



Indiana Dunes Climate Change Workshop

FINAL REPORT

FORUM 10.03.2012



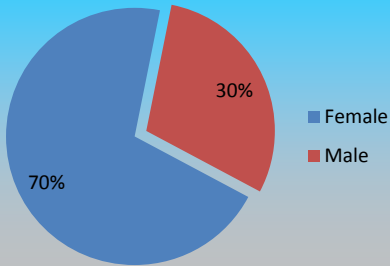
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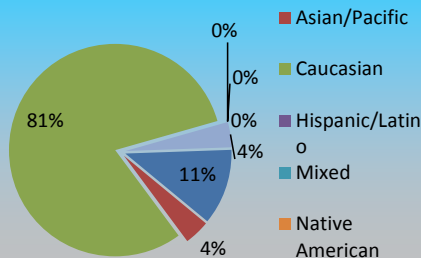
Introduction

Who attended

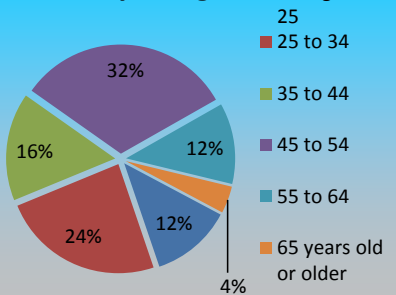
What is your gender?



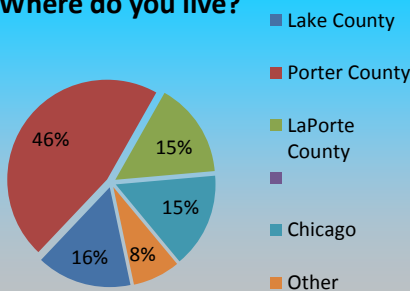
What is your race?



What is your age?



Where do you live?



National Parks Conservation Association (NPCA) and the National Park Service (NPS) Climate Change Response Program are collaborating on a project focused on the development and application of sustainable strategies and tools for communicating science-based messages about climate change affecting local communities and the national parks. The goal is to foster partnerships between NPS Research Learning Centers, parks and partners, such as small businesses in gateway communities, around local climate change response initiatives.

Indiana Dunes and the Great Lakes Research and Learning Center were selected as one of the three pilot parks, along with Kenai Fjords in Alaska and Glacier National Park in Montana, to participate in a survey and later hold a workshop with various stakeholders in each of those 3 regions.

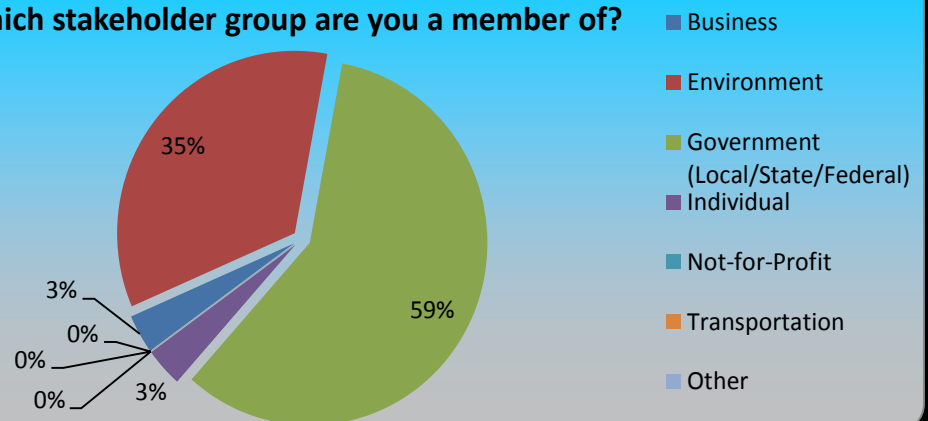
This workshop will explore how climate change affects the Indiana Dunes, its communities and how the park and its partners can work together on preparing for and adapting to climate change

129 stakeholders participated in the survey conducted among stakeholders from the Indiana Dunes region.

The workshop held on Wednesday, October 3, 2012, had over 40 participants who answered questions and participated in discussions to identify key audiences, potential collaborative climate messages and effective tools to deliver those messages.

Last year, over 3 million people visited the Indiana Dunes National Lakeshore

Which stakeholder group are you a member of?





Meeting Structure

The meeting was structured to allow for optimum collaboration among participants.

5 tables of 7 to 10 participants each participated in discussions, deliberated and developed ideas to share with the room.

