



## **2021-2022 Service Year**

Environmental Careers and Opportunities (ECO) AmeriCorps is an AmeriCorps program within the Vermont Department of Environmental Conservation (VTDEC). The emphasis of the program is on building capacity in nonprofit organizations and municipalities throughout rural Vermont communities. Program focus areas include the following:

- engagement, outreach, and education
- improvement of water quality
- protection and restoration of public lands

ECO AmeriCorps is funded in part by an AmeriCorps state grant provided through SerVermont from the Corporation for National & Community Service.

All ECO AmeriCorps members have some college education (preference given to college graduates with a science background) and will receive technical training and mentorship from VTDEC throughout their term of service. VTDEC handles the administrative components of the program, including providing living stipends, health insurance, and monthly trainings to members.

**Full-Time Member Benefits\*** *Living Stipend: \$17,300 Education Award: \$6,345*

*Other Benefits:* Training, networking opportunities, health care, childcare assistance, program support, mileage reimbursement for ECO AmeriCorps–related travel

Applicant Information		
Name of Organization or Municipality: ANR, VT Department of Environmental Conservation (VTDEC), Watershed Management Division		
Primary Supervisor Name: Heather Pembrook	Primary Supervisor Title: Environmental Scientist	
Mailing Address: Watershed Management Division, Monitoring and Assessment Program, 1 National Life Drive, Davis 3		
City: Montpelier	State: VT	Zip: 05602
Phone: 802-4906149	Fax: 802-828-1544	
Email: heather.pembrook@vermont.gov	Website: <a href="https://dec.vermont.gov/watershed/map">https://dec.vermont.gov/watershed/map</a>	
Sponsoring Organization's Mission:		
<p>The Watershed Management Division is responsible for protecting, maintaining, enhancing and restoring the quality of Vermont's surface water resources. Inherent in this effort is the support of both healthy ecosystems and public uses in and on Vermont's 800 lakes and ponds, 23,000 miles of rivers and streams and 300,000 acres of wetlands.</p>		

Please provide a brief description of your role at your site:
<p>As an Environmental Scientist with VTDEC's Monitoring and Assessment Program (MAP), my role is to document the condition of the state's waters using all tools available to inform resource management decisions and restore water quality. One of my primary responsibilities is to coordinate the LaRosa Partnership Program (LPP). LPP supports watershed organizations, Natural Resource Conservation Districts, municipalities, and citizen scientists throughout Vermont to sample high priority surface waters in need of water quality assessment.</p> <p>I'm also the Program Manager for the 40-year-old Vermont Long-Term Monitoring of Acid Lakes Program (VLTM), which generates seasonal surface water chemistry on acid-sensitive lakes. This program has demonstrated the effectiveness of the Clean Air Act and is documenting water quality impacts due to climate change.</p>

Lastly, another critical component of MAP's yearly monitoring and my position is the Ambient Biomonitoring Network (ABN). Each fall, MAP collects chemical, physical, and biological samples from rivers and streams. Aquatic biologists perform the taxonomic identification of aquatic invertebrates used to calculate metrics to support Vermont's Water Quality Standards and make community assessments about the stream's biological integrity. The physical, biological, and chemical condition is then fully evaluated to assess the streams potential stressors and overall biological condition.

What is the title of the position you are requesting?

Environmental Technician

Describe your proposed service position:

This position will be focused on two WSMD monitoring programs: The volunteer LaRosa Partnership Program and the Ambient Biomonitoring Network. The position will enable VTDEC to efficiently manage the LPP, which collects nearly 7,000 water chemistry samples/year from waterbodies statewide. They will assist VTDEC by engaging with the public and the participating directly with watershed groups. The position will communicate with watershed groups to nominate sites and then work with DEC staff to develop an annual sampling plan. The position will help coordinate and collaborate with other WSMD programs (Lakes and Ponds, Wastewater), the Watershed Investment Division (WID) (Watershed Planners and Clean Water Initiative), and the Vermont Agriculture and Environmental Laboratory within the Agency of Agriculture. Having a field savvy Eco AmeriCorps member with GIS, database, and Excel skills will enable cross-programmatic coordination to support informed decisions about where and how to support monitoring. They will also support the training of volunteers and sample collection. This member would serve as a vital link between the partners, the Vermont Agriculture and Environmental Laboratory (VAEL), and the project coordinator in preparing data for final approval and storage. This position would further speed up data evaluation by automating specific tasks, previously performed by volunteers.

