed at [www.RORR.com](http://www.RORR.com).

**manage recycling materials at the Crossroads consolidation facility. Both efforts have yielded tangible results as seen by very low contamination rates within WMDSM's most recent recycling shipments.**

**As discussed above in WMDSM's response to comment 1(d), the environmental agencies from other states, such as New York and Massachusetts, have recently dedicated significant resources to address the recycling crisis. WMDSM would support a similar effort in Maine, including the development of a Universal Acceptable Materials List to align public perceptions with processor requirements regarding what is and is not recyclable in residential programs.**

- b. WMDSM should consider partnering with Municipal Review Committee, Inc. member communities that will be served by Fiberright to improve recycling of materials not of use in their biofuel process.

**WMDSM is willing to work with the MRC to expand recycling efforts in its member communities if requested. It is likely that the MRC and Fiberright will seek to maximize material diverted to that facility, including recyclable materials that can be marketed at a profit to help with its success. If that is not the case, WMDSM is willing to work with the member communities to increase recycling opportunities.**

- c. WMDSM should quantify the potential impact on the reduction of MSW landfilled based on the implementation of the current and proposed diversion and reuse programs. Current programs include the diversion of rechargeable, button, and single-use batteries; electronic wastes; tires; glass, metal, cans, plastics, office paper, newspaper, boxboard and corrugated cardboard through their single-sort program and woodwaste. Proposed programs include textile diversion and reuse; organics diversion and reuse and household hazardous materials collection and reuse. WMDSM also conducts waste evaluation and sustainability consulting services and proposes to enhance its Airport Road Transfer Station to maximize the quantity of materials reused and recycled and minimize material contamination and disposal.

**WMDSM believes it is premature to attempt to quantify the potential volumes of materials diverted from programs that have yet to commence or are highly variable. WMDSM calculates that for current programs listed above in 5(c), 15,113.22 tons of material was diverted from landfilling or recycled in 2017. A table listing volumes for each material is attached as Exhibit A.<sup>7</sup>**

**Additionally, 21,659.68 tons of tires originating in Maine were recycled through WMDSM's partnership with BDS at the Crossroads Facility in 2017. Also recycled at the Crossroads Facility in 2017 was 327.03 tons of steel rims,**

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<sup>7</sup> Materials diverted or recycled through Waste Management programs, such as BatteryTracker®, LampTracker® or BallastTracker® are not included in this figure.



**187 tons of off-the-road tires, 29.2 tons of scrap steel and 9.46 tons of aluminum rims.**

- d. Most of the proposed programs are scheduled for implementation at the opening of Phase 14. For others, the schedule is less clear or involves a phased approach. A clarified schedule of implementation, including any significant milestones and subsequent program phases, should be provided.

**WMDSM anticipates that the proposed programs will commence no later than the start of waste materials being accepted in Phase 14. WMDSM also anticipates data will be collected on a monthly basis and reported annually to the DEP. WMDSM believes it is premature to specify significant milestones for programs that have yet to commence or are just in their infancy.**

6. *Section 3.2.1(b), Textile Diversion and Reuse Program.*

- a. WMDSM notes that the textiles that cannot be reused will be transported to a recycling facility. The potential recycling facilities that will be considered to take the textiles that cannot be reused should be identified.

**WMDSM plans to utilize the extensive marketing network developed by Recycle America, a program of Waste Management, to recycle textiles generated from its Textile Diversion and Reuse Program. Recycle America currently operates nearly 100 recycling plants and provides marketing services for more than 140 locations in the U.S. and Canada. Use of Recycle America's extensive global recycling network to market textiles that would otherwise be disposed of in a local landfill is a prime example of the utilization of the resources provided by one the world's largest waste management services for the benefit of the State of Maine.**

- b. WMDSM should describe the current options for textile recycling in the targeted towns and outline the quantitative goals for the proposed textile diversion and reuse program. Provisions for the assessment of the effectiveness of the program, and information relative to whether WMDSM will undertake any additional actions to enhance this program if periodic assessment determines that the program could be improved should be provided.

