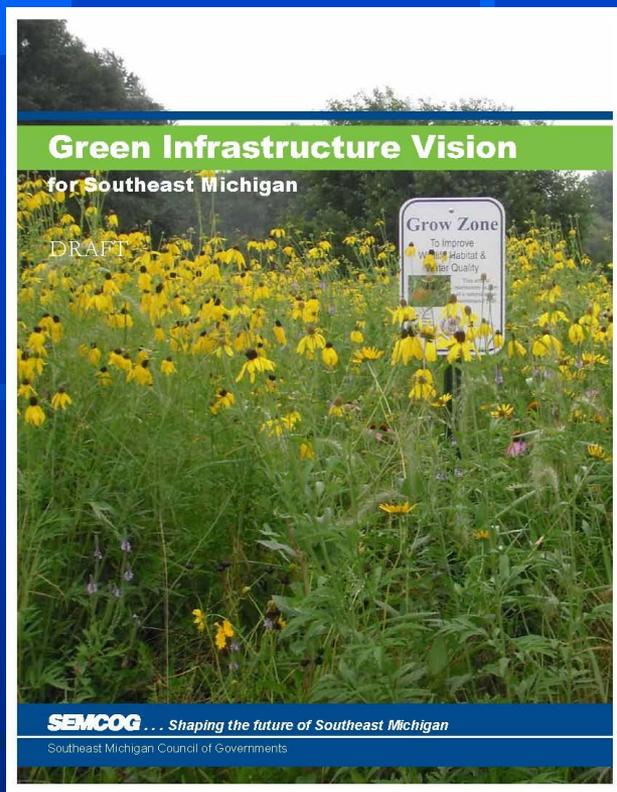


A stylized map of Michigan is shown in the background, with county boundaries highlighted in a lighter shade of blue. The map is centered and occupies most of the frame.

# **SEMCOG**

**Southeast Michigan Council of Governments**

# *The Economic Value of Green Infrastructure*



**Amy Mangus, SEMCOG**  
**mangus@semcog.org**

# What is Green Infrastructure?







Grow Zone



Native vegetation



Community Garden



Rain garden

# Green Infrastructure Vision for Southeast Michigan



- **Benchmark what we have**
- **Vision where we want to go**
- **Regional policies how to get there**

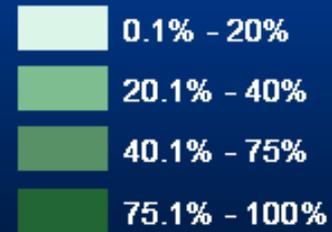
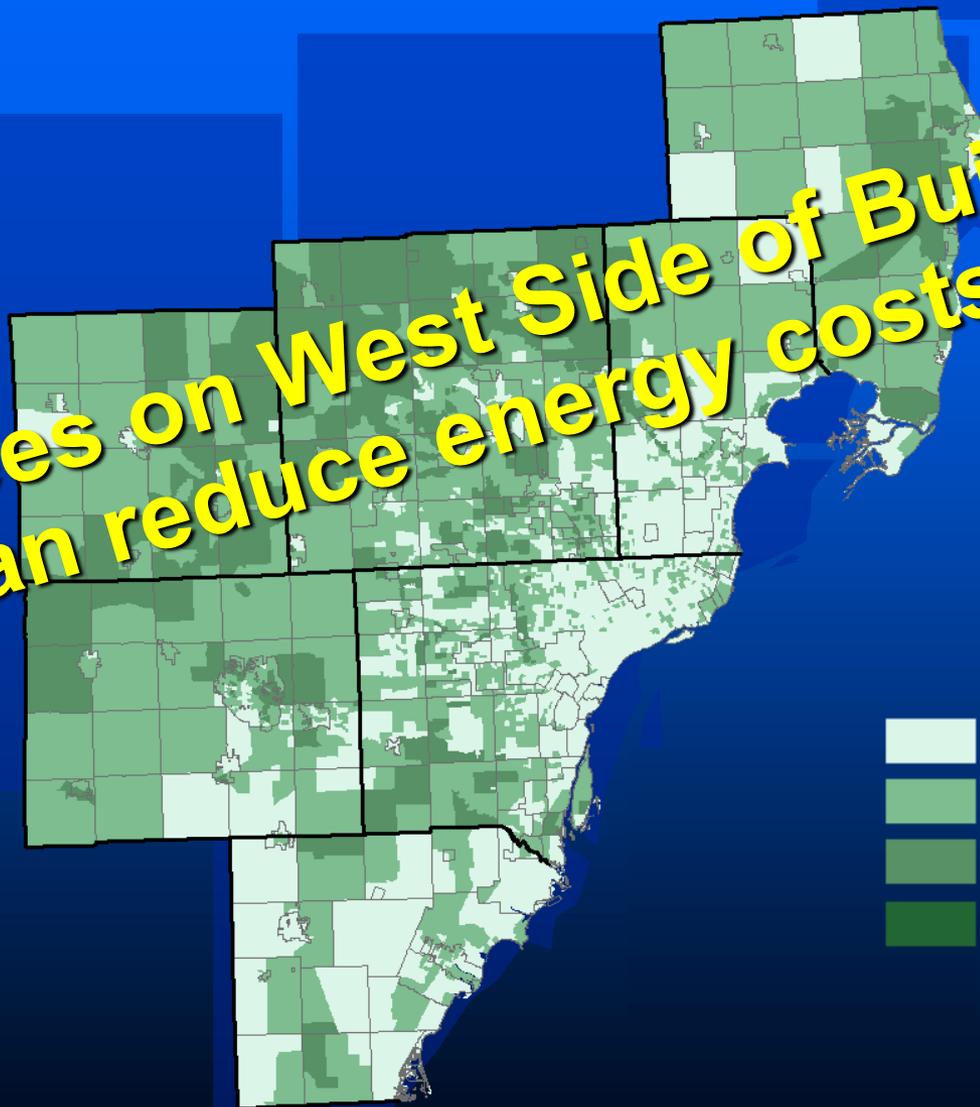
# Green Infrastructure Vision Chapters

