Alliance for Aquatic Resource Monitoring

ALLARM

est. 1986

Annual Report 2025

Our Goal

The Alliance for Aquatic Resource Monitoring (ALLARM) is Dickinson College's community science center, located in Carlisle, Pennsylvania.

ALLARM educates communities to use science as a tool to investigate water quality health and to use findings to inform stream protection and restoration efforts. ALLARM achieves its work in collaboration with numerous non-profits, agencies, and community and volunteer partners. ALLARM also employs a staff of 9-13 Dickinson College student watershed coordinators who help advance the goals of the organization while providing them with opportunities to learn fundamental environmental, community engagement, science education, and non-profit skills.

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Dickinson



Note from the Director

ALLARM's 39th year acted as a catapult for change, as we welcomed new leadership and staff. Through all the changes, this year was also a reminder that, at our core, we are still the same organization that was founded at Dickinson College in 1986. Still focused on training community scientists and mentoring the next generation of environmentally conscious Dickinson students Now, this team's work is more important than ever.

Leading an organization with such a long and successful impact in the Chesapeake Bay watershed and here at Dickinson College is an exciting new chapter for me. While the evening news seems to be filled with environmental setbacks, working with dedicated community volunteers and students who are committed to science and a healthier environment have reinvigorated my hope for a better planet!

I would be remiss not to mention the distinguished work of Jinnie Monismith, who was acting Director before my hire. Jinnie has worked with ALLARM for over 18 years and her dedication to the program has shaped and guided ALLARM in so many ways. Thank you, Jinnie!

Lastly, I must thank all the organizations that support our work. While we receive funding from the college, much of our support comes from federal, state and private grants, and gifts. These gifts allow ALLARM to produce the great programming you'll see in this report. We hope you will continue to support our work as we celebrate our 40th anniversary in 2026, and as we head into the next 40 years of community supported water monitoring.

Thank you,

Lane Whigham

Director for the Alliance for Aquatic Resource Monitoring
Dickinson College

Meet our Newest Staff!

Lane Whigham:
Director of ALLARM



Lane has always been an avid nature-lover and enjoys spending time in the outdoors. He also enjoys playing and listening to blues and jazz music. However, most weekends, he's usually spending time with his family. He and his wife, Becky, have two children - a daughter, Josie, and a son, Ansel.

In his previous roles, Lane has always shown a passion for conservation. Throughout his career, this passion has given him the opportunity to work in several different industries – most notably Education and Government – but ultimately, it has led him to ALLARM as our new Director. Lane took on the role in March 2025.

Olive Stern:
Water Quality Technician

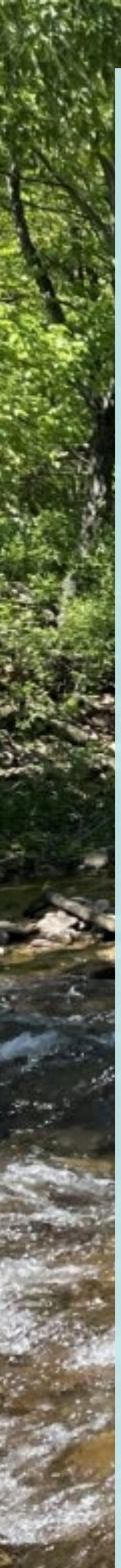


Originally from New Jersey, Olive first came to Dickinson College as an undergraduate student studying Environmental Science. After graduating in Spring 2025, she decided to stay in the Carlisle area. A few months later, in July 2025, Olive began working with ALLARM as our Water Quality Technician. In her free time, Olive loves to read, hike, and spend time with family and friends.



Kacie Wood:
Communications Manager

Kacie spent most of her life living on the banks of the Juniata River before attending Shippensburg University where she studied Supply Chain Management and Digital Marketing & Analytics. In May 2025, Kacie completed her undergraduate studies and decided to settle in Carlisle, PA. In August 2025, she joined the ALLARM team as our Communications Manager.



Technical Assistance

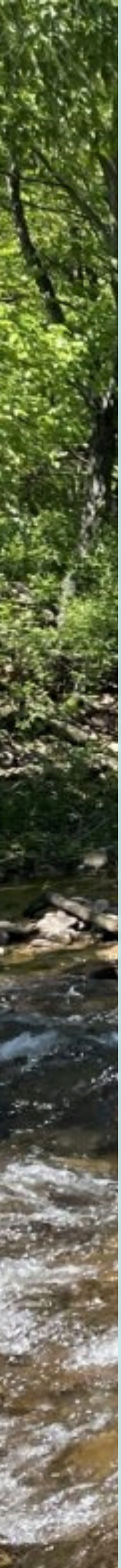
Partnerships through C-SAW:

ALLARM provided technical support and Quality Assurance/Quality Control for our Consortium for Scientific Assistance to Watersheds (C-SAW) partners this past year. C-SAW enables ALLARM to support groups across Pennsylvania, and this past year we worked with groups from Adams County all the way to Warren County. We rekindled a partnership with a C-SAW group we historically worked with, helping them develop a new monitoring manual to continue their impressive 20 years of data collection. Other technical assistance ALLARM provided includes updating monitoring protocols and assisting with equipment transitions. We completed Quality Assurance/Quality Control (QA/QC) analysis for 8 groups, verifying the data collected by 64 individuals. Many groups expressed interest in analyzing the quality data they have been collecting as well. ALLARM hosted several data interpretation events with our C-SAW groups in 2025 where we facilitated workshops on data analysis and data communication.

