

# **Chesapeake Bay Stories**

## ***Review of the Chesapeake Bay Program Communications Stories and Related Information***

### **FINAL DRAFT REPORT**

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## **I. INTRODUCTION**

This report presents the preliminary findings from an in-depth analysis of interviews with selected Chesapeake Bay Program partners and staff conducted during August-September 2004. The study, co-sponsored by the Chesapeake Bay Program's Information Management Subcommittee (IMS) and the Communications and Education Subcommittee (CESC), had the overall goal of gaining a better understanding the essential stories<sup>1</sup> being communicated about the Chesapeake Bay restoration effort and Chesapeake Bay Program activities. Using qualitative research methods described in more detail in Section II of this report, this study focused on conducting interviews, compiling the data, and analyzing and summarizing the results. These summary results are presented using tables, rankings, and bulleted highlights. Detailed reflection and interpretation of these results, including developing recommendations, was not contracted as part of this study. The concluding section of this report provides a brief discussion of potential next steps to further mine the wealth of information obtained from the interviews.

### **A. BACKGROUND**

Since its inception in 1983, with the signing of the Chesapeake Bay Agreement, the Chesapeake Bay Program has endeavored to develop and implement a coordinated approach "to improve and protect the water quality and living resources of the Chesapeake Bay estuarine systems (1983 Chesapeake Bay Agreement)." The Chesapeake Bay Program is a unique regional partnership involving Maryland, Pennsylvania, Virginia, the District of Columbia, the EPA on behalf of the federal government, and the Chesapeake Bay Commission on behalf of the three states' legislatures. Recently, the Chesapeake Bay Program recognized Delaware, New York and West Virginia as "headwater partners". The U.S. Environmental Protection Agency's Region III Chesapeake Bay Program

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<sup>1</sup> In this context, the word story refers to the essential set of messages that the Committee, Subcommittee, or other Bay Program group is trying to communicate to a particular target audience.

Office, located in Annapolis, Maryland, serves as a coordinating body for and EPA's liaison to the overall Chesapeake Bay Program.

The Chesapeake Bay Program partners, supported by the Chesapeake Bay Program Office, operate within a collaborative framework of advisory and policy Committees and technical Subcommittees to support Chesapeake Bay Program goals. Critical to overall success is providing outreach and support to other Bay stakeholders such as the States and the more than 3,000 local jurisdictions throughout the 64,000 square mile Bay watershed. While many important initiatives drive the Bay Program, historically the highest priority is the restoration of living resources – finfish, shellfish, Bay grasses, and other aquatic life and habitat – with a focus on nutrient pollution as the largest single contributor to their decline.

During its over twenty-year existence, the Chesapeake Bay Program has frequently reevaluated and updated its overall approach. As a result, the original 1983 Agreement was expanded and modified several times, most recently with the landmark *Chesapeake 2000* Agreement. This Agreement, endorsed by the Partners, lays out key themes that will drive the Chesapeake Bay Program into the future. These include:

- Reaffirmation of the Chesapeake Bay Partnership
- Recommitment to fulfilling the public responsibility originally established for protecting and restoring the Chesapeake Bay's ecosystem
- Commitment to “engage everyone – individuals, businesses, schools and universities, communities and governments” – in the effort
- Recognition that by working together it will be possible to achieve a shared vision of “a system with abundant, diverse populations of living resources, fed by healthy streams and rivers, sustaining strong local and regional economies, and our unique quality of life.”

*Chesapeake 2000* contains five primary goals in the areas of Living Resource Protection and Restoration, Vital Habitat Protection and Restoration, Water Quality Protection and Restoration, Sound Land Use, and Stewardship and Community Engagement. Over seventy more specific objectives every part of the Chesapeake Bay watershed community.

To support the overall Chesapeake Bay Program goals and means of implementing them, an extensive information management and communications outreach program was developed. Information ranges from water quality monitoring data and related models, and includes the reports and indicators that are derived from them. Communications efforts include media outreach, school programs, and many other written and verbal modalities. An extensive World Wide Web site and information management effort called the Chesapeake Information Management System (CIMS) integrate the efforts of information management and communications outreach. Given the size and complexity of the Chesapeake Bay watershed, the diversity of stakeholders engaged in the watershed and Chesapeake Bay Program efforts, and the range of issues being pursued, managing the extensive, diverse, and diffuse information and communication resources is a challenging task. Each year, Chesapeake Bay Program Partners generate and use enormous quantities of information and communication products to accomplish a wide-range of goals, including, but not limited to, the following:

- Identifying and targeting priorities
- Tracking implementation progress
- Evaluating the health of the ecosystem
- Educating decision-makers and the general public.

Two Chesapeake Bay Program Subcommittees focus their efforts on information management and communications. The Information Management Subcommittee (IMS) supports the integrated acquisition, maintenance and dissemination of a wide range of data and information supporting the mission to

restore the Chesapeake Bay. Major IMS programs include the Chesapeake Information Management System (CIMS) and maintenance of the Chesapeake Bay Program web site. The Communications and Education Subcommittee (CESC), and its two workgroups, has responsibility for conveying the Chesapeake Bay Program mission and associated activities to the public, media outreach, coordinating education and community engagement and promoting public participation in Bay activities. The CESC conducts its efforts consistent with the “Stewardship and Community Engagement” section of *Chesapeake 2000*, and provides support across all program areas.

## **B. PROJECT GOALS**

As it seeks to move effectively into the future, the Chesapeake Bay Program understands the need to take a critical look at the overall stories and messages it is pursuing and communicating. To maximize program effectiveness, the stories and messages should be closely aligned with stated Chesapeake Bay Program goals, indicators, and information and communication efforts. This study is a first step at evaluating this alignment.

The IMS and CESC commissioned this study to provide foundational information to feed into and support broader information management and communication evaluations and strategy development. The overarching study goal was to gain a clearer understanding of the Chesapeake Bay Program’s current stories, audiences and communication strategies. More specifically, the study sought to help the Chesapeake Bay Program understand the priorities and types of stories being told by the various Committees and Subcommittees and how those stories meshed with overall Bay Program stories. It also sought to define the methods used to tell these stories, the target audiences for the stories, and the type of support used and/or needed to tell the stories. A detailed Interview Guide (discussed in Section II, Methodology, of this report and provided in its entirety in Appendix A) provides a list of the questions used in the study. Exhibit I-1 summarizes the topical areas covered in the Interview Guide.

This study involved conducting and analyzing in-person or telephonic interviews with twenty respondents representing a cross section of the Chesapeake Bay Program. (See Section II, Methods, for additional information on how these interviews were conducted and the results analyzed.) The interviews were conducted in order to:

- Gain a clear understanding of the universe of key stories told by Chesapeake Bay Program Subcommittees, and Chesapeake Bay Program Office staff;
- Develop a clear understanding of the audiences that the Committees and Subcommittees are trying to reach with their key stories and messages;
- Understand the vehicles and products used to tell those stories;
- Learn about the sources of support and assistance for telling those stories; and
- Determine where the key stories and messages of the Subcommittees intersect, overlap or diverge.

#### **EXHIBIT I-1. SUMMARY OF STUDY QUESTIONS**

- Most important stories from the Committee/Subcommittee perspective
- Relationship of their stories to the overall Bay Program story
- Drivers for telling the stories
- Seasonal and temporal variations in the stories
- Activities conducted and products developed in order to communicate the story
- Target audience
- Variations in story messages according to target audience
- Communication vehicles use to deliver the story
- Support needs for developing and telling the story

### **C. ORGANIZATION OF THIS REPORT**

The remainder of this report presents a discussion of the methods used to conduct this study and a summary of the results. Because the contract called for this to be a briefing style report, details are conveyed in the Appendices and highlights presented in the text. The report addresses the highlights from the study and does not address all of the questions included in the interview guide. For example, in depth analyses such as a detailed examination of how stories change from season to season and across audiences were not within the scope of this version of the study. Certainly a wealth of information exists in the

interview responses and there are many different ways the Chesapeake Bay Program could examine these data further. Chapter VIII of this report provides some suggestions for further analyses and next steps. The report is arranged according to the following Chapters and Appendices:

- Chapter II, Methodology: Presents a discussion of the approaches used to develop an interview guide, conduct the interviews, collect and manage interview data, and analyze results from the interview content.
- Chapter III, Chesapeake Bay Stories: Summarizes the main story themes and sub-themes that emerged from the interview analyses.
- Chapter IV, Story Drivers: Identifies some of the major reasons behind stories being developed and communicated.
- Chapter V, Target Audiences: Lists the audiences currently being targeted for story communication, including the audience identified as “most important.”
- Chapter VI, Communication Activities, Products, and Communication Vehicles: This chapter examines all of the different ways the story is being communicated. For example, it describes the kind of activities (e.g., developing presentations and reports), products (e.g., indicators), and communication vehicles (e.g., WWW) for getting story-related information out to the target audiences.
- Chapter VII, Communication Support: Identifies various Chesapeake Bay Program and non-Bay Program resources that interviewees turn to for support in developing and delivering their stories.
- Chapter VIII, Integrated Observations and Next Steps.

The Appendices of this report present the details backing up each of the chapters. Most of the raw data and decision-criteria used in analyzing the data are presented in these Appendices in the following order<sup>2</sup>:

#### A. Final Interview Guide

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<sup>2</sup> In order to improve the ease of electronic submission of this final report, each Appendix was delivered as a separate file to Brian Burch, Information Management, Chesapeake Bay Program Office. If your version of this report does not contain the Appendices, please contact Brian Burch.

- B. Summary Data Tables on Story Themes and Sub-themes
- C. Priority Rankings of Story Themes and Sub-themes Using a Variety of Different Ranking Methods
- D. Summary Data Table on Story Drivers
- E. Summary Data Table on Target Audiences
- F. Summary Data Tables on Communication Activities, Products, and Vehicles
- G. Summary Data Tables on Resources Supporting Communication and Information Management.



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## II. METHODS

Using the qualitative research design approach outlined in Marshall and Rossman (1999)<sup>3</sup> (see Exhibit II-1) as a starting point, the research team<sup>4</sup> conducted several informal conversations with Chesapeake Bay Program project leads to gain a preliminary understanding of the background and issues prompting the study. These discussions helped clarify

the overall goals and objectives for the study, as well as the study framework. In-depth interviews with leaders from the Chesapeake Bay Program Committees and Subcommittees, representing the broad array of Program initiatives and Partner interests, provided the basis for the study. The overall steps of the methodology are summarized below; supplemental information is provided in the Appendices as needed to explain specific summary results.

### Exhibit II-1. Key Elements of a Qualitative Research Design

- I. Conduct preliminary background review to establish study framework
- II. Design research approach
  - A. Research questions
  - B. Research sample population
  - C. Data collection methods
  - D. Data analysis procedures
- III. Implement research design
  - A. Collect data
  - B. Record, manage, and analyze the data
- IV. Describe research results and prepare summary information
- V. Identify research issues

### A. RESEARCH QUESTIONS

Building from preliminary conversations with the IMS and CESC, the research team brainstormed a variety of questions that would address the overall study goals of understanding Chesapeake Bay stories and related information. After several iterations of review and discussion, the following overarching question themes were developed:

- Most important Subcommittee/Committee stories (from the interviewee's perspective and Bay Program role)
- Overall Chesapeake Bay Program story (from the interviewee's perspective and Bay Program role)

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<sup>3</sup> Marshall, Catherine and Gretchen B. Rossman. 1999. *Designing Qualitative Research, 3rd Edition*. Thousand Oaks: SAGE Publications.

<sup>4</sup> The Chesapeake Bay Program contracted with SAIC to perform the research study. Members from the IMS and the CESC provided direction and oversight for the work.

- Drivers for developing and telling the story (e.g., relationship to specific Bay Program goals)
- Target audience(s) for the story and variations in the story according to target audience
- Seasonal or other temporal variations in the story
- Activities used to develop and tell the story
- Products generated to support telling the story
- Communication vehicles used to tell the story and reach the target audience
- Support services used to develop and deliver the story.

The Interview Guide and study approach was pilot tested during a trial interview with a Chesapeake Bay Program Office staff person. Based on feedback from the pilot test, the interview questions were clarified and refined, although the overall themes remained the same.

Appendix A contains the complete Interview Guide that was developed for this study. The Interview Guide includes additional background information and a detailed list of the interview questions.

## **B. RESEARCH PARTICIPANTS**

Working from a list of candidates generated by the IMS and CESC, the research team conducted in-person and telephone interviews with twenty representatives from Chesapeake Bay Program Partner organizations and Chesapeake Bay Program Office staff. Designed to cover the breadth and depth of Bay Program organization, these interviewees were primarily Subcommittee and Committee leaders and Bay Program Office management. Early on, the decision was made to maintain anonymity of the interviewees when summarizing results; therefore an interviewee contact list is not provided in this report.

### **C. DATA GATHERING METHODS**

The Chesapeake Stories project relied heavily on understanding each participant's unique experience within the Chesapeake Bay Program and his or her perspectives on the questions, especially regarding the key stories of the Bay. Interviewees were asked to answer the questions from their viewpoint given their role at the Bay Program – their subjective viewpoint is what mattered for this research inquiry. In person interviews were conducted where possible during a week-long (week of August 16, 2004) research trip to the Chesapeake Bay Program Office in Annapolis, Maryland. Telephone interviews supplemented the in-person interviews where necessary (e.g., in the event the interviewee was unable to travel to the Bay Program Office).

The interviews took between one hour and one and a half hours to complete. Twelve of the twenty interviews (60%) were conducted in person. However, some of the interviewees were not located in Annapolis, so telephone interviews were used to reduce travel costs and inconvenience. Four of the twenty interviews (20%) were conducted by SAIC using a conference phone from the Chesapeake Bay Program Office during the week of August 16<sup>th</sup>. The remaining four interviews (20%) were conducted the following week from SAIC offices by phone. All interviews were completed by August 31<sup>st</sup>, 2004.

When technological resources allowed, interviews were tape-recorded. When recording was possible, the interviewee was asked permission to record the interview; all interviewees acceded to the request to record – anonymity of responses was promised as a condition for recording.

In each interview, detailed notes were taken during the course of the interview with an ear toward capturing major ideas, key phrases, and other elements demonstrating the richness of each response. Each interview was staffed with two people from the research team – the interviewer and the note taker. These two research team personnel worked together immediately after the interview to

refine and enhance the interview notes to create a complete account of the interviewee responses. These notes were then typed, formatted and reconciled through editing by both the interviewer and the scribe. Detailed transcription of each interview response was not within the budgetary scope of this study, although the taped interview sessions were used as back up to ensure responses were captured correctly.

The draft interviews were sent to the interviewees for approval of the content. Of the twenty interviewees, seven returned their interview notes with edits, nine responded with no changes, and four did not respond. During the initial editing of interviews, as well as in the final editing, recordings were used where needed and when available to clarify comments. This reference to the taped responses, plus the review by most interviewees of the detailed interview notes, ensures that the ideas of the respondents were captured correctly.