Essential Functions. Functions that the applicant must be able to perform. These may be listed in bullet form:

Assist aquatic biologists with Fall ABN stream fieldwork, which may involve overnights  
Communicate and assist the individual LPP partners and organizations through email, phone, and website updates  
Assist LPP coordinator with water chemistry data analysis, quality assurance and upload to WSMD database  
Assist LPP coordinator to coordinate annual site nomination and selection  
Train volunteers in sample collection and quality assurance  
Assist LPP partners with sampling supplies and pick-up  
Conduct initial macroinvertebrate identifications

Marginal Functions. These are secondary to Essential Functions, may be negotiable, and can be completed as time allows. These may be listed in bullet form:

Assist with acid lake field work, including canoeing, rafting, hiking and skiing

Please list any clothing/equipment the member will need that you cannot provide (e.g., hiking boots, waders, rain gear, etc.). As the host site, you are responsible for providing all tools and technical equipment needed for the position (e.g., computer, phone, GPS, etc.).

Hiking boots  
Rain gear  
Thermos  
Sunblock  
Sunhat  
Cross country skis (optional)

Desired qualifications:

Excellent communication skills, verbal and written  
Excellent organization and time management skills  
Data management using Excel, understanding of databases  
Education and knowledge of ecological concepts of surface waters  
Ability to conduct fieldwork, carrying up to 30 lbs on rivers and streams  
GIS skills  
Macroinvertebrate identification  
Freshwater fish identification  
Driver's license  
Ability to cross country ski (optional)

Provide additional information (data, statistics, reports, etc.) that demonstrates the compelling need for the proposed position(s).

The LaRosa Partnership Program is highly valued with Vermont watershed groups. In 2021, 380 sites were nominated by the watershed groups for a total of \$140,000 worth of laboratory costs. LPP staff are critical to prioritizing these requests to ensure they meet both partner and VTDEC needs, and to stay within the \$100,000 analytical services budget. Permanent staff have ~0.3 FTE dedicated to this program. The ECO AmeriCorps position helps support the program at its current level, under the new program model.

Describe how the supervisor has adequate time and leadership experience to manage an ECO member? Please explain how:

Heather Pembroke has worked with the LPP AmeriCorps members over the last two years and currently supervises 5 full-time staff and one part-time staff member. She meets weekly with each staff member individually and with her staff collectively.

Describe networking opportunities that will be available to the member during service?

The service member will be fully integrated in MAP and will assist with several other MAP projects such as ABN, acid lakes, wastewater sampling, and flow monitoring. They will have the opportunity to assist with other programs within the Watershed Management Division such as the Lake Champlain Monitoring Program, Lake Assessment, and Geomorphology. Additionally, the LPP tasks associated with GIS will encourage networking with GIS savvy staff within WSMD and ANR. The member will also be encouraged to attend external conferences, workshops, and training events. All MAP and appropriate VTDEC staff meetings and workshops are also recommended.

Networking opportunities available from external volunteer watershed groups are made available to this member.

In what ways does your organization support diversity, equity, inclusion, and environmental justice?

VTDEC is an active member in the State of Vermont Racial Equity Team. VTDEC has representation on R.E.J.O.I.C.E and is one of three of the DEC Commissioner Peter Walke's focus areas for 2020-2021. ANR's Deputy Secretary will be focusing on this as part of her core work duties. VTDEC will be using the Equity Impact Assessment Tool provided by Xusana Davis, Vermont's Racial Equity Director, to identify blind spots in our operations. We are just beginning to incorporate this into our operations but it is a topic in most meetings where decisions are being made.

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The 2021–2022 program will begin mid-September 2021 and end in August 2022 for full-time members. We look forward to seeing your application!

