







Woodlands in Stowe, Vermont.

## **COVER LETTER**

Climate change is happening, and the land trust community has a critical role to play in addressing it. After investing decades of hard work and billions of dollars in the United States, land trusts increasingly are concerned about the impacts of climate change — including changing air and water temperatures, and increased flooding and warming oceans — all of which will amplify stress to humans, plants, and animals.

In fact, land conservation has an important role to play in responding to climate change. Land captures carbon and other greenhouse gases, provides refuge for plants and animals as the climate changes, acts as a natural buffer along coasts and riverbeds, and serves an important role in absorbing rainfall during intense rain events.

Over the past four decades, the Open Space Institute has protected more than 2.2 million acres, of which 45,000 were protected as part of our Resilient Landscape Initiative. This initiative supports land trusts from Maine to Alabama to integrate climate science into conservation.

The Land Trust Alliance, which works to save the places people love and need by strengthening land conservation across America, has launched an ambitious Land and Climate Program to empower the land trust community to help mitigate climate change by doing what we've always done: conserving more land and stewarding it effectively.

Now our two organizations are partnering to help land trusts actively plan for climate change and communicate effectively about the benefits of protecting land with climate in mind.

Specifically, we came together to take the climate-related pulse of the land trust community, and this report is the result. The findings disprove the common assertion that a substantial percentage of the population, including many rural landowners, remains unconvinced of – or even hostile to – the concept of human-caused climate change. Research conducted by Water Words That Work, LLC found that more than 90 percent of respondents are supportive of land trusts' communicating about climate change.

Talking about climate change results in increased visibility, relevance, and fundraising for land trusts. Therefore, the report also provides helpful guidance on how to connect about this issue, and information to help land trusts respond to the greatest challenge of our time.

We hope this report reassures land trusts that climate change communication done correctly no longer carries the risk of alienating communities. Moreover, we hope to inspire and arm land trusts to communicate the valuable role they play in both mitigating climate change and in addressing local impacts of climate change, thus offering a source of hope and attracting new land conservation supporters.

Kim Elliman President and CEO, Open Space Institute Andrew Bowman
President, Land Trust Alliance



The findings presented in this report are culled from three sources: a review of available literature on integrating climate science with communications; consultation and materials developed for three land trusts to guide their climate communications; and an online survey, conducted in the fall of 2017, of the members of 16 land trusts. See Appendix A for more details and links to each of the resources.

# Yes, climate change is real, but how can land trusts help?

Vocal climate deniers have an outsized impact on climate discussions, but they are a small minority (less than 10 percent) of the population, according to the Yale Program on Climate Communication and George Mason University. For many, "climate communication" has become synonymous with arguing with skeptics.

Because the deniers are vocal, it's easy to overlook that most people do believe that global warming is happening and that it is caused by humans. Yale and GMU report that:<sup>2</sup>

- **69** percent of Americans believe that "global warming is happening"
- **52** percent believe that "global warming is mostly caused by human changes"

What's important is that those associated with land trusts do not recognize the personal or local threat of climate change; nor do they recognize the role land trusts can play in mitigating the impact.

- 69 percent doubt that global warming will "harm me personally," and
- **53** percent perceive themselves as "helpless to do anything about it"
- 1. http://environment.yale.edu/climate-communication-OFF/files/climatechange-6americas.pdf
- 2. http://climatecommunication.yale.edu/visualizations-data/ycom-us-2016/?est=happening&type=value&geo=county

# Land trusts are well positioned to take a leadership role in local responses to climate change.

Land trusts have differentiated themselves from the environmental community as locally focused, non-adversarial, and respectful of local customs and land use patterns. As a result, land trusts bring a measure of trust and credibility on climate change to rural landowners and community leaders that some other organizations do not.

Survey research found that land trusts have the opportunity to reach climate skeptics among their supporter base. Almost 15 percent of the individuals who completed the surveys circulated by land trusts described themselves as a "farmer, rancher, or forest owner." Although most of these individuals reported attitudes toward climate that were similar to the survey sample as a whole, only about 14 percent of them were skeptical, while also indicating warm feelings towards their land trust generally.

