



GNARLY TREE
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City of Bloomington Sustainability Action Plan Environmental Quality and Natural Systems Meeting 3

Farhana Khan
Daphney Richemond

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SPEA

Lead for the Greater Good



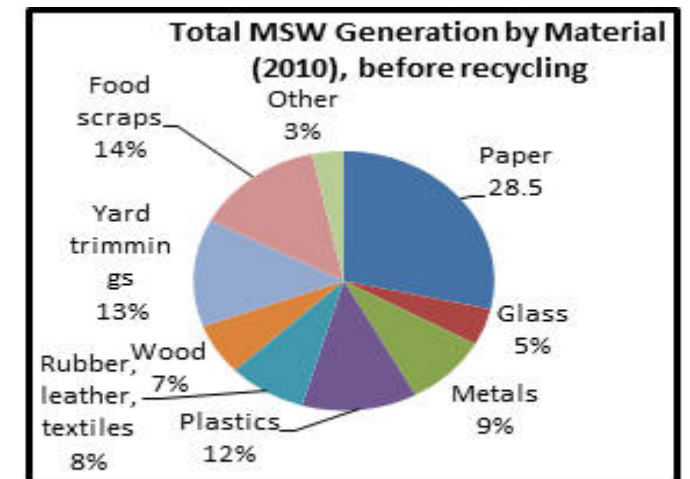


Waste Management and Minimization

Current Situation in Bloomington

SOLID WASTE

- Bloomington municipal solid waste is comprised of food scraps, packaging, bottles and paper material; may also include construction material and yard waste (Source: *Bloomington Environmental quality indicator Report 2001*)
- The City does not collect trash or recyclables from residents of more than four units. (Source: City of Bloomington, Peak Oil Task Force, 2009)
- Each year Monroe County residents produces over 150,000 metric tons of trash (Source: Bloomington Environmental Action Plan)
- Since the closure of the Monroe County Landfill in 2004, solid waste has been sent to Sycamore Ridge Landfill in Vigo County (Source: Bloomington Environmental Action Plan)
- The city does not collect Hazardous Materials; the Hazardous Materials Facility accepts these items



From EPA Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2010

Common types of municipal solid waste

Source: <http://nrd.kbic-nsn.gov/solid-waste>



Current Situation in Bloomington

RECYCLING

- Curbside recycling began in 1991 and it is free of charge (Source: City of Bloomington, Peak Oil Task Force, 2009)
- City of Bloomington recycling is single stream and picked up weekly (Source: <https://bloomington.in.gov/sanitation/recycling>)
- The City recycles: paper, plastic, metals (steel and aluminum cans) and glass containers (Source: <https://bloomington.in.gov/sanitation/recycling>)
- The City does not recycle: light bulbs, window glass, Styrofoam cups and lids, wire hangers, wax or plastic coated boxes, Styrofoam and packing peanuts (Source: <https://bloomington.in.gov/sanitation/recycling>)
- No electronics are placed in landfills or illegally exported to other nations (Source: <https://bloomington.in.gov/sanitation/recycling>)
- Residents can also drop off recyclables at the Monroe County Central Station and other drop off sites throughout the county (Source : *Bloomington Environmental Quality Indicators 2001 Report*)
- The Monroe County Solid Waste Management district offers year round recycling of electronic waste at the Hazardous materials facility at South Walnut Recycling Center and at all Rural recycling centers