#### **D. DATA ANALYSIS METHODS**

As described by Marshall and Rossman (1999, p. 153), the most important step of qualitative data analysis is “reading, reading, and reading once more through the data.” The two Principal Investigators (PI’s) from the research team each carefully reviewed the validated interview responses. Through this review, a coding scheme was developed. Using the immersion process described in Marshall and Rossman (1999, p. 154), the PI’s spent a great deal of time independently reviewing and reflecting on the interview responses, generating preliminary coding schema that were reconciled through collaborative discussion and refined into primary codes, or major story themes. These primary codes “became the buckets or baskets

##### **Exhibit II-2. Primary Codes**

- Bay Quality (How Is The Bay Doing?)
- Restoration Actions And Progress (How Is The Restoration Effort Progressing?)
- Restoration Responsibilities (Restoring The Bay Is Everyone’s Responsibility)
- Local Actions (Local Actions Affect The Bay)
- Systems Approach (The Bay Is An Interconnected System And Must Be Addressed As Such)

into which segments of text are placed.” These segments of text provided the secondary codes, or story sub-themes. Five primary codes (Exhibit II-2) and 45 secondary codes (story sub-themes) were identified (Appendices B-C).

After developing the coding framework, the PI’s continued reviewing the data and began sorting segments of text and/or entire responses, into the appropriate coded category using methods described in Marshall and Rossman (1999), supplemented by Glaser and Strauss (1967)<sup>5</sup> and Corbin and Strauss (1990)<sup>6</sup>. The primary focus of the coding exercise was to identify story themes, so most attention was spent on Question 2 of the Interview Guide: “What are the most important stories you are focusing on?” Most interviewees discussed important story themes throughout the course of the interview, however, so the PI’s decided to code additional references to other stories and sub-stories regardless of when the interviewee spoke of them. The SAIC research team believes that frequent mention of a story or sub-story throughout the course of the interview indicated it was important in the interviewee’s mind and worthy of consideration.

The first coding engagement with the data was to identify concepts and text streams corresponding to the primary codes. Using a color-coding strategy agreed to by the PI’s, conceptually similar information was grouped together to form “Major Themes.” The interviews were split so that each PI initially coded half the respondents. Then, the interviews were exchanged so that coding could be reviewed and reconciled between the two PI’s.

After completing the primary coding, the PI’s went back through the data several times to refine the primary codes into more discrete secondary codes (sub-themes) using a numeric strategy. As before, each PI coded half the interviews, then swapped responses, so that discrepancies could be identified and

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<sup>5</sup> Glaser, B.G. and Strauss, A.L. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine De Gruyter.

<sup>6</sup> Strauss, A. and Corbin, J. 1990. “Grounded Theory Research: Procedures, Canons, and Evaluative Criteria,” *Qualitative Sociology*, Vol. 13, No. 1, pp. 3-21).

reconciled. By the end of the coding process, both PI's had reviewed each interview and agreed upon how the data were interpreted and coded.

After coding was completed and each coded interview reviewed and agreed upon by the two PI's, the primary and secondary codes were grouped and counted in a variety of ways to draw conclusions about the data. The various ways of analyzing the data, including major findings, are described in Chapter III, Chesapeake Bay Stories.

The remaining questions in the Interview Guide also were analyzed. These questions did not require formal coding and were more suited to presentation in summary tables. Chapters IV-VII and Appendices D-G present these summary results.

The method of preparing these additional summary tables involved reviewing each interview response and sorting the responses by question topic. The range of responses for each topic was recorded in a summary table unique to each question topic. Each summary table followed the same basic format – range of possible responses noted by the interviewees became the left column and the number of the interviewee, from 1 to 20, was arranged across the top row. Using this format, a mark was given to each interviewee who mentioned a particular topic. This created a “dot-plot” by interviewee number and response that enabled a visual representation of the frequency of a certain grouped response. The results from interview guide questions 4, 6, 7, 10, 11, 12 & 13 are reported in this way.

In the case of the questions where pre-defined response categories were provided within the interview guide and the interviewee was asked to place his or her response in one of these predefined categories or in an “other” category, frequency matrices were created. All “other” responses were listed. The results from interview guide questions 8 and 10 are reported in this way.

Three questions warranted analysis beyond the scope of this project and were not summarized. These included Questions 3 (Relationship of your story to the large Bay Program story – and what should the Bay Program story be), Question 5 (Seasonal and other temporal variations in the story), and Question 9 (Variation of messages according to audience). A rich amount of information was provided in response to these questions, but the breadth and depth of the narrative responses would warrant additional coding not possible under this phase of the research effort.

Additional details on the various analyses and decision rules that comprised this study are presented with the actual results in the following chapters and/or appropriate appendices. Again, the contract called for the results to be presented in a briefing style, so the following chapters present succinct highlights. The detailed raw data are provided in appendices.

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### III. BAY STORIES

#### A. RELATED QUESTION(S)

**Question 2) In your role as (insert role from q1), what are the 1, 2 or 3 most important stories you are focusing on?"**

- 2(a) is clarifying information, provides an example. No responses provided.
- 2(b) Thank you for your response. I can see that both (or all three, etc.) of those stories are very important. But, can these two (three) messages fall under a single overarching theme or goal? If so, what is that message?
- 2(c) Yes. I see that those are two (three) separate messages, but then let me ask you a really tough question: Of these various story lines... what is the one thing that is most vital for you to communicate. That is, if you only had the resources to tell one of these stories, which one would it be?

#### B. SUMMARY FINDINGS

Tables III-1 and III-2 present the highest-level summary data developed from the more detailed analyses contained in Appendices B and C. Table III-1 presents the rankings of major themes and Table III-2 presents rankings of the top twenty-five sub-themes.

Both tables present the data analyzed in several different ways. Appendices B and C provide the raw data and additional notes on data analysis. The three primary ways to explore the data that are presented in the tables include:

- Number of times the theme/sub-theme was identified as the most important story (Question 2)
- Number of respondents that mentioned the theme/sub-theme anywhere in the interview
- Weighted score that considers the "most important story" and the number of respondents mentioning the story.



The Research Team recommends using the weighting score as the “truest” measure of story importance because it combines the answer to question 2, most important story, with an indication of how much the theme was on the person’s mind based on how much they talked about it during the course of the interview. It was possible that some interviewees identified one story theme as most important, but talked about a second theme repeatedly throughout the course of the interview, also indicating its importance. The weighted score takes the predominance of mention into account.

**TABLE III-1. RANKING OF MAJOR STORY THEMES<sup>7</sup>**

| <b>RANKING OF MAJOR THEME HEADING BY NUMBER OF TIMES MENTIONED AS MOST IMPORTANT STORY</b> | <b>COUNT</b> |
|--|--------------|
| BAY QUALITY<br>(HOW IS THE BAY ECOSYSTEM DOING?)   | 12           |
| RESTORATION ACTIONS AND PROGRESS<br>(HOW IS THE RESTORATION EFFORT PROGRESSING?)           | 9            |
| RESTORATION RESPONSIBILITIES<br>(RESTORING THE BAY IS EVERYONE’S RESPONSIBILITY)           | 7            |
| LOCAL ACTIONS<br>(LOCAL ACTIONS AFFECT THE BAY)  | 6            |
| SYSTEMS APPROACH<br>(THE BAY IS AN INTERCONNECTED SYSTEM AND MUST BE ADDRESSED AS SUCH)    | 5            |
| <b>RANKING OF MAJOR THEME HEADING BY NUMBER OF INTERVIEWEES MENTIONING IT</b>              |              |
| RESTORATION RESPONSIBILITIES<br>(RESTORING THE BAY IS EVERYONE’S RESPONSIBILITY)           | 94           |
| RESTORATION ACTIONS AND PROGRESS<br>(HOW IS THE RESTORATION EFFORT PROGRESSING?)           | 68           |
| BAY QUALITY<br>(HOW IS THE BAY ECOSYSTEM DOING?)   | 63           |
| LOCAL ACTIONS<br>(LOCAL ACTIONS AFFECT THE BAY)  | 34           |
| SYSTEMS APPROACH<br>(THE BAY IS AN INTERCONNECTED SYSTEM AND MUST BE ADDRESSED AS SUCH)    | 31           |
| <b>RANKING OF MAJOR THEME HEADING BY WEIGHTED SCORE</b>                                    |              |
| RESTORATION RESPONSIBILITIES<br>(RESTORING THE BAY IS EVERYONE’S RESPONSIBILITY)           | 108          |
| BAY QUALITY  | 87           |

<sup>7</sup> Review Appendix A, Table A to get a complete list of the sub-themes comprising each major theme.

|   |    |
|---|----|
| (HOW IS THE BAY ECOSYSTEM DOING?)   |    |
| RESTORATION ACTIONS AND PROGRESS<br>(HOW IS THE RESTORATION EFFORT PROGRESSING?)        | 86 |
| LOCAL ACTIONS<br>(LOCAL ACTIONS AFFECT THE BAY)   | 46 |
| SYSTEMS APPROACH<br>(THE BAY IS AN INTERCONNECTED SYSTEM AND MUST BE ADDRESSED AS SUCH) | 41 |

**TABLE III-2. THE TOP TWENTY-FIVE RANKED STORY SUB-THEMES (USING DIFFERENT RANKING DATA ANALYSIS TECHNIQUES<sup>8</sup>)**

| A<br># | B<br>RANK BY<br>NUMBER<br>TIMES<br>MENTIONED<br>AS MOST<br>IMPORTANT<br>STORY    | C<br>RANK BY<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT                         | D<br>RANKED BY<br>WEIGHTED<br>SCORE<br>(2*B+C)   | E<br>RANKED BY<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS                          | F<br>RANKED BY<br>TOTAL<br>SCORE<br>(2*B+C+E)  |
|--------|--|---|--|--|--|
| 1      | We have made progress in implementing management actions, but not enough. (4)    | Actions vary by season and so should the story. (13)                              | <b>We have made progress in implementing management actions, but not enough. (20)</b>    | We have made progress in implementing management actions, but not enough. (31)                     | We have made progress in implementing management actions, but not enough. (51)                     |
| 2      | Local land use and development affect the Bay. (3)                               | We have made progress in implementing management actions, but not enough. (12)    | <b>Focus on living resources and the ecosystem as the way of conveying quality. (16)</b> | Focus on living resources and the ecosystem as the way of conveying quality. (30)                  | Focus on living resources and the ecosystem as the way of conveying quality. (46)                  |
| 3      | We have made progress in restoring the Bay's ecosystem, but not enough. (3)      | Focus on living resources and the ecosystem as the way of conveying quality. (12) | <b>Local land use and development affect the Bay. (15)</b>                               | Local land use and development affect the Bay. (29)  | Local land use and development affect the Bay. (44)  |
| 4      | Focus on living resources and the ecosystem as the way of conveying quality. (2) | We do not always communicate actions and progress effectively. (12)               | <b>Don't forget nutrients. (15)</b>  | We need to be willing to pay for restoration – it is a cost that must be shared by all of us. (24) | Don't forget nutrients. (37)   |
| 5      | Don't forget nutrients. (2)  | Don't forget nutrients. (11)  | <b>Actions vary by season and so should the story. (13)</b>                              | We do not always communicate actions and progress effectively. (23)                                | We need to be willing to pay for restoration – it is a cost that must be shared by all of us. (36) |

<sup>8</sup> Note that the raw data used to prepare these tables is presented in Appendix A of this report. Appendix B provides the remainder of this table – a full ranking of all responses using different methods.

| A<br># | B<br>RANK BY<br>NUMBER<br>TIMES<br>MENTIONED<br>AS MOST<br>IMPORTANT<br>STORY                     | C<br>RANK BY<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT                   | D<br>RANKED BY<br>WEIGHTED<br>SCORE<br>(2*B+C)  | E<br>RANKED BY<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS      | F<br>RANKED BY<br>TOTAL<br>SCORE<br>(2*B+C+E)                                  |
|--------|---|---|---|--|--|
| 6      | Tell the story of how climate, air, land and water are integrated and affect the Bay. (1)         | Personal action and responsibility are important. (10)                      | <b>We need to be willing to pay for restoration – it is a cost that must be shared by all of us. (12)</b>                       | The old ways of addressing these sources included.... But are not enough. (23) | Actions vary by season and so should the story. (35)                           |
| 7      | Restore the Bay as a functioning, sustainable ecosystem. (2)                                      | Local, state, regional and federal level decision-makers are critical. (10) | <b>We do not always communicate actions and progress effectively. (12)</b>  | Don't forget nutrients. (22)   | We do not always communicate actions and progress effectively. (35)            |
| 8      | We need to be willing to pay for restoration – it is a cost that must be shared by all of us. (2) | Chesapeake 2000 is an important roadmap. (10)                               | <b>We have made progress in restoring the Bay's ecosystem, but not enough. (11)</b>   | Actions vary by season and so should the story. (22)                           | Personal action and responsibility are important. (32)                         |
| 9      | Use local watersheds and the watershed approach as the connection to the Bay. (2)                 | Local land use and development affect the Bay. (9)                          | <b>Restore the Bay as a functioning, sustainable ecosystem. (11)</b>  | Personal action and responsibility are important. (22)                         | Local level decision-makers are critical. (31)                                 |
| 10     | Measure Bay quality using the new water quality criteria. (2)                                     | All stakeholders have a role. (9)   | <b>Present a vision for the Bay. Describe what a clean Bay looks like (include issues of uncertainty and variability)? (11)</b> | Local level decision-makers are critical. (21)                                 | The old ways of addressing these sources included.... But are not enough. (31) |
| 11     | All stakeholders have a role. (1)   | Government and Bay Program actions are important and must be continued. (9) | <b>All stakeholders have a role. (11)</b>   | Restore the Bay as a functioning, sustainable ecosystem. (19)                  | Restore the Bay as a functioning, sustainable ecosystem. (30)                  |
| 12     | Government and Bay Program actions are important and  | Present a vision for the Bay. Describe what a clean Bay looks like (include | <b>Government and Bay Program actions are important and</b>   | All stakeholders have a role. (19)   | All stakeholders have a role. (30)   |

| A<br># | B<br>RANK BY<br>NUMBER<br>TIMES<br>MENTIONED<br>AS MOST<br>IMPORTANT<br>STORY   | C<br>RANK BY<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT   | D<br>RANKED BY<br>WEIGHTED<br>SCORE<br>(2*B+C)   | E<br>RANKED BY<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS  | F<br>RANKED BY<br>TOTAL<br>SCORE<br>(2*B+C+E)  |
|--------|---|---|--|--|--|
|        | must be continued. (1)  | issues of uncertainty and variability). (9)   | <b>must be continued. (11)</b>   |  |  |
| 13     | Present a vision for the Bay. Describe what a clean Bay looks like (include issues of uncertainty and variability)? (1)   | One story does not fit all and the story must be customized to fit specific audiences. (9)        | <b>One story does not fit all and the story must be customized to fit specific audiences. (11)</b> | Government and Bay Program actions are important and must be continued. (19)   | Government and Bay Program actions are important and must be continued. (30)   |
| 14     | One story does not fit all and the story must be customized to fit specific audiences. (1)                                | New ways of addressing the problems include ... (9)   | <b>New ways of addressing the problems include ... (11)</b>  | Present a vision for the Bay. Describe what a clean Bay looks like (include issues of uncertainty and variability)? (18) | Present a vision for the Bay. Describe what a clean Bay looks like (include issues of uncertainty and variability)? (29) |
| 15     | New ways of addressing the problems include ... (1)   | The old ways of addressing these sources included.... But are not enough. (9)                     | <b>Personal action and responsibility are important. (10)</b>                                      | One story does not fit all and the story must be customized to fit specific audiences. (17)                              | One story does not fit all and the story must be customized to fit specific audiences. (28)                              |
| 16     | We need personal behavior changes. (1)  | Tell the story of how climate, air, land and water are integrated and affect the Bay. (8)         | <b>Local level decision-makers are critical. (10)</b>  | Measure Bay quality using the new water quality criteria. (17)   | Measure Bay quality using the new water quality criteria. (26)   |
| 17     | Local citizen involvement (at the individual and community level) is important. We all have an impact on local water. (1) | We need to be willing to pay for restoration – it is a cost that must be shared by all of us. (8) | <b>Use local watersheds and the watershed approach as the connection to the Bay. (10)</b>          | Tell the story of how climate, air, land and water are integrated and affect the Bay. (16)                               | Tell the story of how climate, air, land and water are integrated and affect the Bay. (26)                               |
| 18     | The integrated systems story must link ecosystem response with  | Restore the Bay as a functioning, sustainable ecosystem. (7)                                      | <b>Tell the story of how climate, air, land and water are integrated and</b>                       | Chesapeake 2000 is an important roadmap. (16)  | New ways of addressing the problems include ... (26)   |

