

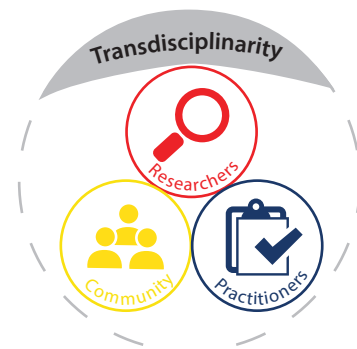
# Middle Potomac Listening Session



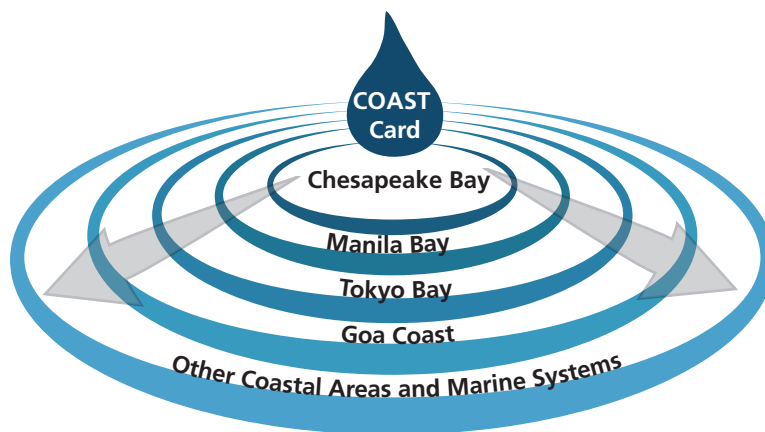
Advancing the Coastal Ocean Assessment for Sustainability  
and Transformation Project in the Chesapeake Bay

# A new generation of report cards

The **Coastal Ocean Assessment for Sustainability and Transformation** Project is a Belmont Forum-funded international and transdisciplinary program that aims to foster solutions to global sustainability challenges. COAST Card is a new generation of report cards that merges three tools: socio-ecological network analyses, socio-environmental report cards, and system dynamics models. It builds on the report card framework that is popular in the Chesapeake Bay Watershed and is emulated in Tokyo Bay and Sekisei Lagoon in Japan, Manila Bay in the Philippines, and the Goa Coast of India. The combination of the right people (social networks), publicly available synthesized information (report cards), and robust models (system dynamics) can guide what is needed to catalyze positive socio-environmental change.



Transdisciplinary work uses the expertise of multiple fields to support progress and affect change.



The COAST Card framework spreads outward and in collaboration with its international partners. Using this transdisciplinarity concept, the COAST Card project can actively implement change all over the globe.

## The Potomac Watershed as a case study

In the Chesapeake Bay, COAST Card is first being developed for the Potomac Watershed which is divided into three distinct regions: the Upper Potomac (upriver of Harper's Ferry), the Middle Potomac (from Harper's Ferry to the start of the tidal waters), and the Lower Potomac (downriver of the tidal waters).

The Potomac River gets its name from the Algonquin word Patowomeck, after the village that used to sit on the river's southern bank. The Potomac Watershed is the second largest watershed in the Chesapeake Bay at 14,670 square miles and is home to 6.9 million people. It's boundary overlaps four states (Maryland, Virginia, West Virginia, and Pennsylvania) and contains the District of Columbia. There are five distinct geological regions within the watershed and this impacts the way nutrients and sediments are transported throughout the watershed. The watershed is historically heavily forested and contains locations key to American history, such as the Antietam and Monocacy National Battlefields and the National Capitol.

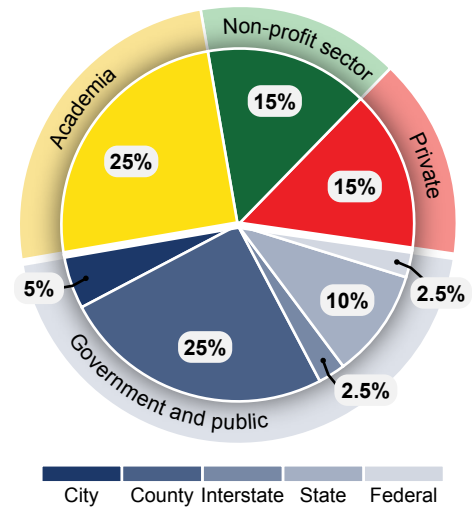


The Potomac River is a scenic route used for various recreational activities.



