

Draft

City of Warrenville

Climate Action Planning:

Introductory Meeting

February 25, 2012, 10 am
at the
Warrenville Library Meeting Room



What is Cool Cities?

- Sierra Club's Cool Cities Program is led by volunteers around the country
- It is a collaboration between community members, organizations, businesses, and local leaders
- Clean energy solutions to save money, create jobs, and help curb climate change.



What Does Cool Cities Do?

- It is a program designed to:
 - Reduce greenhouse gas (GHG) emissions
 - Lessen dependency on fossil fuels
 - Encourage use of clean energy sources



Cool Cities Steps

- Sign the agreement
- Conduct an emissions inventory
- Write a climate action plan
- Implement plan
- Monitor and modify/adapt as needed

What are the benefits of climate action planning?



- Generate stakeholder interest in and support of climate, sustainability, energy actions
- Identify actions that can help save money and protect people's health and environmental quality
- Lays out a well thought out consensus of actions for the community
- Supplies program ideas to local and regional NGOs and other stakeholders
- Offers a plan that can be used to secure funding opportunities



Slide from U.S. EPA's Local Climate and Energy Webcast Series, 11/17/2011

Warrenville Environmental Advisory Commission (EAC)

- It shall be the intent and purpose of the Environmental Advisory Commission to act as a resource and advocate to the City Council and the community at large ***to help develop educational and informational programs and materials that promote environmental awareness and behavior*** (Ord. 2392, 8-20-2007) [emphasis added]



Who Will Do What?

- EAC - organize meetings/ coordinate groups/ help gather information/ help prepare Climate Action Plan
- City Staff - review/comment on Climate Action Plan
- City Council - review/approval of Climate Action Plan
- Stakeholders such as residents, EAC, other commissioners, City Staff, City Council, Sierra Club, representatives of Chamber of Commerce, businesses, Warrentville in Bloom, churches, homeowner associations – brainstorm ideas/ gather data/ write various sections of Climate Action Plan



Lonnie Morris, Chair
River Prairie Group (DuPage County)
Cool Cities
Illinois Sierra Club
<http://illinois.sierraclub.org/rpg>



What is a Climate Action Plan

- Locally, the Climate Action Plan:
 - Details the policies that the City will take to reduce GHG emissions
 - Includes a timeline and a description of financing mechanisms
 - Includes a description of public awareness and education efforts.
- Any climate action plan should be developed with public input from **all** stakeholders (businesses, community members, and the City combined)



Why Have a Climate Action Plan?

- U.S. EPA's website: "A climate change action plan lays out a strategy, including specific policy recommendations, that a local government will use to address climate change and reduce its greenhouse gas (GHG) emissions."



Why join the Cool Cities Program?

- It helps the stakeholders network with other community stakeholders
- Tools are provided to help develop the Climate Action Plan
- Develops the culture of “thinking globally, acting locally”



Benefits of Climate Action Planning

- Cost savings
- Improve air quality
- Public Health (reduce rate of asthma, for example)
- Economic development(save energy, create jobs)
- Energy security and reliability
- Societal benefits (quality of life)
- Reduce greenhouse gas (GHG) emissions while achieving sustainability goals



Value of Monitoring Progress

- Generates interest in local climate action efforts,
- Identifies the status of progress,
- Enables improved management of projects/programs,
- Improves visibility for existing programs,
- Can provide support for existing strategies or for changing course

Example – Tracking Progress: Berkeley, CA

Tracking Bike Parking Project

Year	New Bike Rack Installations	New Bike Parking Spaces (estimated)
2004	3	6
2005	3	6
2006	21	42
2007	193	566
2008	19	50
2009	0	0
2010	169	362
By end of 2011	317	694

