

# Changing the Conversation about Climate Change



**CHANGE  
AHEAD**

## **A Review of the Place-Based CCEP Phase I Research**



Jessica Thompson, PhD  
Colorado State University



# In the next 50 minutes...

Place Based Climate Change Engagement  
Theoretical Framework

Summary of Place-based Climate Change  
Engagement Audience Research

Preview of our Phase II Proposal Activities



## ***What is Place-based Engagement?***

Meaningful dialogue situated in a specific location, where audiences interact with each other and the landscape to develop a deeper understanding about ecological and social interrelationships.



*"Look, I believe climate change is real. Every visit we make, such as we are making here, argues that we need to take action... Every citizen in America should see what's happening here!"*







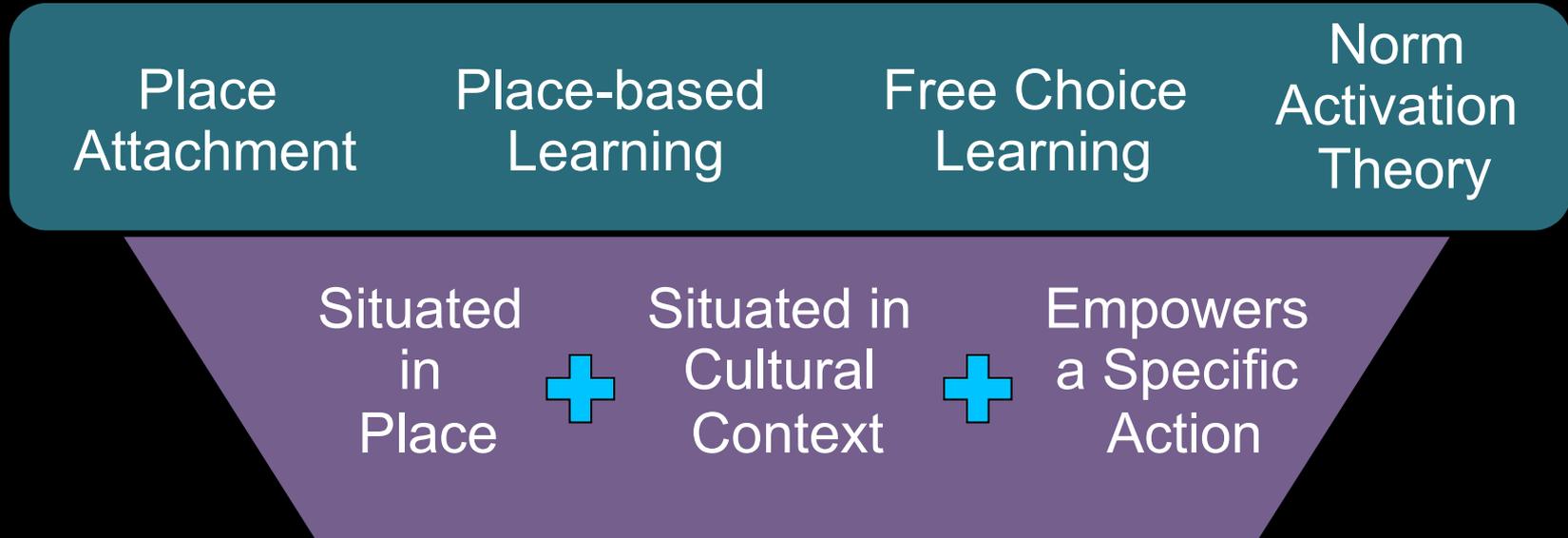
# Glacier Basin Campground at Rocky Mountain National Park



# Glacier Basin Campground at Rocky Mountain National Park



# Place-based Climate Change Engagement Theoretical Framework



*So, how does this help the audience “get” climate change?*

# ***How does it help audiences understand climate change?***

Audiences are connected to places; they have unique bonds with, and value specific landscapes/places.

Effectively learn through meaningful hands-on activities in that special place or on that landscape.

Remember lessons and adopt behaviors when they feel a sense of responsibility & have knowledge of consequences.

*Thompson & Schweizer, 2009; Schweizer, Thompson & Davis, 2012*

**How can we change the climate change conversation through the lens of places we love?**







# Project Objectives

Identify ***issues & impacts*** to be communicated

Discover ***current activities*** at each site

Identify ***barriers & opportunities*** for collaborating and communicating about climate change

Integrate ideas for place-based climate change education/engagement strategy

# Project Activities

Survey of Agency Staff & Partners ( $n = 847$ )

16 Site Visits & Focus Groups with Site Partners ( $n = 80$ )

5 World Café Workshops & Questionnaires ( $394$  participants)

Quantitative & Qualitative Visitor Data Collection (*survey*  $n = 4,181$ ; *interview*  $n = 359$ )

Strategic Planning Workshop ( $46$  participants)



# Preliminary Results

## *Issues & Impacts*

272 of 303 workshop participants said effects can be seen now!

### **Northern Colorado** *(11% said 1-2 effects; 83% said several effects)*

Changes in Precipitation & Temperature Patterns

Alpine & Subalpine species shifts (e.g., Pika, Ptarmigan)

Reduced Snowfields

Increase in Wildland Fires



# Preliminary Results

## *Issues & Impacts*

272 of 303 workshop participants said effects can be seen now!

### **Southern Florida** *(23% said 1-2 effects; 68% said several effects)*

Coral Bleaching

Sea Level Rise

Abnormal Weather Patterns & Storms

Increased Land & Water Temperatures



# Preliminary Results

## *Issues & Impacts*

272 of 303 workshop participants said effects can be seen now!