- Quantity
- Quality
- Accessibility
- Connectivity
- Air, Water, Transportation
- Vacant Land
- Public Interest
- Economic Value
- Sustainability
- Visioning the Future
- Implementing the Vision



# Percent Tree Canopy

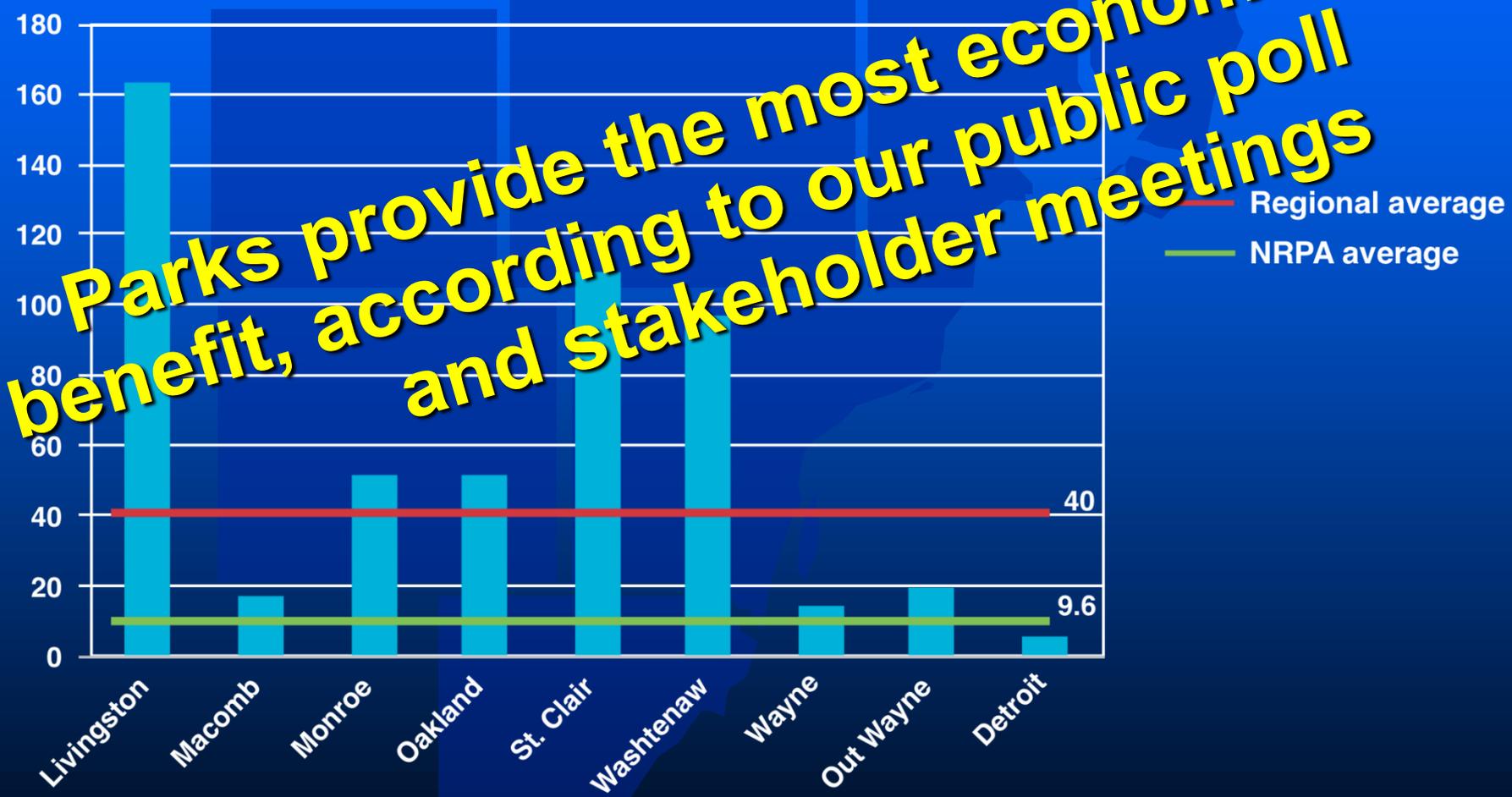
Trees on West Side of Buildings  
can reduce energy costs 3-12%