| A<br># | B<br>RANK BY<br>NUMBER<br>TIMES<br>MENTIONED<br>AS MOST<br>IMPORTANT<br>STORY   | C<br>RANK BY<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT  | D<br>RANKED BY<br>WEIGHTED<br>SCORE<br>(2*B+C)  | E<br>RANKED BY<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS                  | F<br>RANKED BY<br>TOTAL<br>SCORE<br>(2*B+C+E)  |
|--------|---|--|---|--|--|
|        | inputs and actions (all parts must be told and explained). Critical stories should be highlighted, but interconnected issues must not be forgotten. (1) |  | <b>affect the Bay. (10)</b>   |  |  |
| 19     | There is a need to use science in decision-making and in understanding the ecosystem. (1)   | We need personal behavior changes. (7)   | <b>Chesapeake 2000 is an important roadmap. (10)</b>                                      | There is a need to use science in decision-making and in understanding the ecosystem. (16) | Chesapeake 2000 is an important roadmap. (26)  |
| 20     | Education for all citizens is important. (1)  | Local citizen involvement (at the individual and community level) is important. We all have an impact on local water. (7)  | <b>Measure Bay quality using the new water quality criteria. (9)</b>                      | Indicators are important and we need to develop new indicators. (16)                       | There is a need to use science in decision-making and in understanding the ecosystem. (24) |
| 21     | We must take action or else we'll face regulations (relates to the TMDL issue). (1)   | The integrated systems story must link ecosystem response with inputs and actions (all parts must be told and explained). Critical stories should be highlighted, but interconnected issues must not be forgotten. (7) | <b>We need personal behavior changes. (9)</b>   | New ways of addressing the problems include ... (15)                                       | We need personal behavior changes. (23)  |
| 22     | Forests do matter. (1)  | Use local watersheds and the watershed approach as the connection to the Bay. (6)  | <b>Local citizen involvement (at the individual and community level) is important. We</b> | We need personal behavior changes. (14)  | Local citizen involvement (at the individual and community level) is important. We         |

| A<br># | B<br>RANK BY<br>NUMBER<br>TIMES<br>MENTIONED<br>AS MOST<br>IMPORTANT<br>STORY | C<br>RANK BY<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT                                 | D<br>RANKED BY<br>WEIGHTED<br>SCORE<br>(2*B+C)  | E<br>RANKED BY<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS  | F<br>RANKED BY<br>TOTAL<br>SCORE<br>(2*B+C+E)                                      |
|--------|---|---|---|--|--|
|        |   |   | <b>all have an impact on local water. (9)</b>   |  | all have an impact on local water. (22)  |
| 23     | We must act now! (1)  | There is a need to use science in decision-making and in understanding the ecosystem. (6) | <b>The integrated systems story must link ecosystem response with inputs and actions (all parts must be told and explained). Critical stories should be highlighted, but interconnected issues must not be forgotten. (9)</b> | Local citizen involvement (at the individual and community level) is important. We all have an impact on local water. (13) | Use local watersheds and the watershed approach as the connection to the Bay. (22) |
| 24     | Don't forget toxics, but address from a Bay-wide perspective.. (1)            | Education for all citizens is important. (6)  | <b>The old ways of addressing these sources included.... But are not enough. (9)</b>  | Tributary strategies are important. (13)   | Indicators are important and we need to develop new indicators. (22)               |
| 25     | There is a growing dead zone. (1)   | Indicators are important and we need to develop new indicators. (6)                       | <b>There is a need to use science in decision-making and in understanding the ecosystem. (8)</b>  | Use local watersheds and the watershed approach as the connection to the Bay. (12)   | We have made progress in restoring the Bay's ecosystem, but not enough. (21)       |

Another way to explore the data is by clustering similar themes and sub-themes. This kind of clustering was completed during the early phases of the analysis to develop the initial coding scheme as presented in Appendices B and C. However, at the conclusion of data analysis, the PI's realized there were additional ways some sub-themes could be grouped. For example, issues around restoration responsibility were distributed between the restoration

responsibilities category and the local land use theme. Looking at the data categories in a different way enabled a third modality of grouping by similar topics. These results are presented in Table III-C.

**TABLE III-C. CLUSTERED THEMES (Weighted Score)<sup>9</sup>**

|   |
|---|
| <p><b>RESTORATION RESPONSIBILITY: EVERYONE MUST PARTICIPATE (92)</b></p> <ul style="list-style-type: none"> <li>• We need to be willing to pay for restoration – it is a cost that must be shared by all of us. (12)</li> <li>• All stakeholders have a role. (11)</li> <li>• Government and Bay Program actions are important and must be continued. (11)</li> <li>• Personal action and responsibility are important. (10)</li> <li>• Local level decision-makers are critical. (10)</li> <li>• We need personal behavior changes. (9)</li> <li>• Local citizen involvement (at the individual and community level) is important. We all have an impact on local water. (9)</li> <li>• Education for all citizens is important. (8)</li> <li>• Business and agriculture management level decision-makers must be targeted. (5)</li> <li>• There must be effort and sacrifice by all. (5)</li> <li>• Local watershed groups are important. (2)*</li> </ul> |
| <p><b>USE AN ECOSYSTEM APPROACH (75)</b></p> <ul style="list-style-type: none"> <li>• Focus on living resources and the ecosystem as the way of conveying quality. (16)</li> <li>• Tell the story of how climate, air, land and water are integrated and affect the Bay. (10)</li> <li>• Restore the Bay as a functioning, sustainable ecosystem. (11)</li> <li>• Present a vision for the Bay. Describe what a clean Bay looks like (include issues of uncertainty and variability)? (11)</li> <li>• Chesapeake 2000 is an important roadmap. (10)</li> <li>• The integrated systems story must link ecosystem response with inputs and actions (all parts must be told and explained). Critical stories should be highlighted, but interconnected issues must not be forgotten. (9)</li> <li>• There is a need to use science in decision-making and in understanding the ecosystem. (8)</li> </ul>   |
| <p><b>DON'T FORGET NUTRIENTS (55)</b></p> <ul style="list-style-type: none"> <li>• Don't forget nutrients. (15)</li> <li>• New ways of addressing the problems include ... (11)</li> <li>• Measure Bay quality using the new water quality criteria. (9)</li> <li>• We must take action or else we'll face regulations (relates to the TMDL issue). (7)</li> <li>• Tributary strategies are important. (6)</li> <li>• There is a growing dead zone. (3)</li> <li>• We understand the sources and loadings and they are... (3)</li> <li>• We are holding the line. (1)</li> </ul>  |
| <p><b>LOCAL LAND USE AND DEVELOPMENT ARE IMPORTANT (49)</b></p> <ul style="list-style-type: none"> <li>• Local land use and development affect the Bay. (15)</li> <li>• Use local watersheds and the watershed approach as the connection to the Bay. (10)</li> <li>• Local level decision-makers are critical. (10)</li> </ul>   |

<sup>9</sup> The raw data used to compile this table is presented in Appendices A and B of this report.

\* Note that this issue also relates to the topical area of local land use and development and is also counted there.

|  |
|--|
| <ul style="list-style-type: none"> <li>• Local citizen involvement (at the individual and community level) is important. We all have an impact on local water. (9)**</li> <li>• Population pressures affect the system. (3)</li> <li>• Local watershed groups are important. (2)**</li> </ul>  |
| <p><b>WE HAVE MADE PROGRESS, BUT NOT ENOUGH (45)</b></p> <ul style="list-style-type: none"> <li>• We have made progress in implementing management actions, but not enough. (20)</li> <li>• We have made progress in restoring the Bay's ecosystem, but not enough. (11)</li> <li>• The old ways of addressing these sources included.... But are not enough. (9)</li> <li>• We still have a long way to go, but need to balance that message with one acknowledging progress and hope. (5)</li> </ul>   |
| <p><b>WAYS OF TELLING THE STORY</b></p> <ul style="list-style-type: none"> <li>• Actions vary by season and so should the story. (13)</li> <li>• We do not always communicate actions and progress effectively. (12)</li> <li>• One story does not fit all and the story must be customized to fit specific audiences. (11)</li> <li>• Seasonal issues must be addressed when describing Bay quality. (6)</li> <li>• Part of the message should highlight the benefits of actions to the audience (e.g., explaining why we are doing the action and how it helps the Bay and them). (3)</li> </ul> |
| <p><b>OTHER</b></p> <ul style="list-style-type: none"> <li>• Indicators are important and we need to develop new indicators. (6)</li> <li>• Fish yields and over-harvesting are also an issue. (6)</li> <li>• Forests do matter. (4)</li> <li>• We must act now! (4)</li> <li>• Integrate modeling and monitoring. (4)</li> <li>• Don't forget toxics, but address from a Bay-wide perspective. (3)</li> <li>• There is a challenge with invasive species. (1)</li> </ul>  |

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\*\* Note that this issue also relates to the topical area of responsibility and is also counted there.



### C. HIGHLIGHTS

- Priority story themes are consistent regardless of data analysis technique. Regardless of how the data are analyzed and grouped, the top three major story themes include:
  - Evaluating Bay quality in the context of living resources and ecosystem health.
  - Stating and developing approaches that recognize that restoring the Bay is everyone's responsibility.
  - Recognizing that restoration efforts have had some success stories, it has not gone far enough. This theme of “we have made progress, but not enough,” can be broken down into two story themes: (1) implementation of restoration actions, and (2) achievement of ecosystem restoration.
- When diving into the sub-themes in more detail, the importance of local land use and development becomes apparent. Many of the respondents identified some aspect of local land use development as being a key problem and local involvement being a key solution.
- The long-standing story of nutrients remains important.
- In sum, the priority themes and sub-themes fall into one of the following thematic areas:
  - We have made progress, but not enough.
  - The focus should be on living resources and the Bay ecosystem.
  - It is important to “think and act locally” because local land use and development are important.
  - Personal action and responsibility are key to the Bay restoration – everyone has a role and everyone must “pay up.” At the same time, several respondents stated the importance of including human quality of life in the discussion.

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## CHAPTER IV. STORY DRIVERS

### A. RELATED QUESTION(S)

**Question (4) What are the drivers (e.g., directive, work plan) for developing and telling this story? Does this story relate to a particular Bay Program goal or mission?**

### B. SUMMARY FINDINGS

Responses to this question were listed and grouped under 10 categories as shown in Appendix D. Of the 10 categories, the most frequently given response to this question was that the status and needs of the Chesapeake Bay ecosystem and living resources were driving peoples' work within the Chesapeake Bay Program (ten out of 20 responses). The next most frequently mentioned driver for telling the Bay story was implementing the Chesapeake Bay Agreements (specifically *Chesapeake 2000*) and the more recent Chesapeake Bay Program Keystone Commitments (nine out of 20 responses).

Seven interviewees gave responses that indicated the desire to represent and encourage the public's commitment to Bay restoration. Six interviewees mentioned avoiding regulation or legal action by getting the Bay off the impaired waters list by 2010. Internal institutional needs, such as responding to internal Bay Program requests, and justifying or projecting budgets each were mentioned five times.

Although interviews were conducted after recent and controversial press regarding progress in restoring the Bay, responding to media was near last on the list of drivers. Taken with the other responses, this demonstrates a pattern indicating the importance of the organization mission to restore the Bay ecosystem and implementation of Chesapeake Bay Program objectives as drivers for the work of the interviewed Program participants.

### **C. HIGHLIGHTS**

- Consistent with the Chesapeake Bay story themes, the most important driver for action was a desire to restore the Bay living resources and ecosystem.
- As the focusing agreement for Bay restoration actions, *Chesapeake 2000*, and related commitments was identified as the main policy driver behind Bay Program stories. Two of the other drivers mentioned – desire to remove the Bay from the impaired waters list, and Tributary Strategies – directly relate to *Chesapeake 2000*. *Chesapeake 2000* provides an important road map for Bay stories and actions. Several respondents mentioned the Preface to *Chesapeake 2000* as a nice summary of Bay Program stories and issues.

## V. STORY AUDIENCES

### A. RELATED QUESTION(S)

**Question (8) Who are you most interested in telling your story to? That is, who is your targeted audience? Check all that apply.**

- Interested Public
- Teachers
- Students
- Watershed Organizations
- Bay Program Partners
- Scientists
- Other (please record what 'others' are being targeted)

8a) What is your single most important audience?

### B. SUMMARY FINDINGS

| A<br>MOST IMPORTANT<br>AUDIENCES<br>(# mentions)                            | B<br>TOP FIVE MOST<br>FREQUENTLY MENTIONED<br>AUDIENCES<br>(# mentions) | C<br>TOP FIVE BY WEIGHTED<br>SCORE<br>(2*A+B)        |
|---|---|--|
| 1. Local governments/elected officials/Bay Program partners (tie at 4 each) | 1. Watershed organizations (19)   | 1. Watershed organizations/Bay Program Partners (23) |
| 2. Interested public (3)  | 2. Interested public/ Bay Program partners (tie at 15 each)             | 2. Interested public (21)                            |
| 3. Watershed organizations (2)  | 3. Teachers (13)  | 3. Local governments (17)                            |
| 4. Agriculture reps/general public (tie at 1 each)                          | 4. Scientists and students (tie at 12 each)                             | 4. Elected officials (15)                            |
| All other choices received "zero."  | 5. Local governments (9)  | 5. Teachers (13)                                     |

The results to Question 8 about audience should be viewed in two ways: the frequency with which an audience was mentioned by interviewees, and the frequency with which that audience was cited as the *most important audience*. For instance, while Watershed Organizations were mentioned by 19 of 20 interviewees, only two called this group their "most important". Interested Public

and Bay Program Partners both received 15 of 20 responses but these groups had 3 of 20 and 4 of 20 interviewees, respectively, indicating them as their “most important audience”.

Looking only at frequency of response for *most important audience*, Bay Program Partners, and the “other” categories of local government and elected officials each were designated as most important by four of the 20 respondents. These responses indicate that the initial interview design for Question 8 did not specifically include two groups that about twenty percent of the respondents see as their most important target audience. The need to create sixteen additional categories (see Appendix E for full range of potential audiences mentioned) to capture the response to this question indicates that Chesapeake Bay Program participants see a very wide range of audiences for their work.

