MEMORANDUM

February 1, 2018

To: Mary Gattis, Director of Local Government Programs/LGAC Coordinator
        Alliance for the Chesapeake Bay

From: Christine Brittle, Ph.D., Founder
        Uncommon Insights, LLC

Re: Recommendations to Establish a Baseline for Knowledge among Local Leaders

This brief memorandum outlines our research process to support the Alliance for the Chesapeake Bay in developing a baseline and methodology for tracking knowledge and capacity among local elected officials and provides our recommendations.

The Chesapeake Bay Program's partners have established a goal to "continually increase the knowledge and capacity of local officials on issues related to water resources and in the implementation of economic and policy incentives that will support local conservation actions." In support of this goal, the Alliance for the Chesapeake Bay contracted with Uncommon Insights, LLC in January of 2017 to "develop a methodology for establishing a baseline of performance to measure progress towards attaining the goal." The Alliance was seeking recommendations including an approach and methodology to measure knowledge and capacity among local leaders.

Uncommon Insights engaged in a multi-part research effort to make its recommendations related to establishing this baseline. As a part of this effort we have:
- Described and defined the target audience for this effort, which includes elected officials from 6 States and the District of Columbia, including about 200 unique counties and around 2,000 distinct cities and towns.
- Interviewed Bay Program experts and local leaders and reviewed existing materials to establish knowledge domains of interest to this effort – in other words, what knowledge held by local leaders is most useful to measure and track over time?
- Conducted a brief environmental scan and collected feedback from local leaders regarding the best way(s) to collect information from this audience.
- Identified different metrics that may be useful to measure and track over time.

We have presented findings from our efforts twice: In July 2017 we presented to the Local Leadership Workgroup, and in December 2017 we presented to the Local Government Advisory Committee to the Chesapeake Executive Council.

Based on this research, we are making a series of six recommendations to establish the baseline of knowledge among local leaders:

1. We recommend a web-based survey as the primary mechanism to collect data. We recommend this for convenience and cost reasons. Almost every local elected official (we expect 95% or more) will have an email address; distributing the survey electronically significantly reduces fielding costs compared to other collection methodologies (e.g., telephone or mail). It also shortens fielding time.

2. We recommend this survey be conducted once soon to establish a baseline and then repeated every 2-3 years using the same methodology to track progress over time. We recommend this collection interval because it provides a series of data points that allow the program to gauge its impact while also conserving program resources.

3. We recommend a "hybrid" sample approach consisting of both "known" and "unknown" local leaders. Collecting feedback from "known" local leaders allows you to measure whether you are making an impact with this key audience, which is vital to understanding the success of your efforts. Collecting feedback from "unknown" local leaders serves as a "true baseline" to see whether your outreach and engagement efforts are broadly reaching local leaders throughout the Chesapeake Bay watershed.

4. We recommend the sampling frame for the "known" local leaders be collected through Bay Program partners and others who engage in outreach efforts. These "known" local leaders will be compiled from lists of local leaders who are known to the Chesapeake Bay Program, including local leaders who have participated in training courses, seminars, etc.

5. We recommend the sampling frame for the "unknown" local leaders be collected uniquely for this study. We suggest starting with a list of all known towns and cities in the Chesapeake Bay Watershed (we started such a list for this study), and then stratifying the list first by State and then by population size. This ensures that the sample will be balanced in terms of State geography and population, and will represent a "good mix" of leaders. The sample would then be randomly drawn within each strata to produce an overall sampling frame including a list of selected jurisdictions. A research assistant would contact each selected jurisdiction to obtain a valid email address for an elected local leader. We believe it is necessary to compile a unique list for this effort because our research has not uncovered any comprehensive lists of local leaders in the Chesapeake Bay. While there are a few such lists (e.g., at a State level), they tend not to be comprehensive nor is it clear that the organizations that own the lists would be willing to share them. In initial testing of

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one such list that is publicly available, we found that many of the email addresses were invalid and many communities were absent or missing. Using a random, scientifically collected, sampling frame will ensure that findings represent a meaningful population of "unknown" local elected officials serving communities in the Chesapeake Bay.