# Listening session lets residents shape future of watershed

The Potomac Watershed, with its rich natural resources and thriving communities, is vital to the region in many ways. Even though priorities might differ, core values are interconnected. Thus, a holistic and participatory approach that involves diverse stakeholders is needed to guide decision-making. In order to accomplish this goal, a listening session was held at the Hood College Campus on July 21st 2022, hosted by the Integration and Application Network (IAN), University of Maryland Center for Environmental Science (UMCES), and the Center for Coastal and Watershed Studies, Hood College. Over 40 individuals from five different sectors—Academia, Non-profit, Private, Government, and Public—attended the event.

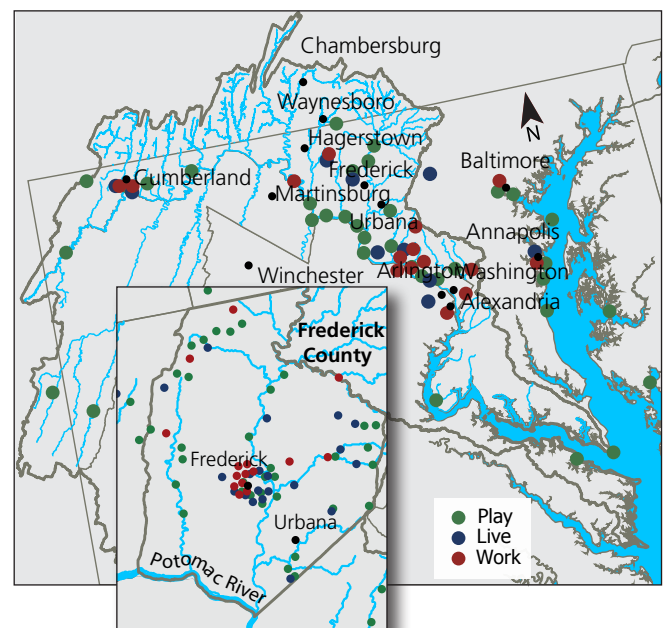


Participants represented 4 different sectors, with almost half of attendees coming from government or public groups.

This diverse group of attendees provided insight into all aspects of how the watershed is used and how it could look in the future. Each participant highlighted the places where they work, live, and play in the Potomac Watershed and in Frederick County, showing how ubiquitously both the land and the water are used and valued by every person.

The key take-aways from the event are listed below:

- Concern for overdevelopment
- Value of recreation
- Geographically and professionally diverse attendees
- Desire for broader coalition and engagement of education sector
- Collective vision for a sustainable and resilient watershed
- Desire actions in Management, Policy, Education, and Engagement
- Participants would return to a future event



Participants placed dots on locations where they play (green), live (blue), and work (red).

# Residents value natural resources, but concerned by unmanaged development

One of the first steps in the COAST Card framework is to develop a shared understanding with stakeholders and identify their perspectives of current conditions, including values and threats facing the watershed.



**Potomac Watershed residents value recreation, clean water, and natural resources.** Overall, residents value continued use of their watershed as a well-maintained natural space.

**Residents are concerned about unmanaged development, climate change, and pollution.** Lack of education and engagement and poor resource management are also concerning.

One of the components of our COAST card framework is a socio-environmental report card that incorporates social, cultural, economic, environmental, and governance indicators, in order to encompass watershed health through a variety of perspectives. During the listening session, community members shared potential indicators within the Potomac that are important to them.

