

Supporting Statement A for OMB 0596-0237

Urban Forest Engagement in Atlanta, GA

Note: This is a request for OMB to reinstate the previously approved information collection OMB 0596-0237, Environmental Justice and the Urban Forest in Atlanta, GA, which expired November 30, 2017. Please note that, based on a broadening of the research focus, we are proposing to change the title of this collection to “Urban Forest Engagement in Atlanta, GA.” Analysis of the data collected under this original information collection led us to propose incorporation of new measures examining security of property ownership and perceptions of property damage from trees during storms.

A. Justification

- 1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.**

Given extensive research suggesting that urban forests, extensive network of trees and other vegetation across cityscapes (Nowak, Stein, Randler, Greenfield, Comas, Carr & Alig, 2010), provide an array of ameliorative ecosystem services ranging from pollution removal and health restoration to crime reduction, this information collection examines the extent to which City of Atlanta, Georgia residents engage with activities to both maintain and protect household and neighborhood trees, including how such engagement might vary along racial lines (Escobedo & Nowak, 2009; Kuo, Sullivan, Coley, & Brunson, 1998; Ulrich, 1984). This project focuses on how social engagement, that is the things that people do, works to produce the urban forest. The conceptual framing is provided by Ernstson (2013) and Ernstson & Sörlin (2009) who posit that ecosystem services, in this case Atlanta’s urban forest, are produced through socio-political processes involving the routine management and protection of environmental resources. The “social” component of ecosystem service production occurs when people exercise varying degrees of engagement to effect urban forests, for example establishing street tree plantings, maintaining trees on private property, or advocating for trees at the municipal level.

Of particular interest are racial variations in the exercise of this engagement, as people’s willingness or ability to participate in such efforts has been shown to be conditioned by race (Elmendorf, Willits, Sasidharan, & Godbey's, 2005; Battaglia, Buckley, & Galvin, 2014; Heynen, Perkins, & Roy, 2006). African Americans make up roughly 54% of the City of Atlanta’s population but participate much less in the city and region’s economic boon. Civil rights era issues around fair housing, job access, and educational quality remain, particularly for African Americans living in the city’s south side communities (Henderson, 2004; Immergluck, 2009; Immergluck and Balan, 2017). Contemporarily, questions related to green space provision in the city have assumed parity with these civil rights aspirations, but

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broad-based, African American involvement with the city's urban greening priorities is not well-understood. This information collection will help to address this gap by providing data allowing us to compare African American and non-African American efforts to manage and protect city trees.

This information reinstatement builds on knowledge gained from the 2014-2017 Office of Management and Budget-approved information collection ("Environmental Justice and the Urban Forest in Atlanta, GA", OMB control number 0596-0237). Under that approval, we conducted a survey that initially sought to examine urban forest engagement from an environmental justice lens. However, comments received from peer review of a manuscript based on that study questioned whether the data we solicited had more to do with interest, care, and advocacy for urban trees rather than environmental justice. Following from that review process, we modified our objectives for the present reinstatement. Current objectives are to: 1) examine resident interest and care for trees at their homes; and 2) examine resident advocacy for neighborhood trees, and also, bring in concepts related to security of property ownership and perceptions of property damage from trees during storms.

An important finding from the 2014-2017 data analysis is interest/concern/advocacy varies significantly by race, with less interest/concern/advocacy indicated by African Americans. This is true, holding constant education, homeownership, and other controls. We posit that racial differences may relate, in part, to constraints on how people own their homes. This is not a question of whether one owns or rents a home but rather clarity of real property ownership. This factor was not controlled in the 2014-2017 study.

We submit that racial differences urban forestry engagement may stem from the higher incidence of tenancies in common or "heirs' property" ownership among African Americans in Atlanta. In these situations, extended family members own undivided, fractional interests in property; but this ownership is undocumented because the names of the many co-owning family members do not appear on titles. For this reason, creditors will not accept heirs' property as collateral for loans; and co-owners are often excluded from participating in a range of government-sponsored home improvement programs, all of which restrict co-owners' ability to leverage such property for asset and wealth building (Mitchell, 2001).

