La Crosse County and City of La Crosse Sustainability Indicators - 2016

Sustainable La Crosse Commission May 18, 2017

prepared by Anders Olson



La Crosse County and City of La Crosse Sustainability Indicators - 2016

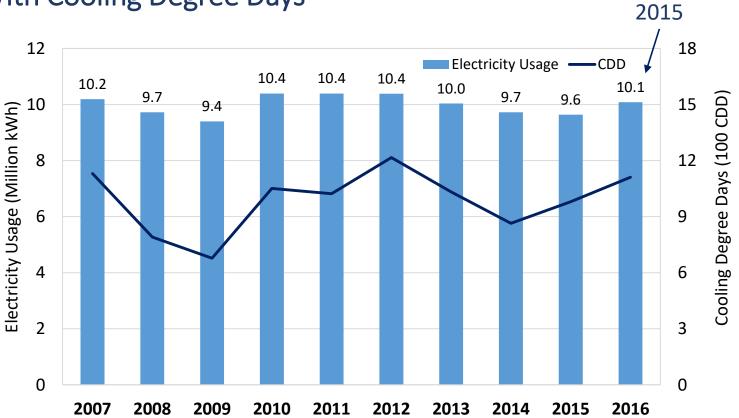
Contents

- 1. Energy Usage and CO₂ Emissions (Governments)
- 2. Alternative Vehicle CO₂ Emissions Analysis
- 3. Facility Energy Usage / Sq. Ft. Analysis
- 4. Transportation
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La Crosse County Government Energy Usage - 2016

- Electricity
- Natural Gas
- Vehicle Fuels

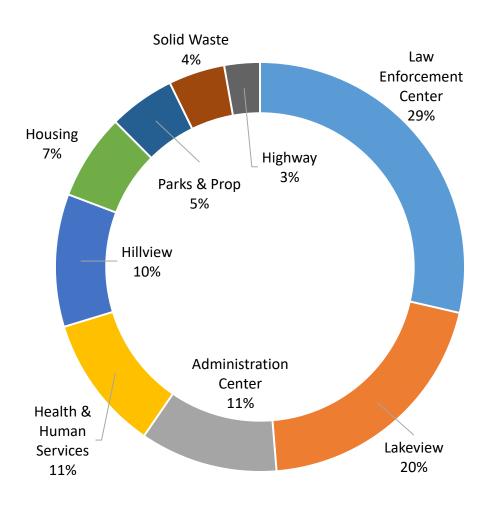
Annual Electricity Usage With Cooling Degree Days