- Protected and conserved areas
- Funding
- Management implementation
- Infrastructure safety
- Diversity
- Environmental Justice
- Environmental Stewardship

- Development
- Wages
- Affordable housing
- Flood insurance affordability
- Local economies
- Wealth disparity



- Water quality
- Flooding and drainage
- Biodiversity
- Urban heat
- Plastic/Trash
- Soil health
- Fisheries

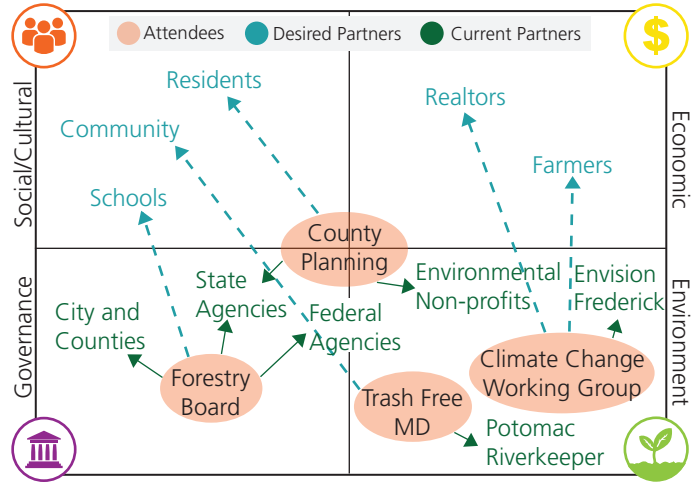
- Public health
- Recreational access
- Citizen awareness
- Environmental literacy
- Historical sites
- Indigenous and local culture
- Adaptation and resiliency

Participants developed indicators for assessment from four categories.



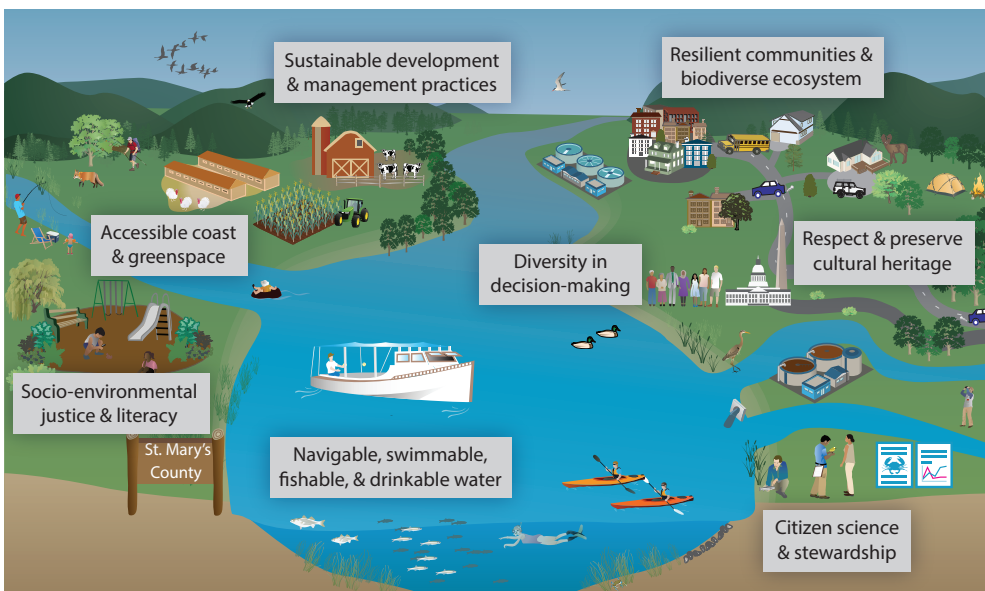
# Diverse decision-making and public involvement needed for a sustainable future

Another important aspect of COAST Card is social network analysis. One of the first steps was to identify the stakeholders who are already working on Potomac Watershed issues and see who else should be involved. Most attendees work with organizations from the governance and environmental sectors but indicated their desire to work more with the social/cultural and economic sectors, including educational organizations.



Participants were asked who they work with and who they wish to work with on watershed health related issues. A representative stakeholder map is shown on the right.

A shared vision is necessary to ensure that the Potomac COAST Card will be useful to the community. During the Listening Session, participants provided characteristics they hope to see in a sustainable Potomac Watershed and specific actions to achieve those goals. Overall, watershed residents desire an accessible, swimmable, drinkable Potomac, with increased biodiversity, stable fisheries, less development, and more land conservation. To achieve these goals, residents suggest six main actions from four categories—Management, Education, Policy, and Engagement—listed below.



