

STEAC MEETING REPORT

(02/21/2024)

The members of the STEAC met on February 21, 2024, with a quorum of seven members attending (Meghan Avolio, Henry Bart, Rich Fiorella, Shannon LaDeau, Steve Petruzza, Sydne Record, Daniel Rubenstein). Four NEON-Battelle staff attended (Darcy Gora, Paula Mabee, Jeff Coleman, and Michael SanClements).

The meeting was virtual, and the following topics were discussed: I. Approval of the minutes, II. New member recruitment. III. Assignable assets update. IV. Permitting challenges at DELA.

- I. **Approval of previous minutes for 12-20-2023.** Minutes approved (Unanimous vote).
- II. **New member recruitment:** Discussion focused on how to expand outside expertise for guiding NEON going forward. We want to keep in mind that NEON proposed in their renewal award to add an Innovation Advisory Committee to provide insights on emerging technologies. This committee would focus on ‘what are the challenging issues facing ecology today that should be tackled in the future’. AI and Machine Learning are transforming the scale and scope of ecological inquiry and NEON as a ‘big data’ generator and archivist could benefit from employing new AI and ML tools. But how. How this new Innovation Advisory Committee will interact with the STEAC has not been completely ironed out, but will be in the next several months. The STEAC noted a need for expertise in translating NEON Enabled Science through the addition of members who could profit from the data that NEON has accumulated but is not realized by groups other than ‘pure’ research scientists. Such groups should include–biodiversity-conservation organizations (usually NGOs such as the Nature Conservancy and World Wildlife Fund as examples); nonprofits of all types; government agencies (Commerce Department, DOD, Department of Interior [BLM and NPS]; and Tribal Groups. The STEAC also noted that additional members could represent educational institutions consisting of non-RO1 colleges and research institutes whose primary mission is teaching at undergraduate and at the Master’s Degree graduate level. Traditional Black colleges and small liberal arts colleges should be approached. It was also noted that several STEAC members whose terms ended recently were federal government scientists and experts in eddy flux data.
- III. **Assignable assets update:** Two guiding principles–encourage community engagement with NEON and its current activities without causing conflict with those activities–shape outreach to potential partners who would cover the costs of using the site. Much time and effort by NEON staff goes into assessing the feasibility of the proposals. The number of assessments has increased from 5 in 2016 to 80 in 2023. Given that all the proposals to date have been deemed ‘feasible’, this detailed analysis is not sustainable. NSF has concurred with NEON’s proposal to reduce its assessment effort by performing a more cursory review focusing on maximum and minimum costs associated with the partnership and then passing a maximum rough order of magnitude estimate to the PI to inform their proposal. If the PI’s proposal is to be awarded, NEON will work with the PI to provide a final cost so that NSF can finalize the funding. It was also suggested by STEAC that a new name be found to describe this partnership. Also, based on feedback from the STEAC and the community, NEON has added new functionality to its website to display current AA funded projects.

- IV. Permitting challenges at DELA:** A summary of the permit renewal process and recent issue for the important NEON Dead Lake (DELA) site in Alabama was presented. Because it is on a Wildlife Refuge, the Army Corps of Engineers (ACE) has received complaints from hunters that NEON's activities interfere with hunting activities. In May 2023, ACE limited NEON data collection to 3.5 months per year. Battelle worked with ACE to limit the hunting restrictions to deer and turkey season only, which was agreed to in late September 2023 when Battelle received an updated Land Use Agreement (LUA) for signature. In January 2024, Battelle received a fully executed 3-year LUA expiring in May 2026 from ACE and a letter stating this will be the final renewal of the LUA, with the ACE to contact Battelle at the appropriate time to discuss site restoration. NEON has asked that NSF get involved given the high scientific impact of shutting down a site. While taking this to higher levels may help, it is likely to alienate the local ACE and hunters. While this fact proceeds, STEAC suggests that NEON reach out to the hunting organization and see if direct discussions from the bottom-up might lead to a compromise that ACE would support.
- V.** Darcy will follow up with travel details by the end of the week for our April 11-12 in-person meeting.