

Collaborative Climate Change Communications

A Current Assessment and Recommendations for the Future

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Table of Contents

Abstract	3
Introduction.....	3
Objective.....	4
Materials and Methods.....	5
Principles of Effective Communications.....	8
Literature Review.....	10
Data analysis.....	14
Other Key Findings.....	24
Recommendations.....	27
Conclusion.....	28
Appendix.....	29
Works Cited.....	59

Abstract

Climate Change presents a global conservation challenge, one that threatens to fundamentally alter ecosystems worldwide and have significant impacts on human health and well-being. With effects already being felt across the world, the conservation community has made responding to climate change a significant priority. But just as the scale and scope of climate change impacts dwarf the ability of any single entity to respond, so too does climate change present a monumental communications challenge for any organization striving to engage the public or other target audiences. The purpose of this Master's Project is to assess the current state of climate change communications at federal agencies, conservation organizations and other entities that are working to address the impacts of climate change on wildlife and wildlife habitat, as well as to identify best practices in climate communications. As part of the project, a survey was conducted of professional communicators from multiple federal agencies, conservation organizations, professional societies and groups representing states and tribes. Data analysis of the survey, as well as a review of current literature on effective climate change communications and public attitudes, has been used to develop recommendations for future climate communications efforts. These recommendations involve improving the quality of climate communications, as well as assessing the potential for future collaborative climate communications.

Introduction

Climate change is considered by many in the conservation community to be the greatest conservation challenge of the 21st century. The documented rise in global greenhouse gas concentrations has, in the conclusion of the Intergovernmental Panel on Climate Change, more than likely directly resulted in significant increases in average surface temperatures across every continent, with the exception of Antarctica. These rising temperatures in turn threaten to fundamentally alter ecosystems across the planet, leading to impacts ranging from increased drought or severe flooding, to increased threat of wildfires and extreme weather and the inundation of low-lying coastal areas and islands as sea levels rise. In turn, these changes threaten as many as 30 percent of the world's surveyed species with extinction.ⁱ The primary cause of these rising temperatures is, in the IPCC's assessment highly likely to be greenhouse gas emissions from human activities.

The threat posed by anthropogenic climate change to the world's wildlife and natural systems has prompted the conservation community in the United States and across the globe to make communicating about climate change one of its highest, if not the highest, communication priorities. At one level, these communication efforts seem to be working. Awareness of climate change – and acceptance of a human cause for this phenomenon – remains high in the United States, with nearly three in four Americans believing that global warming is happening, and is caused at least in part by human activities.ⁱⁱ However, recent polls also suggest that Americans' immediate concern about climate change has declined significantly in recent years. In recurring national surveys, climate change has consistently ranked near the bottom of environmental issues Americans are concerned about. A recent poll found that less than half of Americans are concerned about climate change, and the issue ranked last among nine environmental threats.ⁱⁱⁱ There is clear room for improvement in efforts to educate and engage the public and key constituent groups on the urgency of addressing climate change impacts.

This Master's Project was designed to assess the current state of climate change communications at federal agencies and conservation organizations that are working to address the impacts of climate change on wildlife and wildlife habitat; to determine lessons learned from those climate communications efforts; and to make recommendations for future climate change communications.

Objective

I have several objectives for this project. First, I will assess the current landscape of climate change communications at select federal agencies, conservation organizations and professional societies and document best practices in climate change communications. This assessment will be compiled by surveying literature on effective climate communications and analyzing data from a survey of communications professionals at these organizations.

This analysis is designed to answer several questions:

- How much of a priority is climate change for key agencies and organizations? Does this priority correspond to the priority given to climate change communications? Have realistic and targeted communications goals been set?
- How have climate change communications efforts been conducted? Have organizations developed strategic communications plans? What audiences have they targeted?
- What have been the results of these efforts? What lessons have been learned? How have results been assessed?
- Are there opportunities and a desire to leverage climate change communications efforts across organizations to achieve a greater impact?

I will use the results of the literature review and survey analysis to develop recommendations designed to improve future climate change communications efforts and identify potential areas for future collaborative strategic communications efforts focusing on climate change impacts on wildlife and natural resources..

Materials and Methods

The project was designed to gather information from professional communicators representing a select, influential group of government agencies and nongovernmental organizations working to address the impacts of climate change on wildlife and wildlife habitat, or that have expressed concerns about those impacts. The survey population encompasses professional communicators from these agencies and organizations whose role is primarily to communicate about climate change impacts to wildlife and habitat, or who oversee such communications. Participants were sent a brief survey designed to assess the current state of climate communications within the organization, as well as the importance each organization places on addressing climate change.

The survey first asks respondents to assess the priority their organization gives to both addressing climate change and communicating about climate change, as well as whether their organization plans to increase its climate change communications efforts. Respondents are then asked specific questions about their organizations' climate change efforts. These questions are designed to assess the degree to which they have developed and are using targeted strategic communications. For example, questions ask whether a dedicated climate change strategic communications plan has been developed, whether clear communications goals have been established, whether the general public has been identified as a target audience, and whether an evaluation component is being used to assess the effectiveness of climate communications efforts. Respondents are asked to answer each of these questions on the Likert Scale.

The survey then asks a series of open-ended questions designed to elicit more comprehensive responses from these professional communicators about their communications work and the communications priorities of the organization. Respondents are asked to describe their organizations' climate change communications goals, as well as the key audiences they target in their communications efforts. In addition, the survey asks participants to describe any methods they use to evaluate the effectiveness of their climate communications efforts; to outline current climate campaigns; and to describe lessons learned from these campaigns. What has worked well? What has been less successful, and why?

The surveys were augmented by brief follow-up interviews, either on the phone or in person. The object of the research is not to create a statistically valid sample; rather, it is to identify the current state of climate change communications within these organizations from the subjective perceptions of these communicators, and to solicit their expert opinions on what strategies and tactics they have been using to tackle this issue. I contacted 20 separate organizations and asked their principal climate change communicator to complete the survey. Ultimately, communicators from 16 separate organizations agreed to participate in the survey and returned results.

These respondents represented six federal agencies with wildlife, land management and scientific research responsibilities, including:

- The National Park Service
- U.S. Fish and Wildlife Service
- The Department of Commerce's National Marine Fisheries Service (NOAA Fisheries)
- Bureau of Land Management
- Bureau of Reclamation
- U.S. Geological Survey

Communicators from six conservation groups also participated, including:

- Defenders of Wildlife
- Sierra Club
- Trust for Public Land
- The Conservation Fund
- National Wildlife Federation
- Izaak Walton League

In addition, four respondents representing scientific and professional societies, as well as organizations representing state wildlife agencies and American Indian tribes participated in the survey, including:

- Ecological Society of America
- The Wildlife Society
- The Association of Fish and Wildlife Agencies
- The National Congress of American Indians

Communicators for each of these organizations held various positions, ranging from key leadership posts (Vice President for Communications, Director of Communications and similar positions) to lead communications specialists for climate change communications (Public Affairs Specialists, Communications Specialists and similar positions).

After conducting a literature review designed to identify best practices in climate change communications – and communications in general – I evaluated the survey results in light of the following principles:

- Effective communications link the level of communications effort with the priority given the action that is being communicated.
- Effective communications are guided by clearly established and achievable goals – goals tied to audiences that play a key role in achieving those goals – as well as by tactics designed to reach those audiences.
- Effective communications also evaluate efforts and refine goals, tactics and audiences as necessary in light of results achieved.

Given the scope and complexity of the climate change issue, designing an effective strategic communications plan closely tied to organizational goals is imperative.

Principles of effective communication

The principles of effective strategic communications apply to climate change communications to the same degree they would any other issue. In general, the strategic communications process starts with a comprehensive and well thought-out effort to set goals, and to link communications efforts rigorously to those goals^{iv}. This process begins by attempting to answer the most important and fundamental question: What is it that our communications effort is designed to achieve? A communications goal could be as simple as making a given target audience aware of an issue or decision. This is often the easiest and most typical communications effort in which organizations engage. It is the easiest, because communications efforts can use traditional mass media to reach a broad audience at minimal cost and effort, and also because awareness is easy to measure through public opinion polling. A communications effort can also be geared around persuading the target audience

to engage with an issue – to *do something* that is desired by the communicator. For example, the U.S. Fish and Wildlife Service is a founding partner in the SMARxT Disposal Program^v, designed to persuade the public to dispose of old and unused medications in a safe manner to prevent the chemicals they contain from ending up in streams and waterways. In this case, communicators must not only raise the awareness of users of prescription medications of the dangers of improper disposal of unused medications. For the campaign to be effective, they must also convince medication users of the need to dispose of unused medications properly, educate them on how to do so, and assess whether these medication users are complying. These types of communications efforts, while using traditional mass media, also contain a strong social media component. Influencing behaviors and measuring the effectiveness of communications efforts on target behavior, is typically much more difficult and expensive.

Once a clear communications goal has been established, the next step involves identifying the target audience for the communications effort – the group of people who need to know about the information to be conveyed, and/or whose actions are required to achieve the goal. Understanding and targeting the correct audience is a critical component of any successful communications effort. Reaching the general public is difficult and expensive, making mass marketing campaigns beyond the capabilities of most organizations. However, targeting the general public is often not required. In many cases a small subset of the public represents the audience who truly determines the success or failure of a communications effort. Using the SMARxT Disposal program as an example, I can illustrate this point. While it would be ideal if everyone in America understood the dangers of disposing of medications improperly, the Fish and Wildlife Service lacks the resources to reach such a broad audience. Instead, the agency has partnered with pharmacists across the country to include information on safe disposal of medications every time a prescription is filled. In this case, targeting people who are actually taking prescription medications at the time they are taking them is cheaper and more effective than trying to influence the broader general public.

Once key audiences have been identified, the next step in the strategic planning process involves identifying *how* these audiences get their information, and the kinds of messages

likely to resonate with them. Every audience responds differently to messages depending on the values and cultural influences they hold, and many audiences require different messages and varying mediums to reach them effectively. Often, marketers convene focus groups to test messages and understand how they resonate with target groups. In turn, a thorough understanding of how the target audience gets its information is important when taking the next step in the communications planning process - determining the tactics and products needed to reach that audience. Too often, communications efforts start with products – brochures, videos, news releases and the like – without conducting a thorough strategic planning process that ensures the products will actually be able to reach the audience and contain the messages needed to achieve results. The result of poor planning is often money wasted on poorly-conceived products that sit on a shelf, while key audiences fail to receive the intended messages.

The final step in any truly effective strategic communications effort involves assessment. Organizations need to understand whether their efforts reached the intended audience and had the desired effect. Only by assessing the impact of communications can future efforts be meaningfully refined and improved. In this way, strategic communications is an iterative effort, with messages, audiences and tactics constantly surveyed, adjusted and assessed again until desired results are achieved.^{vi} However, assessment is expensive, difficult, and for federal agencies heavily restricted in most cases by regulation.^{vii} Unless the target audience for a given communications effort is small, discrete, easily identified and surveyed, assessing the impact of the campaign may require a significant investment of time and money. For this reason, many communications efforts lack a strong assessment component. However, advances in social media and communications technology make it easier and cheaper to conduct a statistically valid assessment. This project contains a question specifically asking about assessment in order to understand how organizations are measuring the effectiveness of their climate change communications efforts.

Literature Review

For multiple reasons, climate change presents a unique challenge for environmental communicators. First, it is at once globally pervasive, yet often locally invisible to the public. The fact that spring is arriving weeks earlier than it has in recorded history in much

of the Northern United States is probably a relief to many people, rather than a source of concern – if they notice it at all. Many other suspected impacts are similarly subtle and in many ways invisible to the untrained eye. While climate change models predict continental and sometimes regional impacts, these models are subject to considerable uncertainty and currently unable to predict climate impacts at a local or community level. Second, the sheer scope and complexity of the issue dwarfs the communications resources of even the largest organizations. Third, climate change is often seen as an abstract change that will occur far into the future, rather than an immediate threat to natural resources in every community. For example, a public opinion survey, conducted around the time of the release of the IPCC's 4th Assessment in 2007, found that while more than 70 percent Americans accepted that human-caused climate change was occurring, only 18 percent believed that it was a threat to them and their local community.^{viii} This assessment doesn't seem to have changed, given the low ranking climate change receives in opinion polling about environmental threats. The perception that climate change is a threat to geographically and temporally distant people and places represents a significant challenge for communicators. These findings correspond to other surveys suggesting that while Americans are concerned about the environment in the abstract, most believe that wildlife and natural systems in their communities are doing well.^{ix} Until the public sees and understands the impact of climate change on their community and their family, it is unlikely that a majority will rate action on climate change as a high priority.^x People are most concerned about what is happening *here, now*. Future climate communications efforts must strive to provide that locally specific information on a broad scale – an effort that will tax the resources of most organizations.

Risk Perception

These three factors, when seen through the lens of behavioral psychology, offer a compelling reason for the apparent lack of urgency among members of the public. Studies of risk perception suggest that people consider a threat to be more urgent when it inspires a sense of “dread risk” – a category defined by such things as catastrophic consequences, lack of control, and unequal distribution of risks and benefits, as well as by “unknown risk,” a sense that consequences are unobservable, new and delayed in their impact.^{xi} This helps explain why Americans consistently list soil, air and water contamination by toxic

chemicals as a bigger threat than climate change. These threats are more likely to be seen as local in nature and connected directly with human health than climate change. They are also scary for many people, given the hidden carcinogens that may be present in soil, air and water. Polling data suggests that Americans tend to associate climate change with warm weather, the melting of the polar ice caps, and with the hole in the ozone layer.^{xii} None of these impacts is directly or immediately tied to human health or severe community impacts. In the case of warm weather, the impact may even be associated with a positive feeling unless that warm weather is shown to be the threat it is. For many Americans, the potential extirpation of most of the world's polar bears from the arctic within the next 30 years may be regrettable, but does not serve as a trigger for immediate action. Future climate communications efforts must strive to focus on immediate local impacts, in a way that the general public can understand and relate to.

Discounting the Future

As with other economic and policy issues, people tend to discount impacts that may occur in the future. Studies consistently show that people value benefits received today much more than benefits that will be received in the future. For example, participants in one study indicated that receiving \$250 today was roughly equivalent to receiving \$337.50 one year from now.^{xiii} The study showed that people discounted environmental benefits in much the same way, equating 35 days of clean air in one year with 21 days of clean air now.^{xiv} This phenomenon represents a challenge in relation to climate change, especially if people are being asked to make sacrifices, address impacts or change behaviors today in the hope of altering the impacts of climate change in the indeterminate future. Thus, the ability to highlight specific impacts to wildlife and natural systems occurring now is critical to successful climate communications efforts. Existing climate communications have been hampered by the use of future, global-scale impacts as examples. The loss of polar bears 20 years from now may be less impactful than noting the loss of trees in a nearby forest today due to the spread of pine bark beetles – a direct result of mild winters associated with increasing global temperatures.

Behavioral studies also show that people are motivated more by the desire to avoid future losses than the desire for future gains. In this way, people may be more likely to support taking action to reduce greenhouse gas emissions in order to reduce the possibility of catastrophic changes in the environment that will result in great cost to them, rather than by the possibility of future improvements to the current situation, which they may see as acceptable.^{xv} By the same token, people may agree to make future behavioral changes because sacrifices made in the future are perceived as less painful than those today.^{xvi} The same calculus applies to efforts to address the impacts of climate change on wildlife and natural resources.

In addition, studies demonstrate an increasing disconnect between people and the environment. For many people, nature is an abstraction viewed through the window of a climate-controlled building or vehicle. As a result, people are not equipped to notice small changes in the landscape that occur gradually over a long period of time.^{xvii} In order to be successful, communications efforts must seek to spotlight immediate, serious impacts to the places that people care about and depend on at the community level. Demonstrating these kinds of impacts, however, is currently very difficult, given the relatively crude modeling and assessment studies that have been done to date. The next IPCC report will focus more closely on localized impacts, and across the nation scientific research on climate impacts is being coordinated through a network of Climate Science Centers led by the U.S. Geological Survey. These efforts are designed to help land managers, governments and the conservation community understand the impacts of climate change at a more refined level. In turn, such information offers communicators a way to tell the climate change story more effectively to the public and the media.

Influencing Climate Change-Related Behaviors

Raising public awareness is a relatively simple matter of targeting the right audiences with effective messages using the right information channels. However, little research has yet been done on how to influence climate change-related behaviors at a population scale.^{xviii} Those studies that have been performed analyze small-scale public campaigns surrounding activities like local and area recycling campaigns and household energy use. Successful

public information campaigns surrounding disaster preparedness efforts have relied on proven strategic marketing methods. These methods revolve around the use of *simple and clear messages, repeated often and through a variety of channels, and delivered by a variety of trusted sources*.^{xix} This model offers an effective and realistic platform for collaborative climate change communications efforts. Other techniques that have shown promise include:

- Normative behavioral models. Studies have repeatedly shown that people are more likely to participate in recycling programs and take other actions to benefit the environment if they believe that their neighbors and the community at large are participating as well.^{xx}
- Identifying opinion leaders in a community and recruiting them to model desired behaviors. This technique has proven to be very successful at a community level^{xxi}, and may be able to be translated to broader scales.

All of these efforts require intensive communications at multiple levels, requirements that in most cases are beyond the abilities of organizations and agencies acting alone.

Leveraging communications resources could provide a way to influence behavior on a broader scale.

Data Analysis

The Survey revealed important information about the current state and objectives of organizations' climate change communications efforts. In this section I will analyze the survey responses in detail.

Addressing Climate Change is a High Priority

Not surprisingly, the majority of respondents surveyed indicated that addressing the impacts of climate change was a priority or a high priority for their organization. Only one respondent of the 16 - representing the Bureau of Land Management - disagreed that addressing climate change impacts on natural resources was a priority for his organization. However, the

respondent also indicated that the Bureau would be developing a climate change communications strategy that would complement the overall Department of the Interior strategy. Aside from this anomaly, responses were consistently high across each group segmented for comparative purposes – federal agencies; conservation organizations (NGOs); and professional societies and organizations representing tribes and states.

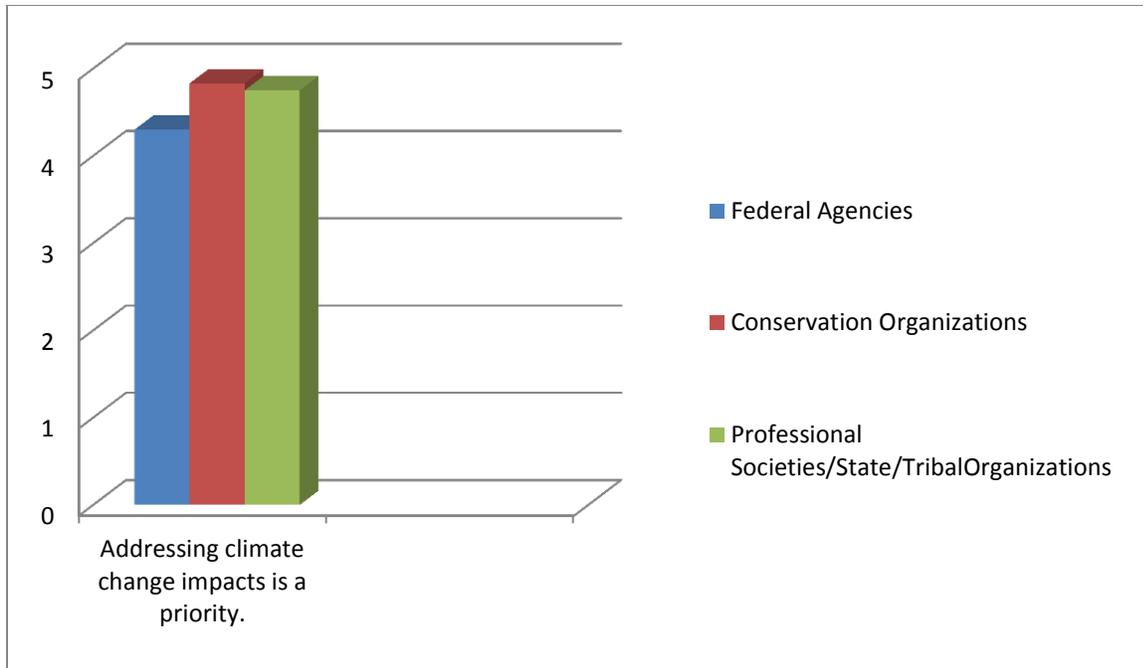
For example, the U.S. Fish and Wildlife Service has taken the initiative to lay the groundwork for a National Fish and Wildlife Adaptation Strategy, a collective strategy developed by the conservation community that would guide efforts to help fish and wildlife and natural systems cope with the impacts of a changing climate. The Service is also leading the development of a network of Landscape Conservation Cooperatives – regional science-based partnerships among federal and state agencies, academic institutions, tribes and other entities that will work to address landscape level conservation challenges like climate change. In a similar vein, the U.S. Geological Survey is leading the creation of Climate Science Centers across the nation, while the National Park Service is developing education and outreach materials for interpretive programs at hundreds of parks across the nation.

Respondents were asked to what degree they agreed with the following statement, rating their agreement on a scale of 1 to 5, with 5 meaning they strongly agreed and 1 meaning they strongly disagreed:

Question 1:

Addressing the impacts of climate change on natural resources is a priority for my organization.

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure



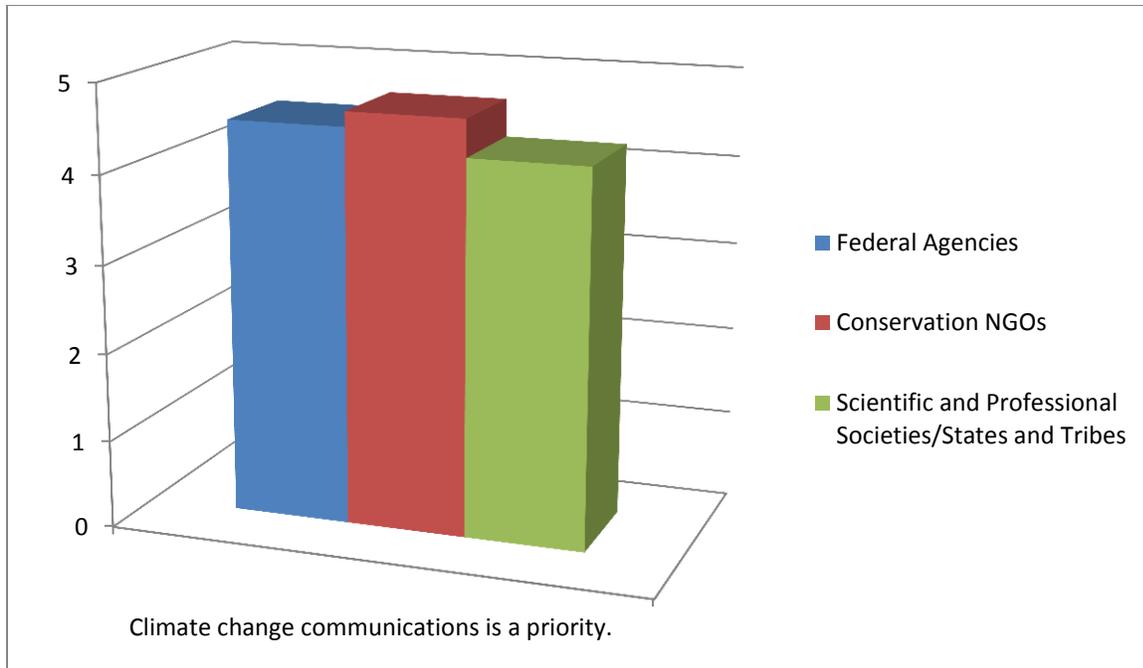
Climate Change Communications are a High Priority

Just as professional communicators almost uniformly indicated that their organizations placed a high priority on communications, so too did they indicate that climate change communications was a priority. Communications did score slightly lower as a priority than actions designed to address climate change impacts themselves, but this difference was slight. The slight decline in agreement may be attributed to what several respondents indicated was the relative lack of resources devoted to climate change communications, given the importance of the issue to their organization. Responses were again largely consistent across the three segments surveyed.