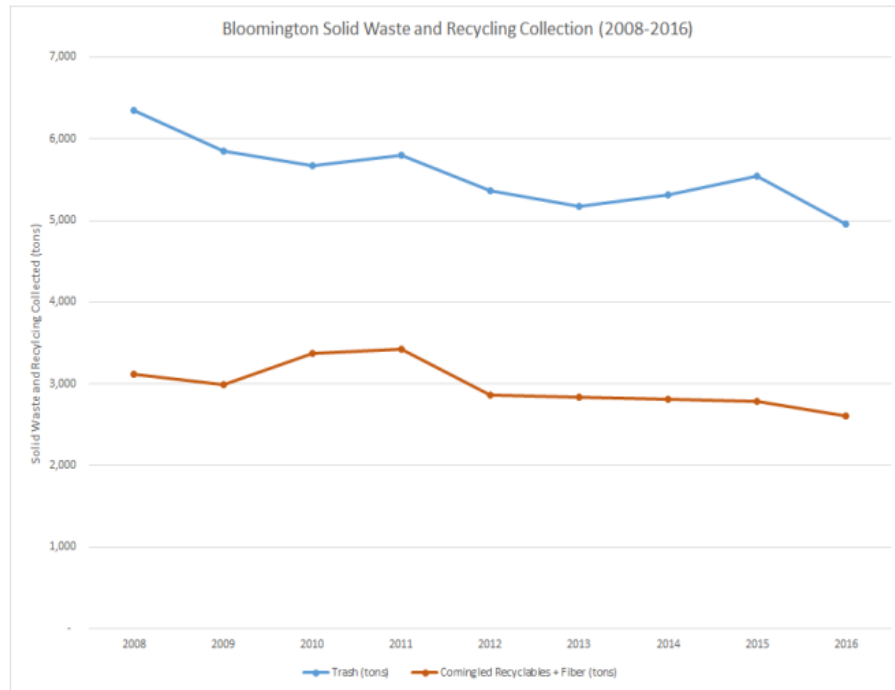
Curbside Recycling

(Source

<https://www.google.com/imgres?imgurl=http%3A%2F%2Fsnworksceo.imgix.net%2Fids%2Foiadcoa-4f65-45ae-8bdf-b3c442ba4ffo.>)