- A facilitator was assigned to each table to guide the discussion and reach table consensus on questions
- At the end of each discussion each table submitted its top idea to a central table where a “theme team” of staffers formatted the questions to poll the room
- Themed questions were then presented to the room for keypad polling

Workshop

The goals were:

1. Develop a common understanding with partners about the economic and other values parks provide to community partners, how climate change impacts those values, and how the park and its partners can work together on preparing for and adapting to climate change.

2. Identify one or more climate change topics that the RLC and partners will communicate to stakeholders.

3. Identify and develop practical and effective tools that partners can use to communicate about climate change with their customers and other stakeholders.

To achieve the goals set for this forum, the meeting was designed to allow for presentations from NPCA and NPS staff, as well as small group discussions among participants at each table.



Summary of Presentations



1 The first presentation, A Visual Tour of the Indiana Dunes, was given by Kip Walton, Outreach Ranger of the National Park service. Through a large number of photographs, he offered a snapshot of the many wonderful natural park assets that the park has. This presentation set the tone for appreciating the many opportunities this park offers to interact with nature and instill on participants the responsibility that we all have in the region to protect and conserve our parks.



2 Abigail Derby Lewis, Conservation Ecologist at the The Field Museum gave a presentation on "Climate Change Impacts to Nature and People". Her presentation covered an array of topics related to scientific research on climate change that included:

- How is climate change affecting our region?
- What can we expect?
- Impacts to biodiversity and to people
- Regional Biodiversity recovery Strategic initiatives that are being put together across the region led by Chicago Wilderness

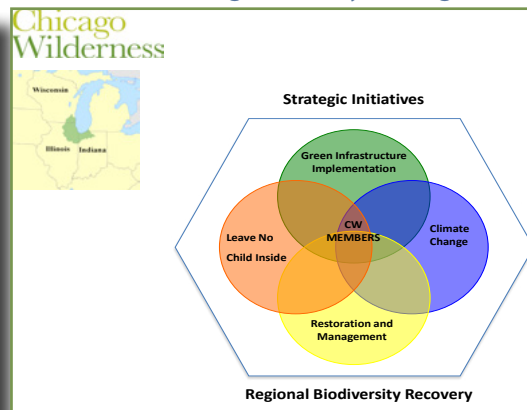


How is climate change affecting *our* region?

Impacts to people

- ★ Direct effects
 - Temperature: heat-related diseases
- ★ Indirect effects
 - Increased intensity of weather events:

Flooding affecting residences, public transportation, bridges
Electricity shortages and changes in energy demands
Municipal costs such as landscaping, road maintenance, emergency response



What can we expect?

- Changes in precipitation patterns (wetter winters and springs; drier summers)
- Increases in extreme storm events (e.g., rain, snow, wind)
- Increases in the number of extreme heat days in summer (In a high-emissions scenario, 45-85 days > 95° by end of century)
- Winters becoming "less cold" (average nighttime lows increasing; less ice cover = increased beach erosion)

Source: Hayhoe et al. Journal of Great Lakes Research, 2010.



Summary of Presentations

3 The 3rd presentation was given by Karen Hevel-Mingo, Climate Program manager, at NPCA, and was about the results from the survey.

129 stakeholders, including representatives from travel and tourism sector (2); civic leadership/community development (24); education (21); environmental conservation (56); and other stakeholders (24), completed the survey.

Online Survey Participation

Types of businesses or organizations



- Travel and tourism – 2 (1.6%)
- Civic leadership/Community development – 24(18.6%)
- Education – 21 (16.3%)
- Environmental conservation – 56 (43.4%)
- Other – 24 (18.6%)
- No reply – 2 (1.6%)

Perceived Value of the National Park

	Ind. Dunes Stakeholders	NPS Visitor Sample*
This national park is very special to me	4.7	4.4
This national park is one of my favorite places	4.3	N/A
I identify strongly with this national park	4.3	3.9
...makes surrounding area a better place to live	4.5	N/A
Visiting...is something I recommend to others	4.6	N/A

1=Strongly disagree / 2 = Disagree / 3 = Neutral/Undecided / 4 = Agree / 5 = Strongly agree

Perceived Economic Value of the National Park

	Ind. Dunes Stakeholders
The park is important to the strength of the local economy	4.3*
The park is important to the success of my business or org.	3.8