**WMDSM will take a phased approach to the launch of its Textile Diversion and Reuse Program and believes it is premature to establish meaningful quantitative goals at this juncture. The program's initial step will be to develop the infrastructure and educational materials necessary to launch the Textile Diversion and Reuse Program at the Airport Road Transfer Station. Once this infrastructure is in place and textiles are actively being diverted, WMDSM will have a baseline of data for program analysis and projection. This baseline will effectively inform how WMDSM considers future quantitative goals for the program and how best to maximize the benefits of expansion.**

7. *Section 3.2.1(c), Household Hazardous Materials Collection and Reuse Program.* WMDSM should outline how the effectiveness of the proposed household hazardous waste (HHW) collection events will be evaluated. WMDSM notes that data from each event will be collected and tabulated. Note that, if it is not possible to determine a collection rate, (e.g., the amount of HHW collected divided by the amount of HHW available for collection, expressed as a percentage) the best way to assess program performance is to measure consumer awareness and consumer use of the program through a survey. Such a survey offers the opportunity to identify barriers to participation to help in the design of improvements as needed. Annual distribution of the survey allows for the assessment of changes in consumer awareness and consumer use over time relative to any potential changes to education and outreach initiatives and program design adjustments.

**WMDSM will prepare a survey that participants of the collection event will be required to complete. Exhibit B is provided here as an example of a similar survey circulated by Waste Management during a HHW event. Answers to the survey will be tabulated to determine what percentage of residents participated in the event, the overall effectiveness of the event and the frequency in which future events should be held.**

8. *Section 3.2.1 (d), Battery Diversion Program.*

- a. WMDSM should specify the quantitative goals for the battery diversion program. How will WMDSM determine what, if any, additional actions may be necessary to enhance this program if a periodic assessment determines that the program could be improved?

**WMDSM's current Battery Diversion Program is in its infancy. The program is functional, but its effectiveness can be grown. WMDSM believes it is premature and likely inaccurate to specify quantitative goals for the program at this juncture, but will collect data to measure the program's effectiveness. As with the programs discussed above, WMDSM anticipates that the enhancement of the Airport Road Transfer Station will improve the effectiveness of the Battery Diversion Program. Space at the enhanced transfer station will not only be dedicated to the program, but will effectively draw attention to the program in a manner not possible with the current infrastructure and configuration. Educational materials circulated to communities utilizing the Airport Road Transfer Station will also emphasize and encourage use of the program.**

- b. The BatteryTracker® service is mentioned as being provided by Waste Management, WMDSM's parent company, for used dry-cell batteries. What number or percentage of WMDSM's customers utilize that service?

**In 2017, 216 pounds of batteries were recycled through Waste Management's BatteryTracker® program. While a modest number of WMDSM's customers currently utilize this service, the program has been effective and well utilized in other states indicating that participation in the program can grow in**

**WMDSM's service territory. WMDSM plans to promote the programs through educational materials that will coincide with the implementation of the Phase 14 Project.**

9. *Section 3.2.1(e), Electronic Waste Diversion Program.*

- a. The eScrapTracker®, LampTracker®, and BallastTracker® services are mentioned as being provided by Waste Management for the various materials. What number or percentage of WMDSM's customers utilize those services?

**In 2017, 3,272 pounds of materials were recycled through the eScrapTracker® program, 41,285.8 pounds of bulbs were recycled through the LampTracker® program, and 15,266 pounds of ballasts were recycled through the BallastTracker® program. While a modest number of WMDSM's customers currently utilize this service, the program has been effective and well utilized in other states indicating that participation in the program can grow in WMDSM's service territory. WMDSM plans to promote the program through educational materials that will coincide with the implementation of the Phase 14 Project.**

- b. WMDSM should outline the quantitative goals for the electronic waste diversion program. How will WMDSM determine what, if any, additional actions may be necessary to enhance this program if periodic assessment determines that the program could be improved?

**Similar to WMDSM's Battery Diversion Program, its Electronic Waste Diversion program can be enhanced and grown. Enhancement of the Airport Road Transfer Station will also include dedication of space for this program, and emphasizing its prominence at the facility. Educational materials will also highlight and encourage use of the program. Following enhancement of the transfers station and circulation of educational materials, WMDSM will gather and analyze collection data that can be utilized as the baseline for the program's effectiveness going forward.**

10. *Section 3.2.1(f), Waste Evaluation and Sustainability Consulting.*

- a. A specific example or description of a completed waste evaluation including the scope and result of the evaluation would be helpful. WMDSM notes that successful "evaluations have been performed for a variety of customers, including Bath Iron Works, Fisher Engineering, Sappi and Colby College."

