



Date: January 17, 2012

To: Council President Tom Hughes
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From: Matt Korot, Resource Conservation & Recycling Program Director
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Subject: **Progress report on Metro's Enhanced Dry Waste Recovery Program (EDWRP)**

Introduction

Approximately 20 percent of the region's dry waste is from construction and demolition activity. Prior to 2009, generators and haulers could choose to directly dispose of dry waste at low-cost landfills. The Metro Council established the Enhanced Dry Waste Recovery Program to increase recovery of recyclables by requiring that all dry waste be sorted for recovery prior to disposal. This progress report describes the effect the program has had on dry waste recovery.

Executive summary

The Metro Council adopted Ordinance No. 07-1147B to establish the Enhanced Dry Waste Recovery Program to increase recovery of dry waste, primarily construction and demolition debris. The program cut off flow of unprocessed dry waste to area landfills and required the waste to be delivered to authorized materials recovery facilities for processing. Additionally, the program established a new materials recovery standard for private solid waste facilities that receive dry waste generated in the Metro region. The Metro Council adopted Resolution No. 07-3802 to require Metro's two publicly-owned solid waste facilities to meet the new recovery standard. The program became effective on January 1, 2009. This is a progress report of the program's effect on dry waste recovery at private facilities through October 2011.¹

The Enhanced Dry Waste Recovery Program applies a two-pronged approach to increase recovery by requiring all dry waste generated in the Metro region to be delivered to an authorized materials recovery facility for processing and by requiring each recovery facility to comply with a uniform recovery standard. The program has succeeded in requiring all unprocessed dry waste to be delivered to recovery facilities, where recyclable materials can be recovered. The program's materials recovery

¹ The respective operators of Metro's two publicly-owned solid waste facilities are contractually obligated to meet specific recovery performance goals beyond the scope of EDWRP. This makes it difficult to solely attribute increased recovery at both facilities to EDWRP.

standard directs that specific marketable materials (i.e. wood, metal and cardboard) must be recovered from the waste stream for recycling.

Precise analysis of the program’s performance with respect to dry waste recovery in the Metro region is made difficult by the effect of the current economic downturn on the construction industry.²

Table 1 shows dry waste tonnage delivered to both private material recovery facilities and landfills in CY 2008 before the program began, and compares this to tonnage directed solely to material recovery facilities during CY 2010, the first full calendar year after the program’s implementation. Dry waste tonnage delivered to solid waste facilities (Incoming dry waste) decreased 22 percent during this time period; however, recovery increased by nearly 20,000 tons, or 14 percent, during this same time. Viewed together, these factors (unprocessed dry waste diversion from landfills, enhanced recovery requirements and increased recovery) indicate that the program has been successful in achieving its stated goals.

Table 1
Metro region dry waste tons at private solid waste facilities, pre- and post- EDWRP

Calendar year	Incoming dry waste	Outgoing recovery	Net disposal	Recovery % from incoming dry waste
2008 - pre-EDWRP	319,128	71,399	247,729	22.4%
2010 - post-EDWRP	247,832	91,298	156,534	36.8%

Source: Metro dry waste delivery and recovery data, 2008-2010.

Objective and practice

The primary objective of the Enhanced Dry Waste Recovery Program is to increase recovery of dry waste by requiring such waste to be delivered to a Metro-authorized material recovery facility for processing. Direct landfill disposal of unprocessed dry waste is no longer an option. Metro’s designated facility agreements with area landfills prohibit these facilities from accepting unprocessed dry waste. As a result, the only disposal option open to generators and haulers is authorized material recovery facilities.

Material recovery facilities, including Metro’s two publicly-owned solid waste facilities, are required to perform recovery on the waste so that processing residual, the non-recoverable portion of the waste, contains no more than 15 percent, by total combined weight, of wood or corrugated cardboard pieces measuring 12 inches or greater in any dimension and metal pieces measuring eight inches or greater in any dimension.³ In addition, facility operators are required to sample their residual quarterly and provide the results to Metro. Metro routinely inspects material recovery facilities, including Metro’s two facilities, to determine compliance with the recovery standard. Metro staff has conducted approximately 125 inspections since January 2009 to determine compliance with the recovery standard. Only one instance of non-compliance has been identified during this time.