* Or 91% Agree or Strongly Agree

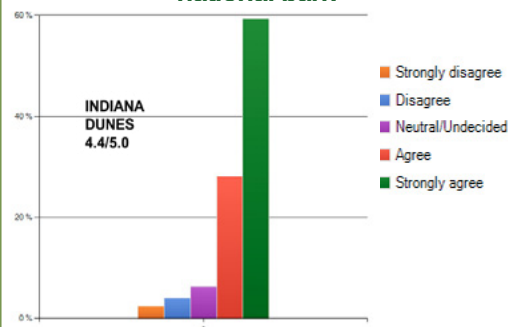
1=Strongly disagree / 2 = Disagree / 3 = Neutral/Undecided / 4 = Agree / 5 = Strongly agree



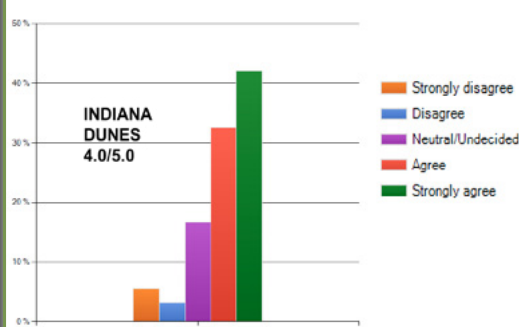
Respondents answered questions on their beliefs on climate change, whether climate change personally impacted their lives, and how effective their national park was in mitigating and adapting to climate change. Overall, survey respondents believed that Indiana Dunes was special to them, and also felt that citizens could do much more to help reduce the impacts of climate change.

The slides on this page summarize the main findings from the survey.

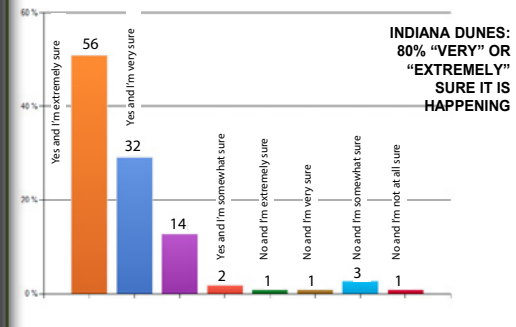
“I am concerned about the future of this national park”



“I believe climate change is a threat to the future of this national park”



Do you think that climate change is happening?



Mapping exercise

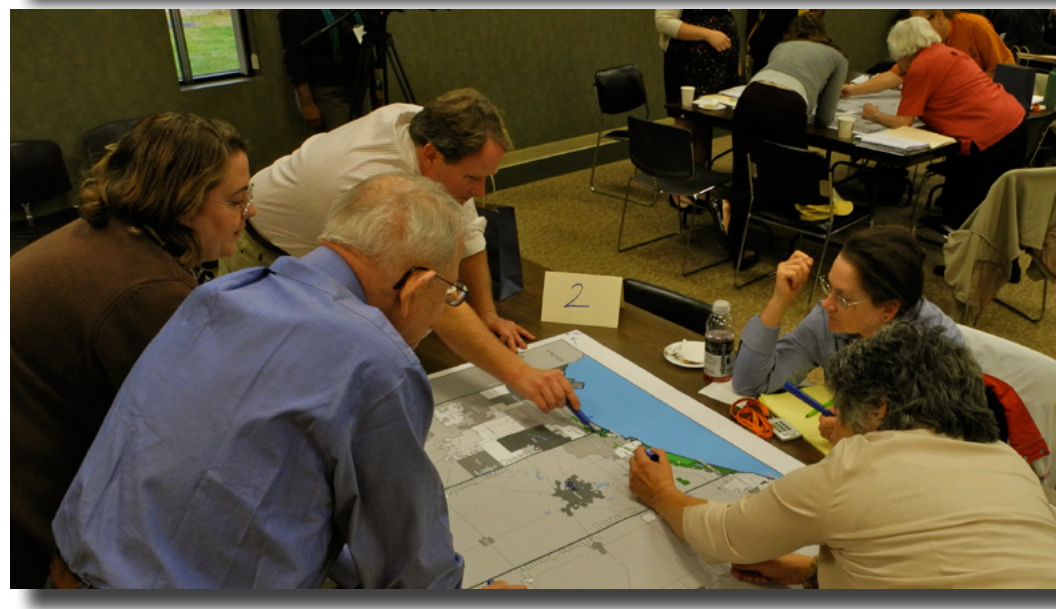
After the presentation from Kip Walton “a visual tour of the Indiana Dunes”, the first table activity consisted of a mapping exercise for participants to locate on a large map, three places: home, workplace and a place in the park that was important to him/her.

After, each participant located those 3 places on the map at their tables, they shared with the rest of the room what they had marked on their maps.