**WMDSM is committed to assisting all of its customers with maximizing their waste diversion rates. To do so, it combines its local understanding and expertise with the global resources of one of the leading environmental solutions companies in the world. In an effort to marshal these resources for all its customers, WMDSM's evaluation and consultations take many forms.**

**For sophisticated customers with specific waste disposal concerns, evaluations and consultations can include the development of programs to meet multiple criteria, such as sustainability, regulatory compliance and cost-savings. For customers with less sophisticated needs and fewer available resources, the same evaluation and consultation may consist of a conversation, applying WMDSM’s expertise and resources to the challenges facing its customer.**

**For example, WMDSM worked with Fisher Engineering (Fisher) to solve a challenging waste disposal issue. Originally, Fisher used ten open top containers to collect waste at locations spread throughout its facility. This arrangement produced waste materials with low density and required frequent pickup of containers. After analyzing the Fisher facility and its waste handling processes, WMDSM identified the inefficiencies associated with use of multiple containers. WMDSM recommended that Fisher install a precrusher compactor to increase waste density and minimize use of disposal containers. This system has yielded annual savings on disposal costs for Fisher and minimized the overall volume of waste generated by the facility.**

**While less formalized, but no less effective, WMDSM also worked with Bath Iron Works (BIW) to develop a container management program for its facility. This program collects and manages Yard Waste/MSW, single-stream materials, cardboard, special waste and wood waste. The program has effectively minimized the overall volume of Yard Waste/MSW also collected through the program.**

**Additionally, WMDSM also worked with Sigco Glass to identify a recycling outlet for glass previously considered waste. This evaluation and consultation resulted in the diversion of 6,000 tons of glass in 18 months from Sigco’s waste stream.**

- b. WMDSM should provide data on the number of businesses and municipalities in its service area to which it has provided waste evaluation and sustainability consulting services, as well as any numbers of additional businesses and municipalities targeted to receive these services annually. Additionally, WMDSM should describe any proposed enhancements to these programs and any benchmarks necessary to evaluate the program’s success.

**As described above, the specific format of WMDSM’s evaluations and consultations varies. Given this variation, it is difficult to accurately estimate the number of services provided by WMDSM on an annual basis or to develop benchmarks.**

- c. WMDSM notes that the implementation of “Pay-As-You-Throw [PAYT] programs have been shown to reduce the amount of waste generated and increase the amount of material recycled by communities”. WMDSM should note whether it plans to introduce PAYT programs to new communities, or incentives for communities to

implement PAYT programs to assist communities to successfully improve their waste reduction and diversion rates.

**WMDSM can provide communities interested in establishing PAYT programs access to Waste Management experts knowledgeable in the implementation of these programs. WMDSM does not intend to introduce PAYT programs to the communities it serves without a community first expressing a strong local interest. In WMDSM's experience, the success of PAYT programs is largely driven by the interest and motivation of the participating community.**

11. *Section 3.2.2(a), Beneficial Tire Reuse Program.*

- a. BDS currently has an application pending with the Department to move its operation to a new location in Fairfield. How will this change in location impact WMDSM's access to, and use of, BDS for processing tires and similar rubber-based products?

**WMDSM's understanding is that BDS will continue operations at Crossroads even if a new facility is permitted at the Fairfield location.**

- b. During 2016 and 2017, WMDSM initiated a program to reuse blasting mats. WMDSM should specify the geographic range of this program and whether it will continue to operate. It is likely that opportunities exist to further expand the extent of this program.

**WMDSM, in partnership with BDS Waste Disposal, currently receives blasting mats from locations across northern New England. None of this material is being landfilled at Crossroads. Instead, 100% of these mats are recycled, including both metal and rubber components. This service will continue and can be provided to any location where BDS accepts tires within the existing Beneficial Tire Reuse Program.**

12. *Section 3.2.2(b), Single-Sort Recycling Program.*

- a. It is the Department's understanding from Casella Waste Systems, Inc. (Casella) that crushed glass from Casella's Zero-Sort® recycling facility in Lewiston is now going to WMDSM's Crossroads Landfill because of the recent downturn in recycling markets for waste glass. How can WMDSM assist to provide a future for this material that involves recycling rather than landfilling?

**WMDSM does not intend to accept the glass provided by Casella on a long-term basis. WMDSM has provided this service as a courtesy to Casella and will cease acceptance as soon as an alternative option has been identified.**

- b. Additional detail regarding the process that was developed and the recycler that was engaged to divert glass from the waste stream should be provided. WMDSM estimates that nearly 6,000 tons of glass has been diverted from landfilling over the past 18 months. The Department assumes that the type and origin of this glass is

different than the waste glass specified in comment 12(a) above. A clarification should be provided.

**The Department is correct. The glass referenced in Comment 12(b) is different from the glass referenced in Comment 12(a).**

- c. How can WMDSM balance the costs of recycling services versus the landfilling of potential recyclables given the recent changes in recycling markets?

