



Status and Trends Workgroup (STWG) Meeting

Monday, June 13, 2022

1:30 PM – 2:45 PM

Meeting Materials: [Link](#)

This meeting was recorded for internal use to assure the accuracy of meeting notes.

ACTION ITEMS

- Alex Gunnerson will distribute the new suggested language for the structure document grouping names to the workgroup for review.
- Anyone with feedback on the STWG webpage should send their comments to Alex Gunnerson at agunnerson@chesapeakebay.net.
- STWG and LLWG will work together to outline a conceptual model for the potential indicators discussed in the meeting, such as delineating what would be reported for each metric and explaining why it was reported as progress or outcome.
 - The relationship between the potential output indicator and how it informs progress will also be defined.
- Katheryn Barnhart will work with Laura Cattell Noll on bringing in behavior change experts to help develop a conceptual model that defines the language and meaning of knowledge, capacity, and implementation in connection with the indicators identified.

MEETING MINUTES

1:30 Opening, Roll Call, & Announcements – Caroline Donovan, Chair

- Series of Indicator workshops with STAR.
- Redefining the names of the focus areas in the [structure document](#) for greater clarity.
- CBP Web Team questions on how to improve the [STWG Webpage](#).

Summary

Caroline Donovan began by sharing a brief recap of the May STAR meeting, which was a working meeting on indicator development. Katheryn Barnhart added that going forward, STWG will continue to take the lead on indicator development. Any future working meetings with STAR on this topic would not happen until at least the fall, and they will involve coordination in advance with outcome representatives and workgroup to ensure the focus is on relevant needs.

Katheryn commented that she is working on revising the names of the indicator groupings for outcomes in the [structure document](#). They were originally grouped together for multiple factors to host themed meetings more easily, with the understanding some outcomes do not fall neatly into one grouping. While the general structure and grouping will remain the same, the naming of the groupings will be rethought so as not to be confusing or misleading. New suggestions on this language will be distributed before the next meeting for member review.

Alex Gunnerson reminded STWG members to provide feedback to the questions asked by Chesapeake Bay Program (CBP) Web Team. The questions asked by the CBP Web Team are: 1) what additional features would you like to see on the [STWG page](#); 2) is there any additional functionality that you would like to see added or improved upon; 3) the current available sections are Upcoming Meetings, Scope and Purpose, Publications, Projects and Related Links - is there another section/more information you would like to see added; 4) how could we make the [STWG page](#) better? The CBP Web Team is revising the structure of the chesapeakebay.net site and this is an opportunity to incorporate feedback into the design. Please note that any updates or requests would need to be applicable to all workgroups in the CBP. Please send any feedback in writing to Alex (agunnerson@chesapeakebay.net) no later than Monday, June 27th at 5pm.

Caroline said her feedback on the STWG webpage is generally more logistical and she will send an email outlining her comments. Generally, Caroline emphasized she does not think there will need to be new sections added, but maybe instead they can be reordered such that the most important sections are at the top of the webpage. Alex commented that in its current state, the most recent additions are at the top, but that might bury very important sections lower on the webpage. Caroline suggested adding a hot topics box or quick navigation links at the top of the webpage to direct visitors to relevant information. Caroline also suggested being able to link meetings that involve multiple workgroups so that the meeting calendar entry appears in both locations.

Kristin Saunders asked there is any benefit and value to having a direct link from STWG page to ChesapeakeProgress. Doreen Vetter said this can easily be done and she can work with Alex to figure out where it should be located and what the accompanying text should be.

1:40 [Local Leadership Outcome Indicator Development](#) – Laura Cattell Noll, Local Leadership Outcome point of Contact

Following up the May 26 STAR meeting, Laura Cattell Noll presented on behalf of her workgroup on progress toward indicator development for the local leadership outcome. The goal is to, through input from STWG members and outputs of the STAR workshop, narrow down how to metricize key aspects of the outcome using the acquired survey data into a quality indicator.

Summary

Laura said putting together this presentation was helpful for her because it became a consolidated source of information on the Local Leadership Outcome's indicator development efforts. Laura began with the context that the [Local Leadership Survey](#) was recently distributed and it will serve as the baseline survey for indicators. Laura reviewed the Local Leadership Outcome language, emphasizing this is the guiding north star for the indicator and that the workgroup has broken it down into three components: 1) increase the knowledge and 2) capacity of local officials with the goal of 3) implementation of conservation actions. The Local Leadership Workgroup (LLWG) defines local officials as elected officials, appointed officials, and senior staff.

