

## SUPPORTING STATEMENT

### Panel Member Survey to Develop Indicators of Resilient Coastal Tourism

OMB CONTROL NO. 0648-xxxx

#### A. JUSTIFICATION

##### 1. Explain the circumstances that make the collection of information necessary.

Tourism is a key economic driver for coastal states, and coastal tourism faces risks posed by climate change, sea level rise, and coastal storms that have increased in frequency and severity. To date, most research that pertains to tourism in the context of natural or manmade disasters focuses on reactive industry response or recovery efforts rather than the proactive implementation of processes and techniques that generate resiliency. Under this project, The National Oceanic and Atmospheric Administration's Coastal Services Center (NOAA CSC) will explore how to measure the resilience of coastal tourism to natural disasters, economic downturns, and climate change. Understanding the factors that contribute to the resiliency of the tourism sector in the face of disasters will allow NOAA and tourism stakeholders to measure resiliency and, potentially, take proactive measures to improve resiliency in cases where an area has low resiliency.

This project will address two aspects under [NOAA's Next Generation Strategic Plan](#). First, the Plan sets out NOAA's vision for the future as "Resilient Ecosystems, Communities, and Economies." This is described as "Resilient ecosystems, communities, and economies can maintain and improve their health and vitality over time by anticipating, absorbing, and diffusing change." Furthermore, one of NOAA's long term goals in the Plan is "Resilient Coastal Communities and Economies." This survey will measure the resiliency of the tourism sector in two coastal areas and develop indicators that can be used to measure resiliency in these areas.

Furthermore, two Executive Orders (Eos) are relevant for this survey work. [EO 13597](#), signed on January 19, 2012 identifies the tourism sector as an important priority for enhancing economic growth in the United States. [EO 13653](#), signed on November 1, 2013 identifies resiliency to climate impacts as a key objective.

This effort will focus on two coastal areas: 1) the Central North Carolina Coast and 2) the San Francisco Bay Area (inner and outer coast). Focusing on two specific areas will allow NOAA to better understand the details on what makes a tourism sector resilient. NOAA also expects that some of the findings from these two areas will be generalizable to the broader set of coastal tourism sectors across the country.

NOAA will collect data on tourism resiliency by conducting a multi-round, iterative survey process based on the Delphi Method, which is a structured method for eliciting and combining opinions from experts<sup>1</sup>. NOAA will apply the Delphi Method to a multi-round survey of two

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<sup>1</sup> Linstone and Turoff, Eds. 2002. The Delphi Method: Techniques and Applications. Accessible at: <http://is.njit.edu/pubs/delphibook/>.

panels of individuals with first-hand experience and insight into tourism resiliency and/or the tourism industry in the two geographic areas identified above. Examples of these panel experts include local tourism officials, trade association representatives, university staff who focus on tourism research, and local business owners. These two regions were selected because they offer distinct tourism experiences from one another. The Central North Carolina Coast offers a more rural experience and the San Francisco Bay Area offers a combination of urbanized coastal area combined with natural areas. Additionally, one site is located on the east coast and one is located on the west coast offering the different perspectives from two of the United States coastal areas. NOAA does not expect the results from the two areas to be representative or applicable to other areas. However, using two sites with diverse characteristics allows for development of a broader set of indicators.

The end product for this work will be a set of indicators to measure the resiliency of coastal tourism in the two geographic study sites. The study will also look for themes and shared indicators of resiliency among the two sites that might suggest the types of indicators that may be more broadly applicable to other areas. The expert opinion provided by panel members in both study sites will be critical in developing indicators that are useful and can be practically applied by tourism officials and practitioners measuring tourism resiliency in future efforts.

**2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.**

### **Purpose**

NOAA CSC will use the indicators of tourism resiliency that result from the survey process to establish next steps that can be taken by the Agency as well as tourism officials and businesses to increase resiliency in coastal tourism:

First, the indicators will help NOAA CSC better understand if the types of factors that promote or hinder resiliency vary among differing coastal areas as well as rural versus urban areas and possibly suggest indicators that may apply on a broader geographic scale. By understanding what indicators are appropriate to different coastal geographies, the indicators can then be used to measure the resiliency of coastal tourism in different areas. These resiliency measurements can be conducted by NOAA CSC or eventually developed into measurement tools that can be used by tourism officials and businesses at the local level to help inform them of their current level of resiliency. By understanding a current level of resiliency, NOAA CSC, tourism officials, and businesses can develop action items for increasing that resiliency.