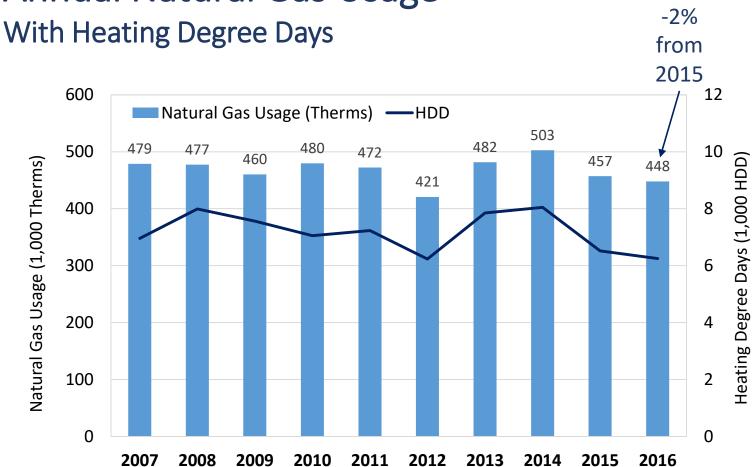
+5%

from

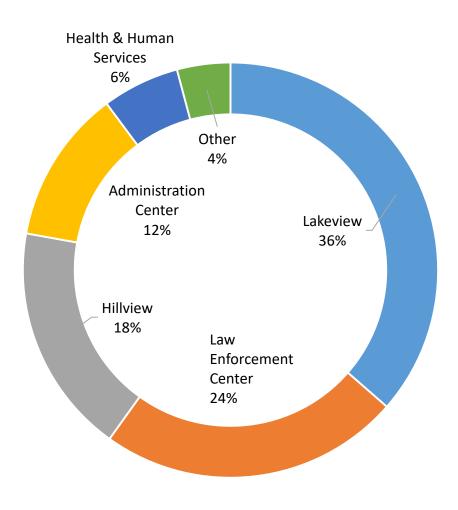
La Crosse County Government 2016 Electricity Usage By Dep't / Major Facility