**WMDSM does not intend to landfill potential recyclables and is utilizing the efforts described in Section 3 of its Application and the responses provided to comment 5(a) to avoid this scenario.**

- d. WMDSM asserts that its single-sort program “has been highly successful” yet, the application notes that there is only limited and incomplete data available on the recycling rates in the communities it serves. Given the data available, WMDSM should specify the overall average MSW recycling rate for the towns it is serving. How can WMDSM better assess municipal recycling rates and overall program performance? Given that Maine’s overall MSW recycling rate falls short of the statewide 50% goal, and there is no evidence presented to suggest that WMDSM’s program performs any better, how can WMDSM improve program performance?

**The DEP is WMDSM’s source of annual recycling rates for its participating communities. Improvements to WMDSM’s recycling programs have been addressed in Section 3.0 of its Application and within its responses to DEP comments.**

- e. WMDSM should describe how it intends to assess whether its initiatives will assist towns that utilize the landfill to show reasonable progress toward the statewide goal of recycling 50% of MSW, or that the volume of MSW is reduced to the maximum extent practicable by recycling and waste reduction prior to being landfilled.

**As described in Section 3.0 of its Application and within its responses to DEP comments, WMDSM and its Crossroads Facility currently administers a significant number of programs aimed at reducing the volume of MSW. Further, as part of its Application, WMDSM analyzed and proposed additional initiatives for further reducing the volume of its MSW, including an ambitious organics diversion program<sup>8</sup> and a revamped transfer station focusing on the promotion of waste diversion and the minimization of contamination. With the continuation of existing programs and the addition**

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<sup>8</sup> The Maine DEP has identified organics diversion as the single largest opportunity to reduce the overall volume of waste generated in Maine. See Maine Dep’t of Envtl. Prot., *Maine Materials Management Plan: 2014 State Waste Management and Recycling Plan Update and 2012 Waste Generation and Disposal Capacity Report*, 6, (January 2014).

**of its proposed programs, WMDSM will reduce the volume of MSW entering the landfill to the maximum extent practicable.**

13. *Section 3.2.3, Organics Diversion and Reuse Program.*

- a. Removal of organics from the MSW waste stream accepted at the Facility is proposed with suggested targeting of large-volume commercial entities. The group of served communities is unclear. WMDSM should clarify the group of communities noted as being “within proximity to Crossroads.”

**WMDSM’s reference to communities “within proximity to Crossroads” includes the communities that utilize the Airport Road Transfer Station: Anson, Embden, Fairfield, Madison, New Sharon, Norridgewock, Rome, Smithfield and Vienna. Additionally, WMDSM has also begun collaboration with the DEP and the Town of Farmington on an innovative composting initiative that could potentially dovetail with the Organics Diversion Program proposed by WMDSM in its Application.**

- b. Additional information is needed regarding the proposed organics diversion and reuse program including how the commercial and educational institutions will access the composting program, an estimate of the quantity of organics that will be targeted for diversion to composting and the anticipated effects on recycling rates in the WMDSM service area.

**Access to the Organics Diversion and Reuse Program will be flexible to encourage participation. Roll off containers will be provided to institutions where higher volumes of organics collection is anticipated. Smaller containers will be provided to locations with the ability to generate moderate volumes. Individual pails will be offered to households utilizing the Airport Road Transfer Station. In addition, the enhanced transfer station facility will be equipped with scales to weigh individual compost pails giving WMDSM the ability to both track and utilize data to drive participation.**

**Given its infancy, it is not impossible for WMDSM to accurately estimate the quantity of organics collected by the program. Once the program’s infrastructure is in place and data has been collected for a reasonable period of time, WMDSM will be better positioned to project quantities of organics diverted going forward. There is no indication that the Organics Diversion and Reuse Program will impact recycling rates within the WMDSM service area. Indeed, it is possible that rates could increase as WMDSM customers consider the components of their waste more carefully.**

14. *Section 3.2.4, Gas-To-Energy Infrastructure.* WMDSM should explain whether the removal of organics will impact WMDSM’s ability to continue optimal operation of its gas-to-energy plant, and ensure stability of the waste mass and the landfill’s defined Airspace Utilization Factor.

