NE 1962 Project Proposal Start Date" October 1, 2022; End Date September 30, 2027. Response to Peer Review

We would like to thank the reviewers for taking the time to review the proposal and provide thoughtful, substantive comments. Our responses are below.

Methods

Several reviews made comments about the methodology being vague. Related was a concern regarding how we would address pluralism in the field. A final related concern was whether new methods were proposed or if it was "more of the same."

RESPONSE: We agree the methods are vague. But as one of the reviewers stated: "It may be that the project is purposely written to be broad to provide a nimble basis to engage researchers." That sentence accurately, and elegantly, captures the intent of the proposal. One purpose of the proposal is to attract new participants to the multi-state project. Participants do not necessarily need to conform to a specific methodology. Rather they can fit their studies into the project. This will facilitate collaboration across geographic and disciplinary boundaries, helping to achieve broader project objectives.

The following is the preface to the methodology section. That section has been revised to clarify.

Original wording: "As this project seeks to develop collaborations and new research that will involve a variety of disciplinary perspectives and stakeholders, a specific methodology is not yet defined. The methods listed below will serve as a starting point for advancing methodology."

Revised wording: "This project is not a typical funded project with a pre-defined research methodology. The goal is to advance the topic areas listed, by 1) allowing researchers to formally participate in a multi-state project (i.e., through their experiment station), and 2) developing new collaborations among researchers. The breadth of methods used to address broader research questions will ideally be as diverse as the different disciplines and fields represented by project collaborators. The methods listed below will serve as a starting point, enabling researchers to identify with this multi-state project and potential analytical approaches yet leaving ample room for methodological adaptation and innovation."

REPSONSE: Regarding the concern about novel research methods, the individual projects associated with previous editions of this project have been novel and have demonstrated positive impacts to the public. The purpose of this proposal is to allow to collaboration/integration among participants (i.e., researchers, extension agents) and scaling up of those novel projects. As such it is intentionally broad and does not specify one specific method.

Outcomes/products/milestones/outreach plan/impact to the public

Several reviewers noted a lack of specificity in the objectives, products, and milestones. Related, concern was expressed regarding ensuring the project makes an impact to the public.

RESPONSE: The following text was added to clarify how the outcomes, products, and milestones would be measured.

"The following outputs, outcomes, and impacts will be assessed at each annual meeting. The annual meeting will be used to recognize successes, identify opportunities for improvement and/or new avenues of inquiry, and develop a plan for continued success. The outcomes and impacts of the project will be evaluated through the annual report, which is compiled after the annual meeting. Each member of the project is required to submit their outcomes and impacts each year. The annual report will facilitate synthesis of projects outcomes and impacts on our list and identification of shortcomings or strategies for improvement. In addition, project outcomes will be evaluated for evidence of participatory research methods, as appropriate."

RESPONSE: The following was added to the outreach plans section to clarify how we will assess the extent of the project's public impact.

"Efficacy in disseminating results of research, and other outreach efforts, will be evaluated at the annual meeting and through the annual report."

Specific comments not addressed above

"I would suggest working within the existing organizations to create synergy among the topics and among diverse stakeholders" researchers, managers, extension specialists, and the interested public."

RESPONSE: Members of this multi-state group are diverse, including extension agents. In addition, we've made a point to include managers in our annual meetings, though hope is to add more managers and practitioners as direct research collaborators as the project progresses.

"Should intended audience of book be researchers or managers and the public."

RESPONSE: The book is intended to be accessible to non-academics, whether that be managers or policymakers/elected officials. It should also be of interest to researchers, as well as being valuable for university curriculum.

"Expert-based positioning of the proposal."

Reply: Given this is a Hatch Multi-state project, there is definitely an applied component to the research. Members of the project who are participating through an agricultural and forestry experiment station must report specifically on how the results have been disseminated to the community of interest. Likewise, participants must report on training and professional development that has resulted. While not every project participant has reporting requirements to their experiment station (and hopefully this project results in research and outreach not tied to a specific agricultural and forestry experiment station), the multi-state annual report requires documentation of "Training, professional development, and information dissemination" and "impacts." While not explicitly stated in the methods, effective applied research should incorporate participatory research methods. We have now added a note to the output/outcome/impact section explaining how the annual report and meeting will serve as an assessment of outreach and impacts. That note also mentions we will assess project outcomes for evidence of participatory research methods.

"Advocacy orientation of the text that does not distinguish the process of greening from the impact of greenness."

RESPONSE: The entire equity and inclusion section of the proposal focuses on disparities and potential negative impacts of greening, including gentrification. In other words, these legitimate concerns are already discussed in detail. To clarify the relationships suggested by the reviewer, we added the following sentence to the equity and inclusion section:

"In other words, while the impact of green spaces is often positive, the process of greening can produce unexpected consequences."

We have also added the following reference in that section:

Rigolon, A., & Collins, T. (2022). The green gentrification cycle. *Urban Studies*. DOI:10.1177/00420980221114952.