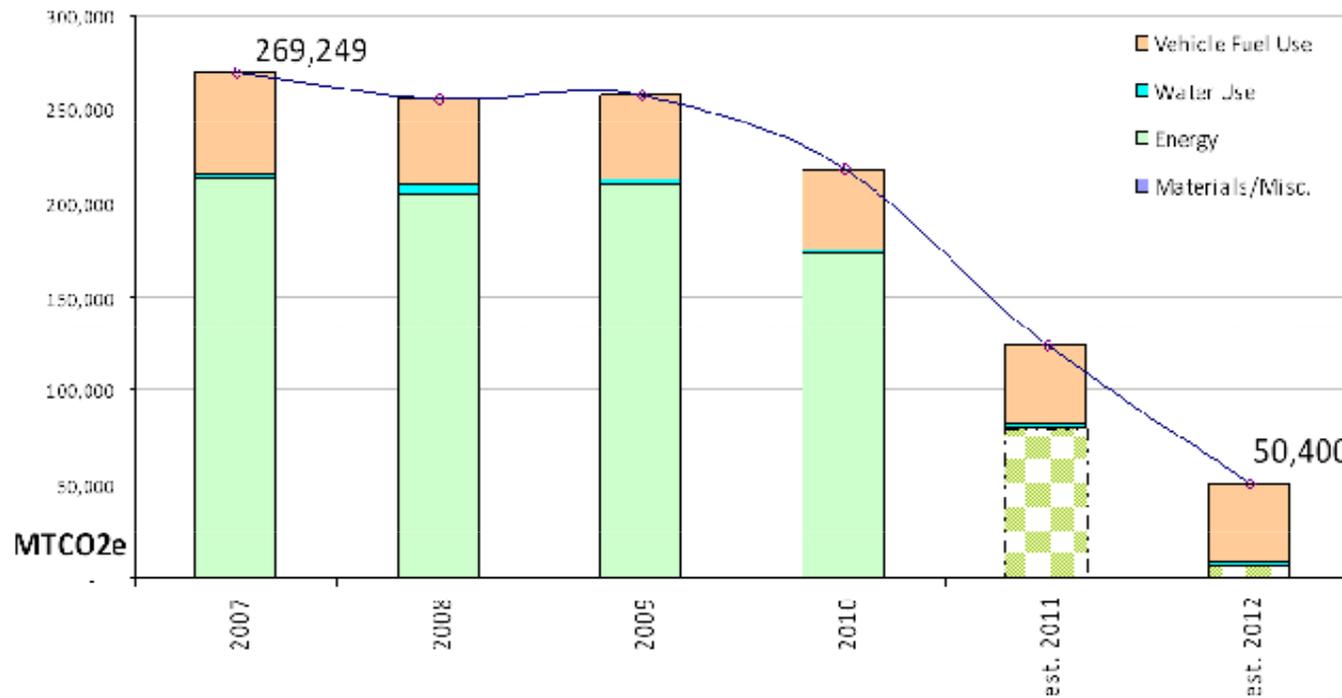


City of Austin Government Operations Consumption

The City's municipal operations greenhouse gas emissions indirectly from the point of consumption