6. We recommend a sample size of n=500 "unknown" local leaders (expected response rate of 25%, ~n=125 completes), and a sample size of n=300 "known" local leaders (expected response rate of 40%, ~n=120 completes). This sample size represents the minimum necessary to collect a scientifically valid sample which can detect mid-size differences. This size was set using a sample size calculator to detect a difference of one point on a seven-point scale. We offer an example to better understand this sample size, using a question about how much policy leaders are thinking about the Bay when making policy decisions: If the baseline level of interest among elected officials started at "3.0" and increased over time to "4.0" (a one-point difference), a sample size of n=126 would be required to detect this difference (assuming variance=8, power=.8, and alpha=.05).[1]

We estimate the cost of implementing such a survey would be $20,000-$30,000. (A sample survey questionnaire is included as an Appendix to this document.) The steps for such a project may include:

- Initial kickoff meeting to discuss project objectives
- Review requirements for sampling frame and review and refine sample questionnaire
- Work with the Alliance for the Chesapeake Bay to ascertain whether OMB approval will be required to conduct this effort under the requirements of the Paperwork Reduction Act, and, if required, help to submit the survey for approval (we assume some kind of fast track or streamlined approval mechanism would be available)
- Develop the sample frame for the study consisting of email addresses for selected jurisdictions
- Program and test the survey online
- Invite and remind participants to take the survey
- Analyze results
- Present findings

In addition to this baseline and subsequent surveys, we recommend the following activities be undertaken as additional methods to track progress toward meeting your goals. We assume these could be implemented internally without contract support:

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[1] To detect a smaller change, e.g., 0.75 points, a larger sample of n=224 is needed. Inherently, a larger sample has more precision and can detect smaller differences, but it also comes at increased cost. We recommend a more scaled effort in this case, but want to explicitly mention the tradeoff.

7. Collect and record process measures relevant to this effort, including the number of trainings held and the number of participants reached. These numbers should be tallied and tracked on an annual basis by coordinating efforts with training partners.

8. Develop and distribute a short participant satisfaction survey (one page, ideally) to all partner organizations that are conducting trainings with local elected leaders. Ask organizations to give this survey to leaders to fill out at the end of training sessions to measure engagement and perceived knowledge gains. Staff could record and track these results annually as another measure of progress.

We are happy to answer any additional questions you may have about these recommendations. Please feel free to contact us at christine@uncommoninsights.com or 703-254-6515 at any time.

Thank you for the opportunity to work with you on this important project.

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APPENDIX: Recommended Survey Questions for Local Leaders

This survey is designed to be completed by elected officials (i.e., not by staff) who are involved in policy making. It should take 5-10 minutes to complete. Responses are confidential and results will be used to improve and enhance training and information for elected leaders. We appreciate your honest feedback.

1. What role do you hold in your community?
    a. Executive Position (e.g., Mayor, County Executive, etc.)
    b. Council or elected Board Position (e.g., City Council, Town Council, County Board, Alderman, etc.)
    c. Other elected position that makes policy decisions (e.g., Soil and Water Conservation Districts)
    d. Elected position in a non-policy making role (TERMINATE SURVEY)
    e. Non-elected position (TERMINATE SURVEY)
    f. None (TERMINATE SURVEY)

2. What is the population of the community you represent?
    a. Under 2,999 residents
    b. 3,000-9,999 residents
    c. 10,000-24,999 residents
    d. 25,000-99,999 residents
    e. 100,000-249,999 residents
    f. 250,000+ residents

3. Where is your community located?
    a. Delaware
    b. Maryland
    c. Pennsylvania
    d. New York
    e. Virginia
    f. Washington, D.C.
    g. West Virginia

Thanks. Now we want to ask some questions about how you make policy decisions.