Reviewers expressed concern about the literature being outdated, especially related to Covid. One reviewer mentioned a special issue of *Urban Forestry & Urban Greening* and another in *Land* that might be consulted.

RESPONSE: Based on the reviewers suggestions, we have added some more recent references – especially pertaining to the role of parks and greenspace during the COVID-19 pandemic. However, we could not add too many more due to space limitations. These include:

Li, H., Browning, M. H., Dzhambov, A. M., Zhang, G., & Cao, Y. (2022). Green Space for Mental Health in the COVID-19 Era: A Pathway Analysis in Residential Green Space Users. *Land*, *11*(8), 1128.

MacKinnon, M., MacKinnon, R., Pedersen Zari, M., Glensor, K., & Park, T. (2022). Urgent Biophilia: Green Space Visits in Wellington, New Zealand, during the COVID-19 Lockdowns. *Land*, *11*(6), 793.

Nay, A., Kahn Jr, P. H., Lawler, J. J., & Bratman, G. N. (2022). Inequitable Changes to Time Spent in Urban Nature during COVID-19: A Case Study of Seattle, WA with Asian, Black, Latino, and White Residents. *Land*, *11*(8), 1277.

Pipitone, J. M., & Jović, S. (2021). Urban green equity and COVID-19: Effects on park use and sense of belonging in New York City. *Urban Forestry & Urban Greening*, 65, 127338.

In terms of contemporary references, it should be noted the updated proposal draft includes 46 references published in 2019 or later.

"objectives not clear. 'what does demonstrate and expand the evidence for' mean?"

RESPONSE: The following section was changed:

Original wording: "The purpose of extending this project (NE1962) is to provide evidence for the role of and mechanisms by which parks and other green environments provide benefits to people"

Revised wording:

"The purpose of extending this multi-state project is to continue to build a network of researchers conducting applied and basic research, as well as outreach, regarding benefits associated with parks and other green environments. Individual research and outreach projects will fall under the following four broad categories.

- 1. Explore the role that parks and outdoor recreation play in promoting physical activity, psychological well-being, and associated preventative health benefits.
- 2. Explore the role that park and outdoor recreation play in promoting environmental literacy and stewardship behavior among youth and across the lifespan.
- 3. Explore the role that parks and outdoor recreation play in promoting community resilience and vitality.
- 4. Enhance efforts to increase diversity, equity and inclusion (DEI) in public parks, greenspaces, and outdoor recreation activities.

The benefit of this multi-state approach is to exchange research methodology among project participants, moving towards more comparable study findings and cross-state analysis of results allowing for greater insight to problems faced by all states. In addition, successful outreach methods and strategies for successful collaborations with practitioners can be shared among project participants to generate the outputs, outcomes, and impacts, described below."

"use PAR to identify strategies to push for change, but not to achieve change." How will programs be examined to determine if programs were successful at meeting certain goals?

RESPONSE: See sections on Outputs/Outcomes/Impacts and Outreach Plan. This will be assessed and annual meetings. In some cases, specific intervention studies may be designed to examine the efficacy of programs.

"Project outcomes do not connect to the stated objectives. "...unclear how the following stated outcomes would come from this project"

RESPONSE: See the revised Objectives and the updated (and now more contextualized) sections on Outputs/Outcomes/Impacts and Outreach Plan. This should help to clarify these connections. Our outcomes will stem directly from collaborative multi-state efforts exploring the contributions of parks and greenspaces in each of the key study areas (health and well-being, environmental literacy and stewardship, community resilience and vitality, equity and inclusion). Advancing the science — and implications for policy and practice - around each of themes will help to ensure that project goals are achieved.

"Unclear what the role of the non-academic would be in this project. It seems that the methodological challenges and goals are stated, but are not necessarily grounded in what land and recreation managers experience."

RESPONSE: As highlighted in the Outputs/Outcomes/Impacts and Outreach Plan sections, many participants are associated with an agricultural and forestry experiment station. Some participants have extension positions, and many projects have strong applied focus. As such, the roles of non-academic collaborators will vary depending on the focal topic/objectives and context. The multi-state proposal is written to ensure a variety of diverse collaborative opportunities and partnership models remain possible.

"Objectives and methods are research-focused. Yet the outcomes and projected impacts imply that partnerships will be developed. Which objectives and methods will be used to build partnerships?"

RESPONSE: We have reworded the objectives to signify that they are not exclusively research based... they are designed to explore the contributions of parks and greenspace across multiple social arenas. Part of that process is advancing the evidence, put part of that is also identifying specific strategies and interventions (including partnerships) that might be developed to realize and maximize these potential benefits. Because these strategies and interventions are highly contextualized, we have not prescribed any specific approaches. However, we have reiterated that partnerships are the essence of the multistate project: "...working with another State agricultural experiment station, the Agricultural Research Service, or a college or university, cooperates to solve problems that concern more than one State." (See: https://www.nifa.usda.gov/grants/programs/capacity-grants/hatch-act-1887-multistate-research-fund) Partnerships will be facilitated through the annual meetings, other multi-state group functions, and multi-state group communications.