-  Increase citizen and social science
-  Increase outdoor education
-  Enforce regulations
-  Support sustainable agriculture
-  Increase land protection
-  Manage development

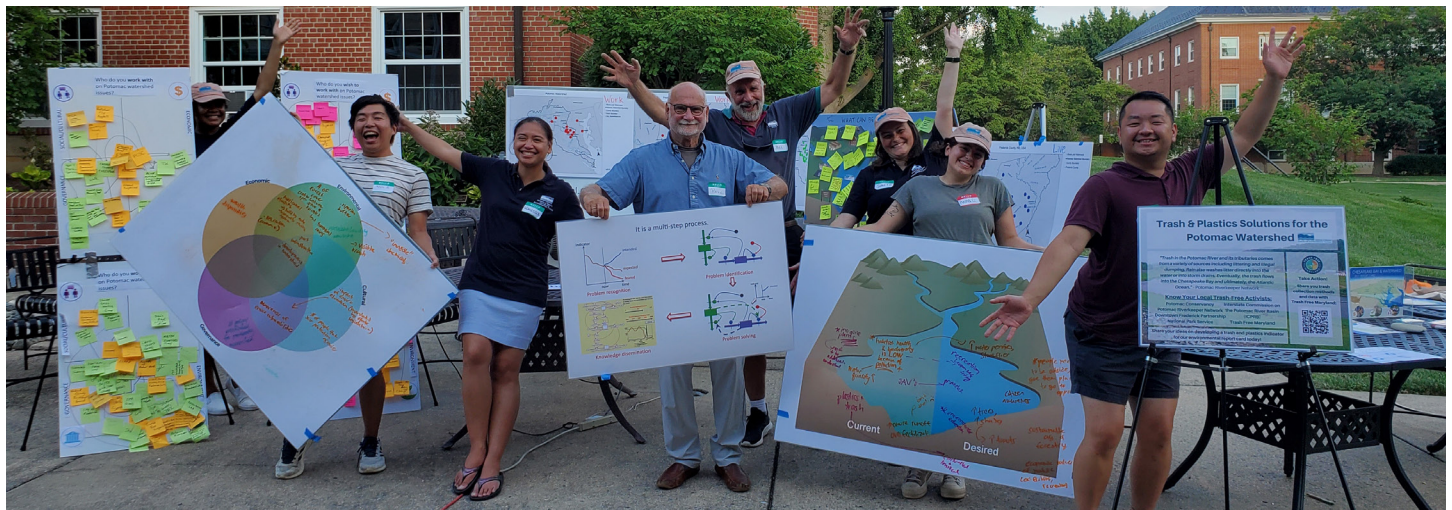
Eight vision statements were developed from participant responses. Six actions from four categories were developed to achieve that vision.

# Coordinated actions for the future

- We had overall positive feedback on the listening session, with the majority of respondents indicating satisfaction about the event's format and their involvement.
- Stakeholders identified that their most important reasons for engaging in the event were collaborating with stakeholders, expanding their network of stakeholders, and informing and impacting policy decisions.
- In 2023, we plan to have similar listening sessions in the Upper and Lower Potomac.
- The COAST Card team will continue their international collaboration by visiting other sites and hosting our international partners in the coming years, in addition to developing our report card, system dynamics model, and social network analysis.



Listening Session facilitators at each station spent time engaging with every participant that attended.



UMCES Staff and Global Sustainability Scholars celebrate the results of a successful listening session.

**Thank you to everyone who attended and contributed to our Middle Potomac Listening Session!**

**Funding Agencies:** The Belmont Forum and the National Science Foundation (NSF)

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**Key Partners:** Hood College, Livable Frederick Planning and Design Office, Sustainable Monocacy Commission, UMCES Appalachian Lab, Interstate Commission on the Potomac River Basin, and Metropolitan Washington Council of Governments, Frederick County, and the Potomac Riverkeeper Network.

**COAST Card Consortium:** UMCES, University of Bergen, Philippines National Academy of Science and Technology, Tokyo Institute of Technology, and Goa National Institute of Oceanography.

**Synthesis document:** Vanessa Vargas-Nguyen, Sidney Anderson, Lili Badri, and Bill Dennison (UMCES-IAN).

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