RESILIENCE SERVICE NETWORK

CASE FOR SUPPORT

Prepared By

Farallon Strategies

January 2023

CONSERVATION TRUST FOR NORTH CAROLINA

LAND WITH PURPOSE

Contents

Letter from Conservation Trust for NC

The State of North Carolina is making unprecedented investments in building resilience against the effects of our changing climate. Hundreds of millions of dollars have been allocated for a statewide flood resiliency modeling effort, coastal community planning, floodplain protection, stormwater management, and for reducing the vulnerability of transportation systems, to name a few of the vital investments. Billions of additional dollars from federal sources have also been earmarked for climate resilience.

Conservation Trust for North Carolina has supported and applauded these bipartisan efforts because we've seen the impacts from hurricanes, floods, mudslides, heat waves, and droughts increasingly affect communities throughout the state. Our own collaboration with the Town of Princeville has underscored the need to proactively address vulnerabilities shared by so many.

Yet, again and again, we've heard from colleague organizations, local leaders, and those working in other states that as important as these investments are, they are constrained by local community capacity. For such investments to be effective, communities must be able to take advantage of the information, support, and financial resources made available. Too many communities seem to lack that needed capacity.

To begin to address this vulnerability, we commissioned a study to gather more systematic information and input on the role service programs might play in building community capacity around climate resilience. CTNC's own long-standing AmeriCorps program, Resilience Corps NC, suggested a potential strong synergy. With funding from the N.C. Commission on Volunteerism and Community Service and other sources, we contracted with Farallon Strategies, a national consulting firm specializing in identifying ways climate and national service may intersect. Their team has supported many other states in exploring opportunities for AmeriCorps and other service programs to assist communities by expanding local capacity.

The results of their extensive surveys, interviews, and focus groups, representing every region of North Carolina, affirm that existing and new service programs are well-positioned to play a vital role in assisting communities seeking to leverage the climate resilience investments being made. Though, as the study also shows, service in North Carolina must be greatly expanded and substantively changed to realize this potential.

1	To garner the full value of their service, members must be matched with organizations that have the focus and resources to guide their work.
2	To impact the greatest climate resilience needs, expanded service programs must reach into under-resourced areas first.
3	To attract the diverse talent needed to support communities, service members must be paid a living wage and provided sufficient support for living within their communities.
4	To deliver new kinds of support as local community needs are more clearly identified, a statewide network of existing and new service providers must have sustained and growing investment.

While this study is a seed of an idea, we see great potential in service programs to help alleviate community capacity concerns, build a resilience-oriented workforce, and maximize additional investments in the state's resilience. North Carolina is primed to lead the nation on creative and innovative solutions for climate action.

CONSERVATION TRUST FOR NORTH CAROLINA

LAND WITH PURPOSE

February 2023

Executive Summary

Communities are ready to address the threat of climate change, but they're hindered by a lack of capacity to mobilize an effective response.

Over the past several months, Farallon Strategies (the "Project Team") explored the role service programs can play in equipping North Carolina's communities with the resources necessary to build greater climate resilience. Farallon team members met with stakeholders across the state to better understand how communities are being impacted by the effects of more frequent, severe storms - and what tools they have to build healthy, vibrant spaces for the people who reside there.

This project was initiated by Conservation Trust for North Carolina (CTNC). The land conservation organization works alongside community leaders to conserve land in ways that inspire and enable people to build resilient communities in our state. Through a long-term partnership with Princeville, N.C., and through discussions with other community-based practitioners, a common theme emerged. The effects of more frequent and severe storms are being felt in communities across North Carolina. These climate events are impacting the health, safety, economy, and quality of life of North Carolinians. A cornerstone of CTNC's collaborative conservation model seeks to leverage the power of people through structured service programs - AmeriCorps, conservation corps, and similar service-oriented programs - to address the needs most compelling to the communities CTNC works alongside.

We identified tremendous potential in service programs to address community needs related to the near- and long-term climate challenges facing North Carolina.

The Project Team coordinated an outreach effort to better understand the opportunities of service programs. Over the course of this project, the team collected over 100 survey responses, principally from local governments and nonprofits; completed 25 one-on-one calls with representatives of local governments, nonprofits, state agencies, and existing service programs; and held four group conversations with 36 individuals.

Service providers must address key barriers for effective community engagement if they hope to advance resilience projects in a meaningful way.

The Project Team identified some key barriers to achieving success. The existing service capacity needs to grow, and the activities involved will require greater diversity to effectively respond to community needs. Stakeholders and programs mutually recognized host costs, administrative burdens, member benefits, and high match and project costs as major barriers to implementing a comprehensive service network in the state. The team also found that the state currently offers a patchwork of relevant support that is not commensurate with the scale of the needs of North Carolina's communities.

Fortunately, North Carolina is slated to receive significant investment in flood prevention, critical infrastructure and transportation, and other projects designed to increase resilience. These investments will provide opportunities to meet the funding levels required to realize this effort at scale. Building on existing planning efforts and financial support, the team identified flood response as an established mechanism to direct service to communities in need.

Communities are prepared to address climate action and capacity needs through service. Effective coordination will support long-term success.

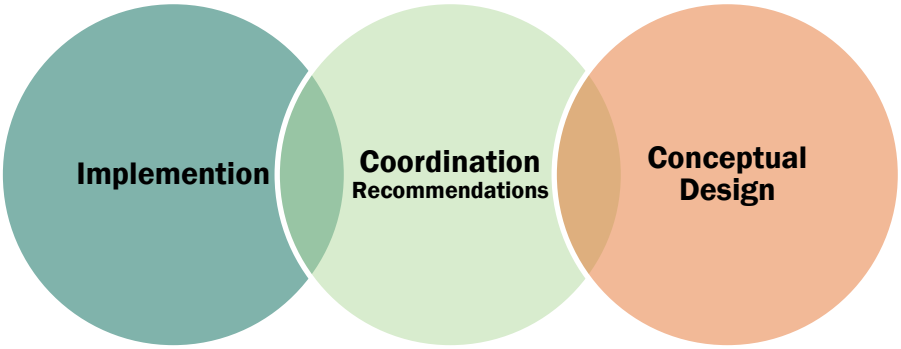
While there was widespread stakeholder endorsement for scaling services to address the impacts of climate change, a significant throughline emerged. Stakeholders agreed that North Carolina communities will require a range of service opportunities to address a diverse range of needs. They expressed a strong desire to expand traditional service activities (i.e., direct action and education), while calling for far greater utilization of service to support capacity building efforts (e.g., planning, analysis, etc.). To scale and function effectively, an expanded service response will require a coordinated and strategic effort that should involve and align with major stakeholders and processes already underway.

The Project Team identified a high-level program design and funding approach that may offer a roadmap for building a successful statewide climate service initiative. Notably, such a design would emphasize an approach that offers communities diverse service options through a coordinated network that aligns activities across issues, activities, and geography.

Building an effective service network will require significant investment.

The team projects an annual investment of $4 million to support up to 290 participants delivering resilience and capacity support alongside communities with the greatest needs. These participants could be deployed across the state in partnership with communities most at-risk and least equipped to respond to climate challenges. Such an investment would provide participants with a living wage, build on existing program capacities, support emerging issues, subsidize community participation, and develop a coordination infrastructure to achieve collective impacts.

In response to the collective inputs and insights garnered over the course of this effort, this report offers a set of high-level recommendations organized around three areas: 1) implementation and 2) coordination recommendations, supplemented by 3) a conceptual design for a Resilience Service Network.



This report offers a strong case for how and why a comprehensive, climate-focused service initiative could support North Carolina's ongoing resilience efforts to offer greater benefit to North Carolina communities and individuals.

Recommendations

Based on the findings, this report identifies a set of summary recommendations that reflect the most common themes and opportunities for a statewide climate service initiative. Recommendations are presented in three parts:

	**Implementation**	What framing or program design steps should be taken to build a stronger service effort in North Carolina.
	**Coordination**	What steps might be taken to ensure the effort is well coordinated so it can deliver the greatest impact for the state.
	**Resilience Service Network Concept**	What operational and funding design will be required to achieve success at a statewide scale.

The findings section of this report reflects the Project Team's synthesis of what participants expressed in survey responses, during interviews, and through the structured group conversations.

Implementation

The implementation recommendations include:

- Start With Flood Response
- Focus on Resilience
- Localize to Galvanize
- Reinforce What's Working
- Strategically Fill Gaps

A summary of each of the recommendations related to service activities is provided below.

Start With Flood Response

A series of historic hurricanes and other major flood events exacerbated the need for increased climate resilience strategies in North Carolina.

In response to the scale of impacts and the near universality of flooding experienced across the state, North Carolina leaders and stakeholders have joined together to address the threats and impacts at unprecedented levels. Flood related service (both preparation and direct response) may represent a high leverage opportunity to launch climate and resilience action as a pilot program designed to support immediate community needs. While flood response programs currently exist in various forms, (including within the service community) the work is not equally supported throughout the state.

Key takeaway: Federal and state funding for flood response has increased dramatically over time. A flood response program could represent a nonpartisan, high impact, widely visible area of service.

Focus On Resilience

Resilience has become a common and positively supported theme within North Carolina communities as the state deals with the need to protect infrastructure so that it will withstand future impacts.

To launch a statewide service network, it will be advantageous to emphasize resilience-building opportunities designed to benefit both rural and urban communities through service and climate response. As energy was a significant “mitigation'' subject of interest in the surveys, it will be important to adopt the inclusive definition of resilience used in this project (i.e., involving both mitigation and adaptation).

Key takeaway: It’s important to find common ground while allowing various programs and partners to forward communications and interventions that will be responsive to the unique needs of individual communities.

Localize To Galvanize

Community stakeholders stressed the importance of offering a localized approach to service that effectively meets community needs.

A localized approach would build trust with community leaders and effectively reach communities that would benefit most from capacity expansion efforts. N.C. rural communities are often understaffed and otherwise least resourced to take advantage of services and funding opportunities offered through state and federal programs. To realize this goal, recruiting efforts must be more localized. Service participants should have the support to embed within communities served. Program administrators should be allowed flexibility to tailor service opportunities in ways that best meet the community’s needs, including offering part-time positions, flexible schedules or work locations, or something else identified by the local service partners. The initiative needs to align service offerings with local needs, support communities to take ownership of service and capacity support, as well as attract more local community members to serve.

Key takeaway: Building an effective statewide initiative with strong local participation and engagement will require a carefully designed partnership structure. Combining state level engagement with trusted regional organizations who can play advisory and/or operational roles (e.g., councils of governments or others hosting and recruiting) could be key.

Reinforce What's Working

North Carolina has a well-developed service community. A particular strength currently exists within traditional conservation corps, education, and some intermediary capacity building programs.

Many community stakeholders referenced their excitement to partner in a statewide service offering focused on enhancing climate resilience and capacity building. However, the breadth and impact of this work is hindered by legacy structural barriers, including disparate cost/participants, existing program focus and partner relationships, and member service role boundaries. Generally, programs expressed an interest in growing and supporting diversified climate resilience activities as well as finding ways to collaborate and leverage each other's strengths. Similarly, nonprogram participants shared a range of positive experiences with existing programs while also emphasizing the importance of cultivating more local relationships and trust.

Key takeaway: Reinforcing existing programs before looking to add new programs should be a high priority for any statewide efforts. Special focus should be paid to cultivating relationships with least-resourced communities where the area of need is greatest.

Strategically Fill Gaps

While there's a strong base of programmatic support for service in North Carolina, there are significant needs that the current community does not address.

Specific geographic and subject matter gaps are tied to historical growth of existing programs, and the relatively new emergence of some climate resilience needs. For example, there's a fairly well-developed conservation corps presence in Western N.C., but the flooding and sea-level rise issues in the east warrant greater restoration and mitigation activities. The very significant cross-cutting call for capacity building at all levels (state to local) evidences a large gap in the current service community. While there is some support for this resilience-oriented service (e.g., CTNC has some experience), it's very limited and not as diverse in activity as participants called for. Additionally, the relatively low density of service statewide, especially in rural communities, presents an important gap to address.

Strategically filling the gaps to bolster existing programs while targeting areas for new program growth will energize a statewide service network responding to the needs of communities statewide. Notably as some of the gaps identified exceed traditional AmeriCorps or conservation corps roles (e.g., engineering, grant writing especially), filling gaps might require supporting non-traditional service program partnerships and models.

Key takeaway: Identify ways for established service programs to connect service to new priority activities and geographies. Secondly, explore where the needs of communities may require advanced technical capacity not currently offered by an existing program.

Coordination

The recommendations for how to coordinate service efforts to realize a more comprehensive outcome for the state include:

- Adapt to Thrive
- Build a Network, not a Program.
- Emphasize Catalytic Over Functional Outcomes
- Follow the Money / Unlock the Potential

A summary of each of the recommendations related to service coordination is provided below.

Adapt To Thrive

While most stakeholder responses reflect a widespread belief in the value of service, there was a correspondingly high degree of frustration related to member benefits and administrative burdens limiting community participation.

Stakeholders frequently identified the low stipends, high match or project costs, and administrative burdens (i.e., reporting) as key barriers to participation. Further, there's an increasing call to center race equity and environmental justice issues in service program offerings (especially if those programs have a climate focus). Additionally, respondents seem to understand that least-resourced communities feel the impacts of climate change at a higher rate.

To create a thriving statewide service initiative, the service community (administrators, funders, and programs) need to adapt current practices by embracing a more inclusive, equitable, and accessible structure. Such adaptation must begin by finding a way to invest in member benefits and by reducing costs and burdens for community participation.

Key takeaway: A successful statewide service initiative will have to bring resources to the table to level and raise stipends, reduce administrative barriers (for everyone - participants, communities, and programs), and offer coordination of activities and outcomes.

Build A Network, Not A Program

Stakeholders consistently expressed that having a connective network was a critical way to realize scale and collective impact.

Inputs suggest that while relatively strong, North Carolina currently has a disparate group of service resources scattered across the state in a patchwork that reflects legacy activities, relationships, and bases of operations. Partners from state to local coverage areas conveyed the desire for a more coordinated entry point to access and engage service in climate response efforts.

Key takeaway: Addressing widespread concerns about participant benefits and experience seems to require a higher level of collaboration across programs in order to offer a more consistent experience delivered effectively for all.

Emphasize Catalytic Over Functional Outcomes

Several participants noted the importance of service as a catalyst for change but not always the best tool for the greatest direct outcomes.

A historical emphasis on outputs and outcomes has forced programs to downplay their community connection and community engagement potential. While accountability is a top priority, the current system of pre-described functional outcomes hinders the ability for long term investment in strategies that benefit communities. Bringing service's complementary role to the fore and using it as a lens to focus resources (e.g., on community engagement around flood prevention vs. on flood prevention itself), might put service to work in more places while focusing service on roles for which it's best suited.

Key takeaway: Unleashing programs to see participant success measured by how well communities understand and engage in their own paths toward resilience and/or by effective collaboration with similar programs, will result in service being seen as a more meaningful strategy locally.

Follow The Money / Unlock the Potential

A statewide service initiative could offer support and solutions that help flow additional investments into North Carolina communities.

State and local government stakeholders referenced how even well-resourced programs experience challenges accessing federal and state aid dollars. In many under-resourced and under-staffed communities, grant applications and related processes pose even greater barriers, leaving money unclaimed or unspent. The Infrastructure Investment and Jobs Act (IIJA), Building Resilient Infrastructure and Communities (BRIC) grant, and the Inflation Reduction Act (IRA) were all noted as resource pools that should be better accessed by the state. Lack of capacity should not prevent communities from accessing increasingly available funds.

Key takeaway: By aligning a statewide service initiative with existing or pending funding (whether from the federal government or from the state), this initiative stands a far better chance of closing the critical funding gaps for programs and simultaneously unlocking even more resources for communities where service programs serve.

Resilience Service Network Concept

To realize a comprehensive statewide service initiative, it is important to design and fund a structure that can embrace the breadth of these recommendations.

Operational Design

Below is a draft operational design for a Resilience Service Network.

The grid within Table 1 looks at service activity type along one axis and service location/scale along the other. The Project Team outlined the intersected areas that appear to have the most depth of interest based on survey, interview, and group conversation inputs. The level of interest is represented in the table below on a scale from light to dark green. This differentiation reflects the perspectives shared that North Carolina demonstrates an immediate need in some areas (e.g., local implementation, and capacity building across the board). Thus, greater opportunity for impact may be achieved with a more focused approach at the outset.

The proper underlying foundation of effective coordination across a network would allow these disparate approaches to represent a common effort and scaled outcome.

Based on the inputs and approaches being considered in other steps, a network approach could support the diversity of needs, activities, and goals outlined in the recommendations above.

Table 1: Operational Design for a Service Network

North Carolina Resilience Service Network Statewide administration of a network for fostering climate service. Funded by legislature, open to service programs to apply for support (opt-in). Enables and supports a range of service support across scale, subject, and activity. Designed to fundamentally reduce barriers to participation and support.			
	Local	**Regional**	**State**
Capacity building / Analytic Support	Support local research, assessment, content development, and stakeholder input for key climate strategies and plans.	Support research, assessment, content development, or stakeholder input for regional strategies and plans, or support local template plan development processes	Support development, distribution, and utilization of state climate planning and analysis tools, resources, and practices
Education / Engagement / Communications	Support local education and engagement activities for community members to help support climate action responses and build community ownership for climate solutions.	Conduct regional educational engagement campaigns around key issues, subjects, and opportunities.	Develop and disseminate key climate information to target audiences to build awareness and engagement around issues and opportunities for action.
Implementation	Implementation of projects within individual communities for localized climate benefits such as flood prevention, home weatherization, etc.	Work on regional implementation of climate action projects with multijurisdictional or environmental boundaries such as living shorelines, small community restoration projects, etc.	Work under guidance of state agencies on implementation projects in communities and state lands.
Service Coordination Framework	• **Direct Funding:** Increased (and levelized) member stipends, Funding for host or project support in high-need / target communities. • **Enhanced Benefits:** Coordinated activities to identify member benefits at scale (housing, transportation, etc.) • **Participant Recruitment:** Coordinated and scaled recruitment efforts, support for increased localized recruitment especially in rural communities • **Project Coordination:** Centralized effort to solicit project interest and align to appropriate program support • **Training:** Shared training opportunities for both general needs (e.g., Climate Corps overview) and specific needs (e.g., community engagement, cultural competencies), coordination with educational partners (e.g., extension, universities) • **Reporting:** Definition of process and mechanisms for collective reporting activities to document scale of impact across networks. • **Career / Workforce Connections:** Coordination of job fairs, alumni networks, university support for educational opportunities, etc.		

Funding

Based on current stipend levels and distribution of portfolio in resilience areas and given experience with other developing statewide initiatives, the Project Team suggests the following approach as a possible scale of a funding request.

A $4 million recurring annual allocation (growing with inflation) would provide grants that support approximately 290 full-time-equivalent[1] (e.g., MSYs) service participants at a living wage ($17.14/hour). This level of funding would also provide robust coordination activities (e.g., recruitment and training), include support for non-AmeriCorps program participation to diversify the breadth of activities, and incentivize development of new service to fill key gaps (e.g., energy). Importantly, it would provide host or project fee offsets to facilitate increased participation by the least-resourced communities.

The breakdown of this funding is included in the table below. Details on how this figure was developed are outlined in the service landscape summary section. Scaling up to this level of participation could be done over a number of years.

Table 2: Proposed Annual Funding Request for Resilience Service Network Request

Investment	Participants or Sites	Annual Amount
Existing Programs (average contribution to bring up to $17.14/hr)	171 participants	$1,430,000
Non-AmeriCorps Program Support (9,000/participant)	51 participants	$460,000
New Programs to Fill Gaps (25,000/participant)	68 participants	$680,000
Placement Support (15,000/Site or project)	72 sites	$1,090,000
Coordination Support (2000/participant)	290 participants	$580,000
Total Participants	290	$4,240,000
Total / Participant		$14,600

[1] In AmeriCorps terms, assessing full-time-equivalent service participants is done by looking at member service year, or MSYs. MSYs are typically 10-11 months as full-time service. This report refers to members as participants rather than MSYs. Participants in this report refers to full time members.

Findings

This report section summarizes the key findings discovered through the landscape analysis and stakeholder engagement efforts, which were used to develop the recommendations outlined above. The Project Team generated findings from 112 survey responses, 25 interviews, and 4 small group conversations. As a result of the findings and in support of the recommendations, this section of the report also summarizes the program design concepts that were identified through this project as potential opportunities

In order to develop the structure for engagement, the Project Team first completed primary research and definitional work, which is included in the Appendix. The methodology for conducting each of the stakeholder engagement workstreams is also provided in the Appendix.

Service Landscape Summary

To identify the current base of service and its potential relevance to a broader climate resilience service effort, the team obtained basic program information from VolunteerNC about all North Carolina funded AmeriCorps programs operating in the state they support. This list did not include national direct programs (funding that bypasses VolunteerNC), or non-AmeriCorps programs (e.g., service learning, internships, etc.) potentially serving North Carolina so the Project Team recognizes that the following landscape summary (however useful) is an incomplete picture.

The provided data included lead organizations and program names, a brief description of the program and the counties it serves, funded grant types, service focus areas, federal support (in $/participants), # of participants, # of Slots, and years funded. From this data the team created additional data fields: participants / county, and Service Density (participants / 10k population / county). Participants / county and Service Density are not entirely accurate as a list of counties served by a program doesn't mean there's equal distribution of member service for the county, however at a high level it does provide a useful indicator of potential support in the absence of more granular data. Finally, each program was coded based on descriptions and feedback from commission staff in terms of its relevance to climate resilience (High, Med, Low, NA). All environmental stewardship programs were rated high, other programs were rated according to the degree they referenced community resilience issues (e.g. food security, disaster response) in their descriptions or whether staff provided input on their fit. See Appendix D for the full data table.

From this dataset the landscape in North Carolina was characterized by pulling together pictures of this landscape based on average, max, min, and sum of a variety of fields for the set as a whole and broken down by focus area, and resilience relevance. Additionally, years funded were charted against federal support.

As a next step Service Density results were combined from this dataset with CTNC's existing "Community Resilience Model" which combines climate risk, social vulnerability data at a census block level into a synthesis score. Census block synthesis scores were aggregated to a county level (weighted) and then combined with service density results to create a modified synthesis score that either increased or decreased the base climate risk depending on the availability of service in that county.

The following sections outline results from this effort.

General Landscape Description

In North Carolina almost $11 million dollars supports 20 funded AmeriCorps programs that support up to 500 participants and 708 slots, principally in 3 focus areas (10 programs for Education, 3 programs for Healthy Futures, and 3 programs for Environmental Stewardship). The remainder of the programs are in other focus areas including economic opportunity, mixed focus areas, veterans, and capacity building.

Program scale and support vary widely in North Carolina. The average federal contribution for North Carolina programs is almost $22,000, but this spans from a minimum of $11,403 to a maximum of $28,800. The average age of programs is 6 years but spans from 0 (just starting this year) to 20. Programs average 27 participants but run from about 8 up to 71. Finally, the average number of counties service is 19, but runs from 1 county up to all 100.

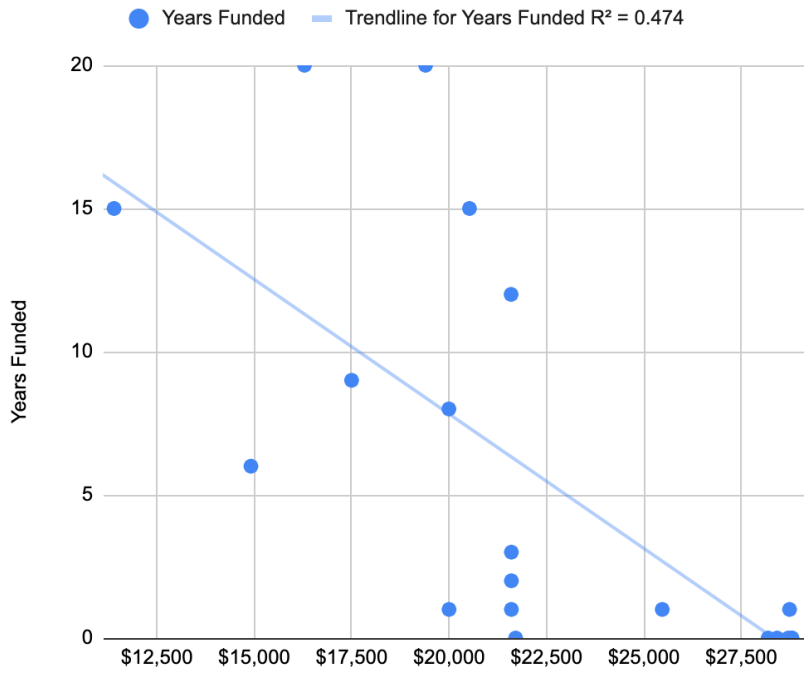
Looking at some of these data points by focus area provides interesting nuance. Educational programs have the largest share programs, and fall in about the middle of federal support, whereas environmental stewardship programs are notably lower. Both of these areas are roughly the same in terms of age of program. However, the Healthy Futures program has significantly higher federal support and a very low average age principally because 2 of 3 of the programs included are part of the Public Health AmeriCorps program that just launched. Average participants are somewhat similar across these three types, but counties served varied widely, with Environmental Stewardship programs serving 3-4 times the number of counties than the other two focus areas, resulting in significantly lower participants / county.

Table 3: Program Data Average by Focus Area

	# Programs	Cost / Participants	Years funded	# Participants	Counties served	Participants per county
Education	10	$22,078	5	25.9	11.1	3.6
Healthy Futures	3	$26,166	1	30.3	19.3	3.4
Environmental Stewardship	3	$19,341	8	25.3	54.7	0.8
Other	5	$21,990	9	18.3	7.8	4.3

One issue that comes up when looking at this is the structure of AmeriCorps funding relative to program age. AmeriCorps has generally required programs to increase match costs years over year (up to 50% by year 10), and not encouraged them to seek out the maximum federal support during recompete applications. This results in a pattern of older, long-standing, and presumably successful programs having less support than their newer and less experienced peers. This dataset bears this out in start terms when the age of the program is plotted against federal support and finds a trendline with a strong statistical correlation (r^2=0.47). See Figure 1 for a graphical representation of years funded vs cost / participants.

Figure 1: Years Funded vs Cost / Participants



Looking at the sum by focus area, there is interesting variation. Education, given their program numbers, has more total participants and brings in more federal funding than the other two areas. However, Education has 2.9 times the number of participants as Healthy Futures and 3.4 times that of Environmental Stewardship. Due to variations in cost / participants, the federal funding support by focus area doesn't align the same way. Education is only 2.6 times Healthy Futures and is 3.7 times Environmental Stewardship.

When this same information by "resilience connection" is reviewed, there is a somewhat different pattern. A significant number of programs outside the 3 Environmental Stewardship programs were deemed low, med, or high (11 programs), resulting in a stronger net amount of participants that might be considered applicable and also a higher amount of funding. Interestingly the proportion of funding / participants among the High resilience rated programs was greater than the proportion for the Med or NA (the one low was a new Public Health program already at the max $ / participants). If those programs are reviewed with a resilience connection lens, almost 300 of 500 participants and almost $6 million dollars of federal funding have a strong distribution across

the state. One implication of this alternative view of the existing portfolio in NC is that there may be more of a base of climate related service than would normally be considered. The efficacy could be expanded by telling that story more clearly, either through connecting Education and Public Health programs to Environmental Stewardship programs or working with them to incorporate climate and resilience framing more directly into how they talk about their programs.

Table 4: Totals by Focus Area and Resilience Connection

	# Programs	# MSYs	Total grant
Focus Area			
Education	10	259	$5,438,209
Healthy Futures	3	91	$2,098,850
Environmental Stewardship	3	76	$1,466,513
Other	4	73	$1,742,779
Resilience Connection			
High	6	135	$3,167,212
Med	4	144	$2,603,349
Low	1	8	$211,433
NA	9	212	$4,764,357

Risk Layered Against Service

The second part of this initial landscape assessment for service was to look at layering what is known (as limited as it is) about service in NC against what is known about climate risks. For climate risk the Project Team used the synthesis scores created at the census block level by CTNC in their Community Resilience Model. These scores are a combination of Social Vulnerability,[2] Flood Risk,[3] Climate Vulnerability,[4] and Conservation.[5] The Project Team combined this with data on service density by county from the program dataset. A service density modifier was then created that looked at the 3rd quartile of service density as the break point between being additive and being subtractive of climate risk (on the assumption that only the higher service density really might make a

[2] Based on 2020 US Census demographic data, and the Environmental Protection Agency EJScreen data.

[3] Based on MLRC's National Land Cover Dataset, NC Flood Risk Information System floodplain maps, First Street Foundation Flooded Properties Data, Heirs Property, and 2022 analysis by CTNC based on aggregated parcel data.

[4] Based on US Forest Service Wildfire Risk to Communities data, and Clark Labs & ESRI Environment Land Cover Vulnerability to Change data.

[5] Based on 2022 CTNC projects data.

positive impact, whereas the lower density would have less impact.[6] The team divided the total score by four to moderate the impacts as this is a limited effect. This is of course a very initial method to try to identify any interesting patterns, not a rigorous approach for long-term utilization. Finally, the modifier (positive or negative) was added to the base synthesis score and generated a map in which it is possible to visualize these layers separately.[7] For all three maps results were divided in groups of four to illustrate gross differences, but not attempt to portray granular results the data don't warrant.

In the Base Climate Risk map in Figure 2, there are a number of "hot zones" in terms of higher risk especially along the eastern region, and far western region. These risk zones are relatively well known and are reflected in the state's climate resilience study and plan.

Figure 2: Base Climate Risk (synthesis score from CTNC Community Resilience Model)

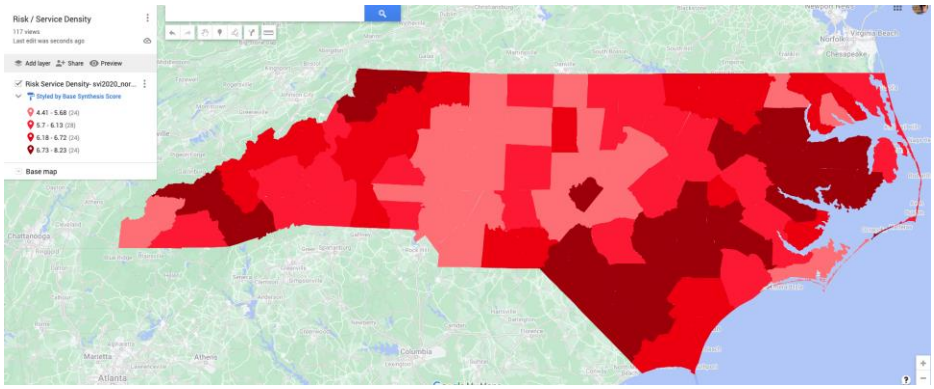
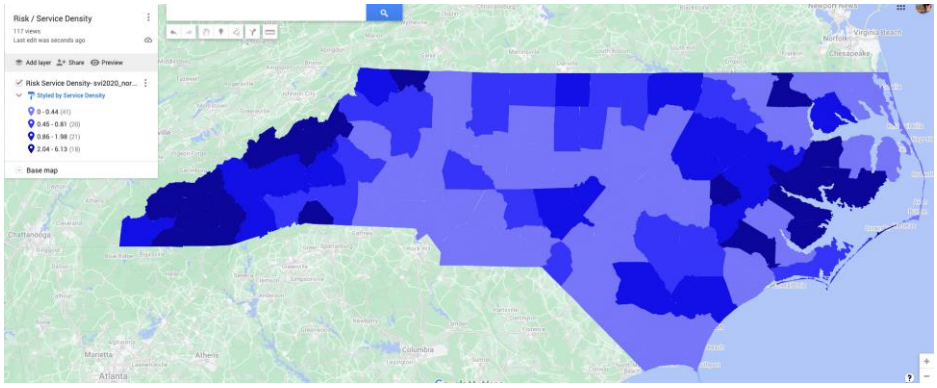


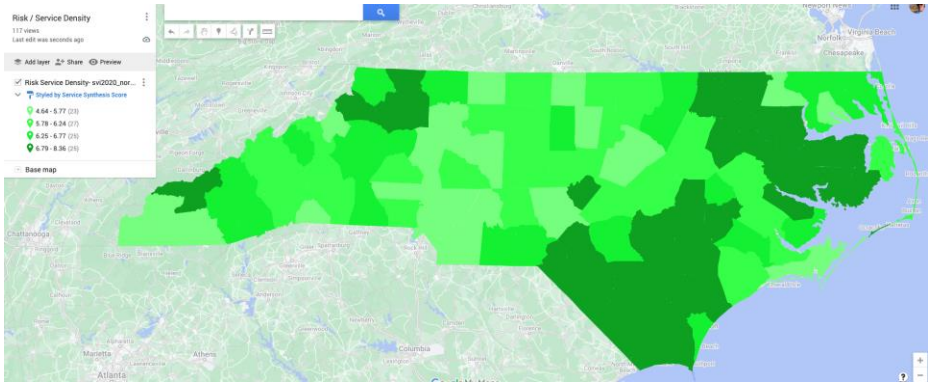
Figure 3: Service Density (MSYs / 10,000 people)



[6] The formula developed for this modifier = (1- (county service density / 3rd quartile county service density)) / 4.

[7] https://www.google.com/maps/d/u/0/edit?mid=1RTzD1fTHid5wfslmIrt-IBj9O52boKY&usp=sharing

Figure 4: Modified Climate Risk (synthesis score + or - service density modifier)



In the service density map in Figure 3, there are some parallels in terms of concentrated areas, but not exactly. There's a particularly large cluster in the central part of the eastern side of the state. Although there is also a wedge in the west, it's not quite aligned with the counties with the highest risk. There is also a very low service density in the lower mid-section of the state, which is one of the largest high-risk clusters. One thing to note about service density is that it neutralizes population differences so a lower total service member deployment in a rural and unpopulated county might result in a high service density. Similarly, a large service member deployment in an urbanized county might result in a lower service density.

There are interesting results in the modified climate risk map in Figure 4. Not surprisingly, the lower central portion of the state which had low service density and high risk remains so. Brunswick County has significantly increased risk (due to very low density of service and relatively high base risk) whereas Jones County moves to a lower risk group because of the high service density there. However, not all counties are still as "hot" as they were without accounting for service density. There is a risk increasing effect with 2 counties in the northeast cluster (Halifax, Northhampton) which are now part of a larger high risk cluster due to the low service density impacts. Over on the west side of the state, where there's some relatively high risk but also high service density areas, there is a shifting of focus. Of the 3 highest risk counties (Swain, Jackson, Transylvania), only Swain County remains as high risk. At the same time, low service density shifts emphasis in the northwest corner (Watauga, Ashe, Allegheny, and Wilkes). Finally, the relatively low base risk throughout the central part of the state becomes more of a patchwork of varied risk when accounting for service density with Anson County and Alamance County moving from moderate to higher risk and several other counties moving from low to moderate.

It is important not to make too much of this result given 1) the coarseness of the data and the variability of service density over time, 2) the preliminary nature of the modifier, and most importantly 3) the likely limited influence of service as a risk modifier. However, **this application is illustrative of potential for service deployment as a risk reduction factor and may help guide areas for investigation and ultimately support.** Additionally, this kind of view (risk vs service deployment) if built out may help track long-term trends in the role of service programs in meeting the state's climate needs.

Funding

The final analysis conducted using this data extrapolated potential needs and costs for scaling service in North Carolina. For this analysis the Project Team took two approaches. First the team looked at a very coarse scaling of service approach. Second the team looked more specifically at modeling an investment in climate resilience.

Currently there are 500 participants allocated to NC with about $11 million of total federal funding support. Extrapolating from the total participants in the state and utilizing the population data from the CTNC Community Resilience Model, Farallon Strategies finds that North Carolina has a current Service Density of .64 participants / 10,000 people. The current maximum service density for any county is approximately 6.6 participants / 10,000 people. This is an almost 11-fold increase over current density. However, this level of density is not realistic or perhaps even desirable given current recruitment and programmatic needs. If looking at the top 25% of most programs, there is an average of about 3 participants / 10,000 people, which is more reasonable yet still represents an almost 5-fold increase over current density. If this is scaled statewide, it would result in 2,300 participants and almost $50 million in federal support. This is clearly beyond the capacity and allowance of AmeriCorps as structured. Even if the full $15 billion budget for the Civilian Climate Corps had been passed, it's unlikely VolunteerNC would have received over $50 million for service programming, and further without additional resources it's unclear if the state could support this level of service. However, this simple exercise does help inform the discussion of appropriate scale and resourcing for any state-level initiative.

Table 5: General Program Scaling Estimate

	Participants	Fed Support
Current Total Participants and Federal Support	500	$10,936,405
Current Density (Participants / $10K based on $7.8 million in CTNC Model)	0.64	
Scale density to get to max in data (based on current max in sample ~2.96 / 10K)	4.63	
Participants and investment to reach current max density.	2,312	$49,788,207

A more appropriate funding assessment involves considering the existing service base, their potential interest and engagement in a climate corps, and what they might need to dedicate more focused efforts to North Carolina's service needs. Also, additional support might be considered that could be needed to deliver a comprehensive climate service program for the state.