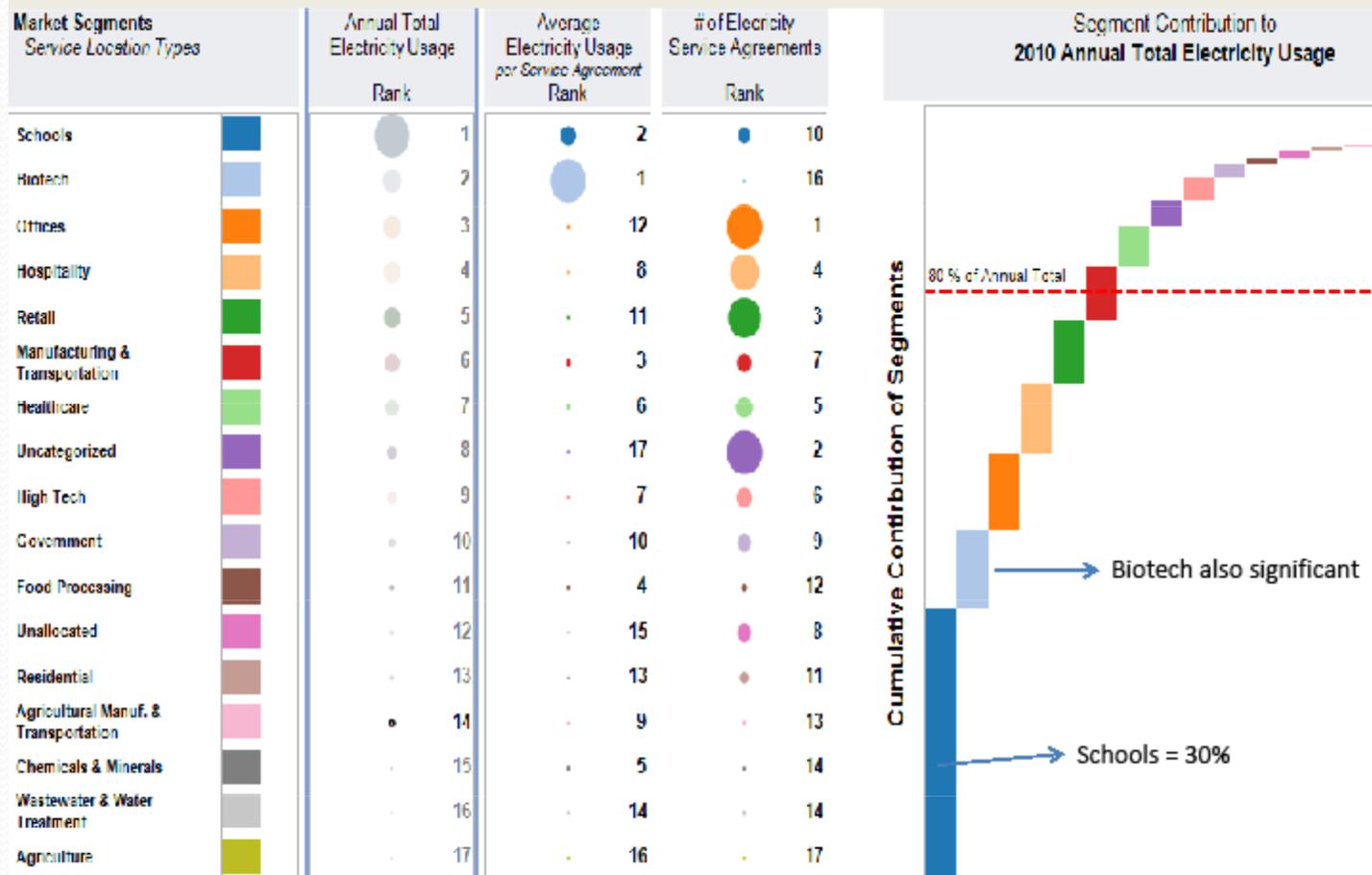
2007-2012 Carbon Footprint

Electricity 100% GreenChoice by 2012



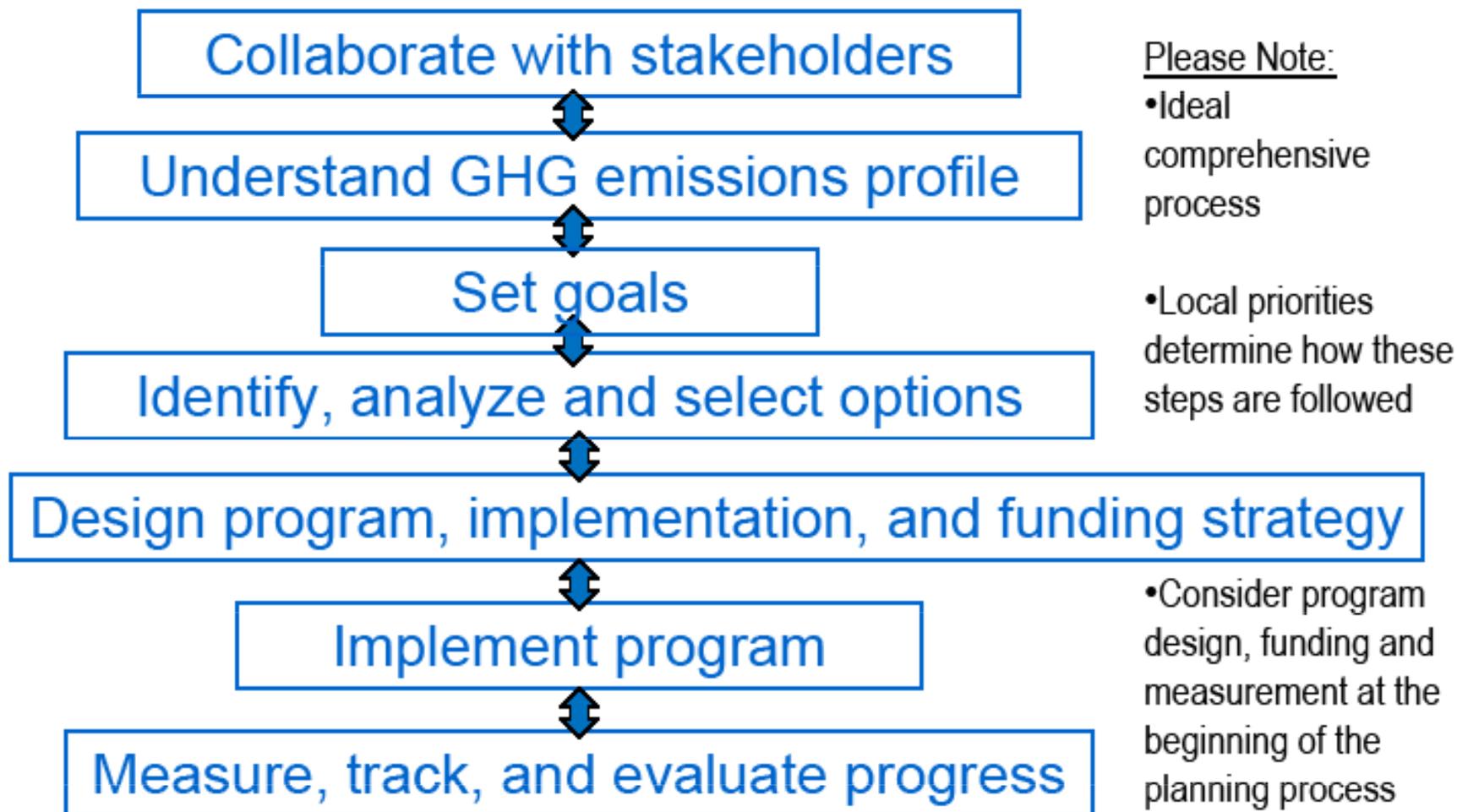
Example – Tracking Progress: Berkeley, CA

Non-Residential Electricity Overview for 2010



Presented by Warrenville Environmental Advisory Commission

What are the steps of the climate action planning process?