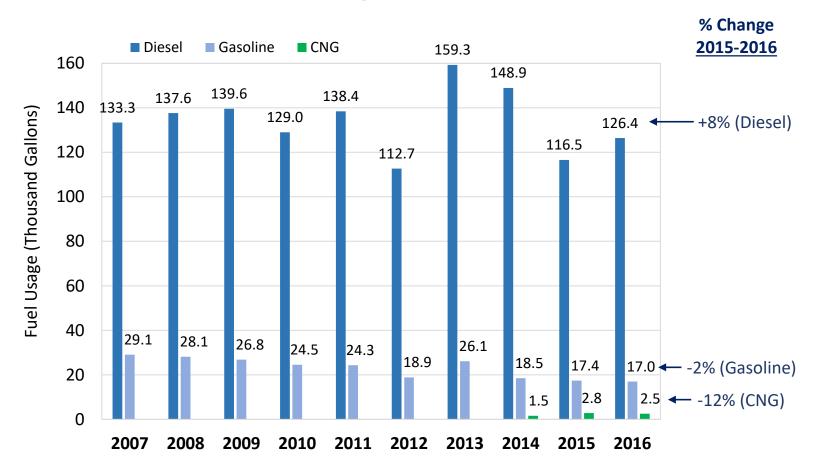
Annual Natural Gas Usage



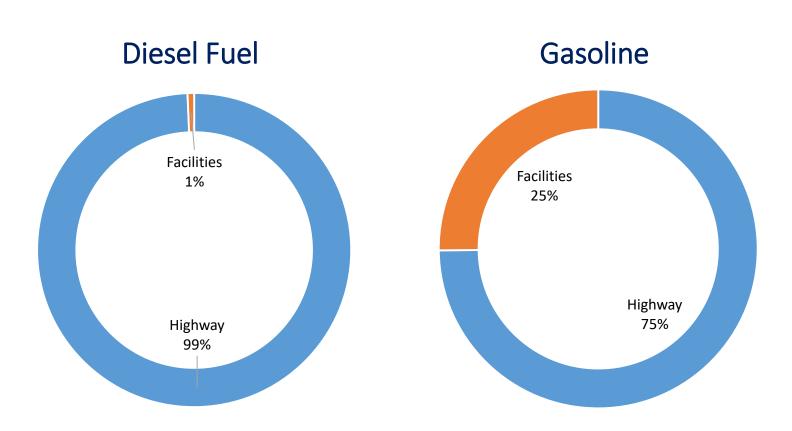
2016 Natural Gas Usage by Facility



Annual Vehicle Fuel Usage



2016 Vehicle Fuel Usage By Department



Energy Usage - 2016

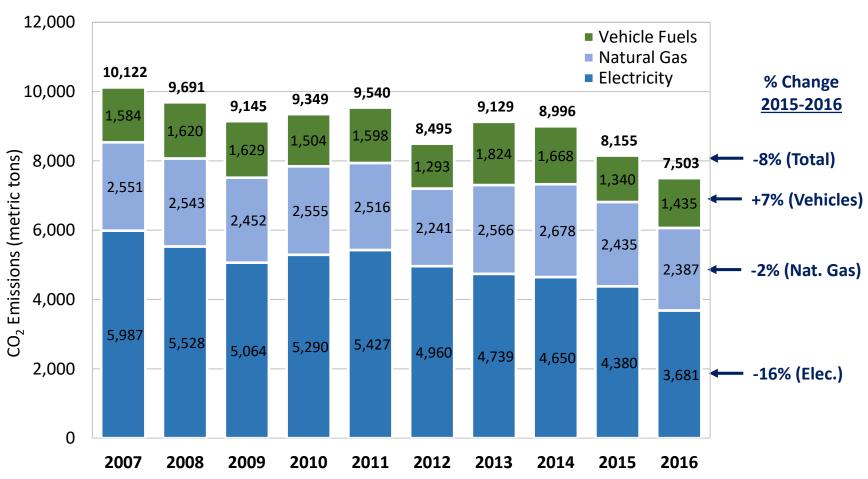
Summary

- Electricity: +5% from 2015 (-1% from 2007)
- Natural gas: -2% from 2015 (-6% from 2007)
- Vehicle fuels
 - Diesel: +8% from 2015 (-5% from 2007)
 - Gasoline: -2% from 2015 (-42% from 2007)
 - CNG: -12% from 2015

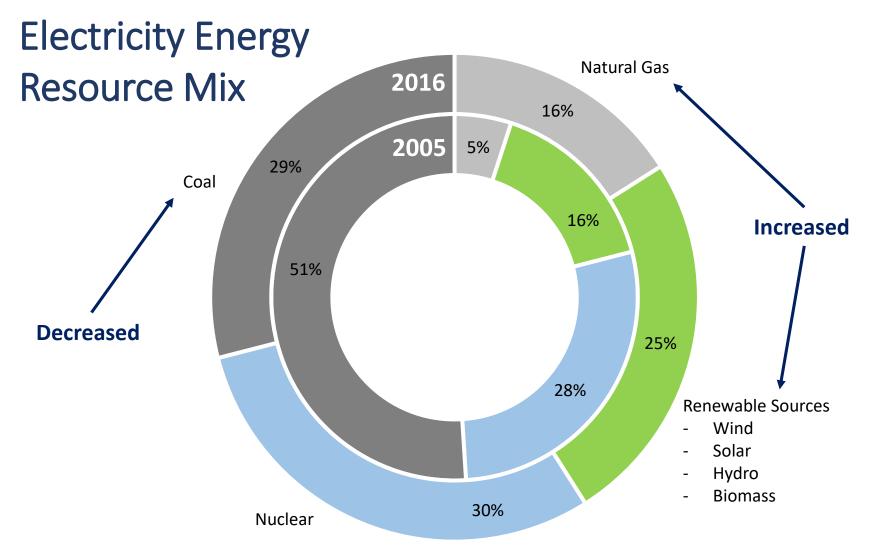
La Crosse County Government CO₂ Emissions From Energy Use - 2016

- Electricity
- Natural Gas
- Vehicle Fuels

La Crosse County Government Annual CO₂ Emissions From Energy Use



Xcel Energy Upper Midwest Region (MI, MN, ND, SD, WI)