Second, the results will be used by the NOAA Sentinel Site Program. The NOAA Sentinel Site Program engages local, state, and federal managers as part of a cooperative team that works together to ensure the types of science conducted, information gathered, and products developed are immediately used for better management in the coastal area where the site is located. The two geographic areas of focus in this study align with NOAA's San Francisco Bay and Central North Carolina Coast Sentinel Sites.

Finally, the data will be used by the Mississippi/Alabama Sea Grant Consortium as they integrate data from a similar effort they are undertaking in Orange Beach, AL.

## **Type of Information Being Collected and Rationale**

### Methods: Delphi Technique

The data will be collected using the Delphi Technique, a form of expert elicitation. In short, the method involves assembling a set of experts in the field under study; the tourism sector in two different regions in this case. Data are collected in two primary rounds, with an “iteration round” following each primary round. The sequence is as follows:

- Round 1 – Experts are sent a questionnaire asking a series of questions related to the topic. A key part of the Round 1 survey is to identify a set of factors that lead to tourism sector resiliency.
- Round 1 iteration – Data collected from the experts are compiled and summarized and the summaries are presented back to the experts for consideration. At this time, the experts can decide to alter their original responses or provide additional explanation of their original responses.
- Round 2 - The final Round 1 data are analyzed (by NOAA CSC and its contractor in this case) and a second questionnaire is constructed based on the responses to Round 1. The Round 1 results will identify the factors that the experts identify as being the most important factors that contribute to resiliency. The Round 2 survey will focus on most important factors identified in Round 1 survey and ask the experts on prospective ways to measure those factors using available data.
- Round 2 iteration – As with Round 1, the data from Round 2 are compiled and summarized and the experts would again have the opportunity to review and alter/further explain their responses.

In addition to these two rounds and their iteration rounds, NOAA CSC will conduct a webinar with panel members before Round 1 (to discuss the nature of the data collection) and a webinar at the end (to allow panel members to provide final feedback in an open forum).

Below we explain some of the information we will collect in each round.

### Both Rounds

#### *Knowledge, Experience, and Expertise*

Both the Round 1 and Round 2 surveys ask respondents a series of rating-style questions related to their level of knowledge and/or experience of particular tourism and recreation sectors as well as specific topics, such as climate change and natural disasters. This information will be collected to help provide context to the respondents’ input and preferences that are provided in the remainder of the survey. It will help link the level of respondent confidence and subject matter familiarity to the suggestions and preferences stated in the remainder of the survey.

## Round 1 Survey

### *Industry Vulnerability to External Shocks*

The first survey asks respondents to rate the vulnerability of the tourism industry to a variety of external shocks such as climate change, natural disasters, and economic downturns. This information will inform the types of vulnerabilities that the panel members from each of the two geographic regions feel are most relevant or likely to occur in their region. This information also helps shape the type of resiliency indicators that might be relevant given the types of external shocks that result from the responses.

### *Factors that Contribute to Tourism Resiliency*

The Round 1 survey asks respondents to rate their level of agreement that certain factors contribute to the resiliency of tourism in their area. Respondents will be asked to rate factors such as (non exhaustive listing): strength of business connections, such as membership in a Convention and Visitors Bureau (CVB) or Chamber of Commerce (COC); social cohesion; diversity of set of tourism options; and access to capital for each of the types of external shocks being evaluated in the survey (e.g., climate change, natural disasters, and economic downturns).

Respondents will then be asked to rate how helpful it would be for tourism industry professionals to be provided with information on the factors that contribute to resiliency that were addressed in previous questions.

Understanding the factors that strongly contribute to tourism resiliency will be critical for developing a set of indicators that will be used to measure tourism resiliency, which is the intended final product of this project. Additionally, understanding what type of resiliency-related information that the tourism industry finds valuable will be important to understand as the information from this project is used to help increase the resiliency of the tourism in coastal areas.

## Round 2 Survey

### *Measuring Factors of Resiliency*

The Round 2 survey utilizes the information gathered in the Round 1 survey that informs the types of factors that might contribute to tourism resiliency and asks respondents about ways to effectively measure those factors. For each resiliency factor, the respondents will be asked to rate how useful certain types of measures would be that factor. The respondents will also have the opportunity to provide comments in addition to their ranking for those measures associated with each of the factors.