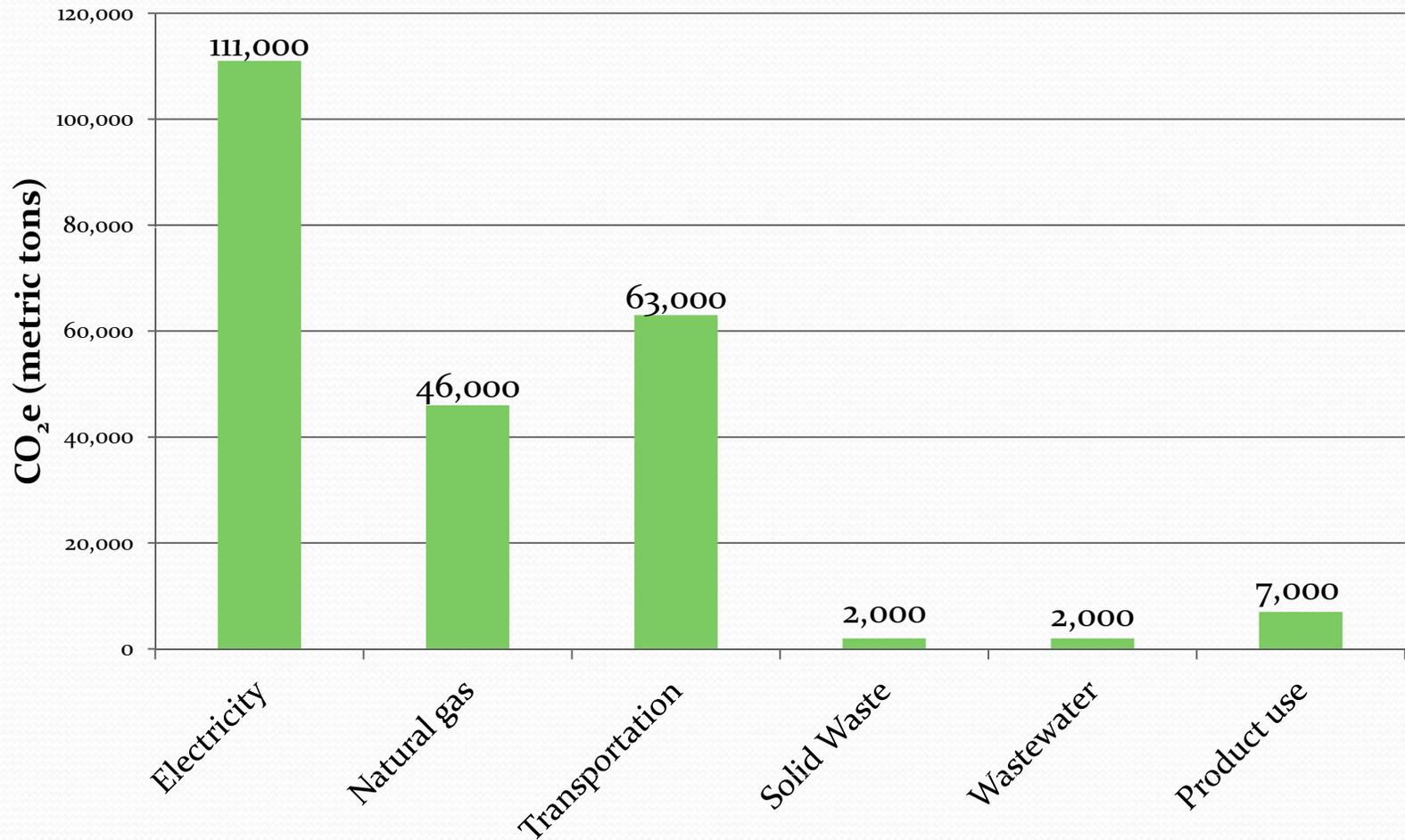


Summary of 2007 Warrenville Energy & Emissions Profile

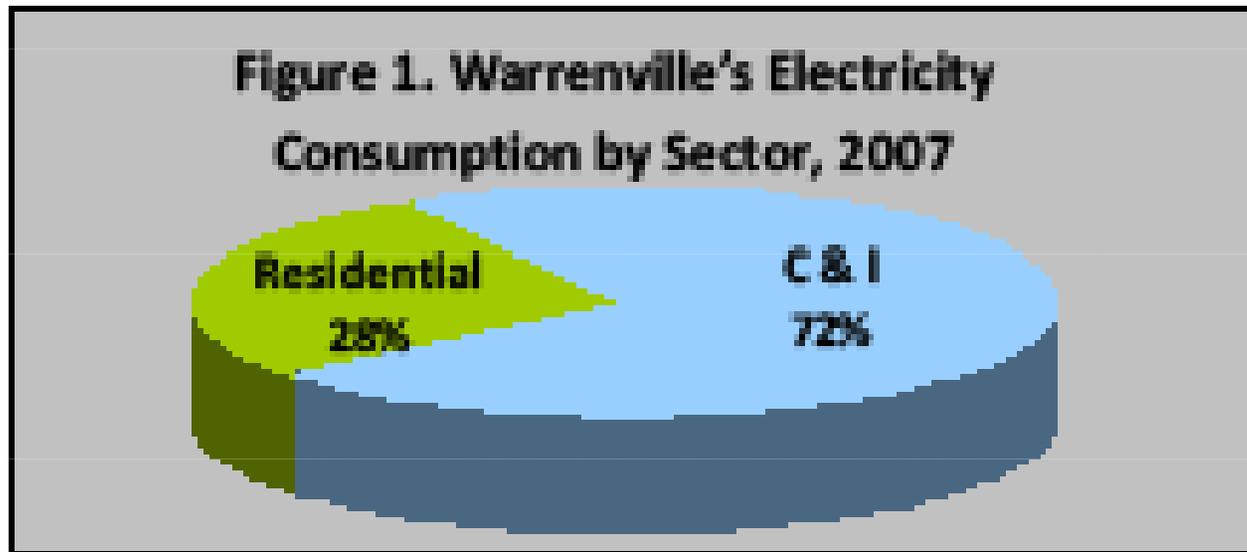
	Residential	Industrial/ Commercial	Total	CO2e (Metric Tons)
Electricity (kWh)	43,900,000	113,900,000	157,800,000	111,000
Natural gas (therms)	4,900,000	3,700,000	8,600,000	46,000
	On-Road (1)	Household (2)		
Transportation (VMT)	125,500,000	99,700,000		63,000
