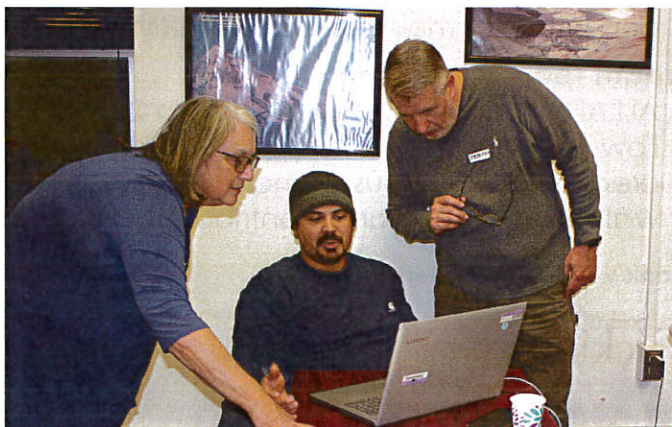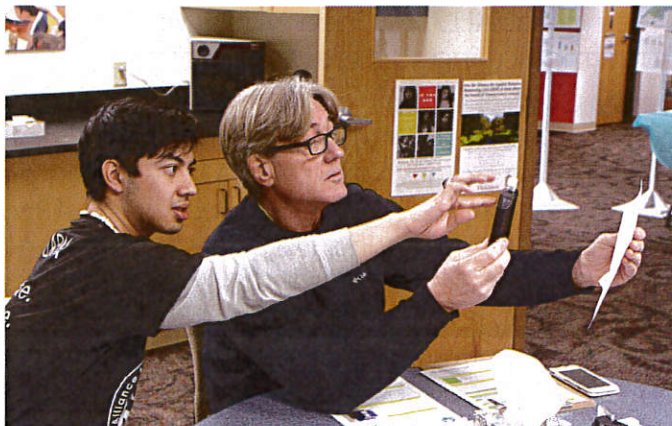# Alliance for Aquatic Resource Monitoring (ALLARM)

ALLARM is a community science center at Dickinson College that supports volunteers in Pennsylvania and New York in evaluating the health of their local streams. ALLARM mentors volunteers through every stage of the monitoring process, from developing a monitoring program to sharing and using the information they collect.

Services ALLARM Provides

Study design creation

To help partners develop stream monitoring programs that best address their questions and data use goals, ALLARM uses a 10-step facilitation process called study design. Once complete, partners have a completed monitoring plan that details the goals and the who, how, what, where, when, and why of their program.

Chemical monitoring

Since 1986, ALLARM has trained volunteers how to measure parameters that align with their monitoring question(s). ALLARM creates customized methods manuals for each community partner that include step-by-step directions on how to collect and analyze water samples, clean and maintain their monitoring equipment, and manage the data they collect.

Visual assessment

Visual monitoring evaluates the physical characteristics in and around a stream that contribute to overall stream health. ALLARM trains volunteers in the U.S. Department of Agriculture's Stream Visual Assessment Protocol.

Macroinvertebrate monitoring

Macroinvertebrates are great indicators of stream health since they spend most or all of their lives in the stream and are easy to find. ALLARM trains volunteers to use the Environmental Protection Agency's Volunteer Monitoring Macroinvertebrate protocol to learn more about the health of their local streams.

Data interpretation and communication

ALLARM facilitates a data interpretation workshop to help volunteers discover stories in their data. ALLARM then works with community partners to develop water quality reports and messaging to meet their data use goals.

Quality Control (QC)

One of ALLARM's monitoring mantras is that all data of known quality have a use. Volunteers participate in ALLARM's Volunteer Monitoring Quality Control Program, for which they send a water sample to ALLARM's Community Aquatic Research Laboratory where it is tested using the same equipment as the volunteer and additional laboratory equipment. The results and suggestions are shared with the volunteer to ensure they are collecting credible data of known quality.

Shale gas monitoring

Since 2010, ALLARM has trained volunteers how to detect potential pollution events caused from developing and fracking a shale gas well. Volunteers manage their data and interpret their results in ALLARM's database, ALLARMwater.org.

Stream Team

ALLARM's Stream Team, started in 2018, is a program created in collaboration with the Lower Susquehanna Riverkeeper. Stream Team aims to engage volunteers to collect credible data on Susquehanna tributaries that can inform local approaches to improving watershed health and contribute to regional Chesapeake Bay data collection efforts.

Thank you to our funders:

And partners: