Water Quality Goal Implementation Team Federal Facilities Workgroup Minutes

Date: April 8th, 2025
Time: 10 am – 12 noon
Meeting Materials



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Agenda Item	Time	Materials, Notes, Actions, and Decisions
 I. Welcome, Introductions, Announcements – (Auston Smith, US EPA CBPO) For roll call purposes, please enter your name & affiliation into the chat. Call-in participants are requested to identify themselves verbally. Status of the FFWG and leadership changes following Greg Allen's deferred retirement Review of the FFWG membership 	10:00 – 10:10	Auston Smith, EPA informed the FFWG that he would be taking over as the primary coordinator following Greg Allen's deferred retirement. The chair position currently remains vacant. Members are encouraged to nominate themselves or another individual they deem fit. Additionally, Auston will be working with the CBPO leadership to identify possible chair candidates. ACTION: Members are requested to review the FFWG member voting list to ensure the names are up to date and accurate. Please send any updates to Auston Smith, EPA (smith.auston@epa.gov) and Marilyn Yang, CRC (myang@chesapeakebay.net)

II. Review of Progress on the Data Call for Updating the Federal Boundaries Data Layer for Phase 7 – (Coral Howe, USGS and Sophie Waterman, USGS)

Coral and Sophie will update the workgroup on the data received to date, the remaining gaps, and timeline moving forward. Time is reserved for agencies to ask follow-up questions if needed.

10:10 – | **Materials**:

10:30

Action Paper: Updating the Federal Boundaries Data Layer

Coral Howe, USGS, introduced herself as the new primary point of contact supporting the effort to update the Chesapeake Bay Program's federal facilities data layer, taking over from John Wolf. Former FFWG staffer, Sophie Waterman, USGS, also reintroduced herself indicating she would be supporting Coral in this effort.

Coral noted they aim to complete updates by the end of the month using the data received so far and will share results with FFWG for review. She also mentioned that a separate review may be sent out for the "Other" category, which includes data from various federal agencies.

Discussion:

Kevin Du Bois, DOD and Ashley Kelly, DOD shared they are still in the process of reviewing their data layer since the large number of small polygons and several discrepancies are requiring considerable time to analyze.

Coral expressed appreciation for everyone's effort, acknowledging the significant lift the data review requires and that feedback may take additional time. She also noted that providing geo-tags or addresses, particularly for landmarks such as monuments, would be helpful for tracking purposes.

Olivia Devereux, Devereux Consulting, noted that NPS owns all the traffic circles in Washington, D.C., which likely involves managing many small data points or polygons. She suggested exploring how NPS has handled this and whether their approach could be shared with the DOD to potentially simplify their process.

René Senos shared that NPS reviewed and compared their GIS layers with those from other agencies, revealing discrepancies observed over several reporting cycles. To support this, they included a memo outlining key discrepancies, such as differences between jurisdictional and legislative boundaries, which can result in inaccuracies like misidentifying federal land ownership. The memo includes links and examples to show how these discrepancies affect the boundary data.

Kevin asked if USACE was validating their properties. He noted that one of the goals in Phase 7 is to separate Army Corps loads and BMPs from those of DoD.