Solid Waste				2,000
Wastewater				2,000
Product use				7,000
Total				231,000
1. Captures trips only withing municipal boundaries				
2. Number of miles the average household in Warrenville drove.				

Presented by Warrenville Environmental Advisory
Commission

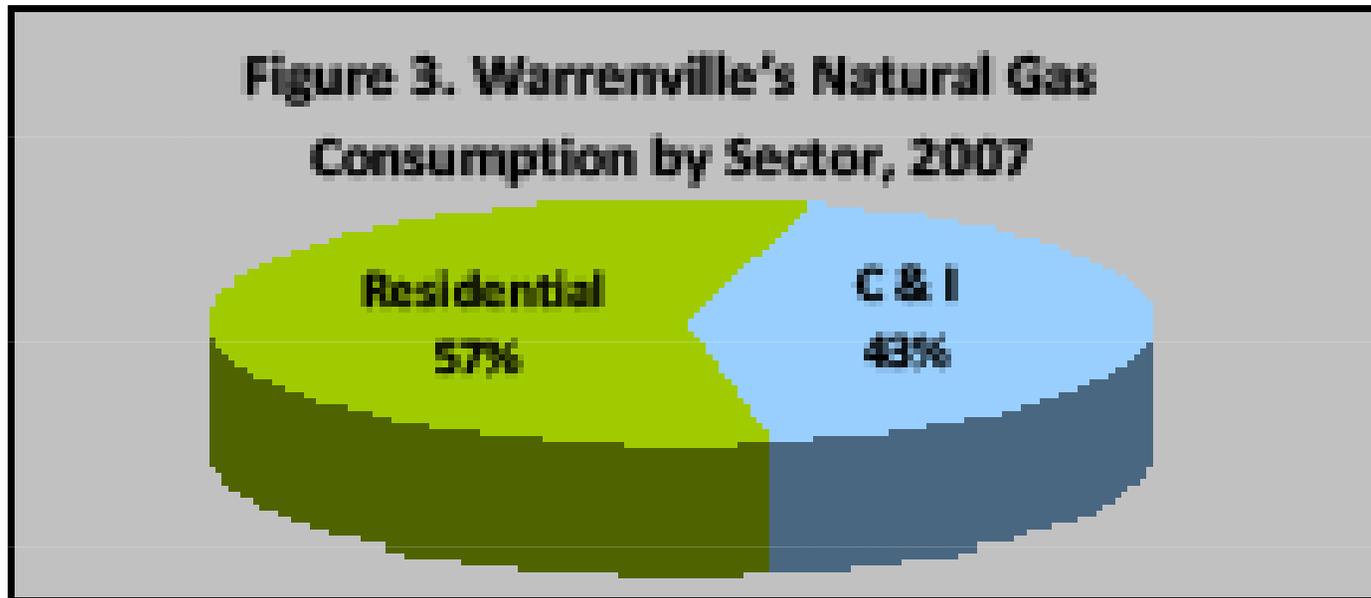
Summary of 2007 Warrenville Energy & Emissions Profile