For this analysis the Project Team looked at the awarded participants and slots and their respective stipend levels using information provided by VolunteerNC. The team then calculated a weighted FT equivalent stipend level and total participants for each program. Referring to the assessments of climate resilience fit, a "participation factor" (70% for "high", 50% for "med" or "low", 0% for NA) was created to allocate a portion of their total participants to a climate resilience initiative (on the assumption that programs may not want to allocate 100% of their member activities to specific climate service activities). An hourly rate was created from the respective weighted FT stipend levels (stipend / 1750 to account for common "overage" in total member hours). One of the traditional barriers for service participation - especially among the least-resourced - has been low stipends. In designing a more inclusive and equitable corps, it's important consider more livable wages in designing a comprehensive

statewide initiative. For this reason, the team compared the average North Carolina living wage ($17.14 for individuals with no children per MIT Living Wage Calculator) to current stipend levels to define a base "investment need" that might support a climate resilience corps.

In Table 6, 11 programs are included that have some resilience connection and have an average FT stipend level of just over $20,000, which translates to less than $12 / hr. There's significant variation in this, but that's about $5 less than the living wage average for the state. Bringing all programs up to a living wage (one program already exceeds this level) for the projected fraction of participants, would require approximately $1.5 million and support about 170 participants.

Table 6: Stipend Levels, estimated participation, and needed investments

Resilience Connection	Weighted Average Stipend	# Participants	$ / hr	Diff w Living Wage (17.14)	Gap in Stipend Funding / Participants	% Participants in Program	Participants Supported	Stipend Investment
High	$16,502	12.3	9.4	7.7	$13,107	70%	8.6	$113,086
High	$16,663	17.0	9.5	7.6	$12,951	70%	11.9	$153,678
High	$19,857	28.0	11.3	5.8	$9,848	70%	19.6	$193,028
High	$19,926	31.1	11.4	5.8	$9,781	70%	21.7	$212,666
High	$20,500	12.0	11.7	5.4	$9,224	70%	8.4	$77,479
High	$33,004	35.0	18.9	0.0	$0	70%	24.5	$0
Low	$26,000	7.5	14.9	2.3	$3,881	50%	3.8	$14,553
Med	$18,000	22.3	10.3	6.9	$11,652	50%	11.2	$129,923
Med	$21,770	36.4	12.4	4.7	$7,990	50%	18.2	$145,522
Med	$22,000	71.0	12.6	4.6	$7,767	50%	35.5	$275,713
Med	$13,629	14.3	7.8	9.4	$15,899	50%	7.2	$113,716
						TOTAL	170.5	$1,429,365

However, based on prior experience and emerging approaches outside of North Carolina, support may be needed beyond engaging the existing portfolio in a focused effort. As noted, existing VolunteerNC service programs with a "resilience connection" cover almost 300 of 500 participants across a wide range of communities throughout the state. There's also a range of non-AmeriCorps programs operating in the state as private fellowships or out of educational institutions. Many of these programs have no connection with each other and some don't even see their work in climate or resilience terms.

To realize a greater collective impact, it's important to not just provide resources for AmeriCorps stipends but offer resources to connect and activate a range of programs to work more collaboratively as well. With this in mind, there are four additional types of support likely needed to create a robust Resilience Service Network.

First, there are non-AmeriCorps programs (e.g. private fellowships, or university based programs) focused on climate issues already operating in North Carolina.

Second, the Project Team assumed that the existing service base does not cover all needed subjects.[8] It's hard to identify explicit gaps in the landscape data, as it shows what is happening, not what isn't. But, the low overall density of service in the state (especially if you look only at resilience connected programs) and the areas of high climate risk that have limited service presence, definitely highlight coverage gaps. Additionally, while almost 300 participants could reasonably be said to relate to resilience issues, only half of these were considered "high" in this connection (either because they are Environmental Stewardship programs or have an explicit focus on relevant issues). Further some audiences (e.g. undocumented individuals) may be as important as participants, but can't serve in AmeriCorps. Some new programming may need to be developed.

Third, a key barrier to serving high-need communities is the cost of participation as a "host."

Finally, the emerging climate corps initiatives seek to develop some level of cross program coordination (typically at the commission level) that includes support for overall recruitment, and training. The team tried to estimate potential investments in each of these additional topics.

[8] This is supported by survey and group conversation results below.

Table 7: Stipend Levels, estimated participation, and needed investments.

Investment	Calculation	Amount	% of Existing Program Participants	Total Participants or Sites	Total Amount
Existing programs	Contribution to bring all participating participants to living wage	~$9,300	100%	170.5	$1,429,365
Non-AmeriCorps programs	Average gap in current stipend funding for an additional percentage of participants	$9,000	30%	51.2	$460,356
New Programs to fill gaps	Estimate of new program support needs for an additional percentage of participants	$25,000	40%	68.2	$682,009
Host support	Estimated level of support to reduce barriers to hosting ~ 2 participants for a percent of existing, non-AmeriCorps, and new programs.	$15,000	50%	72.5	$1,086,953
Coordination support	Support / participants for shared communications, recruitment, training, commission staffing, etc.	$2,000	100%	289.9	$579,708
			TOTAL	289.9	$4,238,392
			TOTAL / Participants		$14,623

The net result of this modeling illustrates a possible funding approach that would involve dedicating approximately $4.2 million per year to realize almost 290 participants dedicated to climate resilience efforts, all of whom would be paid a living wage. Over 70 high need community partners (or projects) would have access to funding to defray participation costs. And the whole effort would benefit from a statewide coordination effort all for an effective investment of less than $15,000 per participating service member.

There are a number of very coarse assumptions in this modeling, including the following:

- Living wages in NC are quite varied.
- Participation rates are very subjectively defined in this report.
- The scale and amount needed to support non AmeriCorps programs and new programs are general estimates, and finally
- Coordination costs would depend on who and how these are implemented.

As such this estimate should be considered a starting point for a deeper analysis with more specific inputs. Importantly though, this represents 1 / 10 of the estimate for a simple scaling of service density in North Carolina, and perhaps a more realistic benchmark for a climate resilience initiative for the state. Notably this would

effectively triple the current "environmental stewardship" portfolio in the state, strengthen its capacity to engage and support communities, and greatly diversify its scope of activities to meet North Carolina's needs. Such an approach would have the added benefit of aggregating impacts faster than launching new programming and would be more nimble allowing the network to respond to programmatic and geographic needs that emerge over time.

General Survey

The findings from the responses to the general survey are provided in this section. The lists of questions for both the general survey and the program survey are provided in Appendix F.

Respondent Profiles

Counties

Across the Piedmont, Mountains, and Coastal regions, 78 of 100 counties are represented in general survey responses. The region of Piedmont, which is the most populous, had the highest number of organizations indicating activity in these counties (55), followed by the Coastal Plains region (51), and then Western Mountains region (42). Each of the counties are represented by 1-5 survey responses and the total number of counties supported exceeds total survey responses, because many survey respondents indicated they work in or support more than one county. Other respondents indicated they serve either nationally (10), statewide(19), regionally (12) or the Qualla region (historical home of the Cherokee nation). A full list of the locations represented are included in Appendix I.

A second program-specific survey received 8 responses.[9] Of those, 5 respondents have a national service focus, 2 have a regional perspective, and 1 serves primarily Buncombe County.

Organization Types

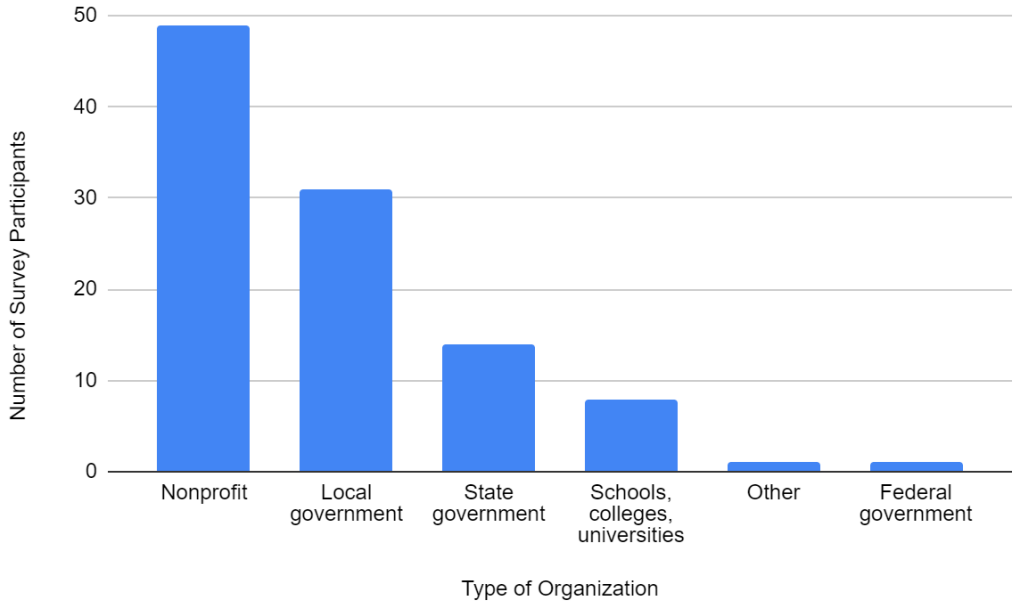
The Project Team invited representatives to participate across the state from local city and county government agencies, state and federal agencies, local community based organizations, academic institutions, and nonprofits. Of the 104 total respondents, 47% are from nonprofit organizations, 30% are from local governments, 13% from state governments, 8% are from academic institutions, and the remaining 2% are from the federal government or

[9] The survey intended for service programs was very limited in terms of complete responses received. Therefore, learnings from the program survey are included when applicable but a complete writeup for the program survey is not included in this report.

"other" types of organizations.[10] Because the number of participants was low for the federal government and "other" types of organizations, the team removed their responses from the analysis completed in the following sections.

Within the nonprofit organization responses, survey respondents included land trusts, environmental justice organizations, and local collaboratives. Local government organizations included representatives from local city and county departments. State government representatives included several key agencies (Office of Resiliency and Recovery, Dept. of Commerce, Dept. of Transportation, Division of Health and Human Services, Albemarle-Pamlico National Estuary Partnership, Dept. of Environmental Quality, North Carolina Cooperative Extension). The academic community was also generally well represented (Duke University, University of Carolina Greensboro, University of North Carolina Asheville, North Carolina State University, Lenoir-Rhyne University, Catawba College Center for the Environment, and the North Carolina Arboretum).

Figure 5: Survey Participants by Type of Organization (n=104 participants)

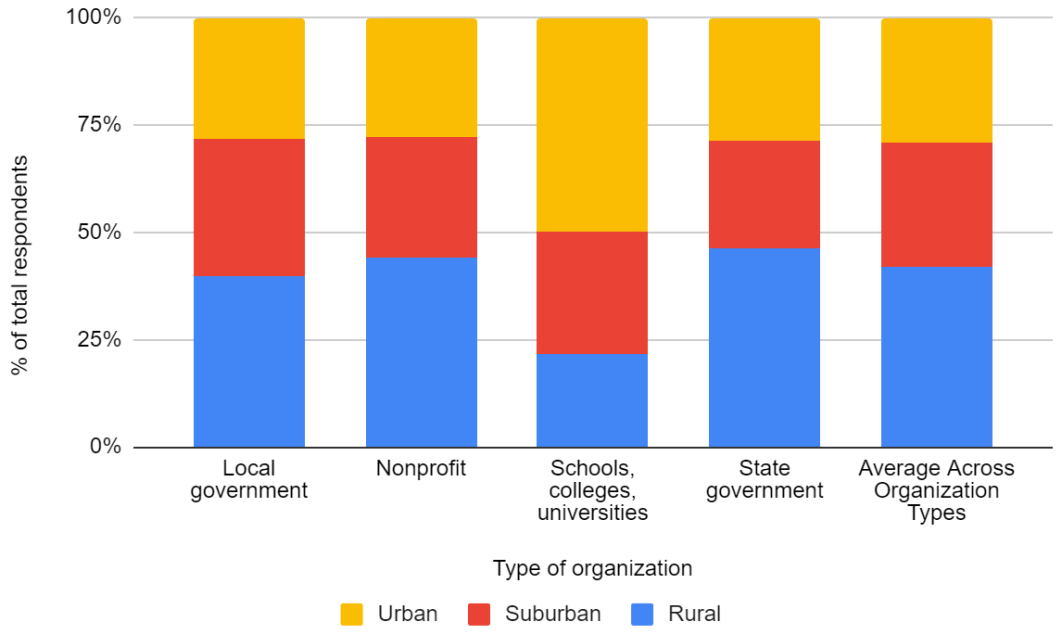


Overall 42% of the communities served by survey respondents are in rural communities, followed by suburban (29%) and urban (29%). For a state with a well-known and strong urban/rural split. It's encouraging that the

[10] The two other organizations that didn't fit into one of the categories are a local grocery store and a for-profit consulting firm.

Project Team was able to collect a strong rural response. Interestingly, while most groups were predominantly rural respondents, school, colleges, and universities were predominantly urban.

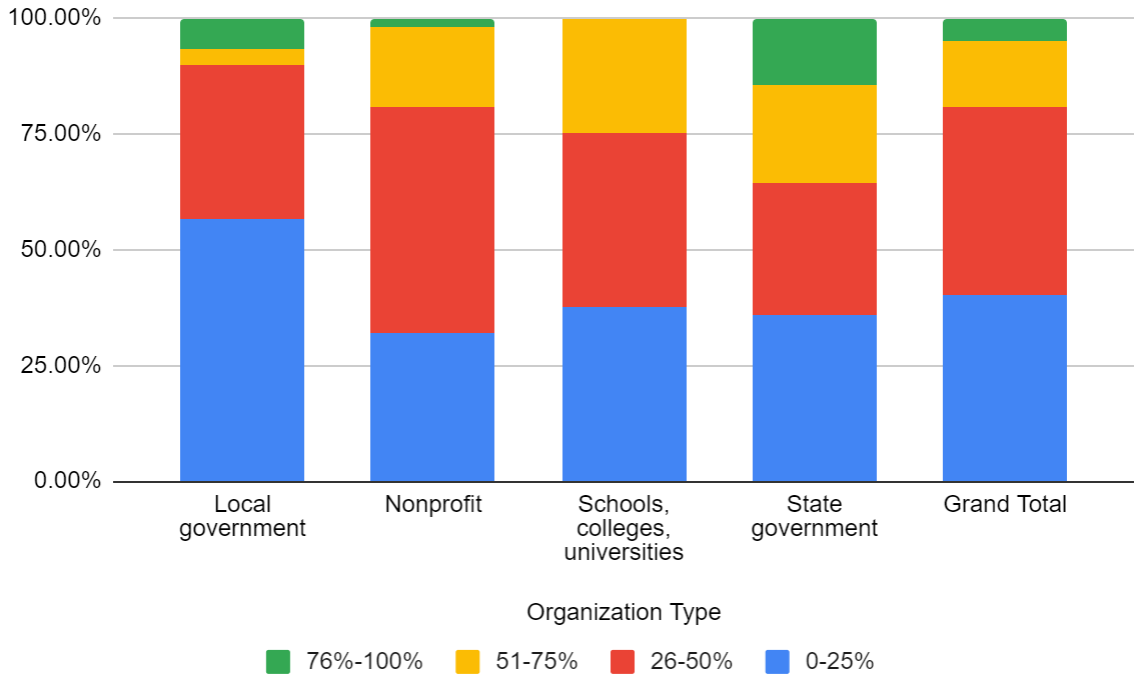
Figure 6: Communities by built environment that respondents serve (n=104 participants)



Income distribution

Participants were asked about the percentage of the population that organizations serve that they consider to be low-income. Low-income was defined in the survey question as being at or below the federal poverty line, significant Title 1 school attendance, or other measures of economic distress. Results of the income distribution are represented in Figure 7 below.

Figure 7: Percentage of the population organizations serve that are considered to be low-income (n=104 participants)



Looking at income levels of the communities served by respondents, overall 60% of average responses are serving populations that are over 25% low-income, which is much greater emphasis than the overall population.[11] Those respondents who had the greatest focus on populations with the most significant low-income populations (>50% low-income) were state respondents (35%) followed by schools, colleges, and universities (25%).

Summary of Respondent Profiles

The Project Team hoped to secure a good cross-section of input from organizational types, a good representation of the state's geographic diversity, and particularly a desire to reach organizations serving more vulnerable and lower-resourced communities. Taken as a whole, that objective was met through geographic diversity, a balance of urban to rural participation, and a strong emphasis on lower-income communities (who are often most vulnerable).

[11] This is based on the data that in 2021, about 13.4 percent of North Carolina's population lived below the poverty line. https://www.statista.com/statistics/205498/poverty-rate-in-north-carolina/#:~:text=In%202021%2C%20about%2013.4%20percent,lived%20below%20the%20poverty%20line.

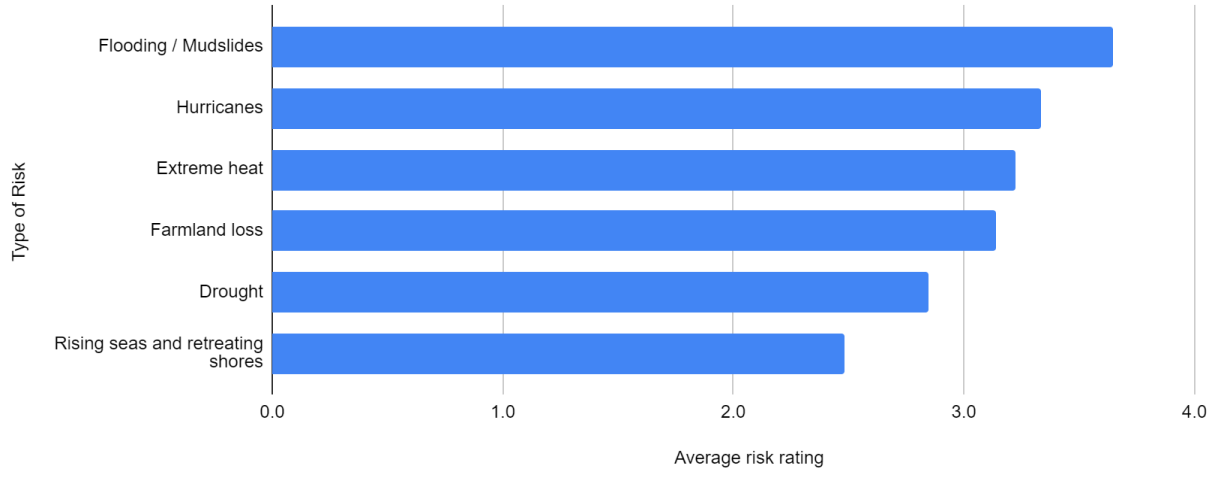
Climate Risks and Challenges

Respondents were asked to rate 7 climate risks on a scale of 0 to 5 from "no challenge" to "critical challenge." The climate risks were selected based on the climate hazards identified in the North Carolina Climate Science Report from the NC 2020 Resilience Plan and through conversation with CTNC. The following climate risks were included in the survey:

- Flooding / mudslides
- Hurricanes
- Extreme heat
- Farmland loss
- Drought
- Air pollution, and
- Rising seas and retreating shores.

Across all of the climate risks, on average respondents see flooding / mudslides between a severe and critical challenge (3.6). Hurricanes (3.3), extreme heat (3.2), and farmland loss (3.1) were rated as more than moderate challenges but less than severe, followed by drought and air pollution. The risk of rising seas and retreating shores was on average ranked as a lower challenge (2.5) but still ranked between a modest (2.0) and moderate challenge (3.0). Rising seas and retreating shores could be on average ranked lower due to the variation in response rates (⅔ of the responses were from non-coastal regions).

Figure 8: Average Rate of Perceived Challenges of Climate Risks (Average Risk from 1=No Challenge to 5=Critical Challenge) (n=99 participants)



Additional risks identified that do not fall into the categories provided include housing security, food security, stormwater and groundwater management, water quality, and climate migration. Many respondents cited that an increasing number of adults and children are experiencing food insecurity, which could be linked to repeated flood and hurricane damage costs. Food deserts are growing, healthy food is harder to find, and the loss of small farmers appears to be reducing locally available food, based on survey responses.

Interestingly, flooding / mudslides was the highest on average ranked risk across all participants. There were some interesting alternative perspectives by some groups. State participants identified hurricanes as the highest risk (4.2) followed by flooding / mudslides (3.9), and then rising seas and retreating shores (3.8). Schools, colleges, and universities ranked extreme heat as the highest risk (3.3) on par with flooding / mudslides (3.3), followed by hurricanes (3.1).

Participants were asked for any risks that were ranked as severe or critical challenges, participants to describe specific challenges they are facing. The responses related to flooding and hurricanes were similar, due in part to the intersection between the risks (i.e., hurricanes contribute to flooding which was identified as a major challenge among respondents). One specific challenge for flooding is that many respondents cited that cities and counties are not regulating development and allowing new housing in flood plains. Additionally, related to flooding and hurricanes, existing stormwater infrastructure is inadequate for the rain events they get and many recognize the need for water retention landscapes to keep water on site and out of streams. Respondents also identified impacts to homes and habitat loss due to floods and hurricanes.

For extreme heat, many respondents cited public health issues as some people, including the low income and elderly populations of their areas, do not have air conditioners, or must run their air conditioners so much that the utility bills become a huge financial burden. Urban heat island effects are also discussed in survey responses as specific challenges related to extreme heat. Several respondents additionally discussed the loss or inadequate levels of city green space, especially in low income and BIPOC areas of their cities.

Related to the risk of farmland loss, the biggest challenge based on qualitative responses appears to be loss of farmland with new development, due to low regulations and urban and suburban sprawl rather than infill development. Small farmers are also being put out of business due to competition, flood damage, and drought causing crop loss. This further exacerbates food insecurity and food deserts when local growers aren't selling locally anymore. Respondents also note that this worsens flooding by replacing working lands with impervious surfaces that cause stormwater to run off at high velocities, further erosion and causing more widespread flooding impacts.

In addition to specific challenges related to the risks, respondents were asked to describe the population of greatest concern for the risks identified in the survey. The highest mentioned populations were low-income populations (50 responses), those living in floodplains and flood zones (18 responses), small farmers and rural residents (17 responses), seniors (16 responses), communities of color or limited English proficiency (16 responses), children and youth (10 responses) and coastal communities (5 responses). Other respondents mentioned that all people are subject to the increasing risks in North Carolina and several cited that people living in substandard housing or those with health conditions are at extra risk.

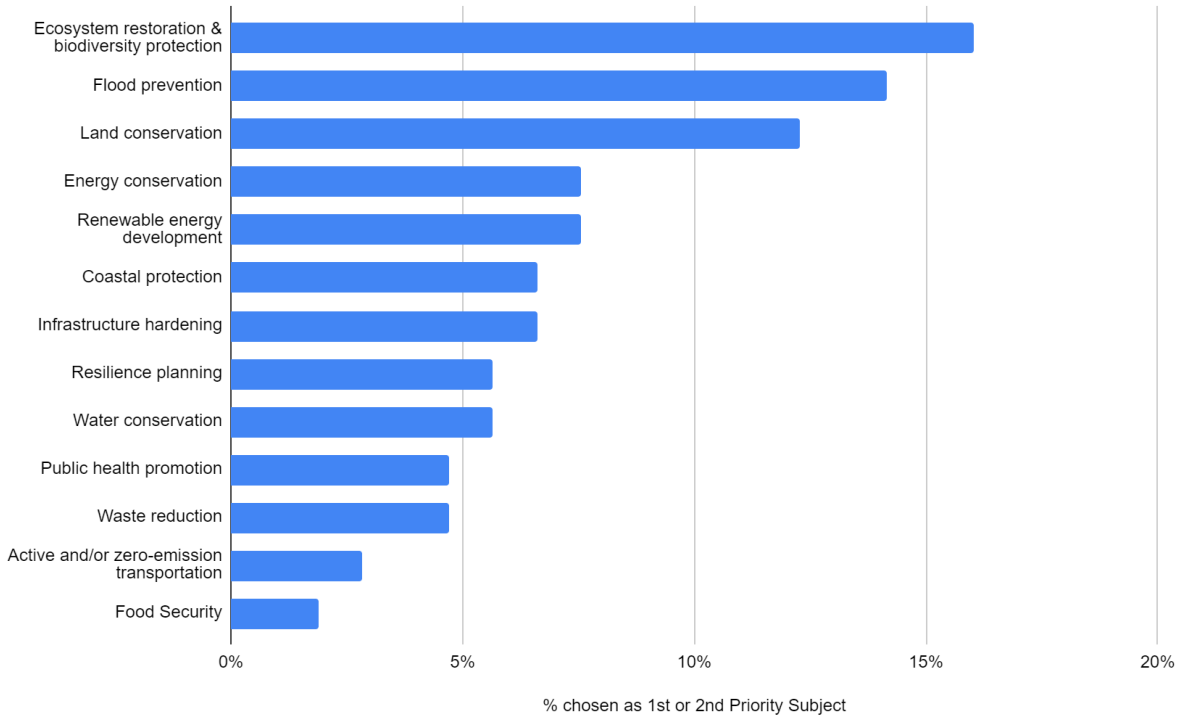
Summary of Risks

Based on these responses, respondents are deeply aware of the interconnected nature of all of these challenges. Risks related to flooding did stand out (both numerically, and in the descriptive text) as it's clear the increase in frequency and severity of these events are a huge acute challenge. Yet the diversity of concern about other risks and challenges (heat, drought, and farmland loss) indicate that climate change also poses increasingly chronic challenges to the state. Additionally, some of the descriptions touched on the economic burdens climate change is placing on homes and businesses. Further it's clear from these results that respondents are mindful of the ways climate change may have disproportionate impacts on specific populations.

Priority Subject Areas for Member Support

Of the 104 participants, 81 participants provided information on 106 priority areas for support (people could include up to 2 priority areas so the total number exceeds total response pool). While the survey allowed for a range of existing responses, some respondents selected "other." In looking at these other responses, the Project Team identified two new categories that seemed important to call out from the "other" responses (resilience planning and food security). The most selected response for a first or second top priority was ecosystem restoration and biodiversity protection, which made up 16% of responses. Flood prevention was second (14%) and land conservation third (12%). The rest of the topics were between 8% (energy conservation) and 2% (food security) of the first or second priority subjects.

Figure 9: Priority Subject Areas for Service Support (n=106 responses)



One of the striking things in responses to this question was the prevalence of flood related needs for support. Although flood prevention itself was the second most important area for support if coastal protection (the 5th) is considered as part of this, and in looking at the kinds of activities identified in qualitative responses, flood related issues are clearly the predominant area respondents identified for service support. For example, survey respondents who selected flood prevention as a priority topic identified activities related to coastal and storm water flooding most frequently. Respondents are looking for stormwater infrastructure upgrades, urban greening, public education, disaster recovery and response related to flooding, community engagement, wetlands restoration, hardening natural shorelines, and developing emergency management tools. Flood control also came up across other topic areas. For example, many respondents who selected ecosystem restoration, land conservation, and flood prevention really were referencing all of these categories at once, showing interest in restoration and conserving land as a flood mitigation tool, among other benefits such as wildlife and recreation. This centered around wetlands and coastal ecosystems, but also included many respondents referencing the potential for greenspaces/conservation/restoration in urban areas as flood mitigation.

What might be considered traditional conservation corps topics (e.g., ecosystem restoration and biodiversity protection, and land conservation) were the first and third priority topics for service members (about 28% combined). Ecosystem restoration and biodiversity protection related activities focused on flood control, invasive plant management, native species revegetation, monitoring vulnerable species and ecosystems, community engagement, education, and advocacy efforts. Land conservation activities similarly focused on flood control, as

well as wetlands restoration, coastal habitats protection, and farmland conservation. Specific activities included educating farmers on using conservation minded best management practices, developing and deploying risk management tools, and preserving green spaces for public benefits (better air and water quality, recreational opportunities, better physical and mental health). Based on responses, preserving heritage / historic farms is a priority and potential draw for tourism. As a reminder, farmland loss was seen as the fourth highest risk to participants.

Climate change mitigation (e.g. energy / emissions reduction) also makes up an interesting cluster of support. Renewable energy development, energy conservation, and active and/or zero-emissions transportation made up about 19% of the priority subjects for support. Support needs in these areas included infrastructure retrofits for efficiency and renewable energy, solar installation, weatherization, developing residential and commercial energy efficiency, and conservation programs. Under energy conservation, many participants mentioned old historic buildings need retrofits for efficiency.

The other subjects (infrastructure hardening, water conservation, public health, waste reduction) had more modest levels of interest but nonetheless included interesting potential areas of support for service programs to consider. For example, specific activities and focus for water conservation varied between conserving water sources (land conservation / restoration) and water use reduction. Public health promotion could include sharing information about access to food, improving infrastructure for multi-modal transportation, running rural health initiatives about the positive impacts of choosing healthier food choices, improving small local farmer access, promoting physical and mental health initiatives, and extreme heat awareness and resilience. Waste reduction project activities include litter prevention and cleanup service projects, initiatives and programming on plastic pollution, composting, and recycling, educational opportunities, and coordinating with local governments on waste reduction and composting solutions.

One of the new topics identified that had a relatively strong level of interest was resilience planning (6%). Specific focus and activities for service member support include policy advocacy or organizing for resilience campaigns, working with neighborhoods to understand the risks and solutions to develop neighborhood-based plans for addressing urban heat islands, and support disaster recovery grant administration. One local government suggested their priority area for service support is developing a resilience hub, with specific support roles including research, community and stakeholder discussions, and a needs assessment (they designed 70% to project implementation support, and 30% to organizational capacity building).

A full listing specific support organized by categories is provided in the appendix.

Summary of Subjects

Taken together, these results show that while flood related issues are a standout priority and traditional conservation corps type service were widely desired, there's a range of other areas of interest across the state. This suggests an opportunity both leverage existing corps strengths, while looking for opportunities to grow and evolve to meet other needs. For example, traditional conservation corps topics were chosen as a top priority for service members, indicating there is interest and need in continuing to have service members support these types

of projects. However, the interest in activities within these topics that might not be well served at present (e.g. green infrastructure to mitigate flooding) and the interest in other subject areas (mitigation, public health, etc.) indicates there may be a strong market for new types of service support. Additionally in looking more closely at the types of support needed, there's a lot more cross-over between topics, than just the topics themselves suggest. For example, many of the topics suggest activities that are related to flood prevention, such as land conservation and ecosystem restoration as flood prevention strategies. Additionally, participants suggested one topic as their priority topic but then listed activities that covered a range of topics. As an example, one local government representative selected coastal protection but said "It is hard to divide out the top priorities when several are combined, for instance: Coastal protection, ecosystem restoration / biodiversity protection, flood prevention, land conservation is all tied closely together and what we strive for all the time."

Such a diversity of topical interest combined with interconnections between desired support activities suggests that a statewide initiative would do well to balance two somewhat competing interests. It's important to recognize that some topics and needs (e.g. natural infrastructure to address flood prevention) may offer a more common or desirable starting place to build out from. However, it's also important to cultivate a holistic multi-prong approach that allows service to be more responsive to diverse community needs and thus become a more foundational part of the state's climate response as a whole.

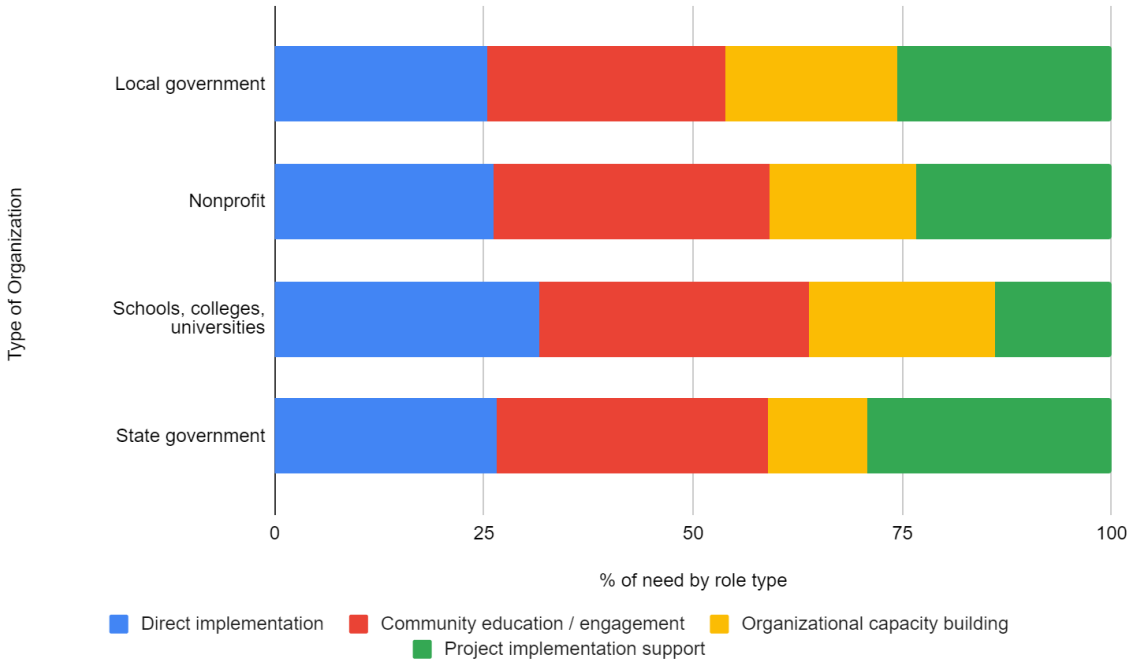
Service Corps Role / Member Role

Within a particular subject area service programs can have their members play a wide variety of roles. Survey respondents were requested to identify what percentage of members' time and focus they would want to use in the roles of direct implementation, community education, project implementation support, and organizational capacity building. Examples of each of the four areas are provided below.

- Direct implementation refers to disaster response, tree planting, energy retrofits, wildfire mitigation / prevention, and infrastructure retrofits.
- Community education / engagement could include energy education, disaster preparedness, and fire safety training.
- Project implementation support may include needs assessments, grant research or writing, project scoping, and project and stakeholder coordination.
- Organizational capacity building could entail resilience program design, community fire risk analysis, urban tree canopy assessments.

81 participants provided information on 106 breakdowns of roles (aligned with the support needs above). Averaging all responses by service role type across all organization types, community education / engagement was the most desired role (32%) followed by direct implementation (25%), then project implementation (24%), followed by capacity building (18%). In almost all cases, respondents selected multiple member service roles (only 2 respondents selected only 1, and only 14 selected 2, the rest selected 3 or 4). This result suggests a strong interest in multiple types of service.

Figure 10: Distribution of service needs by roles (percent allocated by each respondent type) (n=104 participants)



As noted, community engagement and education was ranked highest overall, and was so across the board among the respondent groups. Less than 2% of respondents allocated 0% of member time towards it. Specific activities referenced include raising public awareness about climate and resilience related issues through educational workshops, school curriculum and apprenticeship opportunities, and community stakeholder discussions.

Direct implementation was the second highest category of interest, but had wider variation among respondent groups (from 32% for schools, colleges, universities to 25% for local governments). Specific activities referenced included wetland and habitat restoration, stormwater retrofits, improving infrastructure in government buildings against storm damage, native tree planting and invasive plant management, and flood prevention projects including building rain gardens and developing usable greenspaces.

Project implementation and capacity building had lower overall allocations (24% and 18% respectively). However, there is more cross-over among these two support areas when looking at the kinds of activities. Therefore, it's reasonable to consider them both as capacity building services (in service program terms) in their distinction from traditional education and direct implementation activities. When considered as a group, they jump up to the largest desired support area as a share of total allocations across all groups (42%), but demonstrate wide variation among respondent groups (from 46% for local governments to 36% for states, colleges, universities). Specific activities referenced in these groups included coordinating between county government officials and local organizations, work with county officials and developers to enforce use of updated floodplain maps, grant

application and administration, holistic resilient planning for communities, research and support policy / advocacy campaigns.

One unusual area to call out were the kinds of roles participants identified across the survey results. Many of the needs and roles described are technical in nature and some are more so than traditional service program implementation roles. Technical activities identified include home retrofitting for efficiency / renewable energy, solar installation, weatherization, green building, electric transportation, green stormwater infrastructure, development of emergency management tools, and grant management assistance. For example, the North Carolina Natural Heritage Program called out a need for ecosystem technical support: "North Carolina's vulnerable species and ecosystems could benefit from monitoring (to detect trends and declines), conservation, and restoration. Much of the monitoring depends on field biologists who have a high degree of technical expertise." Additional support for technical roles (and sourcing of more technical candidates) may be something to factor into any statewide initiative that emerges.

Summary of Member Roles

The interest in a diversity of service roles along with multiple roles within one subject area suggests there's a significant potential for supporting communities with a more expansive service base than what exists today. Such an expansive approach would build on the field's experience and ability to deliver direct implementation service with (new and/or enhanced) capacity building and education / communications service support. It may be that some of the variation in preferred roles (especially the call for some of the capacity building and technical support) across organizations comes from survey respondents' lack of familiarity with what service programs do and how they work. However, if the goal is to build a robust statewide service initiative around community climate needs, these organizations are indicating what they want to meet their challenges, which should represent a strong guidepost to what service programs offer.