When property is collectively owned in this way, co-owners may be reluctant to improve property because of uncertainties about the return on investment (Deaton, Baxter & Britt, 2009). For instance, one co-owner may repair a roof, and six months later, another co-owner may exercise his or her legal right to have the property partitioned, which might result in a forced, court-ordered sale (Mitchell, 2001). The disinclination to upkeep property results in inefficient property uses, what economists have called a "tragedy of the anti-commons" because resources may be underutilized to the point of degradation (Deaton, Baxter & Britt, 2009). If tenuous title holders are less able or willing to invest in and improve their own property, they may also be less likely to engage in efforts to care for, maintain, or promote natural areas in their neighborhood.

Heirs' property ownership is thought to be more prevalent among African Americans

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than the population generally. A 1980 study estimated that 41 percent of African American-owned land in the South was heirs' property (Emergency Land Fund, 1980). Most of the research highlighting heirs' property dilemmas focus on the issue for African Americans and others in rural settings; however, this form of real property ownership occurs widely in cities and is implicated in urban blight (Barlow, Daniel, and Schaffzin, and Williams, 2017).

We have no data indicating the distribution of heirs' property ownership in Atlanta, but Dr. Cassandra Johnson Gaither found a strong and positive correlation between heirs' property clustering and African American concentrations in Macon, GA and in Louisville, KY (Johnson Gaither and Zarnoch, 2017; Louisville, KY map available from Dr. Cassandra Johnson Gaither). Atlanta is not likely to be an exception. To this point, a 2016 Atlanta Journal Constitution article highlighted problems with such ambiguous property titles in west Atlanta and the problems this presented in terms of owner eligibility for blight remediation programs (Mariano, 2016).

The following statutes are relevant to this request for information collection:

1. National Environmental Policy Act of 1969 (PL 91-190): This act is the nation's basic charter for protection of the environment. Section 102(2) (A) directs federal agencies to "utilize a systematic, interdisciplinary approach which will ensure the integrated use of the natural and social sciences...in decision making which may have an impact on man's environment." The proposed study provides an integrated approach to assessing residents' relationship to the urban forest.
2. Civil Rights Act of 1964 (PL 88-352): The Civil Rights Act of 1964 was enacted as a result of this country's de jure and de facto laws which resulted in unequal access to federally funded programs and institutions. Title six of the act explicitly states that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."

2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

a. What information will be collected - reported or recorded? (If there are pieces of information that are especially burdensome in the collection, a specific explanation should be provided.)

The survey contains questions about attitudes and engagement with Atlanta's urban forest. This includes information on people's support of tree planting by private residents and residents' involvement in community organizations promoting tree preservation and planting.

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- b. From whom will the information be collected? If there are different respondent categories (e.g., loan applicant versus a bank versus an appraiser), each should be described along with the type of collection activity that applies.**

Information will be collected from residents of both owned and rental properties in Atlanta, GA.

- c. What will this information be used for - provide ALL uses?**

Information collected will serve multiple purposes. The first is to generate data that will be used to support implementation of the [USDA Forest Service Strategic Plan: FY 2015-2020](#). The Plan's Strategic Objective E, strengthen communities, states: "as America's urban areas continue to grow, access to the natural environment and nature-based activities is becoming increasingly important to a community's overall health and well-being. Access to natural areas is particularly beneficial for youth, especially in many urban areas, where opportunities for outdoor play in natural settings may be limited" (Forest Service Strategic Plan, 2015-2020).

The Plan's Objective F, connect people to the outdoors, also calls attention to the high concentration of the American population in cities and the need to provide these populations with venues for engaging with nature, both in cities and in nearby urban-proximate national forests. To help achieve this objective, the agency will: "support local urban and community forestry initiatives that reach people living, working, and visiting our country's urban areas" (Forest Service Strategic Plan, 2015-2020). This data collection will help to provide information on how residents in Atlanta engage with one of these key urban natural resources, the city's urban forest.

This information collection gathers data on interest/care/advocacy for the urban forest, as well as people's sense of their informal, neighborhood social control, known as collective efficacy. We also collect data on physical conditions of houses and other infrastructure in the immediate vicinity of people's homes, which we refer to as blight (Iton, 2017). Collective efficacy and blight are assessed so that we can obtain a better understanding of the broader context in which people's engagement with the urban forest occurs. We hypothesize that care and concern for the urban forest is higher in areas with greater measures of collective efficacy and lower blight scores. The blight questions are not a part of the survey administered to respondents. These data involve an ocular assessment of conditions around respondents' homes and will be collected by survey administrators but not asked of respondents. This broader social context helps with an understanding of constraints that may influence people's engagement with the urban forest.

