

# LONG TERM ECOLOGICAL RESEARCH NETWORK OFFICE (LNO)



## Request for Synthesis Working Group Proposals

All the information needed to submit a proposal to the LTER Network Office can be found at:

<https://lternet.edu/synthesis/current-request-proposals/>

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LTER Network Office

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## Overview

The LTER Network Office (LNO) fosters enhanced collaboration, synthesis, training, and engagement across the [LTER Network](#). To promote analysis and synthesis of LTER data, the LNO requests proposals for 'Full Synthesis Working Groups' to begin in Autumn 2024. The LNO is operated out of the National Center for Ecological Analysis and Synthesis ([NCEAS](#)) at UC Santa Barbara. The Center provides excellent meeting facilities and support for in-person and virtual meetings; comprehensive in-house computing capabilities; and consultation and training for synthesis participants on analytical workflows, open and reproducible science practices, collaboration skills, and communication of results. Synthesis groups have access to the skills of a full-time data analyst, employed by the LTER Network Office, for the duration of their LNO-sponsored activities.

### Types of proposals and synthesis working groups:

1. **(This RFP) 2024 Competition for full synthesis proposals.** Funding is available for two (2) projects of two (2) years in duration. The [LTER core thematic areas<sup>\(1\)</sup>](#) are especially accessible for synthesis, but proposals in other areas are also welcome. Working groups should plan on up to three (3) in-person meetings of up to 15 individuals each. Larger or longer meetings will be considered if the proposers can bring additional funds from non-LNO sources.
2. **2025 Competition for Scientific Peers Advancing Research Collaborations (SPARC) Proposals.** SPARC awards fund travel expenses, logistical, and analytical support for a **single** in-person workshop, embedded in series of virtual meetings. SPARC funding is most appropriate for development of early-stage ideas. We are not considering SPARC proposals this year, but expect to fund three (3) SPARC projects in 2025.

All proposers are encouraged to review the outcomes of [prior LTER synthesis working groups](#) and resources for [synthesis](#) and [scientific computing support](#). An informational webinar will be held for anyone interested in learning more about the proposal process (see key dates below). Registration details and webinar recordings will be accessible on the LTER Network website ([lternet.edu](#)). Proposers should also feel free to contact LNO Director Marty Downs: [downs@nceas.ucsb.edu](mailto:downs@nceas.ucsb.edu) for questions or to discuss research ideas.

### Key Proposal Dates and Deadlines

Informational Webinar #1	Wed. April 9 at 9 am PST
<b>Proposal Due Date</b>	<b>Wed. June 26, 5pm PST</b>
Awards announced	August 2024
Projects begin	September 2024

### Who Should Apply?

Proposals may be submitted by individuals of any nationality who hold a position in an academic institution, free-standing research institution, scientific society, governmental or policy agency, non-governmental organization, or a consortium of such institutions. Working group members should include one or more LTER researchers who are familiar with the LTER sites and data that will be used in the analysis.

### What Do We Support?

The LTER Network Office pays (directly or through reimbursement) for travel, lodging, and per diem expenses related to synthesis group meetings. Open access publication costs may be included in synthesis group budgets. Budgets may not include any salary or home-institution expenses.

In addition to meeting expenses, LNO staff provide ongoing analytical and facilitation support to active synthesis groups, including consulting, workshops, problem-solving, and "analytical sprints" to develop reusable workflows and overcome analytical obstacles.

We expect all synthesis groups to combine the use of in-person and virtual meetings to extend budgets, reduce greenhouse gas emissions, and maintain momentum between in-person meetings. The LNO supports virtual

collaboration through mailing lists, shared drives, code repositories, servers for computationally demanding analyses, and workshops on inclusive facilitation.

NCEAS has several advantages for synthesis groups.

1. Time away from day-to-day demands encourages the intense engagement that makes for successful synthesis.
2. NCEAS staff handle travel, lodging, and food logistics, allowing group leaders to focus on the science.
3. Functional and well-supported videoconferencing allows seamless involvement of remote participants when necessary.
4. Pleasant meeting and breakout spaces in a beautiful location with ample options for group dining and recreation.

We expect in-person meetings to be held at NCEAS. In rare cases and with compelling and pre-approved rationale, meetings may be held in other locations.

Research may involve activities with partial support from other institutions or agencies, and co-funding is welcomed but not required. Please download and use this template to estimate your [working group budget](#).

## What We Will Not Fund

- The LNO will not fund collection of new data or field research.
- The LNO will not fund projects that primarily address the goals of another organization.
- The LNO will not fund proposals requesting overhead or funds to be spent by the investigator at the investigator's home institution.

## Synthesis Working Group Composition

NCEAS' 30 years of experience points to a few factors that contribute to synthesis working group success. As a unit, synthesis groups can embody a greater range of skills, knowledge, and experiences than can any single researcher. Capitalize on that opportunity by seeking a mix of different skills, strengths, and identities.