In the case of the Bay Program, the audiences are seemingly as diverse as the issues. This creates a challenge in that specific attention must be paid to who the receiving audiences are for each communication. Judging by the responses to this question, the Bay Program may need to examine the wide range of target audiences for particular communications, and consider whether the message can be more tailored to those audiences.

### **C. HIGHLIGHTS**

- Strong emphasis on local governments and elected officials as important audiences. Tracks with the story theme of local land use and development as a major topic for the Bay.
- Other top audiences include Bay Program partners, watershed organizations, and the interested public (meaning, the public that takes the time to read, learn, attend events, and tries to “make a difference”)
- When considering the weighted score (the approach the Research Team provides the best representation of preference), the Bay Program partners and watershed organizations stand out, closely followed by the interested

public. This tracks with the long-term emphasis of the Bay Program as a collaborative partnership with a clear public mission. Also, it reflects the watershed emphasis of the program through such initiatives as the Tributary Strategies and other watershed actions.

- The weighted score also re-emphasizes the importance of local governments and elected officials as agents of change, especially as regards land use issues. This is an area not historically undertaken in depth by the Bay Program, but a story theme and target audience that is gaining importance.

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## VI. COMMUNICATION ACTIVITIES, PRODUCTS AND COMMUNICATION VEHICLES

### A. RELATED QUESTION(S)

**Question (6) What primary activities are you and your groups involved in to develop and tell this story?**

**Question (7) What kinds of requests do you get related to your stories? What do people ask of you? That is, are there any products that you generate or activities you conduct to respond to these requests (again, as related to the stories you've highlighted – examples might be publications or technical assistance programs)?**

- 7a) Do you have specific products that you can share with us that will help explain the story?

**Question (10) What communication vehicles would be effective in reaching this audience?**

- World Wide Web
- Email
- Printed Materials (e.g., brochures)
- Mass Media (Radio/TV/Newspaper)
- Meetings (either public or face to face)
- Other (if other please note what is being used)

### B. SUMMARY FINDINGS

| <b>TOP FIVE ACTIVITIES AND PRODUCTS</b>  | <b>TOP FIVE COMMUNICATION VEHICLES</b>     |
|--|--|
| 1. Publishing print information (e.g., brochures) (12)   | 1. Meetings (public or face-to-face) (17)  |
| 2. Publishing Web-based information (11)   | 2. Mass media (radio, TV, newspaper) (16)  |
| 3. Planning or providing technical advice to organizations and/or individuals (professionals) (10) | 3. World Wide Web (15)                     |
| 4. Publishing technical reports or papers (8)  | 4. E-Mail (12)                             |
| 5. Sponsoring and/or presenting at workshops, meetings or other public forums (7)                  | 5. Printed materials (e.g. brochures) (12) |

Publishing in various media is a primary activity of the Bay Program and its partners. A second but nearly as important activity is providing technical or planning support to organizations. These are two very different modes of activity and organizationally require a range of skill sets, indicative of the breadth and depth of Bay Program needs and expertise.

When considering the ways respondents would like to communicate the stories, meetings were cited most as an effective communications vehicle for delivering Bay Program messages, with 17 interviewee responses. Mass media (16 out of 20 interviewee responses) and World Wide Web (15 out of 20) were a close second and third in frequency of response. E-mail and printed materials were each cited as effective vehicles by 12 out of 20 interviewees.

### **C. HIGHLIGHTS**

- When asked to describe the kinds of activities and products currently being generated, most respondents referenced written content, with published materials like brochures and fact sheets and WWW content, the most frequently mentioned.
- When asked what communication vehicles they would like to use, respondents mentioned that in-person meetings (e.g., sitting down and talking over ideas and needs with individual and/or small groups) were most effective. Mass media, reflecting the increased consciousness of broad-based outreach (and responding to the public perception survey) was mentioned as another important future desired communication vehicle.



## VII. COMMUNICATION SUPPORT

### A. RELATED QUESTION(S)

**Question (11) Who do you go to, or who would you like to go to, to support you in telling these stories and conveying the key messages?**

**Question (12) (Optional, depending on what they say in Question 11) Narrowing the scope to the Bay Program, who at the Bay Program currently supports or who would you like to support you in communicating these stories and messages?**

**Question (13) To get very specific, are there communication-related services that either the Information Management Subcommittee or Communication Subcommittee can provide to assist you in reaching your key audiences with this story?**

### B. SUMMARY FINDINGS

| <b>TOP FIVE COMMUNICATION RESOURCES<br/>(FROM BAY PROGRAM OFFICE)</b> | <b>TOP FIVE COMMUNICATION RESOURCES<br/>(BEYOND BAY PROGRAM OFFICE)</b>    |
|---|--|
| 1. Communications Office (17)   | 1. Scientists/Internal press office of their organization (tied at 5 each) |
| 2. Other Subcommittees and Workgroups (7)                             | 2. Watershed groups (3)  |
| 3. Web Team (6)   | 3. Government agencies (3)   |
| 4. Various individuals (5)  | 4. Key stakeholders (2)  |
| 5. GIS Team (3)   | 5. Elected officials (1)   |

### C. HIGHLIGHTS

- Overwhelmingly, most respondents sought support in developing and telling their stories from the Communication Office at the Annapolis-based Chesapeake Bay Program Office.
- A distant second tier of support came directly from Bay Program Subcommittees and/or Subcommittee Workgroups, the Bay Program Office World Wide Web team, scientists from around the watershed, and the press offices of each respective respondent organization.

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## VIII. INTEGRATED OBSERVATIONS AND NEXT STEPS

### A. INTEGRATION

Although interpretation was not the objective of this study, it is interesting to compare the highest priority responses across all questions. Table VIII-1 provides this information. Exploring the data presented in Table VIII-1 demonstrates a number of interesting findings and opportunities:

- Respondents desire to emphasize an ecosystem approach that highlights the importance of living resources and the interconnection between the whole system. Within this context, another important story is that “we have made progress, but not enough.”
- Local land use and development is increasingly an important topic and story. There is an opportunity to explore whether current target audiences effectively address this constituency.
- The nutrient story remains important, but some of the ways it is currently being told (e.g., from a water quality perspective) are not reflected in the priority story themes. The Bay Program respondents are emphasizing a message that views the system from an ecosystem perspective and highlights the linkages between climate, air, land and water, in conjunction with the message that the problems and the responsibilities for restoration “start at home.” Local communities, local land use issues and related players such as local governments, elected officials, and citizenry, are becoming increasingly important.
- Watershed organizations are presented as the most important target audience, but interestingly, stories specific to watershed organizations did not rise to the top.
- The strong focus on responsibility at the individual and community level is reflected in the target audience of interested public, although general public scored quite low as a potential target audience. There may be

opportunities for the Bay Program to refine whom to target when telling the stories related to restoration responsibility.

- Current communication activities and products are largely related to written content either published in print or on the World Wide Web. This contrasts to what respondents stated as the communication vehicle they would like to use in telling the story (in-person meetings). This presents an opportunity to review current modalities of developing and telling the story versus desired future ways.
- The Communications Office is clearly and important entity involved with developing and telling the story. Few respondents had interactions with the Information Team. This presents an opportunity for future integration and collaboration.

**TABLE VIII-1. COMPARISON OF MAJOR REPORT HIGHLIGHTS: REPORT'S "TOP TEN"<sup>10</sup>**

| <b>SUB-THEMES<br/>(Using the weighted score)</b>   | <b>STORY DRIVERS</b>  | <b>TARGET AUDIENCE</b>  | <b>ACTIVITIES/ PRODUCTS</b>  | <b>COMMUNICATION VEHICLES</b>     |
|--|---|-------------------------|--|-----------------------------------|
| <b>We have made progress in implementing management actions, but not enough. (20)</b>    | Responding to Ecosystem / Living Resources status and Needs                                     | Watershed Organizations | Publishing Print Information (e.g., brochures)                             | Meetings (Public or Face-to-face) |
| <b>Focus on living resources and the ecosystem as the way of conveying quality. (16)</b> | Implementing Chesapeake Bay Agreements, especially Chesapeake 2000 AND the Keystone Commitments | Interested Public       | Publishing Web-based Information   | Mass Media (Radio, TV, Newspaper) |
| <b>Local land use and development affect the Bay. (15)</b>                               | Representing and/or encouraging the Public's Commitment to the Bay's Restoration                | Bay Program Partners    | Planning or Providing Technical Advice to Organizations and/or Individuals | World Wide Web                    |

<sup>10</sup> Raw data used to compile this table are presented in Appendices B and C of this report. Note that two of the top ten themes were excluded from this table because they were more related to how the story should be told instead of what the story should be. These two excluded themes were: "Actions vary by season and so should the story. (weighted score of 13)" and "We do not always communicate actions and progress effectively. (weighted scored of 12)".

| <b>SUB-THEMES<br/>(Using the<br/>weighted score)</b>  | <b>STORY DRIVERS</b>   | <b>TARGET<br/>AUDIENCE</b>  | <b>ACTIVITIES/<br/>PRODUCTS</b>  | <b>COMMUNICATION<br/>VEHICLES</b>                               |
|---|--|-----------------------------|--|---|
|   |  |                             | (Professional<br>s)  |   |
| <b>Don't forget<br/>nutrients. (15)</b>   | Avoiding Regulation<br>or Lawsuits by<br>Getting Off Impaired<br>Waters List (2010)                    | Teachers                    | Publishing<br>Technical<br>Reports or<br>Papers  | E-Mail  |
| <b>We need to be<br/>willing to pay for<br/>restoration – it is a<br/>cost that must be<br/>shared by all of<br/>us. (12)</b>                               | Responding to<br>Organizational<br>and/or Internally<br>Generated<br>Requests (e.g.,<br>Subcommittees) | Scientists                  | Sponsoring<br>and/or<br>Presenting at<br>Workshops,<br>Meetings or<br>Other Public<br>Forums | Printed Materials<br>(e.g. brochures)                           |
| <b>We have made<br/>progress in<br/>restoring the<br/>Bay's ecosystem,<br/>but not enough.<br/>(11)</b>   | Developing/Impleme<br>nting Tributary<br>Strategies  | Students                    | Press<br>Releases,<br>Briefings, and<br>Other Media<br>Requests                              | Other: Personal,<br>Face-to-face or<br>Peer to peer             |
| <b>Restore the Bay<br/>as a functioning,<br/>sustainable<br/>ecosystem. (11)</b>  | Justifying and<br>Projecting Budgets   | Other: Local<br>Governments | Collecting<br>Data and/or<br>Filling Data<br>Requests  | Other: Videos   |
| <b>Present a vision<br/>for the Bay.<br/>Describe what a<br/>clean Bay looks<br/>like (include<br/>issues of<br/>uncertainty and<br/>variability)? (11)</b> | Media (articles,<br>books, etc.)   | Other: Elected<br>Officials | Publishing<br>GRAPHS,<br>GRAPHICS,<br>or MAPS  | Other:<br>Workshops/Sympos<br>ia                                |
| <b>All stakeholders<br/>have a role. (11)</b>   | Personal<br>Commitment   | Other:<br>Developers        | Giving<br>GRANTS   | Other: Public<br>Outreach Programs                              |
| <b>Government and<br/>Bay Program<br/>actions are<br/>important and<br/>must be<br/>continued. (11)</b>   | New Water Quality<br>Criteria  | Other: Press                | Developing<br>Indicators   | Other: Telephone,<br>white<br>papers/reports,<br>grants program |

## **B. NEXT STEPS**

This report summarizes in briefing format through the use of summary tables, the type and frequency of interviewee responses to a series of thirteen questions. Although this is a representative presentation of the results, much of the richness and nuance of response is lost through this presentation. Further analysis of the

interviews could yield quotes and examples to illustrate major results. The interviewees were open in sharing their ideas and experiences and a wealth of useful information is contained in the narrative responses.

Interviewees also brought up issues associated with the messages or stories, the drivers for telling these stories, and the audiences as well as discussing problems associated with communicating those stories, either due to limits of vehicles, or the need for more support to tell these stories. On occasion, interviewees raised problems or barriers to implementation of Bay program activities or to communication with all partners. Interviewees also offered suggestions for how to improve information and communication services in the future. With further analysis, these issues could be highlighted for Chesapeake Bay Program consideration and might assist the Chesapeake Bay Program and its partners in future communication and information technology activities.

A comparison of the themes and most important stories raised in response to Questions 2 and 3 (their story versus the Bay Program story), with those found through a content analysis in Bay documents such as *Chesapeake 2000*, would indicate whether Chesapeake Bay Program partner's most important messages are consistent with stated Chesapeake Bay Program mission goals. Further, it would indicate any discrepancies between Committee/Subcommittee stories and priorities and overall Bay Program messages and focus. Other ways these results could be used to support various Bay Program evaluations would be to review the alignment between: key stories and World Wide Web site emphasis/presentation; information and communication materials; Bay Program Committee/Subcommittee structure and membership; budget priorities; and indicators. The kind of information developed through examining Bay Program stories lays an important foundation for all kinds of potential Bay Program evaluations.

Regarding communication vehicles and audiences it is important to understand the use of these vehicles and their effectiveness with specific audiences. A further analysis of the links between responses to Questions 8 (target audience), 9 (different messages according to target audience) and 10 (communication vehicles) may help tease out recommendations and issues to assist the Bay Program as it connects the message with the audience and the most effective communication vehicles. Similarly, it would be useful to evaluate whether current activities and products (Questions 6 and 7) are the best suited for conveying important messages to target audiences. The seasonality of messages and audiences is also worthy of additional consideration.

If a more detailed analysis of the results is conducted, it may be a productive exercise to discuss the issues and problems raised in a facilitated group discussion involving members of the Chesapeake Bay Program Information Management Subcommittee and the Communication and Education Subcommittee. Results from such a discussion may help guide future development of Bay messages, targeting audiences with effective vehicles as the most appropriate time.

**APPENDIX A**  
**INTERVIEW GUIDE**

# **CHESAPEAKE BAY PROGRAM INTERVIEW GUIDE**

**Final Revision  
August 17, 2004**

**Submitted to the Chesapeake Bay Program Office by  
Science Applications International Corporation (SAIC)**

**GSA Contract #: GS09K99BHD0010 (ANSWER)**

**Task Order Number: T0303DSM009**



## 2004 CHESAPEAKE BAY PROGRAM INTERVIEW GUIDE

### BRIEF INTRODUCTIONS

The interview team should then introduce themselves to establish their qualifications and instill confidence in the interviewees. Use the first question below to allow the interviewee to introduce him/herself to the interview team.

### NON-PRIVACY STATEMENT

"We are taking notes and would like to tape record this session for our records. Is that okay with you? "

### OPENING

*Thank you and acknowledge their participation:* "Thank you for your time. I know that you are quite busy and we appreciate you taking the time from your schedule to meet with us today."

*Confirm time allocation:* "I understand that we have 45 minutes with you, is that correct?"

*Provide overview of session approach and goals:* "During the next 45 minutes we are going to ask you some questions to gain a clear understanding of the story that your committee, or subcommittee, is currently communicating to your target audience

The following guide was developed in support of the Bay's Information Management and Communications Subcommittees to help them conduct individual interviews aimed at gaining:

- a clear understanding of the other Bay Program Subcommittees key stories and messages in order to effectively help the subcommittees communicate them,
- a clear understanding of the audiences that the subcommittees are trying to reach with their key stories and messages, and
- a clear understanding of where the key stories and messages of the Subcommittees intersect or overlap.

