Chesapeake Bay Program – Indicator Standard Operating Procedures

Last Updated: February 2025

PART A – Updating Existing Indicators

1. Definitions

a) Indicator: A programmatically approved metric used to inform progress made towards an outcome. A suite of metrics may be referred to as a single indicator if the data source, goal measured, and analysis methodology are aligned. More description can be found in the Chesapeake Bay Program "Indicators Framework (2015)".

b) Outlook: The forecasted trajectory for whether the Chesapeake Bay Program is on course to achieving the outcome. An outcome's outlook may be on course, off course, uncertain, or completed. This information will be incorporated into the outcome's progress page. An outcome's course outlook is reviewed and updated during the outcome's Strategy Review System (SRS) Quarterly Progress Meeting in addition to when recent progress is assessed. Changes to outlook outside of an indicator update must be coordinated with the CBP Indicators coordinator before they are reflected on public communication materials.

c) Recent Progress: Describes the change in the indicator based on the most recent data collected since the last reporting period. The recent progress icon will reflect this change as an increase, decrease, no change, or completed, depending upon this progress. This information will be discussed at the outcome's Strategy Review System (SRS) Quarterly Progress Meeting. When an indicator has not been established for the outcome, recent progress can be informed by informal metrics of progress.

2. Responsibilities and Roles

a) **Indicators Coordinator** – Responsible for the overall coordination of all Chesapeake Bay Program (CBP) indicators. Also includes developing relevant guidance; briefing relevant program parties; managing the update process; reviewing and approving indicator data, methodology, and analysis materials; coordinating with the Communications team; consulting on indicator development; and providing updates for the Management Board.

b) **Outcome Representative** – Responsible for the overall coordination of indicator data collection and analysis, production and review of supporting document (e.g., Analysis and Methods document), and review and approval of web content. This role could be served by a GIT Coordinator, WG Chair, etc.

c) **ChesapeakeProgress Web Content Specialist** – Responsible for drafting and publishing the web content, which includes web text, data tables and data figures. Uploads final documents for download from the outcome page. Also includes coordinating with the Outcome Representative and Indicators Coordinator for review of web content, and with the Communications Team for synchronizing the release of materials. Updates the Progress home page to highlight recent indicator updates.

d) **Communications Team** – Responsible for coordinating press releases or blog posts related to an indicator update or release. Also includes consultation on communication strategy.

e) **GIS Team** – Responsible for developing GIS materials for the web content, by working with the Outcome Representative and Web Content specialist.

3. Materials

a) **ChesapeakeProgress** – ChesapeakeProgress is a CBP website that provides oversight and accountability towards the outcomes of the Chesapeake Bay Watershed Agreement. Indicator information and status are usually reported on Outcome pages, but occasionally on the Factors Influencing page for the associated outcome.

b) **Data File** – A data file accompanies each indicator update for transparency. The data file should hold a "Summary" worksheet that presents the key data being presented on ChesapeakeProgress. Generally, raw data should be included within the spreadsheet, unless it is highly technical or sensitive in nature. For the amount and detail of data to disseminate, the goal should be so that a user can understand the transformation and calculation between raw data and summary data, without being overwhelmed. Examples can be found on individual Outcome pages, linked within charts and maps.

c) **Analysis and Methods (A&M) document** – A document accompanies each indicator update, describing how the data is collected, analyzed and interpreted. An initial A&M is developed by the Outcome Representatives and subject matter experts upon the first iteration of an indicator. In subsequent updates, the A&M document will be reviewed and updated as needed. Examples can be found on individual Outcome pages, linked within charts and maps.

4. Annual Planning

Collection and analysis of data will not always fall on the same annual timeline. To help plan for the upcoming year's indicator updates, the Indicators Coordinator will work with each Outcome Representative to confirm their estimated timing for delivery of materials and the desired release date. The planning for this should begin in January each year and will help scope the overall schedule for the Indicators, Web and Communications teams.