**Washington DC** *(43% said 1-2 effects; 41% said several effects)*

Sea Level Rise

Superheated Run-off

Changing Vegetation Patterns (e.g. cherry blossoms)

Urban Heat Island Effect

Erratic Weather & Storm Intensity



# Preliminary Results

## *Issues & Impacts*

272 of 303 workshop participants said effects can be seen now!

### **Kenai Peninsula** *(17% said 1-2 effects; 76% said several effects)*

Sea Level Rise

Erosion

Erratic Weather & Storm Intensity (e.g. lightning)

Glacial Retreat



# Preliminary Results

## *Issues & Impacts*

272 of 303 workshop participants said effects can be seen now!

### **Puget Sound** *(25% said 1-2 effects; 63% said several effects)*

Temperature & Precipitation Changes

Water Cycle Changes

Water Quality Changes – “the Dead Zone”

Glacial Melting/Recession



# Partner Research Results

## *Objective 1: Current Activities*

- #1 – Formal Education Programs (18%)
- #2 – Workshops & Meetings (16%)
- #3 – Publications (15%)
- #4 – Website, Webinars & Web-based Media
- #5 – Interpretive Programming
- #6 – Professional Development & Trainings
- #7 – Presentations
- #8 – Special Exhibits & Displays

# Partner Research Results

## *Objective 2: Barriers & Opportunities*

### Barriers:

Lack of a connection to people's "everyday" (16%)

Apathy, disbelief & disinterest (10%)

Lack of urgency/immediacy (9%)

Lack of climate/science literacy

Politicization of the issue

Lack of local evidence / data to illustrate effects

### Opportunities:

Educate the youth – early and often! (26%)

Focus on the local effects / visible changes (24%)

The potential for collaboration, partnerships & support (18%)

Local action can make a difference!

Make the link to the economy & jobs



# Project Objectives

- ✓ Discover ***current activities*** at each site
  - ✓ Identify ***barriers & opportunities*** for collaborating and communicating about climate change
  - ✓ Identify ***issues & impacts*** to be communicated
- Integrate ideas for place-based climate change education/engagement strategy!**

# Audience Research Results

## *Staff & Visitor Surveys*

### Agency Staff Survey (courtesy of Bernuth & Williamson Consulting)

847 total

402 National Park Service

445 U.S. Fish & Wildlife Service

### Visitor Survey

4,181 total

3,233 National Parks

948 National Wildlife Refuges

51% male / 49% female – average age 54

86% Caucasian / 69% with a college degree+

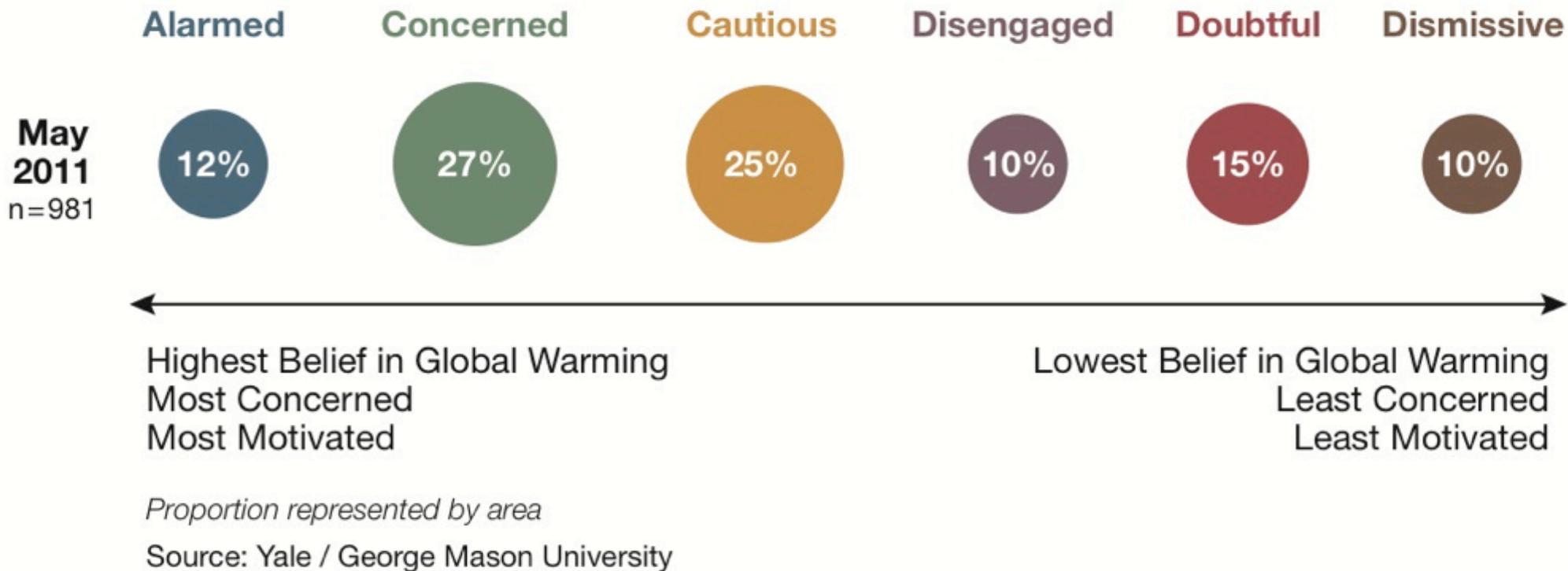
33% democrat / 18% republican / 17% independent