*Explain/define the word "story" to ensure that the interviewee and the interviewer are working from a common definition:* "When we use the word "story", we are referring to the essential set of messages that your group is trying to communicate to your target audience and why this message is relevant. For example, an important message to communicate could be that nitrogen loadings to the Bay need to be reduced and these specific actions are being undertaken to

encourage those reductions. This message is part of the much larger story about how research has shown that high nitrogen loadings adversely impact living resources in the Bay.”

*Ask if that explanation of story was clear.*

*Explain how the sponsoring subcommittees will benefit from this information:*

“We are conducting these interviews to help the Bay’s Information Management and Communications Subcommittees gain a clear understanding of your subcommittee’s essential story. This information will help them determine what information is required to help communicate your story as well as how they can best support development and conveyance of your story.

## **REAFFIRMING**

To ensure that the interviewer has interpreted the interviewee’s response correctly, sometimes it is necessary to repeat the response back to the interviewee and have them affirm their answer. For example, “Thank you, Mr. Smith. I understand that you are the head of the X subcommittee which is involved in restoration efforts. Is this correct?” This is called ‘reaffirming.’ Questions that should be reaffirmed are clearly marked.

## **TONE**

The overall tone of the interview should be light and conversational. However, it is important to stay on track with the interview so that it is completed in the allotted time.

## **INTERVIEW QUESTIONS**

*Ask, “Do you have any questions before we start?”*

## INTERVIEW REFERENCE DATA

|                                 |  |
|---------------------------------|--|
| <b>Interview Location</b>       |  |
| <b>Interview Date</b>           |  |
| <b>Interviewed By</b>           |  |
| <b>Scribe</b>                   |  |
| <b>Interviewee Name</b>         |  |
| <b>Title</b>                    |  |
| <b>Organization Name</b>        |  |
| <b>Subcommittee Affiliation</b> |  |
| <b>Relationship to CBPO</b>     |  |
| <b>Issue Areas</b>              |  |
| <b>Contact Address</b>          |  |
| <b>Phone Number</b>             |  |
| <b>Email Address</b>            |  |

## Main Interview

1. **Other than what you described in your introduction, do you have anything else you would like to add to describe your role within the Chesapeake Bay Program?**

*Record, but do not reaffirm.*

2. **In your role as (insert role from q1), what are the 1, 2 or 3 most important stories you are focusing on?"**

*Record and reaffirm response.*

*NOTE: If they provided a single story, then skip to question 3.*

- 2a) *If the interviewee responds that the question isn't really clear to them, provide them with an example.*

Okay, let me provide you with an example. "The most common source of excess phosphorus to the Bay is N-P-K fertilizers that are used on lawns and farms. Therefore, a message we need to convey is that if we can limit the amount of these fertilizers that are used on lawns and farms, then we will reduce the amount of phosphorus that enters the Bay and help maintain a healthy aquatic ecosystem."

- 2b). Thank you for your response. I can see that both (or all three, etc.) of those stories are very important. But, can these two (three) messages fall under a single overarching theme or goal? If so, what is that message?

*Record and reaffirm. If they were unable to provide a single message, use 2c), otherwise, skip to question 3.*

- 2c) Yes. I see that those are two (three) separate messages, but then let me ask you a really tough question: Of these various story lines... what is the one thing that is most vital for you to communicate. That is, if you only had the resources to tell one of these stories, which one would it be?

*Record and reaffirm. If they state that they would simply have half the budget to tell each story, then record both messages and move on to question #3.*

3. **How does your story(ies) relate to the broader Chesapeake Bay Program story? As background, please state what you believe the broader Chesapeake Bay Program story to be.**

*Record, but do not reaffirm.*

4. **What are the drivers (e.g., directive, work plan) for developing and telling this story? Does this story relate to a particular Bay Program goal or mission?**

*Record and reaffirm.*

5. **Does this story vary according to the time of year? For example, is this a seasonal story, changing from summer to winter, or is this story relevant year-round?**

*Record, but do not reaffirm. If year-round story, go on to question 6.*

- 5a) Since this story is seasonal, what other stories rise to the top during the other seasons?

*Record, but do not reaffirm.*

- 5b) Does the primary audience change with the season/story?

*Record, but do not reaffirm.*

- 5c) Is this a recent development or a persistent story?

*Record, but do not reaffirm.*

- 5d) Other than seasonally, does this story change according to time of year? Are there other drivers, such as Bay Program deadlines, that affect the timing of your story?

*Note: Repeat the series of questions 5a-5c as appropriate.*

6. **What primary activities are you and your groups involved in to develop and tell this story?**

*Record, but do not reaffirm.*

7. **What kinds of requests do you get related to your stories? What do people ask of you? That is, are there any products that you generate or activities you conduct to respond to these requests (again, as**

**related to the stories you've highlighted – examples might be publications or technical assistance programs)?**

*Record and reaffirm.*

7a) Do you have specific products that you can share with us that will help explain the story?

**8. Who are you most interested in telling your story to? That is, who is your targeted audience? Check all that apply.**

- Interested Public
- Teachers
- Students
- Watershed Organizations
- Bay Program Partners
- Scientists
- Other (please record what 'others' are being targeted)

*Record and reaffirm.*

8a) What is your single most important audience?

**9. Are there different messages for each of these audiences? What specifics about this particular story are important for these audiences to understand? What actions would you like each audience to undertake?**

*Record and reaffirm. Capture the distinctions for each target audience.*

**10. What communication vehicles would be effective in reaching this audience?**

Note: Do not lead the interviewee by reading off the list below – just check all that they mention and write down additional vehicles they mention.

- World Wide Web
- Email
- Printed Materials (e.g., brochures)
- Mass Media (Radio/TV/Newspaper)
- Meetings (either public or face to face)
- Other (if other please note what is being used)

*Record and reaffirm.*

- 11. Who do you go to, or who would you like to go to, to support you in telling these stories and conveying the key messages?**

*Record, but do not reaffirm.*

- 12. (Optional, depending on what they say in Question 11) Narrowing the scope to the Bay Program, who at the Bay Program currently supports or who would you like to support you in communicating these stories and messages?**

*Record, but do not reaffirm.*

- 13. To get very specific, are there communication-related services that either the Information Management Subcommittee or Communication Subcommittee can provide to assist you in reaching your key audiences with this story?**

*Record, but do not reaffirm.*

#### **Other Information and Closing**

- 1. Is there any additional information that you'd like to share that you think might be helpful/applicable to this interview?**

*Record, but do not reaffirm.*

*End the interview by thanking the interviewee for their time and responses. Ask the interviewee if they are willing to review our interview summaries to ensure accuracy and completion. If yes, ask the best way to contact them for future review.*





**APPENDIX B**

**RAW DATA SUMMARY TABLES OF QUALITATIVE INFORMATION FROM THE  
CHESAPEAKE STORIES INTERVIEW PROJECT:**

**RESPONDENT STORY THEMES AND SUB-THEMES**

## ADDITIONAL NOTES ON METHODS

This Appendix contains two tables summarizing the frequency of responses for each major theme and sub-theme identified during this study. Table A-1 provides a list of themes and sub-themes aggregated from all interviews, providing corresponding numeric data counts. Table A-2 shows how each interviewee responded by presenting a visual display of the results.

After using the coding process described in Section II, Methodology, of this report, the two lead investigators of the research team worked together to group and count the codes.

Table A-1a presents these counts in the following ways:

- Column A groups the major and sub-themes under common categories.
- Column B identifies how many times the sub-theme was mentioned as “the most important story” (referring to Question 2 of the interview guide, especially 2c)
- Column C identifies how many interviewees/respondents mentioned the sub-theme during the course of the interview
- Column D, recommended by the research team as the most accurate ranking of story preferences, presents a weighted ranking of column B multiplied by two (a weight double that of the other topics to indicate its importance as most important story) added to column C. In other words, weighted “most important” plus the number of respondents mentioning the topic.
- Column E presents a raw count of each time each interviewee mentioned a sub-theme during the entire interview. The research team noticed that certain topics kept coming up regardless of the question being asked. These data give a sense of how much a topic was on an interviewee’s mind and its relative importance to that interviewee, but could skew the final results since some interviewees were clearly passionate about their topics, mentioning them over and over again. Nonetheless, these data provide a sense of importance.
- Column F is a comprehensive weighted score that considers the weighted most important story (column B \* 2) plus the number of respondents (column C) plus the number of times mentioned (column E).

Table A-2 presents all of the themes and sub-themes mentioned by the interviewees and identifies which stories were named as most important (question 2c). It breaks out additional sub-themes that were mentioned during the course of the interview. This table presents a visual spread of these responses among the interviewees, using a simple X to indicate the topic was mentioned at least once during the interview and a solid black mark to indicate the most important story.

**TABLE B-1. RAW DATA SUMMARY OF RESPONDENT THEMES AND SUBTHEMES**

| A<br>THEMES/SUB-THEMES   | B<br>NUMBER<br>TIMES<br>MENTIONED<br>AS MOST<br>IMPORTANT<br>STORY | C<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT | D<br>WEIGHTED<br>RESPONSE<br>(2*B+C) | E<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS | F<br>TOTAL SCORE<br>(2*B+C+E) |
|--|--|--|--------------------------------------|--|-------------------------------|
| <b>BAY QUALITY<br/>(HOW IS THE BAY DOING?)</b>   |  |  |                                      |  |                               |
| 1) Present a vision for the Bay. Describe what a clean Bay looks like (including issues of uncertainty and variability). | 1  | 9  | 11                                   | 18   | 29                            |
| 2) We have made progress in restoring the Bay's ecosystem, but not enough.   | 3  | 5  | 11                                   | 10   | 21                            |
| 3) There is a growing dead zone.   | 1  | 1  | 3                                    | 2  | 5                             |
| 4) Measure Bay quality using the new water quality criteria.   | 2  | 5  | 9                                    | 17   | 26                            |
| 5) Don't forget nutrients.   | 2  | 11   | 15                                   | 22   | 37                            |
| 6) Focus on living resources and the ecosystem as way of conveying quality.  | 2  | 12   | 16                                   | 30   | 46                            |
| 7) Address seasonal issues when describing Bay quality.  | 0  | 6  | 6                                    | 11   | 17                            |
| 8) Indicators are important and new indicators should be developed.  | 0  | 6  | 6                                    | 16   | 22                            |
| 9) Don't forget toxics, but address from Bay-wide perspective.   | 1  | 1  | 3                                    | 4  | 7                             |

| A<br>THEMES/SUB-THEMES  | B<br>NUMBER<br>TIMES<br>MENTIONED<br>AS MOST<br>IMPORTANT<br>STORY | C<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT | D<br>WEIGHTED<br>RESPONSE<br>(2*B+C) | E<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS | F<br>TOTAL SCORE<br>(2*B+C+E) |
|---|--|--|--------------------------------------|--|-------------------------------|
| 10) There is a challenge with invasive species.   | 0  | 1  | 1                                    | 1  | 2                             |
| 11) Fish yields and over-harvesting are of concern.   | 0  | 6  | 6                                    | 11   | 17                            |
| <b>TOTALS</b>   | 12   | 63   | 87                                   | 142  | 229                           |
| <b>RESTORATION ACTIONS AND PROGRESS<br/>(HOW IS THE RESTORATION EFFORT PROGRESSING?)</b>                      |  |  |                                      |  |                               |
| 1) We have made progress in implementing management actions, but not enough.                                  | 4  | 12   | 20                                   | 31   | 51                            |
| 2) We are holding the line.   | 0  | 1  | 1                                    | 3  | 4                             |
| 3) We understand the sources and loadings and they are...   | 0  | 3  | 3                                    | 4  | 7                             |
| 4) The old ways of addressing these sources included.... but are not enough.                                  | 0  | 9  | 9                                    | 23   | 32                            |
| 5) New ways of addressing the problems include...   | 1  | 9  | 11                                   | 15   | 26                            |
| 6) Tributary strategies are important.  | 0  | 6  | 6                                    | 13   | 19                            |
| 7) We still have a long way to go, but need to balance that message with one acknowledging progress and hope. | 1  | 3  | 5                                    | 4  | 9                             |

| A<br>THEMES/SUB-THEMES  | B<br>NUMBER<br>TIMES<br>MENTIONED<br>AS MOST<br>IMPORTANT<br>STORY | C<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT | D<br>WEIGHTED<br>RESPONSE<br>(2*B+C) | E<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS | F<br>TOTAL SCORE<br>(2*B+C+E) |
|---|--|--|--------------------------------------|--|-------------------------------|
| 8) We do not always communicate actions and progress effectively.                         | 0  | 12   | 12                                   | 23   | 35                            |
| 9) We must take action or else we'll face regulations (relates to the TMDL subplot).      | 1  | 5  | 7                                    | 12   | 19                            |
| 10) There is a need to use science in decision-making and in understanding the ecosystem. | 1  | 6  | 8                                    | 16   | 24                            |
| 11) We must act now!  | 1  | 2  | 4                                    | 6  | 10                            |
| <b>TOTALS</b>   | 9  | 68   | 86                                   | 150  | 236                           |
| <b>RESTORATION RESPONSIBILITIES<br/>(RESTORING THE BAY IS EVERYONE'S RESPONSIBILITY)</b>  |  |  |                                      |  |                               |
| 1) All stakeholders have a role.  | 1  | 9  | 11                                   | 19   | 30                            |
| 2) Government and Bay Program actions are important and must be continued.                | 1  | 9  | 11                                   | 19   | 30                            |
| 3) Personal action and responsibility are important.                                      | 0  | 10   | 10                                   | 22   | 32                            |
| 4) There must be effort and sacrifice by all.   | 0  | 5  | 5                                    | 6  | 11                            |
| 5) We need personal behavior changes.   | 1  | 7  | 9                                    | 14   | 23                            |

| A<br>THEMES/SUB-THEMES   | B<br>NUMBER<br>TIMES<br>MENTIONED<br>AS MOST<br>IMPORTANT<br>STORY | C<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT | D<br>WEIGHTED<br>RESPONSE<br>(2*B+C) | E<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS | F<br>TOTAL SCORE<br>(2*B+C+E) |
|--|--|--|--------------------------------------|--|-------------------------------|
| 6) We need to be willing to pay for restoration – the cost must be shared by all of us.  | 2  | 8  | 12                                   | 24   | 36                            |
| 7) Actions/ issues vary by season and so should the story.   | 0  | 13   | 13                                   | 22   | 35                            |
| 8) Education for all citizens is important.  | 1  | 6  | 8                                    | 12   | 20                            |
| 9) Part of the message should highlight the benefits/relevance of actions to the audience (i.e., why we are doing the action and how it helps the Bay and them). | 0  | 3  | 3                                    | 7  | 10                            |
| 10) One story does not fit all and the story must be customized to fit specific audiences.   | 1  | 9  | 11                                   | 17   | 28                            |
| 11) Business and agriculture management level decision-makers must be targeted.  | 0  | 5  | 5                                    | 8  | 13                            |
| 12) Chesapeake 2000 is an important roadmap.   | 0  | 10   | 10                                   | 16   | 26                            |
| <b>TOTALS</b>  | 7  | 94   | 108                                  | 186  | 294                           |
| <b>LOCAL ACTIONS AFFECT THE BAY</b>  |  |  |                                      |  |                               |
| 1) Local land use and development affects the Bay.   | 3  | 9  | 15                                   | 29   | 44                            |

