

Memorandum

To: All Interested Parties
From: Justin Balik, Andrew Flynn
Date: January 14, 2016
Re: Pennsylvania Landfill Disposal Tipping Fees

Municipal waste disposal fees, commonly known as tipping fees, are the charges paid by waste haulers to dump trash at Pennsylvania landfills. Operators of municipal waste landfills must pay a quarterly fee per ton of waste managed per site. Two primary types of waste are managed at Pennsylvania landfills – solid and residual. Solid waste includes garbage and refuse from residential, commercial and institutional establishments. Residual waste includes wastes from industrial, mining and agricultural operations, as well as food processing wastes.¹

In Pennsylvania, there are currently 44 municipal waste landfills, three non-captive residual waste landfills, 25 captive residual waste landfills, three construction/ demolition waste landfills and six resource recovery/ waste to energy facilities in operation.

Tipping fee revenues are split between host municipalities and state programs. Municipalities may also impose their own surcharges; some negotiate higher fees than others.² The Commonwealth of Pennsylvania currently imposes a total \$7.25 per ton in fees described below.

OVERVIEW OF FEES

Pennsylvania is the only state to use its state-imposed tipping fees to finance land conservation programs. The state uses revenue to fund Growing Greener projects, debt service on Growing Greener II general obligation bonds, and for recycling programs.

In 1989, the Act 101 Recycling Fee established a \$2.00 per ton fee to benefit the Recycling Fund. The fee applies to waste disposed of at Pennsylvania municipal waste landfills. Revenue is used to fund grants to municipalities for recycling programs, waste facility studies, and state programs concerning litter control, recycling and waste reduction.

In 1999, Act 68 established a \$0.25 per ton fee to benefit the Environmental Stewardship Fund. The fee applies to waste disposed of at Pennsylvania municipal waste landfills.

In 2002, then-Governor Schweiker and the General Assembly created a dedicated source of funding for Growing Greener by increasing the tipping fee. The revenue

¹ "Chapter 9: FPR Disposal in Landfills and Impoundments or Incineration." Pennsylvania Department of Environmental Protection. Accessed January 8, 2016. <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-48913/254-5400-100%20Chapter%209.pdf>

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generated by the increase was placed into the Environmental Stewardship Fund for Growing Greener.^{3 4}

Act 90 of 2002 created a permanent \$4.00 per ton fee, known as the disposal fee, which applies to waste managed at Pennsylvania municipal waste landfills. The total taxpayer cost, as fees paid by landfill operators are often passed onto waste collectors and haulers, and then to their customers, was estimated at \$56 million per year.^{5 6}

However, much of the revenue from the tipping fee increase ultimately went to pay off the debt service on the Growing Greener II bonds approved by voters in 2005. This redirection of revenues continues to the present day. In January 2015, the Growing Green Coalition stated that the tipping fee generates about \$60 million for the ESF fund, but due to legislation passed with the Growing Greener II program in 2005, about \$40 million of that revenue is used to pay the yearly Growing Greener II bond debt service.⁷

The chart to the right shows a breakdown of the three existing fees. Fees are charged to solid waste and certain types of residual waste disposed of at municipal waste landfills.⁸

Annual Revenue Generated by Commonwealth Tipping Fees			
Fee Name	Fee (\$ per ton)	Revenue (millions)	Purpose
Act 101 Recycling Fee	\$2.00	\$146.3	Recycling Fund
Act 68 Env. Stewardship	\$0.25	\$17.9	Environmental Stewardship Fund (Growing greener grants and debt service for bonds)
Act 90 Disposal Fee	\$4.00	\$120.4	

PREVIOUS ATTEMPT TO INCREASE FEES

In 2007, the Rendell administration unsuccessfully proposed an increase in the tipping fee to benefit the Hazardous Sites Cleanup Fund and the Environmental Stewardship Fund. The proposal sought to increase the tipping fee by \$2.75 in total, with \$2.25 per

³ "Growing Greener – Environmental Stewardship Fund." Growing Greener Coalition. Accessed January 8, 2016. <http://pagrowinggreener.org/issues/growing-greener/>

⁴ The Environmental Stewardship Fund also receives revenue generated by impact fees on oil and gas drillers, as imposed by Act 13 of 2012, which imposed impact fees on oil and gas drillers. Beginning in 2013, the ESF also received funding from transfers from the Oil and Gas Lease Fund.