# GLOBAL WARMING'S SIX AMERICAS IN MAY 2011

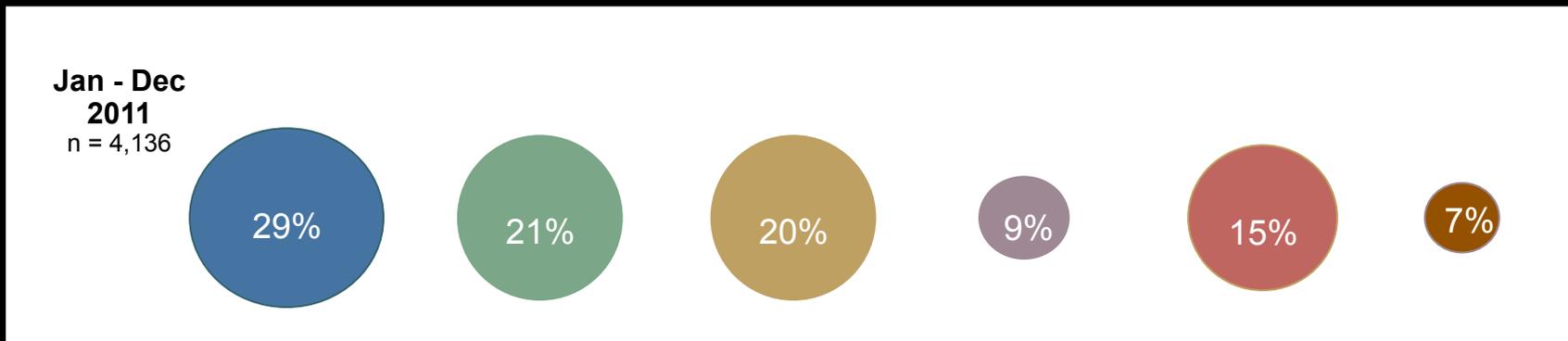


4C

George Mason University  
Center for Climate Change Communication



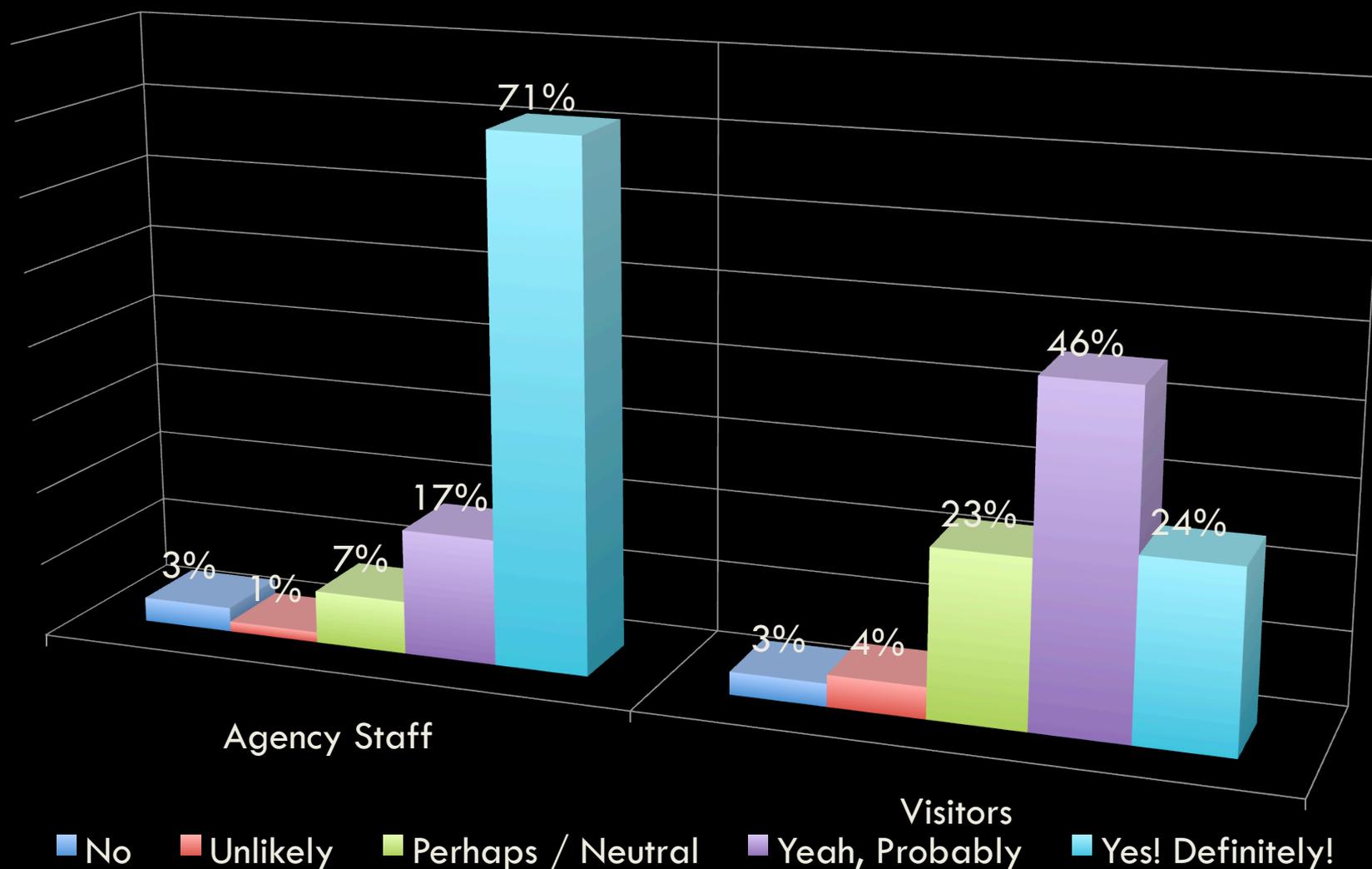
# Audience Segmentation in Parks & Refuges