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Secondly, this information collection addresses the city of Atlanta's efforts to integrate sustainability into city planning. With a better understanding of not only the biophysical benefits of the city's trees (i.e., ecosystem services such as pollution removal and energy savings), but also data on how engaged people are with the resource across the city, city planners will be better able to enhance places in the city with fewer trees and emphasize those areas that have more abundant green spaces (City of Atlanta Department of Watershed Management, 2017).

Finally, both basic and applied research will be generated to address two research problem areas assigned to Research Work Unit on Integrating Human and Natural Resources of the Southern Research Station: assess human influences on ecosystems that affect human-derived benefits from those ecosystems; and evaluate the complex relationships between different social groups and natural resource use and engagement along the urban to rural continuum.

A great deal of research has been conducted on community engagement with urban forests in the Forest Service's Northern Region and in the Pacific Northwest. For instance, Research conducted in Chicago neighborhoods suggests that city trees have beneficial effects on the social well-being of poor residents contending daily with inner-city blight and volatility. Findings suggest that even minimal contact with nature in urban settings contributes significantly to well-being indicators like stress and mental fatigue reduction, mood enhancement, self-discipline for young girls, and even crime reduction (Kuo, Sullivan, Coley, and Brunson, 1998; Kuo, Sullivan, Coley, and Brunson, 2000). However, relatively little research examines these questions in the South, despite the fact that the South is the fastest growing region in the country in both urban and rural places, and contains considerable racial and ethnic diversity.

As indicated, the City of Atlanta has focused [its attention on sustainability and urban green space initiatives](#) that are intended to reduce greenhouse gas emissions while improving quality of life at the local, neighborhood level. While these initiatives are being embraced in more affluent communities in the city, it is not clear how they are being received in lower socioeconomic and minority neighborhoods. Resident engagement with sustainability initiatives, however, is crucial to their success (Ban et al., 2013). This information collection, with its emphasis on care, concern, and advocacy for the urban forest, will provide information on how residents across the city participate in creating the city's urban forest and, importantly, how urban blight may constrain those efforts.

- d. How will the information be collected (e.g., forms, non-forms, electronically, face-to-face, over the phone, over the Internet)? Does the respondent have multiple options for providing the information? If so, what are they?**

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The survey will be left at the household for the appropriate household member to complete. The person receiving the survey will be told that completed surveys will be retrieved later that day or by a specific time the next day. Responses will be recorded by the survey administrator using electronic devices. Again, blight data will be recorded by survey administrators after surveys are retrieved.

e. How frequently will the information be collected?

The survey will be conducted one time per address/respondent. We will ask that the person in the home who is 18 years old or older and who last had a birthday to respond to the survey. If the adult who last had a birthday is not home, we will ask that the adult to respond who last had a birthday and is currently home.

After this survey is complete, that particular address will be noted as complete in our sampling database, which ensures that any given respondent responds only once to the survey. We wish to collect the survey in the spring through fall months when leaves are on trees to help people recollect and take notice of trees. We will collect this information twice in the first year of the approval, and we do not plan to collect any additional data in the remainder of approved years.

f. Will the information be shared with any other organizations inside or outside USDA or the government?

Data will be shared with Phillip Rodbell, the Forest Service's National Program Lead for Urban Forest Research; Region 8 Urban and Community Forestry Program; Morehouse College in Atlanta, GA; and the City of Atlanta's Office of Resiliency.

g. If this is an ongoing collection, how have the collection requirements changed over time?

Seven statements comprising the urban forest engagement scale (items 1-14) were modified to reflect constraints people may encounter in terms of urban forest engagement. These are statements 2-7 and 10. The former scale items or statements were replaced with items that are a better reflection of concrete constraints that people may encounter. For instance, the replaced statement 2 refers to the high cost of tree maintenance, and another replaced statement (6) now asks about vacant properties as a constraint to tree maintenance.

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The survey was also changed to include seven questions (items 15-21) related to property damage caused by falling trees. Open-ended, anecdotal information from respondents to the first survey suggests that African Americans in Atlanta may be less likely to have the financial resources to have dead trees or hazardous tree limbs removed from their property—which increases the risk of property damage from trees. This constraint may be a contributor to lower support for urban trees among African Americans in Atlanta. Seven questions related to the impact of storms and wind events on people's perceptions of city trees were added to the survey. This survey represents an opportunity to gauge residents' responses and views of urban trees in light of recent impacts on the city from Hurricane Irma in September 2017 and Hurricane Michael in October 2018.