⁵ Jackson, Danielle. "PA Budget Increases Landfill Tipping Fees." Waste 360. June 27, 2002. Accessed January 9, 2016. http://waste360.com/news/waste_pa_budget_increases

⁶ "Growing Greener: Environmental Stewardship and Watershed Protection Act." Pennsylvania Department of Environmental Protection. June 2015. Accessed January 8, 2016. <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-107586/1010-FS-DEP2456.pdf>

⁷ "Pennsylvania Growing Greener Coalition Celebrates Announcement of Department of Environmental Protection Growing Greener Grants." Growing Greener Coalition. January 19, 2015. Accessed January 8, 2016. <http://pagrowinggreener.org/coalition-celebrates-announcement-of-dep-growing-greener-grants/>

⁸ Based on 2013 and 2014 averages of municipal waste fee receipts, as provided by Pennsylvania Department of Environmental Protection. Pennsylvania also imposes a \$1 per ton local host fee on waste managed at municipal waste landfills that goes to the host municipality. Residual waste approved for beneficial use as alternative daily cover is exempt from the recycling fee and disposal fee. Residual waste from the treatment and delisting of characterization of hazardous waste is exempt from the disposal fee.

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ton to preserve the Hazardous Sites Cleanup Fund and \$0.50 per ton to support the Environmental Stewardship Fund. If enacted, the annual impact in 2007 was estimated to be \$6.13 in additional waste fees for the average Pennsylvania household.

TIPPING FEES

Pennsylvania is a leading destination for waste imports because of the availability of ample landfill space in convenient locations, as well as the relatively inexpensive cost of disposal compared to other states. A 2014 nationwide study of waste disposal fees, the most recent comprehensive study publicly available, found that the average tipping fee in Pennsylvania in 2011 was \$76. Fees at individual Pennsylvania landfills ranged from \$63 to \$103.⁹

Pennsylvania's average fee is significant higher than the national average of \$50, but is regionally competitive when compared to the greater region and to densely populated neighboring states.¹⁰

Nationwide, tipping fees have steadily increased from 2006-2010 after remaining constant from 1995 to 2004.¹¹ Tipping fees are highest in New England and the Mid-Atlantic region.

MUNICIPAL WASTE MANAGEMENT TRENDS IN PENNSYLVANIA

The amount of solid waste deposited at Pennsylvania municipal waste landfills has decreased in recent years. The amount of out of state solid waste deposited at Pennsylvania landfills decreased by 21 percent in recent years, from 9.6 million tons in 2006 to 7.2 million tons in 2014. Despite reaching a record low of 4.8 million tons in 2012, the amount rebounded during 2013 and 2014. The amount of in-state solid waste deposited at the same landfills remained relatively constant over the same time period. The amount of residual waste deposited at the same landfills increased by 41 percent over the same time period, from 2.8 million tons in 2006 to four million tons in 2014.

Tipping Fees by State	
State	Average Fee (\$ per ton)
New York	\$86
Deleware	\$84
Pennslyvania	\$76
New Jersey	\$72
Maryland	\$63
West Virginia	\$49
Virginia	\$46
Ohio	\$40
Tipping Fees by Region	
Region	Average Fee (\$ per ton)
New England	\$77
Mid-Atlantic	\$72
West	\$51
Great Lakes	\$45
South	\$39
Rocky Mountains	\$39
Midwest	\$36

⁹ "Generation and Disposition of Municipal Solid Waste (MSW) In the United States –A National Survey." Shin, Dolly. Department of Earth and Environmental Engineering/ Fu Foundation School of Engineering and Applied Science, Columbia University. January 3, 2014. Accessed January 14, 2016. http://www.seas.columbia.edu/earth/wtert/sofos/Dolly_Shin_Thesis.pdf

¹⁰ "Landfill Tipping Fees in California." California Department of Resources Recycling and Recovery, February 2015. Access January 14, 2016. <http://www.calrecycle.ca.gov/publications/Documents/1520%5C20151520.pdf>

¹¹ "Municipal Solid Waste Landfill Facts." National Solid Wastes Management Association. October 2012. Accessed January 14, 2016. <https://wasterecycling.org/images/documents/resources/municipal-solid-waste.pdf>

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Out of state solid waste accounted for 38 percent of total solid waste in 2006 and dropped to 33 percent in 2014. A 2007 Congressional Research Service report found that factors causing this decline included the imposition of the \$4 disposal fee and the absence of rail service at Pennsylvania landfills.¹²

Despite the longer term trend of a decrease, the amount of out of state waste imported to Pennsylvania increased by nine percent between 2011 and 2014. This is due to the large increases in 2013 and 2014. Yet to be released data from 2015 will help tell if this increase is a sustained trend. In 2014, Pennsylvania accepted waste from 21 states, the District of Columbia, and Puerto Rico.¹³ New York and New Jersey are the largest sources of out of state waste imported to Pennsylvania – accounting for approximately 85 percent of total out of state waste in 2013 and 2014. Waste imported from New York remained constant between 2011 and 2014, while waste imported from New Jersey increased by 15 percent.