Level of Experience and Interest

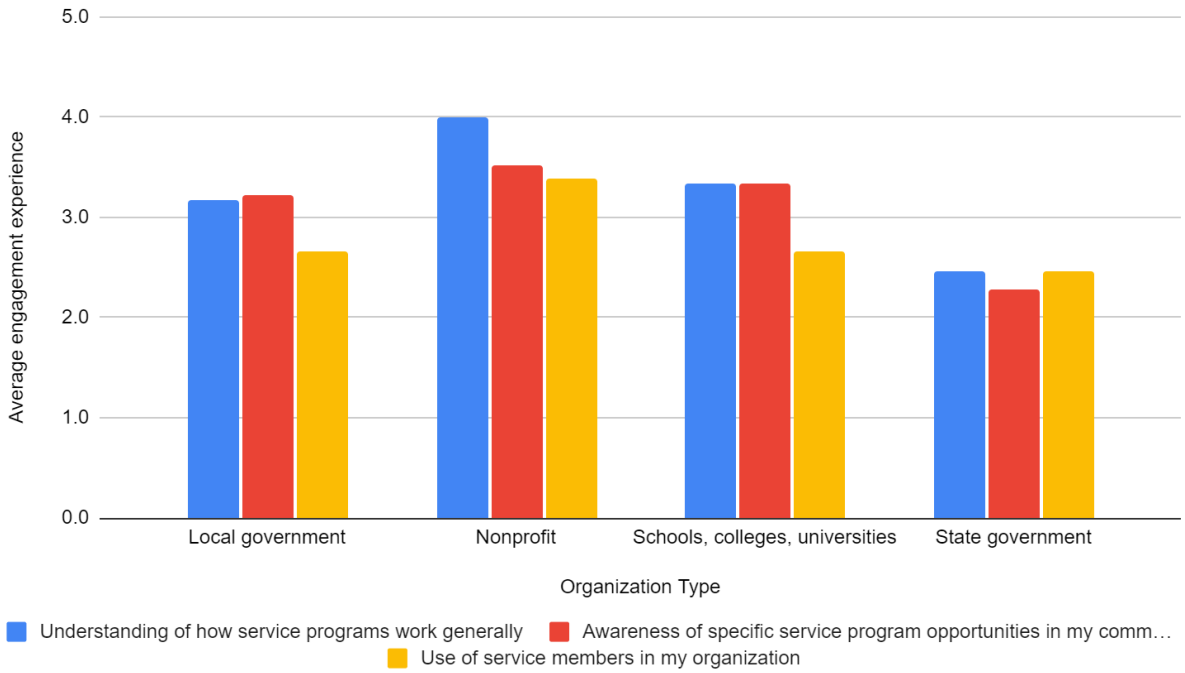
To gauge interest from North Carolinians in the development of a new service corps program in the State, respondents were asked a series of questions about their experience with and interest in service support for the subject areas identified above. These questions help identify the level of potential demand across the state. 79-81 respondents provided responses to questions related to interest and experience.

Experience with Service Programs and Service Members

The survey asked about experience with service programs generally and use of members specifically. Generally, on average, respondents had the highest level of general understanding (3.5), medium level of awareness of specific programs (3.2), and the lowest level of direct use of service members (3.0). Though it should be noted, that even 3.0 represents "some" use of service members, which was a bit surprising.

Interestingly, nonprofits have higher overall levels across the board (4.0 understanding, 3.5 awareness, and 3.4 experience). Not surprisingly, state governments have the lowest experience with understanding how service programs work generally, awareness of specific service program opportunities in their communities, and use of service members in their organization.

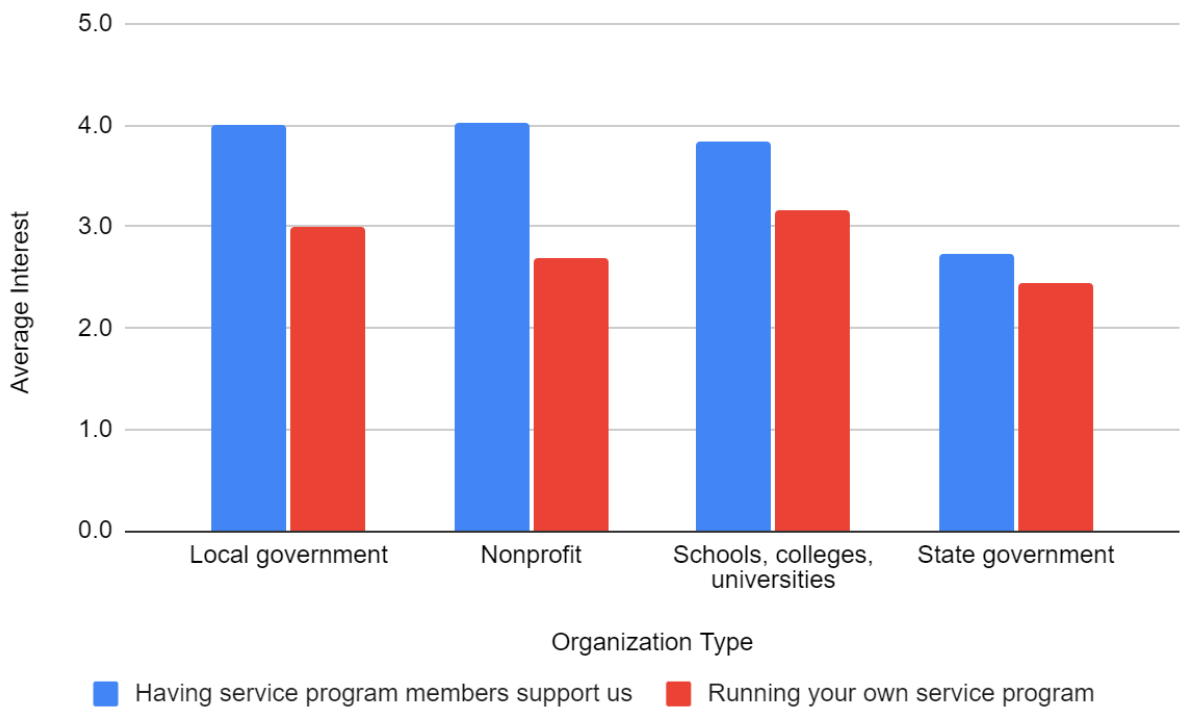
Figure 11: Program Engagement Experience (on a scale from 1=none at all to 5=a great deal) (n=79)



Participation Interest

Respondents were requested to rate on a desirability scale (1 = undesirable to 5 = very desirable) their interest in a) having service members support them and b) running their own program. As a whole, interest in support is high (3.8), whereas interest in running a program is moderate (3.0). Local governments, nonprofits had the strongest interest in having service member support (4.0). Whereas Schools, colleges, universities had the strongest (but still moderate) level of interest in running a program (3.2). State government respondents had a generally lower overall interest (2.7 support, 2.5 running a program).

Figure 12: Interest in service program support (on a scale from 1=undesirable to 5=very desirable) (n=79)

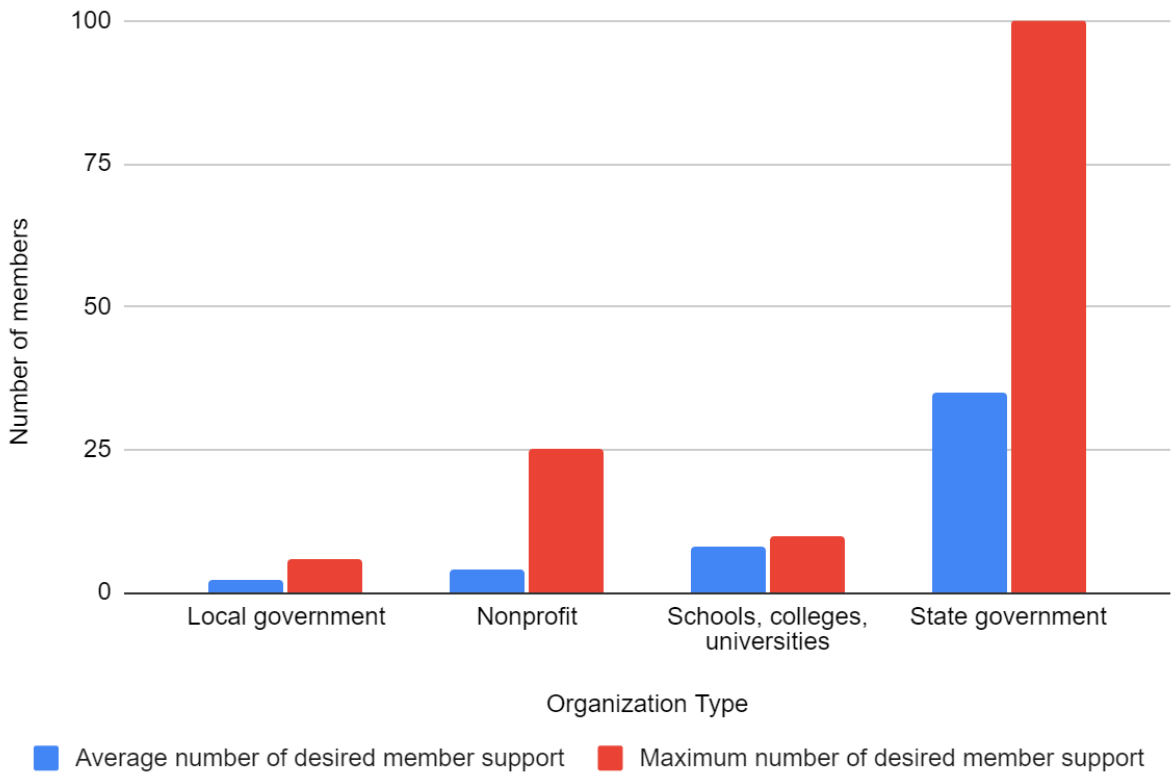


Scale of Interest

Across all organization types, the average of how many people organizations could see supporting the work in the topic areas identified above are 6.5 people, due in part to a singular outlier response who indicated an interest in 100 people.[12] If the outlier response is removed, the average desired number of people across all respondents was 3.6 people. State governments were interested in 2 people on average with a maximum of 4 people. Nonprofits desire an average of 4.2 people, with the maximum of 25 people. For the existing program survey nonprofit participants, the current average number of service members are 111 people, with a maximum of 200.

[12] The organization that proposed a maximum of 100 people was XYZ. Further exploration and engagement with this organization could provide fruitful buy-in for developing new service programs in North Carolina

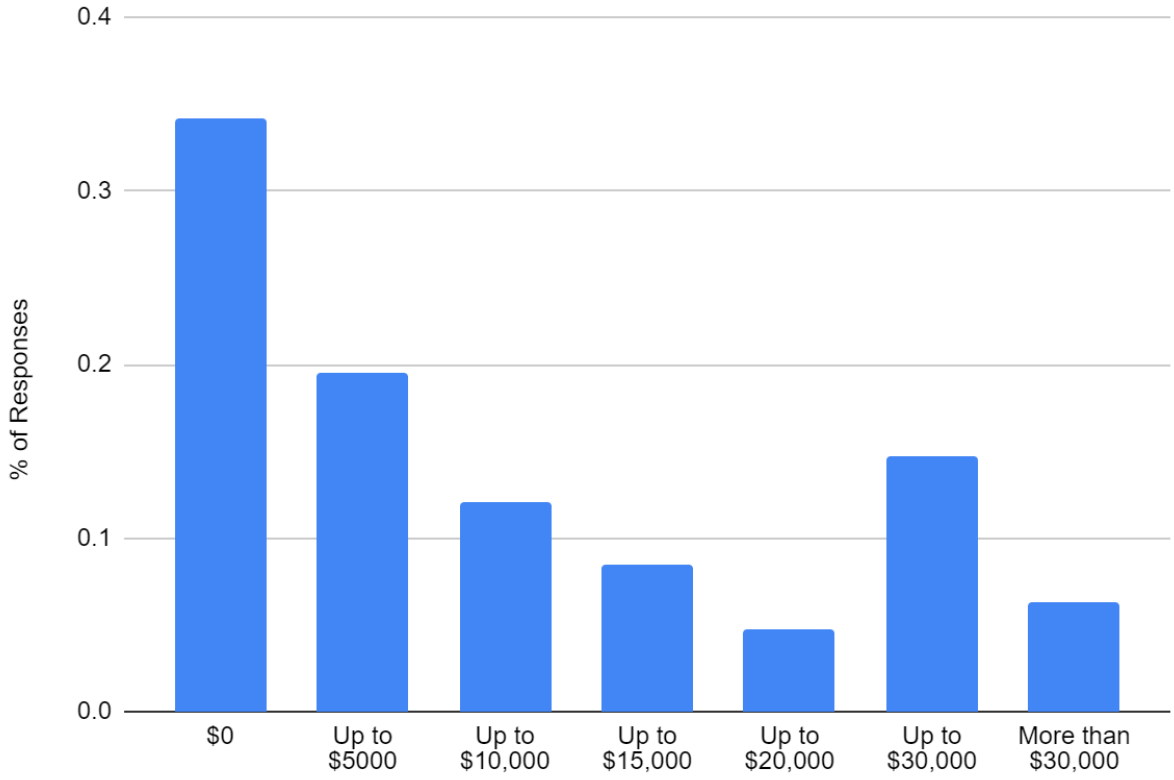
Figure 13: Desired Number of Service Members (n=81 participants)



Willingness to pay for Service Support

In addition to being asked the desired number of members to support their organizations, respondents were also asked about their willingness to pay for each service member for approximately full-time for 11-months, if a well-crafted program were available that could provide people to address the subject areas identified above. Only 35% of respondents marked zero. The remaining 65% were distributed as might be expected mostly from lower to higher amounts). Among participants, the average contribution they were willing to consider, was $11,356 (using $40,000 as a proxy for "more than $30,000"). This represents a significant amount, effectively matching the ~9,300 identified in the landscape section for raising stipends, and just shy of the amount $14,600 identified as a whole initiative scope. This aligns reasonably well with program survey participants whose average host / partner fee per full time member is $13,995 (exclusive of the one private fellowship response who charges $40,000 per full time member).

Figure 14: Willingness to Pay Per Full-time Service Member (n=78 participants)



Summary of Experience and Interest

On average across organization types, there is decent awareness of specific service program opportunities in the community, understanding of how service programs work generally, and the interest across the state in having service members support survey participants is high (3.8 on a scale of 1-5). Not surprisingly, survey participants are more interested in having service program members support them than running their own service program, likely due to administrative costs and low capacity to run such a program.

The use of service members within individual organizations is lower than the average understanding, awareness, and interest of specific programs, which might indicate the need to get more local support where it's needed. The Greenlining Institute (a nonprofit that selected flood prevention as a top priority) says "Critical to success also is community engagement and building trust in communities that have seen many unfulfilled promises. May be hard for a time-limited Corps member to do that but could be helpful for making connections and supporting the capacity of other local organizations."

The relative neutrality of interest in running a program, does reflect a combination of some respondents who were interested as well as those who were not, which suggests there is some appetite out there for organizations

to be more involved in program administration. While the average scale of interest (~3 overall) appears modest, it's important to remember this is a small sample of potentially interested organizations. To serve even 10% of the estimated 600 environmental nonprofits,[13] and 632 local govt agencies[14] in the state with an average of 3 members would require 370 service members. A number well more than current capacity. As one nonprofit survey participant said, "For the lowest-resource communities, having the capacity to host someone at all (and to fund them) will be a challenge despite the immense benefits it could bring." While the assumption shouldn't be made that participants can or will produce ~11,000 in funding if such a program were available - and more importantly met their needs, these results do suggest a willingness to support a strong climate resilience program if available.

Taken as a whole, these results collectively suggest there may be a relatively significant market for a climate service initiative, especially in the public sector as there's interest, a willingness to pay for support, yet a lower level of familiarity and use that suggests room for growth.

Barriers to Implementation

The survey asked participants to rate barriers to service programs on a scale of 1-4 (from "not a barrier" to "extreme barrier") to better understand the challenges to creating new service programs in North Carolina. The barriers to service include:

- Administration of program
- Finding candidates
- Members not receiving a fair/living wage.
- Oversight of individuals
- Paying for services
- Quality of support
- Reporting requirements
- Time commitment

76 participants provided responses to the questions related to barriers. All of the barriers were rated on average between "somewhat of a barrier" and "moderate barrier," confirming that each of these barriers do exist in North Carolina for program implementation.

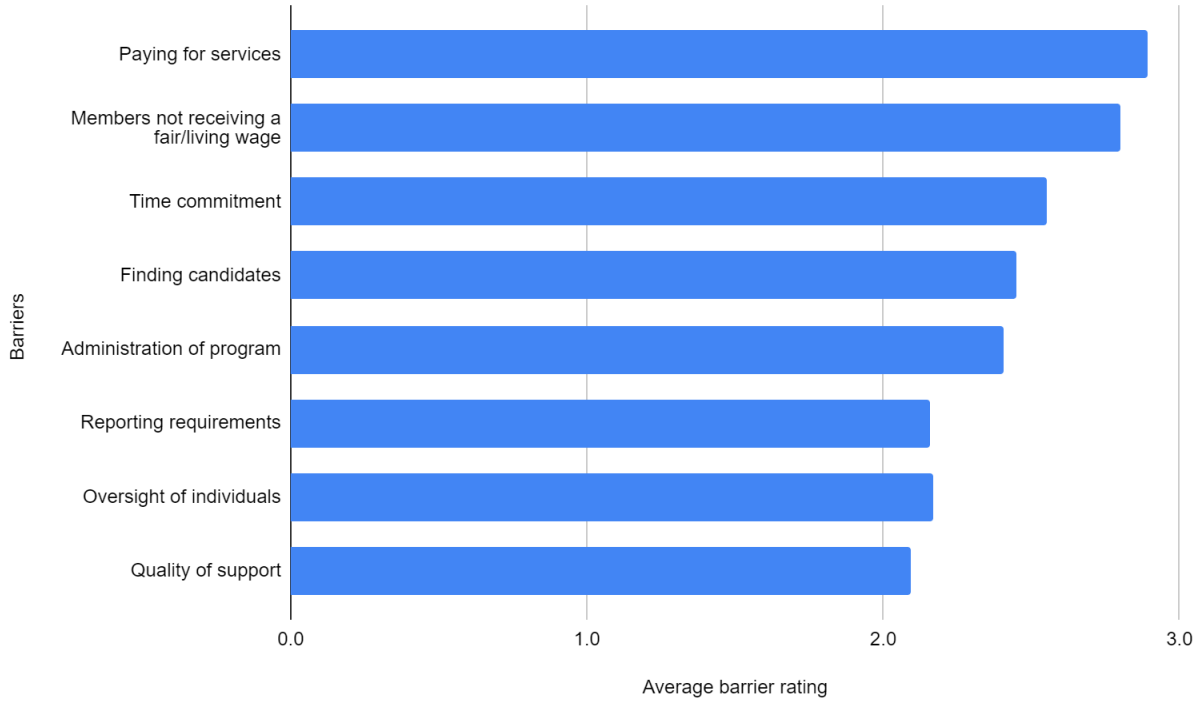
Across all survey respondents, payment for services was rated the highest barrier (2.9 on a scale of 1-4) followed by members not receiving a living / fair wage (2.8). This result alone highlights the tension facing service programs

[13] https://www.causeiq.com/directory/environmental-organizations-list/north-carolina-state/

[14] https://en.wikipedia.org/wiki/List_of_municipalities_in_North_Carolina

who struggle to balance pay for members against viable project or host fees. Quality of support (2.1), Oversight of individuals (2.2), and Reporting requirements (2.2) were the three lowest barriers overall, an interesting result as it suggests that respondents feel generally the operational experience of having fellows (reporting, oversight, outcomes from survive) are not the major barriers to utilization. However, other operational dimensions were rated in the middle of this group (Administration of program (2.4), Finding candidates (2.4), Time commitment (2.6)). It's unclear what this variation represents. Perhaps the specific activities (e.g. oversight, reporting) versus the overall experience with service programs (e.g. administration, time commitment).

Figure 15: Barriers to Implementation (on a scale from 1=not a barrier to 4=extreme barrier) (n=76 participants)



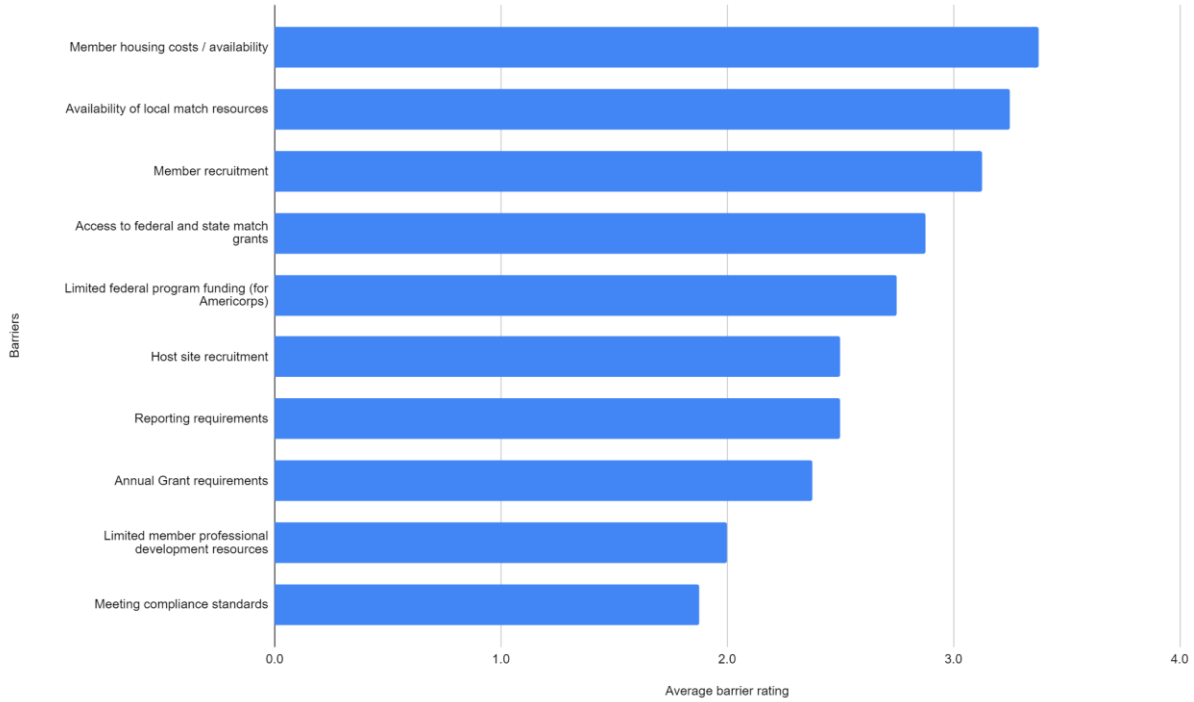
Group level differences on barriers were notable. For all but 2 categories (Oversight of individuals and Quality of support), Schools, colleges, universities ranked barriers higher than the other three groups. It's unclear if this represents their outlook at educational program providers or perhaps their own administrative structures. For local governments paying for services was significantly higher than all other barriers (3.0 versus 2.0-2.5 for others) and the highest of any of the groups. For nonprofits, Members not receiving a fair/living wage was the highest rated barrier (3.0), followed closely by Paying for services (2.8), whereas it was the opposite for state participants with Paying for services (2.8), followed by Members not receiving a fair/living wage (2.7). "Other" barriers identified by participants included "service program understanding of community," "identifying host sites," and "institutional support." Additional qualitative comments in the surveys related to barriers are connected to the themes of program administration, time commitment, and financial burdens.

Existing programs were surveyed separately on the barriers to growing resilience service capacity. The barriers included in the survey for ranking on a scale from 1-4 include the following:

- Access to federal and state match grants
- Annual grant requirements
- Availability of local match resources
- Host site recruitment
- Limited federal program funding (for AmeriCorps)
- Limited member professional development resources
- Meeting compliance standards
- Member housing costs/availability
- Member recruitment
- Reporting requirements

The highest reported barriers by the nonprofits who participated in the program survey were member housing costs/availability (3.4), availability of local match resources (3.3), and member recruitment (3.1). Somewhat surprisingly given the historical complaints with service program administrative burdens, the lowest barriers were meeting compliance standards (1.9) and limited member professional development resources (2.) Interestingly, one of the most prominent current issues - Member recruitment was a significant barrier for program respondents (3.1) but much less so for general respondents (2.4). One program included “Fellow stipend amount” as an extreme barrier (4.0) under “other.”

Figure 16: Program Barriers to Growing Resilience Service Capacity (on a scale from 1=not a barrier to 5=extreme barrier) (n=8 participants)



A few general survey respondents also brought up barrier-related comments throughout the survey which provides additional context to potential challenges to service programs. For example, the nonprofit, The Greenlining Institute, mentioned: "...especially in Eastern North Carolina, race would be a big piece to navigate for a Fellow. Ensuring that Corps members have some training on these issues, and the history of the communities where they will be placed, would be ESSENTIAL for fostering any kind of goodwill." Additionally, one of the academic institutions mentioned "there is nothing on the [topics] list that highlights equity, which may be a critical area for all of these. This could be a climate justice corp."

Summary of Barriers

In both surveys, on average the biggest challenges to program implementation and building resilience service were related to funding and program administration. One nonprofit survey participant said, "For the lowest-resource communities, having the capacity to host someone at all (and to fund them) will be a challenge despite the immense benefits it could bring." The highest ranked barriers indicate the need to increase program funding for the host sites to support their service members and ensure there are well-structured and equitable benefits for members.

Interviews

Throughout the project 25 one-on-one calls were held with representatives from different sectors (5 local governments, 6 programs, 9 community organizations, 5 state and 2 commissions). Through these conversations a variety of topics were explored. In particular, the conversations touched on major climate related risks or interests among participants, barriers to service, programs playing a more significant role, and potential solutions or opportunities (including level of interest). In this section the Project Team summarizes the more prevalent topics and themes that emerged from these conversations. This summary is based on an attempt to organize and code response statements written down by the interviewer. Given the sample size and selection process (i.e. opportunistic scheduling with available participants) the content and summaries are not intended to be fully representative, but rather provide a useful set of thematic highlights and points for consideration.

Risks

By far the most prevalent climate risk topic that came up was flooding (“the big one in the state is flooding in the eastern half”). All interview groups except programs (whose questions didn't explicitly ask about climate risk) talked about flood related issues more than anything else. Comments related to flooding took a variety of forms from sea level rise and coastal protection possibilities (e.g., oyster reefs) to hurricane preparedness and cleanups (“Hurricane Matthew was a major initiating event, then Hurricane Florence. Multiple disasters in the state. Shattered expectations of what has been seen in the past."), to inland flooding, to stormwater management for water quality. Interviewees also made comments regarding linkages between flooding and other subjects and opportunities. Notably, several participants touched on the links between flood prevention and natural infrastructure (“working on flooding, hazard mitigation, green way space, give water a place to go”). Others touched on flooding as the single most non-partisan climate topic in the state (“Seen a lot of transition politically. Hurricanes are a huge issue. All constituents are being impacted on the ground, leadership can’t but face this issue. Starting to see bipartisanship”), as well as one with some of the most significant programmatic and funding resources being dedicated to it (“Working on flood mitigation - mapping out the landscape of what is possible when the state puts money on the table, and then looking at where others can make investments”).

Outside of flood related climate subjects, energy (renewable energy, building efficiency) and greening (urban, rural, restorative, forestry) were the only topics mentioned with some more visible frequency.

Other more singular topics that came up included heat (especially urban heat), fire (more smoke than fire itself), Broadband access, drought, housing, food (security, and quality), public health, and water quality.

Barriers

Comments related to barriers fell into one of two major groups - service related barriers and broader barriers related to the state of play for climate in North Carolina.

Service Barriers

Not surprisingly, member benefits came up quite a lot in conversations. Participants talked about pay equity as both an important issue in its own right, but also as a recruitment issue ("Need stipends, VISTA was maybe good when you were getting middle class people in poverty, but if you want people with lived experience need compelling offer", "How do you attract people to stay in rural areas?"). Some participants commented on the disconnect between service participants and the communities they serve ("Thinking about that too - need to make sure the group is diverse or minimum representative of the population they serve.", "How are we supposed to recruit people from impacted communities? How are they going to be successful"), with some noting that service programs have historically recruited privileged and often white individuals that does not reflect the diversity of the state overall ("For 2 years in a row had excellent finalists - 2 black females, really wanted it. Wanted to be selected. Took another job because my living stipend was not enough. All 4 that were hired, were still getting support from their parents. Still living at home, did not have the same level of debt as others."). Housing access (both cost and in rural communities' availability was also a component of benefits as a barrier.

Additionally, some participants talked about the challenges of matching talent to need in service programs. Some of this centered on the generally entry level role of AmeriCorps members as compared to skills needed ("One of the challenges - supervision it takes. A lot of micromanagement needed for AmeriCorps") as well as issues with turnover ("It's also been a challenge because you are replacing the person every year. They were doing established responsibilities. Depending on who steps into that responsibility, gets different levels of work out of them"). The skill question also came up in regards to questions about how to deliver support consistently at scale across a region or the state. Others touched on talent versus needs in terms of specific barriers to the roles AmeriCorps members can play (advocacy, fund-raising, capacity building).

Administrative burdens placed on hosts to engage in a process that repeats year over year came up in a variety of ways such as host costs, supervision requirements ("If it's a model where you have requirements for community participation (supervision / money etc.) will cut out a lot of folks", ""Very much support and feel obligation for learning opportunities for next generation - don't mind guidance, but has to be something that is not so much work") and even partner training ("Training is key - need competence at hosting organization - so they are a resource"). Overall, there is a mismatch between smaller local organizations who have needs and requirements for participation ("biggest challenge - administrative burden on community organization. Folks approach us about AmeriCorps all the time. You must have so many sites and members. [need to] make it so it's doable that you can have just a few members / site.").

Broader Barriers

Participants also touched on a range of barriers that are not exclusive to service programs. Notably, the issue of local need versus statewide coordination came up in a variety of ways. In part this is a geographic barrier ("we're a big state. East to west 9 hrs. North to south 2.5 hrs. If you are trying to place people across the coast, it's difficult logistically to work in places that are spread out."). And the rural / urban divisions in the state "NC is a big rural urban split, progressive urban centers and rural mountains look different from rural eastern part of state.

Very different demographics and community issues in terms of climate change and impacts", "We don't pay attention to smaller towns that are in severe economic distress."). But interviewees also touched on programmatic coordination issues ("a lot of times our members are asking why we are using different methods to do things. Everyone hires a different consultant to do things, but if there was some consistency across state", "Maybe just having a service that is mismatched with need. If there is a program that's statewide, and the resilience aspect is too heavily focused on water and coastal, then western side of the state won't be served - make it widely applicable") and even engagement issues for a statewide program ("How would we even communicate opportunities to local governments? How would we facilitate that connection?"). Some participants mentioned serving local needs, the importance of aligning needs and people (in terms of individuals, skills, and timing), or expressed concern about how to deliver consistent support ("Would need a suite of resources to help people get to speed quickly in the state."). Across all of these a common theme is reconciling the importance of serving local needs, while still offering a program that can operate effectively (and credibly) at scale.

Opportunities

Interviewees also talked a lot about the opportunities presented by service programs. Generally speaking, these opportunities centered on a few topics: the roles members could play, the value or framing of service programs might provide, a cluster of ideas for program design that might be beneficial, and general levels of interest.

Roles

Interviewees touched on a wide range of possible service roles that would address climate needs in the state. Some were very specific, some more general. To facilitate analysis comments were coded into the common categories (used in the survey) of Capacity Building, Community Engagement, and Direct Action. As a whole capacity building roles were brought up much the most followed by community engagement, with direct action coming up the least. Interestingly, local governments. Among potential service "user" groups (not service programs), nonprofits and state agencies referenced capacity building activities almost 2:1 over community engagement, whereas local governments mentioned community engagement roles more than capacity building.

Table 8: Distribution of roles in interviewee comments.

	Capacity Building	Community Engagement	Direct Action
Local Govts.	20	27	3
Nonprofits	35	18	9
Programs	7	1	4
State	31	19	2
Grand Total	93	65	18

A large number of capacity building roles appear to relate to local planning and analysis needs ("Going through vulnerability assessments, stakeholder driven science-based process for high priority projects", "More technical expertise identifying priority projects and strategies for action steps."). Others seem to relate to closing gaps on local capacity ("there's a huge need for capacity to get the wheels turning on those projects, that might be research, grant writing, communications, outreach, and networks."). Across a number of these comments interviewees expressed interest in funding related capacity building ("mapping out the landscape of what is possible when the state puts money on the table, and then looking at where others can make investments."). With community engagement, some interviewees were looking for help getting critical information out to communities ("At the state level we work with county health depts. We provide help for outreach to them. If there could be a network of service professionals to deploy."). Others felt it was important to bring the community in for various processes ("See usefulness in community based position - make sure community members are at the table. Learn about and advocate for themselves", "Need to get the public involved and build understanding"). Another aspect of community engagement centered on more traditional education on risks and responses "Education is another one - getting people aware of hazards and what resources are available to them, creating alert systems for them on air quality issues."). Direct action roles included traditional conservation corps restoration project activities ("trailways, clearing out rubbish…greenway overgrown, now it's holding water in certain pockets because of foliage - get someone to clear out and wouldn't flood the parking lot", "urban forestry and arborist training and urban tree management is super interesting and has quick climate benefits") as well as a number of disaster response related activities ("biggest challenge - building back after storms. Whatever that looks like at community or individual level - don't have a portfolio that addresses that."). Additionally, some interviewees mentioned renovation projects related to energy ("needs are hit or miss depending on where you are at. In some cases where you have infrastructure - can't make sense in old homes that are falling apart for solar or weatherization, they need a floor or basic insulation.").

It should be noted that many of the roles described were multi-pronged ("Trying to find solutions that address multiple struggles", "they came in and offered stormwater management and education to the community"), where the service members' role was a vehicle for getting specific tasks done while also engaging communities and motivating change ("Most problems are people problems. In some of these small communities where an emerging professional comes in from the service world. If they are connected to the community and passionate and motivated, that's huge to our work and the community - they serve as a liaison to the work when staff is not present.").

Overall, it seemed that interviewees were interested in expanding on traditional AmeriCorps roles and activities, but felt strongly that service needs to address expanded needs. Programs and local governments made the most mention (17% each) of existing program activities (e.g., restoration and education principally) either as desirable to have, or in terms of positive experiences. Nonprofits made less mention (11%). State interviews barely mentioned it at all (2%). For example, Conserving Carolina expressed strong interest in expanding their scope of support (geographically and subject wise), and a number of local government and nonprofit partners mentioned the value of what might be seen as traditional direct service activities, "If we're talking about installing landscape features that require care. There's no one there who is part of that position." Contrast this with the comments on needs not currently supported by the NC service community which were consistently high for all four interview

groups (State 37%, Local Govt. 47%, Community Orgs. 33%, Programs 24%). Especially robust were comments about capacity building activities for planning, grant management, research that can help communities respond to emerging issues. As one interviewee said "Everyone is so understaffed it's unbelievable. Having more people on hand to do more basic research, pulling together memos and reports. Having research time. No one has time for this."

Value Framings

Across the interviews three main topics came up as "values" that could be considered in framing a statewide climate service program.

The first value framing centered on the subject matter. Interviewees touched on the value of resilience (versus climate) and flood response as generally bipartisan concepts or issues, which thus offer inroads for climate action that could generate a broad base of interest ("Seen a lot of transition politically. Hurricanes are a huge issue. All constituents are being impacted on the ground, leadership can't but face this issue. Starting to see bipartisanship."). This relates to both the operational potential and the funding potential for a statewide climate service program ("No political barriers on agency side or leg side. We've gotten most of our funding from the general assembly. Which has been great. Have been able to avoid political issues of climate adaptation - there's pragmatic issues that need to be addressed."). This also presents an opportunity to meet people where they are and address interconnected issues ("Not just about climate or hazards, but what are all the aspects to resilient communities. Must think about it as a suite of issues."). Interviewees made clear that climate has some challenges as a focus area that resilience does not. As one interviewee stated, "In some places if you talk about climate change, you're done. We're talking about extreme weather as a more neutral term." This was echoed by another interviewee who said "As resilience becomes a need, everyone is talking about resilience. Neutral word in NC."

The second value framing most interviewees touched on was localization as central to service in North Carolina ("Regionalism is a huge thing", "Need statewide support for local community solutions. Every local community will be different."). Localization is important for program efficacy ("must be community based. Will get most bang for the buck - statewide infrastructure support but local community partners"), but also credibility ("if you're not from our region, you're not from our region…We're always trying to build friends and collaborators who can take work forward in those places", "Gaining the trust of the community, then developing and executing a plan, and meaning what you say and saying what you mean."). Other interviewees touched on the equity dimensions of localization ("There's a desperate need for partnerships in rural, environmental justice communities, how to handle this and convert this [service actions] to environmental justice."). One aspect of localization that came up quite frequently was the role of councils of government as liaison between state and community needs ("COGS are mostly trusted in the region. They have relationships and have relationships with local communities."). Several interviewees outlined ideas for how COGs might deliver a statewide service program ("If we're looking at capacity in local govts. Need to look at COGs."). Not everyone expressed complete trust in COGs, but they were widely seen as an important bridge that should be considered in this effort ("For COGS - comes down to capacity and leadership. COGs are local govt. funded. Because of that they are very geographically specific to their priorities and have leadership councils. There's variability but also opportunity.").