# Parks



**Parks provide the most economic benefit, according to our public poll and stakeholder meetings**



# Parks



Table 6

## Park Acreage by County

Area	Total Parks Area (Acres)	Total Parks Area (Acres) Greater than 200 Acres	Park Acres per 1,000 Residents	Vacant Land Adjacent to Parks (Acres)
Livingston	29,500	16,477	163	5,645
Macomb	14,184	9,111	17	2,164
Monroe	7,943	3,122	52	568
Oakland	61,053	36,585	51	7,942
St. Clair	24,955	17,065	153	3,571
Washtenaw	33,499	13,889	97	3,980
Wayne	25,899	13,493	14	2,082
Out Wayne	21,391	11,192	19	1,952
Detroit	4,814	2,300	7	130
Region	197,032	109,742	42	25,952



Washtenaw	8,502	1,590	19%
Wayne	5,657	3,183	56%
Out Wayne	5,143	2,823	55%
Detroit	514	360	70%
Region	53,434	12,068	23%

# Green Infrastructure Accessibility

- Access to public parks,
- Access to public parks over 200 acres,
- Access as part of attracting and retaining young professionals,
- Using green infrastructure to provide access to waterways,
- Access to trails
- Universal design



# Distance to Parks

## Average Distance to Park (miles)

	Livingston	Macomb	Monroe	Oakland	St. Clair	Washtenaw	Wayne	OutWayne	Detroit	Region
Commercial	0.34	0.37	0.50	0.28	0.39	0.30	0.28	0.30	0.27	0.31
Institutional	0.33	0.31	0.52	0.23	0.36	0.31	0.25	0.25	0.25	0.27
Medical	0.25	0.39	0.42	0.27	0.28	0.20	0.27	0.27	0.28	0.29
Mixed-Use	0.18	0.23	0.38	0.24	0.41	0.35	0.25	0.23	0.25	0.27
Residential	0.48	0.35	0.85	0.27	0.71	0.42	0.27	0.27	0.27	0.34
All Parcels Average	0.50	0.36	0.90	0.27	0.74	0.45	0.27	0.28	0.26	0.35