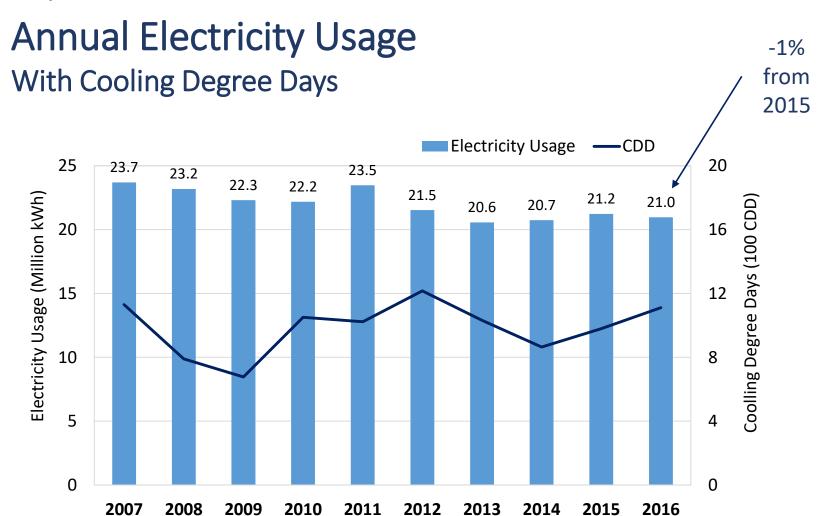
CO₂ Emissions from Energy Use - 2016

Summary

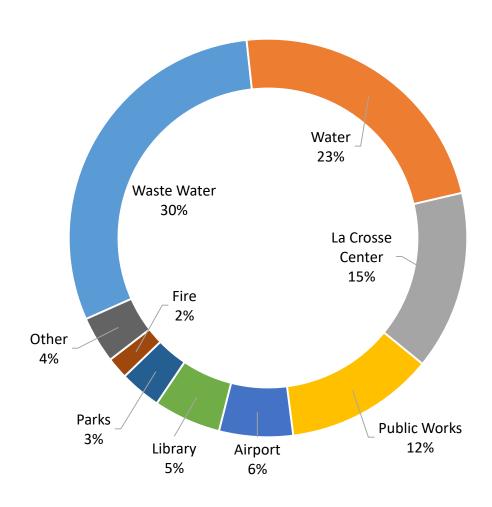
- Total emissions decreased again
 - 8% from 2015
 - 26% from 2007
- Cleaner electricity played large role