4. How much are you thinking about downstream communities and/or the Chesapeake Bay when making policy decisions for your community? [1-7 scale from "Not at all" to "A great deal"]

5. How much impact do you think the decisions you make have on downstream communities and/or the Chesapeake Bay? [1-7 scale from "None" to "A great deal"]

6. How much do you think about downstream communities and/or the Chesapeake Bay when making decisions related to: [1-7 scale from "Not at all" to "A great deal"] [ROTATE]
   a. Land use policy/plans
   b. Drinking water
   c. Water resources
   d. Local ordinances
   e. Municipal budgets
   f. Economic development
   g. Stormwater management
   h. Infrastructure

7. Which of the following do you see as a priority for your local community? [Select all that apply] [ROTATE]
   a. Preparing for climate change
   b. Making sure fish have places to live, food to eat, and can travel freely
   c. Maintaining and achieving healthy watersheds/streams
   d. Dealing with and preventing toxic contaminants
   e. Protecting and preserving tree coverage
   f. Protecting and preserving wetlands
   g. Protecting and preserving blue crabs
   h. Setting policy/guidance for how land is used
   i. Helping people understand environmental issues

8. When your community takes steps to protect the environment, including protecting water resources and the Chesapeake Bay, how much impact does that have on: [1-7 scale from "None at all" to "A great deal"] [ROTATE]
   a. Your local economy
   b. Local recreational and tourism opportunities
   c. Local drinking water quality
   d. Public health/community health
   e. Public safety

9. Which of the following tools would you use or consider as means to protect or improve water resources for your community? [Select all that apply] [ROTATE]
   a. Comprehensive planning
   b. Zoning ordinances
   c. Subdivision and Land Development ordinances

    d. Impact fees

    e. Urban service boundaries

    f. Conservation easements and/or purchase of development rights

    g. Transfer of development rights

    h. Local taxation policies

10. In general, how well do you understand environmental rules and regulations at the:
[1-7 scale from "Not very much" to "A great deal"]

    a. Local level

    b. State level

    c. Regional level

    d. Federal level

11. Which of the following rules or regulations is your community subject to, now or in the future? [ROTATE] ([subject to/not subject to/not sure]

    a. NPDES (National Pollution Discharge Elimination System)

    b. MS4 (Municipal Separate Storm Sewer Systems)

    c. CSO (Combined Sewer Overflows)

    d. Chesapeake Bay TMDL (Total Maximum Daily Load)

    e. Local TMDL (Total Maximum Daily Load)

    f. CBPRP (Chesapeake Bay Pollutant Reduction Plan)

    g. SDWA (Safe Drinking Water)

    h. Groundwater withdrawal restriction permits

12. If you had a question about environmental regulations or how best to implement environmental policy, would you know who to contact for information or assistance?

    a. Yes

    b. No

13. If you wanted to learn more about environmental policy and/or water resources, which of the following would you want to access? [Select all that apply] [ROTATE]

    a. In-person classes or training

    b. Online classes or training (including webinars)

    c. Case studies, best practices, or guidance documents

    d. Websites

    e. Non-profit organizations or non-government organizations

    f. Federal, State, or Local government resources

    g. A person to call or email for more information

14. In the last three years, which of the following has your community undertaken related to water resources or environmental improvements?

    a. Community education efforts
    b. Public meetings or public discussions
    c. Consideration of local rules, ordinances, or regulations
    d. Implementing local rules, ordinances, or regulations

Thank you. The following questions are for demographic purposes only:

15. What is your gender?
    a. Male
    b. Female
    c. Prefer not to answer

16. What is your age?
    a. Under 30
    b. 31-40
    c. 41-50
    d. 51-60
    e. 61-70
    f. 71 or older
    g. Prefer not to answer

17. How many years have you held elected office?
    a. Less than one
    b. 1-2 years
    c. 3-5 years
    d. 6-10 years
    e. 11 or more years
    f. Prefer not to answer

Thanks so much for taking this survey and for taking the time to answer these questions. This survey is being sponsored by the Chesapeake Bay Program Partnership to better understand how to equip local leaders to make policy decisions related to water resources and the Chesapeake Bay. For more information, please visit www.Chesapeakebay.net.