# Accessibility to Large Parks

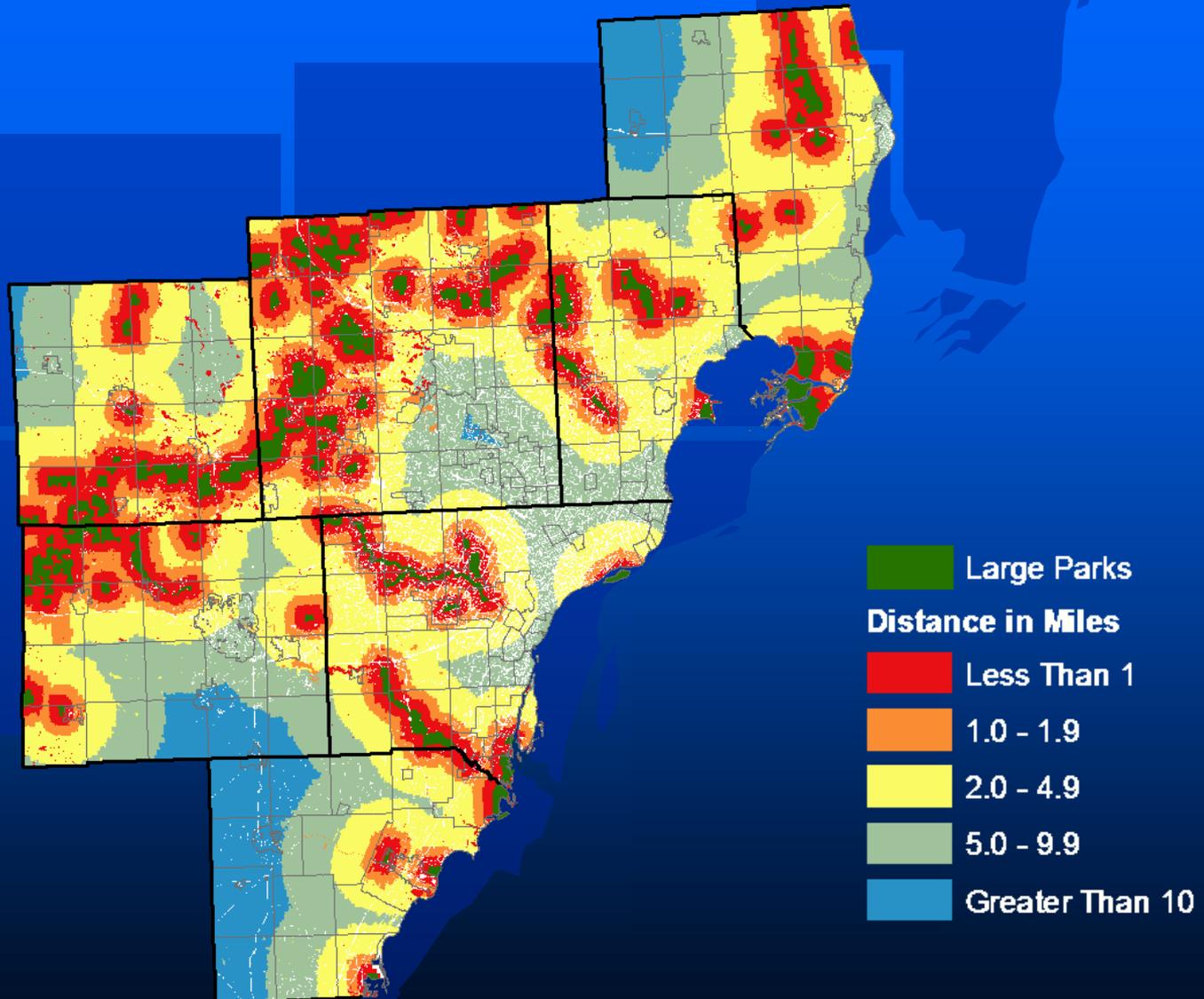