Question 2:

Communications related to our work on climate change issues is a priority for my organization.

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure



Climate change communications efforts remain stable

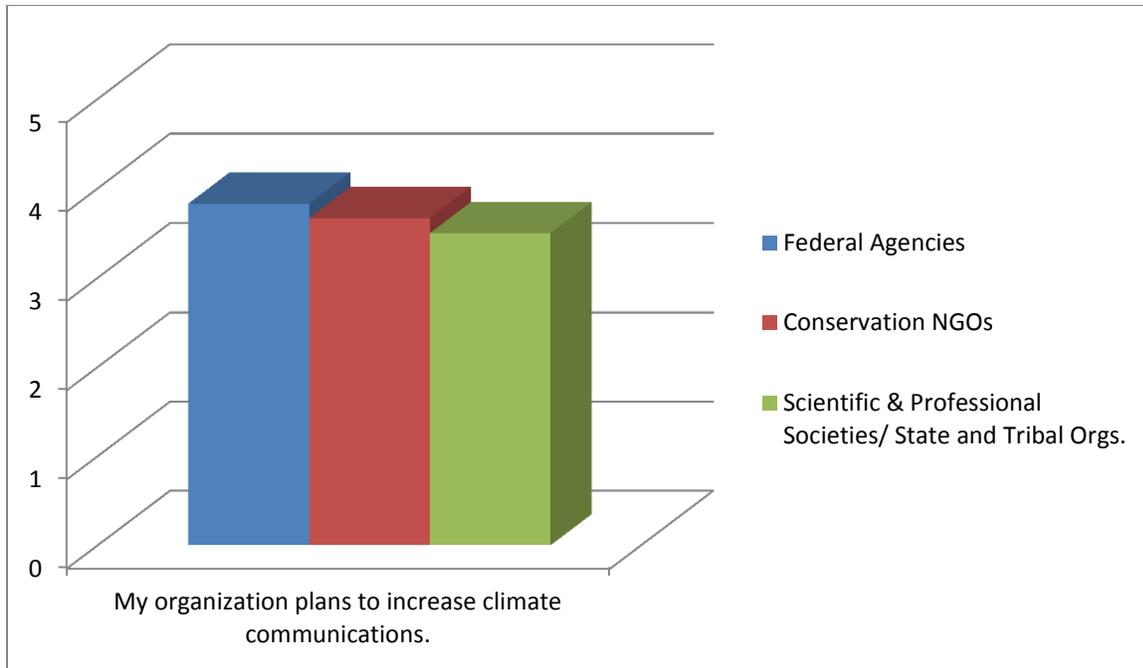
The survey revealed considerable variation in whether respondents expected to increase their climate change communications efforts. Representatives of six organizations strongly agreed that their organization will be increasing its climate change communications efforts, while another two respondents agreed with this statement. However, seven respondents indicated that they neither agreed nor disagreed, while two indicated that they did not expect that their organization would increase its commitment to communicating about climate change. When queried further, most neutral respondents agreed that they expected their organization’s current level of commitment to continue. While some expected strategies or tactics to change, most of the respondents in this category said they were as committed as they could be to climate communications. Of those who indicated that their organization’s efforts will increase, many indicated that they are in the process of developing a strategic communications plan on climate change.

Four of 6 representatives of federal agencies indicated that their agency planned to increase climate communications efforts. Half of the representatives for conservation NGOs (3 of 6) indicated that their organizations planned a similar increase. However, only one of four Scientific and Professional Societies/ State and Tribal Organizations indicated a similar increase was in the offing. Many non-federal organizations indicated that their organization jumped aggressively into the climate change debate some time ago, and was already devoting as much effort to this issue as they could. By contrast, many federal agencies indicated that they got a late start on climate communications owing to the previous administration's reluctance to engage on climate for much of its tenure. As a result, many felt they were playing catch-up on this important issue.

Question 3:

My agency/organization is planning to increase its climate change communications efforts.

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure



Many organizations lack a Climate Change Communications Strategy

Despite the fact that climate change communications was a priority for most organizations, less than one-third of respondents indicated that their organization had a dedicated climate change communications plan. Only 2 of 6 Conservation NGOs, 2 of 6 federal agencies, and 1 of 4 scientific and professional societies/State and Tribal organizations said their organization had such a plan in place. Two other organizations indicated that they were developing a plan, while others felt that they didn't need one given their limited climate communications objectives and audiences. "We do not have a specific communications strategy for climate change. We have a small communications shop, and don't have the resources to mount larger campaigns," said one respondent.

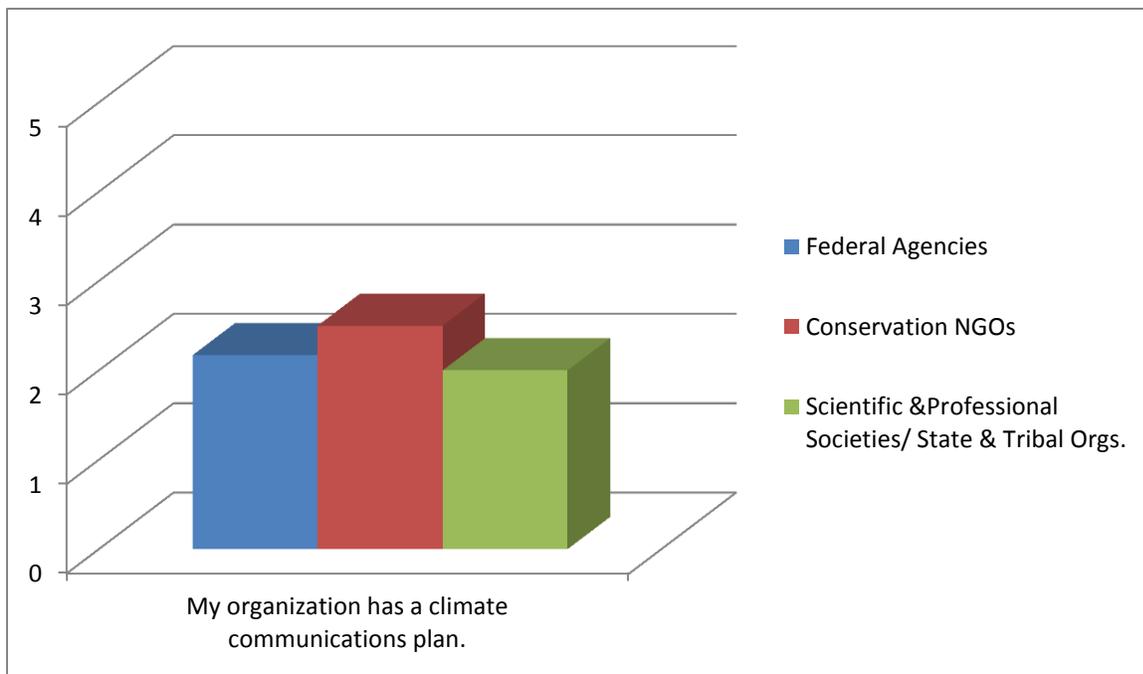
Still, the lack of strategic communications plans – especially at so many Conservation NGOs, is surprising. Climate change is a challenging issue, one of enormous scale and complexity. Effective communications about an issue of this magnitude would seem to

require a strategy. Nonetheless, of those who did not have a plan in place, many said their communications efforts on climate were sporadic and opportunistic.

Question 5:

My agency/organization has developed and is using a climate change communications plan.

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure



The general public is not a key audience for most

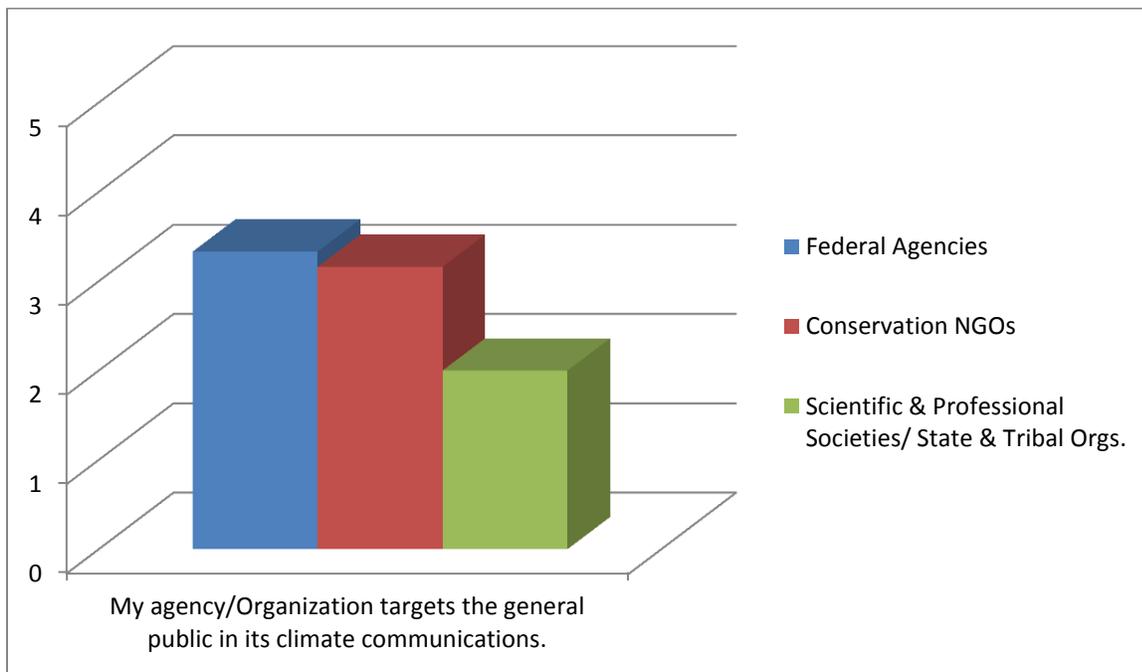
Fewer than half of the organizations surveyed listed the general public as a priority audience for their communications efforts. Even of those who did, most did not indicate that they were currently carrying out or planned to carry out a broad public campaign. Most

whose organizations are not targeting the public cited the complexity and scope of the climate issue, and their organization's limited resources as a reason they decided against a public campaign. "Climate change is a large and complex debate, and we have made a decision that we don't have the resources to target the general public or to do a broad public campaign. Our emphasis is on informing, educating and engaging our members through social media," said one respondent. Most non-federal organizations concentrated their communications efforts on their own members, seeking to keep these members informed and to engage them in the climate debate. Among federal agencies, the public was not identified as a key audience for most, but again, a public campaign was not a focus. For example, the National Park Service does target the public in its communications efforts, but even in this case the "public" NPS seeks to serve is park visitors. The agency communicates with these visitors through educational and interpretive programs within the park, but has no plans to communicate to the public through a broader public campaign. Most other federal agencies indicated merely that the climate change communications materials they produced could be utilized by the public.

Question 4:

My agency/organization targets the "general public" in its climate change communications efforts.