Meanwhile, the literature review (see appendix) uncovered findings that conservative individuals tend to place more trust in scientists generally (e.g., wildlife biologists and natural resources professionals) than climate scientists particularly. The Pew Research Center, summarizing results of a 2016 survey, wrote that there are "...wide differences among political groups in views of climate scientists, but public confidence in [all other] scientists is roughly similar among Republicans and Democrats."

Land trusts are making strides toward identifying local solutions to local climate-related problems. The Open Space Institute, joined by the Land Trust Alliance, has worked with land trusts across the eastern U.S. over the last five years to identify lands that are vulnerable to a range of climate impacts. These lands support plant, animal, and human communities in adapting to climate change. The communities where this work is done will be well-positioned to have a leading voice when land use decisions are being made that could address climate change.

Land trusts are positioned to take on a greater leadership role. For the duration of the project, Water Words worked in close consultation with nine land trusts that had conducted an extensive study of climate vulnerability along the coast of Maine. This work represents an excellent first step toward a leadership role. It addresses one of the key issues in climate communication — demonstrating local consequences.

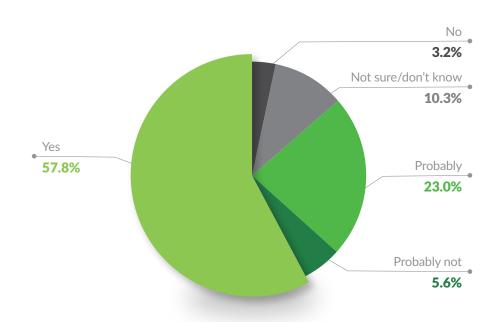
But in spite of compelling data, the land trusts struggled to articulate how these findings would inform their work, or how community leaders, landowners, and others could use this information to prepare for the coming impacts of climate change.

 $<sup>3.\</sup> http://www.pewresearch.org/fact-tank/2016/10/18/most-americans-trust-the-military-and-scientists-to-act-in-the-publics-interest/2016/10/18/most-americans-trust-the-military-and-scientists-to-act-in-the-publics-interest/2016/10/18/most-americans-trust-the-military-and-scientists-to-act-in-the-publics-interest/2016/10/18/most-americans-trust-the-military-and-scientists-to-act-in-the-publics-interest/2016/10/18/most-americans-trust-the-military-and-scientists-to-act-in-the-publics-interest/2016/10/18/most-americans-trust-the-military-and-scientists-to-act-in-the-publics-interest/2016/10/18/most-americans-trust-the-military-and-scientists-to-act-in-the-publics-interest/2016/10/18/most-americans-trust-the-military-and-scientists-to-act-in-the-publics-interest/2016/10/18/most-americans-trust-the-military-and-scientists-to-act-in-the-publics-interest/2016/10/18/most-americans-trust-the-military-and-scientists-to-act-in-the-publics-interest/2016/10/18/most-americans-trust-the-military-and-scientists-trust-the-military-and-scientists-trust-tru$ 

# While land trusts are wary of offending climate skeptics, their supporters are open to hearing land trusts communicate about climate change.

Participating land trusts indicated they were highly sensitive to the prospect of offending the vocal climate skeptics among the landowners and community leaders they work with. But survey findings indicated that prevailing attitudes among land trust supporters are similar to the patterns among the public at large and supporters are open to hearing land trusts communicate about climate change: When land trust supporters were asked point blank about their receptivity to climate change messages, about eight out of every 10 indicated some receptivity. Only three percent reported clear opposition.





Across a range of climate related questions, roughly seven percent of the sample consistently expressed resistance to climate messages, a figure that is in line with findings from studies from the Yale Program on Climate Communication, George Mason University, and other researchers.

# To lead, land trusts will have to draw a clear connection for supporters between climate and their traditional missions.

