**Collaboration Agreement**

**Fire and Ice: Navigating Variability in Boreal Wildfire Regimes and Subarctic Coastal Ecosystems**

**September 2019**

**Introduction**. This document establishes processes and methods to ensure an open and collaborative atmosphere over the life of the Alaska NSF EPSCoR Fire and Ice (F&I) project. The agreement is a living document and will be modified as necessary to reflect changing circumstances over the life of the project.

**Shared respect and collaboration.** The complex nature of our effort necessitates that we operate under a culture of collaboration and shared respect. We strive to create a culture of co-learning and knowledge co-development that maintains intellectual space to:
- Learn from each other and our stakeholders
- Bridge multiple forms of knowledge that may be based on differing assumptions and methodologies
- Mentor the next generation of scientists
- Engage and challenge experienced faculty
- Build capacity to assemble diverse components, team members and subgroups focused on accomplishing the goals and objectives of the project
- As teammates, respect and represent one another and the project in a professional and positive manner

**Leadership responsibilities.** The F&I Leadership Team will be responsible for carrying out the mission of the project, reporting results, managing resources, supporting evaluation, serving on hiring committees, overseeing compliance with the Institutional Review Board (IRB) and Institutional Animal Care and Use Committee approvals, and communicating with extended team members and partners. The team will meet every two months to establish and maintain open lines of communication, and component leads will meet every two weeks with their teams. F&I leaders are responsible for developing a shared understanding of the project among the full project team, including students and stakeholders. A projectwide annual meeting will provide an opportunity to celebrate successes, share ideas and results, offer feedback, reflect on past activities and plan future ones.

**Conflict resolution.** *Team Conflict:* Team members will strive to be transparent and respectful, to promote civil dialogue and to head off unhealthy conflict. Despite best intentions, conflicts are likely to occur due to overall diversity in thought, methodology and personal approaches. We recognize that robust intellectual debate is important for the development and creation of transdisciplinary research. The Leadership Team agrees to ensure that scientific debate and matters of other concern are raised in a respectful manner; to assist team members in resolving conflict; and to promote open and civil dialogue in all team interactions. In the event that a team member is involved in a conflict within the team, members are encouraged to share their

concerns with management team personnel who will serve as peer mediators and help to craft a sustainable resolution.

*Conflicts of Interest:* The National Academy of Sciences notes that "a conflict of interest in research exists when the individual has interests in the outcome of the research that may lead to a personal advantage and that might therefore, in actuality or appearance, compromise the integrity of the research." Team members will identify and address potential conflicts of interest through the appropriate Office of Research Integrity for their campus.

**Authorship**. Team members agree to adopt the publishing model promoted by the National Center for Ecological Analysis and Synthesis (NCEAS), which includes the following guiding principles:
- Authors and co-authors communicate early and often about roles and responsibilities
- Papers often have many co-authors, due to the collaborative nature of the research
- Working group members are proactive about their interest in participating in manuscripts, and lead authors are open to involvement of others
- Authorship is inclusive (including students), but avoids honorary authorships

For an individual to qualify as co-author, they must make at least two of the contributions listed below (people who contribute in one category should be noted in the acknowledgments):
- Conceived of the idea for the manuscript
- Designed the manuscript
- Supervised organization of the project and manuscript
- Performed research, such as data collection, analysis or modeling
- Contributed new methods or models
- Drafted figures and tables
- Wrote parts of the manuscript
- Performed critical content reviews (not just spelling and grammar checking)
- Acted as cultural liaison; obtained permissions; reviewed for appropriateness to all cultures involved in study
- Directly shared knowledge or expertise; aided in or provided documentation or translation
- Made other contributions not listed above

**Team expectations.** F&I values the development of a strong, communicative team and the establishment of an inclusive, integrated student cohort. Participants are expected to:
- Participate in leadership and/or science component meetings
- Provide timely information for annual reports to NSF, NSF site visits and reverse site visits, project evaluation, and other ongoing project needs
- Acknowledge funding support. All papers, presentations, and other intellectual materials produced under the grant must state: "Acknowledgement to (or "Support from") Alaska EPSCoR NSF award #OIA-1757348 and the state of Alaska." The Alaska NSF EPSCoR logo should also be included on all visual media (i.e. posters); logo downloads can be found on our website.

- Adhere to the Fire and Ice [Programmatic Terms and Conditions](#)

**Data sharing**. Researchers will comply with all expectations regarding research data imposed by the NSF and detailed in the F&I Data Management Plan. These include:

- Agree to share data with team members
- Maintain data confidentiality in accordance with existing standards and requirements when handling personal or culturally sensitive information, or personally or community identifiable information
- Make research data available for access and reuse via the [EPSCoR data portal](#) where appropriate and under appropriate safeguards
- Offer and assess research data are for deposit and retention in appropriate disciplinary data services, and make any data retained elsewhere discoverable through the Alaska EPSCoR portal
- Do not provide research data to commercial interests without retaining rights to make the data openly available for reuse
- When working with stakeholders, determine in advance who collects, owns, manages, evaluates, and disseminates the data to allow projects to proceed with a shared understanding of data governance and ownership
- Comply with deadlines, metadata requirements, and citation policies as outlined in the Data Management Plan

**Resources**. For more information, consider:

- [Leading Transdisciplinary Projects Addressing Social-Ecological Systems: A Primer for Project Directors](#)
- [Collaboration and Team Science Field Guide](#)
- [Responsible Conduct of Research training](#)
- [National Academies of Sciences Integrity in Scientific Research](#)
- [Principles for Conducting Research in the Arctic](#)