City of La Crosse Government Energy Usage - 2016

- Electricity
- Natural Gas
- Vehicle Fuels

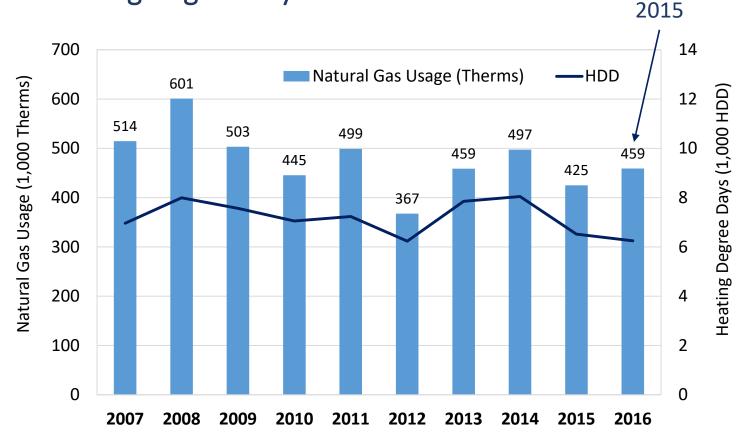


2016 Electricity Usage by Department



Annual Natural Gas Usage

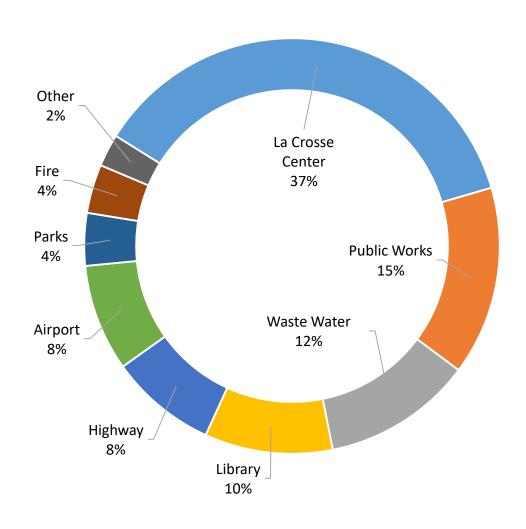
With Heating Degree Days



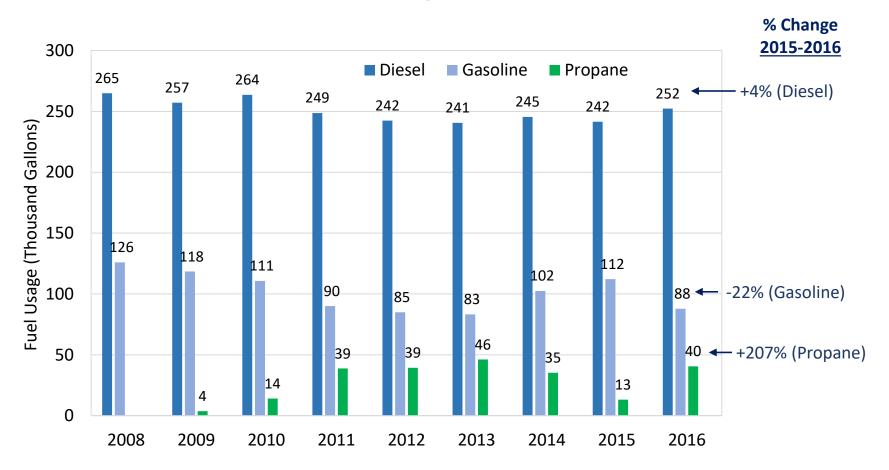
+8%

from

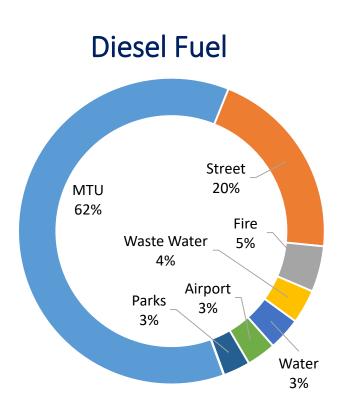
2016 Natural Gas Usage By Department

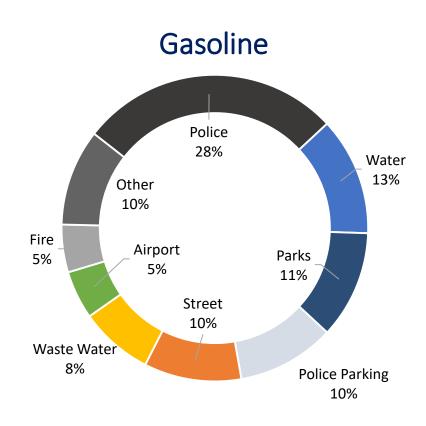


Annual Vehicle Fuel Usage



Annual Vehicle Fuel Usage By Department





Energy Usage - 2016

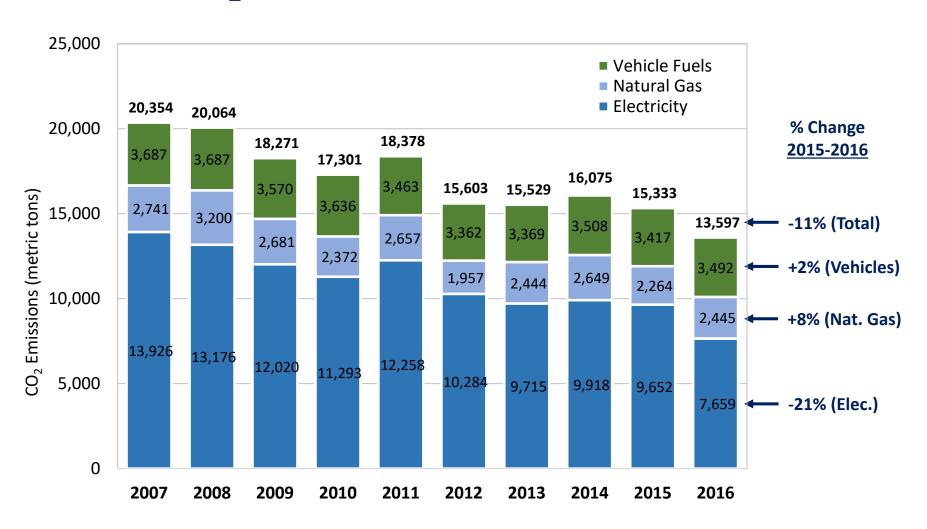
Summary

- Electricity: -1% from 2015 (-11% from 2007)
- Natural gas: +8% from 2015 (-11% from 2007)
- Vehicle fuels
 - Diesel fuel: +8% from 2015 (-5% from 2007)
 - Gasoline: -22% from 2015 (-30% from 2007)
 - Propane: +207% from 2015