The third value framing comprised the variety of ways that a statewide service program might provide a foundation of leadership that could provide a useful selling point for such an effort. This leadership was both the explicit and obvious leadership offered to the members ("People are looking for opportunities from all levels. Think about EJ and diversity of participation", "You are developing a professional who has the gaining the skills to be independent operators to be community organizers, to be project leaders") as well as the leadership such service placements might provide to and for communities ("How do we get people from those communities to do this work in their own communities? Maybe they work semi-locally. Would build a cadre of people who would come back and support their own places", "An AmeriCorps service member walking in with AC pin. The town manager and the mayor or county resilience officer, walks right up - helps the service member feel at home wherever they go - they represent something meaningful and authoritative."). Additionally, such an initiative might offer different kinds of leadership. For example, some interviewees talked about how to connect climate service to economic empowerment and development (e.g., through renovation or rebuilding efforts) in ways that will leave a lasting impact ("When you talk about climate priorities this is a classical priority - lessen the severity in the community for flooding and lessen the fear about flooding. It's a win-win for this community. The educational component will transfer over from generation to generation."). Also if a more equitable accessible service program were available, it might appeal to more diverse audiences (veterans, local individuals, more minorities). Finally, there's a financial leadership component as well. Unifying diverse climate efforts under a broad coalition with service at the center might help rally funding to projects and communities ("State govt is the largest investment. From there - how do you get creative to get local dollars", "Opportunity between housing and economic development to think through leveraging CDBFG, or other funding programs."). When funding was mentioned as a strategy, it was often tied to federal funds (IRA, IIJA, etc.) or potential state resources and was referenced as both a resource for funding programs and helping communities access funding ("What I've heard from Local govt groups [is that] they don't have time to figure out what is there" and "Really [we] want to see IRA IIJA money distributed to good projects and distributed equitably. We have an admin who wants to see money distributed equitably, but [we] have limited capacity to do outreach.").

It's important to note that these three framings (resilience, localization, leadership) can be linked quite readily (e.g. flooding response is of necessity local, and building local responses to climate risks, means supporting leadership in those communities to carry the work forward). As such they can be considered elements or dimensions of the "story" of a statewide service initiative and makes clear that service should be a catalyst for greater community actions and impacts beyond any immediate or functional activities.

Structural ideas

Throughout the interviews a number of discrete ideas came up related to how a program might be structured. A few are identified here that seemed to align with other concepts and/or offered interesting approaches for consideration.

A number of ideas represented variations on what might be called a "circuit rider" approach, where a central (regional) entity hosts members who provide service to a number of lower resource or limited capacity communities ("They need someone on the ground in communities who can be the hub for the service members

who are leveraging community members.”). This came up both for capacity building activities such as planning and for greening efforts where projects in a community are not of a scale to justify dedicated maintenance teams. This concept also syncs up with another programmatic need / idea that came up - creating better two-way information flows from state agencies working on climate issues to local communities (“Some possibilities for members to play as ambassadors.”). Some state agencies noted challenges they have getting information out, as well as getting community partners engaged in resources and activities, they have available. Using service members regionally placed working in support of specific statewide programs, might help strengthen state to local engagement (“Having access to those orgs who can provide resources, research, best-practices, cutting edge knowledge.”).

Many of the interviewees noted the strong academic networks in the state and the potential value of partnerships with them. Notably, there’s a range of flagship universities with established climate programs. However, several interviewees noted that there’s two HBCUs in the state, who do not seem to be as engaged in climate or service efforts, but would provide an important means to diversify participation (and relationships) additionally, the presence of a North Carolina Sea-Grant, and general extension programming - both of which have strong community serving functions provides an important network and base of community technical assistance that might be important to this effort (“Cooperative extension is a model - they are localized and are engaged. Coop extension agents are valuable. If we had a design extension agent in all 100 counties trained about how projects are implemented. That would be such a difference.”). The state community college system was also noted as an important means of identifying and supporting local members especially in more rural parts of the state, which has been a historical challenge. Some interviewees even highlighted youth connections (e.g. through 4H, HS programming, etc.) as a component to leverage.

It appears to date (and some interviewees noted this) that the majority of direct action restoration / greening activity going on is focused on the western part of the state. However, flood risk appears to be most severe in the east. Identifying ways to expand stewardship support from the west to the east in partnership with greening, or natural infrastructure / flood mitigation efforts might be a strategic step.

Finally, there was a general interest and support for coordination of this effort. Whether by matching service solutions to specific needs (“There’s internships and fellowships all over the state. Consolidate opportunities and identify where we specialize”, "If there is a program that’s statewide, and the resilience aspect is to heavily focused on water and coastal, then the western side of the state won’t be served - make it widely applicable") or sharing expertise within and across programs and partners (“There's things we can’t do. No experts in community relations, building community support, communications, risk assessment, climate evaluation. Tapping into other folks who train on that would be great”, “I do think common training / branding is important. Curriculum and branding and orientation beyond specific programs would be helpful. Could be organized in part or full”, “How could an organization like SBP or others support sharing knowledge, training, resources, to other programs in NC?”). Such coordination could also help align resources among programs (“Having a coalition that specializes in funding resources. That would be the biggest value add.”).

Interest / Scale

The final opportunity of note is the general level of interest and scale expressed by interviewees. As a whole and in a general sense, it seemed clear from all of these conversations that if a program were available (and well structured, and equitable), many community organizations, state agencies, and local governments would like to participate ("We would definitely be interested. These innovative partnerships are something the secretary is interested in", "If money was not an issue - demand would be high", "There's appetite. We have 26 local govts in our network, also 11 smaller communities, and those in between."). Some interviewees were explicit in their endorsement and in a few cases, when prompted offered ideas for the scale of such a program ('Maybe 100 undergraduate folks at one level, then another group with graduate level", "maybe 3/COG - 30-40", "300 could easily find places for them if you have quality folks", "If you are talking investment in western part of state - 3-500 folks. Winston-Salem to the end of NC, then central Winston-Salem to Rocky Mount - large potential there - 1000 wouldn't overwhelm that region. Eastern NC is most opportunity because of flood prone, not intentional planning, couldn't put a number", "I think in terms of counties. If you had 20 kids / county. 2000 max - 10-20/ county", "No idea. 50 would be amazing, 100 would be amazing. Maybe I'm thinking too small."). In some cases, these scale estimates reflected a particular region or program focus, others offered larger or statewide scale estimates. Taken though the general enthusiasm, and the scale of support identified suggest a significant interest (again assuming functional fit).

Group Conversations

The team held a series of four group conversations over a 1 week period in December. Each conversation followed the same approximate format (see sample agenda in Appendix G) starting with an overview and context for the project and then working through three exercises focused on 1) opportunities for climate service, 2) potential challenges, and then synthesizing the conversation around 3) high impact but realistic approaches. To facilitate conversation and capture input, Google Jamboards were used.

Opportunities

The group conversations began with an open-ended process where participants added their ideas for the "biggest opportunities for service programs to deliver benefits and impacts for North Carolina." After participants generated a range of ideas, the team grouped them into like categories under a heading and facilitated further exploration to tease out the groupings as well as to identify any missing pieces. What emerged from this process was a strikingly consistent set of groupings. Below are the specific "categories" from each conversation. The categories are aligned across the groups based on similar concepts that fall into 4 broad categories.

- Direct Action - this category encompassed more traditional "boots on the ground" service activities such as tree planting and restoration, as well as direct disaster response.
- Capacity Building - this category encompassed a wide range of more "technical" or "analytic service activities" including planning, grant management and tracking, and research.

- **Education and Engagement** - this category encompassed those activities related to raising awareness (broad as well as local), engaging community members, and providing more traditional educational content to various audiences.
- **Service Coordination** - finally this category includes both ideas related to fostering a strong leadership experience for service members as well as providing robust support for their service activities.

The summary of opportunities by group conversation is provided in Table 9. The full Jamboard tables from each are provided in Appendix H.

Table 9: Opportunities Summary

	State	Nonprofits	Programs	Local Govts
Direct Action	Local implementation support	Direct Implementation / boots on the ground	Direct service Implementation /boots on the ground (restoration) (Local implementation support)	Local Capacity Building Support (e.g., disaster response)
			Disaster Response / Recovery	
Capacity Building	Local capacity support	Capacity Building at all levels (COG, nonprofit, local govt, etc.)	Capacity Building / Analytical support	Local Capacity Building Support (e.g. analytic support and grant management)
	Analytic Support			
Education and Engagement	Education / Comms	Communication / Outreach / Education	Climate Education / Outreach	Education / Outreach / Communication
Service Coordination		Professional Development (leadership, participation, member experience)	Coordinated service framework	Service for Service Opportunities
			Equity and Env Justice	
			Workforce / special populations	

As can be seen during the opportunity phase, some groups identified more than one topic that are presented here within one of the four main topics. For example, during the state conversation, participants created a division between local capacity support and analytic support which was more state-level in nature. Both of these however are (as can be seen in the Jamboard) principally capacity building activities. Similarly, the ways that the programs talked about a coordinated service framework, equity and env justice, and workforce / special populations do align with concepts of service coordination. The only general topic that came up that did not have an analogue in all 4 groups was service coordination, which did not come up in any form in the state conversation. While groups talked about these topics in different ways and with different emphases, the commonality of these

opportunities (especially the alignment between programs and the other groups) seems important. Further the balance of 3 major service types (direct action, capacity building, education) across all the groups suggests that efforts to build out a service program initiative, should consider development across all 3 in tandem versus any one alone. Finally, the support and recognition of the service coordination as an opportunity for nonprofits and local governments (the so-called consumers of service) is encouraging as it reflects an understanding of the larger value and importance of service beyond just what it offers their communities directly.

Challenges

The challenges section of the group conversations proved less fruitful on its own. While it generated some good discussions and informed the last part of the conversation, the process and the selection of challenges to address did not produce as much common understanding as the first and third sections. However, a few common themes emerged, which are described below.

- Coordination - Syncing up disparate needs and activities among programs and communities is challenging both logistically and relationship wise. Focused and centralized delivery of support from a credible party is one means to address this that came up in this step. Coordination challenges also came up in the form of questions about the technical capacity of service members to deliver needed support.
- Project definition - some of the challenges tied into how projects are defined, funded, and implemented (e.g., who gets to decide, who pays, how supported). It appeared that this needs to happen at a higher level than individual communities or programs to realize scaled benefits. However as with coordination, trust is a factor here and ties into issues of equitable access to program benefits. Another dimension of this project definition that came up was around the framing of service activities (e.g. climate vs. resilience) and the importance of meeting communities on their own terms to be effective.
- Equity - several challenges touched on issues of equity. This came up from programs in terms of benefits and participation. There was a clear recognition of the challenges of recruiting diverse cohorts of members under the current benefit structure. Whereas for nonprofits equity was more related to how communities get to participate, and which communities are supported.

Approaches

The final stage of the group conversation was to revisit the initial opportunities considering challenges discussed to define (and then vote on) the "highest impact and most realistic approaches." The team had taken the opportunity topics, synthesized them in some cases, and added simple descriptions for context. Each group was given a chance to offer refinements so we could be sure these reflected the essential ideas from the day's discussion. Following this confirmation, each participant had a chance to vote on their first and second choice approach as well as offer comments. Table 10 below distills these results down under common headings and provides the summary of combined votes (1st + ½ of 2nd). They are presented in order of which got the most votes overall.

1. Local Implementation support for direct services (including disaster prep and recovery) in the community.

2. **Capacity building** support for deployment of key strategies and plans (both local and statewide)
3. **Service coordination** support for stronger service delivery overall (talent pipeline, pathways to leadership, service coordination, service as a catalyst)
4. **Education and engagement** support for community climate education and engagement and outreach to inform climate action locally.

Table 10: Final Approaches by group with combined votes (1st + ½ of 2nd).

Group	Descriptive text	Combined votes
Local Implementation		**16.5**
State	Tree planting, habitat restoration in underserved/critical areas, outreach, education and engagement. Ensure local needs are met	3.5
Nonprofits	Tree planting, weatherization, disaster response, infrastructure projects	4
Programs	Disaster recovery, habitat restoration, weatherization, etc.	5.5
Local Govts[15]	Support for disaster related preparedness & recovery efforts (e.g., boots on the ground)	3.5
Capacity building		**12**
State	Project based capacity expansion, long term program development, grant management, etc.	2.5
State	Climate vulnerability studies, GHG inventories, etc.	2
Nonprofits	GHG inventories, grant management, data entry, GIS	1.5
Programs	Climate vulnerability studies, GHG inventories, etc.	0.5
Local Govts	GHG inventories, grant management, data entry, GIS	2
Local Govts	Support for disaster related preparedness & recovery efforts (e.g., technical, educational)	3.5
Service Coordination		**8.5**
Nonprofits	Complimentary program infrastructure for participants that is equitable, accessible and connects to local opportunities at various stages	2
Programs	Building framework (support, resources) for coordination across programs across the state for benefit of community impact (workforce, BIPOC, Env. Justice) and member outcomes (diverse recruitment, career opportunities)	3.5
Local Govts	Have service programs play a catalyst role in other climate resilience activities by groups and citizens (k-12, 4H, citizen science, storytelling, etc.)	3
Education and Engagement		**6**
State	Statewide information sharing, educational content	0
Nonprofits	Social media/marketing, community education	0
Programs	K-12, community education, knowledge sharing, etc.	1

[15] The Project Team split one of the local government approaches into both capacity building and local implementation as the description combined both activities under the heading of disaster recovery. The 7 1st votes were split equally.

Local Govts	Public information, information sharing, formal education	5

It is not that surprising given the approach of the group conversations that the final set of groups identified would mirror the categories from the opportunities section. But this process did allow for a refinement of meaning, as well as an evaluation of relative importance. Notably, local implementation got the most support (16.5 votes), followed by capacity building (12), service coordination (8.5), and then education and engagement (6). Local implementation and capacity building had strong or modest support from each group. Whereas service coordination was only included in 3 of 4 groups, with most of the votes coming from programs and local governments. Finally, although education and engagement were a consistent opportunity identified, it received the lowest overall number of votes, with almost all of the support coming from local governments (nonprofit and state participants did not vote for this category at all). It should be noted that variations in group participant numbers (e.g., there were 12 local government participants, but only 5 state participants), had some impact when considering group to group comparisons within a category, but did not really impact the overall category comparisons.

Summary of Group Conversations

The group conversations helped coalesce the Project Team's thinking from the other engagement efforts in a significant way. It was fresh on the heels of the group conversations that the Project Team prepared the December summary of recommendations. Some of the key findings from the group conversations formed the backbone of those recommendations, which were reinforced through the post December analysis of the surveys and interviews.

There's a role for all kinds of service activities.

In different ways all 4 groups highlighted the value of the existing service base in NC. Most obviously programs were able to identify a wealth of relevant project activities that can be expanded on (e.g., urban reforestation, youth engagement in habitat service, restoration in underserved critical sites). But other groups lent weight to this as well. Almost all provided examples of activities that align with existing program strengths (restoration, disaster mitigation, environmental education). Nonprofit and local government participants touched on "continuity" of programming, and the importance of building trust, which suggests that building on what works may be more well received than starting something new for some groups.

At the same time, as there's support for existing service activities, all four groups highlighted significant opportunities that go beyond what is widely available in North Carolina. Most notably, some form of capacity building and analytic support - which is virtually nonexistent in North Carolina - was selected almost as much as more traditional direct implementation. Many specific ideas related to grant applications and management, technical assistance, engineering, and planning support were repeatedly floated as highly important. As one state participant noted (in regard to state planning support) structured capacity building "would create space + momentum for the other categories here." Although not a critical priority by votes, the commonality of education and engagement (particularly for local governments) to "herd the cats" and serve as a community connection for

regions or statewide initiatives represents a programmatic gap that might be addressed through adaptation of existing educational programs or development of new targeted programming.

Consider strategic priorities in developing service initiatives.

These approaches, and the conversation that led to them touched on several cross-cutting priorities that could be considered in developing service initiatives.

First, most of the direct implementation examples identified by all four groups focused on restoration activities with a flood or disaster prevention angle (e.g. green infrastructure, stormwater flood management, direct support post-disaster). Throughout there seemed to be a recognition among participants that flooding related activities are both well-defined so they can be scaled more readily, are likely to have widespread support, and are excellent demonstrations of the power of service in the community. There's also a variety of intervention activities that were touched on giving various programs a means to engage in this effort (e.g., from educating communities pre-disaster, to volunteer coordination around clean-up and mitigation projects, to capacity building to map risks and response strategies).

Tied to the relevance of flood prevention and restoration is the emerging sense that "resilience" is a more palatable way to engage North Carolina around climate service efforts. Local government participants more clearly articulated that there is a varied "level of comfort" with climate as a term, but resilience is more acceptable. This also connected with sentiments expressed by the programs and nonprofits who touched on the need for and challenges with connecting service with local needs and values, which inherently means avoiding climate in some parts of the state.

Across all of the conversations, participants touched on two principal reasons localizing service is critical to success in North Carolina. First, many participants noted that service programs need to establish trust and credibility, but this requires a connection or history with the communities being served. This can be especially true (and hard to address) in historically marginalized communities of the state. Second, participants highlighted the significant disparity between the few large metro areas, and the very large number of much smaller - predominantly rural - communities who have almost no resources to engage in climate activities, but are very much on the front lines.

While funding was not an explicit category of interest, there was an undercurrent throughout all the conversations. Nonprofits and local governments saw a significant potential for grant application support in service programs, State participants touched on BIL and IRA as explicit opportunities. They also saw the potential for building greater alignment with state plans and policies which would empower communities to access more resources. Some participants touched on the urgency to act due to federal funding timelines. Even programs called out IIJA / IRA and federal workforce and Justice 40 goals as something service programs can tap into. As one program participant noted, they voted for direct implementation first "due to the ability to implement quickly and find funding through existing sources."

Service Coordination is key to realizing scaled impacts.

Three out of four of the group conversations included (and endorsed significantly) approaches tied to the structure of service programs collectively. The need for adaptation was most clearly articulated in the program conversation as "Building framework (support, resources) for coordination across programs across the state for benefit of community impact (workforce, BIPOC, Env. Justice) and member outcomes (diverse recruitment, career opportunities)." This was further emphasized by the nonprofit conversation which highlighted the historical challenges with service programs (cost of living, match challenges, and "missionary history of service"). Another angle of this emerged through the conversations about new forms of service (e.g. capacity building) and alternative participants (e.g. more technical professionals, vets, retirees).

Consistently in the group conversations coordination of service programs and activities (e.g. in a network) was identified as both a need and a solution to realizing greater impacts group conversations. For nonprofits this coordination or network vision came through as "Complimentary program infrastructure for participants that is equitable, accessible and connects to local opportunities at various stages." For local governments, "Have service programs play a catalyst role in other climate resilience activities by groups and citizens (k-12, 4H, citizen science, storytelling, etc.)." As one program commented, coordination is "Critical for success of any other strategy." Many of the ideas discussed also pointed less directly to a network approach, as nonprofits, local govts, and state agency participants strongly encouraged a diversity of program options, a streamlined access point for community partners, a need to better standardize practices to serve and support high-need communities (e.g. cultural competency), and an interest in the broader workforce potential for the state from service alums.

Finally, the group conversations also highlighted the importance of emphasizing catalytic over functional outcomes in service initiatives. While not explicitly identified as an approach (as local implementation or capacity building were), across all the groups there seemed to be a recognition that the underlying power from service is not in the discrete activities completed, but in its potential as a community catalyst. For example, in the nonprofit conversation a number of unique ideas for placements came up (at social service agencies or libraries). State participants drew a direct line between direct action and community activation. Local governments expressed interest in service for its capacity to mobilize communities for "success and legacy building," which follow from specific projects. Taken as a whole these perspectives seem to reflect the understanding that what happens through community based service projects is not just about the work done, but about the connections made and the visibility it gives to the larger goals that drive the activities.

General Program Design Concepts

Across all the context development and engagement activities a range of program design concepts and models have come up. This section seeks to outline and/or describe them as potential opportunities for inclusion in whatever initiative emerges from this effort.

Service Activities

Under service activities, the Project Team saw a consistent thread of 3 types of activities, spread across scales and subjects. There is a higher interest in programs with local implementation efforts / boots on the ground projects, but a suite of options would allow program participants to pick and choose from a range of services for members to support.

- Implementation support (direct boots on the ground services): Field crews for urban tree planting. Bolster home weatherization teams. Support disaster response efforts. Implement green infrastructure habitat restoration or living shorelines projects in communities.
- Capacity building / Analytical Support (deployment of key strategies & plans): Develop green-house gas (GHG) inventories, climate plans, or vulnerability studies, and provide grant application and management support. Provide GIS support. Serve as general project management support. Act as a community liaison for regional or state program implementation. Support assessments of need (e.g. heat, flood, etc.)
- Education / Outreach / Communication (community engagement to inform action): Embed rural "ambassadors" to build understanding locally. Support school-based or workforce training programs. Build, social media / marketing, community engagement channels. Provide demonstration / education projects. Disseminate key information from state agencies (e.g., extreme heat, health). Coordinate participation in meetings.

Service Coordination

A central point made throughout is the importance of a statewide "backbone" for coordination of service activities, benefits, funding, and outcomes. Such coordination can take many forms and who will manage this coordination is up in the air. Based on expressed interests by participants, respondents, and with consideration of what other states are contemplating, the Project Team outlines design ideas for coordination activities below.

- Member benefits: Levalize stipends (and increase overall) to a "livable" level. Support statewide calls for additional benefits (e.g. coupon books, housing support).
- Pathways to leadership: Strengthen and diversify recruitment (centralized platform for program recruitment, communications support), engage HBCUs and MSIs directly, and engage alternative populations (vets, local retirees, high school students). Centralize delivery of common content (e.g. UC Stewards) and utilization of existing training programs (e.g. conference pass, training access). Foster mentoring (match-making with relevant leaders in the field). Create more direct workforce connections (weatherization) and alumni support (career fairs, hiring preference).
- Impacts: Create a common set of defined expectations (methods, reporting, etc.) to collate and amplify impact of service for the state. Target desired activities and outcomes (support certain climate actions and defined outcomes) to focus efforts and create greater collective impact.
- Community benefits: Centralize support hub (coordinated entry point to identify service programs that can support community needs). Create technical assistance (TA) support (members serve as a bridge to share state resources and act as in-house TA for community orgs). Increase visibility (combined outcomes

and activities highlight local successes). Build community leadership (alumni stay on in communities). Strengthen knowledge base beyond service (service program network could also help build a hub of resources for communities to access and utilize beyond the service support itself).

Funding

Based on prior experience, and the conversations and inputs to date, it is assumed that whatever initiative emerges, a call for investment will be central to the design. In addition to the scale analysis provided in the context section of the report, it is useful to outline design approaches to funding that can be considered for next steps.

There are effectively three major models for how to fund a statewide service initiative, as outlined below.

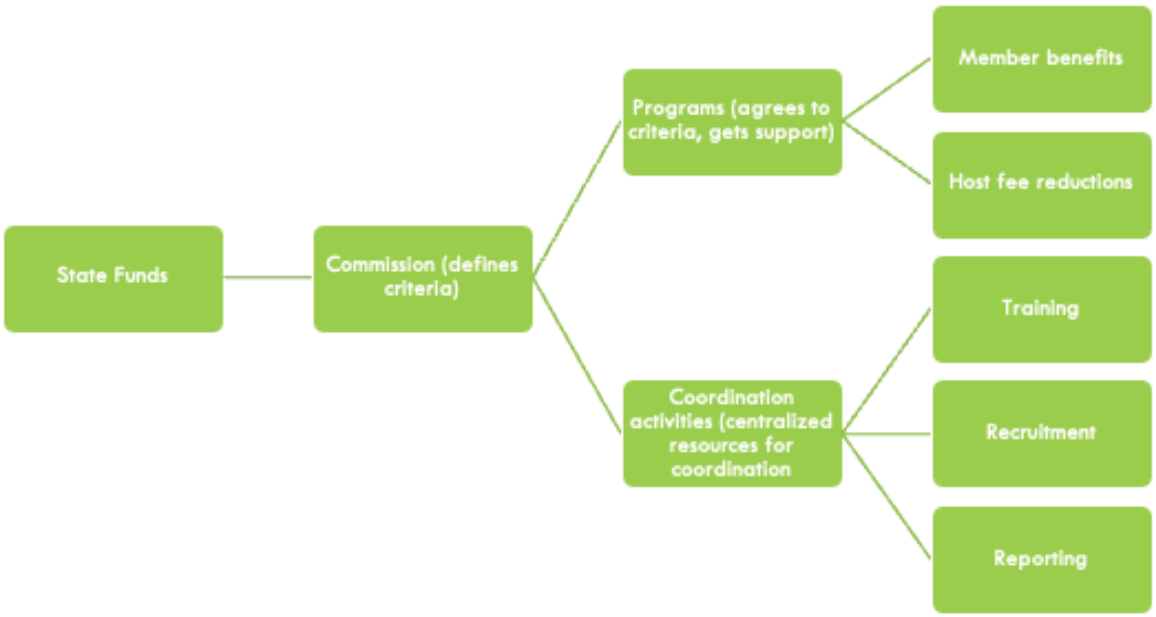
- Program Focused: One could route a block of funding towards a central entity (a state office, a third party) to implement a comprehensive initiative. This funding is then utilized to support a set of activities (e.g., member support, training, etc.).
- Activity or Community Focused: Another approach is to enable more widespread uptake of service by creating inclusive language in grant programs that drive matching funds from grant applicants to programs. This can be done through preference in evaluation (no funding explicitly) or dedicated set aside amounts for inclusion to service.
- Fundraising Focused: A final approach would be to work collaboratively on fundraising. While indirect, the "voice" of a central body (e.g. the governor's office) can be a powerful tool to draw in support. This can take the form of collaborative solicitation or (less ideally) communications support for programs looking to find matching resources.

For the first two approaches above (which are the most relevant and substantial), it is helpful to illustrate the possible funding flows. These diagrams are based on conversations the Project Team has participated in as well as approaches being considered elsewhere.

Program Focused Funding Approach

In this approach funding flows from the state to a program focused organization (most likely the state commission) who then uses funds to directly support programs (stipends, host or project fee reductions) as well as to fund coordination activities. The lead organization (i.e. the commission) sets the terms for participation (e.g. focus on specific topics or underserved communities) and programs are empowered to recruit members and support communities in alignment with the program design.

Figure 17: Program Focused Funding Approach

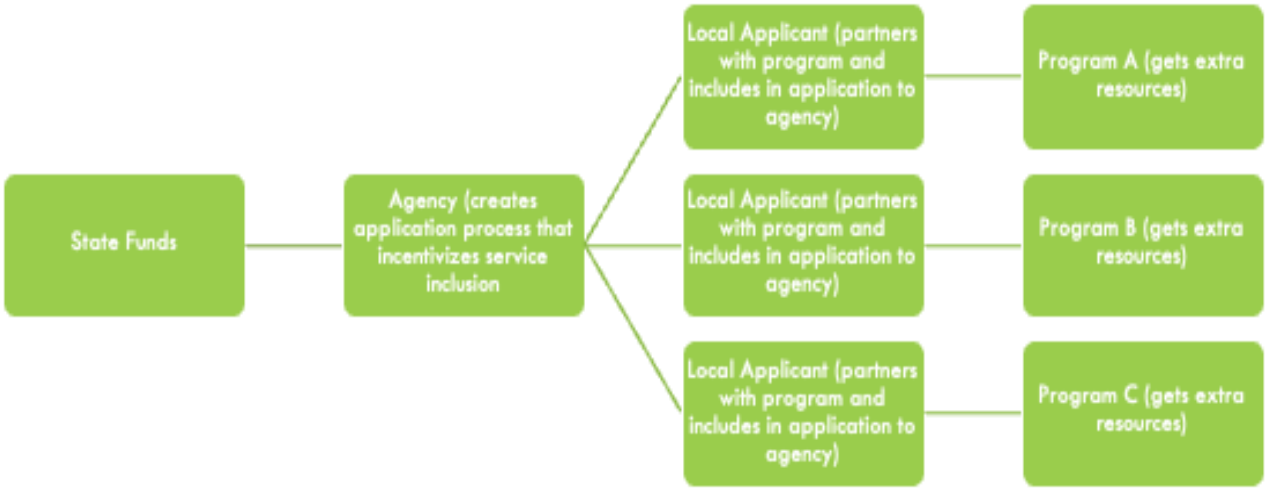


- Pros: Engages at the program level where the expertise is. Builds on what is already working. Allows for more dedicated "coordination" activities.
- Cons: Less visible to communities as "support." Diffusion of impact. Complexities of equity in support.

Activity or Community Focused Funding Approach

In this approach funding flows from the state to an agency (or agencies) who has a climate focus (perhaps an existing grant program) and charges them to incentivize service through their funding support. The implementing agency bundles service requirements into the general program applications or offers it as a stand-alone grant to community groups. Eligible program applicants (e.g., local governments or nonprofits) can then use fund to pay "host" or "project" fees to service programs that support the goals of the agency as a whole.

Figure 18: Activity or Community Focused Funding Approach



- Pros: Easier to implement (add-on to grants program). Centers benefit in participating communities (vs. service programs).
- Cons: Service gets buried as part of the overall program. Agencies don't understand service (creates another layer). Will be subject / agency specific so won't see as much general support for service. Won't foster coordination across service for the biggest impact.

Funding Approach recommendation

In our opinion it is far more appropriate and desirable to focus on the program funding approach as the general intent of a "climate corps" is to lift up and activate service as a high impact climate strategy. If one adopts the activity or community funding model, then service is just a component of discrete project funding, and there's no coordination of outcomes across the service landscape. Additionally, this eliminates the critical coordination function within an organization like a commission who knows the service community and can design and deliver support aligned with service needs. The program model is also more nimble as it aligns with service program operating structures (activities, communities, timing).

Partnerships

Throughout the conversations, a number of organizations or organization types came up that seem worthy of consideration as partners in developing and implementing this concept. This is not a priority or all-encompassing list. Just a starting point for development.

General

- Councils of Government (COG): Councils of government came up repeatedly from state, nonprofit, and program participants (as well as local govts). COGs are often seen as a credible entity who serve a wide

range of communities in a region. Some concerns about trust were also expressed. There was very strong engagement in the group conversation by NCARCOG who facilitated the invites directly.

- State offices (DPS- NCORR, DEQ-Coastal Division, etc.) Lots of engagement and support in this process to date. Key roles and connections to state and federal funding. In the survey, NCORR noted desirability for having service program members support, "very desirable" for running their own service program and indicated interest in up to 100 service members.
- Educational institutions: NC has a strong base of universities with some specific programmatic focus on climate. Participants regularly pointed to educational partners as a useful connection point for content, community connections, and even member recruitment. Some pointed to the high-caliber institutions as sources for research and TA support, while others pointed to community colleges and extension as a more community grounded partnership. Several people also noted the presence of HBCUs and MSIs as important partners, while also noting challenges with engagement of them in service programming.
- Philanthropy: A number of participants pointed to the potential of the philanthropic community as a partner in this space. Some specific community foundations were mentioned (e.g. Triangle community foundation, Doris Duke, NC Community foundation), but more often the idea of leveraging philanthropy was mentioned.

Specific

- RISE Program: Regions Innovating for Strong Economies & Environment (RISE) is developed by a partnership between NCORR and the NC Rural Center.
- Resourceful Communities: 80-90 percent in NC. Does landowner education. Has a network of 300 grassroots rural orgs they support. Supports grants, training, TA, and networking.
- NC Rural Center: Works to improve the quality of life for the state's rural people and places. They operate with the core belief that rural communities have inherent cultural value and are vital to the overall economic health of North Carolina.
- Lenoir-Rhyne University: An educational institution who responded to the survey with strong interest at scale (very desirable for having service program members support them, neutral about running their own service program, indicated interest in having up to 10 service members).
- Hands-On Northwest North Carolina: Volunteer trainer, supports commission already. They have a strong network of community groups.
- Mountain True: Engaged in interviews. Aligned focus with broad coverage. Covers 26 counties. They have field offices.
- NC Conservation Network: Engaged in process to date. A statewide network of over 60 environmental, community, and environmental justice organizations focused on protecting North Carolina's environment and public health.
- NC Community Foundation: Engaged in process to date. The only statewide community foundation serving North Carolina. More than $440 million in assets, NCCF sustains over 1,200 endowments and partners with a network of affiliates.
- North Carolina Association of Community Development Corporations: NCACDC works with CDCs (community development corporations) and other community-based organizations in neighborhoods all

across NC to bring citizens, businesspeople and elected officials together to solve the state's most pressing economic challenges.

- North Carolina Justice Center: A leading progressive research and advocacy organization, forced on eliminating poverty in North Carolina by ensuring that every household in the state has access to the resources, services, and fair treatment it needs to achieve economic security.
- Environmental Finance Center: NC is home to a national EPA funded finance center focused mostly on the water / wastewater infrastructure space. They are well connected to significant efforts to address the many legacy infrastructure issues tied to current flooding hazards. They see significant gaps in capacity to build an operator base for small communities that might align with this initiative.
- Kenan Center Climate Leaders Program: A relatively new program, but one that brings a college student based climate service angle to the table, and connects this effort with broader academic initiatives.
- Sea Grant: Based in UNC and part of the state extension network, SeaGrant has both scientific, community technical assistance, and fellowship programming that would represent a strong partnership source to integrate into a statewide service initiative.
- Southeast Sustainability Directors Network: A regional (multi-state) sustainability network organization with leadership based in NC. Has strong connections with various small and large local govts with an explicit focus on sustainability. Participated in one-on-one conversations.
- Blue Horizons Project: A nonprofit who responded to the survey (and in the focus groups) with strong interest at scale (very desirable for having service program members support them, neutral about running their own, interested in having up to 10 service members)
- North Carolina Interfaith Power and Light: NCIPL connects the faith voice of North Carolina around climate change, encouraging mitigation of the effects and resilient communities through its programs and engaging in the public policy process by advocacy with compassion.
- North Carolina Campus Engagement: North Carolina Campus Engagement is a collaborative network of colleges and universities committed to educating students for civic and social responsibility, partnering with communities for positive change, and strengthening democracy (includes campus compact).
- Hazard Mitigation Center at ECU: Promotes research and analysis that ultimately reduces the harm caused by natural forces to life, communities, and the environment.
- Blue Ridge Women in Agriculture: A women-led organization that builds an equitable, sustainable High Country local food system by supporting producers and cultivating community connections that educate, inspire, and increase the demand for local food.
- The North Carolina League of Municipalities: A member-driven organization representing the interests of cities and towns in the state.
- The North Carolina Association of County Commissioners: A non-partisan organization that serves as the official voice of all 100 counties on issues considered by the General Assembly, Congress, and federal and state agencies.

Appendices

The content provided in the appendices serves to support the findings and recommendations outlined above.

Appendix A: Methods

Establish Context

Project Definitions

One of the first steps in this process was to define key terms that set boundaries and provided a common basis of communications with stakeholders. There are a range of definitions and assumptions for climate resilience and climate service programs. The definitions were crafted in consultation with CTNC.

Demographic, Geographic, and Climate Profile

To better inform the survey and outreach, publicly available content was used to gather information and understanding of the demographic and geographic landscape as well as a summary outlook of key climate risks and existing climate policies in North Carolina.

Service Landscape Summary

In order to understand the existing service landscape, the existing portfolio of AmeriCorps programs was reviewed, which is the most comprehensive and comparable resource available. VolunteerNC provided comprehensive program data (applicant, program name, member-service-years (MSYs)[16], slots, stipends, descriptions, focus areas, counties served). All programs were normalized into costs and stipends / full-time participants to allow for comparisons. Counties served were then separated into full tables to define county specific "service density." Information provided by CTNC of climate risk by county was also integrated. These data points were used to conduct analysis of portfolio level metrics (e.g. service scale by focus area), service vs risk by county, and potential funding needs.

Organization Research

The Project Team conducted a high-level review of the climate, environmental, existing service programs, and political landscape in the State of North Carolina to better understand the key stakeholders and risks and drivers

[16] This report uses the term participants to represent full time members. MSY is an AmeriCorps term used, to refer to 10–11-month full time members.

to help inform the survey design and contact search process. A list of organizations and contacts whose mission and programs are already tackling climate change resilience challenges was compiled. This was done by searching online for organizations with a climate resilience related mission, department, or staff person. The compiled list of organizations include non-profit organizations, local community groups, academic institutions, city and county officials, state officials, and service programs. Service programs included AmeriCorps, climate corps, and other climate, resilience, or service-related programs. Additionally, the Project Team collected contacts for networks that include organizations that support or lead climate resilience related initiatives.

Survey Design

The first step in this project was to better understand the needs and potential interest across the state by hearing directly from community and state members. To do this, the Project Team designed two surveys: one intended to hear about experiences and needs of current service programs,[17] and one general survey to solicit input from organizations that could potentially have service members. Each survey included the following sections: organizational information, climate risks, subject areas ideal for service member support, desired service member roles, interest and experience with service programs, barriers to service program implementation, and request for follow-up information.