| A<br>THEMES/SUB-THEMES   | B<br>NUMBER<br>TIMES<br>MENTIONED<br>AS MOST<br>IMPORTANT<br>STORY | C<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT | D<br>WEIGHTED<br>RESPONSE<br>(2*B+C) | E<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS | F<br>TOTAL SCORE<br>(2*B+C+E) |
|--|--|--|--------------------------------------|--|-------------------------------|
| 2) Local citizen involvement (at the individual and community level) is important. We all have an impact on local water. | 1  | 7  | 9                                    | 13   | 22                            |
| 3) Local watershed groups are important.   | 0  | 2  | 2                                    | 2  | 4                             |
| 4) Use local watersheds and the watershed approach as the connection to the Bay.   | 2  | 6  | 10                                   | 12   | 22                            |
| 5) Local, state, regional, and Federal level decision-makers are critical.   | 0  | 10   | 10                                   | 21   | 31                            |
| <b>TOTALS</b>  | 6  | 34   | 46                                   | 77   | 123                           |
| <b>SYSTEMS APPROACH<br/>(THE BAY IS AN INTERCONNECTED SYSTEM AND MUST BE ADDRESSED AS SUCH)</b>                          |  |  |                                      |  |                               |
| 1) Tell the story of how climate, air, land, and water are integrated and affect the Bay.                                | 1  | 8  | 10                                   | 16   | 26                            |
| 2) Integrate modeling and monitoring.  | 0  | 4  | 4                                    | 12   | 16                            |
| 3) Restore the Bay as a functioning, sustainable ecosystem.  | 2  | 7  | 11                                   | 19   | 30                            |
| 4) Forests do matter.  | 1  | 2  | 4                                    | 10   | 14                            |
| 5) Population pressures affect the system.   | 0  | 3  | 3                                    | 4  | 7                             |



| A<br>THEMES/SUB-THEMES   | B<br>NUMBER<br>TIMES<br>MENTIONED<br>AS MOST<br>IMPORTANT<br>STORY | C<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT | D<br>WEIGHTED<br>RESPONSE<br>(2*B+C) | E<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS | F<br>TOTAL SCORE<br>(2*B+C+E) |
|--|--|--|--------------------------------------|--|-------------------------------|
| 6) The integrated "systems" story must link ecosystem response with inputs and actions – all parts must be explained. (Tell the critical stories but do not forget the other interconnected issues.) | 1  | 7  | 9                                    | 11   | 20                            |
| <b>TOTALS</b>  | 5  | 31   | 41                                   | 72   | 113                           |

TABLE B-2. RAW DATA SUMMARY OF RESPONDENT THEMES AND SUBTHEMES<sup>1</sup>

| THEMES/SUBTHEMES   | INTERVIEWEES |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
|--|--------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
|  | 1            | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| <b>BAY QUALITY<br/>(HOW IS THE BAY DOING?)</b>   |              |   |   | X |   | X | X |   | X | X  |    | X  |    | X  |    |    |    |    |    |    |
| 1) Present a vision for the Bay. Describe what a clean Bay looks like (including issues of uncertainty and variability). |              |   |   |   |   |   |   |   |   |    |    |    |    |    | X  |    |    |    |    |    |
| 2) We have made progress in restoring the Bay's ecosystem, but not enough.   |              |   |   |   |   |   |   |   |   |    |    | X  |    |    |    |    |    |    |    |    |
| 3) There is a growing dead zone.   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| 4) Measure Bay quality using the new water quality criteria.   |              |   |   |   |   |   | X |   |   |    |    | X  |    |    |    |    |    |    |    | X  |
| 5) Don't forget nutrients.   |              | X |   |   |   |   |   | X |   |    |    | X  |    |    |    |    | X  |    | X  | X  |
| 6) Focus on living resources and the ecosystem as way of conveying quality.  | X            | X |   | X |   |   |   |   | X |    |    | X  |    | X  |    |    | X  |    | X  |    |
| 7) Address seasonal issues when describing Bay quality.  |              |   |   |   |   |   |   |   | X |    |    | X  |    |    |    | X  |    |    |    |    |
| 8) Indicators are important and new indicators should be developed.  | X            |   |   |   |   | X |   |   | X |    |    | X  |    | X  |    |    |    | X  |    |    |
| 9) Don't forget toxics, but address from Bay-wide perspective.   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |

<sup>1</sup> Note that a mark was placed on the table to indicate when a respondent mentioned a theme/sub-theme. The solid black mark indicates the respondent identified the theme/sub-theme as the most important story (Question 2c of the Interview Guide). An "X" indicated the respondent identified the theme/sub-theme as important, but not the "most important."

| THEMES/SUBTHEMES  | INTERVIEWEES |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
|---|--------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
|   | 1            | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 10) There is a challenge with invasive species.   | X            |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| 11) Fish yields and over-harvesting are of concern.   | X            |   |   | X |   | X |   |   |   |    |    |    |    |    | X  |    | X  | X  |    |    |
| <b>RESTORATION ACTIONS AND PROGRESS (HOW IS THE RESTORATION EFFORT PROGRESSING?)</b>                          |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| 1) We have made progress in implementing management actions, but not enough.                                  | X            |   |   | X | X |   | X | X | X | X  |    |    | X  | X  |    |    |    |    |    |    |
| 2) We are holding the line.   |              |   |   |   |   |   |   |   |   |    |    |    |    |    | X  |    |    |    |    |    |
| 3) We understand the sources and loadings and they are...   |              |   |   |   |   |   |   |   |   |    |    |    | X  | X  |    |    |    |    | X  |    |
| 4) The old ways of addressing these sources included.... but are not enough.                                  | X            | X |   |   | X |   | X |   |   | X  | X  | X  | X  | X  | X  |    |    |    |    |    |
| 5) New ways of addressing the problems include...   | X            |   |   |   | X | X | X |   | X | X  |    |    |    |    |    |    | X  |    |    |    |
| 6) Tributary strategies are important.  |              |   | X |   | X |   | X |   |   |    | X  | X  |    |    |    |    |    |    |    | X  |
| 7) We still have a long way to go, but need to balance that message with one acknowledging progress and hope. |              |   |   |   |   |   |   | X |   |    |    |    |    |    | X  |    |    |    |    |    |
| 8) We do not always communicate actions and progress effectively.   | X            |   | X | X | X | X | X | X | X | X  | X  |    | X  | X  | X  |    |    |    | X  |    |
| 9) We must take action or else we'll face regulations (relates to the TMDL subplot).                          |              |   |   |   |   |   |   |   |   | X  |    | X  |    |    |    |    | X  |    |    | X  |

| THEMES/SUBTHEMES   | INTERVIEWEES |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
|--|--------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
|  | 1            | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 10) There is a need to use science in decision-making and in understanding the ecosystem.  |              |   |   |   |   |   |   | X |   |    |    |    | X  | X  |    |    | X  | X  |    |    |
| 11) We must act now!   |              |   |   |   |   | X |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| <b>RESTORATION RESPONSIBILITIES (RESTORING THE BAY IS EVERYONE'S RESPONSIBILITY)</b>   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| 1) All stakeholders have a role.   |              | X | X |   |   | X | X | X | X | X  | X  | X  |    |    |    |    |    |    |    |    |
| 2) Government and Bay Program actions are important and must be continued.   | X            |   |   | X |   |   | X | X | X | X  |    |    |    |    |    |    |    | X  |    |    |
| 3) Personal action and responsibility are important.   |              | X |   | X |   | X | X | X | X | X  | X  | X  |    |    |    |    |    |    |    | X  |
| 4) There must be effort and sacrifice by all.  |              |   |   |   |   |   | X | X | X | X  | X  |    |    |    | X  |    |    |    |    |    |
| 5) We need personal behavior changes.  |              | X |   | X | X | X | X |   |   |    |    |    |    |    |    | X  |    |    |    |    |
| 6) We need to be willing to pay for restoration – the cost must be shared by all of us.  |              |   |   | X | X |   | X |   |   |    |    |    |    |    |    |    |    | X  |    |    |
| 7) Actions/ issues vary by season and so should the story.   |              | X |   |   | X | X | X | X |   |    | X  | X  | X  | X  | X  | X  | X  | X  |    |    |
| 8) Education for all citizens is important.  |              | X |   |   | X | X |   |   | X |    |    |    |    |    |    |    | X  | X  |    |    |
| 9) Part of the message should highlight the benefits/relevance of actions to the audience (i.e., why we are doing the action and how it helps the Bay and them). |              |   |   |   | X | X |   |   |   |    |    |    |    |    |    |    |    |    |    | X  |

| THEMES/SUBTHEMES   | INTERVIEWEES |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
|--|--------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
|  | 1            | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 10) One story does not fit all and the story must be customized to fit specific audiences.                               |              |   | X | X | X | X |   | X | X | X  | X  |    |    |    |    |    |    | X  |    |    |
| 11) Business and agriculture management level decision-makers must be targeted.  |              |   | X | X |   | X |   |   |   |    |    |    |    |    | X  |    |    |    | X  |    |
| 12) Chesapeake 2000 is an important roadmap.   |              |   | X | X | X |   | X |   |   | X  |    | X  |    |    |    | X  | X  | X  |    | X  |
| <b>LOCAL ACTIONS</b>   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| <b>(LOCAL ACTIONS AFFECT THE BAY)</b>  |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| 1) Local land use and development affects the Bay.   |              |   |   |   |   |   |   |   |   |    |    |    |    |    | X  | X  | X  | X  | X  | X  |
| 2) Local citizen involvement (at the individual and community level) is important. We all have an impact on local water. | X            |   |   |   |   | X | X | X | X |    |    |    |    |    |    |    |    |    | X  |    |
| 3) Local watershed groups are important.   | X            |   | X |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| 4) Use local watersheds and the watershed approach as the connection to the Bay.   |              |   |   |   |   | X |   | X | X |    |    |    |    |    | X  |    |    |    |    |    |
| 5) Local, state, regional, and Federal level decision-makers are critical.   | X            | X | X | X | X | X | X | X | X |    |    | X  |    |    |    |    | X  |    | X  |    |
| <b>SYSTEMS APPROACH</b>  |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| <b>(THE BAY IS AN INTERCONNECTED SYSTEM AND MUST BE ADDRESSED AS SUCH)</b>   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| 1) Tell the story of how climate, air, land, and water are integrated and affect the Bay.                                | X            | X | X |   |   |   |   | X | X | X  | X  |    |    |    |    |    |    |    |    | X  |
| 2) Integrate modeling and monitoring.  |              |   | X |   |   |   |   | X |   |    |    |    |    | X  |    |    |    |    |    |    |
| 3) Restore the Bay as a functioning, sustainable ecosystem.  |              |   |   |   |   | X | X | X | X |    |    |    |    |    |    |    |    |    | X  |    |

| THEMES/SUBTHEMES  | INTERVIEWEES |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |   |
|---|--------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|---|
|   | 1            | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |   |
| 4) Forests do matter.   |              | X |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |   |
| 5) Population pressures affect the system.  |              | X |   |   |   |   |   | X |   |    |    |    |    |    | X  |    |    |    |    |    |   |
| 6) The integrated "systems" story must link ecosystem response with inputs and actions -- all parts must be explained. (Tell the critical stories but do not forget the other interconnected issues.) |              |   |   |   |   | X |   |   | X |    |    |    | X  |    |    |    |    | X  | X  |    | X |

## **APPENDIX C**

### **SUMMARY OF SUB-THEME RANKING USING DIFFERENT RANKING/DATA ANALYSIS TECHNIQUES**

## ADDITIONAL NOTES ON METHODS

This Appendix ranks the raw data presented in Appendix B to demonstrate priorities. A number of ranking approaches are presented. The research team recommends using the weighted rankings presented in Column D of the following table to represent the most accurate sense of story priorities. This method represents a combined score of topics identified as “most important” (given a double count to indicate their status as most important) plus the number of respondents that mentioned the topic. Additional explanatory information about the ranking tables is presented as follows:

- Column A presents the ordered numbers from 1-45 (total number of sub-themes) to show the actual rank of the sub-themes. It is important to note that the ranking table should be read vertically, as each column presents a separate ranking using a different ranking method.
- Column B ranks the sub-themes according to how many times the topic was mentioned as “the most important story” (referring to question 2 of the Interview Guide, especially question 2c).
- Column C ranks the sub-themes according to how many interviewees/respondents mentioned the topic during the course of the interview.
- Column D, recommended by the research team as the most accurate ranking of story preferences, presents a weighted ranking of column B multiplied by two (a weight double that of the other topics to indicate their importance as most important story) added to column C. In other words, weighted “most important” plus the number of respondents mentioning the topic.
- Column E presents a raw count of each time each interviewee mentioned a topic. These data give a sense of how much a topic was on an interviewee’s mind given the frequency of mention during the course of the interview, but could easily skew the final results since some interviewees



were clearly compassionate about their topics, mentioning them over and over again. Nonetheless, these data provide a sense of importance.

- Column F is a comprehensive weighted score that considers the weighted most important story (Column B \* 2) plus the number of respondents (Column C) plus the number of times mentioned (Column E).

In the event of ties in the ranking process, a series of decision rules was used to determine rank. First, the tied sub-themes were checked to see if any had been scored as “most important” (column B). If yes, the sub-theme with the most mentions as most important story received the higher rank. If those were still tied, then column C, number of respondents mentioning was consulted. In the event of continuing ties, column E, number of times mentioned was consulted. Using this method, ties were resolved. The numeric rankings represent respondent preferences even though some of the actual frequency counts are the same for that particular ranking method.

