# City of Madison Community-wide Greenhouse Gas Emissions Inventory: 2010

Dylan Mathieu Keith Cronin Molly Casperson Kolby Bray-Hoagland

# Introduction

- Project Objective
- International Council for Local Environmental Initiatives (ICLEI)
  - Community Air and Climate
     Protection (CACP) Software,
     2009
- Project Timeline



# Methodology

- Five emission sectors...
  - Residential
  - Commercial
  - Industrial
  - Waste



- Transportation

## **Global Warming Potential**

• Unit of measure =  $CO_2$  Equivalent ( $CO_2E$ )



# **Emissions by Sector**

#### ✓ Total Emissions in 2010: 3,880,650 tons $CO_2E$



## **Emissions by Sector and Source**



# Carbon Intensity

Source	CO2E (tons)	Energy (MWh)	Carbon Intensity (LbsCO <sub>2</sub> E/MWh)
Electricity	1,976,510	2,308,982	1,712
Natural Gas	830,422	4,151,011	400
Gasoline	989,918	3,632,995	545
Diesel	83,802	304,219	551

Recommendations for Future GHG Inventories

- Consistent timeline and report structure
- Expand from the baseline inventory for missing data
- Develop relationships with data providers

## Conclusion

First step of an overall strategy to reduce GHG emissions
Highlights GHG reduction policy opportunities
Maintain/build relationships with data providers

### <u>Acknowledgements</u>

- The many data providers
- Jeanne Hoffman and Caleb Brauneller, City of Madison
- Brita Pagels, ICLEI
- Prof. Bernard Lesieutre, Nelson Institute for Environmental Studies, UW-Madison