Additionally, the team distributed a Spanish version of the survey to reach a larger audience.[18]

Gather Input

Survey Outreach

Between October and November 2022, the Project Team sent 1-4 follow-up emails to contacts (approximately every 1-2 weeks) depending on the responses received. In total, the team contacted about 450 contacts. Throughout the outreach process, the Project Team also asked respondents to share the survey with their networks to expand the reach of our project beyond the compiled organization list. Although almost 150 participants started the survey, fewer provided sufficient information for useful analysis. After filtering for valid responses, the Project Team had 112 useful responses to either the programs-focused survey (8) or organization-focused (104) surveys. Respondent breakdown by organization type: 1 federal govt, 14 state govt, 31 local govt, 57 nonprofits (all 8 programs were nonprofits), 8 academic institutions, and 1 “other”. In the organizational

[17] The survey intended for service programs was very limited in terms of complete responses received. Therefore, the Farallon Strategies team included learnings from the survey when applicable but a complete writeup for the program survey is not included in this report.

[18] No other languages were requested for translation by community representatives. While the option for the Spanish survey was offered, no surveys were completed in Spanish.

survey, the Project Team found some attrition from the first stages to the latter stages, so resulting analyses have varied sample sizes.

Conduct Interviews

In order to deepen understanding and build connections for this project, the Farallon Strategies team identified a set of candidates by group (local government, programs, community organizations, State, Commission) and vetted them with the CTNC team. Initially, the Project Team looked to interview at least 5-7 people from each group. Where gaps emerged in CTNC recommendations, the Project Team looked at surveys and Farallon Strategies contacts for additional names. Outreach materials were then developed to invite and schedule calls. The team also scheduled some additional interviews opportunistically (e.g. at the suggestion of an interviewee). Interviews followed a consistent format asking participants about important climate risks and how their organization was responding, then turned to barriers for service programs to address their needs and finally explored the potential opportunities they see for a climate service program at a statewide scale. In total, the Project Team completed 25 interviews (5 local governments, 6 programs, 9 community organizations, 5 state representatives, and 2 people from the Commission). See list of interview participants later in the appendix.

Group Conversations

Farallon Strategies identified participants from CTNC recommendations, interview participants, and opportunistically from interviewee recommendations to include in focused group conversations. The Project Team developed outreach materials, sent invitations, scheduled calls, and developed the process and content for the conversation flow. This included developing slides and utilizing Google Jamboards to engage participants and capture feedback. Farallon Strategies completed 4 conversations with 36 participants total (13 local government participants, 8 program participants, 10 community group participants, and 5 state representatives). See list of group conversation participants later in the appendix.

Organize Findings

Due to the structure of this project, Farallon Strategies inverted the normal methods process. After completing the outreach activities in December, the team prepared an initial summary with draft recommendations. This process allowed us to take a high level review of the various inputs and define recommendations with general support from each input source. In January the team went back to the input data more methodically and built back up to a final report. Since the thematic recommendations were developed and shared with the CTNC team already, the Farallon Strategies team looked for further validation, while also keeping an open-mind to revisions or new findings. In particular this experience impacted how the interview and group conversation findings were summarized and presented.

Definitions

For clarity and focus throughout this project, the Project Team and Conservation Trust utilized the following definitions, which were shared with survey participants, interviewees and group conversation participants.

Climate Resilience

North Carolina understands that climate change is affecting us all today, with higher frequency and intensity of storms, increased rainfall and flood events, sea level rise and periodic droughts. For the current and future well-being of North Carolina, we need to reduce carbon pollution, foster a clean energy economy, and help our communities strengthen their ability to withstand the near- and long-term effects of climate change. This in turn will strengthen our local economy.

Climate resilience means North Carolina's communities are prepared to withstand the impacts of climate change and are actively participating in solutions that create good local jobs while protecting the environment for all North Carolinians. Resilient communities work together to face climate change impacts by identifying local solutions, lessening impacts, and reducing future threats. Resilient solutions benefit all, especially those who have been most impacted by climate catastrophes -- communities of color and those with limited economic resources. Ultimately, a resilient community is one that supports all its people by providing a safe and healthy environment, an equitable economy, and a strong social network.

Service

When we talk about service, service members, or service programs, we are talking about structured efforts to bring more "people power" to community needs by matching individual interest with organizations who need support through a paid "service" position. Most often the individuals are young people (aged 22-30) looking to make a difference on issues they care about, and also to gain leadership and workplace experience. One of the most common national service programs is called AmeriCorps, which is a federal program that supports service across the country. To date, AmeriCorps has involved over 1,200 Americans in a wide variety of community service activities in over 400 community organizations in North Carolina annually. Other service programs might be college internships, or professional fellowship programs. Organizations who participate in service programs often "host" service members who spend a fixed amount of time (often about a year) supporting their host organization, while receiving a stipend or living allowance and learning about the community they are serving.

Demographic, Geographic, and Climate Outline

North Carolina Demographic and Geographic Landscape

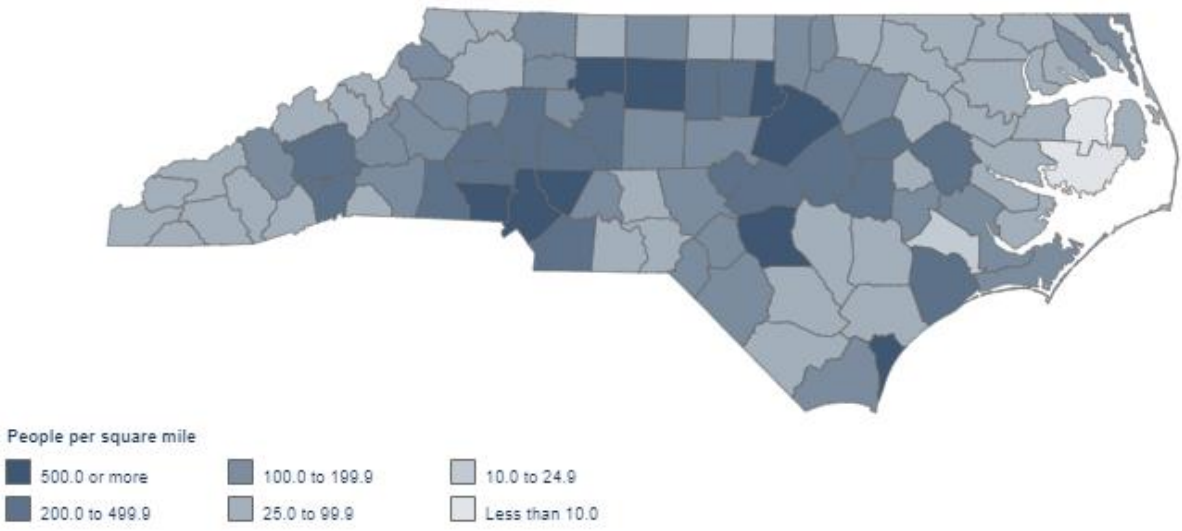
North Carolina is the 9th most populous state in the United States with ~10.6m residents. NC is a top-5 state for growth trends and has a projected estimated population of 14 million by 2050.[19] The state's population is distributed across 100 counties that can be defined broadly by 3 geographic regions and/or by urban-rural

[19] NC Office of State Budget and Management (OSBM). Population & Demographics. Retrieved from: https://www.osbm.nc.gov/facts-figures/population-demographics

classification. Geographically, in the western part of the state is the Appalachian Mountains (formed mostly by the Blue Ridge and Great Smoky Mountains), the central region of the Piedmont Plateau, and the Eastern part of the state - the Tidewater section (or Coastal Plain). Elevations range from sea level along the Atlantic coast to more than 6,000 feet in the western mountains. North Carolina covers 53,821 square miles and is 503 miles long by 150 miles wide. The Coastal Plain includes 322 miles of coastline and the second-largest estuarine system in the country at 12 thousand miles. Further, the state has abundant agricultural resources, 18 million acres of forest, 3,375 miles of tidal shoreline, vast reservoirs, 17 major river basins, and a plentiful network of groundwater.

About 50% of North Carolinians live in 12 of the 100 counties. More than 1 in 3 of the State's population live in the 6 most populated counties where urban centers reside – Wake, Mecklenburg, Guilford, Forsyth, Cumberland, and Durham. Approximately 65% of the population lives within the 22 most populated counties made up of urban counties and regional city and suburban counties. The remaining 35% of North Carolina's population reside in the 78 rural counties in less densely populated communities.[20] The distribution of North Carolina's population is illustrated in Figure 19.

Figure 19: Population Density in North Carolina Counties: 2020[21]



[20] NC Rural Center. Retrieved from: https://www.ncruralcenter.org/about-us/

[21] The United States Census. North Carolina: 2020 Census. Retrieved from: https://www.census.gov/library/stories/state-by-state/north-carolina-population-change-between-census-decade.html#:~:text=Population%20(up%207.4%25%20to%20331.4,or%20More%20Races%2010.2%25).

Based on the 2020 census, about 60% of the population in North Carolina is white, about 20% is Hispanic, 12% of the population is Black, and the remaining population is Asian, American Indian and Alaska Native, Native Hawaiian and other Pacific islander, or two or more races.[22]

Key Climate Resilience-Related Risks

This section is a summary of the 2020 North Carolina Climate Risk Assessment and Resilience Plan, with a special focus on Governor Roy Cooper's message about the climate hazards facing North Carolina.[23] North Carolina's communities, economy, environment, and natural resources are increasingly at risk from the impacts of climate change. In recent years, the state has suffered from multiple natural disasters. Storms are becoming more frequent and intense, creating an enormous toll on human life, health and the state's economy. The latest climate science reemphasizes continuing increases in temperatures, sea level rise, precipitation, intensity of severe droughts, intensity of hurricanes, severity of thunderstorms, and inland storm surge flooding.

North Carolina acknowledges the risks of climate change and the diversity of potential impacts on daily life for North Carolinians and believes action must commence to 'reduce air pollution, transition to clean energy, and increase resilience'. To mitigate climate risks, North Carolina must build climate resilience capabilities and competency. Beyond the changing climate and related impacts, non-climate stressors of population growth, aging infrastructure, socio-economic disparities, rural-urban divide, potential of public health threats/pandemics, possible physical, cyber, and other manmade disasters, and competing development priorities persist. See Appendix B for additional details about North Carolina's climate resilience-related risks and challenges.

State and Local Responses

In response to the climate crisis, and to make North Carolina more resilient to both climate and non-climate related stressors, Governor Cooper issued Executive Order No. 80 (EO80) on October 29, 2018, calling for integration of climate adaptation and resilience planning into cabinet agency policies, programs, and operations. EO80 called for the following: agencies to develop resilience strategies that support communities and sectors of the economy most vulnerable to the effects of climate change and to enhance the state government's ability to protect human life and health, property, natural and built infrastructure, cultural resources, and other public and private assets of value to North Carolinians; a 40% drop in statewide greenhouse gas emissions by 2025; the establishment of the North Carolina Climate Change Interagency Council; state agencies to take actions that

[22] Ibid.

[23] Governor Cooper. North Carolina Climate Risk Assessment and Resilience Plan. 2020. Retrieved from: https://deq.nc.gov/energy-climate/climate-change/nc-climate-change-interagency-council/climate-change-clean-energy-plans-and-progress/nc-climate-risk-assessment-and-resilience-plan

reduce emissions and strengthen North Carolina; and the Department of Environmental Quality (DEQ), with support of other agencies and stakeholders, to prepare the North Carolina Climate Risk Assessment and Resilience Plan (2020 Resilience Plan) to be submitted by the Climate Change Interagency Council to the Governor. EO80 catalyzed development of both the North Carolina Climate Science Report[24] and the 2020 Resilience Plan.[25] A more comprehensive list of North Carolina's policy response to climate change is provided in Appendix C.

Appendix B: Climate Hazards Facing North Carolina

North Carolina is impacted by the following climate hazards and topics: Average and Extreme Temperatures; Drought; Heavy Precipitation and Storms; Wildfires; Sea Level Rise, Coastal Flooding, Coastal Erosion; Hurricanes; Inland Flooding; Ecosystem and Habitat Loss; Saltwater Intrusion; and Public Health. A brief description of each of the climate hazards is provided below.

This is a review and summary of the North Carolina Institute for Climate Studies 2020: North Carolina Climate Science Report from the NC 2020 Resilience Plan. Hazards were at times identified by probability of outcome: 'Virtually Certain' (VC): 99-100%, 'Very Likely' (VL): 90-100%, 'Likely' (L): 66-100%.

Additionally, this is a summary of 2020 Resilience Plan: 'Key Observations and Recommendations: State Agency Assessment' needs believed to be potentially addressable or partially addressable via Service-oriented programming.

Average and Extreme Temperatures: North Carolina temperatures will increase in all seasons by 2°–5°F by mid-century (VL). Extreme heat events will become more frequent, longer lasting, and more intense, exacerbating demands for water. Warmer nights will increase (VL), reducing relief from day heat increasing heat-related stress on public health; putting more stress on agricultural crops that depend on nighttime cooling. Health-related problems due to heat stress such as respiratory issues will increase - youth, low socioeconomic status individuals, and elderly are particularly vulnerable.

Drought: More frequent and intense droughts in the future due to climate change (L), adding further stress to agriculture, forestry and municipal and agricultural water resources – potentially resulting in widespread economic damage. Drought conditions produce increased public health issues due to heat stress, particularly

[24] North Carolina Climate Science Report. 2020. Retrieved from: https://ncics.org/wp-content/uploads/2020/10/NC_Climate_Science_Report_FullReport_Final_revised_September2020.pdf

[25] Kunkel, K.E., D.R. Easterling, A. Ballinger, S. Bililign, S.M. Champion, D.R. Corbett, K.D. Dello, J. Dissen, G.M. Lackmann, R.A. Luettich, Jr., L.B. Perry, W.A. Robinson, L.E. Stevens, B.C. Stewart, and A.J. Terando, 2020: North Carolina Climate Science Report. North Carolina Institute for Climate Studies, 233 pp. https://ncics.org/nccsr

those working outdoors. Water shortages due to drought increase the risk of catastrophic wildfires (L), and temporarily reduce the availability of suitable habitat for wetland and aquatic animal populations.

Heavy Precipitation and Storms: Increases in heavy precipitation accompanying hurricanes and other weather systems (L) expanding potential flooding in inland and coastal areas. Heavy precipitation from more intense and frequent storms can cause significant damage to public and private structures such as homes, roads, utility services, etc. Vulnerable populations are most at risk of flooding, due to heavy precipitation and storms, and may have difficulty evacuating in necessary scenarios.

Wildfires: Higher average temperatures and more severe droughts will lead to an increased likelihood of conditions conducive to wildfires. Increases in wildfires pose a major risk to public safety, human health, and emergency services - putting more lives at risk from related injuries, fatalities, and losses. Wildfires negatively impact air quality because of more fine particles in the air, exacerbating health issues such as asthma; and leave residents, businesses, infrastructure, forestry, and agricultural assets more at risk of related economic damages.

Agricultural and Forestry: Education of stakeholders can provide adaptive capacity for drought and wildfire. This is personnel-intensive and personnel are currently directed toward response. Education of regenerative practices that sequester carbon.

Sea Level Rise, Coastal Flooding, Coastal Erosion: Sea level rise (SLR) along the North Carolina coast will continue due to expansion of ocean water from warming and melting of ice on land (VC). SLR and increasing intensity of coastal storms will lead to an increase in storm surge flooding in coastal North Carolina (VC) and frequent high tide flooding at some points along the coast. More frequent coastal and flooding will impact coastal habitats, fisheries, and the protective services that natural areas provide to local communities. Increased storm surge will erode shorelines and kill vegetation in maritime grasslands, tidal marshes, estuaries, lower reaches of coastal plain rivers, and low-lying wetlands near estuaries. Coastal erosion will reduce habitat for freshwater tidal wetlands, maritime uplands, and maritime wetlands. Endangered and threatened species that are vulnerable to storm surge and erosion on beaches are likely to decline. Coastal erosion will leave cultural resources in fixed locations and properties further at risk of flooding and storm damage, due to land or natural buffers being lost and limit available land that is in high demand for both human (economic) and ecosystem services.

Coastal Resources & Infrastructure: Immediate focus must be on developing strategic priorities for public and natural infrastructure improvements as well as actions that integrate climate resiliency into agency operations, local disaster recovery programs, and long-term planning. Climate hazards intensify existing social inequalities and lack of ability to adapt in economically challenged counties in the coastal region.

Hurricanes: Increased intensity of the strongest hurricanes (L), due to ocean and atmosphere warming, will lead to increased precipitation, winds, and flooding creating greater damage to people, communities, the economy and natural resources. More intense hurricanes will further damage wetlands and natural barriers integral to protecting infrastructure and communities from storm surge, increasing vulnerability to subsequent storms. Stronger hurricanes will destroy or damage public and private buildings and property. Vulnerable communities

will be most at risk of flooding occurrences due to hurricanes; with hurricanes happening in short succession, vulnerable communities will struggle to recover between hurricanes.

Inland Flooding: Increases in extreme precipitation will increase inland flooding in North Carolina (L), creating risk across the state for inland communities – often exacerbated by outdated and/or undersized storm drainage infrastructure; Increasing economic and agricultural losses after a flood event; Impacting inland habitats, fisheries, and the protective services that natural areas provide to local communities; damaging archaeological, historic, and cultural resource sites on floodplains across all three physiographic regions and within every river basin in the state.

Ecosystem and Habitat Loss: Harmful algal blooms may increase due to warmer temperatures. Loss of organisms that rely on calcium-based shells such as oysters and clams, and organisms dependent upon them for food or habitat will be harmed by ocean acidification. Loss of wetlands due to sea level rise will result in habitat losses that will impact both commercial and recreational fisheries, decrease buffering capacity, adversely impacting water quality, and reduce the resilience of coastal communities.

Ecosystems: To improve overall landscape resilience, create nature preserves as large as possible and maintain habitat connectivity across the landscape. Preserve and restore wetlands and natural areas alongside rivers and streams. Establish natural recreation areas such as parks, trails, and greenways that will improve resilience and public health, and become valued community assets that improve quality of life. Increase public awareness of the importance of land conservation, planning for resilience, and the values to people of ecosystem function and services.

Water and Land Resources: Water quality impacts to the drinking water and ecosystems as a result of polluted runoff are a continuing issue. Sediment is the largest pollutant by volume of the surface waters and carries excess nutrients and many other pollutants with it.

Saltwater Intrusion: Harmful Higher water levels due to sea level rise threaten otherwise productive land, leading to agricultural and economic losses. Increased saltwater intrusion due to sea level rise is expected to change the salinity of estuarine communities and to convert lower coastal floodplains from swamp forest to wetlands. Saltwater intrusion due to climate change will make drinking water from both groundwater and surface waters more vulnerable to contamination and/or expensive to treat and secure. Intrusion in freshwater sources can cause crop yields to decline and farmland to be unsuitable for growing crops due to high salinity and less available freshwater, leading to a loss of revenue in agriculture.

Public Health: Cumulative hazards from heat and flooding are harming human health through poor air quality, flooding injuries, heat-related illness, decreased mental health, and increased infectious diseases. Existing inequities in environmental health exposures are exacerbated by climate change; older adults, children, low-income earners, communities of color, and veterans are disproportionately harmed. Extreme weather events will put more stress on and increase the frequency, magnitude, duration, or scale of the responses to hazards by emergency management, public services, and institutions in North Carolina.

Health and Human Services: Existing inequities in environmental health exposures are exacerbated by climate change. Need additional support for North Carolina Department of Health and Human Services (DHHS) programs: Building Resilience Against Climate Effects program, Back@Home program, mold and moisture education, and infectious disease tracking.

Additional potential service areas include commerce and business and cultural resources.

Commerce and Business: Supporting rural economies with education, training and additional resources. Include resilience training in North Carolina Main Street and Rural Planning programs for small towns and Main Street communities along with the businesses they support.

Cultural Resources: The focus for now, and in the near-term, should be building resilience into assets owned and managed by the state, such as state museums, historic sites and parks. DNCR must provide greater services such as technical assistance to locally-owned cultural resources.

Appendix C: State Policies, Actions and Plans

This is a summary of various key offices and policies established to support North Carolina's climate resilience initiatives. Reviewing the state political landscape helped establish a foundational understanding of the state climate landscape to help inform the implementation of this project.

Policy / Pan / Framework	Department / Organization	Year	Description
Executive Order 80 - NC's Commitment to address climate change and transition to a clean energy economy	State of North Carolina Governor Cooper	2020	Considers policies, plans, and guidance to provide the highest quality of life for residents. Governor Cooper's Executive Order 80: North Carolina's Commitment to Address Climate Change and Transition to a Clean Energy Economy. Reduce statewide greenhouse gas emissions to 40% below 2005 levels. Increase the number of registered, zero-emission vehicles (ZEVs) to at least 80,000. Reduce energy consumption per square foot in state-owned buildings by at least 40% from fiscal year 2002-2003 levels. EO80 creates the Climate Change Interagency Council to help the cabinet agencies work together to achieve those goals (additional info in section intro).
2022 EO80 Status Report	DEQ, Interagency Climate Change Council	2022	Status report focused on implementation of initiatives of the plans created in response to Executive Order 80, including the Clean Energy Plan, Climate Risk Assessment and Resilience Plan, Motor Fleet ZEV Plan and Clean Energy and Clean Transportation Workforce Assessment in 2021.
House Bill 951 - Energy Solutions for North Carolina (Ratified)	NC General Assembly	2021	70% power-sector pollution reduction goal. Required NC utilities Commission to develop a "Carbon Plan" to reduce emissions from public utilities in line with the goal of reducing carbon emissions from the electric-power sector 70% from 2005 levels by 2030.
North Carolina Climate Science Report	North Carolina Institute for Climate Studies	2020	The NCCSR is a scientific assessment of historical climate trends and potential future climate change in North Carolina under increased greenhouse gas concentrations. It supports Governor Cooper's Executive Order 80 (EO80; "North Carolina's Commitment to Address Climate Change and Transition to a Clean Energy Economy") by providing an independent peer-reviewed scientific contribution to the EO80. Prepared by North Carolina–based climate experts, and an advisory panel ("Climate Science Advisory Panel" (CSAP)).

Policy / Pan / Framework	Department / Organization	Year	Description
Executive Order 246 - North Carolina's Transformation to a Clean, Equitable Economy	State of NC Gov Cooper	2022	50% target reduction in economy wide emissions from 2005 levels by 2030. 40% from 2005 levels by 2025. Goal of at least 1,250,000 registered zero emission vehicles (ZEV) in the state by 2030.
Clean Energy Plan	Department of Environmental Quality (DEQ)	2019	Reduce electric power sector greenhouse gas emissions by 70% below 2005 levels by 2030 and attain carbon neutrality by 2050. Foster long-term energy affordability and price stability for North Carolina's residents and businesses by modernizing regulatory and planning processes.
North Carolina Climate Risk Assessment and Resilience Plan (2020)	North Carolina Department of Environmental Quality (DEQ)	2020	Based on science and stakeholder input, to address NC's vulnerability to climate change. Guides state action, engage policymakers and stakeholders, facilitate collaboration across the state, focus the state's attention on climate resilience actions and address underlying stressors such as the changing climate, aging infrastructure, socio-economic disparities, and competing development priorities. Four elements: Science report, State agency resilience strategies, statewide vulnerability assessment and resilience strategies, and NC Enhanced Hazard Mitigation Plan.
Motor Fleet ZEV Plan	Department of Administration (DOA)	2021	Focuses on agency education, usage analysis, and vehicle infrastructure implementation. Replacing all 572 vehicles identified in this analysis with an EV would save taxpayers an estimated $3.8 million and reduce emissions by over 22,000 metric tons over the lifetime of the vehicles
North Carolina ZEV Plan	North Carolina Department of Transportation	2019	As part of its effort to facilitate the reduction of emissions in the transportation sector and drive the adoption of zero emission vehicles, NCDOT published a Zero Emission Vehicle (ZEV) Plan in September 2019 and tracks monthly registration data for electric and plug-in hybrid vehicles.
National Electric Vehicle Infrastructure (NEVI) Program	North Carolina Department of Transportation	2022	Established by the Bipartisan Infrastructure Law, $5 billion from July 2022-June 2027 to help states create a network of 500,000 electric vehicle charging stations along designated alternative fuel corridors. North Carolina expects to receive up to $109 million to build out EV infrastructure along its approved corridors. This plan was developed using guidance provided by the NEVI program and will support the development of the state's public electric vehicle charging network.

Policy / Pan / Framework	Department / Organization	Year	Description
NC Moves 2050 Plan	North Carolina Department of Transportation	2021	Developed to equip NCDOT and its partners to prepare for a variety of uncertainties and respond to state and federal requirements focused on transportation resiliency, equity, accessibility and performance. Consideration of potentially disruptive technological, economic and environmental conditions and other possible developments helped inform and shape the plan's recommendations.
Clean Energy and Clean Transportation Workforce Assessments	NC Department of Commerce, Office of Science, Technology & Innovation	2019	An assessment of North Carolina's workforce with regard to clean energy and clean transportation. Published in response to EO80, NC Commerce developed this report to inform a broad initiative to transform the state's energy economy.
Community Resilience Model Results Search Tool	Conservation Trust of North Carolina	2022	Tool to Search for an address, county, or zip code to learn more about the CTNC Community Resilience Model results for that location and its surrounding area. Results include social vulnerability, flooding risk, heirs property probability, climate vulnerability, and distance to CTNC land projects of individual census tracts in North Carolina.

Appendix D: Service Landscape: Full Program Data table

Table 13: Full Program Service Landscape

Focus Area	Res. Connect?	Years	Cost / Participant	total grant	Weighted Stipend	Participants	Slots	Counties served	Participants / county
Education	NA	0	$28,800	$576,000	$16,502	20.0	20	20	1.0
Healthy Futures	High	0	$28,707	$353,818	$16,502	12.3	22	24	0.5
Education	NA	2	$21,600	$274,181	$20,125	12.7	13	2	6.3
Education	NA	8	$19,997	$849,873	$18,000	42.5	60	18	2.4
Education	Med	20	$16,290	$363,267	$18,000	22.3	37	16	1.4
Environmental Stewardship	High	1	$20,000	$339,034	$16,663	17.0	39	100	0.2
Environmental Stewardship	High	9	$17,499	$489,972	$19,857	28.0	28	44	0.6
Environmental Stewardship	High	15	$20,525	$637,507	$19,926	31.1	35	20	1.6
Education	NA	0	$21,709	$390,762	$30,000	18.0	18	8	2.3
Education	NA	1	$25,472	$389,722	$28,500	15.3	36	4	3.8
Education	Med	6	$14,916	$543,360	$21,770	36.4	111	10	3.6
Healthy Futures	Med	3	$21,600	$1,533,600	$22,000	71.0	71	33	2.2
Education	NA	1	$21,600	$432,000	$30,198	20.0	20	11	1.8
Veterans and Military Families	High	0	$28,418	$341,016	$20,500	12.0	14	2	6.0
Economic Opportunity	Med	15	$11,403	$163,122	$13,629	14.3	26	2	7.2
Education	NA	12	$21,593	$1,331,054	$29,500	61.6	60	21	2.9
Capacity Building	High	1	$28,739	$1,005,865	$33,004	35.0	35	22	1.6
Education/Economic Opportunity	NA	20	$19,398	$232,776	$16,502	12.0	14	5	2.4
Healthy Futures	Low	0	$28,191	$211,433	$26,000	7.5	15	1	7.5
Education	NA	0	$28,799	$287,990	$25,500	10.0	10	1	10.0

Appendix E: Base Risk, Service Density, Modifier, Modified Risk table.

Name	Service Density	Base Synthesis Score	Service Density Modifier	Service Synthesis Score
Alamance	0.6	6.5	0.2	6.7
Alexander	0.7	6.5	0.1	6.7
Alleghany	2.7	7.0	-0.2	6.8
Anson	0.0	6.5	0.3	6.7
Ashe	1.7	6.8	0.0	6.8
Avery	3.4	5.9	-0.3	5.7
Beaufort	2.4	6.9	-0.1	6.8
Bertie	0.0	7.2	0.3	7.4
Bladen	1.1	7.3	0.1	7.4
Brunswick	0.4	6.7	0.2	6.9
Buncombe	0.9	6.0	0.1	6.2
Burke	0.7	6.2	0.2	6.4
Cabarrus	0.2	5.5	0.2	5.8
Caldwell	0.3	6.5	0.2	6.7
Camden	0.0	6.0	0.3	6.3
Carteret	0.8	4.9	0.1	5.0
Caswell	1.9	5.3	0.0	5.3
Catawba	0.0	6.0	0.2	6.2
Chatham	0.4	5.7	0.2	5.8
Cherokee	2.0	5.5	0.0	5.5
Chowan	0.9	6.3	0.1	6.5
Clay	5.7	6.0	-0.6	5.4
Cleveland	0.3	6.3	0.2	6.5
Columbus	0.1	7.1	0.2	7.3
Craven	0.4	6.0	0.2	6.2
Cumberland	0.1	6.1	0.2	6.3
Currituck	0.0	6.1	0.3	6.3

Name	Service Density	Base Synthesis Score	Service Density Modifier	Service Synthesis Score
Dare	0.0	5.8	0.3	6.1
Davidson	0.0	5.2	0.2	5.5
Davie	0.0	4.4	0.3	4.7
Duplin	0.5	7.2	0.2	7.4
Durham	0.4	5.7	0.2	5.9
Edgecombe	1.7	6.8	0.0	6.8
Forsyth	0.5	5.6	0.2	5.8
Franklin	0.3	6.1	0.2	6.3
Gaston	0.0	6.0	0.2	6.2
Gates	0.0	6.3	0.3	6.5
Graham	6.1	5.4	-0.7	4.7
Granville	0.8	6.0	0.1	6.1
Greene	2.4	6.4	-0.1	6.3
Guilford	0.3	5.7	0.2	5.9
Halifax	0.5	6.7	0.2	6.9
Harnett	0.0	5.6	0.3	5.9
Haywood	0.9	6.2	0.1	6.4
Henderson	0.6	5.9	0.2	6.1
Hertford	2.1	5.2	-0.1	5.2
Hoke	0.0	7.4	0.3	7.6
Hyde	2.7	7.0	-0.2	6.8
Iredell	0.1	4.4	0.2	4.6
Jackson	2.0	6.8	-0.1	6.7
Johnston	0.3	6.0	0.2	6.2
Jones	3.6	7.0	-0.3	6.7
Lee	1.5	6.8	0.0	6.8
Lenoir	1.7	6.8	0.0	6.8
Lincoln	0.3	5.3	0.2	5.5
Macon	1.8	6.0	0.0	6.0
Madison	3.7	6.0	-0.3	5.7

Name	Service Density	Base Synthesis Score	Service Density Modifier	Service Synthesis Score
Martin	3.1	6.4	-0.2	6.1
McDowell	1.7	7.0	0.0	7.0
Mecklenburg	0.1	4.5	0.2	4.7
Mitchell	4.3	6.5	-0.4	6.1
Montgomery	0.6	5.8	0.2	5.9
Moore	0.9	5.4	0.1	5.5
Nash	0.9	6.1	0.1	6.2
New Hanover	0.1	6.2	0.2	6.4
Northampton	0.0	6.6	0.3	6.8
Onslow	0.1	5.7	0.2	5.9
Orange	0.6	5.6	0.2	5.8
Pamlico	2.2	6.6	-0.1	6.5
Pasquotank	0.4	6.4	0.2	6.6
Pender	0.9	6.7	0.1	6.8
Perquimans	1.4	5.0	0.0	5.0
Person	0.7	6.0	0.1	6.2
Pitt	1.1	5.7	0.1	5.8
Polk	4.6	6.1	-0.4	5.6
Randolph	0.3	6.0	0.2	6.2
Richmond	0.0	6.3	0.3	6.5
Robeson	0.3	7.7	0.2	7.9
Rockingham	0.8	6.0	0.1	6.2
Rowan	0.5	5.6	0.2	5.8
Rutherford	0.8	6.1	0.1	6.2
Sampson	0.6	7.1	0.2	7.3
Scotland	0.8	8.2	0.1	8.4
Stanly	0.3	5.1	0.2	5.3
Stokes	0.6	4.8	0.2	5.0
Surry	0.4	6.3	0.2	6.5
Swain	4.8	7.4	-0.5	6.9

Name	Service Density	Base Synthesis Score	Service Density Modifier	Service Synthesis Score
Transylvania	1.8	6.8	0.0	6.7
Tyrrell	0.0	8.0	0.3	8.3
Union	0.0	5.3	0.2	5.5
Vance	1.5	5.8	0.0	5.8
Wake	0.1	4.9	0.2	5.1
Warren	1.4	6.7	0.0	6.7
Washington	2.6	7.0	-0.1	6.9
Watauga	0.7	6.9	0.1	7.0
Wayne	0.4	6.7	0.2	6.9
Wilkes	0.4	6.6	0.2	6.8
Wilson	1.4	5.9	0.0	6.0
Yadkin	0.0	5.1	0.3	5.3
Yancey	3.4	6.7	-0.3	6.4

Appendix F: Survey Questions

Two surveys were developed and provided in English and Spanish. One survey was developed for those who may be interested in participating in a future service program network and one survey for existing service programs.

General Survey

Question
Before we introduce the survey itself, would you like to know more about what we mean by climate resilience and/or service?
Organization Name
Type of Organization Please let us know what type of organization you work for. - Selected Choice
Type of Organization Please let us know what type of organization you work for. - Other - Text
City Please list the city your organization based in
Service Area Select the primary geographic area(s) your organization serves. If you work regionally, select "regional" here and then describe the counties you serve in the next field. If you work statewide, or nationally select those options.
Region If you selected regional above, and serve more than one county, but not statewide, please list which counties or general region of the state (e.g. North Central) you serve.
How would you describe your community (or the community you serve) in terms of the built environment
Approximately what percentage of the population you serve would you consider to be low-income (e.g. at or below federal poverty line, significant title 1 school attendance, or other measure of economic distress)?
Rate the following climate risks - Air pollution
Rate the following climate risks - Drought
Rate the following climate risks - Extreme heat
Rate the following climate risks - Farmland loss
Rate the following climate risks - Flooding / Mudslides

Question
Rate the following climate risks - Food insecurity
Rate the following climate risks - Hurricanes
Rate the following climate risks - Rising seas and retreating shores
Rate the following climate risks - Wildfire
Rate the following climate risks - Other
Rate the following climate risks - Other - Text
For any of those you rated as severe or critical challenges can you describe what specifically are the challenges you are facing?
Can you describe your population of greatest concern for these risks (e.g., who in your community are most at risk from these challenges, or who is your organization working to protect from these risks)
TOP Priority Subject Area for Service Support Please select the subject area below that is your organization's TOP priority for potential service program support. You will have a chance to identify more specific interests within that area in the next field. Note the below list are resilience subject areas identified during project scoping. - Selected Choice
TOP Priority Subject Area for Service Support Please select the subject area below that is your organization's TOP priority for potential service program support. You will have a chance to identify more specific interests within that area in the next field. Note the below list are resilience subject areas identified during project scoping. - Other - Text
Specific Focus and Activities Within the broad subject area above, please identify more specific area(s) of focus (e.g., food waste diversion under waste reduction) and broadly outline the kinds of activities service program members could take on in support of this effort.
Potential Roles for Service Members Within a particular subject area, service programs can have their members play a wide variety of roles. If you had assistance for your subject area, what percentage of their time/focus would you want to use in the following roles? NOTE: The total of the 4 next items COMBINED should equal 100%. Direct implementation (e.g. disaster response, tree planting, energy retrofits, wildfire mitigation/prevention, infrastructure retrofits)

Question
Potential Roles for Service Members Within a particular subject area, service programs can have their members play a wide variety of roles. If you had assistance for your subject area, what percentage of their time/focus would you want to use in the following roles? NOTE: The total of the 4 next items COMBINED should equal 100%. Community education / engagement (e.g. energy education, disaster preparedness, fire safety training)
Potential Roles for Service Members Within a particular subject area, service programs can have their members play a wide variety of roles. If you had assistance for your subject area, what percentage of their time/focus would you want to use in the following roles? NOTE: The total of the 4 next items COMBINED should equal 100%. Project implementation support (e.g. needs assessments, grant research or writing, project scoping, project & stakeholder coordination)
Potential Roles for Service Members Within a particular subject area, service programs can have their members play a wide variety of roles. If you had assistance for your subject area, what percentage of their time/focus would you want to use in the following roles? NOTE: The total of the 4 next items COMBINED should equal 100%. Organizational capacity building (e.g. resilience program design, community fire risk analysis, urban tree canopy assessments)
Would you like to add a SECOND priority subject area for service support?
SECOND Priority Subject Area for Service Support Please select the subject area below that is your organization's SECOND priority for potential service program support. You will have a chance to identify more specific interests within that area in the next field. Note the below list are resilience subject areas identified during project scoping. - Selected Choice
SECOND Priority Subject Area for Service Support Please select the subject area below that is your organization's SECOND priority for potential service program support. You will have a chance to identify more specific interests within that area in the next field. Note the below list are resilience subject areas identified during project scoping. - Other - Text
Specific Focus and Activities

Question
Within the broad subject area above, please identify more specific area(s) of focus (e.g., food waste diversion under waste reduction) and broadly outline the kinds of activities service program members could take on in support of this effort.
Potential Roles for Service Members Within a particular subject area, service programs can have their members play a wide variety of roles. If you had assistance for your subject area, what percentage of their time/focus would you want to use in the following roles? NOTE: The total of the 4 next items COMBINED should equal 100%. Direct implementation (e.g. disaster response, tree planting, energy retrofits, wildfire mitigation/prevention, infrastructure retrofits)
Potential Roles for Service Members Within a particular subject area, service programs can have their members play a wide variety of roles. If you had assistance for your subject area, what percentage of their time/focus would you want to use in the following roles? NOTE: The total of the 4 next items COMBINED should equal 100%. Community education / engagement (e.g. energy education, disaster preparedness, fire safety training)
Potential Roles for Service Members Within a particular subject area, service programs can have their members play a wide variety of roles. If you had assistance for your subject area, what percentage of their time/focus would you want to use in the following roles? NOTE: The total of the 4 next items COMBINED should equal 100%. Project implementation support (e.g. needs assessments, grant research or writing, project scoping, project & stakeholder coordination)
Potential Roles for Service Members Within a particular subject area, service programs can have their members play a wide variety of roles. If you had assistance for your subject area, what percentage of their time/focus would you want to use in the following roles? NOTE: The total of the 4 next items COMBINED should equal 100%. Organizational capacity building (e.g. resilience program design, community fire risk analysis, urban tree canopy assessments)
How much experience do you have with service programs or service members already? - Understanding of how service programs work generally
How much experience do you have with service programs or service members already? - Awareness of specific service program opportunities in my community

Question
How much experience do you have with service programs or service members already? - Use of service members (AmeriCorps, Conservation Corps, Fellows, Interns) in my organization
What is your level of interest in? - Having service program members support us
What is your level of interest in? - Running your own service program
How many people could you see engaging to support your work in the topic areas identified above?
How much of a barrier to participating in a service program? - Administration of program
How much of a barrier to participating in a service program? - Finding candidates
How much of a barrier to participating in a service program? - Members not receiving a fair/living wage
How much of a barrier to participating in a service program? - Oversight of individuals
How much of a barrier to participating in a service program? - Paying for services
How much of a barrier to participating in a service program? - Quality of support
How much of a barrier to participating in a service program? - Reporting requirements
How much of a barrier to participating in a service program? - Time commitment
How much of a barrier to participating in a service program? - Other
How much of a barrier to participating in a service program? - Other - Text
If a well-crafted program were available that could provide people to address the issues you describe in the ways you outlined earlier, and there was a cost involved, how much would you be willing to pay for each person (approximately full-time for 11 months)?
Name
Email
Phone number
Comments and Closing Please feel free to add any additional comments you care to share.