5. Workflow Summary

For a streamlined process, the following workflow allows appropriate near-term awareness for the Communications Team and for the Indicators team to manage multiple indicator schedules. Generally, a month of awareness is useful to review and confirm a communication strategy, and then once final draft materials are received from the Outcome Representative, an update can occur in 2-5 weeks depending on the condition of materials and ease of update. Updates may take longer if there is an elevated interest in the data or status across the Bay Program. The table below shows a month of awareness and roughly a month for review and publishing, which is typical given syncing between multiple work schedules and individual availability.

Action	Wk1	Wk 2 -4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10
1 – Notify Indicators Coordinator	x							
2 – Determine Communication Needs	x							
3 – Review & Confirm Materials			x	x	x			
4 – Draft & Confirm Webtext					x	x	x	
5 – Final Publishing Coordination							x	x

Action 1 – Notify Indicators Coordinator.

- While draft materials are being prepared, the **Outcome Representative** notifies the **Indicators Coordinator** with an estimated time for the availability of a draft data file and A&M document. While timing is scoped (estimated month of data availability) at the beginning of each year, delays may occur.

Action 2 – Determine Communication Needs.

- The **Indicators Coordinator** shares awareness with the **Web Content Specialist** and **Communications Team**, and together, they determine the initial sentiment on whether the indicator update to ChesapeakeProgress will also generate a blog post, press release or neither, which is handled by the Communications team.

Action 3 – Review & Confirm Materials.

- When drafts of the data file and A&M are ready for review, the **Outcome Representative** will submit these materials to the **Indicator Coordinator**, initiating the final steps before publication to ChesapeakeProgress.
    - It is requested that the A&M is submitted in tracked changes from the previous update. If this is not accomplished, using the "Compare" tool in Microsoft Word can identify updated language.
    - If the update has geospatial information, the **Web Content Specialist** will coordinate with the **GIS Team**.
    - The **Outcome Representative** should be prepared to coordinate with all individuals who will review feedback from the **Indicators Coordinator** or **Web Content Specialist**. It is requested that correspondence is achieved through a single representative – this helps version control and communication.
- The **Indicators Coordinator** performs a quality review of both the data spreadsheet and A&M document using the Indicator QA Checklist (See Appendix A). If there are any issues with or questions about the materials, the Indicators Coordinator will consult with the Outcome Representative (who coordinates with their colleagues) to resolve the need.
- Once the data file and A&M are considered complete, the **Indicators Coordinator** will share a TRACKED changes and a CLEAN version of the A&M, along with a single data file, with all relevant parties (**Outcome Representative, Web Content Specialist** a **Communications Team, etc.)**.
- The Indicators Coordinator should use the following link to file all materials: "02_Indicator Update Materials" (within the ABT/Accountability & Budget Team).

Action 4 – Draft & Confirm Web Content.

- The **Web Content Specialist** uses the data file and A&M to develop draft web content (narrative text and any relevant figures, tables, and/or captions). Any initial questions can be worked through with the **Indicators Coordinator**.
- Once comfortable with draft web content, the **Web Content Specialist** shares with the **Outcome Representative** to address comments/questions and review for approval. Draft materials can also be shared with the **Communications Team** for preparation of any accompanying communication materials (press release, blog, etc.)
    - While under review, the **Web Content Specialist** can begin drafting the update in the Content Management System (CMS) and coordinate with the Communications Team on a date of publishing.
- When all comments/questions have been addressed and the materials approved, the Web Content Specialist can finalize materials in the CMS.

Action 5 – Final Publishing Coordination

- **Web Content Specialist** publishes web text, data file, A&M document and other supporting materials (e.g., charts, maps) and alerts the Outcome Representative, Indicators Coordinator and Communications Team.
    - As needed, publishing may occur in conjunction with any other communication materials.
- The **Indicators Coordinator** will alert the Accountability and Budget Team lead, so they can disseminate the message up the management channels. The **Communications Team** has mechanisms for disseminating across the program.