“ ”

The Dunes are to the Midwest what the Grand Canyon is to Arizona and Yosemite is to California. They constitute a signature of time and eternity. Once lost, the loss would be irrevocable.

— Carl Sandburg



Discussion #1

Later on, following the presentation from Abigail Derby Lewis on the impacts of climate change tables participated on a table discussion answering the following two questions:

1) What action steps should the great Lakes Research and Education Center take to minimize the effects of climate change?

2) What actions steps should you take to minimize the effects of climate change?

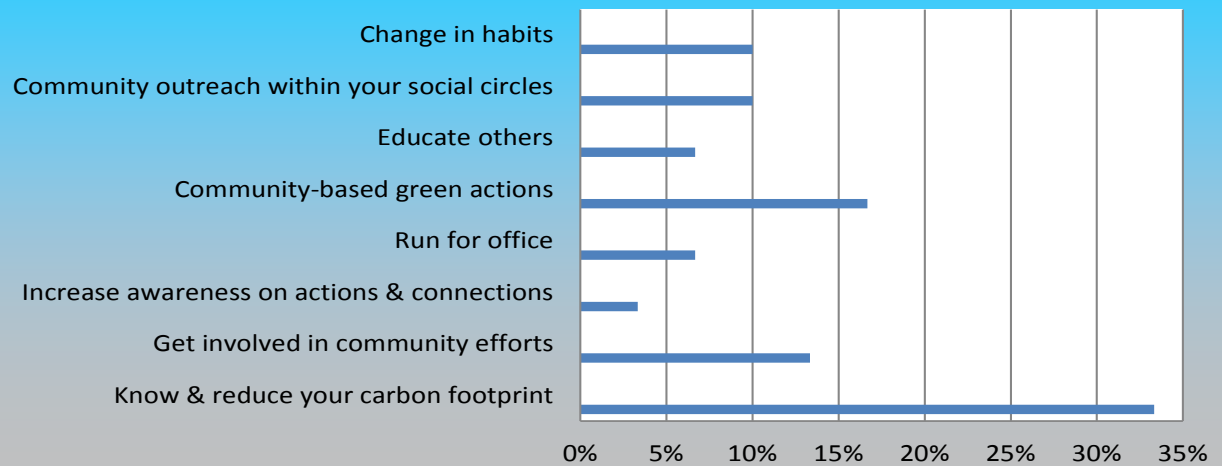
After 20 minutes of discussions on both questions, table participants submitted their top two ideas for each question, and then the whole room voted on the options with keypads in order to prioritize the list of ideas submitted.

What Action Steps should the “Great Lakes Research and Education Center”, the “National Park Service” and YOU take to minimize the effects of climate change?

Which one of these action steps you think is the most important for Great Lakes Research and Education Center and the National Park Service to take to minimize the effects of climate change?



What is the most important action steps that YOU can take to minimize the effects of climate change?



Discussion#2

This was the longest discussion of this workshop. Participants had 60 minutes to discuss the questions presented in this section. The World Café Technique was used to generate ideas that the NPCA and the National Park Service should pursue to assist with their future efforts on climate change.

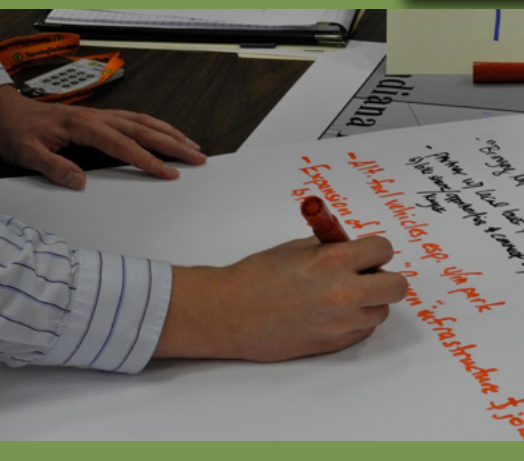
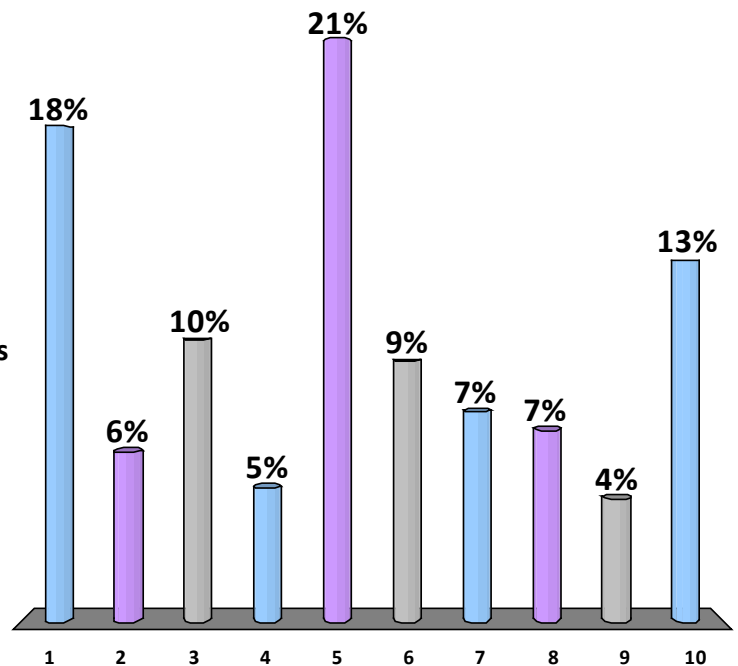
As we think of how to best tailor the message about climate change, discuss:

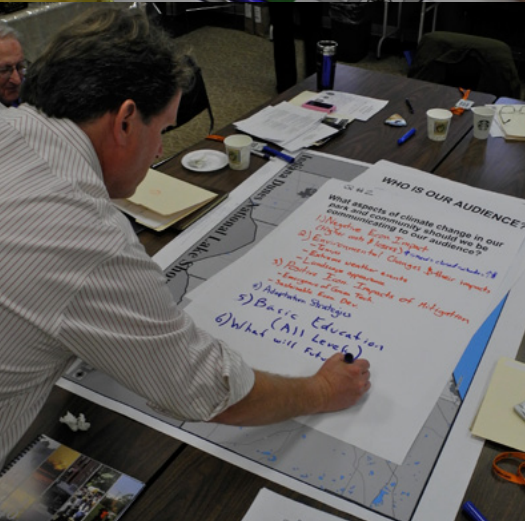
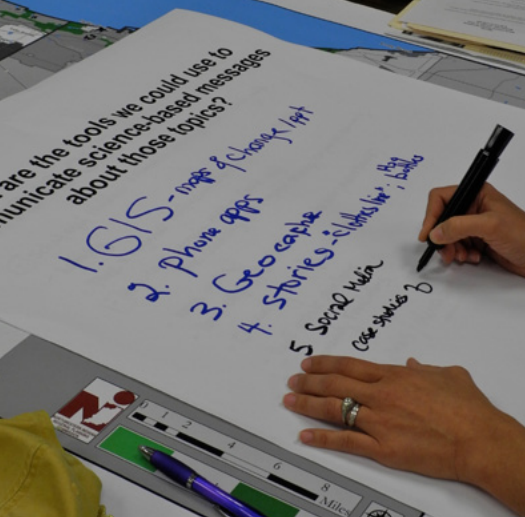
Who is our audience?

The 60 minutes were divided into 4 questions:

- 1) Who is our audience?
- 2) What aspects of climate change in our park and community should we be communicating to our audience?
- 3) What are the tools we could use to communicate science-based messages about those topics?
- 4) What are the opportunities for the parks and community partners in adapting to climate change?

1. K-12 students
2. College students
3. Local Business Orgs.
4. Partner Organizations
5. High-level Decision Makers
6. Economically Vulnerable
7. Gateway communities
8. Environmental organizations
9. Energy Companies
10. Landholders/Developers





Discussion #2 (Cont'd)

What are the opportunities for the parks and community partners in adapting to climate change?

- 21% 1. Incentivize different transportation choices
- 21% 2. Connecting benefits of green infrastructure
- 4% 3. Partnership w/ local businesses
- 4% 4. Alternative fuel vehicles within park
- 13% 5. Teach/explain adaptation with science
- 17% 6. Water conservation & efficiency
- 8% 7. Economic benefits of CC mitigation
- 13% 8. Habitat connectivity w/ greenway planning

What aspects of climate change in our park and community should we be communicating to our audience?

- 0% 1. How energy companies can contribute to plan
- 8% 2. What park is doing to mitigate CC
- 20% 3. How climate change affects you
- 20% 4. What you can do about climate change
- 4% 5. Tie message to Lake Michigan
- 16% 6. Negative economic impacts
- 12% 7. Environmental changes & their impacts
- 4% 8. Positive economic impacts of mitigation
- 0% 9. Basic education
- 16% 10. Need to act NOW

What are the tools we could use to communicate science-based messages about those topics?