²The region’s construction economy began to contract in late 2008, reducing the flow of dry waste to area material recovery facilities and local landfills; this contraction continued in 2009 and 2010. This occurred in the context of a well-documented crisis in the financial industry, which led to a 21 percent statewide reduction in construction activity between 2007 and 2009.

³ During the development of the Enhanced Dry Waste Recovery Program, material recovery facility operators were interviewed about the specific recovery practices at their facilities; this information helped inform Metro’s decision to target wood, cardboard and metal. These are unique commodities in that they have a solid history of being recovered at material recovery facilities and benefit from relatively stable and mature recycling markets.

Dry waste recovery data

In 2007, Metro staff estimated that 33,000 additional tons of dry waste would be recovered due to the Enhanced Dry Waste Recovery Program. In practice, however, attributing specific dry waste recovery to the program is difficult, particularly because the program's implementation coincided with a decline in construction and economic activity in the region. Even if construction activity had remained constant over the last few years, though, exact measurement of the program's impact is limited by the imprecision of facility-reported data. This imprecision results from the operational challenges faced by facilities in consistently maintaining separation between source-separated and EDWRP-eligible recovered materials, in both inbound and outbound loads.

Chart 1 shows dry waste delivery tonnage trends at public and private material recovery facilities during the contraction of the region's construction activity that began in 2008, and reduced the flow of dry waste to area solid waste facilities. This contraction has continued through 2011.

Chart 1

Tri-county dry waste tonnage to private and public solid waste facilities, January 2002 to July 2011