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure



Strategy or not, most have set communications goals

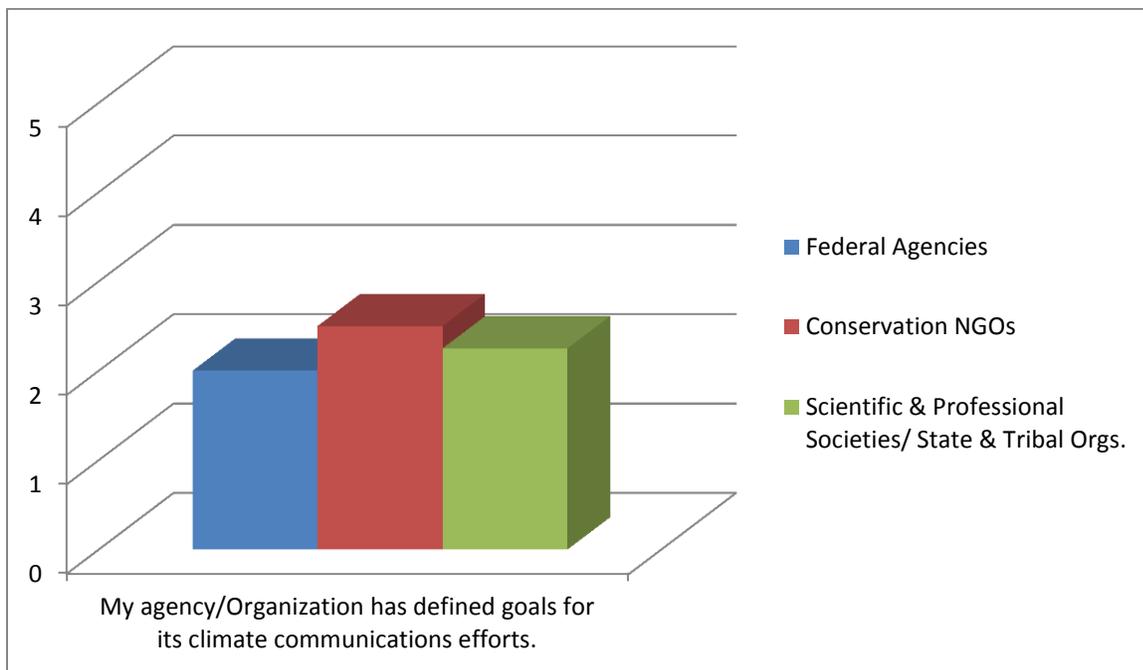
Regardless of whether or not they have developed a communications strategy for climate change, representatives for most organizations said their organization lacked clearly defined communications goals. Only 5 of 16 communications professionals said their organizations did have clearly defined goals. The organizations of those who did have established limited goals for their climate communications efforts. These goals are closely tied to their organizational missions, and most do not involve public engagement in a meaningful way. Many of those goals are tied to congressional legislation – an emphasis that will make it difficult to collaborate as a larger group. Collaboration with conservation groups to lobby Congress, or to emphasize or support specific legislation is not possible for federal agencies, even if the legislation in question is supported by the administration. By contrast, many conservation organizations are heavily invested in advocacy work on the Hill, “communicating about climate change to mobilize constituencies (our key audiences and state affiliates) with the ultimate goal of passing climate legislation that caps carbon, and that has a dedicated source of funding for wildlife adaptation,” for example. Broader collaboration efforts will need to be based on communication with audiences other than

Congress, and without any overt or implicit goal of influencing legislation. Collaboration will be possible under these circumstances, but only in a very limited and circumscribed sphere of influence centered around communicating climate change impacts and efforts to help wildlife and ecosystems adapt.

Question 6:

My agency/organization has defined goals for its climate change communications plan or efforts.

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure



Most do not assess their communications efforts

Nearly all organizations surveyed do not measure the success or failure of their climate change communications efforts, according to survey respondents. This failure represents a key weakness that undermines the success of the group’s climate communications efforts. In

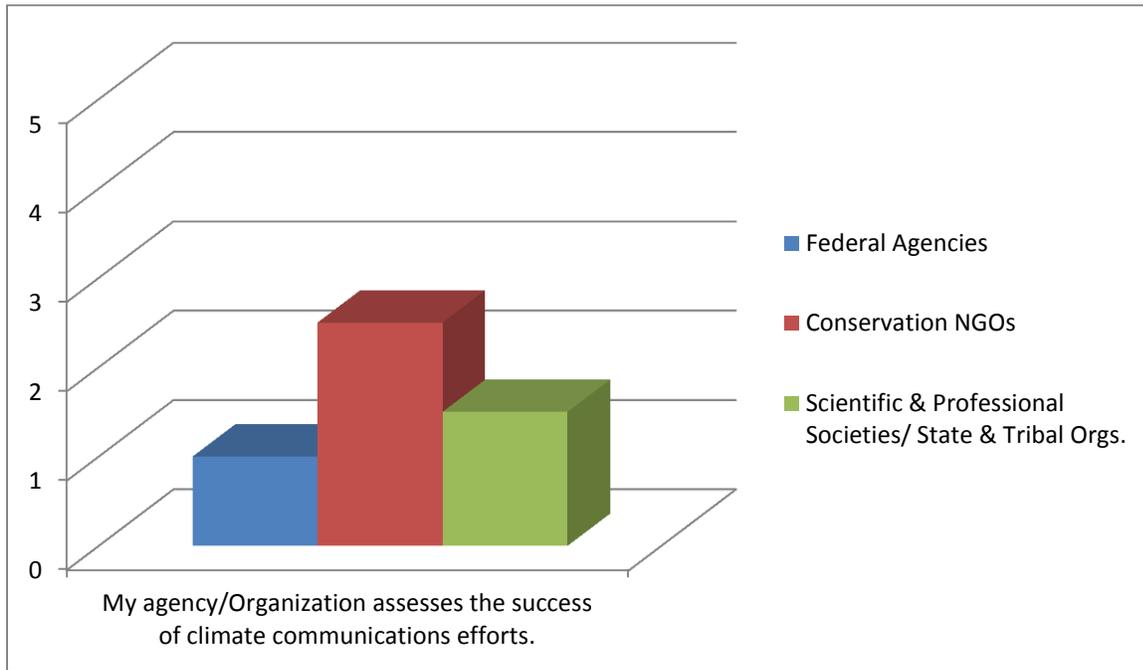
fact, of 16 organizations participating in the survey, only one – the Sierra Club – indicated that it was using an evaluation methodology. The Sierra Club representative indicated that the group is using a number of performance metrics to measure effectiveness, including tracking the number of emails opened and the number of times a particular URL link contained in an email is accessed (also known as click throughs). Sierra Club also tracks and evaluates the number and quality of responses to an email appeal, in addition to those who sign-up for the campaign in question. The group also uses analytic software to produce statistics displaying and sorting these metrics. An analysis of other survey responses suggests that many organizations lack good evaluation methodology, and also struggle with the focus of their communications efforts in the absence of a strategic communications plan.

Aside from the Sierra Club, no respondent indicated their organization was systematically analyzing the effectiveness of their communications efforts, although some indicated that indirect measures – such as the number of responses received to a mailing or email campaign – are being counted. In large measure, this absence of evaluation is due to the complexity and expense of assessing the effectiveness of all communications efforts. Nearly all respondents, however, said they would welcome the opportunity to work collaboratively on a methodology for evaluating strategic climate change communications efforts – so long as this methodology was not expensive or time-consuming to implement.

Question 7:

My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure



Other Key Findings

- Most organizations expressed some level of support for a collaborative effort that would help them leverage their limited communications resources to reach a broader audience and have a greater impact on efforts to shape climate policy.
- Many organizations are struggling with climate change. Communicating about climate change is a daunting challenge for even the most experienced communicators and the largest organizations. Many have difficulty articulating how their organization fits into the larger picture. Others have yet to develop a strategic communications plan to answer these questions, relying instead on opportunistic

communications that will in all likelihood struggle to accomplish any sort of strategic goals.

- **Shared messaging will need to be broad to succeed.** Where organizations had developed key messages, they widely differed with those of other groups due to competing priorities and audiences.
- **A key lesson learned is the need for clear and specific stories and examples of climate impacts to local areas and communities.** Many respondents indicated frustration with the current lack of information about local climate impacts, which they indicated hampered efforts to make the public and other audiences engage on the climate issue. The survey indicated a strong desire to collaborate on information gathering and story development that could help sell the climate change story. “We want to be able to better tie climate change to particular and specific impacts, and to be able to highlight those impacts in a systematic and credible way. Climate change tends to grab the public’s attention, but we need to provide better information about these impacts,” said one response. Others echoed this concern:

“We are slowly making headway in identifying and spotlighting specific linkages to on-the-ground impacts, to the clean air and water that people need in their communities. In our view, the focus and interest on the polar bear and similar species has not been helpful. The polar bear may be an iconic species, but few Americans can relate to it on a personal level. We need to be focusing on impacts to the creek on people’s backyards. We need to get better data documenting specific, localized impacts from climate change,” said one key response. Another added, “We need more of these kinds of specific stories, especially ones that connect to places and animals people have a connection with. In the abstract, people care about climate change, but it doesn’t motivate them to take action. Climate change falls off the list when people weigh it against other priorities with more immediate, specific impacts on them.”

This perception corresponds to literature about the kinds of communications that motivate audiences.

- **Hope is important.** The scale of the climate change challenge is an invitation for people to throw up their hands, according to many respondents. But by offering solutions and examples of local action designed to help wildlife and natural systems cope with a changing climate, efforts to engage the public and other audiences are more successful. That success is magnified when human health connections are drawn. “You always have to be able to provide some level of hope. That was important in all of the focus groups we convened and in the messages we tested. People were motivated when they felt there was hope that a solution was possible, or that their efforts could make a difference, however small,” said one knowledgeable communications professional.

This anecdotal information is backed up by multiple focus group, survey and polling data on natural resource issues indicating that the public is much more interested in environmental issues when clear connections with human health, local communities and natural areas are established.^{xxii}

- Assessing the effectiveness of communications is still beyond the capabilities of most organizations. Although assessment is a key part of effective strategic communications, most organizations surveyed have yet to attempt to assess the effectiveness of communications efforts – other than gathering news clips or monitoring email responses to targeted appeals. Climate change communications could provide the spark to develop a methodology for evaluation that could be applied to other initiatives and issues in the future.

Key Recommendations:

The survey results demonstrate the need and desire for a collaborative approach to climate change communications. Given the scope and complexity of the climate change issue, a collaborative effort on climate change communications could leverage the existing communications resources of participating organizations to communicate more effectively about climate change to a broader public audience. However, given the diversity of the organizations surveyed and the current strain on communication resources, this effort will undoubtedly need to be limited in scope in order to meet every organization's needs. An effort articulating a few key shared messages repeated across multiple channels by the scientific and technical experts of each organization could be the first step toward a truly collaborative climate communications effort – one geared solely on education and nonpartisan solutions. Such an initiative would enable each organization to tailor other, more detailed messages to its key audiences and mission.

This collaborative effort should be geared toward identifying specific immediate and longer-term climate change impacts, as well as developing and sharing stories about those impacts. Both survey results and public opinion research demonstrate the importance of linking conservation activities to human health and communities, as well as to wildlife and places people are about. As long as climate change is seen as something that may happen somewhere far away in the distant future, efforts to communicate about impacts will fail to resonate. But if organizations can point to specific impacts happening here and now in communities across the nation, efforts to engage the public and other key audiences can be much more effective.

Communications efforts need to focus on solutions. If climate change is seen as inevitable and inexorable, it is difficult to engage audiences. The strength of a National Adaptation Strategy is its focus on action. Examples of on-the-ground actions that will help wildlife and ecosystems adapt to a changing climate are much more effective in motivating the public and other key audiences to take action and support landscape-level conservation.

Climate change can be a driver for a true strategic communications process. The lack of assessment and integrated communications is hampering many organizations' efforts to communicate effectively on this issue. By developing a shared methodology for assessment

and shared strategic planning models, this process could provide partner organizations with the tools to improve all aspects of their communications.

Conclusions:

This survey revealed a strong desire on the part of many key conservation organizations for some level of collaborative climate change communications. When contacted, nearly all respondents were excited about the prospect of working with other organizations, even as they recognized that such collaboration will of necessity be limited in scale and scope due to the broadly differing mandates and priorities of the conservation community.