Understanding the resiliency measures that the panel of tourism officials, stakeholders, and businesses find useful provides valuable insight into the types of measures that will be effective for measuring resiliency at the ground-level. Having effective measures of tourism resiliency will allow users of the information to more accurately determine their level of resiliency and, thereby, better understand the areas of resiliency that warrant improvement.

### *Likelihood of Using Related Data in their Work*

Respondents will also be asked how likely they would be to utilize different types of data pertaining to the resiliency measures in their jobs. This information will help inform the utility of certain types of information being provided to tourism stakeholders concerning resiliency.

## **Frequency of Use**

NOAA CSC anticipates that the resiliency indicators developed through this project will be used on an ongoing basis as they form a core component of resiliency research for coastal tourism. NOAA CSC also expects that the frequency with which the indicators are applied by individuals outside of NOAA CSC will increase over time as the Agency is able to incorporate the indicators into resiliency-based tools and outreach materials that can be used at the local level by tourism officials, stakeholders, and businesses.

## **Public Dissemination**

It is anticipated that the information collected will be disseminated to the public or used to support publicly disseminated information. As explained in the preceding paragraphs, the information gathered has utility. NOAA's Coastal Services Center will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information. See response to Question 10 of this Supporting Statement for more information on confidentiality and privacy. The information collection is designed to yield data that meet all applicable information quality guidelines. Prior to dissemination, the information will be subjected to quality control measures and a pre-dissemination review pursuant to [Section 515 of Public Law 106-554](#).

### **3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.**

The survey provided to panel members will be in electronic format and distributed via email communications. The respondents will complete the survey in the electronic format and return the surveys via email. This distribution and submission of electronic surveys will occur for two rounds of survey. Each round of survey will also include an iteration round, where the summarized survey responses from that round are provided to respondents for their review, and the respondents are given the opportunity to adjust or clarify their original responses and submit these adjustments via email.

### **4. Describe efforts to identify duplication.**

After conducting a preliminary literature review on tourism resiliency indicators, we are not aware of any studies that duplicate the work being conducted under this study. We are aware of a related Mississippi Alabama (MS-AL) Sea Grant study being conducted on the Northern Gulf of Mexico NOAA Sentinel Site. The MS-AL Sea Grant project focuses on an areas not being considered under this NOAA CSC project but will use the same method (Delphi Technique) to collect data. The NOAA CSC project team has been in contact with the MS-AL Sea Grant project team and will coordinate efforts and results to ensure the two studies are compatible and build on one another.

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

NOAA CSC anticipates that a portion of the panel member participants undergoing the survey process will represent small entities. To minimize the burden while also maximizing information collected, two approaches have been applied. First, the panel member process has been designed to consider participants' current time commitments and need for flexibility in their participation. Participants will be made aware in advance of when they can expect to receive their surveys and will be given at least a week to complete and submit them. Secondly, the length of each of the surveys is designed to be approximately 30 minutes in length to minimize the level of effort needed for survey completion. In confirming possible panel members for this project, participants were made aware of and agreed to the expected time requirements.

**6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.**

Not conducting the collection would inhibit NOAA CSC's and other tourism stakeholders' ability to effectively measure tourism resiliency. These measures of tourism resiliency are essential for understanding current levels of resiliency in coastal tourism in order to identify where the industry can make improvements to increase resiliency.

This is a new information collection that is not recurring. Therefore "conducted less frequently" is NA.

**7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.**

The information collection is consistent with OMB Guidelines for Information Collections.

**8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the 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 recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.**

A Federal Register Notice published on December 17, 2013 (78 FR 242) solicited public comments. NOAA received one comment that indicated the survey was not necessary and that events such as Hurricane Katrina provide examples of how areas rebound. NOAA respectfully disagrees and believes this work is necessary to better understand the underlying factors that lead to resilient tourism sectors.

**9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.**

No payments or gifts will be provided to respondents.