"The AWA training felt like the biggest success for me..." "I felt like I could use what I learned at earlier workshops and apply that knowledge to this training event." "I was able to help the volunteers through the protocol."

- Kristin Houston '27





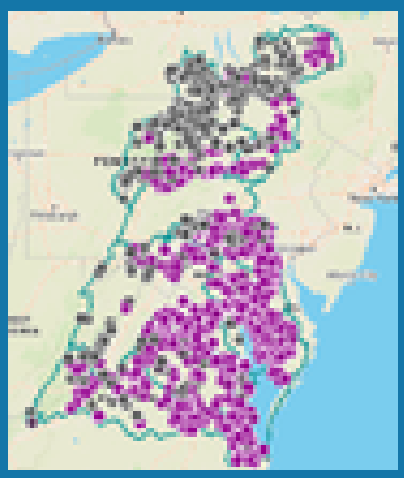
Collaboration with the CMC:

The Chesapeake Monitoring Cooperative (CMC) had much to celebrate in 2025, with the 10th anniversary of the partnership, and the milestone of 1,000,000 water quality samples in the CMC Data Explorer. The CMC celebrated with social media graphics that were shared by both the CMC development team and monitoring groups, gifs of Data Explorer growth, a conference presentation, and even a news story from Queen Ann's County TV!

The CMC also continued to work on increasing accessibility in monitoring programs by creating more and updating existing resources for folks to engage with water quality information. This included updating parameter factsheets that will be a part of an Engagement Packet, alongside the Community Connection Chart and CMC Case Studies. ALLARM also filmed the first two videos for an upcoming series about using existing data tools and ways to access water quality data. Keep an eye out for them in 2026!





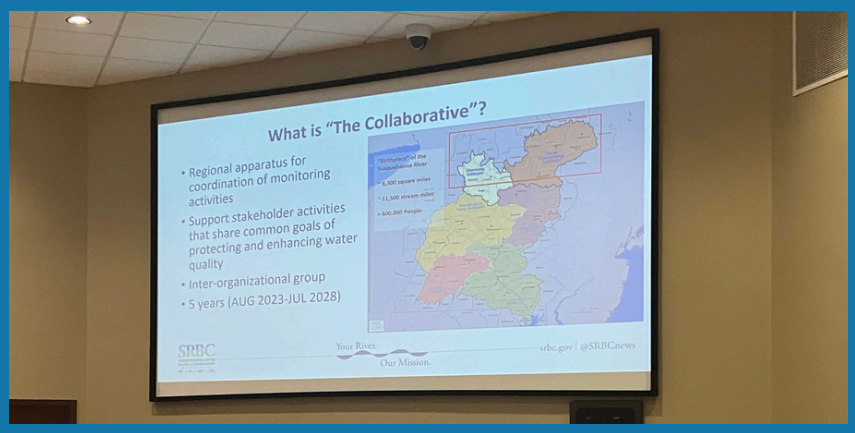


New York “The Collaborative”:

This year saw increased work in New York thanks to a new partnership, called “The Collaborative”, with the Susquehanna River Basin Commission (SRBC), Southern Tier Central (STC), and Southern Tier 8 (ST8) aimed at increasing monitoring in the Chesapeake Bay region of New York. ALLARM looks forward to spending more time strengthening partnerships and providing technical support to more communities in New York.









Stream Team

This year was a year of steadiness for Stream Team. ALLARM continued to host check-in meetings, QC, and provide support both in and out of the office. In the spring we hosted a virtual monthly monitoring training for two new monitors in York and Lycoming counties. In June, ALLARM headed up to PA's Northern Tier to host a macroinvertebrate monitoring training for Stream Team members and partners in Susquehanna, Bradford, and Wyoming Counties. After monitoring water chemistry for 3 years, Northern Tier Stream Team scientists were excited to add biological monitoring and round out their data collection.

This fall marked the start of a standing meeting time each month with the virtual Stream Team Open Call series. Each meeting focused on a different topic, including background on Stream Team's study design, common data use examples, and a CMC Data Explorer guide. Stream Team volunteers from across the state attended and participated in interesting discussions about monitoring, road salt, and general observations, and enjoyed the regular opportunity to connect.