As stated in the Justification section, item 2c, we will also assess collective efficacy, as conceptualized and described by Sampson, Raudenbush, & Earls (1997); Sampson & Raudenbush (1999); and Burdette, Wadden, and Whitaker (2006). Collective efficacy has to do with the social context and relations of a given place. Scale items assess the degree to which people feel good about and comfortable with doing things in their neighborhood and the extent to which people feel that they have some form of influence or informal control over occurrences in the neighborhood.

Collective efficacy is being assessed with this data collection because it will help us to understand better the broader social context in which people's engagement with urban trees are situated. Again, we hypothesize a positive association between the urban forest engagement scale and collective efficacy. That is, the more people feel comfort and some measure of control in their neighborhoods (operationalized by collective efficacy), the more likely they will be able to freely engage with the urban forest (other factors equal). If people have to spend less time concerned with physical and social stressors in their neighborhood, the more time and energy they would have to devote to the establishment and maintenance of the urban forest.

The earlier iteration of this data collection sought to address this broader community context by presenting respondents with a list of typical challenges affecting urban communities like crime, lack of transportation and affordable housing and then asking respondents to indicate in a binary manner whether those factors affected their community. The collective efficacy scale represents an improved and more comprehensive way to elicit this data. Fourteen collective efficacy items are included on the scale. These are items 22-35.

Also, based on our supposition of heirs' property influence on urban forest engagement, we included a question on this iteration of the information collection that asks homeowners if they own heirs property. This is question 40. This question replaced one on the first survey that asked how long the respondent had lived at the current residence. That question was replaced expendable because it was not significant in any of the regression analyses.

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Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g. permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.

Survey administrators will introduce themselves to the person who answers the door of a given residence. The administrator will explain the survey purpose and ask that the appropriate household member complete the survey. If the householder agrees to complete the survey, a paper copy of the survey and an envelope will be left at the doorstep. The administrator will explain that he or she will return later that same day or at an appointed time the next day to retrieve the completed survey. This method is employed because it helps to alleviate the burden of an immediate response by the appropriate person in the household. There are a variety of reasons why an immediate response may not be convenient for the respondent. If the respondent prefers, the survey may be administered immediately.

3. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.

We used two principal means of identifying duplicate information. First, we conducted a review of the Office of Management and Budget website to determine whether any projects related to urban residents' perceptions of and interactions with urban trees had been submitted to the Office of Management and Budget. We searched by agency and sub-agencies that would most likely submit a request similar to the one proposed in this supporting documentation. We examined these and did not find any overlap.

The second way that we sought information about what projects related to our topic was to work closely with Dr. Kenli Kim, National Program Lead for Social Science Research with the US Forest Service. Dr. Kim has extensive knowledge of research being conducted by other social scientists across all regions of the agency. All OMB applications are reviewed by her before being forwarded to the Department of Agriculture for review. Dr. Kim has advised that there are no current efforts that duplicate or are similar to the research proposed in this information collection. For the initial collection of this data that occurred in 2015-2016, we also contacted:

- o Dr. Lynne Westphal--Northern Research Station
- o Drs. Jamie Barbour and Lee Cerveney--Pacific Northwest Research Station
- o Dr. Debbie Chavez (now retired)--Pacific Southwest Research Station
- o Dr. Carol Raish--Rocky Mountain Research Station

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Except for Lee Cervený, none of these individuals had projects or were aware of projects similar to ours. Lee Cervený's project examined recreation patterns in King County, Washington. Project objectives were to: (a) identify factors influencing residential choices to live in communities along the Wildland Urban Interface; (b) measure resident satisfaction with community life and access to public lands; (c) identify outdoor recreation participation patterns of residents along the WUI corridor. Again, these objectives are distinct from our aim of identifying residents' opinions and engagement with city trees.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

No small businesses or other small entities will be involved with the study.

6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

If the information proposed herein is not collected, this will limit the Forest Service's efforts to contribute to the preservation and restoration of urban tree cover. One of the Means and Strategies for carrying out the Forest Service's Strategic Goal to "Sustain Our Nation's Forests and Grasslands" is to: Promote development based on long-term planning and strategic conservation that meets community needs, is sensitive to the environment, and preserves and restores forested landscapes and urban tree cover.