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

The Delphi Technique offers some limited confidentiality. To begin, as stated on the survey instrument, NOAA will not reveal any respondent's specific responses to other respondents or to anyone else. NOAA will, however, know which respondent provided which responses. Furthermore, at the beginning and the end of this process, we are holding webinars with the panel members (respondents). At these webinars, it is possible and likely that respondents will be identified as being part of the panel. In recruiting individuals for these panels, however, we have provided this information to each potential panel member. That is, NOAA has been clear on what we can offer (i.e., not revealing the data provided by each respondent to others respondents or anyone else) and what they can expect in terms of confidentiality (i.e., they will be involved in webinars and that NOAA will know what data each one has provided).

**11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.**

None of the questions being asked in the surveys deal with matters that are considered private.

**12. Provide an estimate in hours of the burden of the collection of information.**

Table 1 provides estimates of the total one-time number of respondents, responses, burden hours, and the cost of burden hours. The surveys will involve collecting data from an estimated 29 respondents with each respondent providing four responses. Each panel member will also participate in two webinars. NOAA CSC estimates that the time for responses will include: one hour for the preliminary webinar, one hour for the first round survey, one hour for the second round survey, and one hour for the final webinar, resulting in a total burden hour estimate of 116 hours. The labor cost associated with the estimated burden hours is \$2,400 dollars, based on information from the Bureau of Labor Statistics (BLS) (see note [a] below Table 1, next page).

Table 1: Estimated Number of Respondents, Responses, Burden Hours, and Cost of Burden Hours

Category	Value
<b>Respondents</b>	
Total number of respondents	29 respondents
<b>Surveys</b>	
Responses per respondent	4 responses
Total number of responses	116 responses
Burden hours per response	30 minutes
Total burden hours for surveys	58 hours
<b>Webinars</b>	
Responses per respondent	2 responses
Total number of responses	58 responses
Burden hours per response	1 hour
Total burden hours for webinars	58 hours
<b>Responses</b>	
Total number of responses	174 responses
Total burden hours	116 hours
<b>Cost</b>	
Cost per hour [a]	\$20.69
Total cost of burden hours	\$2,400

[a] Labor costs are derived from BLS <http://www.bls.gov/cew/cewind.htm#year=2012>. The labor cost for respondents was developed using the general labor categories associated with the types of panel members potentially involved in the panel process, including: Local business associations; local tourism businesses (used NAICS code for leisure and travel businesses), state tourism officials; local tourism officials; academic and research organizations (used NAICS for education and healthcare); and federal officials relevant to tourism (used NAICS code for leisure and travel businesses). The hourly rate for each category of panel member was calculated for either North Carolina or California, and a weighted salary average was then calculated for each state's site. The two weighted averages for CA and NC were then averaged to obtain the average hourly cost for panel members.

**13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in Question 12 above).**

There will be no reporting/recordkeeping costs.

**14. Provide estimates of annualized cost to the Federal government.**

NOAA CSC has contracted with consultants to develop and implement this survey. Based on this, costs to NOAA CSC include costs to develop the method, the survey materials, and implement the methods described in this package. Total cost to NOAA CSC for these services is \$88,300.

**15. Explain the reasons for any program changes or adjustments.**

This is a new program.

**16. For collections whose results will be published, outline the plans for tabulation and publication.**

NOAA CSC will develop both reports and tabulations based on the data collected under these surveys. For each survey conducted, NOAA CSC will tabulate the responses from each survey question and provide cross-tabulations of survey questions when warranted. These tabulations will be provided on the NOAA CSC web site.



Figure 1 provides a summary of the time line for completing the two rounds of panel member surveys as well as the preliminary and final webinars. The surveys and webinars will be implemented over an approximate four month timeframe.

**Figure 1: Data Collection, Analysis, and Reporting Timeline**

Survey/Activity	Month 1	Month 2	Month 3	Month 4
<b>Preliminary Webinar</b>	■			
<b>Round 1 Survey</b>				
Perform Survey	■			
Enter Data		■		
Analyze Data		■		
Prepare Tabulations		■		
Perform Iteration Round		■		
Enter Data		■		
Analyze Data		■		
Prepare Tabulations		■		
<b>Round 2 Survey</b>				
Perform Survey			■	
Enter Data			■	
Analyze Data			■	
Prepare Tabulations			■	
Perform Iteration Round			■	
Enter Data			■	
Analyze Data			■	
Prepare Tabulations and Reports				■
<b>Final Webinar</b>				■

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

Not applicable. The collection instruments will display the expiration date.

**18. Explain each exception to the certification statement.**

No exceptions are being requested.