Organizers should strive to include at least some individuals with:

- deep knowledge of the literature and a broad view of the relevant field(s)
- fresh eyes or unconventional perspectives
- strong technical skills
- able to devote concentrated time to the project
- emotionally astute
- strong attention to detail
- work in complementary fields

All participants should expect that they will need to explain and defend (or adapt) their point of view with patience and mutual respect. Working group members must agree to the [LTER](#) and [NCEAS](#) codes of conduct, whether meeting in Santa Barbara or elsewhere.

In addition to being fun, productive routes to impactful science, synthesis working groups are also valuable networking and career-building opportunities. We encourage organizers to find ways to involve participants with relevant skills and interests, but who are not already part of their established networks. Organizers may choose to reserve spots for to-be-determined participants, but the outreach and selection process for filling those slots should be specified in the proposal.

## Data Expectations

We expect synthesis working groups to use existing LTER data. ***Analysis and synthesis of data from more than one site is required.*** Beyond that, we welcome the inclusion of data from other sources (e.g., datasets from individual researchers) or other networks (e.g., CZO, NEON, LTREB, ILTER).

The LNO, the Environmental Data Initiative (EDI), and NCEAS are committed to FAIR (Findable, Accessible, Interoperable, and Reproducible) data and open science principles. To this end, ***all awarded working groups agree to document and make derived data available on a publicly-accessible data repository***, according to the [LTER Network Data Access Policy](#). The LTER Data Access Policy allows for exceptions related to human subjects, Indigenous data sovereignty, and protected species, among others.

## Data Science Support

LNO synthesis working groups receive dedicated support from LNO data analysts for a two-year project duration. More detailed information on this support can be found on the [scientific computing support site](#) and includes:

- set-up of collaborative tools (e.g., shared drive, mailing lists, project management, team websites),
- training and consultation in reproducible and collaborative workflows,
- help with data harmonization and wrangling,
- direct assistance with setting up scripted analyses,
- access to NCEAS' high-performance analytical servers,
- assistance with documentation and archiving of derived datasets

Each synthesis working group designates a **data science liaison** to serve as a primary point of contact with the LNO's data science support team on the group's computing needs. This person should be closely involved with the data preparation and analytical aspects of the project and may be one of the PIs, an LTER site information manager (IM), an early career researcher, or any other working group member who has agreed to fulfill this role. At the time a synthesis working group is awarded, the LNO will schedule a project launch meeting with synthesis group PIs and the data science liaison to meet the LNO team, review logistics, and discuss data science needs and expectations.

## Communications and Reporting

To aid the LNO in promoting working group activities, working group PIs should expect to:

- provide a project abstract to be posted on the LTER Network website
- cite LNO support in publications, as described in the [guidance for synthesis group PIs](#),
- alert the LNO of any synthesis group-related publications, datasets, analytical packages, meeting presentations, or other products
- respond to surveys intended to assess and improve the synthesis group experience
- participate in occasional synthesis webinars to update the community on synthesis group progress and findings

## Helpful Links

[LTER synthesis working groups](https://lternet.edu/working-groups/) (<https://lternet.edu/working-groups/>)

[Synthesis Resources](https://lternet.edu/synthesis/synthesis-resources/) (<https://lternet.edu/synthesis/synthesis-resources/>)

[Scientific Computing Support](https://nceas.github.io/scicomp.github.io/) (<https://nceas.github.io/scicomp.github.io/>)

[LTER Network Data Access Policy](https://lternet.edu/data-access-policy/) (<https://lternet.edu/data-access-policy/>)

[LTER Code of Conduct](https://lternet.edu/lter-code-of-conduct/) (<https://lternet.edu/lter-code-of-conduct/>)

## Proposal Preparation

The main body of the LTER synthesis working group proposals is relatively short (fewer than 2000 words **excluding** Cover Sheet, Figures, Tables, Literature Cited) but we require a number of supporting tables and documents (Table of Participants, Table of Datasets, CVs, Budget) that are described below. Please follow the formatting and submission instructions provided below.

<b>COVER SHEET (1 page, not included in proposal body word limit)</b>
<ul style="list-style-type: none"><li>• Date of submission</li><li>• Descriptive title</li><li>• Short title – Two or three words for use as a project name (25 characters max)</li><li>• Synthesis group leaders' name(s), position(s), and complete contact information.<ul style="list-style-type: none"><li>◦ Please indicate a primary point of contact.</li></ul></li><li>• Proposed week of first synthesis group meeting – Please poll all confirmed participants</li><li>• Is this a resubmission? – Yes/No (If yes, provide date(s) of previous submission(s).)</li><li>• Does this proposal build on data and/or code products created from a previous LTER or other synthesis project?</li><li>• Is this proposal (or a closely aligned proposal) under consideration elsewhere? If so, please briefly describe the circumstances.</li><li>• Project Summary – A brief abstract of your project (200 words maximum)</li></ul>
<b>BODY OF PROPOSAL</b> (Not to exceed 2000 words, excluding figures and tables, literature cited).
<ul style="list-style-type: none"><li>• Problem Statement: Clear and concise statement of what is to be done, why it is important, and how it will be accomplished. Provide a clear rationale for why this research would benefit from LNO support.</li><li>• Proposed Activities: Brief description of methods and why they are appropriate.</li><li>• Description of Data Sources: if not fully described in the Data Sources table (above).</li><li>• Anticipated Results: Include description of expected outcomes, data products and software products.</li><li>• Anticipated Benefits: Identify key stakeholder/audiences/potential external collaborators for working group outputs with as much specificity as possible.</li><li>• Working group management: Please summarize how the PIs intend to manage the project to support productive collaboration. This could include (but is not limited to): methods for communication between in-person meetings, inclusive group facilitation, project management tools. See <a href="#">Synthesis Resources</a> on the LTER Network website for guidance.</li><li>• Timetable of Activities: Include specific proposed time for first in-person meeting and approximate timing for other in-person and virtual meetings.</li><li>• Working Group Diversity: Brief summary of specific efforts to achieve working group diversity and maintain an inclusive culture.</li></ul>
<b>TABLE OF PARTICIPANTS</b> (See <a href="#">participant template</a> .) <i>Not included in proposal body word limit.</i>
<p>Names and affiliations of participants (maximum of 15). For each participant, indicate:</p> <ul style="list-style-type: none"><li>• what expertise they bring to the project,</li><li>• their role in the project (PI, data science liaison, site expert, modeling expert, analytical muscle, etc.)</li><li>• their career stage,</li><li>• their participation status (<a href="#">confirmed</a>, <a href="#">invited but not confirmed</a> or <a href="#">to be invited</a>)</li></ul> <p>Identify the person(s) who will be in charge of archiving the derived data. This may be the Data Science Liaison or another participant.</p>
<b>TABLE OF DATA SOURCES</b> (See <a href="#">data sources template</a> .) <i>Not included in proposal body word limit.</i>
<p>Brief summary of the types of datasets to be used in the project (e.g., ecosystem type, taxonomic group, key metrics or processes, time series length, location, number of sites or studies)</p> <p>List of each identified dataset, including:</p> <ul style="list-style-type: none"><li>• Source of the data. include URL/doi when publicly available or a contact person who can provide the data if not yet public.</li><li>• Status of the dataset: for example, “not yet downloaded/acquired”, “‘raw’ datasets are in-hand”, “some exploration completed”, “extensive harmonization of datasets completed”</li></ul>

<b>BUDGET</b> (Use <a href="#">provided budget template</a> .) <i>Not included in proposal body word limit.</i>
There is no specific budget limit, but synthesis groups should plan for 3 in-person meetings of up to 15 individuals over 2 years. Using the budget template will help estimate these costs accurately.
<b>OTHER REQUIRED DOCUMENTS</b> <i>Not included in proposal body word limit.</i>
Curriculum Vitae for each working group leader: Three (3) page maximum, NSF-style biosketch

## Formatting and Submission Instructions

**Proposals will be accepted in digital format only, as a single PDF file.** Proposals should be submitted as a single, complete document, formatted to standard letter size (8.5" W by 11" L) with graphics embedded directly in the document. The body of the proposal should follow the cover sheet, followed by tables (Participants, Datasets) and CVs. Budget tables should be last in the pdf. Do not send compressed collections of files, such as .ZIP files.

Send the proposal document as an email attachment to [proposals@lternet.edu](mailto:proposals@lternet.edu). All those who submit proposals will receive an email confirming receipt within 24 hours of submission. If you do not receive a confirmation email, please call (805) 892-2500 with the lead PI's name and proposal title. NCEAS administrative staff will follow-up with you. Please contact [proposals@lternet.edu](mailto:proposals@lternet.edu) if you have difficulty submitting your proposal, or if you have extenuating circumstances that would prevent you from submitting a digital version of your proposal by the deadline.

For answers to questions about how to submit that are not addressed here, please email [proposals@lternet.edu](mailto:proposals@lternet.edu) or call (805) 893-2500.

For questions about proposal content, please contact Marty Downs ([downs@nceas.ucsb.edu](mailto:downs@nceas.ucsb.edu)).

## Proposal Review Process

The proposal review panel includes both LTER scientists and non-LTER scientists across multiple specialties and ecosystems. At the request of the panel, the LNO may obtain additional reviews from other individuals with expertise of special relevance to the proposed research.

Proposal evaluation criteria include:

- Scientific merit and novelty of questions/approaches
- Use of LTER network science and data
- Inclusion of appropriate expertise
- Are the necessary data available?
- Is the work plan feasible?
- Have the organizers made credible efforts to include researchers from marginalized groups?

The final decision on which proposals to fund will be made by the LNO Executive Director in consultation with the Chair of the LTER Science Council. Based upon panel discussions, the LNO may request some modifications to the proposal (e.g., adjustments to working group size or composition, inclusion of additional data resources) before funding is awarded.

Proposals received after the deadline will be returned without review. Proposals that are clearly inappropriate for LNO funding (e.g., those that are only peripherally related to LTER, requesting overhead, funds to be spent at the investigator's home institution, or funds intended to collect new data, etc.) will also be returned without review.