City of La Crosse Government CO₂ Emissions From Energy Use - 2016

- Electricity
- Natural Gas
- Vehicle Fuels

Annual CO₂ Emissions from Energy Usage



CO₂ Emissions from Energy Use - 2016

Summary

- Total emissions decreased again
 - - 11% from 2015
 - 33% from 2007
- Cleaner electricity played large role

City/County of La Crosse Alternative Vehicle CO₂ Emissions Analysis

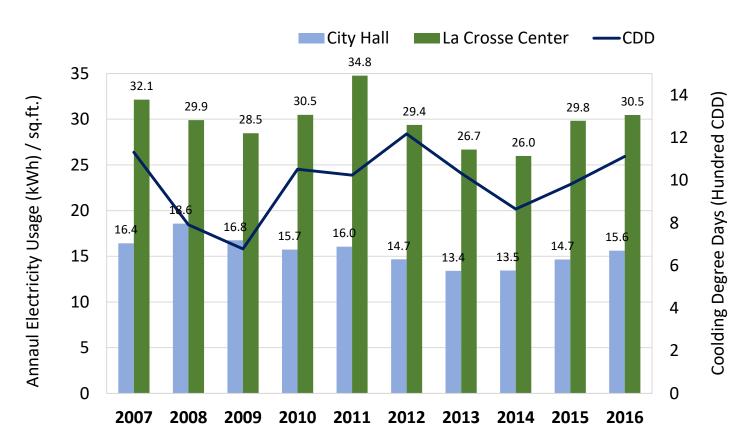
Seth Roca, Environmental Studies student @ UW-L Service Learning Project, Capstone Course

| | | CO ₂ Emission Reductions (Mile for Mile) |
|---|---|---|
| • | MTU Diesel-Electric Hybrid Buses | - 47% |
| • | County Highway Dep't CNG Pickup Trucks | - 23% |
| • | City Police Propane-Gasoline Squad Vehicles | - 15% |

City/County of La Crosse Government Facility Energy Usage per Square Foot Analysis

- Calculate energy usage per square foot
- Compare among buildings of different sizes

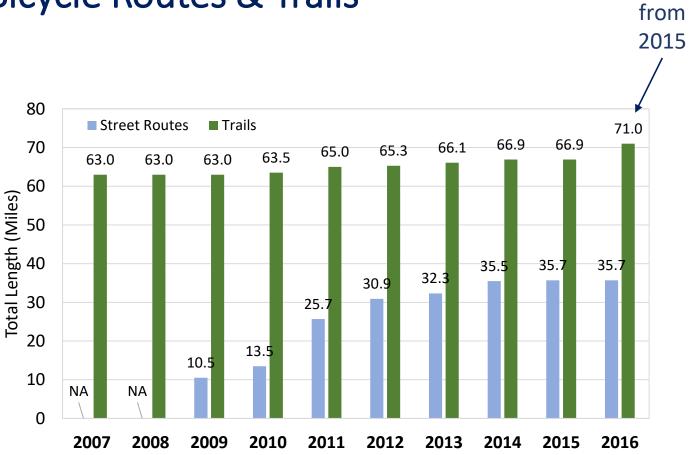
Facility Electricity Usage per Square Foot With Cooling Degree Days