Laura provided some historical context for this outcome, explaining how the outcome was added to the Chesapeake Watershed Agreement in 2014 and the LLWG was formed in 2015. One of the first initiatives of the LLWG was to learn more about local officials since they are the primary audience of the workgroup. Therefore, LLWG developed two Goal Implementation Team (GIT) funded projects to interview local officials about their priorities and source of information. Both GIT funded projects recommended surveying local officials who are decision makers to establish a baseline for metrics. The second GIT funded project recommended three metrics to be developed to help track progress: knowledge gained, participation rate, and action taken. Laura commented how it was nice to see many similar suggestions at the May STAR meeting as this indicates a consensus is developing around these ideas.

Returning to the [Local Leadership Survey](#), Laura explained it was developed by Christine Brittle at Uncommon Insights for the LLWG in 2019. After the questions were approved by the LLWG in 2020, it went through a lengthy process required by the paperwork reduction act and was approved by the Office of Management and Budget (OMB) in March 2022 and then distributed in April 2022. The survey was sent to local officials via trusted sources, defined as associations of local government entities, like municipal leagues and county associations. These trusted sources, critical for the success of the survey, also had an opportunity to weigh in on the questions being asked in the survey before it was submitted for OMB approval. Laura said the results of the survey will be shared at the August 30th LLWG meeting, which is focused on social science and behavior change.

Laura said the big question to address from the survey is, “How do we turn the survey results into one or more indicators?” Laura brainstormed and identified questions that might become good indicators and grouped them accordingly ([slide 8](#)). Laura noted the qualifying questions that are used to identify who should be taking the survey, like their role (to determine applicable seniority), location (to determine if they are within the watershed), and if they are a policy maker (to determine if they are a decision maker). One limitation of the qualifying questions is that it is possible someone from just outside the watershed in a county that is partially within the watershed might be eligible to fill out the form. Although this was foreseen, it could not be avoided because adding each municipality to the survey would have created too many options for the questionnaire. Questions five and four ask about the state and size of the community where the local official works, which can provide insight on how to weight responses appropriately so that certain states or larger communities are not overrepresented. Some of the subgroups that responses could be organized by are if they operate at a state scale and the specific role of local officials. Other subgroups are unlikely to be identified and some states will likely have very little representation (like Delaware and West Virginia) because only parts of these states fall within the watershed. For assessing knowledge, [Questions 13, 14, and 18](#) best address this category and the hope is that over time these responses will indicate greater knowledge of local officials from a self-reporting perspective (Question 13 & 14) and from an assessment perspective (Question 18). For assessing capacity, [Question 15](#) focuses on access to a knowledgeable person and the goal would be to see the number of yes responses increase over time. For assessing behavior, [Questions 12 and 17](#) are “laundry list” type questions where a potential indicator would look at the number of boxes checked over time

improving. Laura then listed some possible indicators for both output and performance ([slide 13](#)). The potential output indicator tracks actions – the number of local officials reached each year. The potential performance indicators track the three components identified in the outcome language: knowledge (the percent of local officials who know that they are in the Chesapeake Bay Watershed), capacity (the percent of local officials who have access to a knowledgeable person), and implementation behavior (percent of local officials who report taking a local conservation action).

Laura then listed some challenges that the Local Leadership Outcome faces in terms of indicator development ([slide 14](#)). These challenges include turnover, unreliability of self-reporting, funding, and conflicting and changing local priorities that compete for resources.

Laura asked if attendees liked the way the survey questions were categorized on [slide 8](#). Amy Handen commented that she likes how the survey questions are connected to the different components of the outcome. Doreen agreed with the way Laura grouped the questions into categories.

Doreen Vetter asked how many people were sent the survey. Laura said that since the trusted partners sent the survey, she does not have a direct answer. Laura said that as of early June, there were 168 responses to the survey and there are approximately 1,800 local governments in the watershed. Laura said that overall many people were sent the survey.

Doreen suggested weighting senior staff responses to knowledge questions higher since they generally have more longevity than elected officials in that position. Doreen expressed her concern about assessing the knowledge of elected officials because the turnover is so high the survey might not be measuring the improvement of a specific official, but instead the knowledge of the new officials who have entered office. Laura said that is why they are interested in the idea of using the subgroups defined in the presentation, but cautioned that it appears turnover is also high for senior staff due to COVID. Doreen replied she does not doubt that, but inherently going forward local officials will continue to experience turnover due to the election process so to not address that almost seems like a flaw in the system for measuring. Doreen added another potential metric of progress could be the growth of knowledgeable municipal staff. Caroline Donovan asked if there was a high enough response, the survey would be sampling the whole population and not a single individual, which would allow for the metric to be effective. Peter Tango replied that Doreen and Caroline are talking about two different types of sampling. What Doreen referred to is repeated measured sampling, which takes measurements of the same unit (in this case a local official) over time. If the survey was planning to take that approach, that could be a problem due to turnover. Peter said the approach Caroline referenced is random sampling, which argues if a representative sample is surveyed then the entire population as a whole can be measured. Peter emphasized that the workgroup should decide the approach. Laura said they were hoping to go the random sampling, population measuring approach, but that it might not truly be representative because they could not control who completed the survey. Laura said they tried to keep the survey distribution as unbiased as possible as sending it widely and not using specific terms related to

the Chesapeake Bay. Jessica Sickler commented she does not think this is a true random sample as that would require a different data collection approach to meet standards of random selection. Breck Sullivan commented she likes the idea of having questions based on jurisdictions instead of local officials, considering that many local officials may be different with each survey.

Amy Handen shared some reflections from the Stewardship workgroup's progression through similar efforts. For example, not all the data in the survey needs to go into indicator development. Amy emphasized the data can be used in different ways and recommended a simpler approach for developing indicators. Amy added that as they currently stand, the Local Leadership Survey and Stewardship Survey do not really get at partnership impact, but instead the current state of the outcome. Amy said the LLWG should consider if they want to measure the state of local decision makers or the impact of the partnership. Peter Tango agreed with Amy and suggested using the best information to organize steps forward yields high value results for the efforts thus far. Shannon Sprague agreed with Amy and asked in relation to Doreen's comment if the next survey can add some questions about the system rather than the individual. An example question might be, does your locality require training in environmental issues. Shannon said system wide changes that can be measured over time might include mandatory training for staff and that there might be other system related data in the survey responses. Peter asked if the LLWG wants the indicator to be at the systemic or individual level and said the answer to that question should inform how they wish to use this data.

Katheryn commented that a good number of questions in this survey target the ability of the workgroup to reach local officials in order to make progress toward the outcome/better inform the workgroup rather than indicate performance toward the outcome.

Kristin commented in the chat that one of the things STAC continues to remind focus on is the importance of the learning in all efforts. Amy's suggestion to use this rich data for uses beyond indicators is spot on where increasing contact and information sharing occurs but there is not a change in policy or decision-making. Kristin said the LLWG and other outcomes in similar positions should be asking why this is the case to inform the approaches being taken and to learn how to be more effective.

Peter said in the chat that going forward, random or stratified random sampling is important to address the bias of self-reporting as without it there is no insight into the non-reporting population and answers may be entirely different. Peter said there is no need to reach out to 1800 governments, as a proper random of sample of 10% of the governments would yield a statistical basis by which to infer answers across the other 90% where there is not information. Peter emphasized this is the power of survey sampling approaches - time efficiency, cost efficiency, and unbiased estimates of the metric of interest.

Shannon Sprague commented in the Environmental Literacy indicators, data from the survey was rolled into a statement that described school districts as not prepared, somewhat prepared, or not prepared to do a relevant action to the Environmental Literacy Goal. Shannon said this might allow for multiple levels of data to influence one indicator. Jessica Sickler asked what the conversations focused on when the questions for the indicator were first developed

as that might reveal a better way of developing an indicator. Laura replied the questions were drafted before she started her role, so she does not know exactly. Laura commented they tried to focus on the outcome language and incorporating the priorities of partners like municipal leagues and county associations so the data would be useful to them as well. Jessica suggested speaking with someone who was there when the questions were drafted or looking at notes from that period. Jessica said Question 14 in theory could assess knowledge, but due to the lack of granularity of responses, this would be very hard to measure, especially because this is not a true random sample. Jessica suggested for future surveys being able to track which districts are responding, and which start or stop over time. Laura replied that while they could code each response to a particular county, that would be very difficult to accomplish because of all the time it would require. Laura commented she thinks Question 13 could be rolled up into an indicator like the options Shannon shared where the local government could be assessed as knowledgeable, somewhat knowledgeable, and not knowledgeable.