# Audience Research Results

## *Staff & Visitor Surveys*

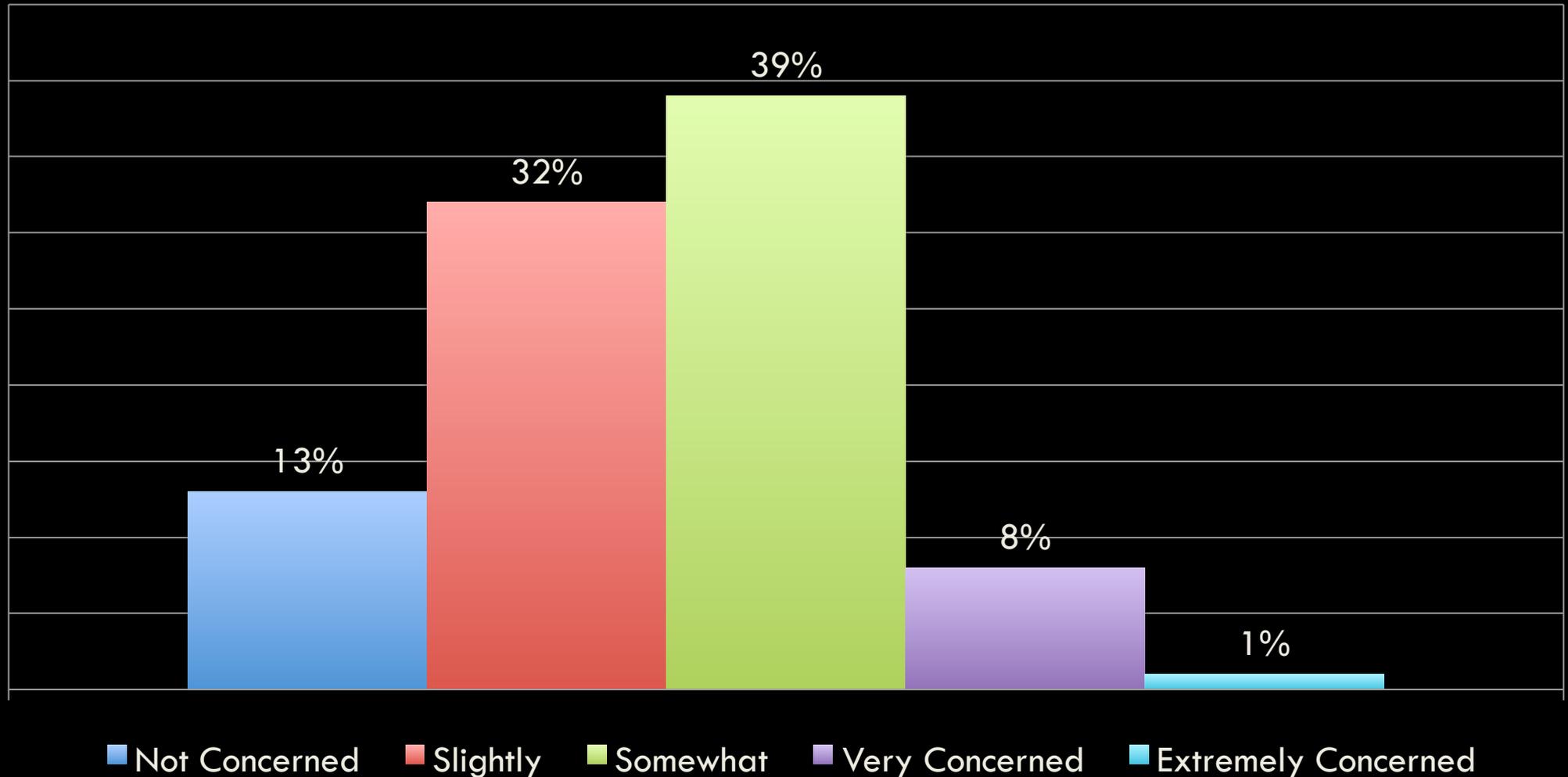
Are the effects of climate change already seen at places managed by NPS & USFWS?



# Audience Research Results

## *Staff & Visitor Surveys*

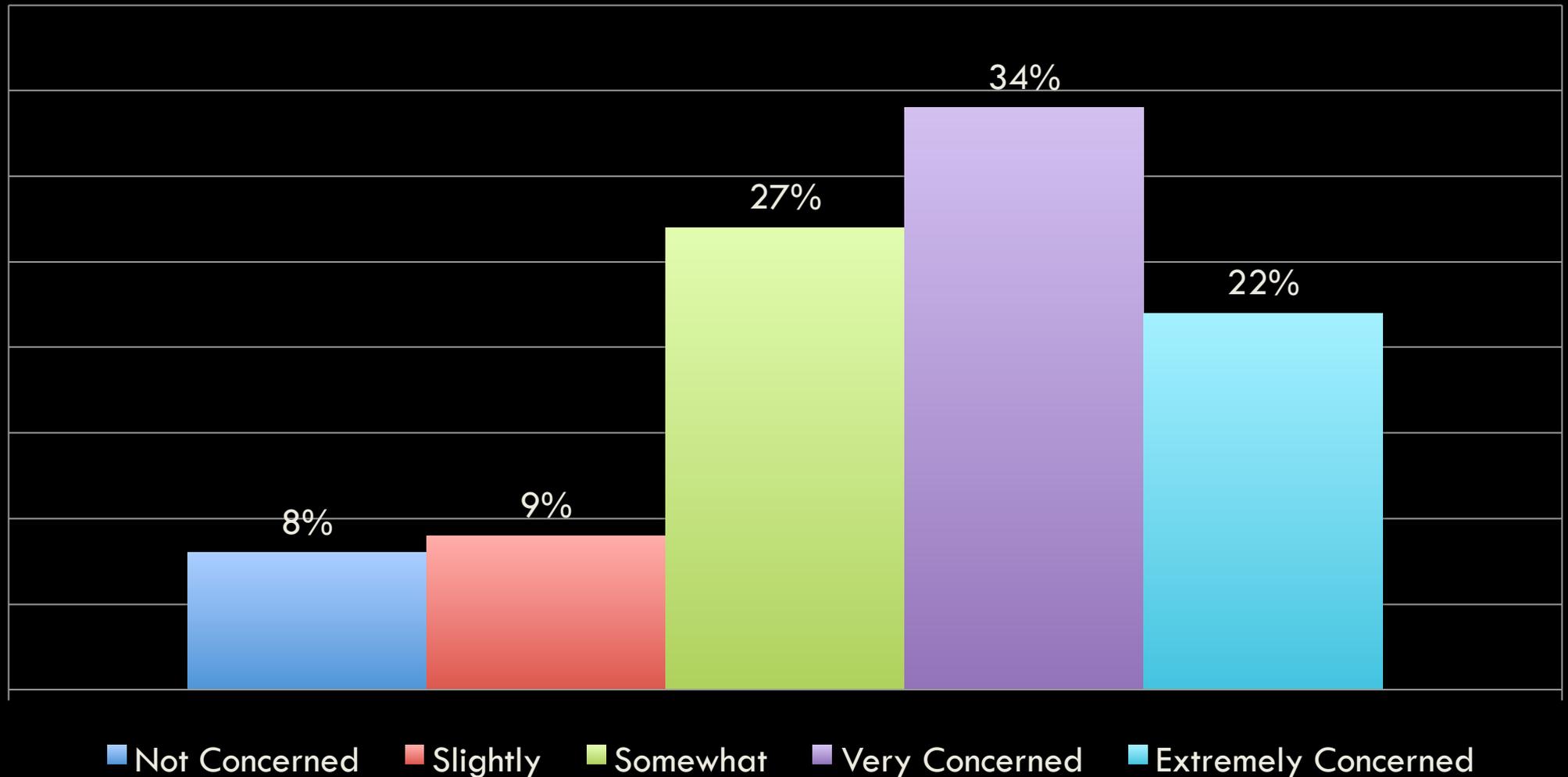
We asked the Staff: Are Your Visitors Concerned about Climate Change?



# Audience Research Results

## *Staff & Visitor Surveys*

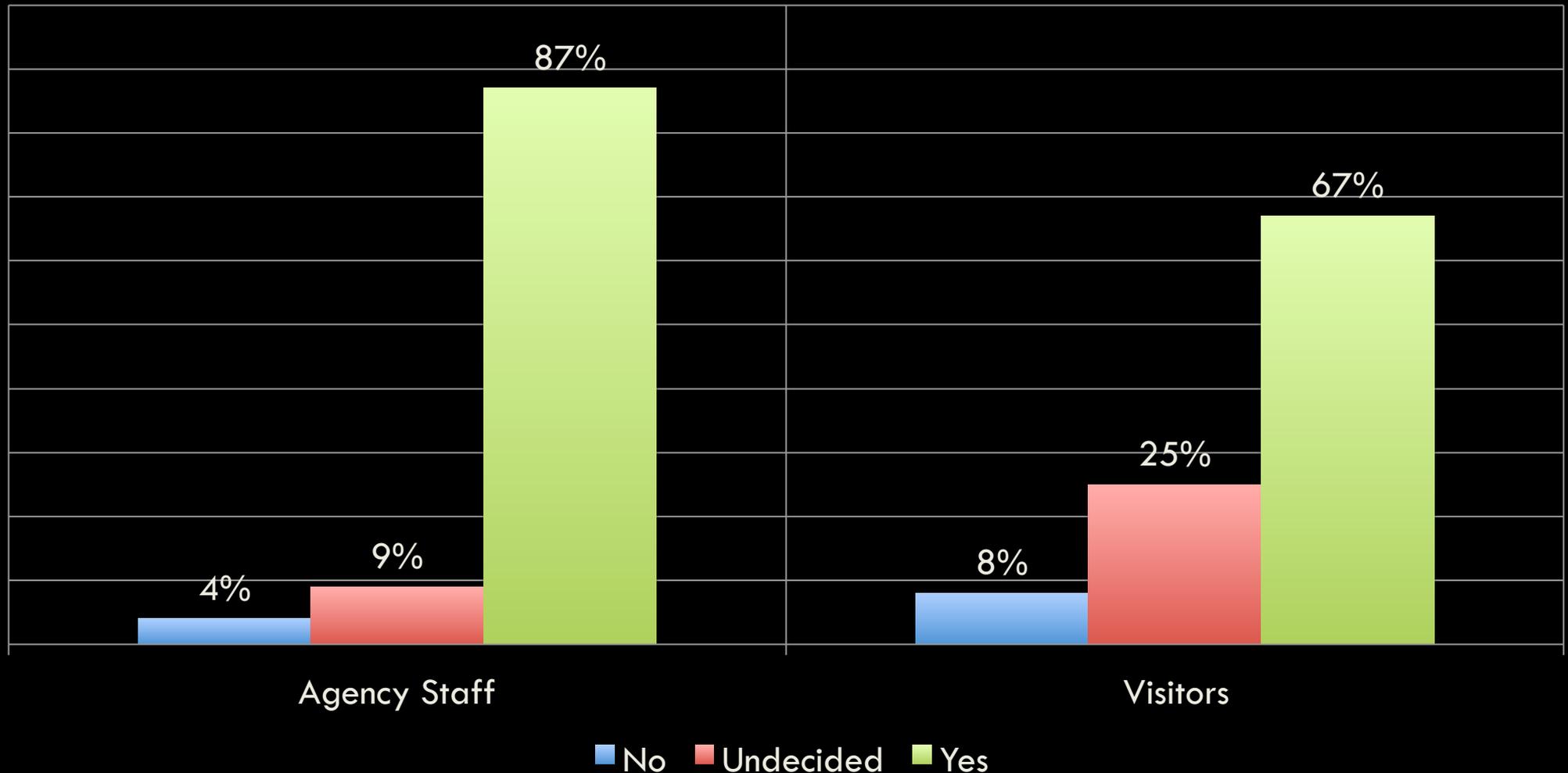
Then we asked the Visitors: How Concerned are You about Climate Change?



# Audience Research Results

## *Staff & Visitor Surveys*

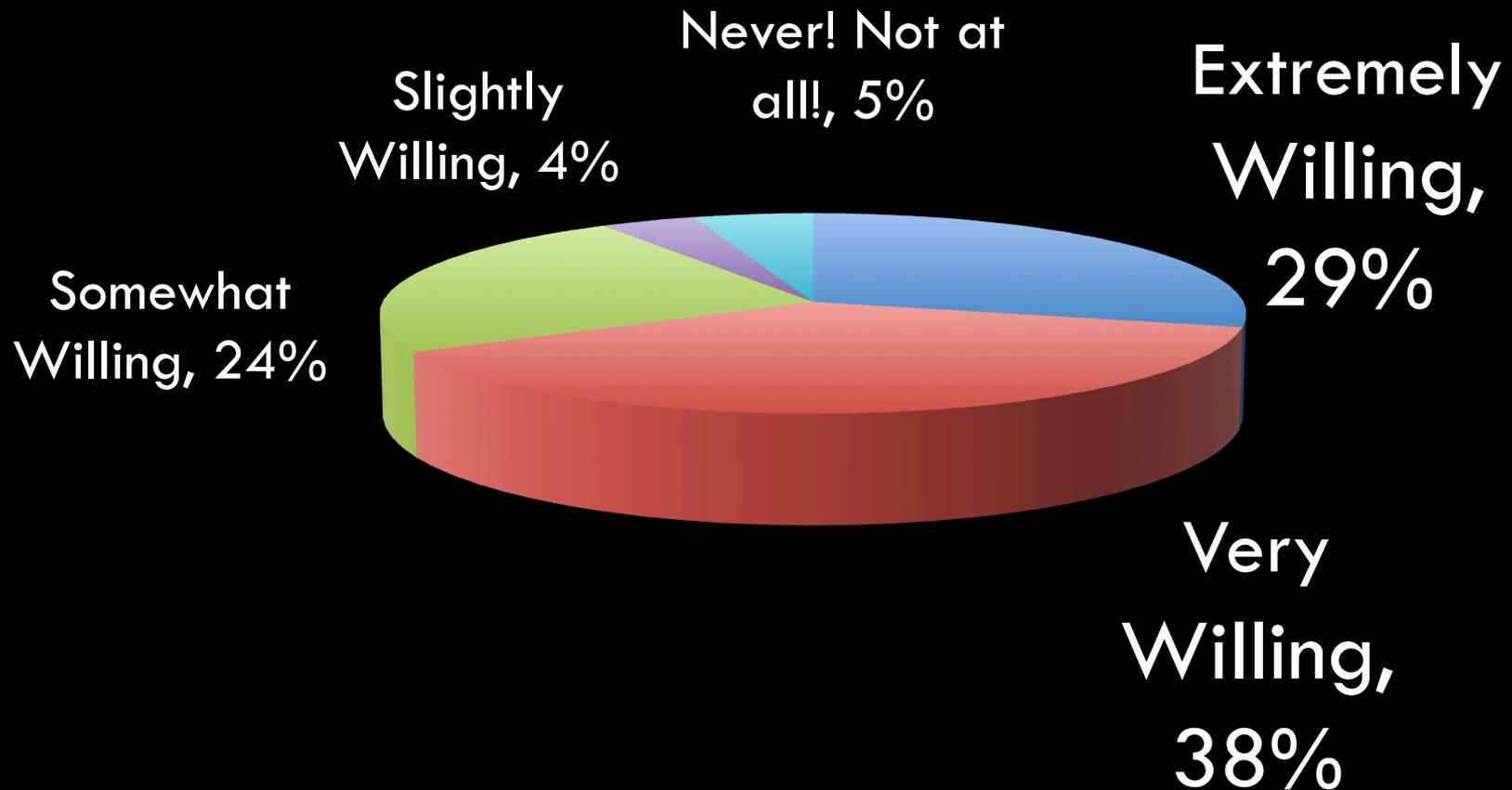
Should the National Parks and National Wildlife Refuges be Communicating about Climate Change with Visitors?



# Audience Research Results

## *Visitor Surveys*

Are you willing to change your behavior during your visit to help reduce the impacts of climate change at this place?



# Audience Research Results

## *Visitor Surveys*

Top Ways Visitors Want to Learn about Climate Change at National Parks & Wildlife Refuges

Ranking	Communication / Engagement Method
#1	
#2	
#3	
#4	
#5	
#6	
#7	

# Partner Research Results

## *Ideas for Engagement Strategy*

Who is our Target Audience(s)?

#1 – Children / Youth Audiences

#2 – Staff

#3 – Web Audience

# Partner Research Results

## *Ideas for Engagement Strategy*

Top Actions to Promote: “We Want The Audience To...”

- #1 – Know that they can make a difference
- #2 – Understand local examples and have a connection to place
- #3 – Appreciate that they don’t need to know everything to start taking action!
- #4 – Take responsibility for everything from understanding the science to lifestyle choices!

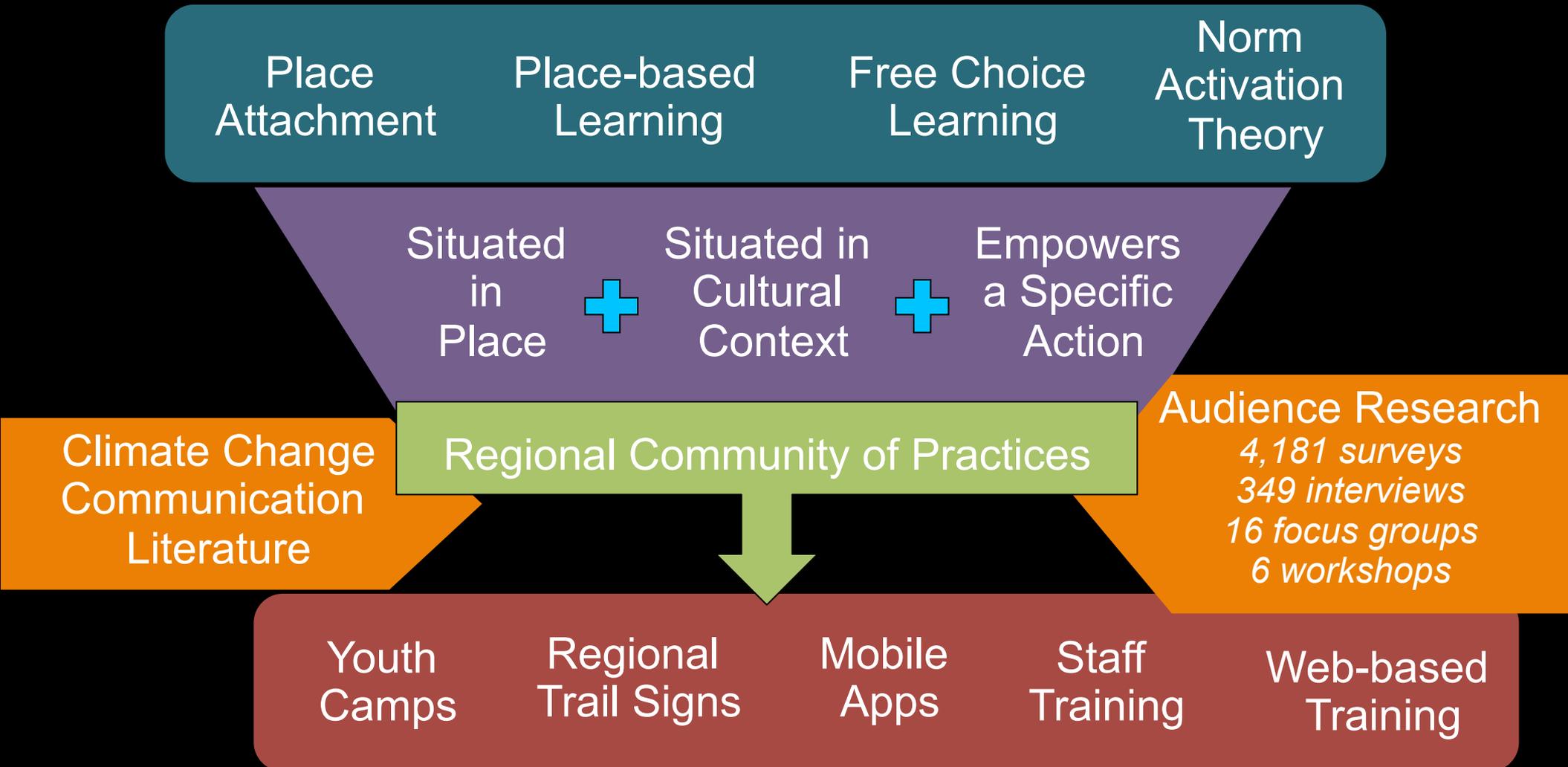
# Partner Research Results

## *Ideas for Engagement Strategy*

### Top Themes for Effective Engagement

- #1 – Tell local, personal stories about our changing landscape
- #2 – Utilize new technology and social media
- #3 – Create a citizen science program
- #4 – Make connections to the economy, to our families, to patriotism; make it personally relevant
- #5 – Create messages of hope!

# Place-based Climate Change Engagement Theoretical Framework





**DISCOVER**

Information about the North Cascades

**SIGN UP**

For programs

**STUDY**

Graduate program (M.Ed)

**SUPPORT**

Become a donor

**SHOP**

North Cascades merchandise



Directions & visitor info

# Cascades Climate Challenge

— filed under: [video](#)

## Cascades Climate Challenge 2009



- OVERVIEW
- NORTH CASCADES INSTITUTE
- NORTH CASCADES ENVIRONMENTAL LEARNING CENTER
- NORTH CASCADES ECOSYSTEM
- MULTIMEDIA
  - Skagit Tours and North Cascades Expeditions
  - Cascades Climate Challenge

