



# Sustainability and Energy Planning:

*A Report from the Front Lines*

# How are we planning for sustainability?

- Comprehensive Planning
- Natural Step and Eco-municipalities
- Wisconsin Office of Energy Independence 25x25 Plans
- Sustainability Systems

# What is a Sustainability System?

**(NOT a plan - a process for improvement)**

- Vision statements
- Sustainability Indicators
- Performance Targets
- Actions
- Annual Renewal Commitment
- Formal Adoption

# (Typical) Sustainability Elements

- Energy
- Transportation
- Land Use
- Water
- Waste
- Economy
- Food/Fair Trade
- Public Outreach and Education



# Case Study: The City of Middleton

- A thriving City directly west of Madison
- Population: 17,000
- A strong history of planning



Middleton, Wisconsin

**MSA**

PROFESSIONAL SERVICES

TRANSPORTATION • MUNICIPAL  
DEVELOPMENT • ENVIRONMENTAL

## Transportation Vision:

***Middleton has a barrier-free transportation network that is accommodating to the needs of all people, regardless of age, ability or income. City transportation infrastructure provides safe access to all properties via all types of motorized and non-motorized transportation. Middleton's transportation network is integrated with a regional system that offers good roads, safe bike routes, and timely, cost-effective public transportation options.***

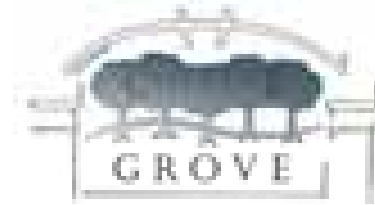
# Transportation Indicators and Targets

Indicator	Baseline	Target	Performance		
			2009	2010	2011
Metro Bus Trips Per Capita Per Year	8%	Increase 10% by 2014 (9.273)			
Percent of collector street miles with marked bike lanes	11%	Increase to 65% by 2015			
Ratio of off street bike path miles to total street length	18%	Double by 2020			
Community car members	61%	↑			

# Transportation Actions

- Encourage employee bus passes
- Increase bus rider amenities (i.e. bike racks close to bus stops)
- Encourage Community Car to have a car in Middleton
- Have the city create a Pedestrian, Bike and Mass Transit Committee
- Put links on the Sustainability webpage for carpooling websites, Community Car, the Metro bus service, Badger Bus and mass transit options
- Encourage businesses to have bike racks on premises
- Participate in RTA discussions and encourage an increase in mass transit funding and opportunities
- Restrictions against idling vehicles (education re: idling cars around schools, restrictions on truck idling)
- Review of city vehicles to identify potential uses for hybrid or alternative energy vehicles. (Are the golf carts on the golf course gas or electric?)

# Case Study: The Village of Cottage Grove



- A bedroom community east of Madison
- Population: 5,525
- Conservative elected leadership



**MSA**

PROFESSIONAL SERVICES

TRANSPORTATION • MUNICIPAL  
DEVELOPMENT • ENVIRONMENTAL

## Land Use Vision

***Cottage Grove has a lively, walkable Village center surrounded by traditional neighborhoods that include a variety of safe and affordable housing types. The Village fosters biodiversity and balances the needs of residents and natural systems by protecting a range of natural and recreation areas throughout the Village, including wetlands and prairies, parks, and community gardens.***

# Land Use Indicators and Targets

Indicator	Baseline	Target	Performance		
			2010	2015	2020
Acreage of Public Parks	83.4 acres/ 4.14%	Maintain %			
Acreage of Open Space and Wetlands	255.1 acres/ 12.7%	Maintain %			
Acreage of Woodlands	67.4 acres/ 3.34%	Maintain %			
Community garden sites	0	1 by 2010			
Indicator	Baseline	Target	Performance		
			2010	2015	2020
Percentage of housing that is other than single family detached	36.56%	(No Target)			
Percentage of housing that is owner-occupied	66.73%	(No Target)			
Indicator	Baseline	Target	Performance		
			2009	2010	2011
Density (residents per square mile)	1,745	(No Target)			

# Land Use Actions

LAND USE Actions	Timeframe	Responsible Party	Estimated Cost
Designate a community garden site	2010 - <b>completed</b>	Sustainability Committee/ Village Board	No cost to Village
Encourage mixed-use infill when existing non-residential sites are redeveloped	Ongoing	Plan Commission	

# Case Study: The City of Marshfield

- Located in Wood and Marathon County in central Wisconsin
- Population: 19,454
- Energy Independent Community 25x25 pilot project in 2009



**MSA**

PROFESSIONAL SERVICES

TRANSPORTATION • MUNICIPAL  
DEVELOPMENT • ENVIRONMENTAL

# City of Marshfield Energy Independence Plan

## Energy Baseline

- Of the City's energy use, 48% is from electricity
- 40% of consumption is by buildings
- 77% of the City's CO<sub>2</sub> emissions are from electricity

2008 Energy Baseline	Energy Use (MMBtu)	% Usage
Buildings	19,592	40%
Outdoor Lighting	6,192	13%
Water	10,630	22%
Fleet	12,628	26%
Total Usage	49,041	**
Total Cost	\$865,709	

# City of Marshfield

## Energy Independence Plan

### Projects Considered

- Committee Broad Brush List-both renewable and energy reduction
- Refined to a specific list

Renewable	Energy Reduction
Geothermal @ Fire Station	Swimming Pool Cover
Geothermal @ Library	Bi-fold Doors @ Fire Station
Geothermal @ City Hall	Convert Fleet to Hybrid
Solar @ Library	Tree Plantings
Solar @ City Hall	Streetlights to LED
Solar-hot water @ Fire Station	Natural Landscaping @ Fire Station & Library
Solar-battery recharge @ Fire Station	EECBG Projects
Wind Farm	
Solar @ Zoo	
Solar @ Swimming Pool	
Convert to biodiesel	
Purchase renewable electricity	



# Lessons Learned

- It will take *longer* than you think
- Don't worry about picking the *right* targets
- Be *realistic* with action plan commitments
- Everyone wants to know how they *stack up* against peer communities – but the data isn't available
- Sustainability isn't just for *liberals*