Also, the agency's Strategic Objective F is: Connect people to the outdoors. It states: "More than 80 percent of Americans live in urban areas, and they have many opportunities to enjoy the outdoors on local open space and nearby national forests. Urban Americans benefit from the 100 million acres of urban forests, including urban parks, neighborhoods with shade trees, landscaped boulevards, public gardens, and more. Again, however, very little is known about the distribution of ecosystem services associated with the Atlanta's urban forest or how engagement with the city's trees may be promoted by residents or how concern for the resource fits within the myriad of demands with which residents contend on a routine basis.

7. Explain any special circumstances that would cause an information collection to be conducted in a manner:

- **Requiring respondents to report information to the agency more often than quarterly;**
- **Requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;**

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- **Requiring respondents to submit more than an original and two copies of any document;**
- **Requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years;**
- **In connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
- **Requiring the use of a statistical data classification that has not been reviewed and approved by OMB;**
- **That includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
- **Requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

There are no special circumstances. The collection of information is conducted in a manner consistent with the guidelines in 5 CFR 1320.6.

8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8 (d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.

The 60-day Federal Register Notice requesting comments was published on October 10, 2017, available here: Federal Register Volume 82, Number 194 (Tuesday, October 10, 2017), Pages 46956-46957.

URL:

<https://www.federalregister.gov/documents/2017/10/10/2017-21681/information-collection-urban-forest-in-atlanta-ga>

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One comment was received and is presented verbatim below:

“this survey is a waste of taxpayers time and money. there is no need to take surveys like this. the fact is most know that trees in cities do good environmental things, like provide shade, let birds have a site, etc. so it is not necessary to do this wasteful survey of Atlanta, which is the same as every other city. what a waste of time and money for the fs to tax us and gouge us so they can spend their time on this kind of wasteful survey, which is the same as all the other surveys in the usa. this comment is for the public record. we need new management if this is the way they waste our tax dollars. cut all budget for this to zero. please receipt. jean publiee jean public1@gmail.com”

A summary of this comment follows: 1) there is already enough data in the benefits of trees in cities; 2) data collection is a not a good use of government spending.

The agency’s response follows:

1) Yes, we agree that there is a robust literature documenting the many ecosystem services associated with green space in cities. However, there is much less information about how people belonging to different socio-demographic groups participate in the creation of those services. Studies have documented an uneven distribution of canopy cover in communities of color; but again, there is much less data on how people across cities actually feel about and engage with efforts to establish, restore, or maintain the urban forest. Data from this survey of people’s engagement with Atlanta’s urban forest will be paired with data on the distribution of trees across the city to examine the degree to which concern/engagement may be associated with the amount of urban forest cover in those same places.

2) The funding for this project relates to the Forest Service’s strategic decision to focus research on and support for urban communities. This is a stated goal of the Forest Service’s strategic plan 2015-2020 (https://www.fs.fed.us/sites/default/files/strategic-plan%5B2%5D-6_17_15_revised.pdf)--specifically, Strategic Objective F, which is: Connect people to the outdoors. It states (p.22): “More than 80 percent of Americans live in urban areas, and they have many opportunities to enjoy the outdoors on local open space and nearby national forests. Urban Americans benefit from the 100 million acres of urban forests, including urban parks, neighborhoods with shade trees, landscaped boulevards, public gardens, and more.” Again, however, very little is known about the distribution of ecosystem services associated with the Atlanta’s urban forest or how engagement with the city’s trees may be promoted by residents or how concern for the resource fits within the myriad of demands with which residents contend on a routine basis.

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Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and record keeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 years even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.

The proposed study has been reviewed and commented on by non-Forest Service researchers representing several disciplines, urban ecology, outdoor recreation and leisure studies, and natural resources tourism. Also included are comments from data compilers with the city of Atlanta, GA and Fulton County, GA, as well as community activists. Mr. Garry Harris is president of HTS Enterprise, a consulting firm that provides a range of energy engineering technical services and promotes efforts to create sustainable communities in metropolitan Atlanta. All comments and recommendations were taken into consideration and incorporated into the survey as appropriate. The following table lists individuals who have been consulted on various aspects of the study.

| Efforts to consult with persons outside the agency | |
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| Contact | Information Received |
| Dr. Brian Barger, Research Assistant Professor Epidemiology & Biostatistics Georgia State University Atlanta, GA 75 Piedmont Ave., Suite 512C Atlanta, GA | Dr. Barger is providing comments on confirmatory factor analyses and path modeling that will be performed on the data. |
| Dr. Bynum Boley, Assistant Professor of Parks, Recreation, and Tourism Management, Warnell 1-301B Warnell School of Forestry and Natural Resources, University of Georgia Athens, GA 706.583.8930 | Dr. Boley has extensive experience using the proportionate, census-guided data collection technique and has advised on the administration of that data collection method. |