- 4% 1. GIS maps
- 28% 2. Social media/phone app/ games
- 4% 3. Use local media to convey past habits used
- 20% 4. Use educators & curriculum at all levels
- 24% 5. Film & Radio PSAs
- 4% 6. Add CC message in existing newsletters
- 16% 7. Educate on CC through community events

Cross Tabulation

of Discussion Questions

This section includes cross tabulation of results for one of the discussion questions. The cross tabulation of the polling data allows for a deeper analysis of the polling results since it shows for every polled question how each demographic groups responded.

The demographic of this cross tabulation includes:

- Gender
- Age
- Stakeholder type

Which one of these action steps you think is the most important for Great Lakes Research and Education Center and the National Park Service to take to minimize the effects of climate change?



Answers to this same question by GENDER

	Identify & protect sensitive receptors	Educate the public on problems & solutions	Map, ID and reduce ecosystem stressors	Restore & manage groundwater regimes	More research on CC for park management	Partnerships, education & research to mitigate causes	Increase non-motorized transportation options	Position themselves as community leaders	Outreach to government and community orgs.
Female	5.88%	23.53%	17.65%	5.88%	5.88%	23.53%	0.00%	11.76%	5.88%
Male	14.29%	28.57%	28.57%	14.29%	0.00%	0.00%	0.00%	0.00%	14.29%

Answers to this same question by AGE

	Identify & protect sensitive receptors	Educate the public on problems & solutions	Map, ID and reduce ecosystem stressors	Restore & manage groundwater regimes	More research on CC for park management	Partnerships, education & research to mitigate causes	Increase non-motorized transportation options	Position themselves as community leaders	Outreach to government and community orgs.
Younger than 25 years old	0.00%	0.00%	33.33%	0.00%	0.00%	33.33%	0.00%	0.00%	33.33%
25 to 34 years old	16.67%	0.00%	33.33%	0.00%	0.00%	16.67%	0.00%	33.33%	0.00%
35 to 44 years old	0.00%	66.67%	0.00%	33.33%	0.00%	0.00%	0.00%	0.00%	0.00%
45 to 54 years old	12.50%	50.00%	12.50%	12.50%	0.00%	12.50%	0.00%	0.00%	0.00%
55 to 64 years old	0.00%	0.00%	50.00%	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%
65 years old or better	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Answers to this same question by STAKEHOLDER TYPE

	Identify & protect sensitive receptors	Educate the public on problems & solutions	Map, ID and reduce ecosystem stressors	Restore & manage groundwater regimes	More research on CC for park management	Partnerships, education & research to mitigate causes	Increase non-motorized transportation options	Position themselves as community leaders	Outreach to government and community orgs.
Business	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Environment	0.00%	25.00%	25.00%	12.50%	0.00%	37.50%	0.00%	0.00%	0.00%
Government (Local/State)	6.25%	18.75%	18.75%	12.50%	6.25%	12.50%	0.00%	12.50%	12.50%
Individual	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Not-for-Profit	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Transportation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Cross Tabulation of Discussion Questions

What is the most important action steps that YOU can take to minimize the effects of climate change?



Answers to this same question by GENDER

	Know & reduce your carbon footprint	Get involved in community efforts	Increase awareness on actions & connections	Run for office	Community-based green actions	Educate others	Community outreach within your social circles	Change in habits
Female	29.41%	11.76%	0.00%	5.88%	11.76%	5.88%	17.65%	17.65%
Male	57.14%	0.00%	0.00%	0.00%	28.57%	14.29%	0.00%	0.00%

Answers to this same question by AGE

	Know & reduce your carbon footprint	Get involved in community efforts	Increase awareness on actions & connections	Run for office	Community-based green actions	Educate others	Community outreach within your social circles	Change in habits
Younger than 25	66.67%	0.00%	0.00%	0.00%	0.00%	33.33%	0.00%	0.00%
25 to 34 years old	50.00%	0.00%	0.00%	0.00%	16.67%	0.00%	16.67%	16.67%
35 to 44 years old	25.00%	0.00%	0.00%	0.00%	25.00%	0.00%	50.00%	0.00%
45 to 54 years old	42.86%	14.29%	0.00%	0.00%	14.29%	0.00%	0.00%	28.57%
55 to 64 years old	50.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
65 years old or better	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Answers to this same question by STAKEHOLDER TYPE

	Know & reduce your carbon footprint	Get involved in community efforts	Increase awareness on actions & connections	Run for office	Community-based green actions	Educate others	Community outreach within your social circles	Change in habits
Business	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Environment	22.22%	22.22%	0.00%	0.00%	11.11%	22.22%	11.11%	11.11%
Government (Local/State)	46.67%	0.00%	0.00%	6.67%	20.00%	0.00%	13.33%	13.33%
Individual	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Not-for-Profit	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Transportation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Acknowledgements