For example, a set of common messages is a key component of any successful communications campaign. In the case of a future collaborative climate change communications effort, messages will need to be broad enough to encompass the group, without being too vague. While this will be a challenge, organizations could commit to delivering a few key messages highlighting the threat climate change poses to natural systems. Such an approach would enable each organization to then deliver more specific messages and information tied to their respective missions and priorities under the umbrella of shared communications.

Effective climate communications have also been hobbled by the lack of clear examples of climate change impacts on the landscape. Current climate models and information tend to be very general and abstract when brought down to the local level. Survey respondents consistently expressed the need and desire to develop and share examples of the effects of climate change happening now. Many species are already beginning to alter their distribution and migration patterns in response to a changing climate, while changes in temperature and precipitation are also effecting change on a local level.

While scientific assessments are still gathering data and information on these impacts, sharing information will enable participating organizations to engage the public on a local or regional level about the resources they truly support and revere. These shared stories will also offer a way to talk about specific solutions and efforts to help species cope with

climate change impacts. Offering specific impacts, solutions and hope - rather than abstract warnings – should prove much more effective in motivating and engaging the public.

Climate Change Survey Results*

*Results are compiled from both written submissions and follow-up interviews.

Climate Change Communications Forum Participant Survey Questions

Respondent: Cindy Hoffman, Vice President for Communications, Defenders of Wildlife

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. Addressing the impacts of climate change on natural resources is a priority for my agency/organization.

5 4 3 2 1 0

2. Communications related to our work on climate change issues is a priority for my agency/organization.

5 4 3 2 1 0

Comment: Although communicating about climate change is a high priority, it is a significant challenge given our limited staffing and resources.

3. My agency/organization is planning to increase its climate change communications efforts.

5 4 3 **2** 1 0

Comment: We are struggling to be relevant and to find our niche in the debate over climate change, again given our size and resources.

4. My agency/organization targets the “general public” in its climate change communications efforts.

5 4 3 **2** 1 0

5. My agency/organization has developed and is using a climate change communications plan.

5 **4** 3 2 1 0

6. My agency/organization has defined goals for its climate change communications plan or efforts.

5 **4** 3 2 1 0

7. My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.

5 4 3 **2** 1 0

8. If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.

Our focus is on our members. This is a large and complex debate, and we have made a decision that we don't have the resources to target the general public or to do a broad public campaign. Our emphasis is on informing, educating and engaging our members through social media. We would be receptive to working with other organizations on a shared climate communications effort, depending on the focus and objectives we could agree upon.

9. If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.

Our primary goal is to facilitate the enactment of climate change legislation. To that end, we’re focusing on motivating our members to contact members of Congress in support of legislation designed to reduce greenhouse gas emissions.

10. If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.

Our evaluation measures center on members of Congress – how successful are we in getting our membership to contact them, whether they are supportive of legislation.

11. Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.

As I said, we’ve had success targeting our members through social media campaigns and initiatives. We use YouTube, Facebook and other social media to tailor messages to our members, using images and compelling stories about impacts to specific species and places. We’ve also done membership polling and focus groups to discover what motivates them and what doesn’t.

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

You always have to be able to provide some level of hope. That was important in all of the focus groups we convened and in the messages we tested. People were motivated when they felt there was hope that a solution was possible, or that their efforts could make a difference, however small. People also responded to the idea that we need to take action to preserve the environment for future generations.

The other issue we’ve found is that the climate change issue is abstract – you can’t see it, touch it, feel it. We expect instant answers as a society, and to see instant impacts, but that’s not how this works. People care about climate when they can see specific impacts and understand that particular animals and places are being affected. For example, people really care about coral reefs, and the bleaching that is occurring because of climate change. We need more of these kinds of specific stories, especially ones that connect to places and animals people have a connection with. In the abstract, people care about climate change, but it doesn’t motivate them to take action. Climate change falls off the list when people weigh it against other priorities with more immediate, specific impacts on them.

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: Laura MacLean, Communications Director, Association of Fish and Wildlife Agencies

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. **Addressing the impacts of climate change on natural resources is a priority for my agency/organization.**
5 4 3 2 1 0
2. **Communications related to our work on climate change issues is a priority for my agency/organization.**
5 4 3 2 1 0
3. **My agency/organization is planning to increase its climate change communications efforts.**
5 4 3 2 1 0
4. **My agency/organization targets the “general public” in its climate change communications efforts.**
5 4 3 2 1 0
5. **My agency/organization has developed and is using a climate change communications plan.**
5 4 3 2 1 0
6. **My agency/organization has defined goals for its climate change communications plan or efforts.**
5 4 3 2 1 0
7. **My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.**
5 4 3 2 1 0

8. If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.

The Association of Fish & Wildlife Agencies very rarely conducts outreach to the general public (on climate change or other issues). Of course, individual state fish and wildlife agencies communicate daily with the public on a variety of issues, which may include climate change. The Florida Fish and Wildlife Commission, for example, has dedicated resources specifically to communicating with residents and visitors about climate change.

However, AFWA as an entity representing the collective voice of North America’s fish and wildlife agencies is focused on conservation policy on a national scope. Our key audiences are fish and wildlife management professionals, lawmakers, federal government agency representatives and colleagues in the conservation community and sportsmen industries. We work collaboratively on multiple issues with partners, and would be interested in this approach in the climate arena.

9. If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals. N/A

10. If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts. N/A

11. Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.

AFWA is not currently conducting a communications outreach campaign in the traditional sense (advertising/media/PR/social media/etc.). We do support and participate in campaigns and efforts within the greater fish and wildlife conservation community including Hill-targeted ad campaigns re: the climate change bill; ads thanking Members for supporting favorable policy; State of the Birds Report media; Seasons’ End media.

However, COMMUNICATIONS (and fostering communication/exchange of information) is a critical component to the work of the Association and its members in addressing the impacts of climate change on natural resources. AFWA will soon begin hosting a series of four regional workshops focused on improving the interaction and coordination between states in the adaptation planning process involved in creating practical wildlife management strategies for climate change. In conjunction with these workshops, state participants have been asked to fill out a questionnaire on past, current, and future actions and plans to reduce the impact of climate change within their states. One question specifically asks respondents about communications and outreach activities the state is involved in with respect to climate change. Answers are being compiled into regional reports.

In addition, AFWA organized a diverse working group composed of our Climate Change and Teaming With Wildlife Committee members to help states account for climate change in State Wildlife Action Plans. The group developed a voluntary guidance document, which was released in late 2009.

AFWA’s Science and Research Liaison, Dr. Arpita Choudhury, created a Climate Change blog, which she uses to communicate with fish and wildlife management professionals engaged in climate change issues. Primarily, she uses the blog to share case studies and news from state fish and wildlife agencies.

Messaging about the impacts of climate change on fish, wildlife and their habitats is part of the outreach AFWA does on Capitol Hill—whether we’re talking about comprehensive clean energy and climate change legislation, State and Tribal Wildlife Grants, fish habitat legislation and more.

Designed by experts from state fish and wildlife agencies, the North American Conservation Education (CE) Strategy delivers unified, research-based Core Concepts and messages about fish and wildlife conservation. CE Strategy working group members have translated the Concepts into K-12 educational standards to help shape students’ environmental literacy, stewardship and outdoor skills. States are encouraged to use the Core Concepts in their daily interactions with the public and more specifically when working with state departments of education to develop state environmental literacy plans. AFWA uses the Core Concepts as the foundation for all outreach materials and efforts. Core Concept #5 incorporates climate change into the message:

Core Concept #5: Loss and degradation of habitat are the greatest problems facing fish and wildlife; therefore, enhancing and protecting habitat is critical to managing and conserving them.

“Loss and degradation of habitat are the greatest problems facing fish and wildlife; therefore, enhancing and protecting habitat is critical to managing and conserving them. Urban sprawl, unchecked land use, invasive species and even climate change are just a handful of the obstacles fish and wildlife face where they live. Many contributing factors are caused by human interaction with the environment, including poor choices of land use. It’s up to us to take action today to maintain and restore the places that people and wildlife call home.”

Finally, two years ago, AFWA's Climate Change Committee developed our organization's membership-approved climate change talking points. These talking points are the synthesis of what the collective membership is comfortable communicating (some states communicate more about climate change, others less so at this point). Below are a handful of AFWA's talking points, which can be found at www.fishwildlife.org.

- For more than 100 years, state fish and wildlife agencies have been addressing threats to fish and wildlife including altered habitat, invasive species, the spread of diseases and population changes; however, climate change is escalating and accelerating these threats, making it much more difficult and costly for agencies to manage.
- The specific implications of climate change on fish and wildlife are unpredictable and vary from state to state. There is no "one size fits all" solution and as a result, state fish and wildlife agencies are planning for the unexpected.
- Pressures on fish and wildlife caused by climate change emphasize the need for increased conservation and science-based management and the appropriate funding to do so.
- To take action to conserve fish and wildlife in the face of climate change, we need to fund fish and wildlife conservation actions by state agencies.
- Taking proactive actions to address the effects of climate change will not only help fish and wildlife, but will also provide recreational opportunities for people, which support millions of jobs nationwide, and ensure enjoyment of natural resources by present and future generations.

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

AFWA staff is sensitive to the work and political situations in state fish and wildlife agencies. We are very mindful to not communicate messaging as the "Association" that could potentially get a member agency in hot water at home (with Governor, Commission, state legislature, etc.). All efforts undertaken by the Association (Committees, supported by staff) reflect our mission statement.

Mission: Protect state fish and wildlife authority; promote sound resource management; and strengthen government and private cooperation to conserve fish and wildlife and their habitats in the public interest.

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: David Quick, Bureau of Land Management Office of Public Affairs

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. Addressing the impacts of climate change on natural resources is a priority for my agency/organization.

5 4 3 2 **1** 0

2. Communications related to our work on climate change issues is a priority for my agency/organization.

5 4 **3** 2 1 0

Comment: It's a priority, but there are many priorities competing for limited staffing capacity.

3. **My agency/organization is planning to increase its climate change communications efforts.**

5 4 3 2 **1** 0

4. **My agency/organization targets the “general public” in its climate change communications efforts.**

5 4 3 2 **1** 0

5. **My agency/organization has developed and is using a climate change communications plan.**

5 **4** 3 2 1 0

Comment: A climate change related communications plan is under preparation.

6. **My agency/organization has defined goals for its climate change communications plan or efforts.**

5 **4** 3 2 1 0

7. **My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.**

5 4 3 2 **1** 0

8. **If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.**

9. **If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.**

A climate change related communications plan is under preparation.

10. **If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.**

11. **Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.**

The BLM is currently preparing a communications plan to support a landscape-scale approach to managing public lands. This landscape-scale approach is under intensive development, is a major priority for the BLM, and incorporates climate change management issues and responses. The need for a landscape-scale approach stems from the recognition that the public lands are being influenced by complex and widespread environmental challenges that transcend traditional administrative jurisdictions. These challenges include increasing wildfires and invasive species; rising demands for energy development and urban growth; and worsening droughts, melting permafrost, and other pervasive climate change-related impacts. The BLM’s landscape-scale approach is intended to help land managers better understand these challenges, and design coordinated and effective responses.

BLM’s landscape approach has five main components:

- a *rapid ecological assessment*(REA), which synthesizes existing information about resource conditions, trends, and opportunities; assesses the cumulative impacts of projected trends; and identifies conservation and development opportunities;

- ecoregional direction*, which identifies the BLM’s key management priorities/focal areas for the public lands within an ecoregion, and provides a blueprint for coordinating and implementing these priorities through the BLM’s field-level organization;
- field-level implementation*, which puts the ecoregional direction into practice through land use planning, use authorizations, best management practices, resource monitoring, and by using the BLM’s budget process to focus and share resources;
- monitoring and adaptive management*, which provides consistent, comparable, and retrievable information about land-health conditions and trends to support adaptive management strategies.
- science*, which integrates science research with land management needs and provides information that is central to making sound management decisions.

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: Piper Corp, Ecological Society of America

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. **Addressing the impacts of climate change on natural resources is a priority for my agency/organization.**
5 4 3 2 1 0
2. **Communications related to our work on climate change issues is a priority for my agency/organization.**
5 4 3 2 1 0
3. **My agency/organization is planning to increase its climate change communications efforts.**
5 4 3 2 1 0
4. **My agency/organization targets the “general public” in its climate change communications efforts.**
5 4 3 2 1 0
5. **My agency/organization has developed and is using a climate change communications plan.**
5 4 3 2 1 0
6. **My agency/organization has defined goals for its climate change communications plan or efforts.**
5 4 3 2 1 0
7. **My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.**
5 4 3 2 1 0
8. **If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.**

9. If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.

Our organization’s main goal is to promote the science of ecology, an emphasis that is woven into all of our policies and actions. Our focus is on managing ecosystems, promoting adaptation and mitigation strategies related to climate change. However, we’re not an advocacy organization. We emphasize the expertise of our membership, providing information and education to policymakers and decision makers. Obviously, our issue papers, blogs and other materials are publicly available, but we don’t have the resources to target a broader public audience. We’re interested in working with other organizations on climate communications, as long as we can address our priorities.

10. If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.

11. Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.

We do not have a specific communications strategy for climate change. We have a small communications shop, and don’t have the resources to mount larger campaigns. Our strategy is to inform policymakers of the impacts of climate change on ecological resources, and the consequences of these impacts, through the credibility and expertise of our members. We don’t have specific messages, but have focused on issue papers, blogs and podcasts focusing on climate change impacts. Our emphasis is on the nonlinearity of ecosystems – that climate trends are not reversible, and that some impacts will effect fundamental change in ecosystems. We’ve held congressional briefings on climate change implications for water quality, endangered species and other issues. We also focus on providing feedback on agency regulations.

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

We’ve changed our approach with policymakers. We’re not making value judgments, but rather focusing on the consequences of specific actions. “If you are interested in protecting the resource, then you should do X,” talking about facts. We’ve formed a rapid response team of 40 or 50 members who are experts in their fields who have committed to responding quickly to requests for input or ideas.

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: David Eisenhauer, Office of Communications, U.S. Fish and Wildlife Service

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. Addressing the impacts of climate change on natural resources is a priority for my agency/organization.

5 4 3 2 1 0

2. Communications related to our work on climate change

issues is a priority for my agency/organization.

5 4 3 2 1 0

3. My agency/organization is planning to increase its climate change communications efforts.

5 4 3 2 1 0

4. My agency/organization targets the “general public” in its climate change communications efforts.

5 4 3 2 1 0

5. My agency/organization has developed and is using a climate change communications plan.

5 4 3 2 1 0

6. My agency/organization has defined goals for its climate change communications plan or efforts.

5 4 3 2 1 0

7. My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.

5 4 3 2 1 0

8. If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.

The general public is an audience, but to date, the Fish and Wildlife Service has focused to a much greater degree on our own employees and partners in the conservation community. We believe that in order to have a broader impact, we need to work with other organizations to leverage our resources and communicate as a broader conservation community.

9. If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.

While we have an overarching climate change strategy, our efforts to date have focused on helping our employees and partners understand that the Service takes climate change seriously, and is acting on multiple fronts to address the impacts of climate change on fish and wildlife resources. Communications have worked to build internal and external partner support for the Service’s Climate Change Strategic Plan, and related initiatives like Landscape Conservation Cooperatives and the development of a National Fish and Wildlife Adaptation Strategy. We lack the resources to be able to mount a more sustained communications campaign, although we are working to develop messaging and communications materials for our visitor services staff at wildlife refuges across the country to use in response to public visitation and inquiries.

Measures for success:

- Executive and senior leaders **understand** the strategic plan (i.e. what it is and what it is not). (Highly successful = senior leadership **supports** the plan and **actively communicates that support** to staff.)
- Senior leaders key scientists, and policy staff are given a chance to provide feedback, and have any concerns addressed by executive leadership.
- All employees receive information about the plan. (Highly successful = employees understand the plans, support the effort, and feel confident in the Service’s leadership and direction.)
- Key stakeholders (Congress, partners) are informed in a timely manner. Collaboration and partnership are strengthened. Misunderstanding is avoided. (Highly successful + These stakeholders directly and indirectly support our policy, direction and operational approaches; and

we achieve consistency in national responses to climate change and its impacts on fish and wildlife.

- Employees and partners understand the purpose and need for Landscape Conservation Cooperatives and the Development of a National Fish and Wildlife Adaptation Strategy, and are willing to contribute to the success of both efforts.

10. If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.

We have not done much in the way of evaluation for our climate change efforts to date, other than several basic metrics – the number of media stories generated about our Climate Change Strategic Plan, and the number of employee comments received on the draft strategic plan when it was circulated for review. We have not done any survey of employees or partners to determine if our messages are getting through and our goals are being met. However, we have made climate change communications a pilot project for developing a standard metric for evaluating communications projects. We are working with a small team to identify evaluation criteria that will work within the standard constraints of a federal agency, mainly, limits on outside survey work.

11. Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.

Key Messages:

- Climate change is real and poses the most significant conservation challenge of our time. While there is much we don’t know, we must act now on the best information we have, while aggressively expanding our knowledge base to guide future management actions.
- The Fish and Wildlife Service is poised to play a significant role in addressing the effects of climate change on fish, wildlife, and plants. The Service is working collaboratively with the conservation community to develop adaptation, mitigation, and public engagement strategies to address climate change.
- As a first step, the Service has developed a climate change strategic plan. The plan outlines commitments of Service leadership during the next five years to acquire additional resources and build our organization’s capacity to address the impacts of climate change on fish, wildlife, and plants. This capacity will enable Service employees to more effectively plan, design, implement, and monitor strategic conservation efforts.
- Given that accelerating climate change will exacerbate many of the conservation challenges our employees are dealing with today—including habitat fragmentation, invasive species, and water scarcity—the Service is already taking steps with a number of partners and available resources to address effects of climate change on fish, wildlife, plants and their habitats.
- Strategic habitat conservation is an adaptive resource management framework for conserving species on a landscape scale. Working with others, we will bring to bear the best available planning, research, monitoring, and management tools to deliver conservation in the right places at the right time to address the challenges posed by climate change.

Strategies:

Communications strategy for the Service’s Strategic Plan focused on using opinion leaders and frontline supervisors within the agency to communicate about the draft plan and to gather and summarize employee feedback on the plan. Efforts focused on giving senior leaders and frontline supervisors the tools to communicate effectively about the plan and to gather constructive comments about the plan, building on research on effective change management communications. Once this was done, efforts focused on rolling out the strategy effectively to Congress and partners – clearly

explaining the plan and asking for feedback and suggestions. Efforts related to Landscape Conservation Cooperatives and the National Adaptation Strategy have similarly targeted partners and members of Congress, working to build understanding and support for these initiatives. Efforts to target the general media and public have been limited to date, focusing mainly on highlighting climate change impacts to wildlife by focusing on specific species and habitats that current science tells us are especially vulnerable – as well as highlighting the Service’s efforts to begin addressing those impacts. We have begun to develop a story bank that gathers information about specific on-the-ground efforts, as well as documented impacts to specific species and habitats. We will also communicate about Service efforts to become carbon neutral, but do not believe it is the Service’s role to tell Americans how they should behave. Other agencies and organizations are more suitable to help Americans understand what they can do to reduce their greenhouse gas emissions.

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

We see a great need to gather data that documents specific impacts of climate change to specific species and habitats. We talk about climate change on a continental scale, but as we move outward and focus more intently on the broader public, we as a conservation community need to be able to draw specific, credible connections to wildlife and habitat in local communities. We need to communicate about specifics, not by relying on abstract climate models. There must be a coordinated effort to develop and promote these stories, giving people a way to make climate change real in their lives.

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: Dawn Merritt, Izaak Walton League

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. **Addressing the impacts of climate change on natural resources is a priority for my agency/organization.**
5 **4** 3 2 1 0
2. **Communications related to our work on climate change issues is a priority for my agency/organization.**
5 **4** 3 2 1 0
3. **My agency/organization is planning to increase its climate change communications efforts.**
5 **4** 3 2 1 0
4. **My agency/organization targets the “general public” in its climate change communications efforts.**
5 4 3 **2** 1 0
5. **My agency/organization has developed and is using a climate change communications plan.**
5 4 3 **2** 1 0
6. **My agency/organization has defined goals for its climate change communications plan or efforts.**
5 4 3 **2** 1 0
7. **My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.**
5 4 3 **2** 1 0

8. If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.

The general public is an audience, but we are focused much more on talking to sportsmen and conservationists. They are our primary audience, and make up the majority of our membership.

9. If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.

Comment on Q5-7: IWLA has done a lot of messaging and communications work centered on specific initiatives and projects related to climate change, such as energy projects, funding for wildlife adaptation and mitigation, and sustainability projects. We do not, however, currently have a comprehensive strategic communications plan for climate change. We will be developing a plan in the near future, and look forward to this forum as a way to get ideas for its development. Our goals at this point are centered on building support within our membership, our board, and the sporting community for our climate-related work. We would be receptive to collaborative efforts to communicate about climate change, depending on the resources and commitment involved.

10. If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.

We have not done much in the way of evaluation for our climate change efforts to date. That is something that we will look into in the future. We did strongly support the development and promotion of the Season’s End report, but were disappointed in the results. In our view, the contractor hired by the partnership to coordinate communications for the report and its follow-up did not do a good job, and the report did not generate the awareness and interest that it deserved.

11. Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.

We are still working on messaging to our members and the sporting community. We don’t have a standard set of core messages right now. Efforts are focused on communicating about our key climate change initiatives- getting rid of old polluting coal projects, working with companies to incentivize greenhouse gas reductions, supporting climate change workshops and other initiatives.

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

The challenge that we see is tying climate change back to specific species and habitats. Climate change, for our target audience, is still seen as a liberal political issue, rather than a vital concern for sportsmen. We are slowly making headway in identifying and spotlighting specific linkages to on-the-ground impacts, to the clean air and water that people need in their communities. In our view, the focus and interest on the polar bear and similar species has not been helpful. The polar bear may be an iconic species, but few Americans can relate to it on a personal level. We need to be focusing on impacts to the creek on people’s backyards. We need to get better data documenting specific, localized impacts from climate change.

In addition, climate change is such a huge issue; people don’t know where to start. We need to give people the sense that their actions can make a difference.

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: Thom Wallace, National Congress of American Indians

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. Addressing the impacts of climate change on natural resources is a priority for my agency/organization.

5 **4** 3 2 1 0

2. Communications related to our work on climate change issues is a priority for my agency/organization.

5 **4** 3 2 1 0

Comment: I would say that the answers to questions 1 and 2 are more like a 3.5 than a 4 – climate change is somewhat of a priority, but certainly not a high priority for NCAI.

3. My agency/organization is planning to increase its climate change communications efforts.

5 4 3 2 1 0

4. My agency/organization targets the “general public” in its climate change communications efforts.

5 4 3 2 **1** 0

5. My agency/organization has developed and is using a climate change communications plan.

5 4 3 2 **1** 0

6. My agency/organization has defined goals for its climate change communications plan or efforts.

5 4 3 2 **1** 0

7. My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.

5 4 3 2 **1** 0

8. If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.

We have not reached out to the general public, and probably won't. We're focused on tribal issues in general, and as such try to focus on educating tribal members and decision makers about climate change impacts in Indian Country.

9. If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.

We know that climate change is a growing issue, and our goal is to increase our members' understanding of climate change impacts on tribal lands and their engagement with climate change as a public policy issue. Our members are interested in renewable energy development on tribal lands, so that's been a key focus for us.

10. If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.

11. Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.

Tribes have a strong role as energy suppliers. That’s where most of our messaging has gone right now. They’re also interested in international indigenous communities and impacts of climate change on these communities. Our members are also interested in stewardship for future generations. Tribes have always focused on natural resources and the impact of our decisions on future generations.