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| Ms. Molly Nuttall IGEL Program Manager Center for Ethics & Corporate Responsibility J. Mack Robinson College of Business Georgia State University Tower Place 200 3348 Peachtree Road NE Suite 500 Atlanta, GA 30326 404.413.7421 | Molly Nuttall is very familiar with environmental issues in the state of Georgia, including issues related to environmental justice in urban contexts. Ms. Nuttall is able to advise on the various dimensions of environmental justice and how these manifest across the city of Atlanta. |
| Mr. Paul Thomas, GIS Manager City of Atlanta Planning and Community Development 404.330.6725 | Mr. Thomas compiles property tax records, which are the universe for the data collection. |
| Mr. Chris Whatley, GIS Supervisor, Fulton County, GA—Department of Information Technology | Mr. Chris Whatley provided definitions of terms used in tax records and how multiple-family dwelling units were accounted for in the tax records. He advised where we could download tax parcels for Fulton County, GA. Mr. Whatley compiles property tax records, which are the universe for the data collection. |
| Dr. Nina S. Roberts, Department of Recreation, Parks, and Tourism, San Francisco State University 415.338.7576 | Dr. Roberts advised on the appropriate wording of questions and statements on the survey instrument. |
| Ms. Michelle Laskowski, M.S., Seed Collection Ecologist, Golden Gate National Parks Conservancy | Ms. Laskowski provided guidance on clarity of wording and instructions on the survey instrument. |
| Dr. Francisco Escobedo, (formerly) University of Florida School of Forest Resources and Conservation 352.846.0856 | Dr. Escobedo provided advice on clarification of statements included on the survey instrument. |

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| <p>Dr. Neelam C. Poudyal, Associate Professor of Natural Resource Policy and Human Dimensions. University of Tennessee Institute of Agriculture 865.974.8771</p> | <p>Dr. Poudyal provided advice on clarification of statements included on the survey instrument. He suggested we add questions related to tax funded programs to support green spaces and questions about specific tree species, but we advised that that sort of information was not what we aimed to collect with the data collection.</p> |
| <p>Mr. Garry Harris HTS Enterprise, LLC 241 Peachtree St., Suite 200 Atlanta, GA 30303 404.936.0620</p> | <p>Mr. Harris provided advice on clarification of statements included on the survey instrument.</p> <p>Mr. Harris resides in Atlanta, GA and represents the community from whom data will be collected.</p> |

9. Explain any decision to provide any payment or gift to respondents, other than re-enumeration of contractors or grantees.

No payments will be made to respondents for participation in the survey.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

The questionnaire will clearly state that the information is voluntary and that all the information collected will be reported but responses are anonymous. Personal information such as names or specific addresses will not be associated with any given response.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior or attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

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There are no questions of a sensitive nature on the survey regarding sexual behavior or attitudes, religious beliefs, or other matters that are commonly considered sensitive or private. We do ask respondents to indicate their educational attainment by selecting an educational range. Respondents do, of course, have the option to decline responding to any question posed.

12. Provide estimates of the hour burden of the collection of information. Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated.

- **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. If this request for approval covers more than one form, provide separate hour burden.**

- a) Description of the collection activity**
- b) Corresponding form number (if applicable)**
- c) Number of respondents**
- d) Number of responses annually per respondent,**
- e) Total annual responses (columns c x d)**
- f) Estimated hours per response**
- g) Total annual burden hours (columns e x f)**

For the purposes of estimating and budgeting for the burden for this information collection, we projected the following informed reasonable estimate of the total number of participants and burden hours (see Table 1).

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Table 1. Annualized Burden Estimates

Affected Public/Type of Respondents: Households

Estimated Annual Number of Respondents: 1900 per year (Same total for approval period, as survey will only be administered in year 1 of the approval.)

Estimate of Annual Burden Per Response: 200 hours for respondents; 15 hours for non-respondents. (Please see Table 1 below for more specific details.)

