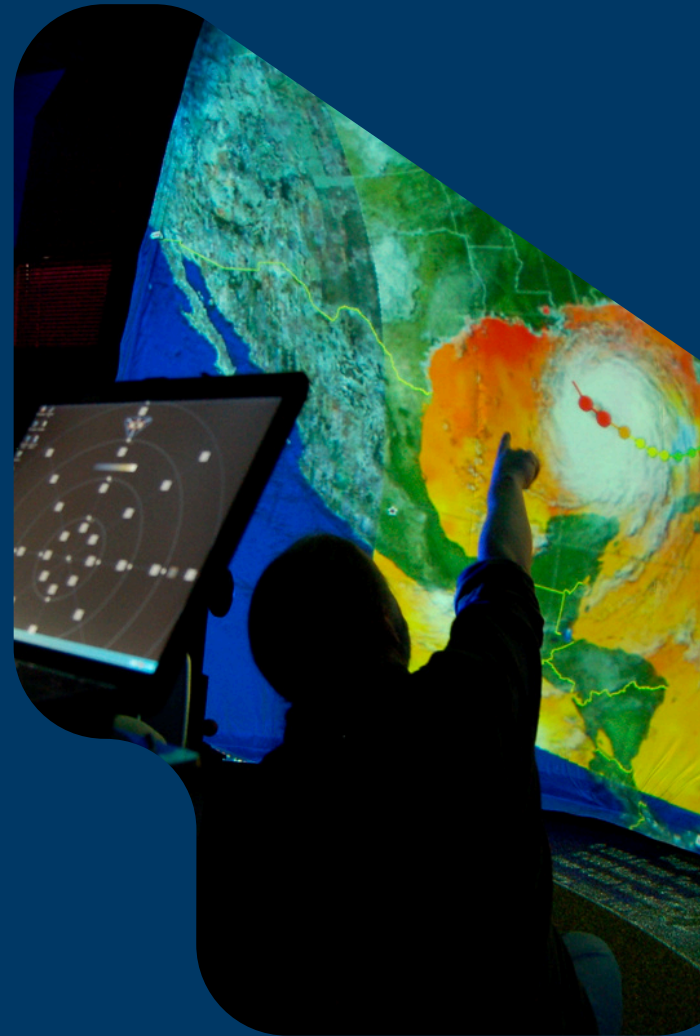


2025
NEMAC
Strategic
Plan



Making sense of complex data



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Who We Are

Executive Summary

Overview

For the past two decades, the National Environmental Mapping and Applications Center (NEMAC) has been guided by an unwavering commitment to improving decision-making related to climate and environmental change. Founded in 2003, NEMAC has evolved into a dynamic applied research center, dedicated to supporting and empowering communities to navigate the complex landscape of climate and environmental challenges.

The commemoration of our 20th anniversary serves as a poignant reminder of the progress we've achieved over the years. It also affords us a unique opportunity to take a step back, reflect on our accomplishments, and chart a course for the future. The strategic plan that follows is the product of collective insight, crafted in collaboration with the NEMAC team. As we embark on the journey into the next 5, 10, and 20 years, we look to provide data-driven insights to build climate resilience and ensure a sustainable and thriving world for all.

NEMAC has continually adapted to address the evolving landscape of climate challenges, resilience, and the broader environmental context. The communities we serve are confronting unprecedented hazards stemming from climate and environmental change and organizations we recognize a responsibility to alleviate the burden on decision-makers. We will continue to leverage our expertise to equip our partners with the tools and knowledge they need to navigate these challenges.

Through strategic partnerships and innovative data translation into more accessible and understandable formats, NEMAC will continue to apply our expertise to enhance the quality and accelerate the pace of these important decisions. Our goal is to ensure that communities are not only prepared, but empowered to make informed choices that will shape a resilient and sustainable future.

Who We Are

Our Organization

MISSION

To empower communities with innovative and actionable insights for a more resilient future

VISION

A more resilient future



CORE BELIEFS

- We have a social responsibility to address climate change and account for the concerns of the next generation.
- Our partners have a responsibility to improve engagement with their target audiences to improve and accelerate decision-making.
- An investment in technology and innovation will empower our partners to combat climate change effectively.
- Internship experiences, mentorship, and practical application of research build the foundation for the success of our future climate-services workforce.
- A positive work culture and environment where employees genuinely care about their work is essential to maintaining a healthy work-life balance.