Program Survey

The program survey was developed for existing programs to provide insight into how their experiences with previous programs and their interests in running future service programs. Questions were revised to pull additional insights from program participants to help structure future service programs.

Question
Organization Name
Type of Organization Please let us know what type of organization you work for. - Selected Choice

Question
Type of Organization Please let us know what type of organization you work for. - Other - Text
City Please list the city your organization based in
Service Area Select the primary geographic area(s) your organization serves. If you work regionally in NC, select "regional" here and then describe the counties you serve in the next field. If you work statewide, or nationally select those options.
Region If you selected regional above, and serve more than one NC county, but not statewide, please list which counties or general region of the state (e.g. North Central) you serve.
How would you describe your community (or the community you serve) in terms of the built environment
Approximately what percentage of the population you serve would you consider to be low-income (e.g. at or below federal poverty line, significant title 1 school attendance, or other measure of economic distress)?
Please provide a few sentence description of your program especially as it relates to climate resilience issues.
Please describe your target population for service.
If different than your general organizational service areas, please describe the geographic regions your program serves
How many participants serve in your program annually?
What is the makeup of these positions (e.g. FT, PT, etc.)?
What are your primary performance measures (or outcomes if not AmeriCorps)?
If you get federal or state funding that you combine with other funds, what is your current match percentage? Enter whole numbers only (e.g. 50/50 = 50 or 24% = 24)
If you charge a “host” or “partner” fee, can you share how much it is (per FT member)? Enter whole numbers only (e.g. no "$" or "," so $10,000 = 10000,)
Rate the following climate risks - Air pollution
Rate the following climate risks - Drought

Question
Rate the following climate risks - Extreme heat
Rate the following climate risks - Farmland loss
Rate the following climate risks - Flooding / Mudslides
Rate the following climate risks - Food insecurity
Rate the following climate risks - Hurricanes
Rate the following climate risks - Rising seas and retreating shores
Rate the following climate risks - Wildfire
Rate the following climate risks - Other
Rate the following climate risks - Other - Text
For any of those you rated as severe or critical challenges can you describe what specifically are the challenges you are facing?
Can you describe your population of greatest concern for these risks (e.g., who in your community are most at risk from these challenges, or who does your organization working to protect from these risks)
TOP Opportunity Subject Area for Service Support Please select the subject area below that is your TOP opportunity for support. You will have a chance to identify more specific service roles within that area in the next field. Note the below list are resilience subject areas identified during project scoping. - Selected Choice
TOP Opportunity Subject Area for Service Support Please select the subject area below that is your TOP opportunity for support. You will have a chance to identify more specific service roles within that area in the next field. Note the below list are resilience subject areas identified during project scoping. - Other - Text
Specific Focus and Activities Within the broad subject area above, please identify more specific area(s) of focus (e.g., food waste diversion under waste reduction) and broadly outline the kinds of activities service members are or could take on in support of this effort
Potential Roles for Service Members Within a particular subject area, service members could engage in a wide variety of roles. For the subject area described above, what percentage of time/focus do you feel would be most effective at addressing this subject? As with the above, you may want to use your existing program activity breakdown as it stands or suggest a different mix. NOTE: The total of the 4 next items COMBINED should equal 100%. Direct implementation (e.g. disaster response, tree planting, energy retrofits, wildfire mitigation/prevention, infrastructure retrofits)

Question
Potential Roles for Service Members Within a particular subject area, service members could engage in a wide variety of roles. For the subject area described above, what percentage of time/focus do you feel would be most effective at addressing this subject? As with the above, you may want to use your existing program activity breakdown as it stands or suggest a different mix. NOTE: The total of the 4 next items COMBINED should equal 100%. Community education / engagement (e.g. energy education, disaster preparedness, fire safety training)
Potential Roles for Service Members Within a particular subject area, service members could engage in a wide variety of roles. For the subject area described above, what percentage of time/focus do you feel would be most effective at addressing this subject? As with the above, you may want to use your existing program activity breakdown as it stands or suggest a different mix. NOTE: The total of the 4 next items COMBINED should equal 100%. Project implementation support (e.g. needs assessments, grant research or writing, project scoping, project & stakeholder coordination)
Potential Roles for Service Members Within a particular subject area, service members could engage in a wide variety of roles. For the subject area described above, what percentage of time/focus do you feel would be most effective at addressing this subject? As with the above, you may want to use your existing program activity breakdown as it stands or suggest a different mix. NOTE: The total of the 4 next items COMBINED should equal 100%. Organizational capacity building (e.g. resilience program design, community fire risk analysis, urban tree canopy assessments)
Would you like to add a SECOND opportunity subject area for service support?
SECOND Opportunity Subject Area for Service Support Please select the subject area below that is your SECOND opportunity for support. You will have a chance to identify more specific service roles within that area in the next field. Note the below list are resilience subject areas identified during project scoping. - Selected Choice
SECOND Opportunity Subject Area for Service Support Please select the subject area below that is your SECOND opportunity for support. You will have a chance to identify more specific service roles within that area in the next field. Note the below list are resilience subject areas identified during project scoping. - Other - Text
Specific Focus and Activities

Question
Within the broad subject area above, please identify more specific area(s) of focus (e.g., food waste diversion under waste reduction) and broadly outline the kinds of activities service program members could take on in support of this effort.
Potential Roles for Service Members Within a particular subject area, service members could engage in a wide variety of roles. For the subject area described above, what percentage of time/focus do you feel would be most effective at addressing this subject? As with the above, you may want to use your existing program activity breakdown as it stands or suggest a different mix. NOTE: The total of the 4 next items COMBINED should equal 100%. Direct implementation (e.g. disaster response, tree planting, energy retrofits, wildfire mitigation/prevention, infrastructure retrofits)
Potential Roles for Service Members Within a particular subject area, service members could engage in a wide variety of roles. For the subject area described above, what percentage of time/focus do you feel would be most effective at addressing this subject? As with the above, you may want to use your existing program activity breakdown as it stands or suggest a different mix. NOTE: The total of the 4 next items COMBINED should equal 100%. Community education / engagement (e.g. energy education, disaster preparedness, fire safety training)
Potential Roles for Service Members Within a particular subject area, service members could engage in a wide variety of roles. For the subject area described above, what percentage of time/focus do you feel would be most effective at addressing this subject? As with the above, you may want to use your existing program activity breakdown as it stands or suggest a different mix. NOTE: The total of the 4 next items COMBINED should equal 100%. Project implementation support (e.g. needs assessments, grant research or writing, project scoping, project & stakeholder coordination)
Potential Roles for Service Members Within a particular subject area, service members could engage in a wide variety of roles. For the subject area described above, what percentage of time/focus do you feel would be most effective at addressing this subject? As with the above, you may want to use your existing program activity breakdown as it stands or suggest a different mix. NOTE: The total of the 4 next items COMBINED should equal 100%. Organizational capacity building (e.g. resilience program design, community fire risk analysis, urban tree canopy assessments)
How much of a barrier to growing resilience service capacity - Access to federal and state match grants
How much of a barrier to growing resilience service capacity - Annual Grant requirements

Question
How much of a barrier to growing resilience service capacity - Availability of local match resources
How much of a barrier to growing resilience service capacity - Host site recruitment
How much of a barrier to growing resilience service capacity - Limited federal program funding (for AmeriCorps)
How much of a barrier to growing resilience service capacity - Limited member professional development resources
How much of a barrier to growing resilience service capacity - Meeting compliance standards
How much of a barrier to growing resilience service capacity - Member housing costs / availability
How much of a barrier to growing resilience service capacity - Member recruitment
How much of a barrier to growing resilience service capacity - Reporting requirements
How much of a barrier to growing resilience service capacity - Other
How much of a barrier to growing resilience service capacity - Other - Text
If your barriers were reduced, what is your level of interest in growing service by - Expanding your current program (e.g. more members, but the same activities)
If your barriers were reduced, what is your level of interest in growing service by - Adding new programming (more members with different activities)
How many more service members could you imagine taking on?
What is your level of interest in supporting a more unified statewide service effort by partnering with other programs, agencies, or the commission on the topics below - Expanding your current program (e.g. more members, but the same activities)Training (e.g. participating and contributing to common “resilience” training content and delivery)
What is your level of interest in supporting a more unified statewide service effort by partnering with other programs, agencies, or the commission on the topics below - Recruitment (e.g. centralizing and pooling recruitment efforts)
What is your level of interest in supporting a more unified statewide service effort by partnering with other programs, agencies, or the commission on the topics below - Reporting (e.g. contributing to a statewide resilience dashboard of outcomes)
What is your level of interest in supporting a more unified statewide service effort by partnering with other programs, agencies, or the commission on the topics below - Other
What is your level of interest in supporting a more unified statewide service effort by partnering with other programs, agencies, or the commission on the topics below - Other - Text
How or where would you most like to expand (region, focus, population)?
If there were resources available as match support, how much more per full-time member would provide you with the certainty needed to expand your programming?
Name

Question
Email
Phone number
Comments and Closing Please feel free to add any additional comments you care to share.

Appendix G: Interviews

Participants

LOCAL GOVERNMENT			
Southeast Sustainability Directors Network	Meg	Jamison	Network Director
Upper Coastal Plain Council of Governments	Robert	Hiett	Executive Director
Piedmont Triad Regional Council	Danica	Heflin	
Durham County Sustainability Office	Tobin	Freid	Sustainability Manager
Town of Princeville	Glenda	Knight	Princeville Town Manager
PROGRAMS			
SEI Climate Corps	Ondrea	Austin	NC Program Staff
Conservation Legacy / Conservation Corps of NC	Jessie	Birckhead	Program Director
SBP	Mike	Sullivan	National AmeriCorps Director
KIETS Climate Leaders Program	Amanda	Mueller	Program Manager, Coordinator, Coastal Resilience and Sustainability Initiative
North Carolina Sea Grant	Cayla	Cothron	Climate Resilience Extension Associate
North Carolina Sea Grant	Sarah	Spiegler	Coastal Resilience Specialist
North Carolina Sea Grant	John	Fear	Deputy Director
COMMUNITY ORGANIZATIONS			
Regional Stormwater Partnership of the Carolinas	Regina	Guyer	
Environmental Defense Fund	Michelle	Lovejoy	Manager, Landscapes Resilience
NC Community Foundation	Tyran	Hill	Program Officer - Western NC
NC Conservation Network	Grady	McCallie	
Resourceful Communities - The Conservation Fund	Monica	McCann	
Mountain True	Bob	Wagner	Co-Director

Hands On Northwest North Carolina	Amy	Lytle	Executive Director
NC State Coastal Dynamics Design Lab	Andy	Fox	Director
STATE			
Department of Environmental Quality	Bailey	Recktenwald	Chief Strategy Officer, DEQ
North Carolina Department of Environment and Natural Resources	Tancred	Miller	Policy and Planning Section Chief; Coastal & Ocean Policy Manager, Division of Coastal Management
North Carolina Department of Public Safety	Brian	Byfield	
North Carolina Department of Health and Human Services, Division of Public Health, Occupational & Environmental Epidemiology Branch	Autumn	Locklear	Climate Health Epidemiologist
North Carolina Office of Resilience and Recovery	Amanda	Martin	Chief Resilience Officer
COMMISSION			
VolunteerNC	Colleen	Garrett	
VolunteerNC	Megan	Trawick	

Prevalence of Thematic Comments in Interviews

- Reinforce what's working: As a whole this concept was less frequently addressed in interviews (12% less than others) but was still quite salient. Programs and local governments made the most mention (17% each) of existing program activities (e.g. restoration and education principally) either as desirable to have, or in terms of positive experiences. Nonprofits made less mention (11%). State interviews barely mentioned it at all (2%).
- Strategically Fill Gaps: Needs not currently supported by the NC service community were the most frequently mentioned across all four activity recommendations (35%) and was consistently high for all four interview groups (State 37%, Local Govt. 47%, Community Orgs. 33%, Programs 24%).
- Start with Flood Response: This area was notably the least mentioned across all four activity recommendations (4%) and was consistently low for all four interview groups (State 2%, Local Govt. 6%, Community Orgs. 4%, Programs 5%).
- Localize to Galvanize: This was almost on par with strategically filling gaps (32%). While high for all four interview groups, the distribution was somewhat different than the other category (State 37%, Local Govt. 28%, Community Orgs. 42%, Programs 21%).

- Follow the Money / Unlock the Potential : Despite the criticality of funding, this category, while often mentioned, was not as high as others (17%). Distribution of frequency was quite varied though (State 22%, Local Govt. 2%, Community Orgs. 10%, Programs 33%).
- Focus on Resilience, which is bipartisan : While the lowest overall category for service coordination (11%), the salience of this topic was pointed when addressed. Somewhat surprisingly, it was the state interviewees who touched on this most whereas community organizations touched on it the least (19% and 4% respectively). Both local governments and programs fell in between these two (12% and 10% respectively).
- Adapt to thrive: Concepts related to member stipends, administrative burdens and stretching the boundaries of traditional service program activities and participants were the most frequently mentioned overall (40%) and high across the board (State 38%, Local Govt. 35%, Community Orgs. 49%, Programs 35%).
- Build a network not a program: Secondarily to adapting service programs, building a network was fairly well endorsed by interviewees (29%). While generally high, it may not be surprising that program interviewees talked about issues that connect with this most (State 31%, Local Govt. 24%, Community Orgs. 21%, Programs 42%).
- Emphasize catalytic over functional outcomes: While somewhat harder to tease out than some ideas, a significant number of interviewees talked about service (benefits, impacts, roles) in ways that reflected the catalytic potential (20%). It is noteworthy that comments from local governments and community organizations more likely than the other groups to have comments that were assigned to category (29% and 25% respectively compared with state 12% and programs 13%).

Appendix H: Group Conversations

Participants

STATE - Wednesday, December 7 1-3pm ET		
Organization	Name	Attendance
North Carolina Department of Public Safety	Amanda Martin	Yes
North Carolina Department of Health and Human Services	Autumn Locklear	Yes
North Carolina Department of Public Safety	Bailey Byfield	Yes
North Carolina Department of Environment and Natural Resources	Lisa Tolley	Yes
North Carolina Department of Public Safety	Philip Triplett	No
North Carolina Department of Environment and Natural Resources - NC Division of Coastal Management	Tancred Miller	Part of it

PROGRAMS - Thursday, December 8 1-3pm ET		
Organization	Name	Attendance
American Conservation Experience	Adam Scherm	Yes
American Conservation Experience	Joost Besijn	Yes
CivicWell	Bill Sadler	Yes
Conservation Legacy / Conservation Corps of NC	Jessie Birckhead	Yes
SBPUSA	Mike Sullivan	Yes
SEI NC	Ondrea Austin	Yes
Lead for NC	Dylan Russell	No
Conserving Carolina / Project Conserve	Amy Stout	Yes

PROGRAMS - Thursday, December 8 1-3pm ET		
Organization	Name	Attendance
Children First / Communities in Schools of Buncombe County	Ashley Campbell	Yes

NONPROFITS - Friday, December 9 1-3pm ET		
Organization	Name	Attendance
Regional Stormwater Partnership of the Carolinas	Regina Guyer	Yes
Environmental Defense Fund	Michelle Lovejoy	Yes
NC Community Foundation	Tyran Hill	No
NC Conservation Network	Grady McCallie	Yes
Resourceful Communities - The Conservation Fund	Monica McCann	Yes
NC State Coastal Dynamics Design Lab	Andy Fox	Yes
Center for Energy Education	Mozine Lowe	No
North Carolina Rural Center	Angella Dunston	Yes
North Carolina Rural Center	Emily Holder	Yes
Blue Horizons Project	Summer Winkler	Yes
Blue Horizons Project	Jamie Wine	Yes
NC Coastal Federation	Lauren Kolodij	Yes

LOCAL GOVTS - Monday, December 12 3-5pm ET		
Organization	Name	Attendance
Upper Coastal Plain Council of Governments	Robert Hiett	Yes
Edgecombe County	Eric Evans	Yes

LOCAL GOVTS - Monday, December 12 3-5pm ET		
Organization	Name	Attendance
Upper Coastal Plain Council of Governments	Ben Farmer	Yes
High Country Council of Governments	Julie Wiggins	Yes
Lumber River Council of Governments	David Richardson	Yes
Eastern Carolina Council of Governments	David Bone	Yes
Land of Sky Council of Governments	Nathan Ramsey	Yes
Land of Sky Council of Governments	Mary Roderick	Yes
Robeson County	Jason King	No
Asheville	Ben Woody	Yes
Asheville	Kiera Bulan	Yes
Beaufort	Todd Clark	Yes
Centralina COG	Geraldine Gardner	Yes
Centralina COG	Christina Danis	Yes

Sample Group Conversation Agenda

As an example of the agendas used during the small group conversations, below is the agenda from the conversation with State representatives held on December 7, 2022. Agendas for each of the conversations were modified slightly to reflect the perspectives of the group.

Overview

Project intent

- In light of the near- and long-term climate challenges facing our state and the potential of service programs to address community needs, CTNC, supported by Farallon Strategies, is seeking to understand the role service programs can play in equipping communities with the resources necessary to build greater community resilience.

Conversation purpose

- Bring diverse state agency stakeholders together to explore potential for service programs as part of statewide climate resilience efforts.
- Identify key areas of overlapping interest as well as concern.

Intent for outcomes

- Compare with outcomes from other conversations as well as surveys and 1 on 1 interviews.
- Collate inputs into recommendations for scaling climate resilience service programming.

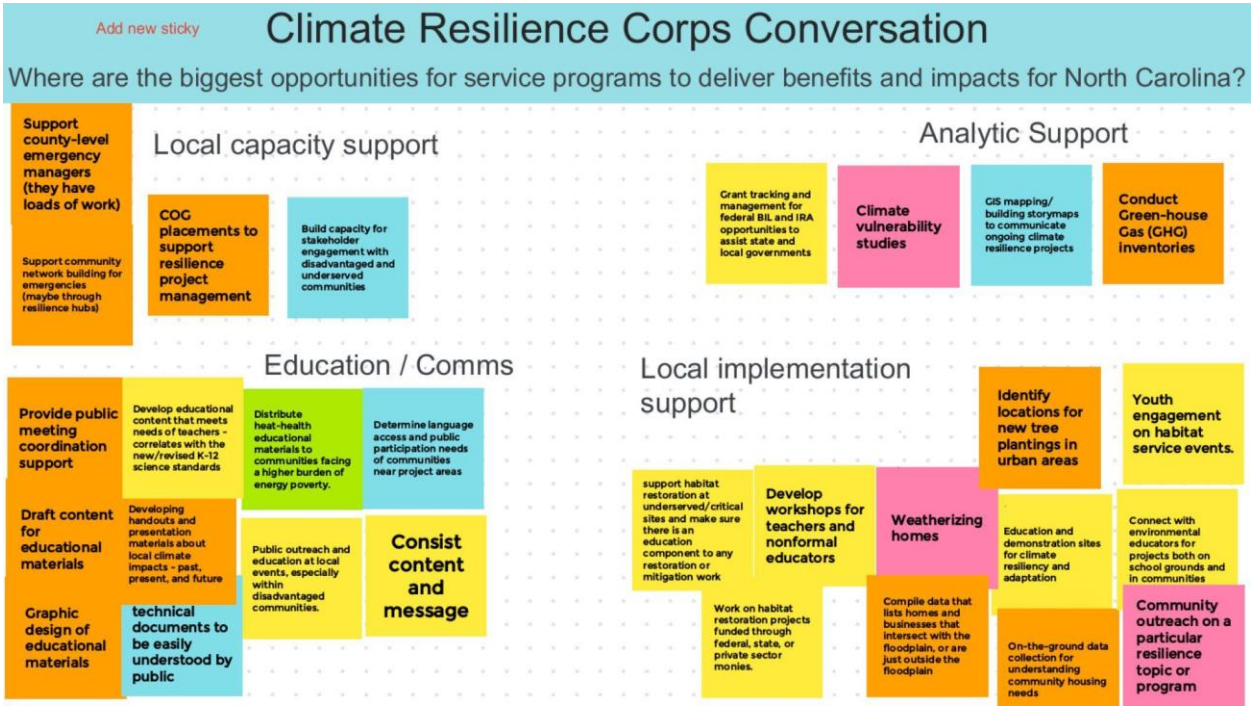
Agenda

1. Welcome & Introductions (10 minutes)
   Please be prepared to share your name, agency/role, and one of your top climate resilience priorities.
2. Overview (10 minutes)
   We will provide a brief summary of the project, our goals for today, and outline what we're hearing so far.
3. Discussion: Opportunities for Service (40 minutes)
   As a group we will brainstorm the biggest opportunities for service programs (see definition below) to play a bigger part in supporting state efforts to build greater climate resilience (see definition below). Such opportunities might center on participants or communities, funding and programmatic implementation opportunities, or addressing types of climate risks or helping to deploy various solutions.
4. Break (5 minutes)
5. Breakout Rooms: Challenges & Potential Solutions (20 minutes)
   In smaller breakouts, we'll try to pick apart the opportunities discussed to be sure we're thinking about the challenges that might arise, and try to identify possible solutions to those challenges.
6. Discussion: Ideas for Action (30 minutes)
   As a final step we'll come back together to look at simple descriptions of the program ideas that emerged, vote for and discuss the highest impact and most realistic approaches.
7. Next Steps (5 minutes)
   To close, we'll talk briefly about next steps for this project, and ongoing engagement as this effort develops.

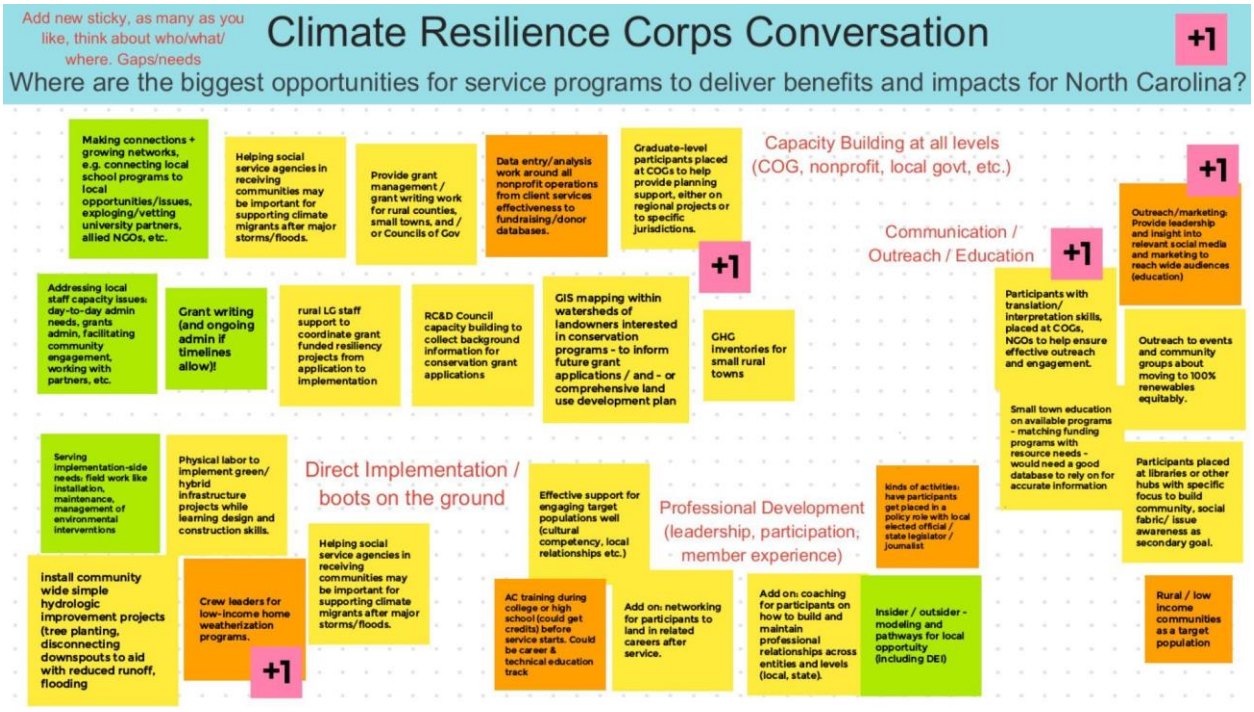
Jamboards from Group Conversations

Opportunities for Service Programs

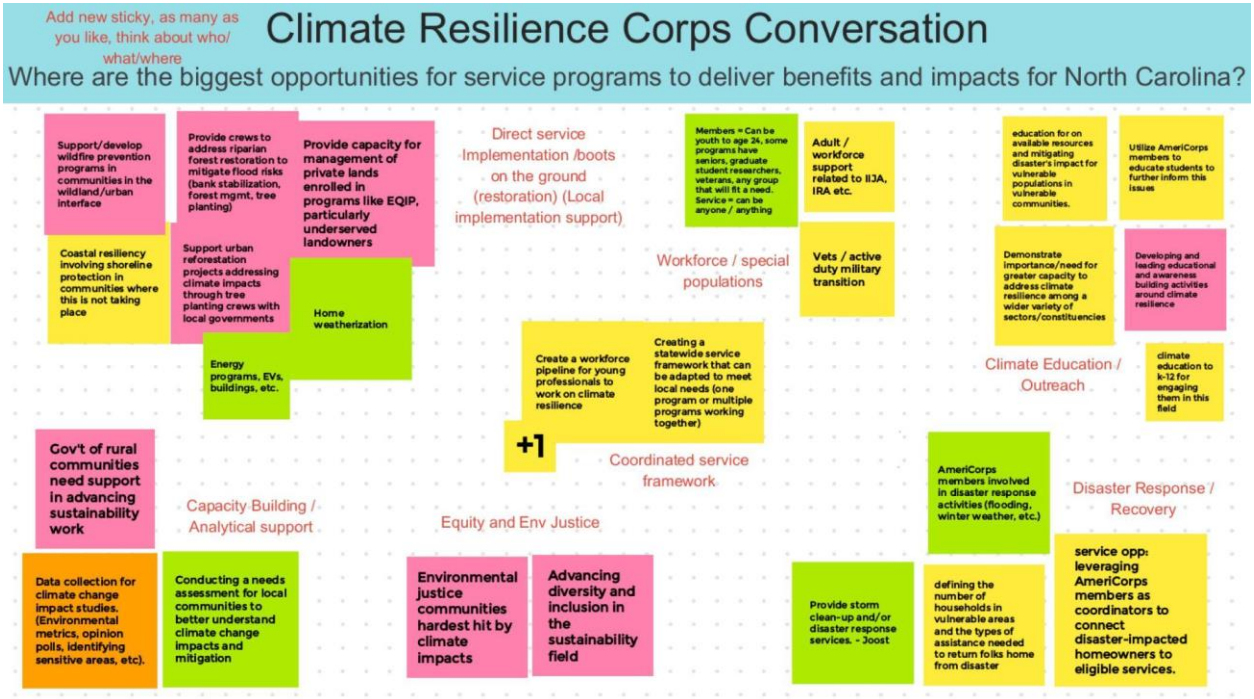
State



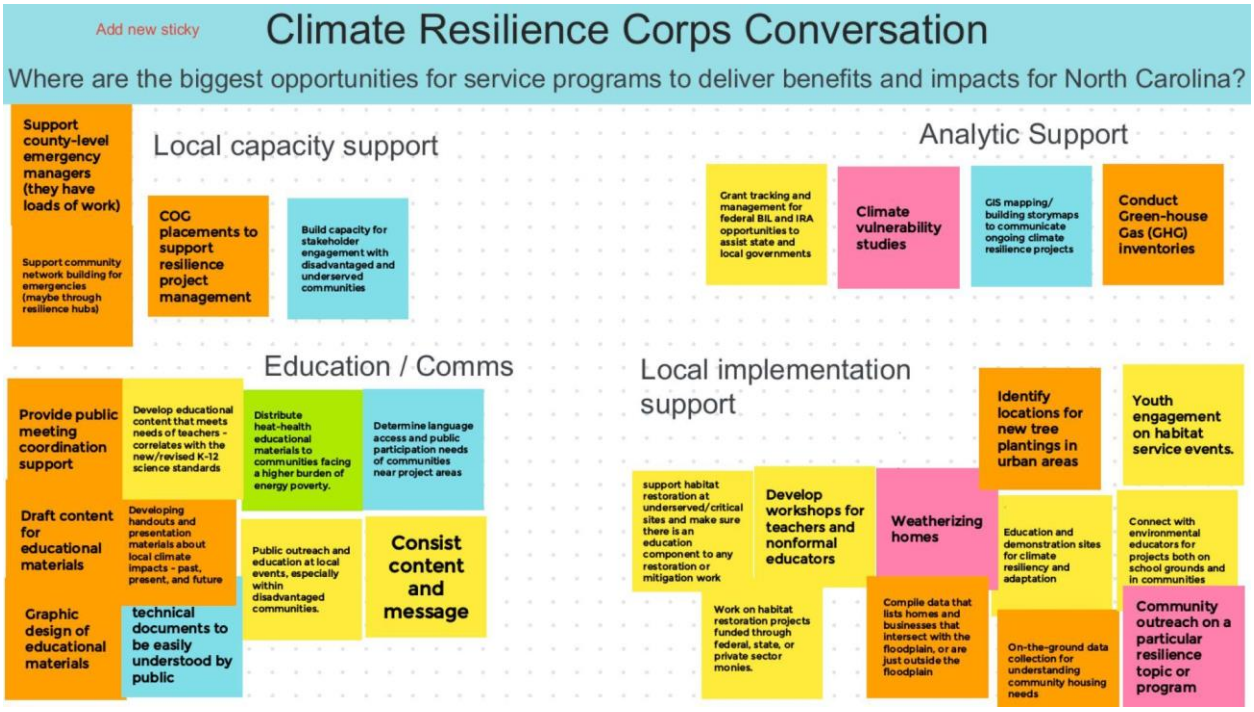
Nonprofits



Programs

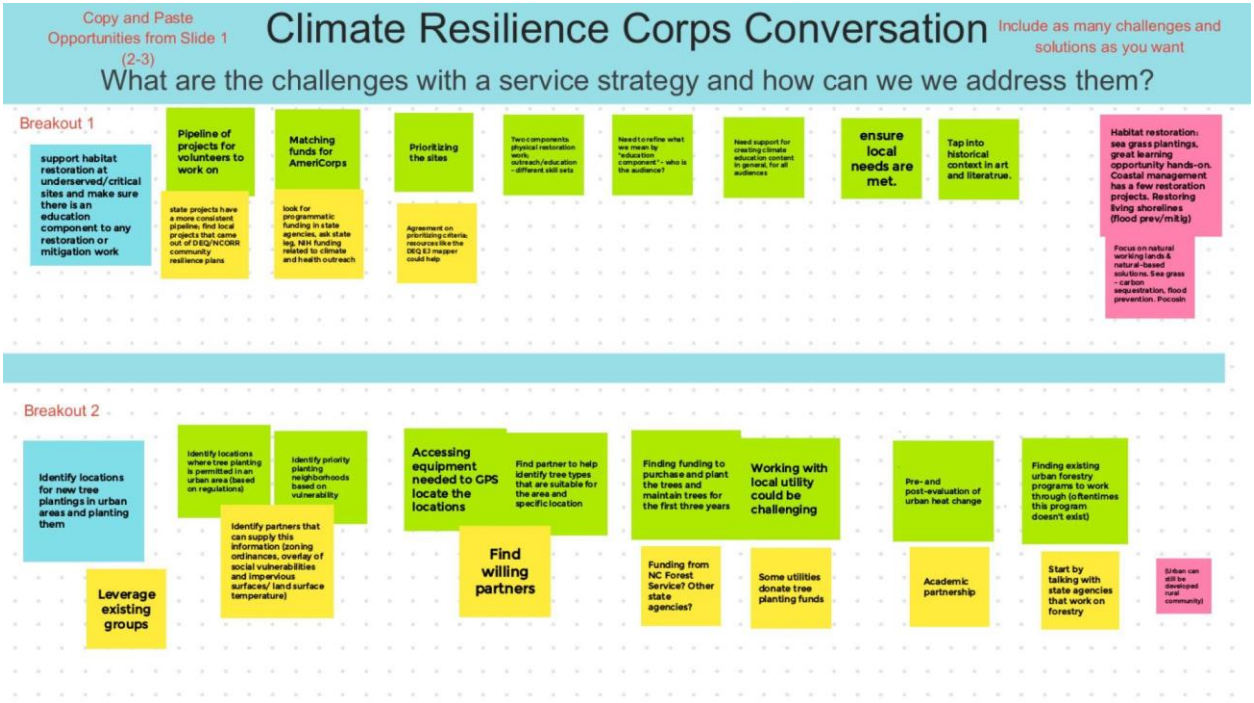


Local Governments



Challenges with Service Strategies

State



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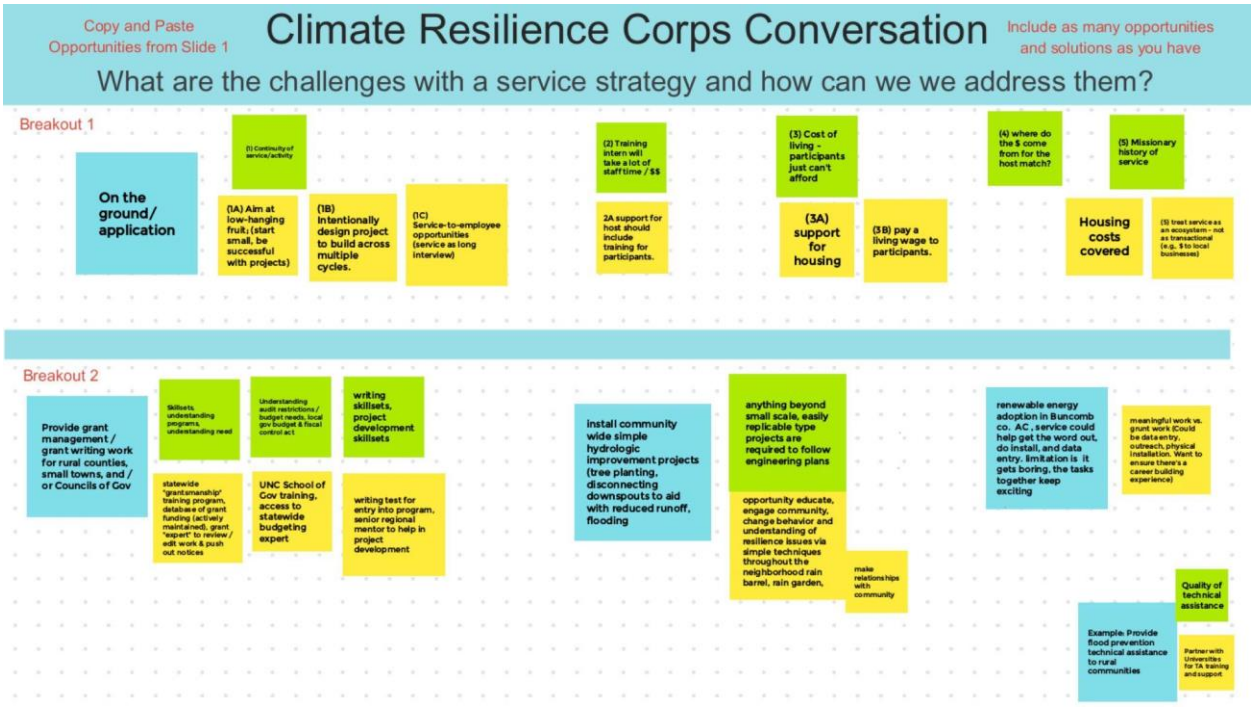