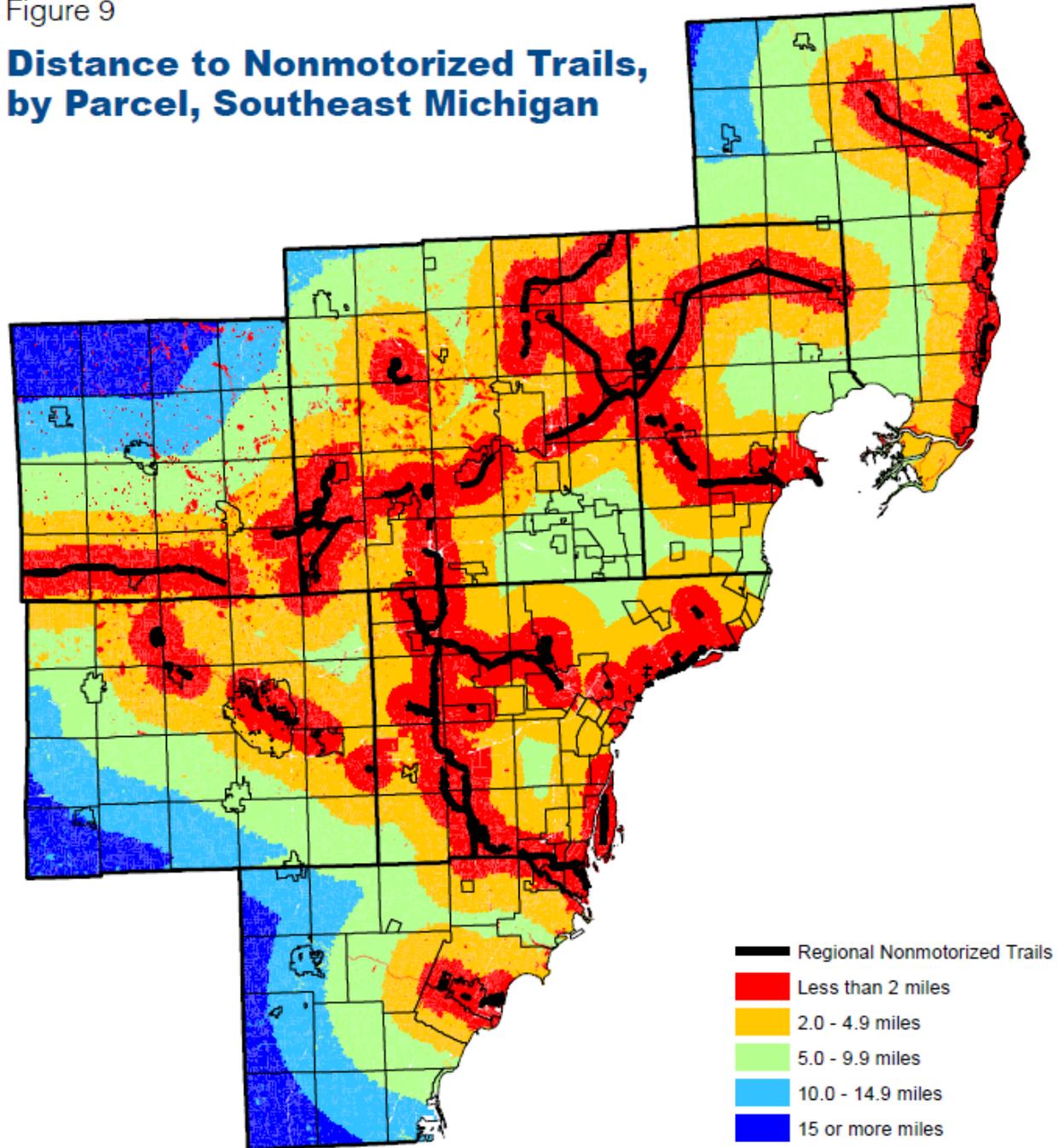