Summary of 2007 Warrenville Energy & Emissions Profile: Electricity



Summary of 2007 DuPage County Energy & Emissions Profile: Natural Gas





Examples of Strategies for Focus Areas

- Energy Efficiency: Reduce Usage of Electricity and Natural Gas
- Transportation: Reduce Vehicle Emissions
- Solid Waste/ Wastewater/Product Use: Reduce, Re-use and Recycle
- Carbon Storage: Forestry, Prairie



Energy Efficiency: Reduce Usage of Electricity and Natural Gas

- Encourage residents and businesses to sign up for the Com Ed/Nicor Home Energy Savings Program to obtain low cost energy audits and weatherization repairs
- Encourage use of Energy Star appliances and office equipment
- Municipal Electrical Aggregation Program can provide renewable energy at lower cost to residents and small businesses
- Promote solar, wind, and geothermal energy
- Research/promote light-colored roofs and paving material

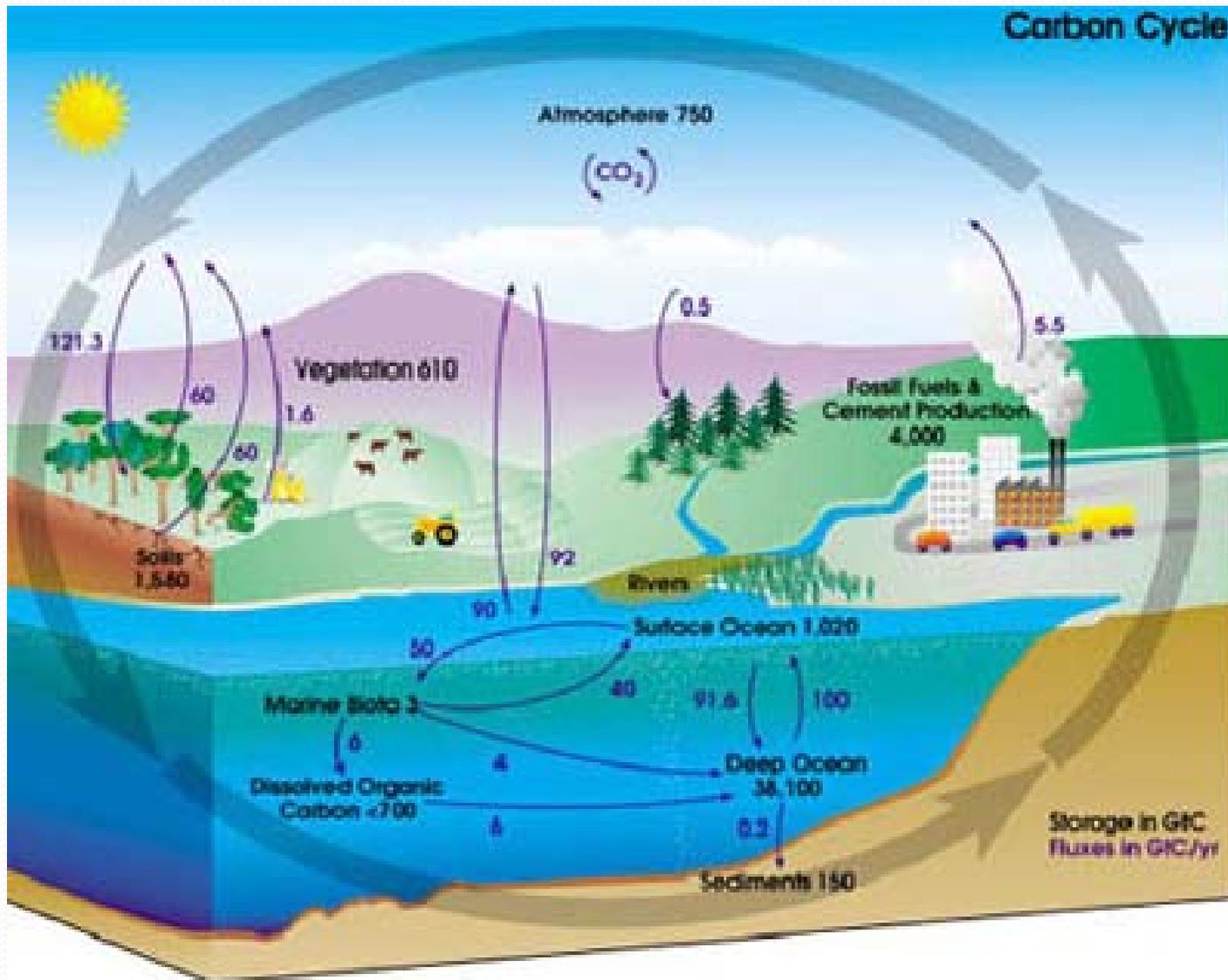
Transportation: Reduce Vehicle Emissions