RECENT INTERSTATE SOLID WASTE TRENDS IN SELECTED STATES

The most recent comprehensive study of interstate municipal solid waste, a 2007 study by the Congressional Research Service, found that the top waste importing states in were Pennsylvania, Virginia, Michigan, Indiana, Wisconsin and Illinois.

In addition to Pennsylvania, TPL also examined recent waste import figures in Ohio (another top importing state), Virginia, Maryland, and Michigan. These 2014 figures supported the 2005 data that show the selected states as leading waste import destinations.

Out of state waste imports in Ohio and Virginia, leading import states with low tipping fees, dropped between 2011 and 2014, and increased in Pennsylvania during the same time period. TPL also found that Pennsylvania, Ohio and Virginia generally accept trash from separate origin states, although there is some overlap and that states tend to export trash to nearby states as opposed to cheaper states further away. This is likely because hauling and transportation costs increase over greater distances.

In Ohio, total waste imported dropped by 29 percent to 3.1 million tons between 2011 and 2014. This decrease comes after years of steadily increasing imports in the 2000s.¹⁴ Ohio primarily accepts waste from New Jersey and New York, the amounts of which decreased by 44 and 30 percent respectively and are much lower than the amounts that

¹² “CRS Report for Congress: Interstate Shipment of Municipal Solid Waste: 2007 Update.” McCarthy, James E. Congressional Research Service. June 13, 2007. Accessed January 13, 2016.

¹³ “Casey Introduces Legislation to Restrict Flow of Trash into PA From Other States,” Rizzo, John. August 5, 2015. Accessed January 14, 2016. <http://www.casey.senate.gov/newsroom/releases/casey-introduces-legislation-to-restrict-flow-of-trash-into-pa-from-other-states>

¹⁴ “2005 Out-of-State Waste.” OhioEPA. August 2006. Accessed January 14, 2016. http://epa.ohio.gov/portals/47/facts/2005_out_of_state_waste.pdf

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Pennsylvania receives from those states. In 2014, Ohio also imported 0.6 million tons of waste from Pennsylvania, a 24 percent decrease from 2011.^{15 16}

In Virginia, total waste imported decreased by seven percent to 5.1 million tons from 2011 to 2014. This is primarily due to a 75 percent decrease in waste from New Jersey and an eight percent decrease in waste from New York.¹⁷ Virginia receives approximately 73 percent of the total exported Maryland waste.

Although the average tipping fee in Maryland is significantly lower than in Pennsylvania, the state, imports only a small fraction of waste compared to Pennsylvania, Ohio or Virginia.¹⁸ Nearly 70 percent of waste generated in Maryland was managed in-state.¹⁹

In Michigan, the great majority of out of state waste managed is imported from Canada – over 9.2 million tons in 2014.²⁰ Domestic out of state waste primarily comes from Wisconsin, Illinois and Indiana.

REVENUE ESTIMATES OF INCREASING TIPPING FEES

Based off revenue estimates calculated by the environmental advocacy organization PennFuture for the proposed fee increase in 2007, each \$1 per ton increase in the tipping fee that is applied to solid waste deposited at municipal waste landfills would result in an addition cost of \$2.24 to the average household.²¹

Generally speaking, the average American generates approximately one ton of waste per year.²² A \$1 increase in the state's tipping fee for solid waste at municipal waste landfills would cost the average resident \$1.

¹⁵ Ohio data does not specify county of origin for out of state waste. A detailed analysis of interstate waste transfer from Pennsylvania to Ohio is not available at this time.

¹⁶ Based on data available from annual Solid Waste Imports and Exports Reports, Solid Waste Management Planning – Ohio Environmental Protection Agency. Accessed January 14, 2016.

<http://www.epa.ohio.gov/dmwm/Home/SWMgmtPlanning2.aspx#114315356-data-reports-and-studies>

¹⁷ Based on data available from annual Solid Waste Reports. Virginia Department of Environmental Quality. Accessed January 14, 2016.

<http://www.deq.virginia.gov/Programs/LandProtectionRevitalization/ReportsPublications/AnnualSolidWasteReports.aspx>

¹⁸ Ibid.

¹⁹ "Maryland Solid Waste Management and Diversion Report – 2013." Maryland Department of the Environment. December 2013. Accessed January 13, 2016.