Figure 9

## Distance to Nonmotorized Trails, by Parcel, Southeast Michigan



# Visioning Where We Want To Go

Understanding What's Important  
to Stakeholders . . .



# What Green Infrastructure would you like to see more of?

- Visioning Sessions and Public Poll
  - Natural areas
- Public Poll
  - Trees along roads and downtowns

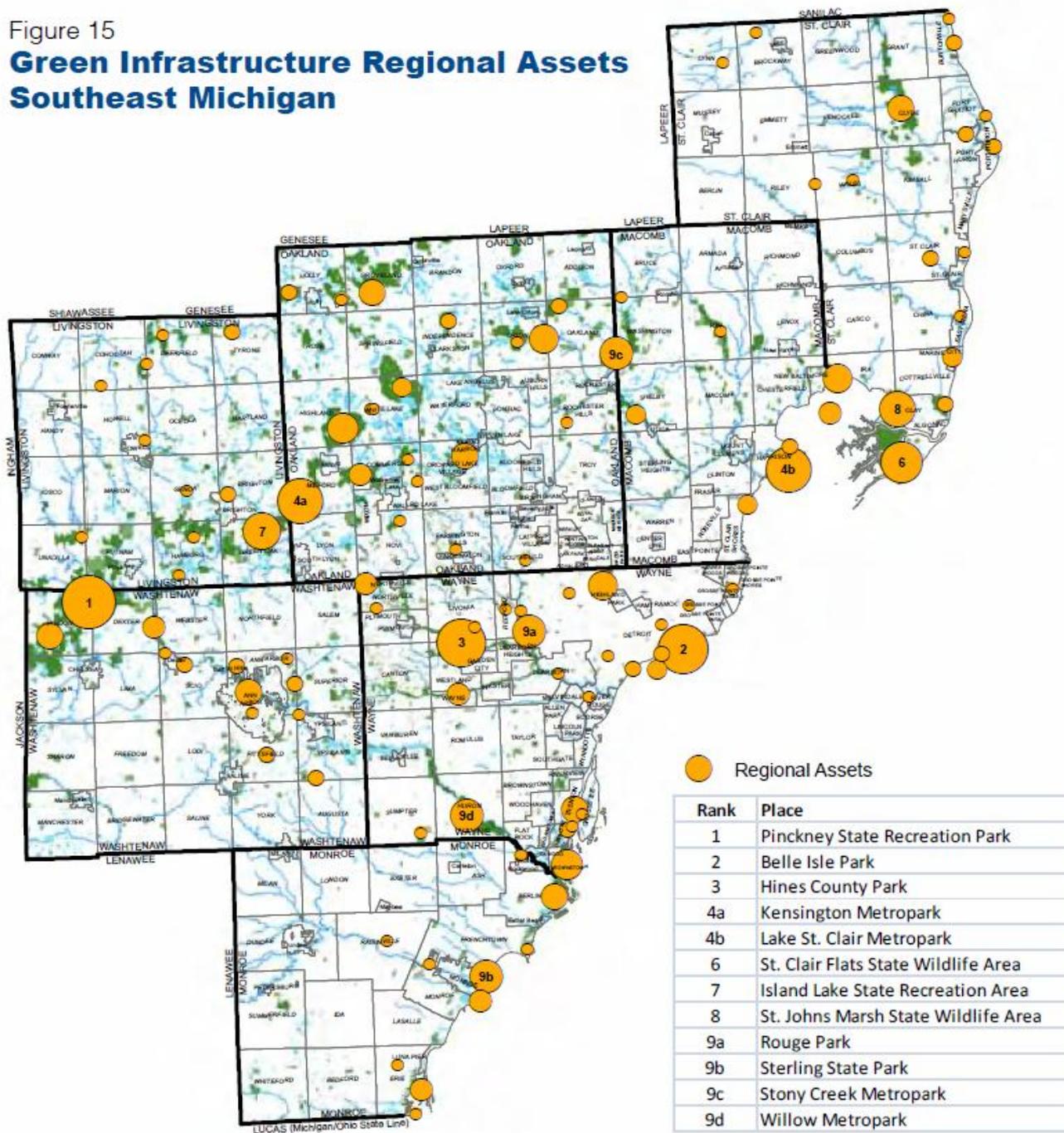


# Where would you like to see more green infrastructure?

- Near existing parks/rare areas
- Along major roads



Figure 15  
**Green Infrastructure Regional Assets**  
**Southeast Michigan**



# Economic Benefits *Residential*

- 3-14% increase in residential property values when located near parks, wetlands, and trees
  - *Real Estate Economics*
  - *Journal of Water Resources Planning and Management*



# Economic Benefits of Parks

## *Residential Property Values*

<b>Location</b>	<b>Type of Park</b>	<b>Premium</b>	<b>Distance</b>
Philadelphia	Large city parks	9%	Within 1,000 ft
Pittsburgh	All city parks	\$23,900	Within 500 ft
Greenville, SC	Small neigh'd parks	8.5%	Within 1,500 ft
Savannah, GA	All city parks	14%	Across/adjacent
Oakland Co.	Recreation land	3.1%	Within 15 meters

# Economic Benefits *Commercial*

- Consumer spending increased & returning more frequently to stores with tree canopy
- Increased rental rates (7% higher) with quality landscaping



# Economic Benefits *Tourism*

- Fishing, hunting, & boating = \$4 billion annually
- Over 1.7 million people fish Michigan waters!
- Rank 1st in the number of registered boats and snowmobiles



# Expenditures for Hunting, Fishing, and Wildlife Watching

Activity	Michigan Participants	Expenditures	Expenditure/Person
Fishing	1,408,000	\$1,623,042,000	\$1,152.73
Hunting	756,000	\$918,655,000	\$1,215.15
Wildlife watching	3,846,000	\$1,547,111,000	\$402.26
Total	6,010,000	\$4,088,808,000	\$680.33

*Source: National Survey of Fishing, Hunting, and Wildlife, 2006*

# *Attract People to Michigan Oakland County*

- 394,514 pleasure trips
  - 40% utilized the green infrastructure network
- Business survey 59% said access to parks, trails and paths influenced retention and recruiting
  - New economy firms (finance, IT, health, professional services).