Caroline commented she agrees with Amy's point on keeping things simple. Caroline suggested first getting a baseline for the status of knowledge, capacity, and implementation and reporting the actual percentage. Once a baseline is established, Caroline suggested thinking about what the target numbers should be, quantifying the goal essentially, and then applying a judgement to the baseline. Once the next survey results come in, the responses can be compared and movement over time, trends, can be determined. Caroline added that there is a lot of good data here and ultimately any indicator produced will be better than not having an indicator.

Peter also agreed with Amy's point on starting simple. Peter said when items are combined to sum up to something, the weight of a particular question is needed as is a reason for any different weighting. While this is not impossible, it is worthy of time to understand the option between an indicator built on weighted metrics versus unweighted metrics.

Kristin Saunders asked in the chat if the LLWG ultimately wants to see whether policy or implementation actions on the ground align with the knowledge they are sharing. Kristin said this would not require continuous surveying and at some point they would either see or not see improved decision making and policies as a result of the increase in knowledge. Kristin said to design a metric to answer this question may require multiple runs and years of the land use land cover change analysis. Katheryn Barnhart replied one of the suggested indicators is percent of local officials who have reported a local conservation action and if this is reported in the same survey as other questions related to knowledge (as it stands currently), Katheryn thinks it would be possible to cross reference these two responses to see if there's a correlation between the two. Katheryn added that while she agrees it would be important to measure how local official capacity and knowledge ultimately impact the health of the watershed through comparison to the land cover/use data, the outcome does not currently extend to this level of implementation.

Katheryn raised the concern that some respondents might be outside of the watershed since their county is partially in the watershed. Peter suggested assessing the data to see if there is a difference in results between counties that are wholly within the watershed versus those

border counties that are partially in the watershed. Caroline suggested weighting these counties by the percent of area within the watershed.

Katheryn suggested having just one metric for each of the performance indicators (knowledge, capacity, and implementation/behavior). Katheryn also suggested weighting the different components of the performance indicators depending on what the LLWG feels is most appropriate to streamline the information. Laura replied she is trying to walk the tight rope of allowing the municipal leagues, who the LLWG works with closely, to utilize this information and streamlining metrics by condensing them into one indicator. Laura said she values simplicity to be able to communicate these results most effectively.

Katheryn and Jessica suggested for Question 18, the LLWG can score participants and group them into levels of knowledge about watersheds (high, medium, low) based on the number of true/false questions they got right but also point towards specific responses to questions (percent of respondents who got this question correct) to inform communication about the status of local leadership knowledge.

Shannon agreed that aggregating multiple questions into a metric might be more helpful for understanding the inclination of respondents, as someone who knows they are in the Chesapeake Bay Watershed might be doing less for water quality than someone who does not know their watershed but is implementing conservation action. Laura replied that is a good point but did note that the language of the outcome itself is predicated on the assumption that increased knowledge and capacity will lead to increased implementation. Laura said this assumption might be faulty as most behavior science results indicate that knowledge and capacity alone do not lead directly to implementation action. Katheryn replied that looking through previous LLWG indicator development efforts, the focus has not been on the connection between implementation and knowledge and capacity. Katheryn suggested looking into a correlation between responses to knowledge and capacity questions and responses to implementation questions. Doreen replied to Laura, suggesting that the Local Leadership Outcome might could be read in a different way. Doreen suggested the outcome could be read as two different components (knowledge and capacity, implementation) as the language used between the two components focuses on “and,” not “leading to” (slide 2). Doreen suggested while intent might be unknown, the outcome could be read separately. Peter Tango agreed with this idea, saying in chat he reads the outcome as "Continually increase knowledge and capacity on issues related to implementation. Peter does not interpret this outcome as actual implementation, but instead asking about local officials knowledge and capacity about issues related to the implementation of incentives.

Shannon asked if the training modules put together by the LLWG also have post completion questions that can see if the materials are effective. Laura said the local leadership training modules do have pre and post training questions which try to examine their effectiveness and seeing if participants are more likely to take conservation action after receiving the training. Laura commented the biggest challenge here is participation, as they have only had about 20 or

so individuals who have filled out the pre and post training questions so it is not enough for an indicator and is more suited to useful information.