<http://www.mde.state.md.us/programs/Land/RecyclingandOperationsprogram/CountyCoordinatorResources/Documents/13%20MSWMR.pdf>

²⁰ "Report of Solid Waste Landfilled in Michigan – October 1, 2013 – September 30, 2014." Michigan Department of Environmental Quality. February 9, 2015. Accessed January 14, 2016. http://www.michigan.gov/documents/deq/DEQ-OWMRP-SWS-SolidWasteAnnualReportFY2014_481071_7.pdf

²¹ "Critical PA Environmental Program Issues – Waste Disposal and Other Fees in Pennsylvania." May 11, 2007. Accessed January 8, 2016. <http://www.pennfuture.org/UserFiles/Tipping%20Fee%20Fact%20Sheet.pdf>

²² "Advancing Sustainable Materials Management: 2013 Fact Sheet." United States Environmental Protection Agency. June 2015. Accessed January 8, 2016. http://www.epa.gov/sites/production/files/2015-09/documents/2013_advncng_smm_fs.pdf

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Each \$1 per ton increase in the tipping fee for solid waste managed at municipal waste landfills would generate approximately \$25.3 million in revenue annually. Of that, approximately \$7.1 million would be generated from out of state waste.²³

HB1624

In October 2015, Representative Garth Everett, a Republican introduced legislation, HB 1624, that would expanding the existing fee structure to include waste deposited at residual waste landfills. The bill was referred to the Environmental Resources and Energy Committee.

HB1624 proposes to expand collection of the Act 101 recycling fee, the Act 68 environmental stewardship fee, and the Act 90 disposal fee. If enacted, each operator of a municipal waste landfill or residual waste landfill would pay the current fee structure for all solid waste as well as for residual waste. These fees are currently limited to solid waste and certain types of residual waste at municipal waste landfills. Residual waste landfills are currently not subject to these fees. The bill also extends the \$2 recycling fee to 2020.²⁴ Representative Everett estimated that his legislation could yield an additional \$1 million for recycling programs and \$1.6 million for Growing Greener.²⁵

The Trust for Public Land also estimated the potential total revenue raised from the proposed legislation, using data provided from the Pennsylvania Department of Environmental Protection.

Expanding the fees to residual waste at residual waste landfills, based on 2013 and 2014 facility annual reports, would generate approximately \$20.4 million annually in total revenue.

Estimated HB1624 Revenue		
Fee	Revenue	Destination Fund
Act 68 Env. Stewardship Fund (\$0.25)	\$ 815,000	Environmental Stewardship Fund
Act 90 Disposal Fee (\$4)	\$ 13,040,000	
Recycling Fee (\$2)	\$ 6,520,000	Recycling Fund
Approximately \$1.6 million would be generated from residual waste at non-captive residual waste landfills and approximately \$18.8 million would be generated from residual waste at captive residual waste landfills.		

There are two types of residual waste landfills – non-captive and captive. Non-captive residual waste landfills generally collect waste from the public. Approximately 260,000 tons of residual waste is managed per year at the three active non-captive residual

²³ Estimates generated using figures provided by the Pennsylvania Department of Environmental Protection.

²⁴ Legislation passed after Pennsylvania voters approved the Growing Greener II bonds permanently authorized the Act 90 and Act 68 fees.

²⁵ "Recycling Programs could benefit from Pa. landfill tax bill." EnviroPolitics Blog. October 15, 2016. Accessed January 8, 2016. <http://enviropoliticsblog.blogspot.com/2015/10/recycling-programs-could-benefit-from.html#.Vo6UyvkrKii>

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waste landfills.²⁶ Captive residual waste landfills collect waste from a single source. The majority of residual waste managed at captive residual waste landfills is coal combustion residue from electric power plants. The number of active coal fired power plants has declined in the last ten years.²⁷ Approximately 3,000,000 tons of residual waste is managed per year at the approximately 25 active captive residual waste landfills.

Data provided by the Pennsylvania Department of Environmental Protection did not contain a breakdown of whether residual waste originated in state or out of state.

The cost burden to households as a result of the proposed fee expansion is unclear. Fees would largely be paid by commercial and industrial operations. However, an increase in the fee amounts, rather than expanding the fees to other types of wastes, is more likely to result in a direct impact to Pennsylvania households.

The bill does not mention construction and demolition landfills. Approximately 130,000 tons of construction and demolition (C&D) waste is managed per year at the three active C&D landfills.²⁸ Expanding the existing fees to include construction and demolition waste managed at construction and demolition landfills would generate approximately \$550,000 a year for the Environmental Stewardship Fund and \$260,000 for the Recycling Fund.

²⁶ Email communication with Michael Texter. Pennsylvania Department of Environmental Protection, Bureau of Waste Management. December 23, 2015.

²⁷ Ibid.

²⁸ Ibid.