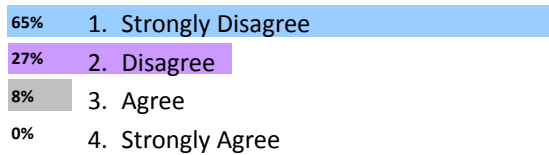
**Chicago
Wilderness**
A regional alliance dedicated to
protecting nature and enriching life

Appendix

Pre and Post Survey Questions

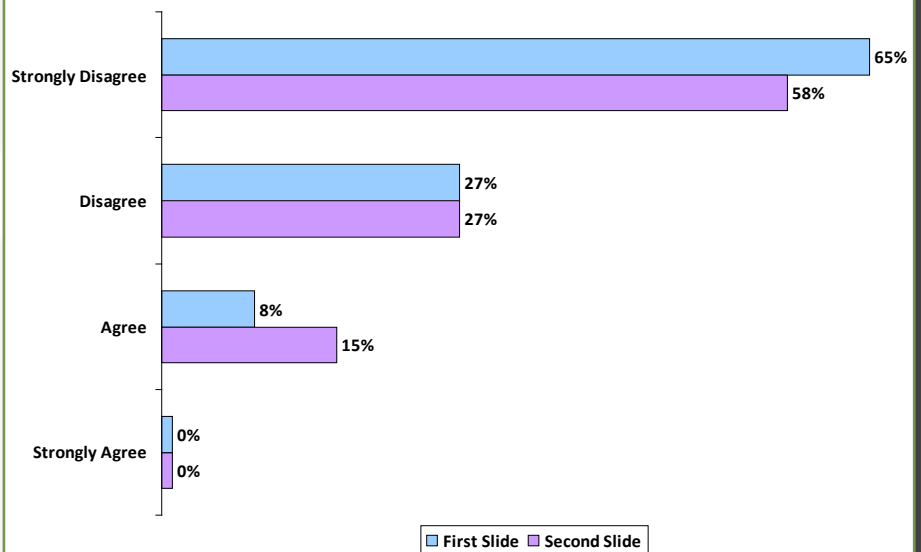
Pre Survey

How much do you agree or disagree with the following statement: "I could easily change my mind about climate change."



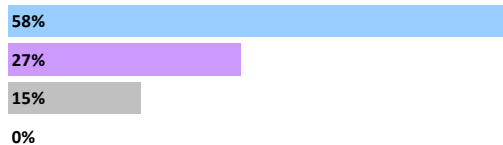
Comparative Results

Based on the information shared and the discussions I participated in, I have changed my opinion ...



Post Survey

Based on the information shared and the discussions I participated in, I have changed my opinion on climate change.



Appendix (Cont'd)

Answers from World Café Technique Questions

Answers from World Café Technique Questions, transcribed from large sheets of paper where attendees wrote their ideas

1. Who is our audience?

- a. Students at all levels
- b. Residents
- c. Partner organization
- d. Visitors to parks
- e. Public
- f. Economically Vulnerable (commercial and private)
- g. Chambers of Commerce
- h. Media
- i. Schools
- j. Public Works
- k. Mayors
- l. Planning/zoning boards
- m. Railroads
- n. Public Transit
- o. Transportation Planners
- p. School System Superintendents
- q. CEOs of all GHG (greenhouse gases) emitters
- r. School aged children, educators (formal and informal) and family units
- s. Industry
- t. Park and regional visitors chamber of commerce, tourism
- u. High level decision makers (politicians, business community, government, regional planning, corporate community)
- v. News media

Appendix (Cont'd)

- w. Local citizens, landholders (agricultural sector, public and private)
- x. Community activists, volunteers
- y. Real estate developers
- z. Community foundations
 - aa. Bankers
 - bb. Environmental organizations
 - i. NIRPC list
 - ii. Chicago Wilderness/Field Museum
 - 1. Huge listserv
 - 2. Climate clinics-Abigail Derby
 - iii. Save the Dunes
 - iv. Friends of Save the Dunes
 - v. Shirley Heinze
 - vi. Alliance for the Great Lakes
 - vii. Calumet Stewardship Initiative
 - viii. CIMBY (Calumet in my backyard)
 - cc. Gateway communities (those who border the park)
 - dd. Industries that border the park
 - ee. State agencies
 - i. Indiana Department of Natural Resources (DNR)
 - ii. Indiana Department of Environmental Management (IDEM)
 - iii. Indiana Environmental Protection Agency
 - iv. Indiana CMP?
 - 1. Use social media and press to reach audiences

