

Acknowledgments

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Continuing education credits

Robinson Design Engineers Nature-Based Exchange compendium

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Workshop Series Timeline

There is often a gap between conceptualizing ideas for natural and nature-based solutions (NNBS) and developing practical and solution-oriented plans using them. To close this gap, The Nature Conservancy, Clemson's Resilient Urban Design Program, and the City of Charleston conducted a series of practical and outcome-based workshops that will bring together a variety of local partners to discuss and develop NNBS. The goal was to synthesize existing knowledge and information on NNBS, align it with opportunities and barriers within the state of South Carolina, and create practical and equitable steps for implementation.

There are a total of seven workshops in the series. The first workshop serves as a springboard for the rest of the series, offering an introduction to NNBS and gathering input from participants. The information gathered during this workshop will inform the focal topics for the remaining workshops.

Workshops 2 through 7 focused on one specific topic each to ensure a targeted conversation with produced outcomes.



WORKSHOP 1 Introduction to Natural and Nature-based Solutions May 18th, 2022



WORKSHOP 2 Common Messaging on Natural and Nature-based Solutions July 27th, 2022



WORKSHOP 3 Planning for Natural and Nature-based Solutions September 14th, 2022



WORKSHOP 4 Funding NNBS: Navigating Grants, Risk Assessment, and Costs Benefit Analysis November 16th, 2022



WORKSHOP 5 Equity in Natural and Nature-Based Solutions January 18th, 2023



WORKSHOP 6 & 7 Design Standards for Natural and Nature-Based Solutions, Part 1 & 2 March 22nd, 2023 May 17th, 2023

Workshop 2: Common Messaging on Natural and Nature-based Solutions (NNBS)

AGENDA ITEMS (9:00 am - 12:00 pm)

- · Opening Remarks & Introduction
- · Defining the Problem We Are Trying to Solve
- · Stakeholder Focused Messaging
- "This-not-That" Wording Smithing Exercise

The second Nature-Based Exchange workshop was focused on common messaging for natural and nature-based solutions. Facilitated by Theresa McClure and John Mitchell from HDR, Inc., this workshop was designed to be highly interactive and sought to gather input from participants to build a common messaging strategy for nature-based solutions. Exercises during the workshop aimed to identify problems and stakeholders, define messaging strategies, and determine what words should (and should not) be used in messaging.

Recommendations & Next Steps

A general messaging strategy was developed from this workshop, with common key messages on NNBS and targeted messaging around flooding and habitat/water quality. Participants agreed that additional next steps include creating one-pagers directed at the target audiences identified and expanding the messaging strategy around additional topics related to nature-based solutions. The goal is for all involved in NNBS in South Carolina to be using the same language.

Exercise 1: Defining the Problem

Guiding Question

What problem are we trying to solve?

What We Did

In Exercise 1, nature-based solutions were identified as solutions for two ecological-based problems: flooding and water quality/habitat quality. To improve the communication of these two problems, HDR helped compose a messaging strategy that could enhance the communication of these topics. It is hoped that this messaging strategy will be expanded in the future to incorporate additional problems and talking points that support and explain nature-based solutions. Before any value statements or common messaging strategies could be created, the group first had to determine what problem needs to be solved. Broadly speaking, nature-based solutions can address numerous environmental problems in ways that offer social, economic, and ecological benefits as compared to traditional gray infrastructure, but because they are not "traditional" solutions, there are impediments to their implementation. To determine what problems need to be solved in South Carolina, participants broke out into small breakout groups and wrote the problems they perceived on post-it notes. A round-robin discussion then occurred, with each group reporting on the problems identified in their group. The facilitators then categorized the problems into value themes.

Results & Takeaways

Participants identified a lengthy list of problems that fell into one of two categories: ecological and societal.

Ecological themes focused on the environmental problems that nature-based solutions aim to address, including flooding, water quality/habitat quality, and habitat loss. Flooding is one of the most commonly identifiable problems that nature-based solutions address, as it is often the driving factor behind project implementation. Besides the obvious threat of property damage, flooding can also cause economic disruption, put public health and safety at risk, and limit transportation. Nature-based solutions can also solve the ecological problems of poor water quality/habitat quality and habitat loss which are commonly caused by runoff, erosion, and development.

Societal themes focused on the governmental, social, economic, and cultural problems that currently hinder the implementation of nature-based solutions. These themes included misunderstanding, communication, and project selection and planning.