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: Jonathan Kelsey, NOAA Fisheries Public Affairs

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. **Addressing the impacts of climate change on natural resources is a priority for my agency/organization.**
5 4 3 2 1 0
2. **Communications related to our work on climate change issues is a priority for my agency/organization.**
5 4 3 2 1 0
3. **My agency/organization is planning to increase its climate change communications efforts.**
5 4 3 2 1 0
4. **My agency/organization targets the “general public” in its climate change communications efforts.**
5 4 3 2 1 0
5. **My agency/organization has developed and is using a climate change communications plan.**
5 4 3 2 1 0
6. **My agency/organization has defined goals for its climate change communications plan or efforts.**
5 4 3 2 1 0

7. **My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.**

5 4 3 2 **1** 0

8. **If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.**

Depends on the audience – a lot of our stuff is targeted at specific user groups based on the issue – state agencies, industry groups. It really depends on the nature of the issue we’re communicating on. We focus on providing information that decision makers need to make informed decisions – tied more

9. **If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.**

10. **If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.**

11. **Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.**

Nothing out right now. We have some internal policy objectives that we’re communicating on, but they are focused more on our own organization. We have a new climate portal that we’ve started, climate.gov, but it’s really in its infancy. We’re working to populate it and make it a more useful tool for decision makers and the public.

12. **Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.**

Nothing really comes to mind right now...

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: Jeff Olson, National Park Service Public Affairs

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. **Addressing the impacts of climate change on natural resources is a priority for my agency/organization.**

5 4 3 2 1 0

2. **Communications related to our work on climate change issues is a priority for my agency/organization.**

5 4 3 2 1 0

3. **My agency/organization is planning to increase its climate change communications efforts.**

5 4 3 2 1 0

4. **My agency/organization targets the “general public” in its climate change communications efforts.**

5 4 3 2 1 0

Comment: The general public is a key target audience, among others including concession operators.

5. **My agency/organization has developed and is using a climate change communications plan.**

5 4 3 2 1 0

6. **My agency/organization has defined goals for its climate change communications plan or efforts.**

5 4 3 2 1 0

7. **My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.**

5 4 3 2 1 0

Comment on Q5-7: NPS is developing a communication strategy, but it has yet to be finalized and approved. There are draft goals and messages which will be discussed later. To date, NPS has not implemented any assessment mechanism for climate change communications – or any other communications – due to the difficulty of performing assessments as a federal agency. The limitations on survey work are a big hurdle. We may be interested in collaborating with other organizations on climate communications in the future to address this and other issues.

8. **If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.**

9. **If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.**

10. **If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.**

Again, NPS has not implemented any assessment mechanism for climate change communications – or any other communications – due to the difficulty of performing assessments as a federal agency. The limitations on survey work are a big hurdle. There is some discussion of using an outside organization to perform such an evaluation, such as the National Parks and Conservation Association.

11. **Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.**

The draft strategy has several goals –

- To inform the public about the impact of climate change on park resources.
- To reach out to park concession operators, helping them understand the importance of reducing their greenhouse
- To motivate the public to reduce their own carbon footprint by modeling and showcasing best practices – GHG reducing practices on the ground in the parks.

Key messages:

- Climate change is real, and affects people's National Park adventures.
- People cause climate change. People can do something about it.
- We are reducing greenhouse gases in Parks by applying new technology, conservation and common sense.
- Help protect America's National Parks for future generations. Reduce your own carbon footprint.

Strategies focus on incorporating climate change messaging and information into the NPS interpretive program, which reaches an estimated 285 million annual park visitors, as well as focusing on the Web, media interviews, school groups and public speaking opportunities across the nation. The plan focuses on highlighting climate change impacts to specific parks, and spotlighting successful efforts in individual park units to reduce greenhouse gas emissions. Climate change will be a part of much of what we communicate about our park units in the future. Many of these have been around for more than a century, giving us the opportunity to compare and contrast conditions then with what is occurring now. We will not be going out of our way to spotlight climate change, but will acknowledge the data that we can observe. Every one of our 392 parks is going to have a way to connect people with what is going on. What we need is better baseline data to show impacts as they occur.

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

We see the importance of being specific – highlighting impacts to specific ecosystems and species in specific parks. We need to do a better job of identifying and spotlighting those impacts, to help bring it home to our visitors and the American public.

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: Aislinn Maestas, Communications Specialist, National Wildlife Federation

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

- 1. Addressing the impacts of climate change on natural resources is a priority for my agency/organization.**
5 4 3 2 1 0
- 2. Communications related to our work on climate change issues is a priority for my agency/organization.**
5 4 3 2 1 0
- 3. My agency/organization is planning to increase its climate change communications efforts.**
5 4 3 2 1 0
- 4. My agency/organization targets the "general public" in its climate change communications efforts.**
5 4 3 2 1 0
- 5. My agency/organization has developed and is using a climate change communications plan.**
5 4 3 2 1 0

Comment: We don't have an overall plan; each portfolio manager has a plan for each audience targeted.

6. My agency/organization has defined goals for its climate change communications plan or efforts.

5 4 3 2 1 0

7. My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.

5 4 3 2 1 0

8. If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.

We have three distinct audiences we target – sportsmen, wildlife lovers (our ‘base’) and the faith community. We are also working to communicate to nontraditional audiences by addressing climate justice issues.

9. If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.

We have two main goals: communicating about climate change to mobilize constituencies (our key audiences and state affiliates) with the ultimate goal of passing climate legislation that caps carbon, and that has a dedicated source of funding for wildlife adaptation; also addressing the issue of international adaptation. A smaller goal is continuing to support State Wildlife Action Plans. We develop editorials, editorial boards,

10. If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.

11. Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.

Our efforts are focused on rallying our core groups in states with key lawmakers, with the goal of finding champions in the Senate who can ensure that funding for wildlife adaptation is included. We’re appealing to sportsmen with the idea that the investment they’ve made in conservation – PRDJ, the Duck Stamp all of that is in jeopardy due to the impact of climate change. Their past efforts are worthy of praise, but unless we do something, those successes are for naught.

Efforts are centered around identifying key legislators and building a grassroots strategy around them.

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

People want to hear about the economic benefits of conservation. Translated for sportsmen, that means talking about the money that is spent by hunters and anglers, emphasizing the billions of dollars outdoor recreation generates. Many people depend for their livelihoods on hunting and fishing.

We never talk about adaptation using that word. As a term, it’s empty for the general public, and even for our audiences it has little meaning. We talk about safeguarding wildlife and keeping them healthy. The other issue that drives this debate is data. We know to a great degree what the impacts look like, but there is a void of information on solutions.

We're also finding that in contrast to two years ago, there is a lot of fatigue on the subject of climate change, especially in the media. Reporters have written all the stories, and it's a constant challenge to come up with new angles and fresh examples. Reporters are also more skeptical, asking for more data in light of the controversy in East Anglia and the alleged falsification of data.

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: Katherine Goggin, U.S. Bureau of Reclamation Public Affairs

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. Addressing the impacts of climate change on natural resources is a priority for my agency/organization.

5 4 3 2 1 0

2. Communications related to our work on climate change issues is a priority for my agency/organization.

5 4 3 2 1 0

3. My agency/organization is planning to increase its climate change communications efforts.

5 4 3 2 1 0

4. My agency/organization targets the "general public" in its climate change communications efforts.

5 4 3 2 1 0

5. My agency/organization has developed and is using a climate change communications plan.

5 4 3 2 1 0

Comment: We do not have a plan in place, but we try to incorporate climate change messaging into all our products including press releases and speeches (which is our major tool). We have a climate change expert on staff (Curt Brown, Denver, Colorado) as well as regional experts who are referenced by media.

6. My agency/organization has defined goals for its climate change communications plan or efforts.

5 4 3 2 1 0

7. My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.

5 4 3 2 1 0

8. If you answered #4 with "disagree" or "strongly disagree," please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.

9. If you answered #6 with "agree" or "strongly agree," please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change

communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.

10. If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.

11. Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.

Campaigns = n/a

Goals = n/a

Target audiences = n/a

Some of our key messages for climate change are:

- The American West is the fastest growing region of the country and faces serious water challenges.
- Adequate and safe water supplies are fundamental to the health, economy, security, and ecology of the
- country.
- With increased demands for water from growth and energy needs, amplified recognition of environmental water requirements, and the potential for decreased supplies due to drought and climate change, a water balance cannot be achieved without water conservation and water reuse.
- Federal leadership is critical to widespread acceptance and implementation of effective conservation and
- recycling techniques.
- Reclamation will help address these concerns through the Department’s WaterSMART (Sustain and Manage America’s Resources for Tomorrow) program – working to achieve a sustainable water strategy to meet our Nation’s water needs.
- The WaterSMART program (which includes the Reclamation programs formerly known as the Water Conservation Initiative) included cost-shared grants for conservation and water management improvement projects, basin-wide planning studies that will address the impacts of climate change, and funding of water reuse and recycling projects through the Title XVI Water Reclamation and Reuse Program.
- Reclamation will also partner with States, tribes and local entities under the WaterSMART program to develop incentives and best practices for implementing water conservation and water recycling projects.
- Together, these programs form an important part of Reclamation’s implementation of the Secure Water Act (Subtitle F of Title IX of P.L. 111-11, Omnibus Public Land Management Act of 2009).
- Reclamation will also address climate change impacts and water shortages through the Basin Study program, which implements Section 9504 of the Secure Water Act through three activities, including: (1) Basin-wide water supply and demand studies (Basin Studies); (2) West-Wide Risk Assessments, providing baseline climate change information; and (3) Landscape Conservation

Cooperatives (LCCs), which pair science and resource management together to develop climate adaptation strategies through cooperative partnerships.

- Through the Basin Studies, Reclamation will work with State and local partners to analyze the impacts of climate change on water and power facilities in the West and identify mitigation strategies to adapt to climate variability and chronic water shortages. Such efforts are critical in western states as they cope with the impacts of climate change and areas experiencing record droughts and population increases. Reclamation will also initiate two LCCs in the Colorado River Basin in 2011.
- LCC's are partnerships between Interior agencies and States, Tribes, Non-Governmental Organizations, and other stakeholders, that bring together science and resource conservation to address the impacts of climate change and other stressors to natural resources within an ecological region or "landscape."
- Additionally, the Science and Technology program will support the Department's new Climate Science Centers. Reclamation is also assessing and implementing new renewable energy generation development in association with Reclamation facilities in cooperation with other Federal and State agencies, water users, and private sector entities through its Power Program Service program.
- In order to address the needs of water managers as they manage the nation's water and hydropower resources under a changing climate, Reclamation established the Climate Change and Water Working Group (C-CAWWG) in 2008.
- The C-CAWWG group brings together the two Federal water management agencies (Reclamation and the U.S. Army Corps of Engineers) with the two climate science agencies, the U.S. Geological Survey (USGS) and National Oceanic and Atmospheric Administration (NOAA). Through the C-CAWWG, Reclamation identifies the climate information gaps and needs of water managers, and then steers resources to meeting those needs.
- The R&D Office continues to develop interagency partnerships and research projects to develop tools for projecting climate change impacts on water resources and adaptive strategies. The office supported the Departmental Climate Change Task Force, as well as preparation of the Reclamation, U.S. Geological Survey (USGS), U.S. Army Corps of Engineers, and National Oceanic and Atmospheric Administration publication: Climate Change and Water Resources Management: A Federal Perspective (USGS Circular 1331).