- When vehicles are replaced, encourage replacement with fuel-efficient models (residents, businesses, City, park district)
- Support Bike Commission goals/actions/proposals
- Discourage idling of vehicles
- Collect and track data on travel trends, including vehicle miles traveled and the number of residents that commute via bike and foot



Solid Waste/ Wastewater/ Product Use: Reduce, Re-use and Recycle

- Keep clothing and other fabric out of the landfill
- Encourage composting at home, and research/support new commercial compost facilities
- Encourage growing/purchasing food locally to reduce emissions related to the transportation of food
- Reduce amount of water used
- Implement policies and practices that treat rainwater as a precious resource rather than a nuisance, and make use of it where it falls



©NASA Illustration courtesy NASA Earth Science Enterprise.
http://oceansjsu.com/105d/exped_ecosystems/4.html



Education and Communications

- Encourage residents, businesses, students and community groups to use the Quick Carbon Calculator to learn how to reduce GHG emissions
- Connect residents, businesses and city staff to workshops, training and seminars on energy efficiency and other ways to reduce GHG emissions
- Track and disseminate information on climate change trends, policies and best practices
- Use festivals, markets and celebrations to promote green practices

Future Actions

- Second Public Meeting - Brainstorm/Form Work Groups (looking for volunteers)
- Third Public Meeting – Prioritization
- Work Groups will prepare individual sections of Draft Climate Action Plan
- EAC will prepare Draft Climate Action Plan by pulling together all individual task force sections
- City Staff will review Draft Climate Action Plan
- EAC will prepare Final Climate Action Plan and present it to City Council



References

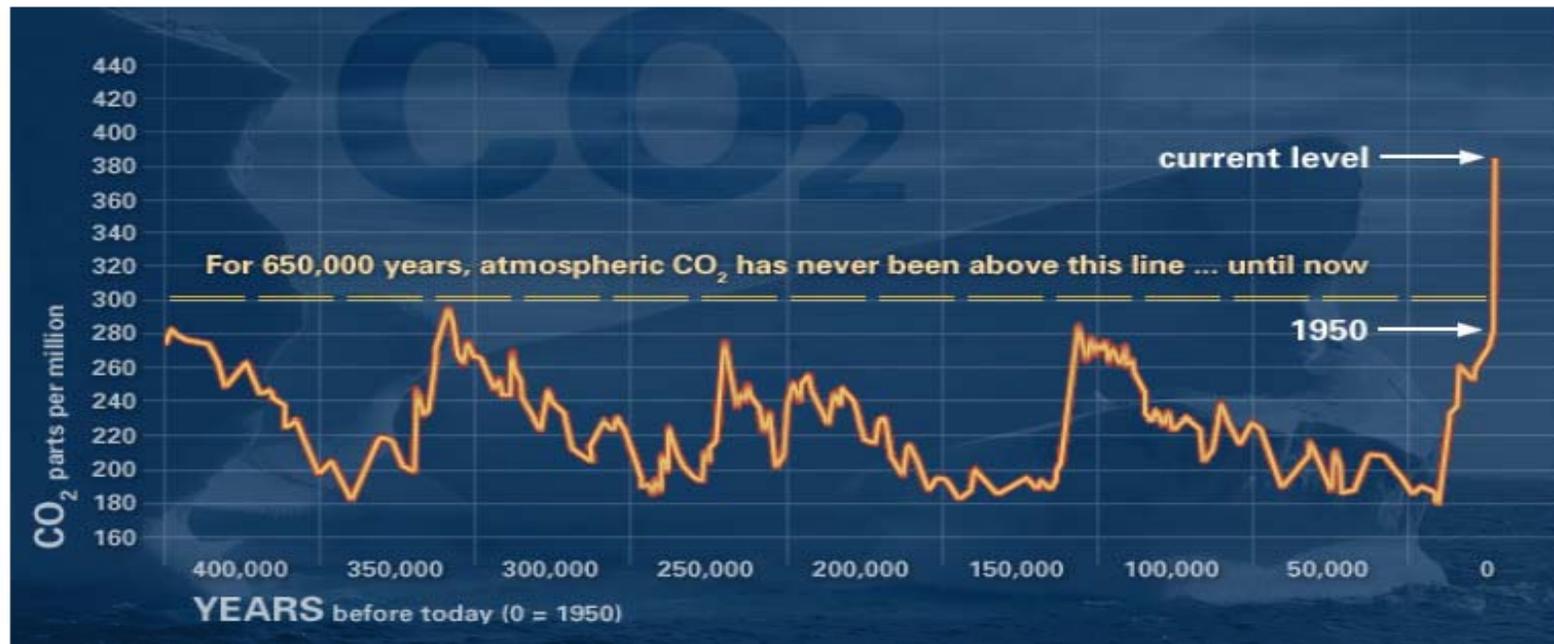
- <http://www.epa.gov/statelocalclimate/web-podcasts/local-webcasts.html>
- <http://www.nwf.org/Global-Warming/Campus-Solutions/Resources/Reports/Guide-to-Climate-Action-Planning.aspx>
- <http://www.epa.gov/statelocalclimate/local/local-examples/action-plans.html>

CO₂ Concentrations for the Last 650,000 Years (graph from NASA website)

EVIDENCE

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Climate change: How do we know?

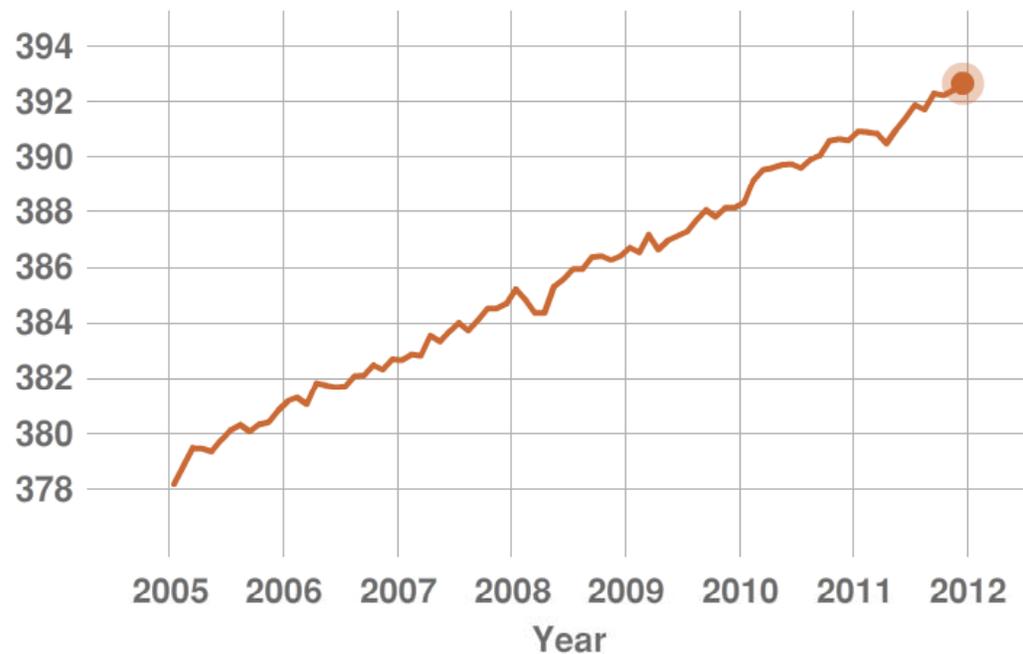


This graph, based on the comparison of atmospheric samples contained in ice cores and more recent direct measurements, provides evidence that atmospheric CO₂ has increased since the Industrial Revolution. (Source: NOAA)

CO₂ Concentrations since 2005 (graph from NASA website)

DIRECT MEASUREMENTS: 2005-PRESENT

Data source: Monthly measurements (corrected for average seasonal cycle). Credit: [NOAA](#)





The Evidence for Rapid Climate Change

- **Sea level rise**
- **Global temperature rise**
- **Warming oceans**
- **Shrinking ice sheets (Greenland & Antarctica)**
- **Declining Arctic sea ice**
- **Glacial retreat**
- **Extreme events**
- **Ocean acidification**



Facts about Earth's climate

- The heat-trapping nature of CO₂ and other gases was demonstrated in the mid-1800s.
- Ice cores show that the Earth's climate responds to changes in solar output, in the Earth's orbit, and in GHG levels. They also show that in the past, large changes in climate have happened very quickly, geologically-speaking: in tens of years, not in millions or even thousands.



National Geographic article: Enter the Anthropocene—Age of Man

- **“It’s a new name for a new geologic epoch—one defined by our own massive impact on the planet. That mark will endure in the geologic record long after our cities have crumbled.” National Geographic article**