

STEAC MEETING REPORT (12162020)

The STEAC met on December 16, 2020 with a quorum of eleven members attending (Anne Giblin, Jackie Matthes, Jeff Dukes, Kim Novick, Mike Dietze, Peter Groffman, Rob Guralnick, Sarah Bevins, Frank Davis, Emily Bernhardt, Lilian Alessa). Eight NEON-Battelle staff attended (Gene Kelly, Kate Thibault, Darcy Gora, Paula Mabee, Kim Nitschke, Zoe Gentes, Chris Florian, Rommel Zulueta).

The meeting was virtual and the following topics were discussed: I. The STEAC response to the Battelle response to STEAC feedback from the Fall meeting; II. Challenging Terrestrial Sites; III. 2021 STEAC Meeting Dates; IV. Federal Transition & Climate Change Research; V. NEON Postdoctoral Fellows.

STEAC Recommendations:

- The STEAC advises Battelle to increase transparency about how information and advice by the STEAC and Technical Working Groups are being utilized.
- STEAC advises Battelle to reach out to the TWG for surface-atmosphere exchange. Because few forested sites have towers that are >2x forest height, the problems with vegetation growth at the BLAN and ABBY sites might not be as bad as originally thought. Although tower height requirements followed Munger et al. 2012, the 2x tower height may be required for gradient measurements, but eddy covariance is different, and spectral corrections can be used even though this might not be ideal. STEAC also noted that if the problems are at what used to be called “relocatable sites” it might be ok to move the tower to another location within the site or to another site altogether. They also recommended looking into adjusting tower height, i.e., checking with engineering to see if this is a possibility.

I. The STEAC response to the Battelle response to STEAC feedback from the Fall meeting:

Battelle appreciates STEAC feedback and is working on the vision statement input from the All Hands meeting at Battelle in the Fall of 2020. STEAC recommendations for the assignable assets program are in the works (deadlines, webinars, etc.). Battelle is thinking about data standards and protocol workshops for the 2021 ESA meeting, recognizing that data standards for NEON should align with other community standards and NEON should better communicate standards.

II. Challenging Terrestrial Sites: Towers at Blandy (BLAN), Abby Road (ABBY), and Steigerwaldt (STEI) are either currently not tall enough, or have growing forests that are expected to exceed the maximum canopy height in the near future. The issue is that vegetation is not being managed as we expected when the towers were built, and now the vegetation is taller than the tower at the identified sites. This issue will also impact gradient measurements. Battelle needs to either raise the tower or cut vegetation. Raising the tower may be complicated because tower anchors and foundation were originally designed for a specific height; follow up with engineers is required to evaluate. Battelle recognizes that it needs to get updated canopy and displacement height data (AOP & 2D wind data), look at stand growth rates; and perform data quality checks (shear stress and scalar flux).

III. 2021 STEAC Meeting Dates: The Spring 2021 STEAC meeting will be two half-day meetings. All Wednesdays & last two Mondays in April have the greatest availability. The STEAC will share

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poll results with Battelle and figure out dates. The STEAC will also send out a poll for regular monthly STEAC meeting scheduling.

IV. Federal Transition & Climate Change Research: Climate change is one of the priorities for the new administration and we should expect changes in the narrative compared to the Trump administration. The narrative will include a focus on resilient climate change science and challenges of national security writ large, focused on ecological concepts. There is potential for NEON to be involved in some of these conversations and there is an Initiative to include academia more closely in federal agencies.

V. NEON Postdoctoral Fellows: The NEON program is excited to welcome the [first cohort of Postdoctoral Fellows](#). Starting in January 2021, three early-career scientists will be working in collaboration with NEON staff and the wider user community to leverage NEON data for scientific discovery.