There is a lot of misunderstanding around nature-based solutions, stemming from a lack of awareness about their benefits and a fear of change. The absence of a national or state standard adds confusion while political polarization, derived from the perceived relation between nature-based solutions and climate change, causes division. Building on this is a misunderstanding of the scale of the problem (typically at the watershed level) versus the scale of the solution (typically within a jurisdiction). Due to this misunderstanding, there is a need for improved communication that will educate and improve public attitudes toward these solutions, building trust and public buy-in. Nature-based project selection and planning is currently hindered by a lack of buy-in at all stages of the project and a need for training at every part of the project cycle. The absence of a central database and authority along with a permitting process that is difficult to navigate further prevents the implementation of nature-based solutions.

Nature-based solutions can solve big, complex ecological problems. But these big solutions also face broad, highly interconnected obstacles. To overcome these obstacles – thus reducing misconceptions, building trust, and gaining buy-in – a common messaging strategy must be developed. The first step to doing this – identifying the problems – is now completed. The next step – identifying stakeholders – occurred in the workshop's second exercise.

Exercise 2: Stakeholder Focused Messaging

Guiding Questions

Who are the stakeholders? What should they know?

What We Did

The second exercise in the workshop focused on identifying stakeholders and determining how to frame messaging for each audience. To identify stakeholders, participants were asked to write down specific groups, names of organizations, and individuals who may be impacted by nature-based solutions or play a role in their implementation. The facilitator led a round-robin discussion and sorted identified stakeholders into audience groups. Once groups were determined, participants at the workshop voted for the groups they believed should be a top priority for future outreach. Then participants collectively discussed what information should be communicated to each group.

Results & Takeaways

This exercise resulted in the identification of nine unique target audience groups:

- Community Organizations
- · Decision Makers
- Funders/Financers
- Implementers
- Influencers

- Interest Groups
- Large Business
- Small Communities
- Utilities

While each audience was composed of multiple sub-groups and organizations, there are undoubtedly some groups still missing. As a result, this list should not be viewed as complete but rather as a starting block to identify all stakeholders. The top three groups identified as a priority for future outreach included decision makers, implementers, and influencers. Participants thought targeted outreach to these groups could have the largest impact in transforming nature-based solutions into not only an accepted solution, but also an expected one, in South Carolina.

It was determined that the information conveyed to **decision makers** should be focused on the multiple benefits these solutions provide as well as the urgency behind their implementation. Messaging should be localized to South Carolina and centered around examples that demonstrate the long-term payoff (particularly from an economic perspective) from implementing these solutions. Demonstrating that regulations do work and expressing the need for leadership in this space could also be useful.



Information shared with **implementers** should take an approach concentrated on sharing best practices while encouraging creativity. Information that updates, bolsters, and reinforces new and existing plans and policies are deemed especially important. Basic messaging should be shared repeatedly, and messaging should encourage collaboration, express confidence in project outcomes, and establish a standard for including performance management on projects.

Influencers are tasked with normalizing the language, design, and outcomes of nature-based solutions with the public. As such, messaging for this audience should elevate that these solutions are relevant to everyone, including underserved communities, and can be used to solve a variety of problems across the state. It is important to provide this audience with clear talking points that counter common opposing arguments and that clearly state the business case for pursuing nature-based solutions. Framing communication through a love for the environment and offering success stories could be an effective way to engage with this group.

Decision Makers

Politicians and elected officials	Federal senators and representatives
Municipal associations of South Carolina	State senators and representatives
Local governments	Regulatory community
City and rural representatives	

Influencers

Social media influencers	Chamber of Commerce
Faith-based communities	NGOs
Nature-based businesses	Representative groups
Ecotour operators	NAACP Gullah Geechee nation
Commercial fishers	
Charger guides	Farm bureau
Seafood wholesalers	r drift bareau
Aquaculture farms	
Foundations and funders	Media
Philanthropists	

Interest Groups

Engineering Community	Bankers
Civic: ASCE	
Chamber of Commerce	Farm Bureau
Realtors	Large business commerce
Hilton Head Association of Realtors	
Carolina Trident Association of Realtors	
Coastal Carolina Association of Realtors	
Lobbying	Military
Homebuilders' association	
Trade groups	
Land managers	Land owners
	Agriculture
Land trusts	Agricultural community

Large Business

Kids (K-12)	Military
Building capacity for existing structure	
STEM - STEAM - STREAM!	