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

n/a

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: Catherine Semcer, Sierra Club

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. **Addressing the impacts of climate change on natural resources is a priority for my agency/organization.**

5	4	3	2	1	0
----------	---	---	---	---	---
2. **Communications related to our work on climate change issues is a priority for my agency/organization.**

5	4	3	2	1	0
----------	---	---	---	---	---
3. **My agency/organization is planning to increase its climate change communications efforts.**

5	4	3	2	1	0
----------	---	---	---	---	---
4. **My agency/organization targets the “general public” in its climate change communications efforts.**

5	4	3	2	1	0
----------	---	---	---	---	---
5. **My agency/organization has developed and is using a climate change communications plan.**

5	4	3	2	1	0
---	---	---	---	---	----------
6. **My agency/organization has defined goals for its climate change communications plan or efforts.**

5	4	3	2	1	0
---	---	---	---	---	----------
7. **My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.**

5	4	3	2	1	0
----------	---	---	---	---	---
8. **If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.**
9. **If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.**
10. **If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.**
 - Performance metrics (number of opens, click throughs and responses to an e mail, sign-ups)
 - Convio produced statistics
11. **Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.**
 - Our “Trails” website (<http://trails.sierraclub.org/>) utilizes a wiki and social networking platform to allow individual users to gather and share information about outdoor recreation. Through the site’s blog and other features we directly share information about threats to natural resources, from climate, change with users.
 - Our RENEW online newsletter provides brief, weekly news items related to climate adaptation to subscribers
12. **Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.**

- The health of relatively obscure resources (e.g., bull trout) should be directly tied to resources with greater social value (e.g., salmon.)
- The economic impacts of losing resources due to climate change should be stressed.

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: Jessica Robertson, USGS Public Affairs

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. **Addressing the impacts of climate change on natural resources is a priority for my agency/organization.**
5 4 3 2 1 0
2. **Communications related to our work on climate change issues is a priority for my agency/organization.**
5 4 3 2 1 0
3. **My agency/organization is planning to increase its climate change communications efforts.**
5 4 3 2 1 0
4. **My agency/organization targets the “general public” in its climate change communications efforts.**
5 4 3 2 1 0
5. **My agency/organization has developed and is using a climate change communications plan.**
5 4 3 2 1 0
6. **My agency/organization has defined goals for its climate change communications plan or efforts.**
5 4 3 2 1 0
7. **My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.**
5 4 3 2 1 0
8. **If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.**
9. **If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.**
10. **If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.**

11. Please briefly describe your agency/organization's climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.

The USGS does not have a set communications plan for climate change research. Outreach efforts do focus on the five major components of the USGS Global Change Program. Those components are carbon management, National Climate Change and Wildlife Science Center, research and development, Climate Effects Network, and science applications and decision support.

One example of an outreach strategy/event is the USGS Congressional Briefing Series. In 2008 and 2009, the series focused only on climate change topics. Bill Lukas (cc'd on here and is attending the forum in my absence) can tell you more about this series.

We have tracked the success of our news releases to see how much coverage we received and by what media outlets. I conducted a content analysis study on three USGS press releases awhile back as a measurement effort. I compared the tone, headlines and lead content of our news releases to resulting articles. The main thing I found was that articles focused on the problem, possible solutions, moral or other impacts of the problem, and always made a reference to climate change or warming. Articles didn't really discuss the research process or the science details until further down.

Our main audiences are the hill, media, and general public. We do not put enough time into education but think it is an area we need to consider putting more resources toward. The USGS just has one or two people in our education office.

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

When writing about climate change, it is important to not make statements of judgment or assumption. Science is of course surrounded by probabilities and it is important to emphasize that while not going too far outside the facts of the research.

Another lesson we have learned is to prepare our scientists for the negative feedback they may receive after authoring a climate related study. It is important that our scientists are aware of the potential attacks from skeptics so they know when it is appropriate to respond and don't take this negative feedback personally.

At the same time, it is important to keep in mind that many members of the general public are just scared and confused and they can express that in an angry tone. So we need to understand their fears and make sure to explain things and answer their questions.

The National Phenology Network has been particularly important for USGS in engaging the public and constituencies on the issue of climate change. It's a great tool for engagement, giving people the chance to participate and contribute to our understanding of the impact of climate change. Backed p by hard science like satellite observations, it's giving us some useful information.

We've promoted it by targeting blogs and social sites for the birding community and others, and it's been successful – we've looked at before and after numbers, and they've been encouraging. We can also find out, when they sign up, why they joined, and how they heard about it.

The USGS and DOI presence at COP-15 in Copenhagen was a success too. We presented at several panels in coordination with other government agencies. Our presence helped inform the global media organizations of our research and contribute to informing the policy decisions being made at that forum. We created posters that were placed around the event space, developed a DOI website, conducted media interviews, and had handouts at the US room at the venue.

Participant Survey Questions

Respondent: Kathryn Brown, The Conservation Fund

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. **Addressing the impacts of climate change on natural resources is a priority for my agency/organization.**
5 4 3 2 1 0
2. **Communications related to our work on climate change issues is a priority for my agency/organization.**
5 4 3 2 1 0
3. **My agency/organization is planning to increase its climate change communications efforts.**
5 4 3 2 1 0
4. **My agency/organization targets the “general public” in its climate change communications efforts.**
5 4 3 2 1 0
5. **My agency/organization has developed and is using a climate change communications plan.**
5 4 3 2 1 0
6. **My agency/organization has defined goals for its climate change communications plan or efforts.**
5 4 3 2 1 0
7. **My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.**
5 4 3 2 1 0
8. **If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.**
9. **If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.**
10. **If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.**
11. **Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.**

Forest Carbon
Afforestation
Go Zero – partnership with USFWS

1. Goal – Use carbon as a tool to raise private dollars for protection and restoration of native forestlands on behalf of public agency partners, namely the USFWS
2. Clients – Fortune 500 corporations and general public
3. Target audience - Fortune 500 corporations and general public
4. Outreach – Earned media in top dailies both business section and enviro writers, press releases, web text, frequently asked questions, mock interviews, video, collateral, donor emails/updates, partner communications (partner websites, blogs, newsletters)
5. Evaluation tools – carbon calculator, custom donation pages via partner websites, Google analytics

Improved Forest Management

Garcia River, Big River, Salmon Creek, CA – Forests owned and operated by Conservation Fund

1. Goal – Use carbon as a tool to raise help enhance forest stewardship and supplement acquisition financing (repayment of loans)
2. Clients – Fortune 500 corporations (ala PG&E, Disney, as well as large carbon investment firms)
3. Target audience - Fortune 500 corporations and general public
4. Outreach – Earned media in top dailies both business section and enviro writers, press releases, web text, frequently asked questions, conferences, donor emails/updates, CAR website
5. Evaluation tools – ??? (carbon sales?)

Adaptation

1. Goal – to include adaptation messaging into the projects TCF works on with our federal, state and local agency partners, and to ensure consistency with the ongoing efforts of these agencies with regard to highlighting a project’s importance for addressing climate change impacts through fish and wildlife adaptation (i.e., migration corridor linkages to other projected areas, resiliency of natural systems, providing important buffer areas).
2. Clients – Federal, state, and local agencies
3. Target audience – Federal, state and local agencies, private donors, U.S. Congress, and the general public
4. Outreach – TCF Website, general fact sheets, and lobbying materials
5. Evaluation tools – unknown at the time

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

Only do great projects with exceptional and permanent benefits to climate, land, biodiversity and local communities

Be transparent

Be conservative

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: Jad Daley, Trust for Public Land

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. **Addressing the impacts of climate change on natural resources is a priority for my agency/organization.**

5	4	3	2	1	0
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2. **Communications related to our work on climate change issues is a priority for my agency/organization.**

- 5 4 3 2 1 0
3. **My agency/organization is planning to increase its climate change communications efforts.**
5 4 3 2 1 0
4. **My agency/organization targets the “general public” in its climate change communications efforts.**
5 4 3 2 1 0
5. **My agency/organization has developed and is using a climate change communications plan.**
5 4 3 2 1 0
6. **My agency/organization has defined goals for its climate change communications plan or efforts.**
5 4 3 2 1 0
7. **My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.**
5 4 3 2 1 0

8. **If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.**

Although the public is an audience, we are focusing on people engaged with our organization. We’re looking at influencing concentric circles of decision makers. As far as the general public goes, we’re looking at how we use our influence to effect broader engagement. We have a Climate Conservation Program, looking at making a difference with climate change mitigation and adaptation. I think there are some good opportunities to work with other groups to amplify our message on this key issue.

9. **If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.**

Our goal is to build support at the federal and state level for climate change implementation efforts, and to raise the overall education level among our members and decision makers. Our focus is on marketing and communications, and we’ve devoted a lot of capacity and are using a lot of mediums. We’re using a lot of social media to target our members and other followers, creating events and supporting campaigns like Parking Day. We’ve experimented with Flash Mobs. We’re not focused on traditional media – putting press releases out, or trying to generate coverage of climate issues. It’s a capacity issue for us.

10. **If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.**

11. **Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.**

We’re focused on telling people that TPL has the skills and abilities to make a difference on the ground now. Let’s get started. We have a “4P” strategy focused on planning, policy, partnerships and projects. We are concentrating on what we are good at – restoration and stewardship projects.

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

Climate change adaptation is an ethereal concept. We have to find a way to translate this into some demonstrable, tangible progress. Early wins and action are needed to demonstrate to people that progress is possible – we know how to do this. We need to emphasize that we’re protecting natural systems for human and natural benefits, and we as a conservation community haven’t done a very good job of this to date. We need to get beyond abstract concepts to specific, achievable outcomes and clearly described benefits.

**Climate Change Communications Forum
Participant Survey Questions**

Respondent: Jenna Jadin, The Wildlife Society

For the following questions:

5 = Strongly Agree; 4 = Agree; 3 = Neither Agree nor Disagree; 2 = Disagree; 1 = Strongly Disagree; 0 = Not Sure

1. **Addressing the impacts of climate change on natural resources is a priority for my agency/organization.**
5 4 3 2 1 0
2. **Communications related to our work on climate change issues is a priority for my agency/organization.**
5 4 3 2 1 0
3. **My agency/organization is planning to increase its climate change communications efforts.**
5 4 3 2 1 0
4. **My agency/organization targets the “general public” in its climate change communications efforts.**
5 4 3 2 1 0
5. **My agency/organization has developed and is using a climate change communications plan.**
5 4 3 2 1 0
6. **My agency/organization has defined goals for its climate change communications plan or efforts.**
5 4 3 2 1 0
7. **My agency/organization has identified and is using tools to measure the relative success or failure of our climate change communications efforts.**
5 4 3 2 1 0

8. If you answered #4 with “disagree” or “strongly disagree,” please briefly describe the demographics or audience characteristics that your agency/organization targets through its climate change communications efforts.

The Wildlife Society has focused its efforts to date on its members – mostly wildlife biologists and some enthusiasts, as well as members of Congress and government agencies through our public comments and testimony, much more than the general public, although we have posted our positions on our public internet site.

9. If you answered #6 with “agree” or “strongly agree,” please list the goals your agency/organization has identified for its climate change communications efforts. Goals could describe what your agency/organization expects to change when its climate change communications goals are met; goals could describe what success looks like to your agency/organization upon full achievement of those goals.

10. If you answered #7 with “agree” or “strongly agree,” please briefly describe the tools your agency/organization is using to measure the relative success or failure of its climate change communications efforts.

We have not really developed assessment tools to date.

11. Please briefly describe your agency/organization’s climate change communications current campaigns, including goals, messages, target audiences, media/venues/outlets or other outreach strategies, and evaluation tools.

Our efforts are currently focused on developing technical reviews and position statements on issues of the day and particular legislation having to do with the impacts of climate change on wildlife. These products are targeted at our membership, Congress and government agencies to a great degree. We have not worked to develop coordinated messages, but over time, these messages are emerging as we develop greater consensus on the impacts of climate change on wildlife and habitat.

12. Please briefly describe any particularly important lessons your organization has learned during the course of your climate change communications efforts.

We need good data. We want to have science behind everything we’re saying. Whenever we send out position statements, we want to engage our members on the topic and get more data. We’re working to get more information and catalogue it for rapid response. We want to be able to better tie climate change to particular and specific impacts, and to be able to highlight those impacts in a systematic and credible way. Climate change tends to grab the public’s attention, but we need to provide better information about these impacts.

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