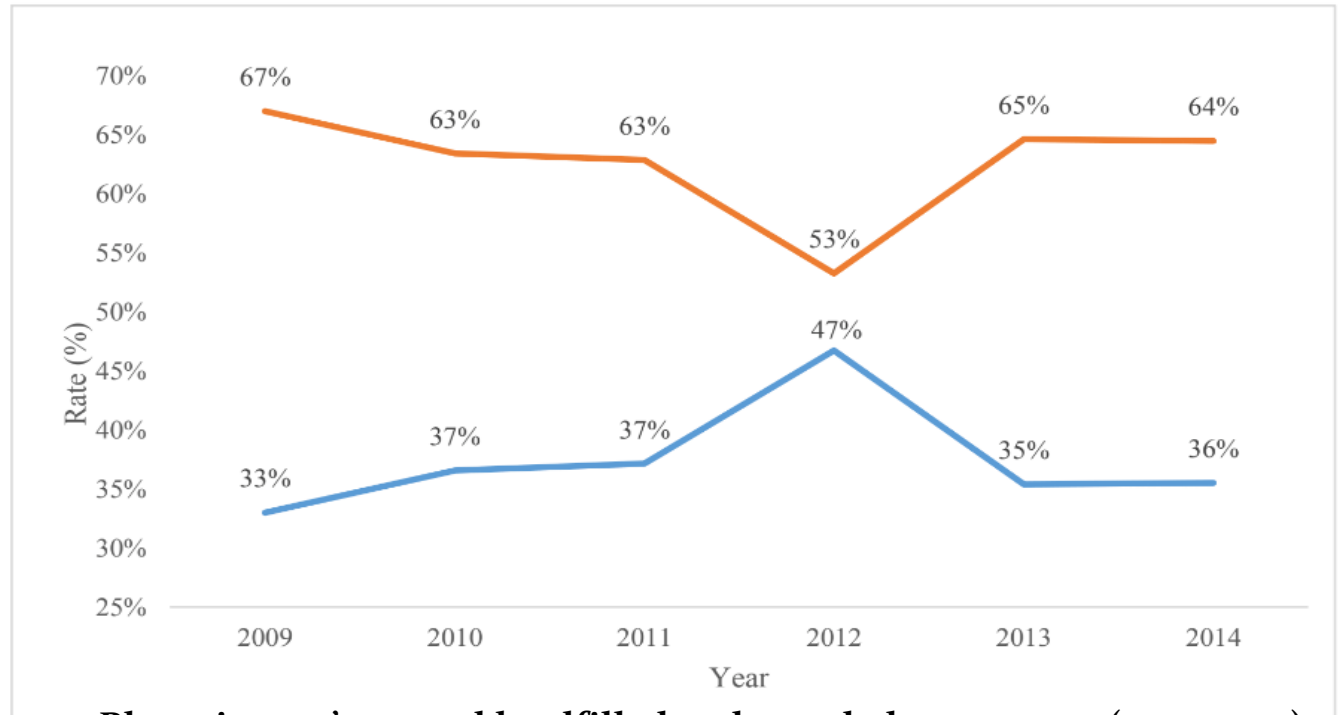


Current Situation in Bloomington



Bloomington Solid Waste and Recycling Collection (2008-2016)

(Source: City of Bloomington, Common Council 2017 Session)



Bloomington's annual landfilled and recycled waste rates (2009-2014)

(Source: Bloomington Environmental Action Plan)



Current Situation in Bloomington

YARD WASTE AND LEAVES

- The City's Sanitation Division collects yard waste from early March to early January. The waste is taken to Good Earth Compost and Mulch LLC for mulching.
- The City's Sanitation Division and Street Division provides leaf pickup services

HAZARDOUS WASTE

- There were 7 PCB (polychlorinated biphenyl) contaminated sites investigated and all the sites have undergone some form of remediation for PCB contamination *(Source: Toxic report for Bloomington, 2011)*
- As of 2011 3 sites namely, Bennett's stone quarry, Lemon Lane Landfill and Neal's Landfill were still undergoing remediation; The Winston Thomas treatment plant is considered closed and off the EPA list *(Source: Toxic report for Bloomington, 2011)*
- As of 2009 Bloomington contained 790 underground storage tanks, across 235 underground storage facilities *(Source: Toxic report for Bloomington, 2011)*



Metrics Found in Bloomington Documents

- Money saved by solid waste diversion: Monroe County Landfill from 1996-1999 saved the city \$553,712 in landfill fees
- Landfilled waste accounts for 8% of Bloomington's GHG emissions *(Source: Bloomington Environmental Action Plan)*
- Bloomington's GHG Emissions from landfill methane in 2014 was approximately 150,000 (metric tons) *(Source: Bloomington Environmental Action Plan)*
- In 2008, the department reported collecting 6,353 tons of trash and 3,114 tons of recyclable waste. *(Source: City of Bloomington , Common Council 2017 Session)*
- From 2008 to 2016, Bloomington has seen a decrease in trash collected from 6,353 tons in 2008 to 4,956 tons in 2016. *(Source: City of Bloomington , Common Council 2017 Session)*
- In 2014 , Bloomington's recycling rate amounted to 36% - the national average was about 34%
- During the same time period, collection of recycled materials fluctuated from 3,114 tons in 2008, up to 3,422 tons in 2011, and then down to 2,611 tons in 2016. *(Source: City of Bloomington , Common Council 2017 Session)*
- Total waste collection by the City Sanitation Department has decreased between 2008 and 2016; The Sanitation Department collected 6,353 tons of trash in 2008 and only 4,956 tons in 2016 (-22 percent)
- City recycling rates were 33 percent in 2008 and 35 percent in 2016 *(BCOS Annual Sustainability Assessment 2017)*
- Total waste collection by the City Sanitation Department has decreased between 2008 and 2016; The Sanitation Department collected 6,353 tons of trash in 2008 and only 4,956 tons in 2016 (-22 percent)
- In 2008 Sanitation department collected 470 truck load of Yard Waste. *(Source: City of Bloomington, Peak Oil Task Force, 2009)*
- In 2008, the department collected 420 truck loads of leaves. *(Source City of Bloomington, Peak Oil Task Force, 2009)*



Community Goals found in Comprehensive Plan

Goal 3.5: Increase the amount of solid waste diverted from landfills.