Although land trust supporters report a willingness to hear about climate change, climate change messages were only moderately effective in moving land trust supporters to action. We surmise that like most Americans, they perceive the consequences of climate change as distant and don't recognize the connection between climate and conservation. Here are some highlights from the land trust supporter survey:

## Preferred topics to hear about from the land trust, in order from most to least interesting:

- 1. How the land trust preserves scenery and character
- 2. How the land trust's work benefits local wildlife
- 3. How the land trust provides recreational access
- 4. How the land trust puts your donations to work
- 5. How the land trust helps bring the community together
- 6. How the land trust helps the area prepare for a changing climate
- 7. How the land trust supports the local economy

### Reasons to protect private land, in order from most to least compelling:

- 1. I will help preserve the scenery and character of the area
- 2. I will help preserve wildlife habitat in the area
- 3. It's the right thing to do
- 4. The land will never be developed
- 5. I will help protect the local environment from climate change
- 6. The land will be my legacy to the community
- 7. The land will stay in my family for at least one more generation
- 8. I will receive financial benefit

### Reasons to make a major gift to the land trust, in order from most to least compelling:

- 1. The land trust preserves the scenery and character of the area
- 2. The land trust preserves wildlife habitat in the area
- 3. It's the right thing to do
- 4. The land trust helps protect the local environment from climate change
- 5. The donation will be my legacy in the community
- 6. The land trust asked me for a gift
- 7. The land trust will publicly acknowledge my donation

## Reasons to volunteer for the land trust, in order from most to least compelling:

- **1.** I will enjoy the experience
- 2. I will help preserve the scenery and character of the area
- 3. I will help preserve wildlife habitat in the area
- 4. I will feel like I am making a difference
- 5. It's the right thing to do
- 6. I will help protect the local environment from climate change
- 7. I will make new friends

# Regional differences in land trust supporters' opinions on this subject are almost undetectable.

Americans' attitudes towards climate change actually don't change that much by region. Here is a snapshot of findings from Yale's climate map:<sup>4</sup>

LOCATION	BELIEVE "GLOBAL WARMING IS HAPPENING"	BELIEVE IT IS "MOSTLY CAUSED BY HUMANS"
United States	69%	52%
Maine	69%	53%
New Hampshire	68%	53%
Florida	70%	53%
Arkansas	64%	47%

To assess the regional variation in the land trust survey, we divided the sample into northeastern (762 responses from Connecticut, Maine, Massachusetts, New York, Vermont) and southeastern (436 responses from Arkansas, Florida, South Carolina, Virginia) and compared responses. We found virtually no difference in attitudes towards climate change among these groups.

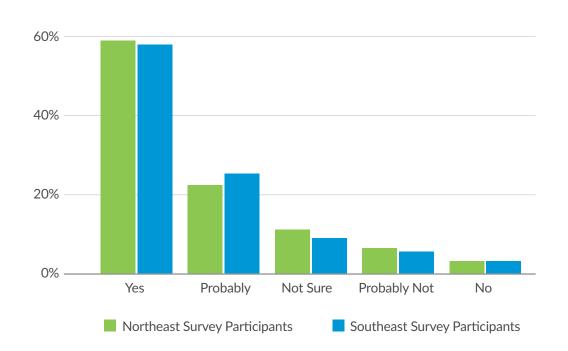
4. http://climatecommunication.yale.edu/visualizations-data/ycom-us-2016/



Photo: The Kestrel Land Trust, 2016

The~2016~Kestrel~Nest~Box~Season-~Highs~&~Lows.~https://www.kestreltrust.org/kestrel-nest-box-project-2016-season/~Although and the contraction of the contraction

# SHOULD LAND TRUSTS TALK ABOUT CLIMATE CHANGE?



We also found no appreciable regional variations in how supporters rated climate messages as a preferred topic, a reason to protect land, a reason to make a major gift, or as a reason to volunteer.

Based on these findings, we believe that the personality profile of a land trust supporter is pretty consistent across the country. These demographic and lifestyle traits have more influence over supporters' attitudes that the region of the country they live in.



# Land trusts should engage in climate conversation, but avoid alarmist language and stress solutions.

Land trusts should preserve their unique credibility and productive relationships with rural landowners and community leaders, who are often quite conservative. Among these audiences, other environmental groups are often seen as alarmist and out of touch because they:

- Call attention to problems that their audience has not experienced themselves, often describe these problems using unfamiliar vocabulary (earning the title "elitist")
- Emphasize problems rather than solutions in their messages (earning the label "alarmist")

For these reasons, land trusts should use a different approach when communicating about climate:

- Retain the focus on the work land trusts do best and how that work benefits climate change (e.g., providing
  a way for plants and animals to adapt to a changing climate and capturing pollution-causing gases)
- Keeping the focus on concrete local consequences of climate change (flood, drought, fire, insects, food security etc.) and citing data that shows the growing risk of these problems
- Offering concrete action for community leaders and landowners to take to reduce these consequences and protect themselves from them

# Land trusts should clearly define the solutions they are seeking before communicating widely about climate.

Land trusts should distribute messages around the specific consequences of climate change and how their work helps address those consequences. For example, a land trust might highlight how conserving land in flood-prone areas helps reduce the effects of flooding on nearby properties. The land trust could also point out how conserving flood-prone areas can help reduce the effects of sea level rise. A land trust could point out how conserving wildlife corridors helps plants and animals find suitable habitats, allowing them to survive drought and floods.

It is less persuasive for land trusts to message around carbon dioxide and global temperatures, particularly if they use jargon like "resilience" or "sequestration." These global issues raise feelings of helplessness, whereas local actions feel more achievable.

# Land trusts should seek partners and secure data and testimonials from highly trusted sources.

Like all Americans, land trust supporters are more responsive to messages about local consequences of climate change — loss of native plants and animals, flood, drought, etc. — than global atmospheric trends. Local spokespeople, business leaders, and landowners will be more effective than climate scientists to reach audiences. Land trusts should bolster their climate-related arguments with testimonial and evidence from local scientific and natural resource experts, such as:

- Farmers, ranchers, and forestland owners
- Flood information from the U.S. Army Corps of Engineers or Bureau of Reclamation
- Wildfire information from wildland firefighters
- Insect information from the Department of Agriculture
- Disaster information from the National Guard

# Land trusts should use plain English to communicate about climate change.

Climate "shoptalk" — e.g., words like "resilience," "carbon sequestration," etc. — is not constructive and is often too vague and meaningless to engage readers. While this language may be useful in professional circles, it is counterproductive to the rest of the community. Drawing heavily on "The Language of Conservation" survey series, here is a short list of common jargon and possible substitutes that land trusts should consider using in their climate messages:

SWAP OUT	SWAP IN
Agricultural land	Working farms
Acquifer	Groundwater
Biodiversity	Fish and wildlife
Carbon Emissions	Air pollution
Climate Change	Drought, flood, wildfire, pests, and/or spread of tropical disease
Conservation Easement	Voluntary Land Protection Agreement
Ecosystems	Natural areas
Family Forest	Private Woods or Woodlands
Forest Management Plan	Landowner Conservation Plan
Forester	Advisor or Consultant
Global warming	Drought, flood, wildfire, pests, and/or spread of tropical disease
Land use planning	Smart growth/ preventing runaway development
Regulations	Safeguards
Resilience	Disaster ready, emergency preparedness
Sustainable development	Preserving the way of life

 $<sup>5.\</sup> www.conservation-Updated-Recommendations-on-How-to-Communicate-Effectively-to-Build-Support-for-Conservation$ 

## Land trusts should use compelling photos to communicate about climate change

During the literature review, Water Words uncovered a resource on the use of photos for climate communication: "Climate Visuals, an evidence-based resource for climate communication" that could be useful to land trusts.

Here are some highlights from the recommendations from Climate Visuals:

### FACES

"Show real people"... "When images of localized climate impacts show an individual person or group of people, with identifiable emotions, they are likely to be most powerful."



Photo: US Department of Agriculture, 2017 106th Rescue Wing provide rescue support to those effected by Hurrican Irma Evacuees from St. Maarten board a HC-130 headed to San Juan, Puerto Rico.



Photo by Climate Visuals.

## ACTIONS

"Coupling images of climate impacts with a concrete behavioral action for people to take can help overcome [feelings of being overwhelmed]."



Photo by Will Parson/Chesapeake Bay Program. Restored wetlands in Caroline County, Md. Mark Furr straightens a wood duck nest box at one of two wetlands restored on his farmland in Caroline County, Md., on March 16, 2018.



Photo by Vitus Konter.
Members of the Bay View Garden and Yard
Society and the Bay View Neighborhood
Association planting the new garden at the
KK Triangle.

#### BEFORE-AND-AFTER

"Survey participants... were moved more by climate **impacts** than by 'causes'..."