Laura shared that another concern of the LLWG in increasing the implementation of conservation action is how to make progress while avoiding advocacy since that is an inappropriate role for the workgroup. Kristin said she has seen other workgroups struggle with this same issue and resolve it by being a source of examples of different options of policy and economic incentives. One example was Land Use Options Evaluations, which framed their efforts to jurisdictions as providing a range of policy options that are meant to achieve items in the goal and workplan. Kristin emphasized it is short of advocacy and focuses on trying to put examples out there of things the workgroup can learn from and do. Kristin said it can be difficult to track these actions, but examples of interim metrics might be counting the number of options put before the workgroup or number of analyses done to understand policy routes. Kristin commented that this allows for the workgroup to walk up to the advocacy line but not cross it. Laura said these are good points and that they have been learning from the Land Use Options Evaluations outcome already. Laura said they like to use case studies as a way to address this work. Jessica said in response to Kristin's comments, there may be other indicators that could be done from the output data of who participates in the trainings. This would mean not just a total headcount, but the number of different jurisdictions reached and number of repeated contact with individuals or jurisdictions.

Renee Thompson shared the experience of the [Land Use Options Evaluations Outcome](#) in working on indicators, saying she thinks it is difficult to develop meaningful indicators that are not too time consuming or in house capacity. For this reason, Renee has shied away from counting the number of presentations or people reached because she feels that is not an effective measure of success. Instead, their outcome has focused on using the land use change data as a measure. Renee said the workgroup can relate some of its ideas to scientific and resources through examples, like Montgomery County's Forest Conservation Act. Renee said since the Local Leadership Outcome is similarly worded, they have and can continue to learn a lot from each other.

Caroline asked for final thoughts given the lack of time remaining in the meeting and shared her own, saying these efforts are great progress and despite any drawbacks or tradeoffs that are invariably present, this is large leap forward for the Local Leadership Outcome.

Peter gave his final thoughts, emphasizing it could be helpful to focus on 1) knowledge and 2) capacity on issues. The rest of the outcome expresses the issues the workgroup wants to understand the knowledge and capacity of.

Laura said there was a lot of good talk about a knowledge indicator, but not so much about capacity. Laura asked if Question 15 provides enough response to serve as a sufficient indicator, and said that it could be meaningful in the sense that different states provides varying investment in the technical assistance to local governments. Peter replied he often thinks of capacity in a financial sense. Laura replied this question is more focused on understanding the technical and knowledge capacity of local leadership. Katheryn said a single question in this case should be sufficient for the capacity question and that perhaps in the future another

question could be added to address the financial component of capacity. Caroline commented she thinks this question would be sufficient because it would be an improvement over the current state. Amy Handen recommended that reviewing the data will help guide the final decision on this question as it will allow for ground truthing how informative the results are towards addressing capacity.

Laura asked about tracking actions as an output indicator. Laura said there are many different types of interactions that could count as tracking actions (magazine articles, webinars, field trips). Katheryn said that if the LLWG feels these actions are connected to performance, she supports these actions as output indicators. Katheryn also mentioned that because the Local Leadership Outcome more closely associates with output as opposed to performance, this is another reason to have this output indicator. Jessica agreed and said this is a good output indicator because it does not rely on self-reporting and the degree of granularity can be refined as desired. Jessica emphasized including supporting information with these metrics, such as a logic model behind why certain interactions can help increase knowledge, capacity, and implementation. Laura agreed and shared some examples of how they weight field trips and articles differently. Jessica added that relationship building is important for making change with local leadership. Doreen said in response to Laura's question that if there is certainty in what is being driven toward, then it is useful. Doreen said to avoid measuring for the sake of measuring and to make sure the usefulness of the indicator drives decisions. Peter agreed with Jessica in the chat, commenting how any good monitoring plan should be built upon a conceptual model of what is involved for impact, status and response. Economics, social science, physical science - the time to have a conceptual framework in place should make clear why the LLWG wants a particular indicator and why there is a need a particular piece of data. Peter said this will make indicators and data collection defensible. Katheryn replied that a good next step might be outlining a conceptual model for potential indicators. Peter agreed and talked about how the Total Maximum Daily Load and Bay restoration often rests on the simple logic model that fewer nutrients and sediment equals a healthy bay.

Kristin Saunders commented she likes this working session style of discussion and the collective brain hive.

2:40 End of Meeting Survey – Alex Gunnerson, Staffer

This survey was not administered due to the specific and narrow scope of this meeting. The survey will take place at the end of the July meeting.

Adjourn

Participants: Alexander Gunnerson, Amy Goldfischer, Amy Handen, Angie Wei, Breck Sullivan, Caroline Donovan, Caroline Johnson, Doreen Vetter, Jessica Sickler, Katheryn Barnhart, Kristin Saunders, Laura Cattell Noll, Peter Tango, Qian Zhang, Rachel Felver, Renee Thompson, Shannon Sprague.