**TABLE C-1. SUMMARY OF SUB-THEME RANKINGS USING DIFFERENT DATA ANALYSIS TECHNIQUES<sup>1</sup>**

| <b>A</b> | <b>B</b><br>RANK BY<br>NUMBER TIMES<br>MENTIONED AS<br>MOST<br>IMPORTANT<br>STORY         | <b>C</b><br>RANK BY<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT                  | <b>D</b><br>RANKED BY<br>WEIGHTED<br>SCORE<br>(2*B+C)   | <b>E</b><br>RANKED BY<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS                   | <b>F</b><br>RANKED BY<br>TOTAL SCORE<br>(2*B+C+E)  |
|----------|---|---|---|--|--|
| 1        | We have made progress in implementing management actions, but not enough. (4)             | Actions vary by season and so should the story. (13)                              | <b>We have made progress in implementing management actions, but not enough. (20)</b>                     | We have made progress in implementing management actions, but not enough. (31)                     | We have made progress in implementing management actions, but not enough. (51)                     |
| 2        | Local land use and development affect the Bay. (3)  | We have made progress in implementing management actions, but not enough. (12)    | <b>Focus on living resources and the ecosystem as the way of conveying quality. (16)</b>                  | Focus on living resources and the ecosystem as the way of conveying quality. (30)                  | Focus on living resources and the ecosystem as the way of conveying quality. (46)                  |
| 3        | We have made progress in restoring the Bay's ecosystem, but not enough. (3)               | Focus on living resources and the ecosystem as the way of conveying quality. (12) | <b>Local land use and development affect the Bay. (15)</b>  | Local land use and development affect the Bay. (29)  | Local land use and development affect the Bay. (44)  |
| 4        | Focus on living resources and the ecosystem as the way of conveying quality. (2)          | We do not always communicate actions and progress effectively. (12)               | <b>Don't forget nutrients. (15)</b>   | We need to be willing to pay for restoration – it is a cost that must be shared by all of us. (24) | Don't forget nutrients. (37)   |
| 5        | Don't forget nutrients. (2)   | Don't forget nutrients. (11)  | <b>Actions vary by season and so should the story. (13)</b>   | We do not always communicate actions and progress effectively. (23)                                | We need to be willing to pay for restoration – it is a cost that must be shared by all of us. (36) |
| 6        | Tell the story of how climate, air, land and water are integrated and affect the Bay. (1) | Personal action and responsibility are important. (10)                            | <b>We need to be willing to pay for restoration – it is a cost that must be shared by all of us. (12)</b> | The old ways of addressing these sources included.... But are not enough. (23)                     | Actions vary by season and so should the story. (35)   |
| 7        | Restore the Bay as a functioning, sustainable ecosystem. (2)                              | Local, state, regional and federal level decision-makers are critical. (10)       | <b>We do not always communicate actions and progress effectively. (12)</b>                                | Don't forget nutrients. (22)   | We do not always communicate actions and progress effectively. (35)                                |
| 8        | We need to be willing to pay for restoration – it is a cost that must                     | Chesapeake 2000 is an important roadmap. (10)                                     | <b>We have made progress in restoring the Bay's</b>   | Actions vary by season and so should the story. (22)   | Personal action and responsibility are important. (32)   |

<sup>1</sup> Note that the raw data used to prepare these tables is presented in Appendix B of this report.

| A  | B<br>RANK BY<br>NUMBER TIMES<br>MENTIONED AS<br>MOST<br>IMPORTANT<br>STORY  | C<br>RANK BY<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT   | D<br>RANKED BY<br>WEIGHTED<br>SCORE<br>(2*B+C)   | E<br>RANKED BY<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS  | F<br>RANKED BY<br>TOTAL SCORE<br>(2*B+C+E)   |
|----|---|---|--|--|--|
|    | be shared by all of us. (2)   |   | ecosystem, but not enough. (11)  |  |  |
| 9  | Use local watersheds and the watershed approach as the connection to the Bay. (2)                                       | Local land use and development affect the Bay. (9)  | Restore the Bay as a functioning, sustainable ecosystem. (11)  | Personal action and responsibility are important. (22)   | Local level decision-makers are critical. (31)   |
| 10 | Measure Bay quality using the new water quality criteria. (2)   | All stakeholders have a role. (9)   | Present a vision for the Bay. Describe what a clean Bay looks like (include issues of uncertainty and variability)? (11) | Local level decision-makers are critical. (21)   | The old ways of addressing these sources included... But are not enough. (31)  |
| 11 | All stakeholders have a role. (1)   | Government and Bay Program actions are important and must be continued. (9)   | All stakeholders have a role. (11)   | Restore the Bay as a functioning, sustainable ecosystem. (19)  | Restore the Bay as a functioning, sustainable ecosystem. (30)  |
| 12 | Government and Bay Program actions are important and must be continued. (1)   | Present a vision for the Bay. Describe what a clean Bay looks like (include issues of uncertainty and variability). (9) | Government and Bay Program actions are important and must be continued. (11)   | All stakeholders have a role. (19)   | All stakeholders have a role. (30)   |
| 13 | Present a vision for the Bay. Describe what a clean Bay looks like (include issues of uncertainty and variability)? (1) | One story does not fit all and the story must be customized to fit specific audiences. (9)                              | One story does not fit all and the story must be customized to fit specific audiences. (11)                              | Government and Bay Program actions are important and must be continued. (19)   | Government and Bay Program actions are important and must be continued. (30)   |
| 14 | One story does not fit all and the story must be customized to fit specific audiences. (1)                              | New ways of addressing the problems include ... (9)   | New ways of addressing the problems include ... (11)   | Present a vision for the Bay. Describe what a clean Bay looks like (include issues of uncertainty and variability)? (18) | Present a vision for the Bay. Describe what a clean Bay looks like (include issues of uncertainty and variability)? (29) |
| 15 | New ways of addressing the problems include ... (1)   | The old ways of addressing these sources included... But are not enough. (9)  | Personal action and responsibility are important. (10)   | One story does not fit all and the story must be customized to fit specific audiences. (17)                              | One story does not fit all and the story must be customized to fit specific audiences. (28)                              |
| 16 | We need personal behavior changes. (1)  | Tell the story of how climate, air, land and water are integrated and affect the Bay. (8)                               | Local level decision-makers are critical. (10)   | Measure Bay quality using the new water quality criteria. (17)   | Measure Bay quality using the new water quality criteria. (26)   |

| A<br># | B<br>RANK BY<br>NUMBER TIMES<br>MENTIONED AS<br>MOST<br>IMPORTANT<br>STORY   | C<br>RANK BY<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT  | D<br>RANKED BY<br>WEIGHTED<br>SCORE<br>(2*B+C)  | E<br>RANKED BY<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS                  | F<br>RANKED BY<br>TOTAL SCORE<br>(2*B+C+E)   |
|--------|--|--|---|--|--|
| 17     | Local citizen involvement (at the individual and community level) is important. We all have an impact on local water. (1)  | We need to be willing to pay for restoration – it is a cost that must be shared by all of us. (8)  | <b>Use local watersheds and the watershed approach as the connection to the Bay. (10)</b>         | Tell the story of how climate, air, land and water are integrated and affect the Bay. (16) | Tell the story of how climate, air, land and water are integrated and affect the Bay. (26) |
| 18     | The integrated systems story must link ecosystem response with inputs and actions (all parts must be told and explained). Critical stories should be highlighted, but interconnected issues must not be forgotten. (1) | Restore the Bay as a functioning, sustainable ecosystem. (7)   | <b>Tell the story of how climate, air, land and water are integrated and affect the Bay. (10)</b> | Chesapeake 2000 is an important roadmap. (16)  | New ways of addressing the problems include ... (26)                                       |
| 19     | There is a need to use science in decision-making and in understanding the ecosystem. (1)  | We need personal behavior changes. (7)   | <b>Chesapeake 2000 is an important roadmap. (10)</b>  | There is a need to use science in decision-making and in understanding the ecosystem. (16) | Chesapeake 2000 is an important roadmap. (26)  |
| 20     | Education for all citizens is important. (1)   | Local citizen involvement (at the individual and community level) is important. We all have an impact on local water. (7)  | <b>Measure Bay quality using the new water quality criteria. (9)</b>                              | Indicators are important and we need to develop new indicators. (16)                       | There is a need to use science in decision-making and in understanding the ecosystem. (24) |
| 21     | We must take action or else we'll face regulations (relates to the TMDL issue). (1)  | The integrated systems story must link ecosystem response with inputs and actions (all parts must be told and explained). Critical stories should be highlighted, but interconnected issues must not be forgotten. (7) | <b>We need personal behavior changes. (9)</b>   | New ways of addressing the problems include ... (15)                                       | We need personal behavior changes. (23)  |
| 22     | Forests do matter. (1)   | Use local watersheds and the watershed approach as the connection to the   | <b>Local citizen involvement (at the individual and community level) is</b>                       | We need personal behavior changes. (14)  | Local citizen involvement (at the individual and community level) is important. We         |

| A<br># | B<br>RANK BY<br>NUMBER TIMES<br>MENTIONED AS<br>MOST<br>IMPORTANT<br>STORY | C<br>RANK BY<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT                                 | D<br>RANKED BY<br>WEIGHTED<br>SCORE<br>(2*B+C)  | E<br>RANKED BY<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS  | F<br>RANKED BY<br>TOTAL SCORE<br>(2*B+C+E)  |
|--------|--|---|---|--|---|
|        |  | Bay. (6)  | important. We all have an impact on local water. (9)  |  | all have an impact on local water. (22)   |
| 23     | We must act now! (1)   | There is a need to use science in decision-making and in understanding the ecosystem. (6) | <b>The integrated systems story must link ecosystem response with inputs and actions (all parts must be told and explained). Critical stories should be highlighted, but interconnected issues must not be forgotten. (9)</b> | Local citizen involvement (at the individual and community level) is important. We all have an impact on local water. (13) | Use local watersheds and the watershed approach as the connection to the Bay. (22)  |
| 24     | Don't forget toxics, but address from a Bay-wide perspective.. (1)         | Education for all citizens is important. (6)  | <b>The old ways of addressing these sources included.... But are not enough. (9)</b>  | Tributary strategies are important. (13)   | Indicators are important and we need to develop new indicators. (22)  |
| 25     | There is a growing dead zone. (1)  | Indicators are important and we need to develop new indicators. (6)                       | <b>There is a need to use science in decision-making and in understanding the ecosystem. (8)</b>  | Use local watersheds and the watershed approach as the connection to the Bay. (12)   | We have made progress in restoring the Bay's ecosystem, but not enough. (21)  |
| 26     |  | Tributary strategies are important. (6)   | <b>Education for all citizens is important. (8)</b>   | Education for all citizens is important. (12)  | The integrated systems story must link ecosystem response with inputs and actions (all parts must be told and explained). Critical stories should be highlighted, but interconnected issues must not be forgotten. (20) |
| 27     |  | Seasonal issues must be addressed when describing Bay quality. (6)                        | <b>We must take action or else we'll face regulations (relates to the TMDL issue). (7)</b>  | We must take action or else we'll face regulations (relates to the TMDL issue). (12)                                       | Education for all citizens is important. (20)   |
| 28     |  | Fish yields and   | <b>Indicators are</b>   | Integrate  | We must take  |

| A<br># | B<br>RANK BY<br>NUMBER TIMES<br>MENTIONED AS<br>MOST<br>IMPORTANT<br>STORY | C<br>RANK BY<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT                               | D<br>RANKED BY<br>WEIGHTED<br>SCORE<br>(2*B+C)  | E<br>RANKED BY<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS   | F<br>RANKED BY<br>TOTAL SCORE<br>(2*B+C+E)                                       |
|--------|--|---|---|---|--|
|        |  | over-harvesting are also an issue. (6)  | <b>important and we need to develop new indicators.</b> (6)   | modeling and monitoring. (12)   | action or else we'll face regulations (relates to the TMDL issue). (19)          |
| 29     |  | We have made progress in restoring the Bay's ecosystem, but not enough. (5)             | <b>Tributary strategies are important.</b> (6)  | The integrated systems story must link ecosystem response with inputs and actions (all parts must be told and explained). Critical stories should be highlighted, but interconnected issues must not be forgotten. (11) | Tributary strategies are important. (19)   |
| 30     |  | Measure Bay quality using the new water quality criteria. (5)                           | <b>Fish yields and over-harvesting are also an issue.</b> (6)   | Fish yields and over-harvesting are also an issue. (11)   | Fish yields and over-harvesting are also an issue. (17)                          |
| 31     |  | We must take action or else we will face regulations (relates to the TMDL subplot). (5) | <b>Seasonal issues must be addressed when describing Bay quality.</b> (6)   | Seasonal issues must be addressed when describing Bay quality. (11)   | Seasonal issues must be addressed when describing Bay quality. (17)              |
| 32     |  | Business and agriculture management level decision-makers must be targeted. (5)         | <b>We still have a long way to go, but need to balance that message with one acknowledging progress and hope.</b> (5) | We have made progress in restoring the Bay's ecosystem, but not enough. (10)  | Integrate modeling and monitoring. (16)  |
| 33     |  | There must be effort and sacrifice by all. (5)  | <b>Business and agriculture management level decision-makers must be targeted.</b> (5)                                | Forests do matter. (10)   | Forests do matter. (14)  |
| 34     |  | Integrate modeling and monitoring. (4)  | <b>There must be effort and sacrifice by all.</b> (5)   | Business and agriculture management level decision-makers must be targeted. (8)   | Business and agriculture management level decision-makers must be targeted. (13) |
| 35     |  | We still have a long way to go, but need to balance                                     | <b>Forests do matter.</b> (4)   | Part of the message should highlight the  | There must be effort and sacrifice by all.                                       |

| A<br># | B<br>RANK BY<br>NUMBER TIMES<br>MENTIONED AS<br>MOST<br>IMPORTANT<br>STORY | C<br>RANK BY<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT  | D<br>RANKED BY<br>WEIGHTED<br>SCORE<br>(2*B+C)  | E<br>RANKED BY<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS   | F<br>RANKED BY<br>TOTAL SCORE<br>(2*B+C+E)  |
|--------|--|--|---|---|---|
|        |  | that message with one acknowledging progress and hope. (3)   |   | benefits of actions to the audience (e.g., explaining why we are doing the action and how it helps the Bay and them). (7) | (11)  |
| 36     |  | Part of the message should highlight the benefits of actions to the audience (e.g., explaining why we are doing the action and how it helps the Bay and them). (3) | <b>We must act now! (4)</b>   | There must be effort and sacrifice by all. (6)  | We must act now! (10)   |
| 37     |  | We understand the sources and loadings and they are... (3)   | <b>Integrate modeling and monitoring. (4)</b>   | We must act now! (6)  | Part of the message should highlight the benefits of actions to the audience (e.g., explaining why we are doing the action and how it helps the Bay and them). (10) |
| 38     |  | Population pressures affect the system. (3)  | <b>Don't forget toxics, but address from a Bay-wide perspective. (3)</b>  | Don't forget toxics, but address from a Bay-wide perspective. (4)   | Don't forget toxics, but address from a Bay-wide perspective. (7)   |
| 39     |  | Forests do matter. (2)   | <b>There is a growing dead zone. (3)</b>  | We still have a long way to go, but need to balance that message with one acknowledging progress and hope. (4)            | We still have a long way to go, but need to balance that message with one acknowledging progress and hope. (7)  |
| 40     |  | We must act now! (2)   | <b>Part of the message should highlight the benefits of actions to the audience (e.g., explaining why we are doing the action and how it helps the Bay and them). (3)</b> | Population pressures affect the system. (4)   | Population pressures affect the system. (7)   |
| 41     |  | Local watershed  | <b>Population</b>   | We understand   | We understand   |

| A<br># | B<br>RANK BY<br>NUMBER TIMES<br>MENTIONED AS<br>MOST<br>IMPORTANT<br>STORY | C<br>RANK BY<br>NUMBER OF<br>RESPONDENTS<br>MENTIONING IT         | D<br>RANKED BY<br>WEIGHTED<br>SCORE<br>(2*B+C)                    | E<br>RANKED BY<br>NUMBER OF<br>TIMES<br>MENTIONED<br>DURING<br>INTERVIEWS | F<br>RANKED BY<br>TOTAL SCORE<br>(2*B+C+E)      |
|--------|--|---|---|---|---|
|        |  | groups are important. (2)   | <b>pressures affect the system. (3)</b>                           | the sources and loadings and they are... (4)                              | the sources and loadings and they are... (7)    |
| 42     |  | There is a growing dead zone. (1)                                 | <b>We understand the sources and loadings and they are... (3)</b> | We are holding the line. (3)  | There is a growing dead zone. (5)               |
| 43     |  | Don't forget toxics, but address from a Bay-wide perspective. (1) | <b>Local watershed groups are important. (2)</b>                  | There is a growing dead zone. (2)   | Local watershed groups are important. (4)       |
| 44     |  | We are holding the line. (1)                                      | <b>We are holding the line. (1)</b>                               | Local watershed groups are important. (2)                                 | We are holding the line. (4)                    |
| 45     |  | There is a challenge with invasive species. (1)                   | <b>There is a challenge with invasive species. (1)</b>            | There is a challenge with invasive species. (1)                           | There is a challenge with invasive species. (2) |