Stream Team Statistics 2025

- 120 Monitors
- 62 Sites
- 10 Counties



Restoration Monitoring

Since 2021, ALLARM has partnered with the National Fish and Wildlife Foundation (NFWF), the Chesapeake Monitoring Cooperative, and the Stroud Water Research Center to create and implement a community-based restoration monitoring program. The goal of this monitoring program is to assess the success of NFWF-funded stream restoration practices throughout the Chesapeake Bay watershed to ensure investments are meeting stream restoration objectives.

This past year ALLARM continued to monitor two restored creeks and successfully onboarded a third site in south-central Pennsylvania. In addition, we began recruiting and training volunteers and were excited to have several join us in the field for monitoring. ALLARM also co-created outreach materials to spread the word about the program to prospective landowners, project managers, and the community. From fliers detailing the monitoring program to online protocol training videos, ALLARM helped to generate a wide range of resources. We look forward to adding more monitoring sites in 2026 and to start evaluating the results from our pilot restoration sites.





Communications

Much of our work at ALLARM involves education and volunteer training, and we're grateful for the many opportunities we've had this year to share our knowledge with both Dickinson students and community members. We were invited to give presentations across Dickinson's campus and at several community events and workshops. We also held tabling events on and off campus where we showcased the fun aspects of water quality monitoring while highlighting the value of community science.

While most of our work is done in person, in 2025 we saw extreme growth in our digital presence. Between August and December, our social media content was viewed over 34,000 times! In addition to our social media, our blog has remained active, offering students the space to share their projects while providing a great way to highlight the important work happening at ALLARM.

This year marked the end of an era as we published our last print edition of our annual newsletter, *The Stream of Consciousness*. After 39 years, we are looking to the future as we celebrate ALLARM's 40th anniversary with the launch of *The Stream of Consciousness* podcast, debuting in March 2026.



62
Social Media Posts



11
ALLARM Blog Posts



5
Tabling Events





“This was my first time presenting at a conference, so it was both exciting and nerve-wracking. While the larger presentation focused on different methods and resources to facilitate the conversion of data to information, I was in charge of presenting on how to tailor data interpretation to a specific group in accordance with that group’s research goals.” “My favorite part of the process was when I got to walk around and interact with the participants.”

- David Marsh ‘26

The Chesapeake Bay Watershed Forum

Every year, ALLARM attends and brings student Watershed Coordinators to the Chesapeake Bay Watershed forum held at the National Conservation Training Center in Shepherdstown, WV. This year was no different and 9 Watershed Coordinators joined full-time staff to personally connect with our bay partners, network with new groups, and share information and assistance.

The sessions are a highlight of the forum and this year, ALLARM staff gave not one, but two presentations! First, Volunteer Monitoring Specialist Isabel Ruff presented with other members of the Chesapeake Monitoring Cooperative to celebrate the CMC’s 10th anniversary and its many accomplishments. The following day, Isabel, along with our staff Scientist Jill Arriola and senior Watershed Coordinator David Marsh, presented ALLARM’s data to information process and shared ways for monitoring organizations to build or strengthen their own data interpretation processes. Overall, ALLARM staff had a wonderful time attending sessions, strengthening our partnerships across the watershed, and spending more time together as a team.

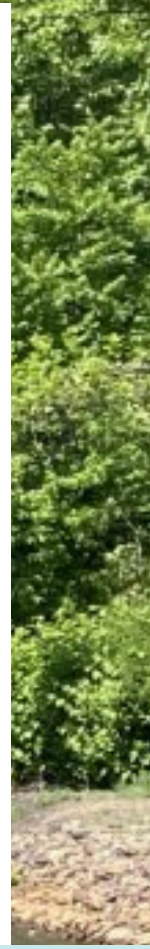


Spring 2025:

(From Left to Right)

Bottom: Emma Spinelli ‘25, Kailey Sipe ’25, Michelle Cao ‘25, Lindsay VanFossen, Katelyn Pequeno ’27. **Top**: Isabel Ruff, Kristin Houston ‘27, Naisha Gaur ’27, Ben Connors ‘27, Lane Whigham.

Not pictured: Amelia Harper ‘25, Jill Arriola



Fall 2025:

(From Left to Right)

Bottom: Katelyn Pequeno ‘27, Max Carfrey ’26, Amiya Payne ‘28, Sophia Evans ’28, Kacie Wood. **Middle**: Ryan Mead ‘27, Isabel Ruff, Priya Chamber ’28, Charlotte Durietz-Bourdain ‘28, David Marsh ’26. **Top**: Lane Whigham, Jill Arriola, Marja Barrett ‘26, Crosby Wilkin ’26, Ayako Ogawa ‘28, Kristin Houston ’27.