Jason Rinker, USACE confirmed they submitted updated property polygons a few months ago, which should help correct any discrepancies related to load assignments. Rene asked if the layer would be updated prior to the October data call. Coral mentioned that they will be working to update the federal facilities data layer on the backend within a few months, however, it will not go into effect until the beginning of Phase 7. Peter clarified that once finalized, the data set would become the official federal land dataset for the partnership, which could be updated in future years. He explained that Phase 7 won't be in use until 2028, but the work on it has already been ongoing, with a significant portion of GIS work needing to conclude by September of this year. After that, the data will undergo testing and reviews before being finalized for use in January 2028. He acknowledged that it may seem early, but due to tight deadlines, this process is necessary to meet the target timeline. Kevin asked Coral in the chat: Coral, would you be able to tell us the pre/post analysis acreage difference? Coral responded yes. **ACTION:** Coral and Sophie will update the Federal Facilities Viewer with the remaining "Other Federal Facilities" category. Once completed, the FFWG will be requested to review this data layer. ACTION: After Coral and Sophie receive the final updates for the federal facilities data layer, they will share with the workgroup a pre/post analysis of the acreage difference. III. Discussing Tracking and Crediting Federal Land 10:30 -Materials: Uses Unassigned in CAST – (Auston Smith, US EPA 11:30 Issue Paper: Tracking and Crediting Federal Land Uses/BMPs Currently CBPO, Peter Claggett, USGS, and Katie Brownson, Unassigned USFS) THTF Recommendations for Forest Harvesting in Phase 7: Potential Applications for Federal Facilities Auston and Peter will review the updated issue paper and gather feedback on each unassigned

land use/BMP type to determine whether the proposed solution(s) are ready for further discussion at the agency level. Katie Brownson will assist with presenting the proposed solution for "Harvested Forest".

To preface the discussion, Auston provided a brief overview of background information, noting that while CAST calculates nutrient and sediment loads from six source sectors—agriculture, atmospheric, developed, natural, septic, and wastewater—federal agencies currently only receive load assignments in the developed and natural sectors. He referenced the 2021 Brown and Caldwell report, which highlighted the challenges federal facilities face in contributing to TMDL progress within the jurisdictions they occupy.

He described the potential for creating a matrix showing different sectors across the top and the ten federal agencies across the side, with load responsibilities distributed based on agency size and reporting capability. While the current system aggregates loads for all federal lands, this breakout could allow for more accurate representation and better alignment with actual management capacity.

He concluded by noting that although federal agencies currently report BMPs to jurisdictions, most of the associated credit is applied at the jurisdictional level. Assigning specific loads to agencies would help highlight the work federal partners are doing to support state and local efforts to protect the Bay, while still accomplishing their respective core missions.

Discussion:

Kevin stated DOD is not reporting BMP practices in sectors where it does not receive credit, so they are not submitting BMPs that would get credited to the state.

Auston clarified that for sectors where an agency receives credit, BMP reporting is being done and aggregated up to the state level. He acknowledged that, as noted, in sectors like agriculture, BMP reporting by federal agencies is likely not occurring, highlighting a key area the group is aiming to address through the following discussions.

Olivia Devereux, Devereux Consulting, clarified that while this issue doesn't apply to DOD, it does affect other federal agencies. She explained that some agencies have reported agricultural practices such as cover crops and tilling, but don't receive credit due to the previous policy decision not to assign agricultural land to federal agencies. As a result, those practices aren't credited to the agency, even though they occur on federal land. She emphasized that this distinction is important and that DOD should be viewed separately from other agencies in terms of how reporting is handled.

Kevin asked whether those federal agencies that are reporting are also not being assigned loads.

Auston confirmed the federal agencies are \not being assigned these loads and instead they are assigned to the states/jurisdiction, despite them not managing the federal lands.

Liz Dawson, USFWS, shared that they have made efforts to capture all of their BMPs, even though they know they aren't getting credit for many of them. She noted that agriculture seems to be an area with more effort due to the challenge of capturing data, but if a way to better capture agricultural BMPs were developed, it would be very beneficial for USFWS. Regarding septic systems, she mentioned that usage is quite variable, and while there are some BMPs in place, she's unsure whether going through the process would be worth the effort given the limited number of BMPs.

Auston noted that if reporting can be done from federal agencies through NEIN, then a corresponding load could be reassigned from the jurisdiction to the federal agency. While responsibility comes with that, it could provide a more accurate picture of watershed management. He mentioned that where a jurisdiction doesn't manage land, it's worth discussing whether the load should go to the federal agency or whether co-management should be considered. He clarified that these discussions are hypothetical until decisions are made.

Kevin stated their team has prepared an internal white paper with recommendations, but since they can't direct installations to collect BMP data without approval, they must go through a specific chain of command, which will take time. This process involves coordination with multiple services and will require authorization to task installations for additional efforts.

Liz said it would be interesting to run numbers and see what it would look like if these loads were assigned and what the credit would look like.

Olivia (in the chat): With or without changes to the federal agencies, the TMDL planning targets will change in Phase 7. With different load sources, targets would reflect those different load sources.

Katie Brownson, USFS (in the chat): I believe BMP reductions will generally be less than the load assigned for a particular land use, since they only reduce a certain % of the loads. So overall there would be a net increase in loads on fed lands

Auston responded to Liz's comment by referencing the tables at the end of the <u>paper</u> which give a general overview of what this would look like.

Peter Claggett, USGS, further clarified the tables show the average annual load in pounds of nitrogen, phosphorus, and sediment for different land uses across federal lands with the WIP and non-WIP scenario. For example, construction land without BMPs would contribute 47,000 lbs of nitrogen per year. If BMPs were applied at the same level as in each state's watershed implementation plan, the nitrogen load would be reduced to 42,000 lbs per year. The reductions vary across land uses, with significant reductions for cropland and pasture, and even larger reductions for sediment in harvested forests. Essentially, the tables give a ballpark estimate of expected load reductions based on BMP implementation, and if BMPs were applied more extensively, the reductions would be greater.

Liz Dawson asked whether the BMP load reduction numbers in the tables reflect what federal agencies are expected to report.

Peter clarified that they reflect what states plan to do per their Watershed Implementation Plans (WIPs), not necessarily what they've already done.

Olivia Devereux added that while some states met or exceeded their planning targets, others fell short. So overall, the WIPs do not fully meet the Bay TMDL targets.

Liz then asked why federal BMPs couldn't just be counted toward state efforts rather than transferring load responsibility.

Auston explained that current policy assigns those loads to the jurisdictions, even if the federal lands are outside their control. This discussion is exploring whether there's interest in changing that to more accurately reflect land management responsibilities.

Rene Senos, NPS, mentioned their team reviewed the paper and provided a memo, evaluating it based on land use applicability and reporting capacity. She noted that for septic, most NPS systems are small and decentralized at the park level, so data collection would be limited and effort-intensive. Similarly, NPS

doesn't currently track annual construction disturbance across the Bay, and harvested forest practices are minimal. Agriculture stood out more, as some NPS lands undergo conversion to native meadows or other BMPs, though tracking this varies by state. Rene also pointed out that Table 2's suggested load reductions present a high bar for NPS to meet: a 38% reduction in nitrogen, 44% in phosphorus, and 62% in sediment, raising concerns about the feasibility of meeting these targets under increased load assignments.

Peter suggested that there might be a more efficient way for federal agencies to participate. Currently, while cropland and pasture are mapped on federal lands, those acres are essentially transferred to the states via spreadsheets, meaning the states become responsible for them and federal agencies don't report BMPs on those acres. He proposed that if federal agencies were responsible for reporting BMPs and submitted them to the state - who would then include them in their reporting - it might be easier. CAST could still map construction, harvested forest, and other land uses on federal property, and include those acres with the state's. This way, all acres and BMPs would still be counted, and although federal agencies wouldn't take direct responsibility for the load, they could still get indirect credit through the state's reporting. He suggested this could be a more manageable approach worth considering.

Kevin mentioned that for a large number of the DOD agricultural lands, they are positioned around DOD facilities to prevent encroachment and are leased to farmers. He assumes many of the farmers may have applied for state funding to implement BMPs and it's his understanding that when a state gives funding to implement BMPs, then the state gets the credit for those nutrient and sediment reductions. However, if we followed this course of action, the federal agencies could get assigned the loads, but not get credit for the BMPs. So if the states want federal agencies to be accountable for the loads, even if they were funding the implementation of those BMPs, they would have to give those BMPs to the federal agencies and I'm not sure the states would want that. We need to be thinking about all these potential ramifications and how this counting may work.

Auston encouraged jurisdictional representatives to share their perspectives—either during the meeting or via email afterward—so their input can be incorporated into a follow-up document ahead of the June meeting. He then invited Katie to present on "harvested forest".

Harvested Forest

Katie Brownson, USFS gave a <u>presentation</u> on what the USFS is planning to do at the state level with harvested forest in the next version of the watershed model as a potential approach the group could consider for federal lands. She clarified the USFS was not pitching this approach, but rather sharing for context.

Katie explained that currently the states are asked to report their forest harvesting acres annually as part of their annual progress reporting (this is what we are discussing for federal agencies). In this process, there's an initial land use reporting that occurs and then BMP reporting that happens afterwards. If states don't report their harvesting activities (since some don't have enough data to report on private lands for example) they are assigned a default rate. Recently, the Timber Harvest Task Force updated the default rate from 1.5% to 1.1% of what was categorized as true forests in the model to be assumed harvested. After a harvest, the land will continue to load as harvested for three years. If we were to apply this process at the state level to federal agencies, it might look like this:

- 1. Step 1: Reporting. Federal facilities should report annual acres harvested at the county scale if possible. If federal facilities do not report harvesting acres, options could include:
 - a. Assigning the facility a "default rate" (which would need to go through another review process like the Timber Harvest Task Force)
 - b. If no harvested occurred, the facility would need to indicate that annually in their reporting
- 2. Step 2: Reconciling with mapped clearcut harvest acres from the CBP's high resolution land use data.

She concluded by suggesting the approach could allow for flexibility, with an "opt-in" system where facilities that want credit for implementing BMPs could report their data, whereas others would not need to participate in reporting certain land uses could "out-out", which would streamline the process for those for whom it's less relevant.

Auston thanked Katie for her overview and asked Peter to breakdown the possible options for mapping and reporting "construction", "septic", and "cropland/pasture".

Construction

Peter shared that they're continuing to work with the Watershed Technical Workgroup and state representatives to obtain spatial data that matches what

states report to EPA and the Bay Program as their construction acres. Each state does this a little differently and they're still in the process of gathering additional spatial data from some states.

As one example, West Virginia has provided point data that indicate where disturbance occurred in 2022, along with the number of disturbed acres. Peter's team can overlay those points on their own data to visually inspect whether any mapped disturbance appears near them. More often than not, they do see disturbance near those points, but it doesn't always match exactly in terms of area or location. The data points don't align precisely with the spatial data, so the team has to go point by point, make judgment calls, and sometimes figure out which of multiple disturbances goes with which of multiple points. It's not a process that can be automated.

For now, they're doing this kind of visual inspection just to answer a core question: does the disturbance they map as construction line up with what states are reporting? That's the bottom line. But one of the bigger issues is the timing mismatch, high-resolution data is only available every four years, while states report their construction acres annually. In some cases, the states are using rolling three-five year averages, which creates a lot of "mushiness" both in time and space, not only on the mapping side, but on the reporting side too.

There are other remotely sensed data products available that are updated annually or subannually, which could help determine both how much construction is occurring and when it's happening, within that four-year mapping cycle. The goal is to refine the temporal resolution and better match annual reporting.

Peter emphasized that they don't expect anyone to be comfortable with using a remotely sensed approach if the jurisdictions themselves aren't comfortable with it. So they will continue working to assess whether this approach could be a time-saver and whether it improves the accuracy of reported construction acres. Hopefully, in the coming months they'll be able to report back on how the states have responded and whether the approach could also apply to the work of this group.

Septic Systems

Peter mentioned they're also developing a new approach for septic-systems, though it's based on tax parcel data. This works for mapping individual homeowner systems but doesn't apply well to federal lands (like military installations or commercial lots) since they aren't parcelized the same way. So

septic systems on federal lands really can't be mapped effectively, they would need to be reported.