Who We Are

Our Team



Greg Dobson
Director of GIS
and Engagement



Karin Rogers
Director



Dave Michelson
Chief Product Officer



Ian Johnson
Senior GIS Analyst



Jessica Orlando
GIS Analyst



Jeff Bliss
Senior Software
Developer



Ashlyn Dunsworth
Science Editor



Grace Chien
Science Information &
UX Designer



Dani Levy
Software Developer



Cynthia Fountain
Administrative
Associate



Gina Martinez
UX Designer

What We Do

Our Approach

Our team's expertise enables partners to provide their audiences with enhanced decision-making processes.

This approach revolves around three key pillars:



- Prioritize data & analytics strategies
- Stay abreast of the latest technology
- Invest in the next generation of climate leaders



- Empower & engage stakeholders
- Cultivate enduring relationships
- Improve end-user communication
- Foster a dedicated and responsive staff



- Remain vigilant of the ever-changing landscape of climate and society
- Adapt to ensure organizational resilience



What We Do

Core Functions & Services

Engage and Empower

- Conduct user research to understand and target different audiences
- Assist partners and stakeholders in storytelling
- Offer essential technical support and training

Enable Data-Driven Decision Making

- Develop custom software applications that enable users to interact with and understand data
- Perform assessments that synthesize results for improved decision-making

Translate Complex Information

- Communicate complex scientific concepts into understandable insights for diverse audiences
- Transform key information into graphical representations to enhance decision-making



Why We Do It

Our Purpose

At NEMAC, we don't have clients; we have partners.

Our proven strength is in our ability to create strong and evolving relationships across government, education, non-profit, and private industry. This collaboration allows for projects that promote socio-economic development, support community resilience, and advance public education on multi-scale environmental issues.

We aim to serve:



Decision Makers

People seeking to make more informed decisions about climate impacts. They play a pivotal role in resource allocation.



Community Champions

Local individuals passionate about engaging communities in long-term visioning, sustainability projects, and educational initiatives.



Public & Private Sector Groups

Organizations that rely on and produce data, research, and support from various sources to make informed decisions.

“NEMAC exemplifies the best of applied research—taking cutting-edge science and making it accessible for real-world applications. Their collaborative approach has strengthened our research impact and demonstrated how academic institutions can effectively bridge the scientific community and practitioners.”

—Yvonne Villanueva-Russell,
Provost, UNC Asheville

Our Partners



Where We Are

Strategic Goals & Actions

1. Promote a flourishing organization

✓ Enhance the value of our team

- Invest in professional development opportunities to diversify and expand skill sets
- Promote an inclusive and inviting culture within the organization
- Advance our capabilities with cutting-edge technology through learning & application

✓ Continue to foster a strong work culture

- Encourage accountability to manage projects in a timely manner
- Increase the number of staff engagement opportunities
- Empower each other to take on leadership roles
- Foster a team environment that allows us to constructively support one another

✓ Expand and diversify our funding network

- Place more emphasis on business development
- Identify opportunities to include grant writing and business development support
- Identify and collaborate with partners that align with our vision and goals
- Continue to diversify funding opportunities through foundations and the private sector

✓ Share our successes

- Strategically engage with our partners on social media channels
- Intentionally promote our expertise to attract future partnerships
- Refresh our online presence with a new university-sponsored website
- Explore the potential benefits of rebranding and renaming

Where We Are

Strategic Goals & Actions

2. Expand our impact

- ✓ **Establish user research as one of the foundational pillars of our business model**
 - Help our partners remain curious and attuned to their audience
 - Introduce the concept of user-centered research and design methodologies to each partner, fostering a shift towards prioritizing user insights in decision-making and development processes
- ✓ **Demonstrate our approach's effectiveness at conferences**
 - Explore and invest in additional opportunities for applied research innovation across new sectors
 - Explore market trends in technology and other sectors of applied research
 - Host internal meetings and determine the next best practice for participating in opportunities to learn new technologies
- ✓ **Partner with and leverage expertise from UNCA colleagues**
 - Partner with faculty across campus to secure funding opportunities, including collaborations with Atmospheric Science, Environmental Studies, Computer Science, Economics, New Media, and others
 - Work with UNCA administration to expand the education and application of GIS and user-centered design on campus
- ✓ **Explore the possibilities of entrepreneurial opportunities within each project**
 - Formalize and maintain our pitch list
 - Continue our enduring relationship with NC Innovation
 - Work with UNCA's new Entrepreneurship Center and Hatch Innovation Hub to develop new commercial ideas in partnership with UNCA students