City of La Crosse, La Crosse County **Alternative Transportation**

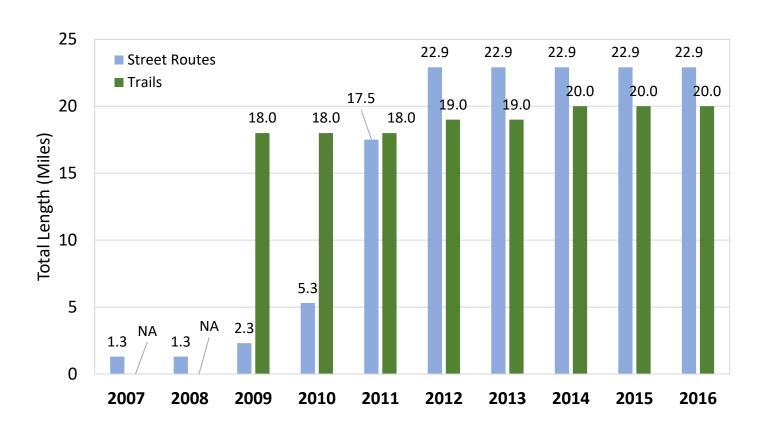
- Bicycle Routes & Trails
- MTU Ridership
- Worker Commute Methods

La Crosse County Bicycle Routes & Trails

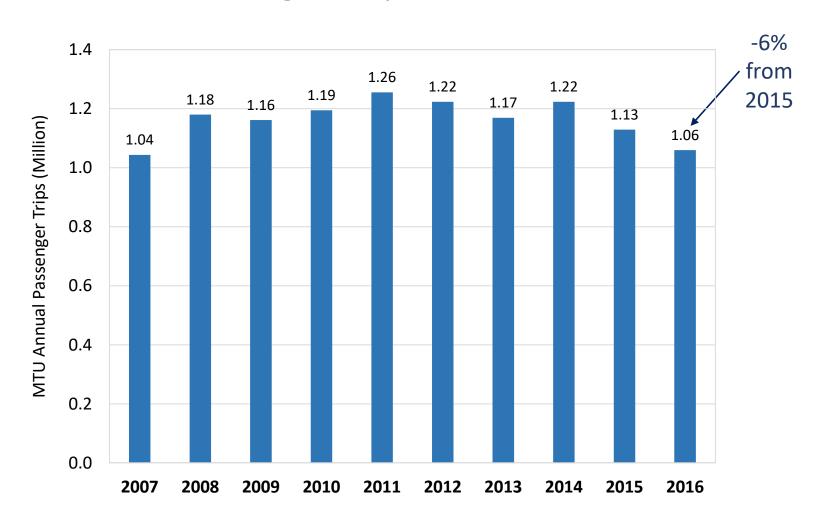


+6%

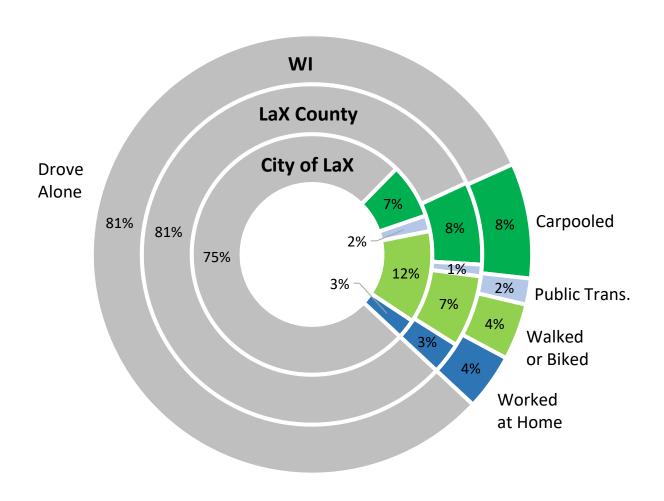
City of La Crosse Bicycle Routes & Trails



City of La Crosse Municipal Transit Utility (MTU) Annual Passenger Trips



City of La Crosse, La Crosse County, State of WI Worker Commute Methods, 2011-2015