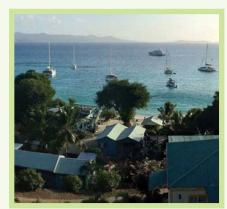


Photo by Kenny Chesney, 2017. Before Hurricane Irma, British Virgin Islands.



Photo by Kenny Chesney, 2017. After Hurricane Irma, British Virgin Islands.

## SCALE

"Individual 'causes' may provoke defensive reactions. It is best to show these behaviors at scale..."

## **Use This**



Photo by Climate Visuals. Highway Traffic.

## **Instead of This**



Photo by Climate Visuals. Individual person in a car.



The research conducted for this project and summarized here confirms that land trusts do not need to hesitate to take a leadership role on climate change. This is true regardless of where a land trust is located.

Further, land trusts are positioned to serve as leaders in educating members and supporters about the impact of climate change, particularly when messages are local and thoughtfully communicated.

The Land Trust Alliance and Open Space Institute are committed to supporting land trusts to achieve this work through workshops, grants for planning, technical assistance, guidance documents like this one, and other online resources, available at climatechange.lta.org.



### Additional Resources

Open Space Institute retained Water Words That Work, LLC to conduct the four main components to this project. Below is a short summary of this work with links to the reports submitted by Water Words That Work. The primary findings of this work are summarized in the body of this report.

## LITERATURE REVIEW

Water Words reviewed the available literature on integrating climate science with communications. We delivered a 31-page report with 58 citations from universities, research centers, charitable foundations, academic journals, and other high-quality sources. The literature review was guided by five key questions posed by Open Space Institute and the Land Trust Alliance.

#### Question #1:

What does polling say about public belief and attitudes towards climate change, including aspects of regional variations and trends? How has it changed/how is it changing?

### Question #2:

What language, communication vehicles and spokespeople are most effective at communicating with stakeholders on this topic? (e.g., Is "resilience" a useful term?)

#### Question #3:

What do local governments and landowners identify as the benefits of land conservation for mitigating climate change impacts?

#### **Question #4:**

What barriers do landowners and local governments perceive for reducing climate impacts?

#### Question #5:

What are the funding trends for climate change mitigation, adaptation, and resilience, especially but not exclusively related to land conservation?

You can download the literature review here: http://bit.ly/osi-lta-climate-comms-lit-review

## LAND TRUST CONSULTATIONS

Water Words provided in-depth consultations and materials development services to the Kennebec Estuary Land Trust and the 12 Rivers Conservation Initiative (Boothbay Region Land Trust, Damariscotta River Association, Georges River Land Trust, Kennebec Estuary Land Trust, Maine Coast Heritage Trust, Midcoast Conservancy, Medomak Valley Land Trust, Pemaguid Watershed Association).

These projects resulted in concrete communication products that the land trusts can use to communicate about the work they have done.

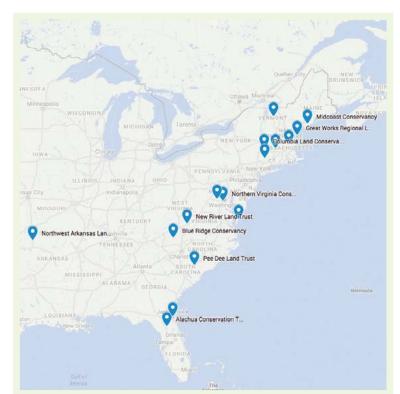
## LAND TRUST SUPPORTER SURVEY

Water Words That Work, LLC crafted a standard online survey form, designed to be useful to a wide range of land trusts. The survey was not focused on climate change, but rather asked for feedback from land trust stakeholders about why they support land trusts and included climate change values as one reason.

Open Space Institute and the Land Trust Alliance reviewed, edited, and approved the survey instrument and then approached their local land trust members and partners to share the survey with their own email lists. Both the participating organizations and the survey participants were self-selecting.