Cropland and Pasture (Agriculture)

Peter said the CBP's high-resolution land use data does a pretty good job at capturing those acres, which would help reduce the annual reporting burden for federal agencies. However, there is still some confusion in certain areas between cropland and pasture, and we're trying to remedy that where possible. But overall, the data (especially in more developed settings where federal lands are often located) is quite strong.

Auston added that we currently rely heavily on the ag census, which provides a very good picture of agricultural lands across the watershed. Federal lands are included in the ag census, but they aren't specifically broken out. He clarified that they're not suggesting jurisdictions necessarily shift to a new approach, but in the case of federal agencies, it might be worth considering the use of a remotely sensed product (like the one Peter and his team could provide). This could help reduce the reporting burden and still offer a pretty good picture of what's happening on an annual scale.

Thomas Butler, EPA, chimed in saying that Jess could potentially use the Ag census data to help, but noted that the current approach operates at a county scale. For federal facilities, such as military bases, National Park Service lands, or leasing arrangements, these may not be captured in the census. However, it may be accounted for in some of the work Peter's team is doing. He suggested that the approach could involve "undoing" some of the aggregation in the current system, but emphasized that any federal land or federal partner would still be subject to the county-level reporting requirements, aligning with the rights and responsibilities within that jurisdiction.

Peter added that the agricultural mapping done by his team uses the ag census, which provides data on cropland and pasture. The agricultural footprint in the mapping will reflect the total acreage in agriculture, though the specific crop types, rotations, and different types of pasture and hay are broken out using census data at the county level. Essentially, for every mapped agricultural area, they create a pie chart with various crop types, using county-level data from the census to determine the proportions. Peter mentioned that they are aiming to refine the system further, recognizing that different areas of a county may have

concentrated areas of pasture or cropland, and they are working to fine-tune the mapping to account for these variations.

Olivia agreed with Peter and Tom's points, emphasizing that their approach could save a processing step when it's changed from spatial land use to tabular land use in CAST, helping to save time and increase accuracy.

Scott Heidel, PA DEP, highlighted Renee's earlier mention of agricultural land retirement or conversions to meadow, which he saw as an easy opportunity to capture in land use data. He also discussed a PA project for remote sensing of cropland BMPs, particularly conservation tillage. This data would cover Pennsylvania's Bay watershed, be geospatially located, and could be shared with federal partners. However, he expressed concern about nutrient management, noting the penalty if agricultural acres aren't covered by nutrient management plans. He anticipated that obtaining this information from federal partners could be challenging but wanted to bring it up to explore potential solutions.

Auston asked Scott if the remote sensing data would include federal lands and if practices would be applied to those lands when annual data is received from federal facilities.

Scott stated they haven't fully explored the reporting issue yet. He mentioned that they could report data at a county level, as done previously, or potentially use more accurate, localized data for reporting.

Auston thanked everyone for their input and encouraged agencies and states to provide more insight particularly on the questions related to capacity, funding, and using the remotely sensed data to reduce reporting burdens. Given the number of questions and considerations raised during the meeting he made the judgement that the FFWG should not call a vote on this in June, but rather push any decisional items to a later meeting, potentially in August.

Rene asked Auston if he would be distributing this compiled information back to the group.

Auston said that he would work with Marilyn to compile the feedback into the paper and include that with the minutes and next steps to the workgroup.

ACTION: In the next few weeks, Auston and Marilyn will send out an updated version of the Issue Paper: Tracking and Crediting Federal Land Uses/BMPs

		Currently Unassigned with a summary of received feedback. This will be contained in an email with an outline of next steps and in preparation for the June 10th FFWG meeting.
V. Wrap-up and Conclude	11:30 -	
Next Meeting: June 10th, 2025	11:35	
(10:00am-12:00pm)		