NOFO P23AS00293 Questions and responses to the NPS Announcement communicated via email during the application period.

QUESTION 1

I am contacting you regarding the NOFO#: P23AS00293 entitled 'Effects of sound on wildlife, ecosystems, and visitors in units of the National Park system'. We are a small business who specializes in developing video and signal processing software for wildlife conservation and currently have Small Business Innovative Research (SBIR) grants from both the DOE and NSF. The solicitation is very interesting to us and is seemingly right up our alley, but we have never worked with NPS or on Cooperative Research and Training Programs, so we aren't sure if this is right for us. Would you have 15 minutes to chat with us about this opportunity?

RESPONSE 1

Please be advised that this type of grant requires being part of the CESU network (Cooperative Ecosystem Studies Units). The CFDA (Catalog of Federal Domestic Assistance) allows for State and local governments, federally recognized Indian tribal governments, public/private nonprofit organizations, nonprofit institutions of higher education, and individuals. If you are eligible as a current member of a CESU Agreement, I will gladly accept questions concerning the announcement of the financial assistance. These questions and answers will need to be transcribed to be made available by the agreements officer to all responding parties equally.

QUESTION 2A

I'm planning to submit a proposal for P23AS00293, "Effects of sound on wildlife, ecosystems, and visitors in units of the National Park system." I had a very positive conversation with a potential tribal partner, but we were wondering whether funds from this proposal could only be used within NPS-managed lands. Our project would span NPS- and tribal-managed lands, and we envision using the funds to purchase some recording equipment and hire field staff that would work in both jurisdictions in support of a unified project. Would that be allowable?

RESPONSE 2A

That's correct. Funds for this project can only be used within NPS-managed lands.

QUESTION 2B

Follow-up question: I reached out to some NPS staff (Denali NP) who'd contacted a colleague several years ago about bioacoustics, and they said they can't speak with me to avoid any unfair advantages. I certainly don't want to put anyone in a bad or awkward position, but I'd love to get an updated understanding of what their needs are to craft a proposal that best serves the park. Are general conversations ok, or should I not talk with any NPS folks until the proposal is submitted?

RESPONSE 2B

Please note the outcomes expected from this Project listed below. The primary foci of the project activity are data processing of type 1 SPL acoustic recordings collected by NPS units throughout the Park system by: (1) the maintenance of a listening facility for data analysis and reporting using NSNSD protocols and (2) improvement of methodology by

review and analysis of current data methodology and development of alternative machine learning routines. And yes, members of our office who may be involved in the evaluation of the proposals are restricted from discussing topics related to the RFP with potential proposers. More broadly, this RFP does not support only one Park or one region, and such a consultation would not be beneficial to meet the main goals of the project.

Outcomes:
Develop data processing workflow to optimize coding efficiency and data organization.
Analyze data collected in parks (following established Natural Sounds and Night Skies Division [NSNSD] protocols), identifying audible sound sources and their durations, categories.
Improve efficiency of techniques and methods for sound source identification.
Report on process errors and methodological weaknesses of the existing protocol.
Quality assurance/ quality control: efficient analysis of acoustic data collected in parks, with appropriate quality control review.
A report, summarizing analysis of the sensitivity of current and future annotation methods, inter-user variation, and software.
Meet rapid analysis and reporting turnaround needs of NPS and develop improved workflows to enhance performance.
Develop, test, and document new automated machine learning workflows.

QUESTION 3
We are planning to pull together an application for the grant opportunity entitled "Effects of sound on wildlife, ecosystems, and visitors in units of the National Park system" and had a quick question about it.
We are currently planning on collaborating for the grant. However, when looking at the call for proposals the first collaborator we thought of is [*from another institution*]. We have frequently worked with [*them*] in the past due [*to*] expertise is bioacoustics on projects that are interdisciplinary in nature.
[*Our*] team is wondering if it is acceptable to outsource to [*another institution*] for wildlife expertise in regards to report writing and larger scaled projects while having the majority of the workforce focused at [*our institution*]?

RESPONSE 3
In the situation you describe, the other entity would become a "sub-awardee". Your institution as the recipient would be responsible for managing and financial reporting of the subaward role, which must meet all the requirements of the intent and scope of the project awarded. The pass-through entity and funds are subject to the requirements of the Agreement of the Award (see 2 CFR 200.332).