Estimated Annual Number of Responses per Respondent: 1 response/respondent

Estimated Total Annual Burden on Respondents: 215 hours (Same total for the Approval Period)

| (a) Description of the Collection Activity | (b) Total Number of Contacts (sample size) | (c) Number of Responses Annually for Respondents and Non-Respondents | RESPONDENTS (R) | | | | NON-RESPONDENTS (NR) | | | | (l) Total Annual Burden Hours for Respondents and Non-Respondents (g + k) |
|--|---|---|------------------------------|---|--|--|----------------------------------|---|--|--|--|
| | | | (d) Number of Respondents | (e) Total Annual Responses for Respondents (c x d) | (f) Estimate of Burden Hours per Response | (g) Annual Burden Hours for Respondents (e x f) | (h) Number of Non-Respondents | (i) Total Annual Responses for Non-Respondents (c x h) | (j) Estimate of Burden Hours per Non-Response | (k) Annual Burden Hours for Non-Respondents (i x j) | |
| Survey <i>Assume 53% response rate (survey administration in year 1 of approval, no additional surveys planned for years 2 and 3 of approval)</i> | 1,900 | 1 | 1000 | 1000 | 0.2 | 200 | 900 | 900 | 0.017 | 15 | 215 |
| TOTAL ANNUALIZED BURDEN | 1,900 | 1 | 1000 | 1000 | 0.2 | 200 | 900 | 900 | 0.017 | 15 | 215 |

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We estimate the total dollar value of the burden hours, for both respondents and non respondents, for this collection for the three-year period to be \$3,208. We arrived at this figure by multiplying the total estimated burden hours over a three-year period (215 hours) by mean hourly wage rate for “Interviewers, Except Eligibility and Loan” (occupational code 43-4111) for the Atlanta-Sandy Springs-Marietta metropolitan area--\$14.92. The hourly wage rate was obtained from the Bureau of Labor Statistics at https://www.bls.gov/oes/current/oes_12060.htm#43-0000.

Record keeping burden should be addressed separately and should include columns for:

a) Description of record keeping activity:

b) Number of record keepers:

c) Annual hours per record keeper:

d) Total annual record keeping hours (columns b x c):

There are no record-keeping requirements placed upon the respondents.

Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories.

Please see Table 1 above and the answer to question 12.

13. Provide estimates of the total annual cost burden to respondents or record keepers resulting from the collection of information, (do not include the cost of any hour burden shown in items 12 and 14). The cost estimates should be split into two components: (a) a total capital and start-up cost component annualized over its expected useful life; and (b) a total operation and maintenance and purchase of services component.

There are no capital operation and maintenance costs.

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- 14. Provide estimates of annualized cost to the Federal government. Provide a description of the method used to estimate cost and any other expense that would not have been incurred without this collection of information.**

The response to this question covers the actual costs the agency will incur as a result of implementing the information collection. The estimate should cover the entire life cycle of the collection and include costs, if applicable, for:

- **Employee labor and materials for developing, printing, storing forms**

10 days x \$592.11= **\$5,921**

This cost relates to work time for a GS-14 Research Social Scientist to modify the questionnaire and format contact information sheets that will be left with the respondent. The \$592.11 is the employee's daily wage rate.

- **Employee labor to statistically analyze data**

GS-14-5 20 days x \$592.11= **\$11,842**

This cost includes daily salaries for a GS14 to review relevant literature and analyze data

- **Employee labor and materials for developing computer systems, screens, or reports to support the collection**

1 days x \$592.11= **\$592.**

This cost relates to work time for a GS-14 Research Social Scientist to modify the collection instrument on an electronic tablet that will store survey responses.

- **Employee costs related to submission of OMB application**

Roughly 40 days of work time for a GS-14 Research Social scientist to develop and respond to comments on this information collection request: (10 days x \$592.11=**\$5,921.**

- **Employee travel costs**

Cost for Forest Service employee to travel to Atlanta, GA from Athens, GA to consult with Morehouse faculty member about data collection. Three day trips are estimated at 160 miles round trip for a total of 480 miles @\$0.17 per mile = **\$82.**

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- **Cost of contractor services or other reimbursements to individuals or organizations assisting in the collection of information**

Four residents familiar with City of Atlanta neighborhoods will be paid to administer the survey in tandem with a Forest Service researcher. We expect to contact 1,900 potential respondents over a period of ten weekends, or 20 days total. Surveyors will work for 8 hours each day. Survey administrators will be compensated at the mean hourly wage rate for "Interviewers, Except Eligibility and Loan" (occupational code 43-4111) for the Atlanta-Sandy Springs-Marietta metropolitan area. The hourly wage rate was obtained from the Bureau of Labor Statistics at https://www.bls.gov/oes/current/oes_12060.htm#43-0000. This rate is \$14.92:

8 hrs./day x 20 days = 160 hrs.