Not pictured: Olive Stern



Watershed Coordinator Reflections

"I've enjoyed indulging in my 'just do it' mentality and getting to soak in the numerous opportunities for growth, experiences to reminisce, stories to tell, and most importantly, the countless lessons learned."
- Michelle Cao '25

"I get to research fun types of macroinvertebrates and find fun facts to write about them. Then I get to be creative and create the actual story using Canva. I didn't just want people to read the slides but to also engage with the posts. I came up with surveys and other "games" people can click on so that there's more to do with each post!" **- Katelyn Pequeno '27**

"My favorite memory while working at ALLARM was attending the Collaborative Learning School (CLS) event – my first in-person training! Through this event, I truly saw the engagement that ALLARM aims to foster, and I enjoyed having the opportunity to connect with the early career researchers in attendance, learning about the different perspectives they bring to the field." **- Kailey Sipe '25**

"[The Alconox Soap Experiment] was the most fulfilling project I have ever done because it was my first time designing an experiment from scratch, completing the entire lab by myself, and writing up the scientific writing blog post about my findings." **- Ayako Ogawa '28**

"I have enjoyed working on the data reminders guides. This project combines research and outreach while helping me engage with our volunteers. I like having a finished, tangible product that goes directly to our volunteers and that I can refer to when mentioning my work." **- Marja Barrett '26**

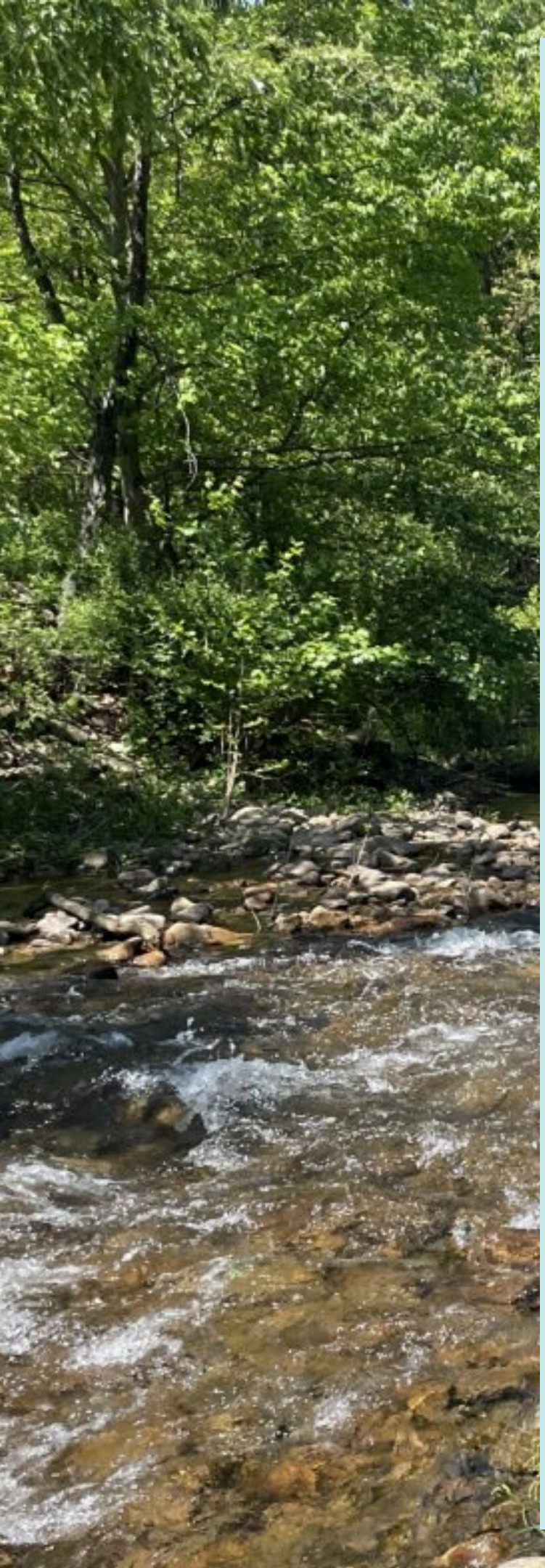
Funding Sources



ALLARM would like to thank all the organizations that support our work, including:

- Dickinson College
- The Chesapeake Monitoring Cooperative
- The National Fish and Wildlife Foundation
- The Campbell Foundation
- The Consortium for Scientific Assistance to Watersheds
- The Waterkeepers Alliance

Thank you for helping support healthy streams in 2025!



ALLARM

BY THE NUMBERS

- **7** Workshops Run
- **8** Community Partner Groups Supported
- **9** Community Meetings Attended
- **128** Water Samples Tested
- **274** Volunteers Reached
- **1,710** Lab Tests Performed
- **1814** Hours Monitoring