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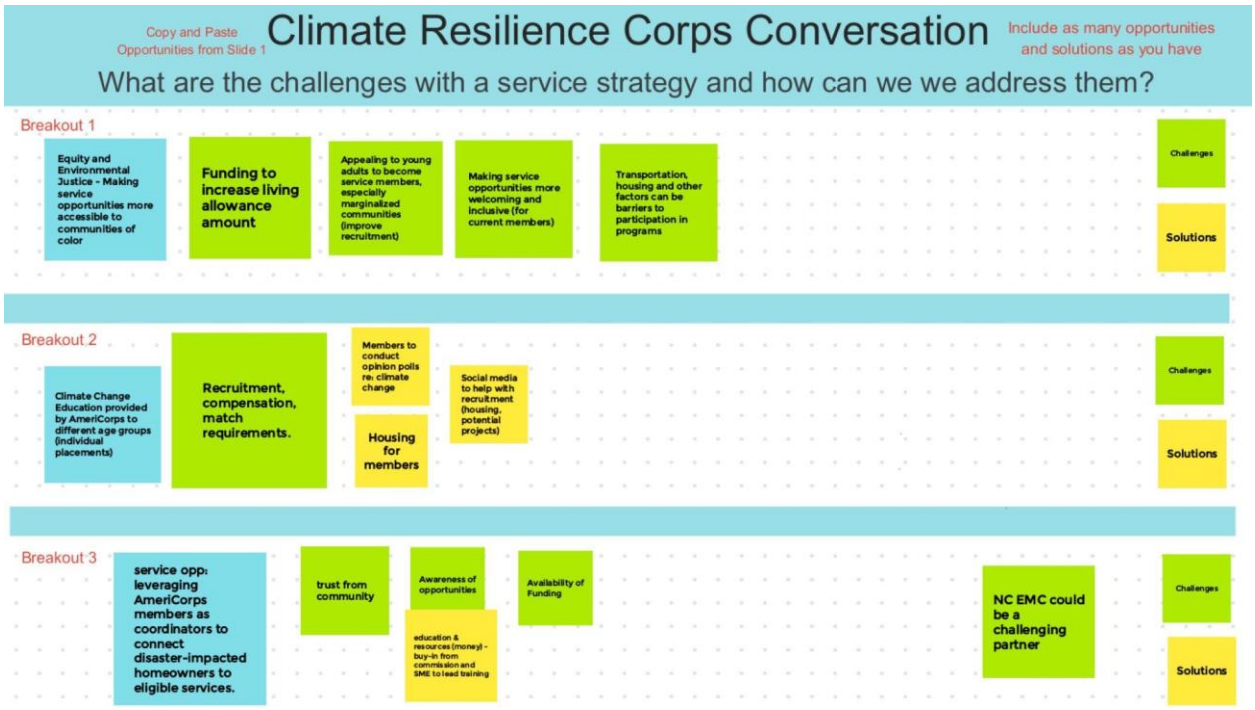
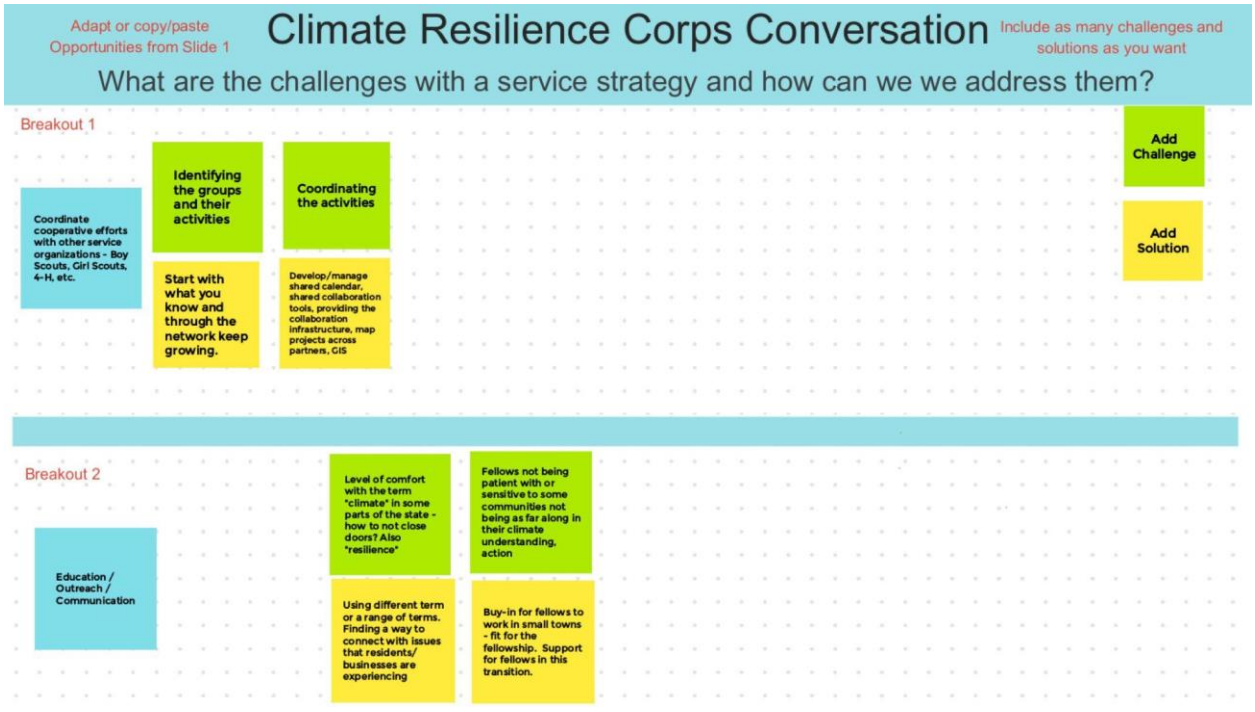
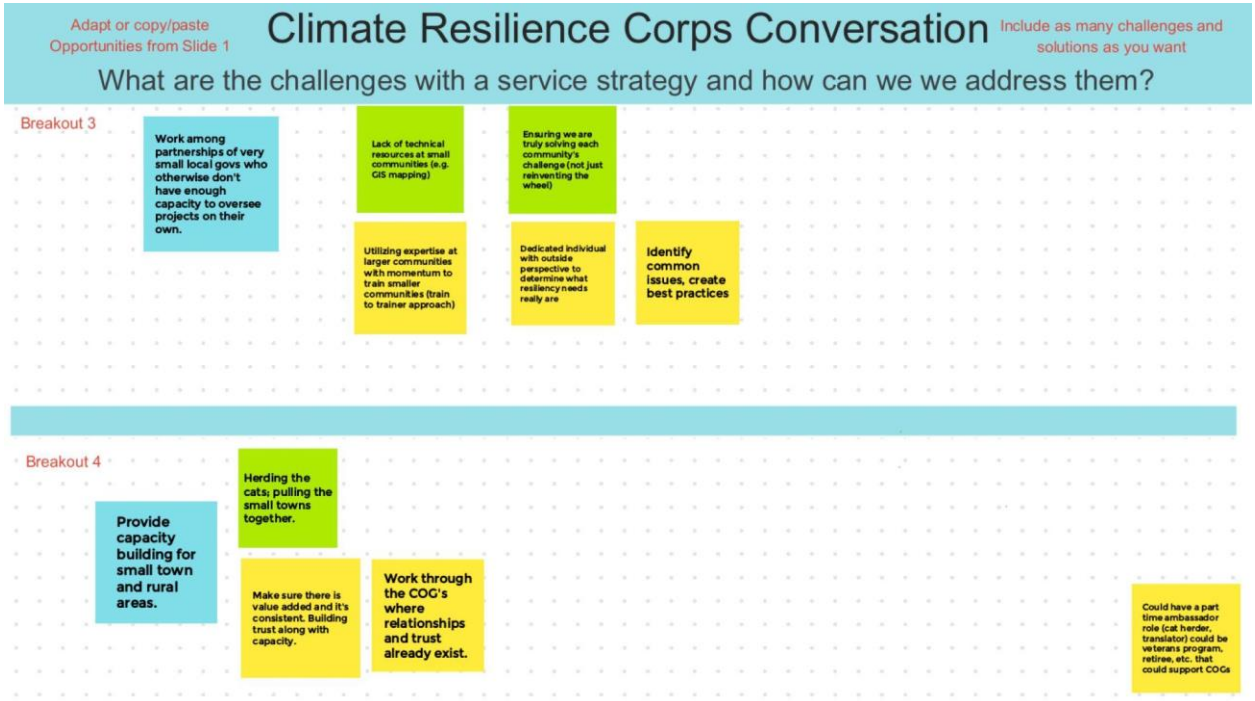


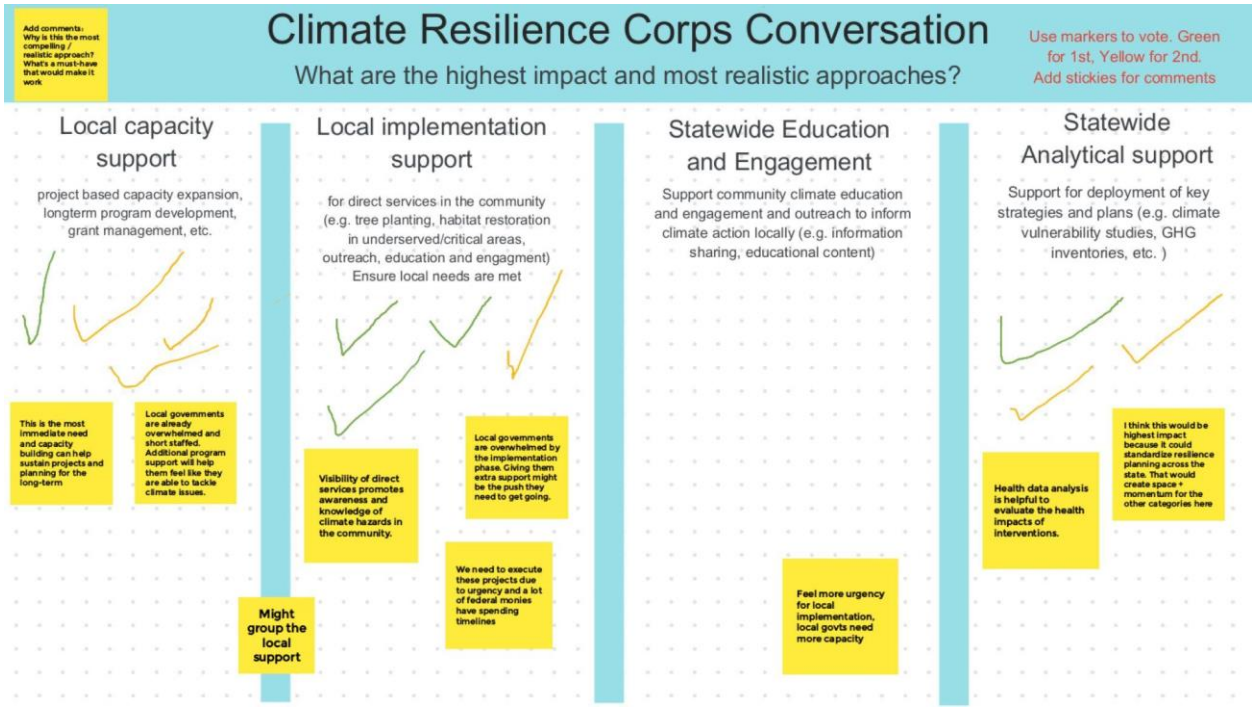
Local Governments





Approaches

State



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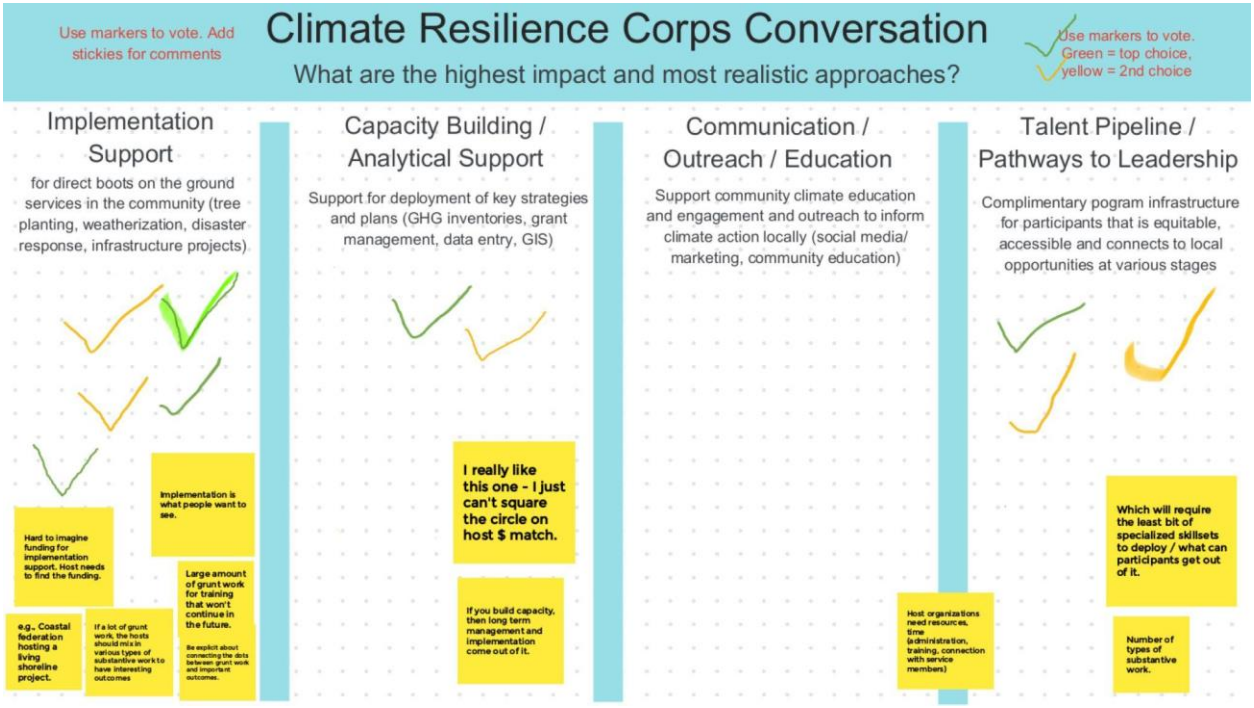
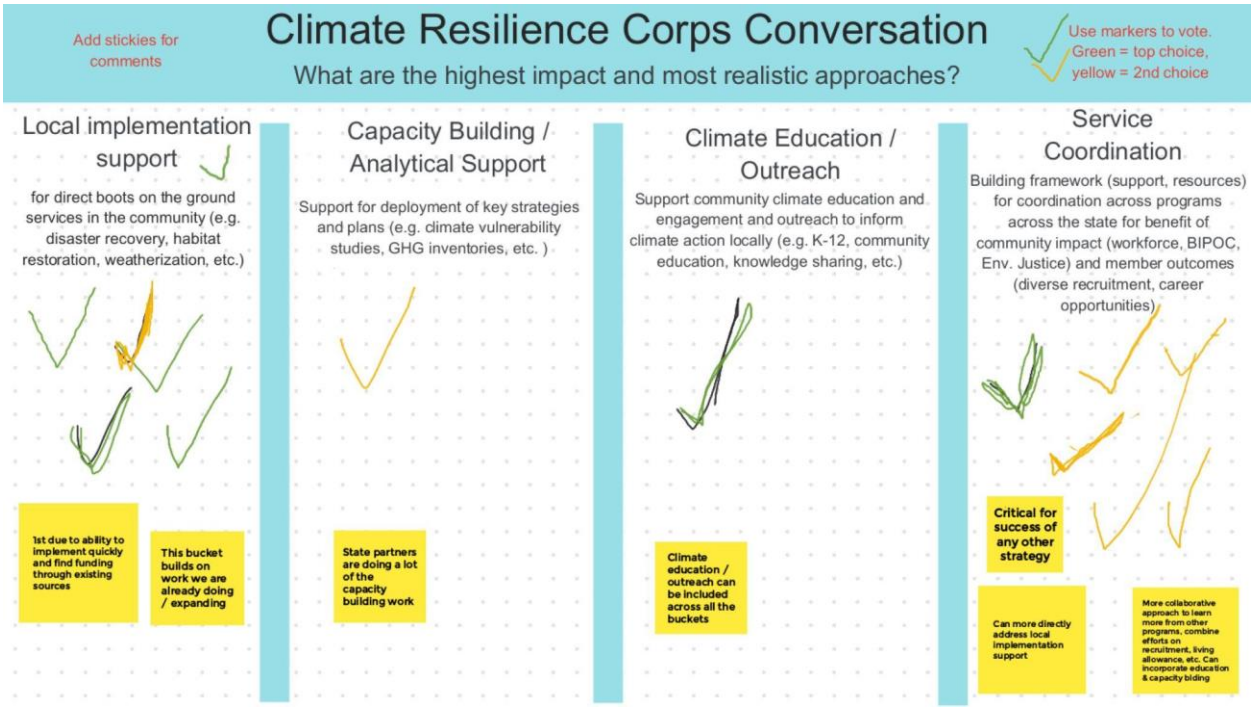
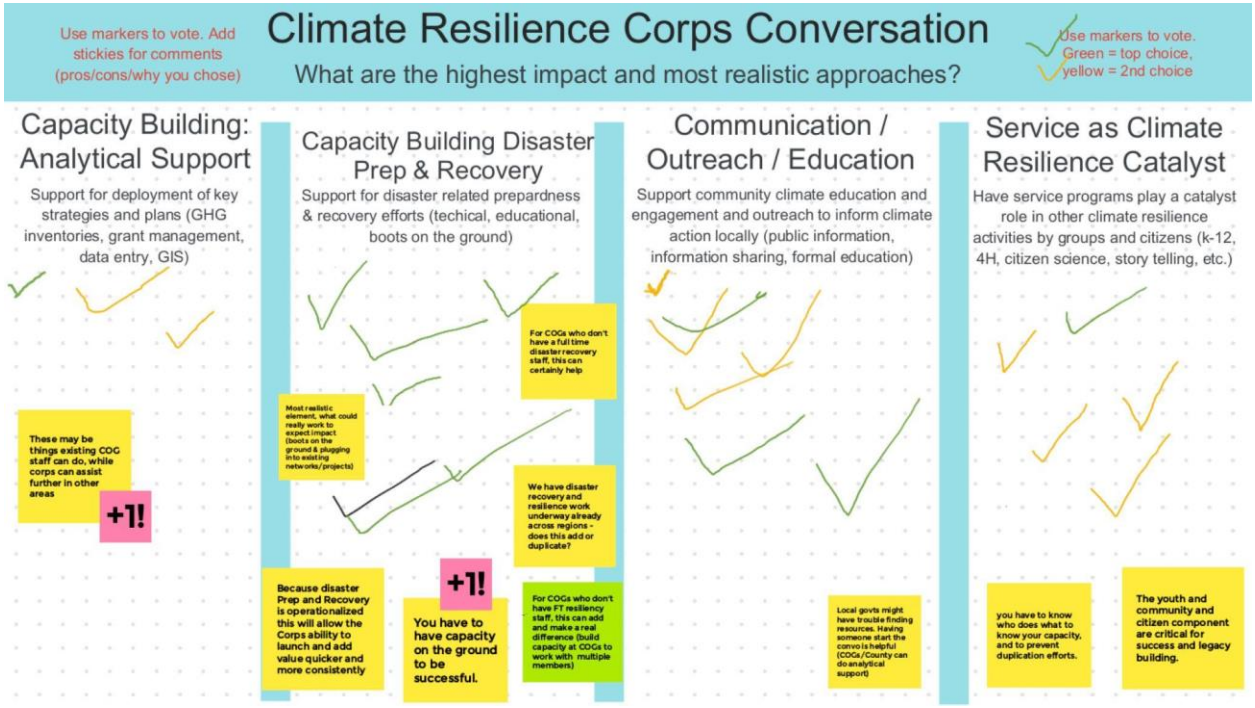


Programs



Local Governments


Use markers to vote. Add stickies for comments (pros/cons/why you chose)
Climate Resilience Corps Conversation
What are the highest impact and most realistic approaches?
Use markers to vote. Green = top choice, yellow = 2nd choice
Capacity Building: Analytical Support
Support for deployment of key strategies and plans (GHG inventories, grant management, data entry, GIS)
These may be things existing COG staff can do, while corps can assist further in other areas
+1!
Capacity Building Disaster Prep & Recovery
Support for disaster related prepardness & recovery efforts (techical, educational, boots on the ground)
For COGs who don't have a full time disaster recovery staff, this can certainly help
Most realistic element, what could really work to exped impact (boots on the ground & plugging into existing networks/projects)
We have disaster recovery and resilience work underway already across regions - does this add or duplicate?
Because disaster Prep and Recovery is operationalized this will allow the Corps ability to launch and add value quicker and more consistently
+1!
You have to have capacity on the ground to be successful.
For COGs who don't have FT resiliency staff, this can add and make a real difference (build capacity at COGs to work with multiple members)
Communication / Outreach / Education
Support community climate education and engagement and outreach to inform climate action locally (public information, information sharing, formal education)
Local govts might have trouble finding resources. Having someone start the convo is helpful (COGs/County can do analytical support)
Service as Climate Resilience Catalyst
Have service programs play a catalyst role in other climate resilience activities by groups and citizens (k-12, 4H, citizen science, story telling, etc.)
you have to know who does what to know your capacity, and to prevent duplication efforts.
The youth and community and citizen component are critical for success and legacy building.

Appendix I. Responses by Location Served

The table highlights the responses by location served for the general survey. Note the total number of served exceeds total participant numbers because many participants indicated they serve more than one region and/or service area.

Region	Service Area	Federal	State	Local Govt	Nonprofit	Schools, colleges, universities	Other	Grand Total
National	National	1			8	1		10
Statewide	Statewide		9		7	3		19
Regional	Regional		3	2	6	1		12
Cherokee Nation	Qualla				1			1
Coastal Plains	Bertie				1			1
Coastal Plains	Bladen			1				1
Coastal Plains	Brunswick			1				1
Coastal Plains	Camden			1				1
Coastal Plains	Cape Fear				1			1
Coastal Plains	Chowan			2				2
Coastal Plains	Columbus			1				1
Coastal Plains	Currituck		1	1				2
Coastal Plains	Dare			2				2
Coastal Plains	Edgecombe			5	1			6
Coastal Plains	Gates			1				1
Coastal Plains	Halifax			3	1			4
Coastal Plains	Herford				1			1
Coastal Plains	Hoke			1				1
Coastal Plains	Hyde			1			1	2
Coastal Plains	Johnston			1				1
Coastal Plains	Nash			3				3
Coastal Plains	New Hanover			1	1			2

Region	Service Area	Federal	State	Local Govt	Nonprofit	Schools, colleges, universities	Other	Grand Total
Coastal Plains	Northampton			3	1			4
Coastal Plains	Pasquotank			1	1			2
Coastal Plains	Pender			1				1
Coastal Plains	Perquimans			1				1
Coastal Plains	Robeson			1				1
Coastal Plains	Scotland			1				1
Coastal Plains	Tyrrell			1				1
Coastal Plains	Washington			1	1			2
Coastal Plains	Wayne			1				1
Coastal Plains	Wilmington			1				1
Coastal Plains	Wilson			3				3
Mountains	Alleghany				2			2
Mountains	Ashe				2			2
Mountains	Avery				2			2
Mountains	Buncombe			2	6	1		9
Mountains	Burke			1	1			2
Mountains	Caldwell			1	1			2
Mountains	Haywood			1	1			2
Mountains	Henderson				2			2
Mountains	Jackson				1			1
Mountains	Macon				1			1
Mountains	McDowell				4			4
Mountains	Mitchell				3			3
Mountains	Swain				1			1
Mountains	Transylvania		1	1	1			3
Mountains	Watauga				2			2
Mountains	Wilkes				2			2

Region	Service Area	Federal	State	Local Govt	Nonprofit	Schools, colleges, universities	Other	Grand Total
Mountains	Yancey				2			2
Piedmont	Alamance				1			1
Piedmont	Alexander			1				1
Piedmont	Anson			1				1
Piedmont	Cabarrus			1				1
Piedmont	Caswell				1			1
Piedmont	Catawba			1	1			2
Piedmont	Chatham			1				1
Piedmont	Durham			3	2			5
Piedmont	Forsyth				2			2
Piedmont	Franklin			1				1
Piedmont	Gaston			1	1			2
Piedmont	Granville			1				1
Piedmont	Guilford				1	2	1	4
Piedmont	Iredell			1	1			2
Piedmont	Lee			2				2
Piedmont	Lincoln			1	1			2
Piedmont	Mecklenburg			3	1			4
Piedmont	Moore			1				1
Piedmont	Orange			1				1
Piedmont	Person			1				1
Piedmont	Randolph				1			1
Piedmont	Richmond			1				1
Piedmont	Rockingham				1			1
Piedmont	Rowan			1	1			2
Piedmont	Stanly			1				1
Piedmont	Stokes				1			1
Piedmont	Surry				2			2

Region	Service Area	Federal	State	Local Govt	Nonprofit	Schools, colleges, universities	Other	Grand Total
Piedmont	Union			1	1			2
Piedmont	Vance			1				1
Piedmont	Wake			3	1			4
Piedmont	Warren			1	1			2
Piedmont	Yadkin				1			1
		1	14	78	87	8	2	190

Appendix J: Severe and Critical Risk Challenges and Populations of Concern

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Air pollution	The greater Salisbury area has a history of poor air quality due to a variety of industrial and transportation factors.	The entire population is affected, but the old, the young and those with respiratory illnesses are most affected.
Extreme heat	Urban heat islands are significant	Unhoused and other vulnerable populations
Farmland loss	Lee County is facing loss of farmland to both residential and commercial development at a rate greater than we've ever experienced.	Our local producers are at the greatest risk as most of the land they tend is rented land and out of their control. We've had increased interest from landowners seeking perpetual conservation easements on their property as a way to curb some of the development pressures.
Farmland loss	Loss of farmland due to development	Very broad, farmers, and all of us who rely on food and fiber
Flooding / Mudslides	Communities experience rapid and frequent stormwater effects -- temporarily flooded streets and lots after many rain events that are not emergencies, but severely affect neighborhoods, commercial areas, institutions such as medical/schools/responders. Large amounts of impervious surface (often abandoned paved areas in the center of town) discharge runoff at extremely high rates -- a created problem.	People in central neighborhoods and older commercial areas, who tend to be poorer, older, or have greater proportion of at-risk children

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	Meanwhile, most communities seek to build additional development at the outer edge of developed areas that have been largely neglected or obsoleted. This is in spite of flat or declining population growth and flat or declining household income. In effect, development is being duplicated as existing central areas are neglected in favor of new sprawl. This is bad for communities financially (revenue base / costs) but also in terms of runoff blowing out ditches, pipes having to be upsized, often sewerage systems are undercut by erosion and so stormwater creates expensive problems for the wastewater system as well.	
Flooding / Mudslides	Historic houses in floodplain; lack of understanding of flood risks by the general public	Families living in mobile homes in floodplains
Food insecurity	Greensboro is a food desert.	The working class, the minority, and the low-income communities because they are living in locations where there is a lack of accessible grocery stores that are affordable.
Food insecurity	Food Deserts and Low Income	Low Income Hispanic Community

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Food insecurity	1 in 4 children live in food secure homes. We have food deserts throughout the county. Many families live primarily on fast food and convenience food purchased at the many Dollar Generals in our county.	Children are most at risk, although we have high rates of obesity and diabetes in McDowell County. Rates of obesity in children have skyrocketed in the last 10 years.
Food insecurity	Not specifically at the Arboretum but food scarcity, deserts, etc. are a significant problem in western North Carolina. Schools do some work to combat this but there needs to be a more comprehensive effort to fight hunger across the region.	Rural and urban populations are at the greatest risk. From an education side, we do some work but these efforts fall woefully short.
Drought / Extreme heat	Extreme heat - affects the most people the most often of all the other challenges. We have areas that are 10 degrees hotter than others, even on days in the upper 80s. Drought - not a severe problem all of the time, but when we have a drought it will be a severe challenge because our population is growing and we have limited options for water sources. We have no	Most vulnerable populations are those with existing medical issues (asthma, hypertension, etc.), those without resources or networks to use to rebound from adversity, low-income, older population, children, pregnant women, housing insecure, no-car, outside workers, people in neighborhoods that have been historically underserved due to historical and systematic racism

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	groundwater resource to draw from.	
Drought / Flooding / Mudslides	We seem to be experiencing longer dry spells and more prolific rain events. Rain events can lead to rockslides and mud slides in the mountains as well as flooding in the valleys. Dry spells are primarily affecting farming operations, production, etc.	Anyone living in a floodplain seems to be at greatest risk, but the Parkway and the floodplains rarely intersect, so that is not our focus.
Drought / Flooding / Mudslides	I'm' finding it difficult to answer these questions because my mind goes from local community to national scope for my work.	Populations at risk vary by geography which is coincident with exposure to climate-related hazards
Drought / Wildfire	Western NC is considered a temperate rain forest. But extended droughts here can severely impact all aspects of local fauna and flora. That also leads to wildfires.	Lots of folks here live back in the woods some or up on a mountain and depend on either wells or springheads for their water. Wells, springs, and even local streams have been known to dry up during recent long summers.
Extreme heat / Hurricanes	poor health outcomes due to extreme heat - we try to plant trees to mitigate. Hurricanes can cause property and loss of life - keeping storm drains	neighborhoods in low lying areas prone to flooding which tend to be lower income neighborhoods that have been redlined and historically have less tree canopy and less access to parks

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	cleared of litter and having trees to capture flood waters can help	
Farmland loss / Flooding / Mudslides		Farmers. Those living in low lying areas near rivers and creeks.
Farmland loss / Flooding / Mudslides	WNC has seen increasing numbers of catastrophic flood events in recent years. These have affected farmers, businesses and individual homeowners. Our region is working to create better infrastructure/response/ resilience around this, but it does not seem to be near enough to combat the problem. We are still cleaning up/rebuilding from Tropical Storm Fred, making the results of future storms potentially more catastrophic. North Carolina ranks second in the nation for potential agricultural land loss. With increasing price of real estate in WNC, farmers are selling their land off. There are many programs in our region	I know farmers are at a high risk. Many of the farms in WNC are small and not very profitable. Adding climate change effects to the mix are causing many of them to go out of business. I honestly don't have enough information to know what other communities are most at risk, but I do know that food insecurity is rising for our poorest community members.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	working on this issue at different levels. Buncombe County has a goal of protecting 20% of land by 2030. A big piece of this goal is protecting ag land through conservation easements. Our organization works on both of these issues, but could definitely use more capacity.	
Farmland loss / Flooding / Mudslides	It seems that major rainfall events will pose the most impact to our area.	residents and businesses in the 100 and 500 year floodplain
Farmland loss / Food insecurity	The loss of farmland and small farmers is a growing concern. Many younger adults, who either lived or worked on a farm, leave the region for college and never return. Farmland is being sold for residential purposes. Food insecurity if high in Warren and Vance Counties, both are highly distressed counties with high poverty rates.	The elderly and young children

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Farmland loss / Food insecurity		Our biggest risk factors affected by the above has to do with our increased aging population. This demographic has steadily increased over the years and does not look as though it will slow. So, providing them safety in relation to your listed factors is our primary focus.
Farmland loss / Food insecurity	Food Deserts within communities - lack of access to fresh produce Also lack of access to healthy, affordable options. Need to support to green urban areas or set up community gardens Farming practices (on a small scale) more difficult to maintain - due to lack of resources for maintaining a sustainable business, cost of maintaining farm, climate change making it more challenging to continue traditional practices - expensive to revise methods	communities within the larger cities. neighborhoods nestled within suburban communities (often overlooked).
Farmland loss / Food insecurity	Food insecurity is growing. Children who cannot afford lunch or are unsure if they will eat when not in school is growing. Covid funds used for food purchase and distribution are exhausted.	BIPOC, unhoused persons, those struggling with substance misuse and those who are under-employed (working at or below minimum wage) and undocumented residents.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Farmland loss / Food insecurity	Mecklenburg has almost no farmland remaining. Union County has the highest incidence of farmland loss in NC. Approximately 15% of the region's population is below the poverty line and struggles with food and housing insecurity.	those below the poverty line
Farmland loss / Wildfire		Private forestland owners (over 70% of forestland owners in NC)
Flooding / Mudslides / Food insecurity	Flood mitigation funding and food bank shortages of critical items	Low income and elderly.
Flooding / Mudslides / Food insecurity	Our community continues to face problems of flooding from heavy rain events. Continued development in the watershed contributes to increased impervious surfaces. In low-lying areas, particularly, green ash trees have been decimated by emerald ash borer, leading to high canopy loss, exacerbating the problem of urban heat islands.	Low-income families in our area have less opportunities to combat flooding issues due to shortage of affordable housing options. Further, increased heat creates economic hardships as low-income families pay more in electricity costs as they try to stay cool.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Flooding / Mudslides / Hurricanes	Hurricanes and other rain event flooding along inland waterways (rivers and streams) damaging or destroying housing of low to moderate income residents. Most are on fixed income and cannot afford the increases cost of property taxes and insurance, so they allow insurance to lapse, and a rain event wipes out their homes. The events also add to and spread water pollution with flooding of hog waste lagoons, coal ash ponds, chemical production waster ponds, landfills, and excess storm water loads causing spills at sewage treatment plants. The water pollution contaminates many unmonitored wells in rural NC leaving residents consuming the contaminated water.	See above.
Flooding / Mudslides / Wildfire	Flooding and fire are two challenges affecting forests and build environments where we work	Forest landowners and communities with and within forested areas
Hurricanes / Rising seas and	Our crews work to protect habitat with mostly state and federal land management agencies. Natural	Although our organization works on public lands all throughout the state of NC as well as nationally, the work we do in those areas serves communities that are adjacent to National Forests, National Seashores, National Parks, State Parks, and others.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
retreating shores	disasters like floods and hurricanes are damaging native species and causing habitat loss.	
Hurricanes / Rising seas and retreating shores	Coastal infrastructure damage and heavy rainfall impacts	Low-income communities
Hurricanes / Rising seas and retreating shores	many of the risk factors listed are interconnected & complex. also, while some are causes of climate impacts, many are results as well. for our work, the core of combatting climate change & supporting resiliency will be realized through relationship building, education of the general public on these topics, and the funding mechanisms & policy to ensure follow through. current & future results from loss of habitat & biodiversity are widespread throughout NC. we see that more & more individuals are disconnected from nature, wildlife, & where food & resources are derived which takes a lot	we work to protect all wildlife & habitat, resulting in a healthy, sustainable environment for all.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	of educational engagement.	
Air pollution / Drought / Farmland loss	Loss of farmland to developers is a problem we are facing as more people move to the mountains to escape warming cities elsewhere. (BRC is a land trust, so we may see this particular issue more often than others) Drought and air pollution threaten the fragile mountain ecosystems, increasing the threat of wildfires	As always, those with fewer resources are at greater risk. A second or third homeowner with a ridgeline house can leave/sell when threats occur, but those living in generational poverty have little recourse.
Air pollution / Farmland loss / Food insecurity	Without small farms, we will not be around much longer	every single person started with the homeless Coops exist to offer an alternative and inspire people to make changes while voting with their dollars
Air pollution / Farmland loss /	Affordable trusted legal assistance.	Our senior population is most at risk.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Hurricanes		
Air pollution / Flooding / Mudslides / Food insecurity	Air pollution as Asheville grows has significantly increased. Flooding in this area has been an issue for a long time (a lot of build in natural floodplain areas). Food insecurity and homelessness has increased in Buncombe county as well, especially with the increase in housing prices.	Our outreach education program is designed to be low-cost and reach people who can't come to us, so we are reaching people (mainly children) in low-income situations.
Air pollution / Flooding / Mudslides / Wildfire	The region is prone to flooding from severe storms. Last year Haywood County was hit particularly hard causing loss of life and property. The area has also seen significant periods of wildfire, the last coming in 2016. The wildfires often burn vegetation from slopes making areas more prone to landslides.	The risk affects most people in the region equally.
Drought / Extreme heat / Farmland loss	Losses of farmland due to houses and businesses being built.	I would say the farmers are at the greatest risk from the loss of farmland as well at the general population. Less farmland means less food that can be produced.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Drought / Flooding / Mudslides / Hurricanes	Drought - Duke Energy Reservoir and Power Plant shared system (2 nuclear power plants in region) Flooding - this is the #1 Hazard Mitigation Plan hazard for the region to due geography, soils and climate dynamics Hurricanes - due to hurricane band location, relationship and geography related to flooding and dense river system and old tree growth.	older suburban areas and rural communities (all low moderate-income areas)
Extreme heat / Farmland loss / Food insecurity	Loss of trees and an increase in asphalt and traffic. This creates VERY hot conditions in the summer making air conditioning mandatory. Farmland is being lost to strip malls and housing developments. Many areas around Charlotte have low-income folks that do not have access to healthy food.	These challenges hit low-income people most. Our organization does not focus on people.
Extreme heat / Flooding / Mudslides / Food insecurity	Riverine flooding from heavy rain events, extreme heat and rising utility costs, food deserts and difficulty access locally grown food.	Low income residents, especially those who reside in or near the floodplain. Our organization's planning & development services department works to address these challenges through local technical assistance and regional coordination.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Extreme heat / Flooding / Mudslides / Food insecurity	Campus is not ready for extreme heat or for flooding rains (multiple inches/hour) that would severely impact campus operations	Students and less affluent staff members who typically have the longest commutes to work (due to high cost of housing close to campus)
Extreme heat / Food insecurity / Hurricanes		Rural people, low-income people, non-English speaking people
Extreme heat / Food insecurity / Hurricanes	-urban heat island effect and inequitable distribution of green spaces and street trees that disproportionally affect black and low-income communities. - lack of healthy and affordable food accessible within a walkable community - lack of safe and accessible housing to protect against worsening climate impacts, displacement from somewhat walkable urban communities into auto-dependent suburban communities that increase an individual's carbon footprint and	long term, elderly black residents are the most at risk of losing their housing security and the impacts of increasing urban heat islands. We work with this population through partnerships with neighborhood associations and other nonprofits.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	decrease individual resilience.	
Extreme heat / Food insecurity / Hurricanes	Low income families and homeless/unsheltered population not being prioritized in emergency planning for hurricanes. Food insecurity persisting due to housing costs, inflation, and stagnated wages.	housing insecure and those already experiencing homelessness
Extreme heat / Food insecurity / Hurricanes	hurricanes have caused catastrophic flooding in past decades; most of Kinston is a food desert, and food pantries are one of our few "growth" industries as local churches attempt to meet the need; we have a large elderly, low-income population who are at severe risk in periods of extreme heat	elderly and youth - the two ends of the demographic spectrum - seem to be most at risk; we are interested in creating a new environmental leadership program for at-risk youth; part of new program would include service-learning opportunities for youth to help shut-in elderly residents
Farmland loss / Flooding / Mudslides / Food	Our area has an influx of climate refugees driving up housing and making it near impossible to find affordable housing	Everyone, but in particular underserved communities and BIPOC communities