<http://vimeo.com/15967782>



Ten Thousand  
Islands National  
Wildlife Refuge

Big  
Cypress  
National  
Preserve

Miami

Biscayne  
National  
Park

EVERGLADES  
NATIONAL  
PARK

Dry  
Tortugas  
National  
Park

Key Deer National  
Wildlife Refuge

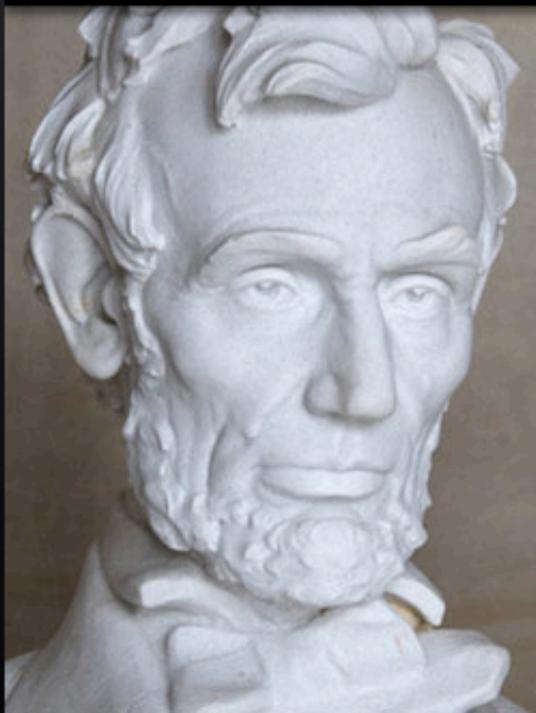


Carrier

9:32 PM



# National Mall and Memorial Parks



Overview



Events and News



Postcard



Park Partner



Home



Map



Park Lens



Sites



Tours





Goals / Activities ( <i>partnership lead</i> )	F	W	S	S	F	W	S	S	F	W	S	S	F	W	S	S	F	W	S	S
	A	I	P	U	A	I	P	U	A	I	P	U	A	I	P	U	A	I	P	U
	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	12	12	13	13	13	13	14	14	14	15	15	15	15	15	16	16	16	16	17	17
<b>National Network Activities</b>																				
Partnership & advisory board meeting ( <i>All; CSU team hosts</i> )	X				X				X				X							X
Hire regional climate change coordinators ( <i>COP leads</i> )	X																			
Attend Tri-Agency PI meetings ( <i>PIs &amp; ILI – external evaluator</i> )			X				X				X				X					X
Participate in annual CCEPA meetings & activities ( <i>PIs, COPs</i> )	<i>On going, as designated by the Climate Change Education Partnership Alliance (CCEPA) leads</i>																			
COP learning science research planning & follow-up ( <i>CSU PIs</i> )	X	X							X											X
Write & submit annual project & research reports ( <i>CSU team</i> )				X				X				X				X				X
Create & upload web content ( <i>COP coordinators &amp; web designer</i> )	<i>On going, with scheduled monthly updates</i>																			
Present & attend professional conferences ( <i>all, as appropriate</i> )	<i>On going, as appropriate &amp; as scheduled</i>																			
<b>Place-based Climate Camps</b>																				
Design & develop camps ( <i>Puget Sound &amp; N. Colorado COPs</i> )	X	X	X				X				X				X					X
Implement climate camps ( <i>Puget Sound &amp; N. Colorado COPs</i> )				X				X				X				X				X
Evaluate & re-tool climate camps ( <i>ILI &amp; COP coordinators</i> )				X				X				X				X				X
Develop template/training for full Partnership ( <i>COP coordinator</i> )							X													
Implement camps in other COPs / Regions ( <i>TBD</i> )												X				X				X
<b>Cross-Jurisdictional Climate Change Trail</b>																				
Design & develop climate trail signage ( <i>S. Florida COP</i> )	X	X	X	X																
Implement climate trail signs & infrastructure ( <i>Contractor</i> )					X	X														
Evaluate climate trail effectiveness ( <i>ILI &amp; COP coordinators</i> )									X											
Develop template/training for full Partnership ( <i>COP coordinator</i> )										X	X									
Implement & evaluate trails in other COPs ( <i>Kenai COP; TBD</i> )												X	X	X	X	X	X	X	X	X
<b>Mobile Media Applications</b>																				
Develop & design content for apps ( <i>DC COP</i> )	X	X	X	X																
Create apps & template for apps in other regions ( <i>Contractor</i> )			X	X	X	X	X													
Implement apps & media tools in DC area ( <i>COP coordinator</i> )					X	X	X	X	X	X										
Evaluate use and effectiveness of apps ( <i>ILI &amp; COP coordinator</i> )											X	X	X							
Develop template/training for full Partnership ( <i>COP coordinator</i> )								X	X	X	X	X	X	X	X					
Implement & evaluate apps in other COPs ( <i>S. Fla.; Kenai; TBD</i> )									X	X	X	X	X	X	X	X	X	X	X	X
<b>Changing Landscapes Consistent Communication &amp; Training Modules</b>																				
Develop & design content for exhibits/training ( <i>Kenai COP</i> )	X	X	X	X																
Implement cross-jurisdictional exhibits/trainings ( <i>COP coordinator</i> )				X	X	X	X	X	X											
Evaluate message & trainings effectiveness ( <i>ILI; COP coordinator</i> )						X	X	X	X	X	X	X	X	X						
Develop template/training for full Partnership ( <i>COP coordinator</i> )										X	X	X			X	X	X			

# CLIMATE INTERPRETER

**LOG IN** **REGISTER**

Learn. Collaborate. Communicate climate change.

Search... **SEARCH**

**HOME** **COALITION** **RESOURCES** **TRAINING**

## New Resources

**A Visual Representation of Renewable Energy Growth in the U.S.**

INFOGRAPHIC, ENERGY, SOLUTIONS  
Added 2012-03-01 16:36

**New Poll Shows Increase in Americans' Believing in the Realities of Climate Change**

ARTICLES + REPORTS, COMMUNICATING CLIMATE, PUBLIC ATTITUDES  
Added 2012-03-01 16:21

## Updates & Features



## Who's New

**Sonia Wierzba**  
California Academy of Sciences  
Joined 2012-03-01 13:24

**Patrick Wilkinson**  
MARINE SCIENCE DOCENT  
Joined 2012-02-27 13:00

**Nicole Colston**  
Joined 2012-02-27 09:36

COMMUNICATING CLIMATE

## ***THE IMPORTANT MESSAGE ABOUT COMMUNICATING CLIMATE CHANGE:***

There is no template or “ready-made” solution!  
We need to **experiment with – and – test**  
different strategies.

Making progress means that we link our  
understanding of ecological changes with our  
**understanding of our audience(s)** and  
develop meaningful messages to engage them  
in climate dialogue and action.



**Special Thanks to the CCEP Research Team!**



This project is funded by a grant from the National Science Foundation, award number DBI-1059654