160 hrs. x \$14.92/hr.= \$2,387 per surveyor

\$2,387 x 4 surveyors= **\$9,549**

- **Cost for unit scientists to report development research papers describing the conceptual basis, methodology, and findings of the larger environmental equity study.**

GS-14-5 45 days x \$592.11=**\$26,645**

Total Cost to Government: \$60,552

15. Explain the reasons for any program changes or adjustments reported in items 13 or 14 of OMB form 83-I.

This is a reinstatement of a previously approved collection resulting in a program change (reduction) of 21.55 number of burden hours. We also changed the sampling strategy to a proportionate, census-guided (PCG) systematic random sampling, which we anticipate will help increase the response rate. See explanation in Supporting Statement B.

16. For collections of information whose results are planned to be published, outline plans for tabulation and publication.

All responses will be entered into a Microsoft Excel spreadsheet. Data transfer will be verified for accuracy by project personnel. Analysis of responses will include summary and descriptive statistics, as well as means difference tests, confirmatory factor analysis, analysis of variance, and multivariate regression.

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As discussed in the Justification section, data from the broader information collection will be used to assess resident interest, care, and advocacy for Atlanta's urban forest. The urban forest engagement scale, as it is applied to the issue of Atlanta's urban forest, measures the household's ability to contribute to the urban forest at the household level. Scale items also ask about the neighborhood where the respondent lives and the extent to which neighbors do things to advocate for the urban forest.

The information collection contains a total of 41 statements and questions. The urban forest engagement scale contains 14 items. In terms of this scale, our focus is on: 1) the ability of the household to effect the urban forest on the property where the household is situated and 2) the ability of the community in which the household is situated to participate in efforts to advocate for trees at the community level. Based on feedback from anonymous reviewers of a manuscript submitted to *Landscape and Urban Planning* (see below), we revised six urban forest engagement scale items measuring household interest and care to be more reflective of people's ability to participate in tree care and maintenance at the household. We also revised one item measuring the second objective.

Scale reliability for the initial data collection was assessed with Cronbach's alpha for both the 14-item scale ($n=299$; $\alpha = 0.81$) and a reduced 11-item scale ($n=305$; $\alpha = 0.82$). The final HHJ subscale was comprised of 6 items ($n=308$; $\alpha = 0.80$), and the CMJ sub-scale contained 5 items ($n=314$; $\alpha = 0.72$).

An initial manuscript based on results from the initial data collection was reviewed:

Johnson Gaither, C., Zipperer, W., Zarnoch, S.J., Kuehler, E., Hartel, D., Barger, B. "City in a Forest": Environmental Justice Implications of Atlanta's Urban Forest. *Landscape and Urban Planning*, In Review.

A revised manuscript was resubmitted to *Landscape and Urban Planning*: Johnson Gaither, C., Zipperer, W., Zarnoch, S.J., Kuehler, E., Hartel, D., Barger, B. "City in a Forest": Exploring the Social Production of Neighborhood Trees in Atlanta, GA

Data have also been presented or invited to be presented at the following outlets:

Johnson Gaither, C., Hartel, D., Kuehler, E., Zarnoch, S., Zipperer, W. Atlanta's Urban Forest, Blight, & Justice. American Association of Geographers Conference. 12 April 2018.

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Johnson Gaither, C., Hartel, D., Kuehler, E., Zarnoch, S.J., Aka E., Reese, J-A., Harris, G. Environmental Justice and Atlanta's Urban Forest. University of Georgia, Warnell School of Forestry and Natural Resources. Athens, GA. 17 November 2016. **Invited.**

Johnson Gaither, C., Hartel, D., Kuehler, E., Zarnoch, S.J., Aka, E., Reese, J.A., Harris, G. 2016. "Trees and Trash": Environmental Justice and Atlanta's Urban Forest. Washington, D.C. Federal Urban Waters Workshop. 26-28 July 2016. **Invited.**

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

The valid OMB control number and expiration date will be displayed on all information collection instruments.

18. Explain each exception to the certification statement, "Certification Requirement for Paperwork Reduction Act."

The Agency is able to certify compliance with 5 CFR 1320.

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