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
insecurity		
Farmland loss / Flooding / Mudslides / Food insecurity	We have flooding issues related to increased storm volumes and intensities, increased development (and corresponding increase in impervious surfaces), and this is moving toward worse conditions. Farmland loss is also related to high rates of development and is less impacted (than other regions) by climate change. Food insecurity is related more to other economic conditions (and systems) than climate. Indirectly, rising seas and retreating shores are related to the above conditions as one driver of migration to the mountain region.	The population of greatest concern are those with less financial means which include many longer-term residents (and include communities of color) in our immediate community. They also live in places most likely to flood. Landslides are more likely across a wider variety of residents and include higher income properties on or near steep slopes.
Farmland loss / Flooding / Mudslides / Food insecurity	They seem self-explanatory. We are losing farmland, experiencing more frequent floods and mudslides, and more people are food insecure more often.	The poor and working class people ultimately experience these risks with mire sever long-term consequences, often risks imposed by the actions of the upper middle class and wealthier people. These are the people on radar.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Farmland loss / Flooding / Mudslides / Hurricanes	Yearly flooding has washes away farm fields and crops. Flooding causes severe erosion and property damage.	We work with the Henderson Soil and Water CD, NRCS and FSA to help landowners on streams and rivers.
Farmland loss / Flooding / Mudslides / Hurricanes		The elderly on fixed incomes
Farmland loss / Flooding / Mudslides / Wildfire	Loss of farmland to residential development Richland Creek and Pigeon Watersheds are within steep slope areas and development is encroaching on the natural floodplain.	Those who live: *Within and along riparian corridors *On steep slopes
Farmland loss / Food insecurity / Hurricanes	The price of land and the inability of non-factory farms to make a living wage is leading to the need to source food from further and further from the Triangle region. The increase in population density presents environmental challenges (increased stormwater runoff) and is a threat multiplier.	Poor people are most at risk for almost every risk you can name.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	Hurricanes are so damaging, even inland where we are located, that the increase in frequency, amplitude, and duration of hurricanes present a growing challenge to our region.	
Flooding / Mudslides / Food insecurity / Hurricanes	Flooding	Displacement
Flooding / Mudslides / Hurricanes / Rising seas and retreating shores	increased severity and frequency of hurricanes. we are coastal so rising water critical issue facing many.	all inhabitants of NHC, especially those living on coast. Economically disadvantaged struggle in hurricane- water damage to homes, mold afterwards. Those who cannot afford insurance, to relocate or maintain repairs. Those who rent and are mercy of landlords.
Flooding / Mudslides / Hurricanes / Rising seas and retreati	(Answering in personal capacity as NC resident) Being from Eastern NC, water-related disasters are the most acute need. Either threat from future flooding or dealing with lasting impacts of past flooding.	(Answering in personal capacity as NC resident) Certainly low-income communities and especially communities of color. Folks who have endured these impacts over and over. People living in substandard, old homes or dilapidated, likely unpermitted mobile homes.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
ng shores		
Flooding / Mudslides / Hurricanes / Rising seas and retreating shores		For flooding, we are concerned with vulnerable populations from socioeconomic perspectives.
Flooding / Mudslides / Hurricanes / Rising seas and retreating shores	Transportation infrastructure projects that are resilient to the threats of flooding, landslides, hurricanes, SLR, and shoreline erosion are expensive.	Public and private/commercial transportation. Road, rail, air, sea, and bike/ped.
Flooding / Mudslides / Hurricanes / Rising seas and retreati	Hurricanes and flooding pose a severe risk to southeastern NC.	Typically, flooding and hurricanes most severely impact low-income communities and those areas further inland. While our beach communities do certainly have impacts, typically these property owners are capable of withstanding storm damage and flooding issues. In addition, many of the properties along the coast are newer construction and offer better storm protection.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
ng shores		
Flooding / Mudslides / Hurricanes / Rising seas and retreating shores	land use incompatibility to prepare for increased rains and rising water	coastal residents
Food insecurity / Hurricanes / Rising seas and retreating shores	Wilmington NC is in low lying and will be more impacted by sea level rise and flooding. The city is built out with more people and less impervious surface to capture stormwater. Hurricanes are increasing in frequency and strength, often lingering over the area and flooding. Low income residents have limited access to healthy, affordable food in urban neighborhoods.	Low-income households.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Multiple (4)	Rising seas and more severe rainfall is creating problems in terms of community and economic resiliency. Large areas of our coast are very low, and will transition as groundwater and coastal water levels rise -- most conventional pollution control strategies will not function properly with rising groundwater levels, polluted runoff become worse, and that disrupt our nature-based economy.	These climate challenges spare no one -- and create problems for all. Households with more economic means can recover easier for a while -- we're all in the same boat in turns of vulnerability to these challenges -- some folks have bigger boats that can ride out the storms of issues for a little longer than others.
Multiple (4)	Equitable resiliency in rebuilding.	The native community, as well as the Hispanic community, which together constitutes approximately 50-60% of the population.
Multiple (4)	The Town of Princeville is phasing the critical challenge of addressing living within a floodplain and the threat of flooding from the Tar River. This coincides with the threat of hurricanes and rising sea levels. Food security is an issue throughout our entire region. Edgecombe County is a tier 1 county and lies within a food desert. Access to affordable and	The population of greatest concern for these risks is all Princeville residents and residents within Edgecombe County who live in the floodplain. Princeville has a predominantly African American population with a large portion of the population being elderly. The Town of Princeville elected officials, administration, and staff are working to address environmental issues alongside partners like the Conservation Trust for North Carolina, NSCU-Coastal Dynamics Design Lab, ECU - Coastlines and People Team.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	nutritious food is major concern for Princeville community members and Edgecombe County at large.	
Multiple (4)	Saltwater intrusion is leading to loss of farmland Poverty is a big issue and that leads to food insecurity Being in a coastal county, hurricanes are a concern We are on the front lines of sea level rise in northeastern NC	Low-income citizens with little education
Multiple (4)	Several of these - flooding, landslides, hurricanes, sea level rise and retreating shorelines - are critical for specific towns and counties, even regions - but they are not a threat to the entire state. Extreme heat is, and is also tied to loss of 'quality of life'. For a couple decades, North Carolina has benefited from people flocking here. That inflow creates natural economic growth, which gives elected leaders some room to make bad policy	The people most at risk on the community level in rural or coastal communities are those with the smallest wealth (not necessarily income), those in politically marginal positions, and 'outsiders' - those without local connections. Our organization works to protect the whole state and all its residents, but with particular attention to those who have been traditional or currently excluded on the basis of wealth, income, race, or ethnicity. We also take the view that policies to protect the most vulnerable can be crafted in way that helps everyone (though they don't do that automatically).

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	decisions without as severe consequences. (Compare the rustbelt states, which are trying to navigate the same climate transitions with declining populations - they face a much harder challenge). But by eroding quality of life, climate change chips away at the economic growth advantage that has protected NC for two or three decades. If that flips to a net negative, policymakers will face a much, much harder task, and will face it statewide - that's why I've listed it as a critical challenge.	
Multiple (4)	Severe stormwater runoff management systems are inadequate, not maintained, etc.	low lying areas inside 100 and 500 yr. floodplains, newly developing areas not accounting for and/or designing for flooding.
Multiple (4)	We are facing increases in erosion along shorelines, increased precipitation amounts during storms, rising surficial groundwater tables and sea level rise and land loss.	We are working to assist homeowners with aging septic systems in areas of known groundwater table rise. The town offers low interest loans for septic repairs, and offers free inspections and discounts on septic tank pumping.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Multiple (4)	Extreme heat- Urbanization and climate change will likely lead to more extreme heat events in the mountains of WNC where many people don't have air conditioning and our rich biodiversity of higher elevation plant species are not acclimated to high temperatures. Farmland loss- Our farmland is rapidly transitioning into housing developments. We need to conserve more farmland and focus new housing developments within our urban areas. Flooding/Mudslides- Our steep-slope topography makes this region susceptible to flash flooding and mudslides. We need better development regulations that prohibit developments on steep slopes and in the floodplain. Also, we need more green stormwater infrastructure that keeps runoff on site and out of our streams.	Low-income residents living in substandard housing that is situated in the floodplain or at the bottom of a slope that could experience a landslide. Also, low-income BIPOC communities in our urban areas will suffer the most from extreme heat.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Multiple (4)	Winston-Salem has struggled with food security for many decades now and it is a challenge primarily in low-income, usually BIPOC communities. Food distributors do not want to partner with local community leaders to solve the problem so we rely on non-profits to address these challenges. There is a strong network of local food producers and a growing network of urban farmers but they still face many uphill battle to find the land, water, and healthy uncontaminated soil to grow organic produce. Forsyth county is losing farmland rapidly with new development projects popping up faster than any of the environmental organizations can keep thorough track of. Projects are not taking into consideration the long-term environmental impacts of building in floodplains and city and county governments are not being diligent enough with asking for impact	both of the challenge of food insecurity and loss of farmland (for new developments such as multi-use spaces or single family homes)are affecting low-income communities the most.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	reports and holding developers accountable.	
Multiple (4)	Drought affects local farmers and also increases wildfire risk. Farmland continues to be developed as we grow and sprawl rather than fill in around existing infrastructure. Flooding and stormwater management are the largest challenges facing WNC as the climate changes. We expect more frequent and larger heavy rain events that will threaten our communities in various ways. Wildfires are a threat.	I can't
Multiple (4)	The four items ranked as severe or critical challenges were identified in the Triangle Regional Resilience Assessment as the most pressing for our area, in	low income, non-English speaking, elderly, handicapped, those with pre-existing health conditions (hyper tension, asthma, etc.), those without cars, people with housing insecurities. People of color are more likely to be in many of these groups, and therefore more vulnerable, due to historic and institutional racism.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	terms of risk and vulnerability.	
Multiple (4)	My community is North Carolina's natural heritage (biodiversity and nature). *I marked "no challenge" above for risks that I don't understand well enough to rate. Many of North Carolina's most vulnerable and imperiled species naturally occur in habitats that occupy a narrow ecological niche within NC: high elevation mountaintops, and narrow margins of beach, marsh, and riparian systems. Disruption of hydrology (drought or flooding due to rainfall or sea level rise)- often magnified by drought- may cause the habitats to become unsuitable. If the species are not able to move to more suitable habitat, either because of habitat fragmentation or natural dispersal limitations, they may be extirpated from our state.	My "populations" are native species such as: Seabeach Amaranth, Sensitive Jointvetch, Heller's Blazing Star, Spreading Avens, Roan Mountain Bluet, Small-Anthered Bittercress, Piping Plover, Atlantic Sturgeon, and anadramous fish species.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Multiple (4)	Climate change specifically drought and extreme heat affects both humans and natural resources. Residents with no AC have to endure extreme heat which causes medical issues. Extreme heat affects nature resources by droughts, and increase in forest pests.	Forest owners while at risk provide a great opportunity for resilient landscapes, through sustainable forestry/climate smart practices to increase healthy forests.
Multiple (4)		Coastal and low elevation; LMI communities
Multiple (4)	More frequent and heavy rainfall events causing more flooding in our downtown area as well as farmlands and rural/urban neighborhoods and business areas. Also our energy bills are rising and causing most of our clients who are low-income to seek financial assistance to pay their bills. We help offset that by providing energy-efficiency upgrades to those customers.	Vulnerable populations who don't have the means to pay rising energy costs, move to higher areas away from flooding, or make necessary repairs to stay in their home.
Multiple (4)	Air pollution is significant in low income neighborhoods	NA

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Multiple (5)	NC ranks second in recent and project farmland conversion to development behind only Texas. Johnston County, on the Neuse River, is projected to be the 18th ranked county for farmland loss to 2040. These working land provide not only food but also sequester carbon, store floodwaters, etc. Within the context of the Sentinel Landscape, their loss also challenges the ability of our military to train and is a national security concern. Flooding is among the leading vulnerabilities across all 33 counties in the ENCSL. Both storm surge along the coast and from precipitation events, it is a leading cause of property destruction, crop damage/loss, and death. With the atmosphere holding more moisture, there is a need to revise how we classify flood events (100yr, 500 yr.) and people and infrastructure are not prepared. (We had 5, 1000 yr. floods in the US in as many weeks). Because marginalized	Underserved, under resources communities, particularly those of color living in floodplains, both along the coast and adjacent to our rivers.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	communities are much more likely to be within floodplains, they are also disproportionately impacted. Hurricanes are predicted to increase in frequency and intensity in the northern Atlantic. We have already seen what these storms can do and we simply don't have the capital to get communities and infrastructure to where they need to be to weather these storm. We have developed our coastline to an extent that we have degraded much of our natural defenses and managed retreat isn't something that is being actively discussed, so we are in a precarious situation where we wait for the next one and are putting band aids, such as living shorelines(albethey ones that also benefit wildlife, water quality, carbon sequestration), on a problem whose scale is enormous. We are projected to see 1.5ft SLR by 2050 under fairly conservative projections. In low lying areas in the central and	

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
	northern part of our state below the Suffolk Scarp, may communities will face loss of their lands. There is considerable room for salt marsh migration, but it will come at a human cost if we don't plan effectively and many areas are increasingly adding to coastal squeeze by developing in areas they should not be. In the southern portion of our state, where elevation is higher, they will also be impacted by increased sunny day flooding and storm surge. Because of elevation, there is less marsh migration space in the near term and much of their marsh is isolated marsh complexes that will down in place. Losing these habitats will result in the loss of critical ecosystem services.	

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Multiple (5)	Farmland loss from saltwater intrusion and also from development. Flooding due to increasing intensity of storms and also from king tides. Food insecurity due to poverty. Hurricanes do more damage as more people arrive in eastern NC to live and build in low lying areas. Rising seas are causing significant loss of land through erosion.	Smaller communities that lack the capacity to be able to undertake any significant projects due to lack of knowledge or the community having a serious lack of capacity.
Multiple (5)	Heat-related illness, isolation from flooding related to hurricanes	North Carolinians living in the Sandhills and/or floodplains
Multiple (5)	We are temperature and rain challenged. Periods of drought followed by heavy rain leads to frequent mudslides and road closures to our mountainous terrain. 25% of county population suffers from food insecurity or hunger.	Youth is the most challenging group. We are, however, working on resiliency at all age levels.
Multiple (5)	Crop loss from extreme weather conditions, less food & fiber to add to an already strained economy.	The farmers and the consumers of their products. Using conservation minded best management practices, we help cooperators install practices that preserve topsoil, ground moisture, and reduce the number of pesticides used in production of those crops to help water quality.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Multiple (5)	Increased nuisance flooding as well as flooding during more severe storms that impact residents ability to access services and power. Air pollution is exacerbated by our topography and increase in VMT, loss of tree canopy and increased development puts urban heat island on the rise. Farmland has already been lost to urbanization and we are seeing a decrease in the surrounding areas as population grows.	Our low income and communities of color are among the most impacted. Please see our climate justice map for reference: https://avl.maps.arcgis.com/apps/instant/lookup/index.html?appid=10e2c4ae45614b92ad4efaa61342b249 Many departments within the City work with these risks.
Multiple (5)		Low-income, BIPOC communities being more vulnerable/susceptible to issues related to climate change
Multiple (5)	Currently we are 17" below normal rain fall amounts, so in a drought. WE are part of Hurricane alley and routinely have storms. I see retreating wetlands and higher, high tides than 10 years ago. WE are a CAMA county, so we are already surrounded by water.	Unfortunately, some of our poorer communities live in the lowest elevations which are more prone to flooding and impacts from storms.

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Multiple (6)	North Carolina is on the frontlines of coastal climate change as we already have sunny day flooding and have seen tragic impacts from hurricanes and other storms. In Durham, NC this is less impactful because it's inland - in Durham, there is a greater emphasis on becoming resilient to extreme heat which is a major problem.	On the coast, low income black communities are disproportionately impacted by the negative effects of flooding. This especially is true in relation to the CAFOs which, when flooded, cause even more health effects than they do without flooding and Black and Native American communities are much more likely to live near these facilities. In Durham, lower income communities are the most affected by these issues - as is true everywhere, risk is not a natural phenomenon alone but a combination of exposure to the hazard and then the vulnerability of the exposed community.
Multiple (6)	Wind and flooding.	Elderly and low-income individuals.
Multiple (6)		Since climate change impacts all living things, I am not exaggerating when I say that our programs serve to protect everyone.
Multiple (6)	Each of these threaten the Department's mission to improve the economic well-being and quality of life for all North Carolinians.	We partner with local workforce development boards, local governments, the business community, and other local partners to ensure all North Carolinians have access to the jobs of today and tomorrow, and are especially focused on the transition to clean energy jobs that will address the above challenges.
Multiple (6)	I would say all communities are affected by the ones I listed as critical because of their global impact.	Everyone is at risk but especially low income households due to rising costs of goods.
Multiple (6)	Especially in Watauga and Ashe Counties, flooding is a constant problem	All citizens as our rivers and streams are often our drinking water
Multiple (7)	Government capacity in addressing these issues.	rural communities with low government capacity

Severe or critical risks	For severe or critical challenges what specifically are the challenges you are facing?	Can you describe your population of greatest concern for these risks?
Multiple (7)	the intersection of social vulnerabilities with these climate challenges	those with disability, limited English proficiency, low internet access, minority communities, the elderly and youth, those with older housing units. we are working on strategic plans and provide some grants for these communities and local governments.
Multiple (7)	Unpredictable weather patterns	the elderly and the young
Multiple (8)	Increase in frequency and severity	Entire region
Multiple (8)	Our location is in a flood plain of the Neuse River. The disposal of ash from the electric plants also pose a severe risk and our air has chem trails from jets.	Everyone in my community is affected, however, the lowest income people live in 8 public housing facilities that are in a food desert.
Multiple (9)	Communities facing repeated flooding from hurricanes and other storms.	People living in flood-prone areas.

Appendix K: Priority Subject Areas by Types of Activities

Priority Subject Area for Service Support	Summary of Support Needs
Active and/or zero-emission transportation	actively recruiting battery technology and electric vehicle companies to NC
	We are working to support a more multi-modal urban environment that allows car-free mobility. We are interested generally in positioning Raleigh as an urban sustainability leader and would like to connect on additional resources and collaboration opportunities broadly there.
	Zero emission vehicles/fleets and charging infrastructure
Coastal protection	As before
	Dune protection and wetland improvements.

Priority Subject Area for Service Support	Summary of Support Needs
	flood reduction, water quality protection, habitat protection and restoration, land conservation and restoration
	Holistic resilient planning for communities (with a priority of nature-based solutions) and the capacity to apply for grants to implement projects/changes identified in the planning process.
	It is hard to divide out the top priorities when several are combined, for instance: Coastal protection, ecosystem restoration/Biodiversity protection, flood prevention, land conservation is all tied closely together and what we strive for all the time.
	Supporting the various means of coastal protection desired by local elected officials.
	We work to understand population dynamics of egrets (and herons; inland). There has been a deterioration of coastal wetlands and we work to see if these birds are impacted by these habitat trends. We also have worked to educate local teachers and students about egret ecology and telemetry.
Ecosystem restoration & biodiversity protection	AmeriCorps Members spend energy educating youth on the interconnectedness of ecosystems, food webs, biodiversity, etc.. Some energy is put into land and water conservation education.
	Bringing biodiversity conservation into climate resilience more intentionally
	Coastal habitat restoration and conservation. Community engagement and policy.
	Conservation projects (land and wildlife conservation), Conservation/Environmental education
	Habitat restoration, invasive species management, re-vegetation.
	Invasive plant management and native tree planting.
	Invasive species control (invasive insects), and forest restoration
	Living shoreline projects, stormwater retrofits, wetland restoration, growing wetland plants for restoration, oyster restoration, marine debris cleanup
	Members could install native vegetation to support biodiversity (flora & fauna), which depending on the area, may also support storm/water management. Also, removal of invasive species is critically important to maintaining native habitat for resiliency. Public education would be beneficial as well.

Priority Subject Area for Service Support	Summary of Support Needs
	North Carolina's vulnerable species and ecosystems could benefit from monitoring (to detect trends and declines), conservation, and restoration. Much of the monitoring depends on field biologists who have a high degree of technical expertise - primarily the ability to identify native species in their natural habitats, navigate through difficult terrain, and then report monitoring results. If it is not possible to find service members who possess the skills to conduct this type of work independently, then our next priority would be environmental education and outreach, to elevate general public awareness of these issues.
	Primarily education on why ecosystems are so important and why they need to be protected and restored.
	Removal of invasive plant species and reforestation with natives to both improve habitat and plant diversity, and to replace lost trees.
	Restoration addresses the flooding issue.
	Restoration of native plantings on Catawba's campus and in the surrounding region, which includes development of parks and greenways as well as biodiversity improvement.
	Restoring degraded forests to improve resiliency and make them better prepared for climate change and development pressures. We bring funding and expertise to landowners, providing them with planning and implementation of restoration activities.
	Tree planting - biodiverse and natives and largest carbon sequestration are focus. Community gardening Converting mowed grass to meadows Pollinator and biodiverse habitat cultivation
	We want to ensure that forested lands and wetlands, as well as other critical natural lands are resilient and serve the community for decades to come.
	Wetland restoration and Submerged Aquatic Vegetation protection

Priority Subject Area for Service Support	Summary of Support Needs
Energy conservation	A key topic of discussion for us includes efforts to deploy EV charging stations along the Blue Ridge Parkway corridor - most likely OFF the Parkway - to respond to the rise of EV vehicles, which is good in terms of the environment, but could be a drag on tourism if adequately addressed (e.g., range anxiety in remote Parkway communities). Service members could map out EV service gaps in the Parkway corridor and also work with power companies to overlay transmission lines (i.e., power sources) to then determine the best places to add EV capacity, and then ID potential partners. On a much smaller scale, we are looking at dark-sky issues along the Parkway, and service corps members could possibly help with analysis of Parkway exterior lighting issues to help assess what changes are needed where. Since the Parkway ridges might be a last refuge for species trying to escape climate change, reducing night sky lighting there should prove helpful to species survival.
	Building energy consumption, mostly residential and commercial
	Built environment
	Energy Conservation
	Energy conservation in residential buildings - how do we provide this for residents in ways that make homes healthier and less expensive to run? Activities might include designing new programs, finding funding, public education, working with landlords
	Energy-Efficiency / Weatherization upgrades like replacing light bulbs with LEDs, installing low-flow water fixtures, weatherstripping, air sealing, water heater insulation, etc.
	This is difficult because we are involved across multiple areas and because the issues are dynamic and changing (And by the time this starts, our thinking might be different). Some of the efforts will be to make useful the IRA funds and programs that will assist build out several of these (energy conservation and renewable energy development, and active/zero emission transportation). I also wanted to address the great concerns from the previous section by establishing a category focused on "holistic planning for migration," but that is not yet at the top of the list. Maybe this would fit under land conservation, but it is more complex than that. I also wanted to add "enhance green infrastructure" even though that might fit under flood prevention (but it is more than that). Lastly, there is nothing on the list that highlights equity, which may be a critical area for all of these. This could be a climate justice corp.

Priority Subject Area for Service Support	Summary of Support Needs
	Energy conservation is a great need and perhaps an important first step across all communities. There is so much to be done to help retrofit both residences and commercial buildings (recognizing that this only takes us so far).
	We are focused on lowering the College's carbon emissions while also leading efforts to reduce energy consumption and lower emissions at the regional, state and national level.
Flood prevention	(Answering in personal capacity as NC resident) Service members could provide support to local governments in creating master plans for recovery areas or resilience needs, and helping to seek funding for implementation. Critical to success also is community engagement and building trust in communities that have seen many unfulfilled promises. May be hard for a time-limited Corps member to do that but could be helpful for making connections and supporting capacity of other local organizations.
	community resiliency, nature-based solutions and other strategies to educate communities on how to handle and reduce flooding and provide support to enact strategies to reduce flooding
	Development of a emergency management tool that will help in mitigation and resiliency efforts for the underserved.
	Flood Prevention - Monoculture Vs. Regenerative Agriculture
	Flood prevention is at the top of the list for focus areas within the Town of Princeville. Currently, this is being addressed by small-scale projects including the implementation of rain gardens and conversion of vacant lots to usable greenspace (community gardens) and conservation areas.
	Green infrastructure projects across the region to address stormwater flows.
	I don't know what/who a "service program member" is but for flooding priorities related to a land trust I expect land use support and natural storm water ecosystem education and (re)development would be a good focus.

Priority Subject Area for Service Support	Summary of Support Needs
	Natural shorelines verses hardened ones, living shorelines to break wave energy, restored wetlands to protect property and homeowners, improved water quality, reduced stormwater runoff to help reduce flooding, more green space for land conservation
	Not sure.
	Residential flood damage reduction/prevention
	Resilient routes - local communities can identify transportation routes that need to be resilient. these may not be evacuation routes but may be routes to shelters, hospitals, critical infrastructure, or emergency services etc.
	Service members would join the Centralina Regional Council staff and Emergency Management subject matter consultant to assist the region in its work with the 9 county Emergency Management leads and County Management teams to develop the regional Long-Term Pre-Disaster Recovery Plan process. This initiative was launched in April 2021 with funding from the USEDA and has migrated to a program that is part of the Centralina Strategic Workplan and Comprehensive Economic Development Strategy or CEDS document for the Centralina Economic Development District housed as a non-profit at Centralina Regional Council. More details about the program entitled the Regional Resilience Collaborative and is available on the website.
	Storm water management in a highly developed landscape
	There are many floodplains in Forsyth County. Developers are using outdated maps to select locations for new development and local government is not enforcing the use of projected floodplain maps based on recent weather events and climate change reports for the area. We want to see both local government and developers be held to better environmental standards before a projects gets approved.
	urban green stormwater infrastructure, implementation of and education around residential-scale interventions.
Food Security	Again, our aged population cannot do the things necessary to keep their housing in order to prevent structural failure. Thus, deciding as to spending money on food or housing up keep creates a failure in either or both areas.
	Creation of Teaching and Community Garden to teach about growing food, about the historic plants that were grown by the descendants of formerly enslaved, and about native plants and the role they play in increasing the biodiversity of our community.
Infrastructure hardening	Continue and deepen conversation around climate change, associated impacts and ways of building resilience. Look at our climate justice initiative website.

Priority Subject Area for Service Support	Summary of Support Needs
	infrastructure hardening would be the best category for our purpose though may not describe perfectly our efforts. However, improved infrastructure to govt housing prevents mold after storms. better infrastructure helps us respond more quickly to disasters, distribute supplies and empower neighborhoods.
	N/A
	Our area of focus related to infrastructure is bio manufacturing and life science industry
	Stream and canal cleaning
	There are tremendous needs in many of our poorer communities in eastern NC for help with waste water infrastructure. Elevated water tables caused by sea level rise have placed the infrastructure at risk as well as creating significant capacity problems for the wastewater treatment plants as water seeps into the deteriorating pipes. This causes sewage spills at the treatment plants as well as some leakage of wastewater into and onto the ground.
	Working with local government water/wastewater systems (their engineers, town officials) with prioritizing projects and seeking funding to rehabilitate, replace, or expand the system, while considering the impact on users (many of whom are impoverished) and the challenges brought about by climate change.
Land conservation	Ag Conservation and Education: We hold conservation easements, primarily on farmland. This program has grown significantly in recent years and is a priority for our county. Our Farm Preservation team of two people could use help with many tasks, with a priority on monitoring easements. We would also like to engage our broader community through education. Right now not many folks are aware of this program and why it's important. There is an opportunity to provide interpretation through our farm heritage trail that could provide history of land, land ownership over time, and the importance of farm land and farmers in our region.
	Being so close to main bodies of water, land conservation is big. We want to conserve as much land as possible and be prepared for storm events that threaten the land adjacent to water.
	Blue Ridge Conservancy partners with landowners and local communities to permanently protect natural resources with agricultural, cultural, recreational, ecological and scenic value in northwest North Carolina. (This is our mission statement)
	conservation of urban land for habitat islands and public access

Priority Subject Area for Service Support	Summary of Support Needs
	engage community in creating new open space management plan for buyout zone that includes social enterprise creation related to urban ag and heritage tourism while building new on-site green infrastructure to improve land's capacity to minimize impact of future natural disasters
	Helping purchase and/or conserve land to address flooding/resiliency issues and help support communities build a stronger future. Service program members could help plan and execute projects and provide additional capacity for partner communities
	Land conservation in the rapidly urbanizing area in and around Charlotte. Our window for preserving green space that provides better air and water quality, relief from heat islands, better physical and mental health and recreation opportunities is closing rapidly.
	Land conservation-farmland preservation; increased funding sources in addition to NCADFP and NRCS-ALE; need additional staff to help with easement applications and securing easements.
	Land protection activities that support preservation of significant family farms, rivers and streams, ecologically significant areas, and public outdoor spaces.
	poor development of lands
	Risk management tools
	Service members could help monitor state dedicated nature preserves and registered heritage areas. Monitoring would include visiting nature preserves statewide and identifying effects of climate change, threats, and any ongoing non-climate related impacts. Work would also include direct outreach to land managers to notify them of the monitoring event and survey for their knowledge of impacts, and writing information about preserves that are open to public access.
	sustainable forestry through conservation practices
	Using conservation minded best management practices, we help cooperators install practices that preserve topsoil, ground moisture, and reduce the number of pesticides used in production of those crops to help water quality.
Other	Before discussing specific areas and activities that program members could address, we need to discuss and address how and why service programs are structured in ways that make them not a viable option.
	government capacity and working with nonprofits

Priority Subject Area for Service Support	Summary of Support Needs
	lobby local officials so that the growth of our area takes into account all of the activities noted in the above list
	We are looking to help position Downtown Raleigh as a sustainability leader and we're interested in working collaboratively on urban facing issues pertaining to sustainability and resiliency.
Public health promotion	Extreme heat awareness & resilience, for students and workers
	no packaging alternatives, small local farmer access, locally produced goods, social equity, people before profits, clean eating, taking your power back
	Physical and mental health are the cornerstones of our efforts.
	Public Health promotion including access to food, improved infrastructure for multi-modal transportation, etc.
	Rural health initiatives regarding healthy foods improving life expectancy, quality, and health outcomes.
	We do not work much within the disaster resilience and recovery space. Our Aging department did play a significant role in health promotion during the pandemic.
	We focus on improving health outcomes for residents through advocacy of policy improvements and equity in health advancements. We partner with the health system and providers to understand how systems are built that advantage some and exclude others. We reach out to elected officials to advocate for increased funding and awareness of our local food system and the impact on public health when access is increased to local, fresh, healthy produce and proteins.
Renewable energy development	Aid to residents using oil or kerosene or wood for heat need help to convert to renewal sources. There are many homes in the area over 100 years old. Many have inadequate insulation and struggle to heat their homes with antiquated furnaces or heaters.
	electric transportation, solar expansion
	Energy efficiency, renewable energy, weatherization, green building
	land acquisition for renewable energy systems (wind, solar, etc.) with battery storage, could be a revenue source for organization while creating, conserving habitats for specific species on flood prone lands

Priority Subject Area for Service Support	Summary of Support Needs
	Our region lacks coordination surrounding renewable energy development, at least at the local government level. We have convened stakeholders around this issue in the past but currently lack capacity/expertise. As assessment built upon our region's comprehensive economic development strategy would be a great starting point.
	Renewable energy education - county leaders and stakeholders Renewable Workforce training - apprenticeships and certifications Renewable Energy School Curriculum -- explore career options for students Microgrids - ability to have control over energy availability during major climate conditions.
	solar, wind, and the necessary transmission grid to get clean energy delivered.
	We use renewable energy resources (landfill methane an waste vegetable oil) to fire glassblowing furnaces and blacksmith forges. Doing so increases economic development, provides measurable environmental improvements, and offers unique educational opportunities.
Resilience planning	Given our current funding I anticipate that we could possibly use service member support in active and/or zero-emission transportation, water pollution prevention, the removal of barriers to solar pv installations, land conservation, and community engagement in resilience planning.
	If we were to host a fellow at my organization, we would deploy them to do policy advocacy or organizing on one or more resilience campaigns. For example, a fellow with the right background could help us research how we should think about hybrid, green/gray infrastructure; or could work on the ground under the supervision of one of our organizers to build local support for applying for state/federal resilience or infrastructure dollars.
	research, community/stakeholder discussions, needs assessment
	Support funding from the NC Association of regional Council of Governments (NCARCOG) implement with Centralina as the lead administrative COG a train the trainer program for COG staff to serve as the on the ground experts in their region to train local governments about how to navigate disaster recovery fund programs.
	working with community groups and neighborhoods to identify win-win solutions to reducing urban heat islands and increase resilience to extreme heat
	working with neighborhoods to help them understand the risks and solutions and then develop neighborhood-based plans for addressing urban heat islands
Waste reduction	Composting and Recycling education and programming.

Priority Subject Area for Service Support	Summary of Support Needs
	NA
	Since 2019, we have organized litter sweeps, engaging thousands of volunteers. We would like to continue these efforts and start an initiative aimed at reducing plastic pollution in our area, but we are an all-volunteer organization with no paid staff.
	Supporting litter cleanup service projects Community outreach and capacity building Education and environmental stewardship
	There is a growing demand for a large-scale compost facility in Forsyth County. Several large organizations (Second Harvest Food Bank and WS/FC school district) have reached out to us and asked for help finding a compost solution but there are not great options to meet their needs in our area. There is currently on compost company that provides service to the Forsyth area (Gallins Family Farm - they have contracts with Wake Forest University and many local businesses) but they are at capacity for large organizations and only taking new residential customers at this time. There are some local leaders interested in a new industrial-size compost facility in our county but county government has been resistant to finding a suitable location. We need help working with county government - showing them there is a need, asking to rezone land, dealing with any pushback because a compost facility is too stinky, etc.
Water conservation	Many areas having either failing systems or can no longer support the demand with the aged equipment they have. Thus, any hurricane, major storm accompanied by flooding or other natural interference to their systems, creates major issues for drinking water and/or sewage disposal.
	Protection of water sources, improved water quality, & coastal habitat improvements would benefit resiliency efforts. Specifically, members could clean up debris in water ways to reduce flooding & improve water quality while doing projects to reduce erosion, control sediment, & improve wetland water storage capacity.
	Soil and water health and conservation from agriculture and development
	Strategic Buyout of properties in flood zones.
	Water conservation- Service members could raise public awareness around the effects of climate change on water quality and flooding. They could also lead workshops & projects that promote green stormwater infrastructure and rainwater harvesting.

Priority Subject Area for Service Support	Summary of Support Needs
	We are involved in a research project with UNC-IMS and NCSU to study the causes and cures of toxic algal blooms in our region. We have an active group of volunteer water quality monitors who regularly sample the creeks and rivers in our county. We ship the samples on ice to the universities to study. We have recently begun offering Youth Water Quality Monitoring experiences to area schools, and would like to expand this program. We also organize community litter sweeps and campus cleanups every spring and fall. We give away tree seedlings and pollinator plants, offer educational workshops, and partner with other organizations in the community to raise awareness of local environmental issues. We are working to expand access to local trails and blue ways, and to strengthen environmental education in our schools. We help arrange field trips to our local wetland trail, and to the Amazon East Wind Farm. We would welcome assistance with all these initiatives!