**Methane (CH<sub>4</sub>) is generated by a two-stage biologically mediated process of cellulose decomposition and glucose fermentation. Since both cellulose and glucose are predominantly found in organic wastes, removal of organics prior to deposition in the landfill will have some impact on the quantity of methane generated. This is an accepted ramification of removing organics from the waste and is offset by the positive benefits of using the organics in composting operations. The exact effect on the gas-to-energy production is difficult to quantify since the amount of organics that will be removed is not yet known. Operation of the gas-to-energy facility will, however, be monitored and adjusted accordingly to account for potential decreases in methane.**

**The long-term environmental stability of the waste mass will be evaluated by trends in the methane, and carbon dioxide levels in the gas and in the BOD in the leachate. Since Phase 14 is expected to have fewer organics than some of the other disposal units in which a larger percentage of MSW organics has been deposited, the gas and leachate from Phase 14 will not necessarily be identical to the gas and leachate from other units. However, the trend in these parameters from Phase 14 will be tracked such that an assessment can be made of the long-term waste decomposition/stabilization process.**

**The airspace utilization factor (AUF) for Phase 14 will be tracked in the same manner used for other disposal units at Crossroads. Removal of organics from the waste is not expected to substantially alter the long term AUF, but WMDSM will continue to track the AUF and will monitor stability of Phase 14 as has been done with other disposal units at the site for many years.**

15. *Appendix D: Public Notice.*

- a. We believe that the “Waste Management Abutters List 2018” incorrectly notes that WMDSM owns the parcel denoted as Tax Map 18, Lot # 17. We believe it should be Lot #7. A clarification should be provided.

**The abutters list should have indicated that WMDSM owns the parcel denoted as Tax Map 18, Lot #7, not Tax Map 18, Lot #17. We apologize for the mistake.**

- b. We believe that WMDSM owns the parcel denoted as Tax Map 10, Lot #17. The attached property plan should be updated as appropriate.

**The plan identifies in green hatching those parcels that abut the Facility and are not owned by WMDSM, and identifies WM ownership of parcels that abut the Facility. WMDSM owns the parcel denoted as Tax Map 10, Lot #17 and the map will be modified accordingly. That parcel is not, however, an abutting parcel.**



# **Exhibit A**

<b>Waste Management Diversion and Recycling Figures - 2017</b>		
<u>GENERAL MATERIALS</u>	<b>Pounds</b>	<b>Tons</b>
Single Sort		2,369.65
OCC		4,047.24
Clear glass		5,841
Other metals		520.34
Clean wood		629
Concrete		1244
Organics		12
Brick		331.11
Sawdust		63
Brush		11
<b>Total</b>		<b>15,068.34</b>
<u>ELECTRONIC WASTE</u>		
Cathode Ray Tubes	73,552	
Electronic Devices	14,231	
Batteries	1,804	
Personal Computers	154	
Mixed E-Waste	16	
<b>Total</b>	<b>89,757</b>	<b>44.88</b>
<b>COMBINED TOTAL</b>		<b>15,113.22</b>

# **Exhibit B**

**Participant Exit Survey  
Household Hazardous Waste Collection**

No.



1. What community are you from? \_\_\_\_\_
2. How many households do you represent?  
 One  Two  Three  Four  
 More than four  Other \_\_\_\_\_
3. Was the gallon / pounds limit adequate?  
 Yes  No
4. Do you have additional hazardous materials in your home you would like to dispose of?  
 No  Yes What types? \_\_\_\_\_
5. Do you know how to dispose of them properly?  
 Yes  No  Not Sure
6. How often do you need to dispose of household hazardous waste?  
 Once a year  Other \_\_\_\_\_  
 Twice a year
7. How did you hear about this collection?  
 Flyer  School children  
 Newspaper  Word of mouth  
 Radio  Other \_\_\_\_\_
8. What types of materials did you bring?  
 Household batteries  Other automotive products  
 Used motor oil  Pesticides (insecticides /herbicides)  
 Antifreeze  Household cleaners  
 Automotive batteries  Mercury or mercury containing products  
 Latex paints (includes fluorescent lamps)  
 Oil Paints  Gasoline  
 Solvents or thinners  Other
9. Have you attended a household hazardous waste collection before?  
 No  Yes
10. Would you support a disposal fee added to the purchase price of household products, which contain hazardous properties, to help pay for proper disposal?  
 No  Yes \_\_\_\_ 1% of cost \_\_\_\_ 2%of cost
11. Would you be willing to pay for the disposal of your household hazardous waste offset the town's cost of disposal?  No  Yes \$5\_\_\_\_\$10\_\_\_\_\$15\_\_\_\_ Other?\_\_\_\_\_

Name: \_\_\_\_\_

Optional

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_ Zip: \_\_\_\_\_

**THANK YOU FOR PARTICIPATING**