Appendix A. Indicator QA/QC Checklist

Excel data file

General Requirements

- The file can be shared publicly (no private information – example: school district names for ELIT)
- The file reflects any values that will be used in website texts and charts
    - Examples: state totals, overall total, percentages
    - Need to be easily found – consider “summary” tab

Organization

- Cells reference other cells and formulas as appropriate (not recalculating same data in two different places)
- File contains appropriate amount of notation for the public to accurately interpret the information (example: “historic data” labels or ReadMe tabs)
    - There should be at least one tab that is “aesthetically pleasing” enough for easy interpretation. Usually, this is a clearly labeled “for ChesapeakeProgress” tab or a “Summary”. Tables are nicely bordered and summarized from raw data in other tabs

Calculations

- Calculations reference appropriate cells. *Examples:*
    - Range included in the calculation for “Maryland total” includes all relevant Maryland values.
    - Percentage of MD school districts references districts in correct category and total number of MD districts.
- Different “looks” at the total all add up to the same total. *Examples:*
    - Protected Lands by ownership and by state.
    - Pounds of nitrogen by sector and by state.
- Charts reference all relevant data. *Example:* Expand the range for a chart to incorporate a new year of data, or a state that wasn’t previously monitored
- Check that no previous data has been dropped off

Analysis & Methods documentation

First Review

- References updated data where appropriate (recent progress, long term trend and outlook questions)
- Data matches what is in data file
- Follows accepted format
- Answers all questions
- References answers to other questions as appropriate
- References existing technical documentation as appropriate (does not recreate or reiterate this information)
- Contact information is up to date and custodian is a resident employee at the Bay Program (not a contractor/temporary assignee)
- Update timeline consistent with what is known about when the data will next be updated

- All answers should be in plain English, but especially the Communicating the Data section. Is it easy for a member of the public to read and understand?

Higher Level Review

- What has changed? Why has it changed? Does it make sense? Will it change how we communicate the indicator on ChesapeakeProgress?
- What's missing? Should anything have changed that didn't change? i.e. Adaptive Management – coordinator's role to edit
- Validate outcome attainability language: is their classification of recent progress and outlook consistent with other messaging within the A&M? Does it pass the straight face test (i.e., is it backed by the data or, if not, backed by substantial qualitative evidence for why the data trend is not representative of the full story/what that story is)

Web text

- Review all referenced numbers to ensure they match indicator documents
- Review recent progress and outlook language and ensure 1) the classification is correct, 2) the justification matches what is communicated in the data file and 3) the interpretation is correctly placed between recent progress and outlook.
- Check all charts and tables to make sure they are updated with the correct data and labels
- What points are communicated in the main body text? Are these the main points for communicating progress for this outcome, based on the story in the A&M? Is there additional information in Section F (Analysis & Interpretation) of the A&M that could be brought in to add to the story?
- Does the overall text read well? Is there redundancy that could be eliminated or reduced? Should a third party be brought in to give recommendations for smoothing language?
- Is there an opportunity to re-frame the content and placement of charts and text to bring the outcome page into alignment with changes made elsewhere on ChesapeakeProgress?

Appendix B. Guiding Questions for Developing Quality Indicators

A role of the Goal Implementation Teams (GITs) is to identify assessment and accountability metrics that will be used by the GITs and reported to external audiences. Please see below for key questions GITs should consider to assist in deciding what needs to be reported to external audiences.

1. How does this metric tie to larger Bay Program goals (reducing pollution, restoring habitat, managing fisheries, protecting local watersheds or fostering stewardship)?
2. How can we connect this metric to something people are familiar with and support?
3. Is this metric related to something that external audiences already care about?
4. Is this metric related to something people should care about? If so, why should people care about this metric?
5. Who needs to know about this metric? Identify the specific audience(s). For example, watershed organizations, media, interested public, students, teachers, local governments.
6. Is it newsworthy? If so, is there a subject matter expert who can speak well about this topic to the media?
7. What could the average person do to help improve conditions related to this metric? Are there specific actions people can take to help make a difference?
8. When do we expect to see significant progress being made related to this metric?
    a. We need to let the public know how long to expect before we see significant measurable progress. A specific estimate (e.g., # of years) of how long will it take before we see measurable progress?
    b. Is that too long to expect the public to envision progress and therefore, care about this metric?