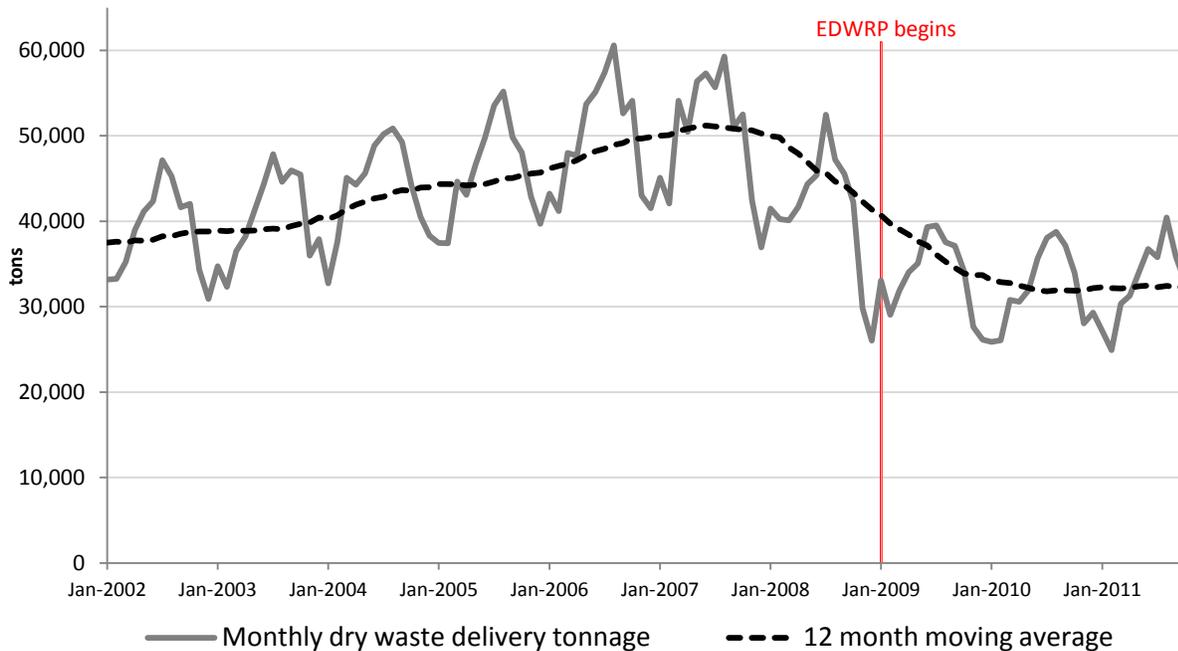
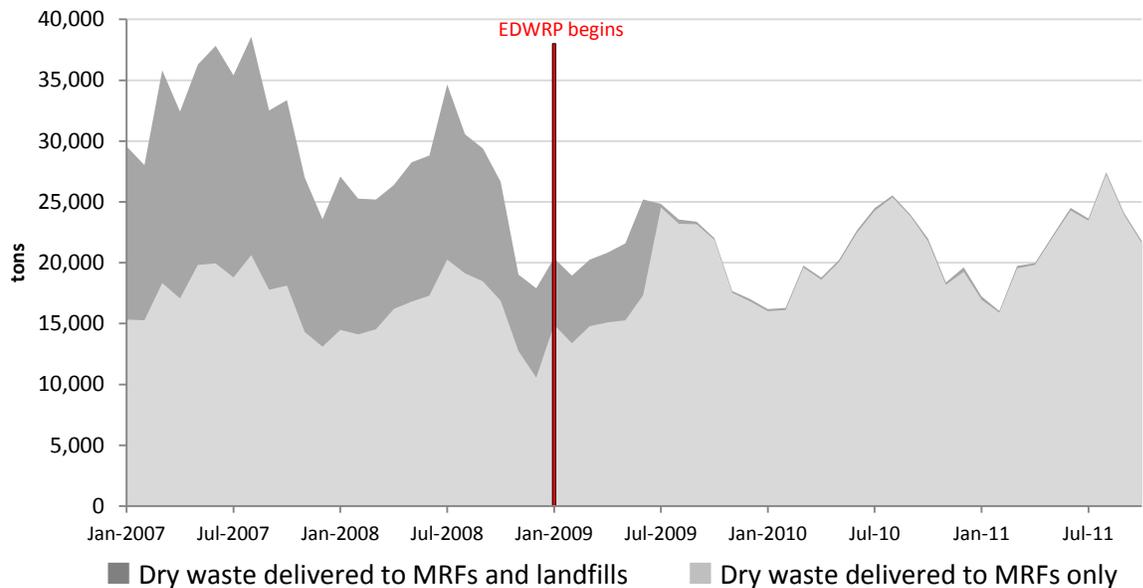


Chart 2 shows the transition from a system where generators could choose to deliver dry waste to a landfill to one where dry waste is required to be delivered to a material recovery facility for processing. Before the Enhanced Dry Waste Recovery Program, dry waste tonnage delivered to landfills accounted for almost half of the region’s dry waste tons. The further reduction of landfill deliveries (the dark-shaded section) from January through June 2009 reflects the construction of a materials recovery facility co-located with the Hillsboro Landfill.⁴