# Economic Benefits

## *Jobs*

- Washtenaw County
  - \$350 million generated in visitor spending
  - 5,600 direct jobs



# Agricultural Contributions

County <sup>30</sup>	Top 10 Ranking in Michigan
Livingston	4th in revenue from horses and ponies (\$1,030,000) 8th in number commercial feed manufacturing facilities (13) 9th in colonies of bees (2,730)
Macomb	2nd in meat processing plants (4) 3rd in direct-to-customer sales (\$3,507,000) 3rd in number of aquaculture operations 4th in number of whole food processing plants (59) 6th in revenue from nursery, greenhouse, floriculture, and sod (\$27,159,000) 8th in number of food warehouses (28)
Monroe	4th in revenue from vegetables (\$18,563,000) 5th in revenue from nursery, greenhouse, floriculture, and sod (\$34,866,000) 7th in acres of vegetables (6,707) and acres of corn, soy, and wheat (169,792) 8th in total crop sales (\$122,058,000)
Oakland	1st in revenue from horses and ponies (\$1,382,000) 3rd in number of food warehouses (61) and processing plants (82) 3rd in number of dairy processing plants (4) 3rd in number of commercial feed manufacturers (22)

*Source: Michigan Department of Agriculture*

# Constructed Green Infrastructure

- Grow Zones - Reduced mowing and maintenance
- Avoided stormwater management costs



# Infrastructure Savings

- Grey infrastructure solutions with green
- CSO compliance
  - DWSD estimated savings of \$500 million from changing to a grey/green permit.



**There's More To Do . . .  
Public access provides greatest  
economic benefit**



# How Do We See the Future?

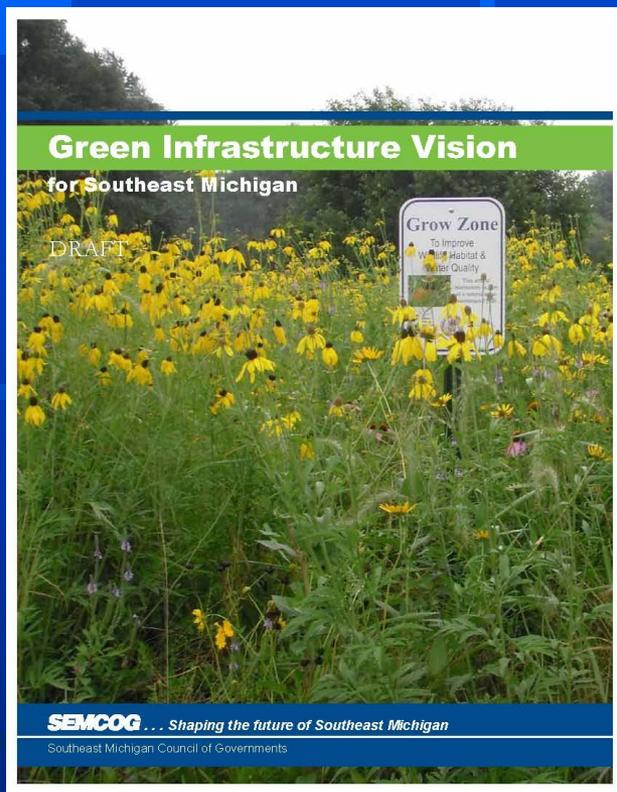


# How Do We See the Future?

1. Support efforts to prove the economic value of green infrastructure
2. Collaborate, partner, leverage
3. Utilize state programs to provide financial and technical leverage
4. Support education & networking



# *The Economic Value of Green Infrastructure*



**Amy Mangus, SEMCOG**  
**mangus@semcog.org**

A stylized map of Michigan is shown in the background, with county boundaries highlighted in a lighter shade of blue. The map is centered and serves as a backdrop for the text.

# **SEMICOG**

**Southeast Michigan Council of Governments**