Gen Z	Single family
Technical Schools	Residential
Academia	Suburbanites
Next generations	
Community Organizations	
Community members and associations	HOAs and neighborhood associations
Rural	
Urban	
Civic clubs (i.e., rotaries)	Newly moved residents
Civic organizations	
Small Communities	
Smaller, resources limited local governments	Long-time residents
Frontline communities	New residents
Low income	
MS mansions	
Farmers	
Segment; rural/urban	HOAs
Small businesses	
Utilities	
Utility companies	
Funders/Financers	
Loan officers	BODs of financial institutions
Implementers	
Design professionals	Landscapers
Refresh skills and curriculum	
Design, planning, engineering service providers	Maintenance companies
Construction industry	Redevelopment
Zoning/planning administrators	Developers
Landscape architects	Engineering/site design

Home builders

Exercise 3: This-Not-That Word Smithing

Guiding Questions

What words can be too polarizing? What words must be used no matter what?

What We Did

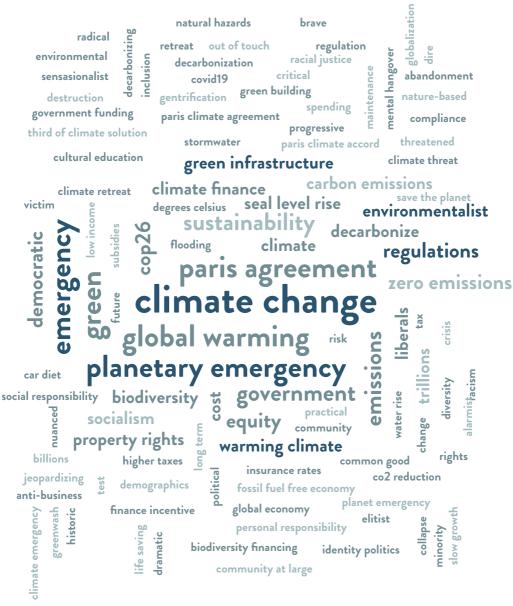
For the third and final exercise, facilitators conducted a rapid-fire poll to get input on words to use (and not use) in a common messaging strategy. Two questions were posed to participants: (1) What words can be too polarizing? (2) What words must be used no matter what? Results were broadcast live as a word cloud.

Results & Takeaways

The top words identified by participants as being too polarizing included climate change, global warming, planetary emergency, and Paris agreement. (It should be noted there is an assumed interest and knowledge of nature-based solutions by participants. As a result, these results could look much different if answered by those who are less knowledgeable and supportive of nature-based solutions.) Other popular words identified by participants included sustainability, green, climate, emissions, and government.

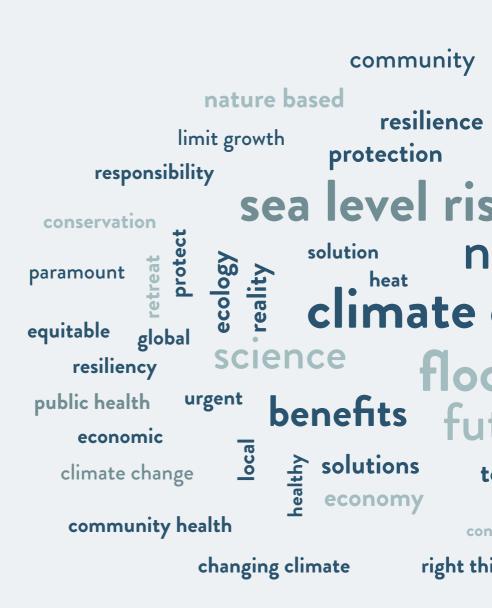
The top words identified by participants as needing to be used no matter what included climate change, nature, fluture, flooding, and science. Other popular words included sea level rise, ecology, resilience, equity, and habitat.

Unsurprisingly, "climate change" was a phrase that was viewed by participants as being too polarizing yet must also be used no matter what. Other words that were found on both lists include (but are not limited to): sea level rise, equity, emergency, and future. The presence of some words on both lists reminds us that we all have different interpretations of words; some may find a word polarizing while others deem it a priority or necessity. As nature-based experts and practitioners, we must be aware of the unintended impact our words can have on others, particularly those who may not support or understand nature-based solutions. This does not mean we should shy away from every questionable or hard word because some of these words are critical to advancing nature-based work; but, we should be mindful of how and when we use these potentially polarizing words and be prepared to explain why we chose to use them.



(Above) Word cloud that answers the prompt, "What words can be too polarizing?"