Chart 2

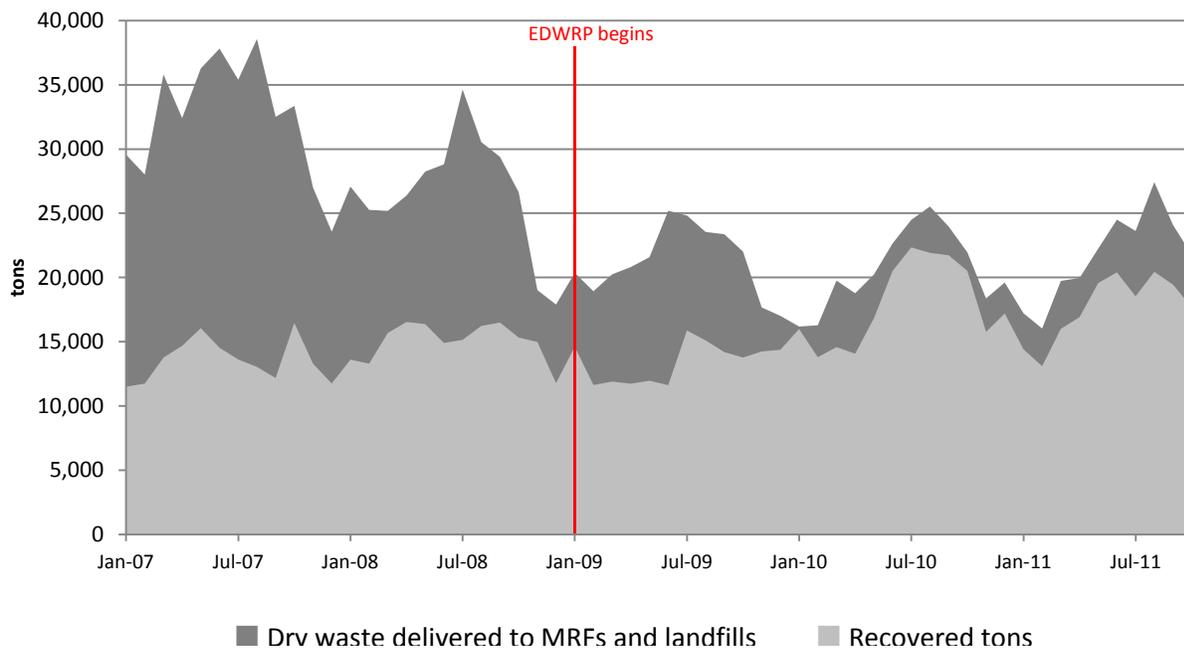
Tri-county dry waste delivery tonnage to private solid waste facilities only, January 2007 to July 2011



⁴ A small portion of tri-county dry waste is generated outside of Metro’s jurisdictional boundary and is not subject to program requirements; this accounts for the small amount of landfill delivery tonnage that remains after June 2009.

Chart 3 shows the trend toward increasing recovery tonnage at private solid waste facilities after program implementation. Table 1 (on page 2) provides a comparison between the year before implementation (2008) and the year after (2010). Overall annual dry waste recovered tonnage increased 20,000 tons or 14 percent during this time period; this new recovery represents an increase of one percentage point in the overall regional recovery rate. Although this is short of the 33,000 annual tons of additional recovery forecasted in 2007 by Metro staff, the additional recovery indicates the success of the program, even in an economic environment where incoming dry waste was down 22 percent.

Chart 3
Tri-county dry waste delivery and recovery tonnage at private solid waste facilities, 2007-2011



Summary

The Enhanced Dry Waste Recovery Program has succeeded in diverting dry waste from direct landfill disposal to authorized material recovery facilities where recyclable materials can be recovered. Dry waste recovery tonnage at the private material recovery facilities demonstrates that the program has resulted in a significant increase in dry waste recovery compared to the calendar year before the program was implemented.

Further investigation

The Enhanced Dry Waste Recovery Program may warrant additional examination to ensure that recovery of dry waste generated in the Metro region can increase in a continued and sustainable way as the waste flow and economy rebound in coming years. Possible areas of focus could include whether the current materials-specific recovery standard should be broadened to include additional materials prevalent in the waste stream and for which there are markets. If there are any future changes to the program, they should include the flexibility to react to recycling market fluctuations and changes in the solid waste system such as waste conversion technologies.

Questions about the information above may be directed to Matt Korot and Roy Brower, or to staff members Bryce Jacobson and Will Ennis, who were the principal authors of this report. This report will be posted and available for viewing at www.oregonmetro.gov.

cc: Martha Bennett, Chief Operating Officer
Scott Robinson, Deputy Chief Operating Officer

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