**APPENDIX D  
STORY DRIVERS**

**Table D-1. Summary of Drivers for Developing and Telling Chesapeake Bay Stories (Interview Question 4)**

| DRIVER   | INTERVIEWEE |   |   |   |   |   |   |   |   |    | Total |    |    |    |    |    |    |    |    |    |    |
|--|-------------|---|---|---|---|---|---|---|---|----|-------|----|----|----|----|----|----|----|----|----|----|
|  | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |       | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Responding to ecosystem / living resources status and needs  | X           |   | X | X | X |   |   | X | X | X  | X     |    |    | X  | X  |    | X  |    |    |    | 10 |
| Implementing Chesapeake Bay Agreements, especially <i>Chesapeake 2000</i> and the Keystone Commitments | X           |   | X | X | X | X | X |   |   | X  |       | X  |    |    | X  |    | X  |    |    | X  | 9  |
| Representing and/or encouraging the public's commitment to the Bay's Restoration                       |             |   | X | X | X | X | X | X |   | X  |       |    | X  |    |    |    | X  |    | X  |    | 7  |
| Avoiding regulation or lawsuits by getting off Impaired Waters List (2010)                             |             |   |   |   |   | X |   |   | X |    |       | X  |    |    |    |    | X  | X  |    | X  | 6  |
| Responding to organizational and/or internally generated requests (e.g., Subcommittees)                | X           |   | X |   |   |   | X |   |   | X  |       |    |    |    | X  | X  |    |    |    |    | 6  |
| Developing/implementing tributary strategies   |             | X | X |   |   | X |   |   |   |    |       |    |    |    |    |    |    |    |    | X  | 4  |
| Justifying and projecting budgets  | X           |   |   |   |   | X | X | X |   |    |       |    |    |    |    | X  |    |    | X  |    | 5  |
| Media (articles, books, etc.)  |             |   |   |   |   | X |   |   | X |    |       |    |    | X  |    |    |    |    |    |    | 3  |
| Personal commitment  | X           |   |   |   |   |   | X |   |   |    |       |    |    |    | X  |    |    |    |    |    | 3  |
| New water quality criteria   |             |   |   |   |   |   |   |   |   | X  |       |    |    |    |    |    |    |    |    |    | 2  |

## APPENDIX E TARGET AUDIENCES

## ADDITIONAL NOTES ON METHODS

Question eight of the interview guide asked who the primary audience is for the interviewee's stories, and which of these is their most important. This question was answered using a checklist of audience types to which interviewees were asked to respond yes or no. The possible responses were:

- Interested public
- Teachers
- Students
- Watershed organizations
- Bay Program Partners
- Scientists and
- Other

For the other category, the interviewees were asked to give examples of their "other." The six predetermined categories were tallied from the responses and the "other" responses were grouped and added to the overall list. Sixteen additional audience categories were made in response to the "other" prompt in the interview. Table E-1, Summary of Target Audiences for Chesapeake Bay Stories (Interview Question 8) contains the summary of this information.

The results presented in Table E-1 should be viewed in two ways: the number of interviewee that mentioned the audience and the frequency with which that audience was cited as the *most important audience*.

Table E-1. Summary of Target Audiences for Chesapeake Bay Stories (Interview Question 8)<sup>1</sup>

| AUDIENCE                 | INTERVIEWEE |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | Total (Most Important) |    |    |    |        |
|--------------------------|-------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|------------------------|----|----|----|--------|
|                          | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |                        | 17 | 18 | 19 | 20     |
| Watershed organizations  | X           |   | X | X |   | X | X | X | X | X  | X  | X  | X  | X  |    | X  | X                      | X  | X  | X  | 19 (2) |
| Interested public        | X           | X |   | X |   |   | X |   | X |    |    | X  | X  | X  |    | X  | X                      |    | X  | X  | 15 (3) |
| Bay Program partners     |             |   |   |   |   |   | X | X | X | X  | X  | X  | X  |    |    | X  | X                      | X  | X  | X  | 15 (4) |
| Teachers                 | X           | X | X |   |   |   | X |   | X | X  | X  | X  |    |    |    | X  | X                      | X  | X  | X  | 13 (0) |
| Scientists               | X           | X |   |   |   |   |   | X | X | X  |    | X  |    | X  |    | X  | X                      | X  | X  | X  | 12 (0) |
| Students                 | X           | X | X |   |   |   | X |   | X | X  | X  | X  |    |    |    | X  | X                      |    | X  | X  | 12 (0) |
| Other: local governments |             | X | X |   | X |   |   |   |   |    |    |    |    |    |    |    |                        |    |    | X  | 9 (4)  |

<sup>1</sup> A follow-up question to this asked the interviewee to name the most important audience. The most important audience is indicated with a black box and the other audiences are indicated with an X.



| INTERVIEWEE  |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    | Total<br>(Most<br>Important) |    |    |    |
|--|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|------------------------------|----|----|----|
| 1  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |                              | 18 | 19 | 20 |
| <b>AUDIENCE</b>  |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |                              |    |    |    |
| Other: Local business managers and other decision-makers representing pollution sources      |   |   |   |   |   |   |   | X |    |    |    |    |    |    | X  |    |                              |    |    |    |
| Other: watermen  |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |                              |    |    |    |
| Other: natural resource practitioners  |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |                              |    | X  |    |
| Other: utilities – wwtp's  |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |                              |    |    |    |
| Other: PSC of the Bay Program  |   |   |   |   |   |   |   |   |    | X  |    |    |    |    |    |    |                              |    |    |    |
| Other: watershed planners  |   |   |   |   | X |   |   |   |    |    |    |    |    |    |    |    |                              |    |    |    |
| Other: environmentalists   |   |   |   |   |   |   |   | X |    |    |    |    |    |    |    |    |                              |    |    |    |
| <b>NOTE: Black box indicates the respondent stated this as their most important audience</b> |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |                              |    |    |    |
|  |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |                              |    |    |    |





## APPENDIX F

### ACTIVITIES, PRODUCTS, AND COMMUNICATION VEHICLES

## ADDITIONAL NOTES ON METHODS

Table F-1 presents results from questions 6 (primary activities performed to develop and tell the stories) and 7 (kinds of information/communication-requests you and/or your group are asked to complete). These were combined because of the similar responses offered by the respondents. The original intent of these questions was to determine the relationship between the kinds of products (e.g., data summaries, reports) routinely developed and the kinds of requests being made from Bay Program colleagues and/or outside of the Bay Program. Most interviewees indicated a strong relationship between products and requests, meaning that most products (such as a fact sheet or white paper) were developed to respond to specific requests. Since the responses were so closely related, they were combined to provide an overall sense of the kinds of activities and products the Chesapeake Bay Program is pursuing to tell its stories.

Table F-2 presents results about communication vehicles (Question 10). Question 10 was designed to collect the distribution of communication media that people use across the Bay Program to communicate their stories. This question offered the following six predetermined categorical responses:

- World Wide Web
- Email
- Printed materials
- Mass media, Meetings and
- Other.

The “other” category was less frequently used as a response for this question than for Question 8 (target audiences). Seven additional communication vehicles were mentioned.

**Table F-1. What Kinds of Activities and/or Products are Used/Developed to Tell the Chesapeake Bay Stories (Interview Questions 6 and 7)**

| ACTIVITIES & PRODUCTS  | INTERVIEWEE |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    | Total |
|--|-------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|-------|
|  | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |       |
| Publishing print information (e.g., brochures)   | X           |   | X |   | X | X |   | X | X | X  | X  |    |    |    |    | X  | X  | X  |    | X  | 12    |
| Publishing Web-based information   |             |   | X |   |   | X | X |   | X | X  |    | X  |    |    |    | X  | X  | X  |    | X  | 11    |
| Planning or providing technical advice to organizations and/or individuals (professionals) |             | X |   | X | X | X | X |   | X |    | X  |    |    | X  |    |    |    |    | X  | X  | 10    |
| Publishing technical reports or papers   |             |   |   |   | X | X | X |   | X | X  | X  |    |    |    |    |    | X  |    | X  |    | 8     |
| Sponsoring and/or presenting at workshops, meetings or other public forums                 |             |   | X |   |   | X |   | X |   |    |    |    |    | X  |    | X  |    |    | X  | X  | 7     |
| Press releases, briefings, and other media requests  |             |   |   |   | X | X | X |   |   | X  |    | X  |    |    |    | X  |    | X  |    |    | 6     |
| Collecting data and/or filling data requests   | X           | X |   |   |   |   |   |   | X |    | X  |    |    |    |    |    |    | X  | X  |    | 6     |
| Publishing GRAPHS, GRAPHICS, or MAPS   |             |   |   |   | X | X | X |   | X |    |    | X  |    |    |    | X  |    |    |    |    | 5     |
| Giving GRANTS  |             | X |   | X |   |   |   |   |   |    | X  |    |    |    |    | X  |    |    | X  |    | 5     |
| Developing indicators  |             |   |   |   |   |   | X |   |   |    | X  |    | X  |    |    |    |    | X  | X  |    | 5     |
| Lobbying (or other legislative focused communication)                                      |             |   |   |   |   |   | X | X |   | X  |    |    |    |    |    |    | X  |    |    |    | 4     |
| Publishing PowerPoint presentations  |             |   | X |   | X | X | X |   |   |    |    |    |    |    |    |    |    | X  |    |    | 4     |
| Developing models (growth, land use, nutrient, etc.)                                       |             | X |   | X | X |   |   |   |   |    |    |    | X  |    |    |    |    |    |    |    | 4     |
| Putting on public education events   |             |   |   |   |   | X |   |   |   |    |    |    |    |    |    | X  |    |    |    | X  | 3     |
| Developing Tributary Strategies  |             |   | X |   |   |   |   | X |   |    |    |    | X  |    |    |    |    |    |    |    | 3     |
| Producing videos   |             |   |   |   |   |   | X | X |   |    |    |    |    |    |    |    |    |    |    | X  | 3     |
| Pursuing legal challenges, permit challenges or permit processes                           |             |   |   |   |   |   | X |   |   |    | X  |    |    |    |    |    |    |    |    |    | 2     |

**Table F-2. Summary of Effective Communications Vehicles in Telling Chesapeake Bay Stories (Interview Question 10)**

| COMMUNICATION VEHICLE                                  | INTERVIEWEE |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    | Total |    |    |    |
|--|-------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|-------|----|----|----|
|  | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |       | 18 | 19 | 20 |
| Meetings (public or face-to-face)                      | X           | X | X | X | X | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  |       | X  |    | 17 |
| Mass media (radio, TV, newspaper)                      | X           | X | X | X | X | X | X |   | X | X  | X  | X  |    |    | X  |    | X  | X     |    |    | 16 |
| World Wide Web   |             | X | X | X |   | X | X | X | X | X  | X  | X  |    | X  |    | X  |    | X     | X  |    | 15 |
| E-Mail   | X           |   |   | X |   | X |   | X | X | X  | X  |    | X  |    |    | X  | X  |       | X  |    | 12 |
| Printed materials (e.g. brochures)                     | X           |   | X |   |   |   | X | X | X | X  | X  |    | X  |    |    | X  | X  | X     | X  | X  | 12 |
| OTHER:   |             |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |       |    |    |    |
| Other: personal, face-to-face or peer to peer meetings |             | X |   | X | X | X | X | X | X |    | X  |    |    |    |    |    |    |       |    |    | 6  |
| Other: videos  |             |   |   |   |   |   | X | X |   |    |    |    |    |    |    |    |    |       | X  |    | 3  |
| Other: workshops/symposia                              |             |   | X |   |   |   |   |   |   |    |    |    | X  |    |    |    |    |       |    | X  | 3  |
| Other: public outreach programs                        |             |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |       | X  | X  | 2  |
| Other: telephone                                       |             |   |   |   |   |   |   |   |   |    |    |    | X  |    |    |    |    |       |    |    | 1  |
| Other: white papers or reports                         |             |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    | X     |    |    | 1  |
| Grants program   |             |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |       | X  |    | 1  |

## APPENDIX G SUPPORTIVE RESOURCES

## ADDITIONAL NOTES ON METHODS

This Appendix summarizes responses from Questions 11-13 in the Interview Guide. These questions asked the interviewees to explain to whom they go for support in developing and telling a story, and whether they use resources inside or outside of the Bay Program for help. Interviewees also were asked to describe the kinds of support or services that the Bay Program or others provide to them. Additionally, interviewees were asked what kinds of services that they would like to have that they are not currently receiving.

These questions were designed to help the sponsors of this study, IMS and CESC, to understand their role in communicating the stories being told by the Bay Program and its partners. It also provides them with some insight into the skills and needs of those partners, their knowledge of available Chesapeake Bay Program Office services, and whether there are other services that could be provided.

These questions were designed to be open-ended so as to not to lead the interviewee. This Appendix presents responses regarding where interviewees went for help; responses are grouped in two categories: resources within the Chesapeake Bay Program Office and resources beyond the Chesapeake Bay Program. A tremendous amount of additional information is available to be mined from these questions, but the diversity and extensiveness of commentary would require a depth of analysis beyond the scope of this current study.



**Table G-1. Summary of Resources Helpful or Desired in Telling Chesapeake Bay Stories**

**Within Chesapeake Bay Program Office**

| RESOURCES                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | Total |
|-------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|-------|
| Communications Office               | X | X | X | X | X | X | X |   | X | X  | X  | X  |    |    | X  | X  | X  | X  | X  | X  | 17    |
| Web Team                            | X | X |   |   | X |   | X |   |   |    |    |    |    |    | X  |    |    | X  |    |    | 6     |
| Individuals                         |   |   |   | X | X |   |   | X |   |    | X  |    |    |    |    | X  |    |    |    |    | 5     |
| GIS Team                            |   | X |   |   | X |   |   |   |   |    |    |    |    | X  |    |    |    |    |    |    | 3     |
| Information Management Subcommittee |   |   |   |   |   |   |   |   |   | X  |    |    |    | X  |    |    |    |    |    |    | 2     |

**Outside of Chesapeake Bay Program Office**

| RESOURCES                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | Total |
|--------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|-------|
| Organizations' Internal Press Office |   |   | X |   |   |   |   | X |   |    |    | X  |    |    |    | X  |    |    | X  |    | 5     |
| Scientists                           |   |   |   |   |   |   |   |   |   | X  | X  |    |    |    |    |    | X  | X  |    |    | 4     |
| Other                                |   |   |   |   |   |   |   |   |   | X  |    |    |    |    |    | X  | X  |    | X  |    | 4     |
| Watershed Groups                     | X |   |   |   | X |   |   |   |   |    |    |    |    |    | X  |    |    |    |    |    | 3     |
| Government Agencies                  |   |   |   |   | X |   |   |   | X |    |    |    |    | X  |    |    |    |    |    |    | 3     |
| Key Stakeholders                     |   |   |   |   | X |   |   |   |   |    |    |    | X  |    |    |    |    |    |    |    | 2     |
| Bay Journal                          |   |   |   |   |   |   | X |   |   | X  |    |    |    |    |    |    |    |    |    |    | 2     |
| Elected Officials                    |   |   |   |   | X |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    | 1     |
| Media                                |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    | X  | 1     |