In October and November of 2017, 16 land trusts circulated the survey, and a total of 1,282 individuals took the time to respond. The land trusts were:

- 1. Alachua Conservation Trust, FL
- 2. Blue Ridge Land Conservancy, VA
- 3. Columbia Land Conservancy, NY
- 4. Great Works Land Trust, ME
- 5. Kestrel Land Trust, MA
- 6. Land Trust of Virginia, VA
- 7. Lowell Parks and Conservation Trust, MA
- 8. Midcoast Conservancy, ME
- 9. New River Land Trust, VA
- 10. North Florida Land Trust, FL
- 11. Northern Virginia Conservation Trust, VA
- 12. Northwest Arkansas Land Trust, AR
- 13. Pee Dee Land Trust, SC
- 14. Stowe Land Trust, VT
- 15. Virginia Eastern Shore Land Trust, VA
- 16. Weantinoge Heritage Land Trust, CT



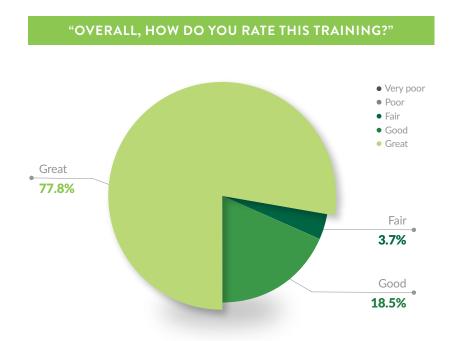
THE SURVEY CAN BE DOWNLOADED HERE: http://bit.ly/osi-lta-climate-comms-survey

## TRAINING DEVELOPMENT

Water Words That Work, LLC synthesized the findings from the literature review and land trust survey to create a new 4.5-hour training called "Changing the Subject." The presentations for the training are provided below.

- Part 1: http://bit.ly/cts1-presentation
- Part 2: http://bit.ly/cts2-presentation
- Part 3: http://bit.ly/cts3-presentation
- In Class Exercises: http://bit.ly/cts-in-class-exercises

Water Words That Work delivered the training on December 7, 2017 at the Hugh Gregg Coastal Conservation Center in Greenland, NH. Here are the highlights from the evaluations:





The Open Space Institute protects scenic, natural, and historic landscapes to provide public enjoyment, conserve habitat and working lands, and sustain communities. Founded in 1974, OSI has assisted in the protection of nearly 2.2 million acres in North America. OSI protects land that supports the things we can't live without. Our work has led to clean drinking water for millions; new and better parks for outdoor recreation; land that will endure in a changing climate; protected farms for greater access to local food; scores of local, active grass-root environmental groups; and preserved historic landscapes and vital habitats up and down the eastern seaboard.

Five years ago, with leadership funding from the Doris Duke Charitable Foundation, OSI launched the Resilient Landscapes Initiative to help land trusts accelerate and target their land protection efforts to respond to a changing climate.



In January 2017, the Land Trust Alliance launched a new program to help land trusts address climate change. Funded by a generous catalyst grant from the Doris Duke Charitable Foundation, the Land and Climate Program is a bold new Alliance program that will provide land trusts with the strategies, training, and tools they need to both adapt to and mitigate climate change in their land conservation work.



Our mission is to ensure the American people enjoy clean and safe water, outdoors and at home. We do this by helping our clients and students succeed with their outreach and communication.

#### This report was made possible by support from the Jane's Trust Foundation.

Cover images, starting top left, clock-wise:

Conserved Land in Otsego County, N.Y. Chesapeake Bay Program, 2016.

Photo by Will Parson/Chesapeake Bay Program, 2016. Pink azalea blooms on the property of Marion Karl outside Cooperstown, N.Y.

Photo courtesy of Weantinoge Heritage Land Trust, CT, USA. www.weantinoge.org

Photo by Steve Droter/Chesapeake Bay Program, 2012. Tangier Island, VA. A shoreline shows signs of erosion on Tangier Island, Va., on Dec. 7, 2012.

Photo by Ian D. Keating, 2016. Glacial Retreat at Sawyer Glacier, Tracy Arm Fjord. Alaska. USA

Forest Service Photo by Kari Greer. Thomas Fire, Ventura, CA, Los Padres NF, 2017.

 $Photo\ by\ Bill\ Dickinson,\ 2015.\ Greenhouse\ Gas/Chesterfield\ electricity-generating\ facility\ of\ Dominion\ Virginia\ Power\ -\ Dutch\ Gap,\ Chesterfield\ Virginia\ Power\ -\ Dutch\ Gap,\ P$ 