Policy 3.5.1: Increase community resilience by taking greater control of waste management infrastructure and critical waste streams, including exploring the establishment of a local Materials Recovery Facility.

Policy 3.5.2: Explore and cultivate local uses and markets for waste and recycled materials.

Policy 3.5.3: Create targeted diversion and/or reuse programs for challenging waste streams like glass, organic waste, construction and demolition debris, and recyclable materials generated in commercial or multi-family facilities.

Outcome: Recycling practices have increased City-wide

Indicators: Amount of waste diverted from landfill as a percentage of all waste

Programs:

- *Improve the City's sanitation system.*
- *Develop a City-wide program for organic waste (composting), possibly partnering with a private company.*
- *Assess rules, regulations, and incentives for providing adequate space for recyclable materials collection in new multifamily, mixed use, and commercial developments and within existing apartment buildings.*
- *Develop safeguards to ensure the City's recycling contractors are having materials recycled according to regulations.*



Community Goals found in Bloomington Documents

- Reduce the amount of waste going to the landfill by 15% by 2020 (Source: Bloomington Environmental Action Plan)
- To increase the amount of solid waste diverted from landfills (City of Bloomington Comprehensive plan 2015)
- Reduce Bloomington's GHG from landfill methane to Approx. 120,000 Metric Tons (Source: Bloomington Environmental Action Plan)
- Include more areas under the curbside recycling program (Source: Bloomington Environmental Action Plan)
- Promote curbside composting program and education efforts in tandem (Source: Bloomington Environmental Action Plan)
- Strategies suggested to reduce waste in Bloomington : reduce, reuse, recycle and composting (Source: Bloomington Environmental Action Plan)
- Limit or ban some non-biodegradable waste (Source: Bloomington Environmental Action Plan)
- Support the creation of a compost facility (Source: Bloomington Environmental Action Plan)
- Require all multi-unit buildings to have adequate recycling facilities (Source: Bloomington Environmental Action Plan)
- Pass an ordinance requiring recycling for city permits for events (Source: Bloomington Environmental Action Plan)
- Create a master recycler program (Source: Bloomington Environmental Action Plan)
- Promote using reconstruction service for developers and residents demolition and reconstruction projects (Source: Bloomington Environmental Action Plan)



Community Goals found in Bloomington Documents

- Encourage residents to buy less stuff, particularly non-local sources *(Source: City of Bloomington, Peak Oil Task Force, 2009)*
- The City should provide educational outreach to community about benefits of composting leaves, table scraps, with a goal to reduce its leaf pick up service by 50 percent in five years *(Source: City of Bloomington, Peak Oil Task Force, 2009)*
- The City should establish a neighborhood compost collection program *(Source: City of Bloomington, Peak Oil Task Force, 2009)*
- The City should work towards encouraging existing apartment complexes to provide recycling services to their tenants and should require new apartment developments to do so *(Source: City of Bloomington, Peak Oil Task Force, 2009)*
- The City should support the establishment of a community materials recovery facility *(Source: City of Bloomington, Peak Oil Task Force, 2009)*
- The City should establish landfill diversion targets and waste reduction goals *(Source: City of Bloomington, Peak Oil Task Force, 2009)*
- The City should promote the processing and use of locally generated recyclable materials *(Source: City of Bloomington, Peak Oil Task Force, 2009)*
- Re-open the Monroe county landfill after 2024 and tap it for biogas *(Source: City of Bloomington, Peak Oil Task Force, 2009)*



Waste Management and Minimization

Metrics Recommended in ISO 37120 and STAR

ISO 37120:

- Percentage of city population with regular residential solid waste collection (*ISO core indicator*)
- Total collected municipal solid waste per capita (*ISO core indicator*)
- Percentage of the city's solid waste that is recycled (*ISO core indicator*)
- Percentage of the city's solid waste that is disposed of in a sanitary landfill (*ISO supporting indicator*)
- Percentage of the city's solid waste that is disposed of in an incinerator (*ISO supporting indicator*)
- Percentage of the city's solid waste that is burned openly (*ISO supporting indicator*)
- Percentage of the city's solid waste that is disposed of in an open dump (*ISO supporting indicator*)
- Percentage of the city's solid waste that is disposed of by other means (*ISO supporting indicator*)
- Hazardous Waste Generation per capita (tons) (*ISO supporting indicator*)
- Percentage of the city's hazardous waste that is recycled (*ISO supporting indicator*)

STAR : The purpose is to reduce and reuse material waste produced in the community

- Total Solid Waste: Demonstrate incremental progress towards achieving a 100% reduction by 2050 in total solid waste generated within the jurisdiction that is disposed of via landfill, waste-to-energy facility, or incinerator
- Recycling Rate: Achieve a solid waste recycling rate of 40% or greater



Actions Recommended in STAR(2016)

- Adopt a waste management plan
- Adopt specific product bans that will significantly advance progress towards waste reduction goals
- Create a public education campaign or a focused outreach effort to inform residents and businesses of their roles in achieving waste reduction targets
- Develop and participate in a regional coalition that enhances the communities ability to address waste management targets
- Implement community wide incentives or enforcing regulations ensuring that residents and businesses are working towards community waste reduction targets
- Provide services to enable residents and businesses to recycle and reduce their waste footprint
- Collaborative create and run at least 3 targeted recycling programs at key locations throughout the community
- operate at least 3 specific waste management programs for critical waste stream types found in the community, such as organic waste, hazardous waste, electronic waste and construction and demolition waste
- Create a materials recovery facility for the community or demonstrate that the community waste is diverted to materials recovery facility



Waste Management and Minimization

Actions Used in Other Cities

- Develop sector-specific outreach materials and educational campaigns to promote zero waste concepts and resources (Lakewood, Colorado)
- Expand the City's green procurement program for the preferential purchase of green products and services and provide guidance for implementation (Lakewood, Colorado)
- Provide opportunities for residents to divert organic waste from landfills (Lakewood, Colorado)
- Engage residents and businesses in waste reduction and recycling (*Salt Lake City, Utah*)
- Develop capacity for composting or recovering energy from food scraps and other compostable (*Salt Lake City, Utah*)
- Explore incentives and requirements to increase commercial recycling. (*Salt Lake City, Utah*)
- Provide residential volume-based collection with embedded recycling (*Boulder, Colorado*)
- Support bans on sending recyclables, yard waste and food waste to the landfills (*Boulder, Colorado*)
- Support commercial food composting (*Boulder, Colorado*)
- Employ a "pay as you throw" program to incentivize recycling over landfilling so the City can save on tipping fees (*Saint-Louis, Missouri*).
- Implementation of city-sponsored composting programs (*Oakland, Seattle, and Portland*)



Metrics Used in Other Cities

- Percent of community-wide diversion rate (*Lakewood, Colorado*)
- Volume of material collected at established recycling centers (*Lakewood, Colorado*)
- Number of City facilities that offer recycling and composting collection (*Lakewood, Colorado*)
- Number of residents engaged through Zero waste outreach (*Lakewood, Colorado*)
- Percent of residents with recycling/composting service (*Lakewood, Colorado*)
- Percent of residents who compost at home (*Lakewood, Colorado*)
- Percent of recycling rate (*Salt Lake, Utah*)
- Percent of reduction of waste landfilled (*Salt Lake, Utah*)
- Number of tons of glass collection per year (*Salt Lake, Utah*)



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Thank You

Questions and Answers