Where We Are

Strategic Goals & Actions

3. Invest in Our Future

✓ **Improve the internship program experience**

- Continue formal meetings with the intern cohort to facilitate networking and relationship-building
- Expand our promotion of internship positions to reach a more diverse audience of students on campus
- Consult with the career center to establish proper expectations and provide professional development skills
- Self-survey of both intern and mentor at the end of each semester

✓ **Contribute to the UNC Asheville's Masters of Environmental Resilience program**

- Continue to provide technical support to the planning team throughout the development of the program
- Teach the GIS courses and facilitate the summer practicum

✓ **Connect our interns with the growing workforce**

- Facilitate networking and mentorship opportunities to improve job prospects
- Advocate for graduating students within our network of partners

✓ **Form an external advisory board to guide our strategic direction and enhance our decision-making process**

- Recruit stakeholders from diverse backgrounds and expertise aligned with our mission
- Create opportunities to provide feedback on NEMAC's initiatives to offer expert insight
- Organize consistent meetings and collaborative sessions to facilitate meaningful interactions and regular exchange of ideas

Where We Are

Strategic Goals & Actions

4. Commit to Improving Our Performance

✓ Establish and adhere to success metrics

- Develop a dashboard for data collection and review
- Conduct bi-annual reviews with partners with surveys or informal discussions

2023 - 2024 Project Highlights

Coastal Resilience Assessments

Developed in collaboration with the National Fish and Wildlife Foundation, these assessments identify priority areas for conservation & restoration along every U.S. coastline.



- ✓ GIS mapping
- ✓ User Research
- ✓ Software Development



U.S. Climate Resilience Toolkit

We collaborated with the NOAA Climate Program Office to develop a Toolkit that empowers communities to address climate risks. Our iterative redesign process ensures the site remains relevant, functional, and responsive to evolving user needs.



- ✓ Science Communication
- ✓ User Research
- ✓ Software Development



Climate Practitioner Registry

As part of the Climate Smart Communities Initiative, this registry was designed to connect communities with practitioners whose adaptation services, work quality, and approaches have been vetted through an independent review.



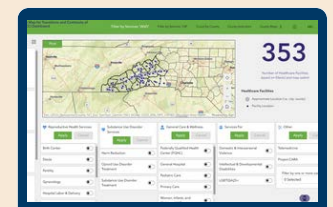
- ✓ User Research
- ✓ Engagement
- ✓ Software Development

Community Health Dashboard

This interactive map and dashboard is designed for the Mountain Area Health Education Center to enhance rural access, transitions, and continuity of care across western North Carolina.



- ✓ GIS mapping
- ✓ Engagement
- ✓ User Research



How We Will Get There

Overcoming Challenges



Successful strategic plans require an awareness of the challenges that can impede progress and hinder the achievement of organizational goals. Recognizing and understanding these constraints is crucial, as it empowers us to proactively strengthen our strategic initiatives and foster resilience for NEMAC's future.



Operational Efficiency

Limited resources lead to partnerships that don't fully align with our goals and divert our focus.



Brand Identity Alignment

Maintaining a cohesive brand within the University landscape.



Project Management

Insufficient overhead resources hinder our ability to manage projects effectively and achieve milestones.



Performance Metrics

Well-defined, actionable performance metrics are needed to accurately quantify success.



Research Environment Dynamics

Balancing tension between applied and traditional research is essential for collaboration and innovation.

How We Will Get There

Measuring Our Success

Performance Metrics



Team Satisfaction

We value each team member finding enjoyment and fulfillment in our work while maintaining a healthy work-life balance and achieving milestones defined by our partners.



Internship Satisfaction

We are dedicated to enriching the internship experience, ensuring interns find fulfillment, maintain a balanced lifestyle, and establish connections for their future careers.



Partnership Satisfaction

We only consider a collaboration successful when we help our partner achieve success. Existing partners proactively making referrals is a key indicator of our success.



Audience Engagement

We emphasize the importance of innovative solutions and how they help our partners accomplish their goals. We enhance our partner's communication skills and create user-friendly content to engage and reach target audiences.



Community Impact and Understanding

Establishing an external advisory board to guide NEMAC's strategic direction, form new partnerships, and assess annual satisfaction and contributions.



What's Next?

Partner with NEMAC

Let's Work Together!

Contact



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In loving memory of Nina Hall

Dedicated to our dear friend and colleague, Nina Hall, whose mark on NEMAC will be forever cherished. Nina's dedication and contributions to this organization played an invaluable role in shaping NEMAC into what it is today.