City of La Crosse, La Crosse County Alternative Transportation

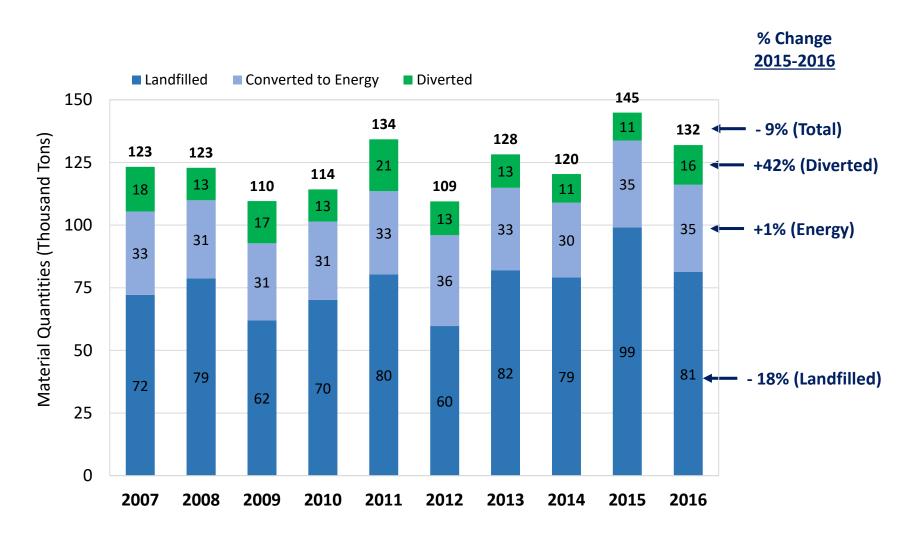
Summary

- Bicycle routes & trails 2016
 - County trails: 4.1 miles added (+6%)
 - County routes, city routes, city trails: unchanged
- MTU ridership, 2016: -6% from 2015, +2% from 2007
- Worker commute methods, 2011 2015 average
 - 12% city residents walked/biked, vs. 4% WI overall
 - 75% city residents drove alone, vs. 81% WI overall

City of La Crosse, La Crosse County Waste Stream Quantities

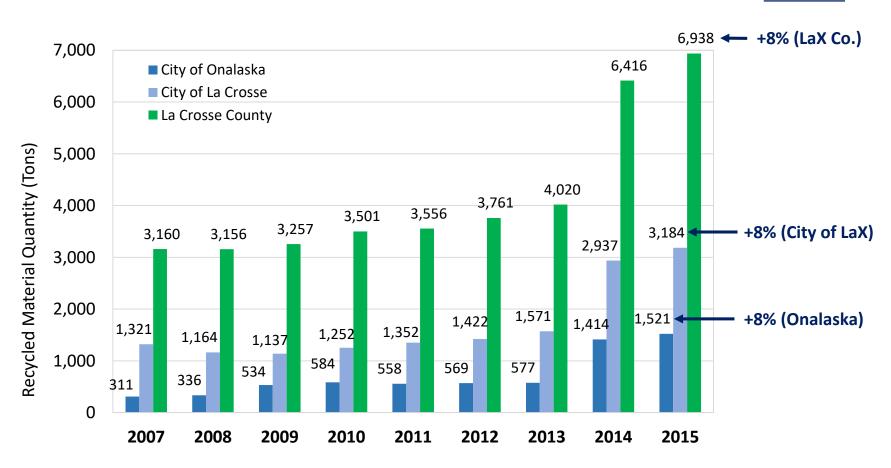
- Landfill Waste Streams
- Community-Wide Recycling

La Crosse County Landfill Waste Stream Quantities



City of La Crosse, City of Onalaska, La Crosse County Recycled Material Quantities

% Change 2014-2015



City of La Crosse, La Crosse County Waste Stream Quantities

Summary

- County landfill waste streams, 2016
 - Landfilled: -18% from 2015 (+13% from 2007)
 - Converted to energy: +1% from 2015 (+5% from 2007)
 - Diverted: +42% from 2015 (-11% from 2007)
- Community-wide recycled quantities, 2015
 - City of Onalaska: +8% from 2014 (+390% from 2007)
 - City of La Crosse: +8% from 2014 (+141% from 2007)
 - La Crosse County: +8% from 2014 (+120% from 2007)

La Crosse County