What words must be used no matter wh



at?



Workshop 2: Nature-based Solutions Common Messaging Strategy

South Carolina is facing unprecedented population growth and development pressure, along with increasing impacts from climate change including flooding, drought, stronger hurricanes, and extreme heat. These trends pose a serious risk to South Carolina, local communities across our state, our history and cultural heritage, ecosystem health, and economic growth. Reducing the impacts these threats have on the lives, properties and economy of our State is a top priority to preserve the quality of life we all hold dear.

Nature-based solutions are cost-effective methods to enhance resilience in both the natural and human environments. While these solutions are often considered for coastal problems such as sea level rise and flooding, riverine, agricultural, and urban systems can also benefit. When implemented correctly, nature-based solutions can provide habitat protection, prevent wildlife loss, preserve cultural heritage, create greener cities, and combat issues such as extreme weather, food production, and water resource management.

These solutions act to protect, sustainably manage, and restore ecosystems to promote biodiversity and human well-being. By working with existing natural systems and human-made infrastructure, nature-based solutions can produce long-term social, economic, and environmental benefits.

In the document below, we provide key messaging for nature-based solutions. We expect this document to be used primarily by those interested in shaping and refining their messages on nature-based solutions: policy makers, environmental influencers, developers, design professionals and other stakeholders.

Key Messages

- Nature-based solutions can help reduce the loss of life and property resulting from South Carolina's most common natural threats. These include flooding, storm surge, and drought. As future conditions amplify these threats, nature-based solutions can help communities adapt and thrive.
- Nature-based solutions can provide short- and long-term environmental, economic, and social advantages that improve a community's quality of life and make it more attractive to new residents and businesses.
- Nature-based solutions can be easy to implement and are encouraged for small-scale
 use such as at the neighborhood level or for site-specific projects.
- Nature-based solutions can help communities save money by reducing losses from future floods and other natural disasters.
- Nature-based solutions often cost less than alternative investments. They create
 alternatives where the need for certain infrastructure can be avoided altogether,
 reduce the cost of rebuilding and repairs after a disaster, and help mitigate the impacts
 of future conditions like climate change.

Message Breakdown

Flooding

- Nature-based solutions can mitigate flooding with watershed-scale projects like land conservation, floodplain restoration, and waterfront parks. These example projects also store and slow floodwaters.
- Nature-based solutions can mitigate stormwater flooding by encouraging or requiring neighborhood- and site-scale projects like bioretention systems. Nature-based stormwater solutions include practices such as bioretention basins, rain gardens, rainwater harvesting, green roofs, and more. These practices soak up runoff from hard surfaces and reduce the amount of stormwater flowing into the storm sewer system.
- Nature-based solutions can mitigate coastal flooding with projects that focus on shoreline stabilization including living shorelines, reefs, and dunes that can slow waves, reduce wave height, and reduce erosion. These practices also benefit the ecosystem by filtering and cleaning water and providing habitat.
- Nature-based solutions can help communities save money by reducing losses from future floods and other natural disasters.

Habitat and Water Quality

- Watershed and shoreline nature-based solutions preserve open space and natural
 environments. If thoughtfully designed, they can also connect habitats to give plants
 and animals more space to move across the landscape. Both types of nature-based
 solutions protect aquatic and wildlife habitats by improving water quality.
- Nature-based solutions can be used to filter pollutants from stormwater runoff and to reduce the volume of polluted water flowing into rivers, lakes, and coastal waters. In older cities with combined sewer systems, they can also reduce the untreated sewage going into community waterways.
- Nature-based solutions that protect the land around drinking water reservoirs can keep polluted runoff away from a community's water supply.
- Adding trees and vegetation can help reduce 'urban heat island effect' on hot days by providing shade and cooling through evapotranspiration.
- Nature-based solutions that preserve and enhance open space provide more areas for recreation.
- Nature-based solutions such as greenways and green streets can increase
 opportunities for active transportation, such as biking and walking. These spaces can
 also provide aesthetic benefits that contribute to improved mental health and physical
 well-being.
- Improved air and water quality reduces exposure to harmful pollutants.
- Trees, parks, and other plant-based, nature-based solutions can absorb and filter pollutants and reduce air temperatures. Doing so reduces smog and improves air quality.

Thank you to our attendees...

Thank you to everyone who attended the workshop. These individuals contributed their thoughts, energy, and enthusiasm to the exchange and are responsible for the ideas and content produced in this compendium.

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