- 2. **What aspects of climate change in our park and community should we be communicating to our audience?**
 - a. Specific examples of negative impact from climate change on community/park
 - b. How energy companies can contribute to the plan

Appendix (Cont'd)

- c. Connect community/park to the emotional personal experience they have with NPS, so relevant to their lives
- d. Tie message to Lake Michigan (polls well)
- e. Explain science to general audience
- f. Climate Change is a way to connect lots of different types of initiatives-or the connection link to :
 - i. Green streets
 - ii. Zoning ordinances to reduce number of invasive species
 - iii. Storm water
 - iv. Green infrastructure
- g. What you can do about it
- h. What the park is doing to mitigate and adapt to climate change
- i. How it affects you:
 - i. Flooding
 - ii. "It's hot."
 - iii. Financial costs
- j. Way to connect with people who may not care about environmental
 - i. Human health
 - ii. Save money on heating bill
- k. Negative economic impact (higher costs and losses; more snow=closed schools=more money)
- l. Environmental changes and their impacts
 - i. Temperature
 - ii. Extreme weather events
 - iii. Landscape appearance
- m. Positive economic impacts of mitigation/adaptation
 - i. Emergence of green technology
 - ii. Sustainable economic development
- n. Adaptation strategies-impacts
- o. Basic education at all levels
- p. What will future possibly be like?

Appendix (Cont'd)

- q. Connection to actions and choices
- r. Need to act NOW (ethics, grandkids, cost-benefits of delayed actions)
- s. Why is adaptation needed ☒ explain the “climate commitment” and how it impacts planning and management

3. What are the tools we can use to communicate science based messages about those topics?

- a. GIS-maps of change and Power Points
- b. Phone apps
- c. Geo cache
- d. Stories “clothesline”; water bottles
- e. Social media
- f. Case studies of what people/ communities are already doing, understanding and communicating the cultural values that reflect climate adaptation
- g. Tool=relationships with news media (local media)
- h. Money grants to connect kids to nature
- i. Actual reality game
- j. Municipal TV channels and other local cable stations
- k. Radio programs
- l. Educators and curriculum at all levels
- m. Interpretive signage

4. What are the opportunities for the parks and community partners in adapting to climate change?

- a. Climate specific funding available (federal, state, local)
- b. Through communities adopting/implementing native landscaping, will reduce NPS invasive species control and improve buffer
- c. Economic benefits to many climate mitigation actions
 - i. Reduce vehicle miles traveled
 - ii. Reduce energy
- d. Green infrastructure

Appendix (Cont'd)

- i. Wetland restoration,
- ii. Reduce number of impervious surfaces
- e. Update local zoning ordinances, parking and transportation codes, development standards to reduce impervious surfaces
- f. Habitat connectivity-using greenway planning
- g. Non-motorized transportation implementation; connect with existing transportation infrastructure
- h. Increase scientific literacy
- i. Stewardship programs (Adopt A _____)
- j. Use less energy/save more money
- k. Better bike trails = more fun, less greenhouse gases
- l. Water conservation and efficiency
- m. Application to teach/ explain adaptation with good science
- n. Alternative fuel vehicles, especially within park
- o. Expansion of local "green infrastructure" jobs
 - i. Fueling stations
 - ii. Certified mechanics and maintenance
- p. Participation in regional civic activities
- q. Shift in transportation made by incentivizing
 - i. Free to park if carpooling/bike/walk/hybrid car
 - ii. increase in public transportation (walking/biking)
- r. connecting benefits of green infrastructure
- s. Bringing nature home; increase citizen scientists and monitoring
- t. Partner with local businesses to have:
 - i. Remote parking trolley/bus transport to beaches
 - ii. Bike share/opportunities to connect with blueways and greenways (trail system/ kayak)

END OF ANSWERS FROM WORLD CAFÉ TECHNIQUE QUESTIONS



Website: www.stanhopeconsulting.com

Find us on Facebook:  [Stanhope Consulting](https://www.facebook.com/StanhopeConsulting)

Stanhope Consulting is committed to designing the best public involvement and engagement strategies. Our primary goal is “inclusion by design” by increasing the public’s voice in the shaping of more vibrant and sustainable places through extensive stakeholder outreach and building partnerships with the public. We design the stakeholder engagement that those who are affected by a decision are involved in the decision-making and its’ outcomes.

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