Code of Federal Regulations
Title 2
SECTION 200.332
Requirements for pass-through entities.
https://ecfr.io/Title-2/Section-200.332

QUESTION 4
I have an inquiry about the recent posting for the NPS funding opportunity on the Effects of Sound in Units of the National Park System. I and some of my collaborators thought that this funding call could potentially be a great opportunity for some of our research, which includes extensive experience with acoustic monitoring data and machine learning-based processing methods for these data, research on the effects of human activity on wildlife in national parks, and the dynamics of songbird communities in old growth forests (such as those in Yellowstone NP).
We were hoping to gather a little more information on this particular funding call to see whether our research plans would be a good fit. In particular, we would like to know if there are specific goals or products and priorities that the Natural Sounds & Night Skies Division already have in mind for this work? It seems from the RFP that establishing a data processing and management system is a priority but within those goals, we're wondering how much scope and flexibility there is in the research we could propose to do with the acoustic data, or whether there is a particular set of questions in mind that NPS would like addressed. We've read the RFP a few times and are still not sure exactly how restricted the call is because there are some specific expectations there.
We're also wondering if there is any existing data and if so, what there is and what NPS priorities are for what needs to be done with it and how that will factor into the evaluation of proposals?

RESPONSE 4
Thank you for your interest in project P23AS00293.
Please find below, answers to your questions about the posted opportunity.

(Q) We would like to know if there are specific goals or products and priorities that the Natural Sounds & Night Skies Division already have in mind for this work? It seems from the RFP that establishing a data processing and management system is a priority but within those goals, we're wondering how much scope and flexibility there is in the research we could propose to do with the acoustic data, or whether there is a particular set of questions in mind that NPS would like addressed.

(R) This NOFO focuses on the methodology and processing of data submitted from Park projects across all units of the NPS, and the development of machine techniques to enhance those protocols. Processing of Park data is a significant endeavor following NSNSD protocols, and will require 1,000 hours of manual listening and sound source identification per year. In parallel, developing machine tools to reach the same outcome with substantial benefits, or to reduce the need for human labor in data annotation, is a major goal of this funding opportunity. The sound sources will be both human noise and natural ambient, and the management goals will generally be on mitigating noise effects on park resources and visitor experience, and are highly dependent upon situation. Both of these actions, listening lab and machine tools, must be accomplished. Additional research questions posed with the data processed are secondary efforts, and would be for the awardee to manage with approval of, and in conjunction with, the NSNSD office. NPS acoustic questions are in response to the park management needs or related to the research projects initiated within a given Park, generally relayed to NSNSD through Technical Assistance Requests.

(Q) We're also wondering if there is any existing data and if so, what there is and what NPS priorities are for what needs to be done with it and how that will factor into the evaluation of proposals?

(R) NPS (NSNSD) has an archive of more than a decade of acoustic monitoring data from parks, which can be used in the training of algorithms and testing of machine outcomes of sound identification or other routines which will be useful in processing, analyzing, and sampling design of field collections of acoustic data. NPS priorities for what existing data can provide are several, and include using archival data to analyze protocols and methodology to optimize monitoring, field design and analysis of sound data, and, as mentioned, for improving methods with machine learning. As described previously, new data will need to be analyzed according to existing protocols in a timely manner, and can also be used as test cases for comparative analysis with any methodological developments. Analyzed results of specific projects inform management decisions in relation to natural soundscapes, anticipated effects of human interventions, and description of ambient environmental sound and human noise and the effect on wildlife and humans.

> **Evaluation of proposals will be based upon:**
> **Subject Matter Expertise (35%)**
> **The proposal demonstrates that the Partner has subject matter expertise and can draw from multiple disciplines to design and implement a data analysis program that can accomplish the stated goals and research questions.**
> **Quality of proposed study design (30%)**
> **The proposal demonstrates broadly how the data analysis program would be designed to accomplish the stated goals and objectives.**
> **Technical Capacity (30%)**
> **The proposal demonstrates that the Partner has the capacity (e.g., personnel, lab; partners) to design and implement workplans, or has identified sources for completing these elements.**
> **Secretary of the Interior Priorities (5%)**
> **Identify which of the Secretary of the Interior priorities, noted in Section A, Program Description (i.e. Working to conserve at least 30% each of our lands and waters by the year 2030, Identifying steps to accelerate responsible development of renewable energy on public lands and waters, Centering equity and environmental justice), your project aligns with, and provide detail as to how your project meets the priorities.**

QUESTION 5

I've recently started a project looking at the effects of noise pollution and ALAN on frog communities at **[…]**. My first hopefully quick question, is whether the Okefenokee and surrounding state managed areas of the swamp are eligible for the grant.

My second question regards my eligibility as PI. I [*worked*] at the USDA-ARS, Southeast Watershed Research Unit. I still continue to collaborate with **[…]** the USDA and am still on a USDA contract to continue research with **[…]** for the next year. If I write the grant for NPS, it

would be as a representative of **[…]** University, not the USDA. However, does my connection to the USDA disqualify me from the grant?

RESPONSE 5
(1) To be eligible for this grant, your institution needs to be currently part of a CESU (Cooperative Ecosystem Studies Units) master agreement. The CFDA (catalog of federal domestic assistance) allows for state and local governments, federally recognized Indian tribal governments, public and private non-profit institutions of higher education and individuals.

(2) No, your connection to USDA would not disqualify you from receiving this funding.