CHESAPEAKE BAY PROGRAM

LAND USE WORKGROUP (LUWG) MEETING

Meeting Minutes

June 18, 2025

1:00 PM – 3:00 PM

Summary of Actions and Decisions

Decision: The LUWG approved the March 2025 Minutes.

Decision: The LUWG approved moving bare shore- adjacent to lakes to the Phase 7 water class.

> **Post Meeting Note:** This decision was updated in September 2025 to read "the group approved moving **all bare shore (tidal and non-tidal) that is not classified as construction** to the Phase 7 water class".

Action: The group will vote on the approval of the proposed Aggregation of the High-Resolution Land Use/ Land Cover for Phase 7 in September. If there is any feedback or questions on the aggregation, please contact Sarah McDonald (smcdonald@chesapeakebay.net) and Caroline Kleis (Kleis.Caroline@epa.gov).

Action: Caroline Kleis, LUWG Staffer, and Sarah McDonald, LUWG Coordinator, will follow-up with the LUWG members to solicit a vote on the back-cast methods via email. Anyone with additional feedback or questions on the back-cast methods and voting process should contact Sarah McDonald (smcdonald@chesapeakebay.net).

Action: Labeeb Ahmed, USGS, will return to a subsequent LUWG meeting once the Historic Trends for the Land Policy BMP scenarios are available to be presented.

Meeting Minutes

1:00 **Introductions and Announcements** – Arianna Johns, VA DEQ (LUWG Chair) (10 min.)

- **Decision:** The LUWG approved the March 2025 Minutes.
- Announcement: Membership Update-EPA
    - Jeff Sweeney, LUWG voting member for EPA, recently retired. Tom Butler, EPA, will be the new voting member for the EPA on the LUWG moving forward. Welcome, Tom!
- Announcement: Update on the release of the High-Resolution LULC Data and Webinar on June 25th from 12:00-1:30pm
    - Post Meeting Note: At the time of the June meeting, the Land Use/Land Cover data had not formally been released. Since this meeting, the data has been released, is accessible via web viewer, and the data and documentation are now available on ScienceBase for download. A recording of the webinar is also now available.

1:10 **Update on the Land Use Decision Support Outcome**- Peter Claggett, USGS (15 min. presentation, 15 min. discussion).

Peter Claggett, USGS/ HWGIT Coordinator, provided the group with a status update on the Beyond 2025 process and related Land Use Decision Support outcome since March. Included in

this update was an overview of the outcome language approved for public comment by the PSC, as well as a discussion on potential areas of collaboration and future work.

Discussion:

Arianna Johns: That sounds fantastic. So, I would imagine we're going to want to restructure our membership some around this or get more local government people involved?

Cassie Davis: That was my question. Do we currently have the right audience and, as workgroup members, would we be reaching out to our local government partners if the intent was to bring some of the local government or regional planning and development boards into this workgroup?

Peter Claggett: I think that's a great suggestion. I think everything is on the table. That's my understanding. Laura Cattell Noll who coordinates LGAC made the suggestion recently that perhaps one meeting a year, the Land Use Workgroup would be a co-meeting with the Mid Atlantic Planning Collaborative. So, I think that's a group of professional planners. We could kind of take off our Bay Program hats for a little bit and meld into the professional world of planners directly, and then also be proactive about presenting at the American Planning Association and other types of conferences and meetings, not just Arianna, Sarah, and myself, but other members of the workgroup. All of us can contribute something to getting the word out about what kind of information can be provided that might be helpful to local governments.

Arianna Johns: Virginia has all the weird breakouts of Soil and Water Conservation Districts and planning district commissions, and then sub localities of those. I don't know if other states have that kind of stuff.

Cassie Davis (in chat): Yes.

Arianna Johns: Cassie says yes. Giving those organizations a chance to put a member on the Land Use Workgroup, is that something we could do?

Peter Claggett: Yeah. All the Land Use Workgroup members, I think, need to share with each other a better understanding of how planning decisions are made in each state. We know they are very different, so it would make sense to me that the Land Use Workgroup develop state specific strategies for what the information route is to get decision makers at the right time at the right place. Who is actually doing the talking? What groups are doing the talking? What groups are conveying information? In the past, we've kind of always relied on the Bay Program folks. That's always a starting point. But I think we need to go and work out state specific ways of doing things, because each state is so different. Like you guys have the planning district commissions which is like the obvious kind of conduit of information to local governments. That's where we'd want to start, I would imagine, in Virginia. In Maryland, it's the Maryland Department of Planning, counties, City of Baltimore. We're going to need an army, but Pennsylvania is really complicated and I'm getting the understanding that New York is also kind of carved up into townships for planning decisions.

Cassie Davis: Yes.

Peter Claggett: Right. Then Delaware is more county. Delaware is more similar to Maryland. They have a state office of planning, and they have kind of county control. West Virginia has county control, but you can't use the "z word" for zoning. There's a little bit of a different attitude in

some of the Virginia counties. Nothing against West Virginis, but they definitely have a different perspective.

Cassie Davis: We do have regional planning boards here in NY that cover multiple counties, and they work with individual counties, the regional planning and development boards. That's who we use for helping us complete the surveys for best management practice implementation that goes into the model. So, they do outreach to all the municipalities on our behalf already. So, for them to participate in this kind of work would make sense. We have funding through the EPA 604B program, so we write a workplan for them annually, so it's something that we could write into their workplan to participate in this workgroup.

Arianna Johns: Could we create a shared document that everybody on the workgroup could edit where we put in contacts and the structure for each state?

Peter Claggett: That's a great idea. We could do that.

Arianna Johns: For me, it's going to take me some time and calls to see who is going to want things where, and I figure pretty much everybody else is like that.

Deb Sward: So, I didn't have anything necessarily to add, because some of that stuff was very similar for Maryland as well. We do have a group of regional planners that are liaisons at our Department of Planning that have contacts, and that's often how we've updated the Bay program for the Land Use/Land Cover data sets. We go through our regional planners to get the latest and greatest contacts for each of the jurisdictions. So, we do kind of have an existing mechanism for that. So, I don't have much to add there. But I just did have a quick question about the amount of technical that would still be in the work group. I'm just trying to understand the skill set of the people that would be best talking at the at the Land Use Workgroup, because it sounds like there may be a little bit more of a local planning and planning practitioner focus. So, these conversations about the phase 7 Model and process and kind of like very technical and data-oriented modeling decisions, are those envisioned to still stay with the Land Use Workgroup?

Sarah McDonald: I think we've talked about that being a separate action team that we kind of spin up on an as needed basis. The thinking around that was until the Phase 7 decisions have come up in these last several months, we weren't really making a lot of decisions as a group. So, I don't think it really makes sense for us to keep meeting when we don't have decisions to make. So, this would allow the planning focused decisions to be at the workgroup level while we can kind of have our contacts for the technical folks for the more modeling decisions as an on-call type of situation.

Deb Sward: Ok, thank you. That's really helpful to know. I appreciate that.

Peter Claggett: I was just in a meeting where I heard for the first time, people openly talk about Phase 4 Watershed Implementation Plans that are going to be developed in 2027/2028/2029 timeframe. I know that is still a little way away in the future, but later in this meeting, we're going to be talking about future scenarios. I know we worked with each state back in 2015/2016 to develop scenarios for 2025 that could be incorporated in their WIPs that would give some credit to land conservation and land use planning. So, I think we'll probably be talking a lot about that in the next couple of years. But, that's another reason for us to not necessarily be

under the Water Quality Goal Implementation Team, because I think the value this work can bring to the partnership is well beyond Phase 7.

Dave Montali: I don't know what West Virginia's involvement is going to be in the future, whereas the outcome now is really not about supporting water quality modeling and the TMDL. It's about other things. The primary players in West Virginia are DEP and, to a lesser extent, depart of Ag and Conservation Agency, none of which are really championing the use of land use data by counties or local governments. So, the Management Board is going to start talking about what it means to participate in an outcome and how can you participate without expending all the resources on things that you are really not involved in? So, it's just basically up in the air at this point about how West Virginia will be involved. Every 4, 5, 7 years when the modeling comes in and there are land use issues related to water quality monitoring, we have to maintain some contribution. Otherwise, it's the wrong audience, as somebody said, there to have DEP sitting on this workgroup the way this outcome is written.

Peter Claggett: We don't even know if the Bay Program restructures from the 5 themes and 6 GITs to these 4 entities, whether conserved lands will be the equivalent of the GIT. Let's just, for the sake of discussion, assume that there will be 4 GITs in the future, one of which is conserved lands, and that GIT will oversee the Land Use Workgroup, Forestry Workgroup, Resiliency, and Protected Lands. Protected Lands will be involving a lot of land trusts and Piedmont Environmental Council, and a lot of those groups are also involved in planning decisions. So, if for example, there wasn't a state agency rep from West Virginia regularly attending the Land Use Workgroup, there still may be representatives from non-state organizations from West Virginia that could either participate in the Land Use Workgroup or participate in the Conserved Lands GIT that could provide some West Virginia perspective on land use.

Dave Montali: That's fair enough, and I would agree that we need some more of those entities more directly involved under the title of Conserved Land, more effort there than we might be getting now. I think there's going to be periodic needs for the Water Quality GIT to understand the new products of the Land Use Workgroup as it relates to water quality modeling. So, maybe the scenario is you don't have a DEP on a Conserved Lands GIT, but the Conserved Lands GIT intersects with the Water Quality GIT at appropriate times when input is needed relative to new products.

Rob Hirsch: I'm Rob Hirsch. I work with Baltimore County, and I've been kind of a token local government participant in the Land Use Workgroup for many years, and what you guys are talking about, I think, is a pretty good way to structure this. My participation in this group has been mostly to listen and learn about the products that the Bay Program is putting out, to hear about other people's applications for it, to understand the data so I know how we can use it in our local government applications. When it gets into the technical details of producing the land cover and the decisions related to that, I find I usually don't have a lot to contribute. But, it's important to me to understand it, because I do so much watershed planning work. So, I like the idea of having more local governments involved. I can't pretend to speak for the 200+ counties in the Bay Watershed or the 1,800 local governments in the Bay Watershed. So, we need more people than just me involved. Having that technical group to carry on the work of making

technical decisions about how the land cover is going to be generated is a good structure in my mind.
Peter Claggett: Thanks.

1:40 **Phase 7 Aggregation**- Sarah McDonald, USGS (LUWG Coordinator) (20 min).

Sarah McDonald, LUWG Coordinator, asked the LUWG to approve moving bare shore- adjacent to lakes to water, as well as reminded the group of the classes that will remain from Phase 6. The group also received an overview of the remaining land use decisions taking place at different workgroups.

Discussion:
Dave Montali: When you are done, in the watershed, there will be no bare shore?
Sarah McDonald: We will not be treating it as a unique land use in CAST.
Dave Montali: Ok. So, it will just all go to water. That's fine. I think past reviews of land use, I would see bare shore coming up along streams where the tree canopy allowed something to show in the imagery. So, those kinds of places won't be there and, in reality where there is bare shore, it will simply be the tree canopy, or the agricultural field, or whatever it's called. I guess my big point is there's probably more bare shore than the land use is seeing, but this is just to resolve the bare shore that the imagery is capturing?
Sarah McDonald: Correct. That's a great description of it. It's only what we're seeing and then there are other kind of barren lands that are captured, riverine wetlands, for example, are mostly what's going to be captured in this class. So, that's why this number is so small. But, completely agree. Whatever is exposed in the imagery is what we might be able to map there. So, if it's covered with trees, we're not going to call it bare shore. Any other questions or comments?
Arianna Johns: I'm not seeing any in the chat. Nobody's raising their hands. I think it makes sense to me personally. Did you want to go ahead and call for the vote?
Caroline Kleis: I can run through everybody's name and pull up the continuum if that's the preference. As a refresher, one's going to be a stop, and 5 is an endorsement. I'll go straight down the list, beginning with Cassie.
Cassie Davis: 5.
Caroline Kleis: Samuel?
Samuel Canfield: 5.
Caroline Kleis: Thank you. Lori?
Lori Brown: 5.
Caroline Kleis: Thank you. Deb?
Deb Sward: 5.
Caroline Kleis: Thank you. Arianna?
Arianna Johns: 5.
Caroline Kleis: Thank you. Scott?

Scott Heidel: 5.
Caroline Kleis: Thanks, Scott. Is George here?
Young Tsuei: No, he's not. This is Young Tsuei. I'm thinking we can go a 5.
Caroline Kleis: Great, thank you. Tom?
Tom Butler: I'm a 3 on this, because I don't know the exact backstory. But, I don't think there's anything wrong with it, so I am not going to hold it up.
Caroline Kleis: Thanks, Tom. Is Marel here? I don't believe Marel is here, and I don't believe KC is here. Norm?
Norm Goulet: 5.
Caroline Kleis: Thanks, Norm. So, it looks like we're approved.

Aggregation

Scott Heidel (in chat): We have discussed Managed Hay and Pasture as new land uses at AMT. Can that be elaborated on please because I don't see them here.
Sarah McDonald: I can't see your comment anymore, Scott, but feel free to hop on if I didn't address your comment.
Scott Heidel: No, I think that addressed it, thank you very much. I am just curious why there are two sets of land uses.
Sarah McDonald: So, it's kind of different phases of the same land use in a weird way. So, generally, what my team is providing here in this roll up is pretty much purely derived from our 1 Meter land use that we aggregate in a way, and that kind of produces our base land use that we give to the CAST team, which then incorporates other data, like the Census of Ag, to produce the many others. We only map cropland, right? But then the CAST team will take that cropland and make it corn and soybeans and double cropping, etc. They also bring in reported data on construction and harvest, etc. So, this is just kind of an earlier phase of what ends up being that final land use when that reported information is incorporated.
Scott Heidel: Alright. Gotcha, thanks.

Decision: The LUWG approved moving bare shore- adjacent to lakes to the Phase 7 water class.

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Action: The group will vote on the approval of the proposed Aggregation of the High-Resolution Land Use/ Land Cover for Phase 7 in September. If there is any feedback or questions on the aggregation, please contact Sarah McDonald (smcdonald@chesapeakebay.net) and Caroline Kleis (Kleis.Caroline@epa.gov).

2:00 **Backcast Update**- Sarah McDonald, USGS (LUWG Coordinator) (15 min).

Sarah McDonald, LUWG Coordinator, provided the group with an update on the Backcast, since it was distributed to the group in January. Included in this update was a comparison of the methods of the current Backcast to the Phase 6 model Backcast. While this was an informational update this month, the LUWG agreed to conduct this decision via email in the interim months prior to the September meeting.

Discussion:

Sarah McDonald: I would like to not have to make this decision in September. Since our decisional timeline is September 30th, that wouldn't give us any chance to iterate if there are concerns at the vote. So, here are the two methods we've been playing around with that I would like feedback from the group to decide today. So, I could send this information out, give folks a couple of weeks to review and ask questions, and then we can do a vote over email. An alternative is we could add a shortened meeting either in July or August and maybe do a one-hour meeting in one of those months to allow for a discussion about this if people are concerned. So, these are the couple of options we've been floating around about this.

Scott Heidel (in chat): Email please, and I have a couple of things to ask about now.

Arianna Johns: Yeah, I'm not really sure what the best way to get everybody's opinion is. Scott, you have a couple of things to ask now.

Scott Heidel: Thank you very much. This is really interesting. One thing we talk about a lot in the Ag Workgroup is the buffering effect of riparian buffers to upslope land uses, particularly croplands. Is there any thought of really dialing in riparian buffers with the High-Resolution Land Use data and then applying that like a bonus reduction to those upslope land uses based on GIS, rather than reported BMPs?

Peter Claggett: That's a good, interesting suggestion that has come up before, and I know Gary Shenk just retired, so he's not here to defend himself. I actually made that suggestion myself, and I was like why don't we just count all the buffers that we see in our map as downslope of cropland as having the effects credited to the BMPs? The response from the Modeling Team was that those effects are already accounted for, and, for Phase seven's purposes, it would be accounted for in CalCAST, it would be accounted for as forest on the landscape, but not as a performing buffer. I did an analysis for a conference about 10 years ago, where I tallied up all the buffered areas on our maps before we had all the high-res, and I attributed the BMP efficiencies to them. If one does that, we've met the TMDL, everything's good, there's no pollution. So, two things. One is it's a little unrealistic to do that, but also, according to the modelers, the effects of those extant buffers are already being accounted for in the modeling process. Does that answer your question, Scott?

Scott Heidel: I guess it sort of does. Another concern is that, as BMPs time out with their lifespan, if we do see them in the High-Resolution Land Use imagery, would there be a backcheck to make sure that they stay within the model?

Peter Claggett: You mean as a buffer versus as a strip of forest on the land?

Scott Heidel: I mean things that can be detected with the High-Resolution imagery in particular, the buffers, all of the BMPs have a lifespan, and we do a heck of a job making sure that we continually verify our BMPs. But, certain things, especially with as huge of a landscape as we are

dealing with, it's sort of impossible to verify every single BMP that could potentially be timing out. So, any technology that we could use like this that could help us re-verify without having to directly re-verify, I'm interested in hearing thoughts on whether or not that would be feasible.

Peter Claggett: This is a problem we've run into a lot in the discussion of land cover and inventorying BMPs on the landscape is what we really need is a good spatial representation of where the BMP is, which, ideally in the case of a forest buffer, is going to be a polygon, an elongated polygon, like a hot dog that would overlay the planted area. I've seen submissions of such data in the past, and it's never been precise enough to actually be that usable.

Katie Brownson (in chat): I believe some states are already using imagery (on their own) to verify buffer BMPs, but as Peter mentioned, doing that requires knowing where those practices are going in.

Dave Montali: Scott, the big problem is we don't know where they are. At best, we know acres and counties, so it's going to be very difficult for the land use folks to pick out a strip of area along the stream and say that's the BMP and not something that was included in the model, just like a naturally occuring buffer. I think that's what Peter said.

Peter Claggett: Right. So, if you did have a precisely digitized polygon of the planted area, it's been 10 or 15 years, we should be able to verify if there's trees in our data. So, that is a reasonable expectation. What we haven't seen, yet, though, is really well digitized planting areas. We get points on roads, and we're looking in the streams on both sides of the road, and we're like where do they plant the trees? Or we'll get polygons that include areas that were never deforested. So, it's just doing automated GIS inventories, you are like, wow, they never weren't trees. They've always had trees. So, that's the challenge for us.

Scott Heidel: I hear you, and I really do appreciate this communication. One thing, too, in Pennsylvania, we have the Practice Keeper Geospatial database that tracks our agricultural BMPs as well as other BMPs, and that is all tracked by polygon. So, I am wondering if there's a way that maybe we could share that.

Peter Claggett: I think that is very reasonable, we could do a pilot test somewhere. Especially if we have the age of the planting, which would vary by latitude, that will even help us. You are going to see trees are going to grow faster in Southern Virginia than they are in New York. But, still, if we knew the age of the planting, then we could look at our data and see what we could detect. That would be a worthwhile exercise.

Scott Heidel: I really appreciate that, and I think that could open up some doors to tracking other types of BMPs because we are tracking every kind of agricultural BMP that would be applied to the land. So, obviously, that's outside of the Land Use Workgroup, but if this gives us some type of an in to start working on how we can share that data, I believe that would be beneficial to both of us.

Deb Sward: This is a really helpful presentation, and I had shared the initial proposal with several folks at Maryland, and there was a lot of interest in it. So, I think before the vote, we had a couple of clarifying questions still that I think we had sent with our initial comments, and I'm happy to follow up on those by email if we're a little short on time in this particular meeting. But, there were a couple that might be easy to touch on here really quick. So, I think there are some questions about clarification on the necessity of reclassing both the National Land Cover

Data and the modeled Land Use into a different aggregate schema, and it sounded like maybe that's because the two weren't close enough to really compare. I was just wondering if you could clarify that one real quick. The second one was related to the deliverable because, talking about the workgroup's mission and purpose of kind of supporting planning throughout the state at various scales, a lot of these outputs could probably be really useful at different scales of geography or custom scales of geography. I know there's some challenges with possibly making those things available spatially, if there's like tabular interpolations and things like that at these scales. I was just curious, to what extent is this product going to be spatial, and to what extent are there opportunities to kind of summarize the information at different levels of geography?
Sarah McDonald: Thanks for that. So, to answer the first question, I think the main intention of doing the reclassification is to kind of get as close to comparing apples to apples as we can. So, what we want to be able to do is have similar trends that we detect in the high-resolution data be a similar level of trends that we detect back through time. One way that we've been thinking through this is to make the two data sets as similar as we can get them, which would include reclassing them. Additionally, for the NLCD, there are some of their classifications that I don't think are that helpful for the back-cast. So, for example, of their 16 classes, 4 of them are different levels of development. So, it's just an intensity level of development. But they also have a separate layer that is percent impervious, which is more useful for us. We want that preciseness of how much of this should I determine is roads, or impervious non roads, versus turf. So, it kind of made sense to me to collapse all those developed layers, since I can get the specific impervious amount. We've evaluated their distinction between cropland and pasture in previous versions, and that did pretty poorly. They overclassed pasture a lot, particularly in Virginia, which we saw in the high-res in our last edition, because we use that layer to map pasture, and we confused a lot of harvest with pasture because of that layer. So, I have more confidence using the Census of Ag or something to make that distinction. So, those are some of the main reasons of trying to kind of group that is to hopefully get rid of as many of the categorical errors as we can, so we can focus more on the temporal footprint, which we have a lot more confidence in for this data set. Can you remind me what your second question was?
Deb Sward: The second one was, just in thinking about how this data could be so useful in so many different ways to states for general planning purposes, but potentially at different levels of geography than what you had mentioned before as the mapping unit. There was some mention in the original proposal to have some sort of potential spatial output and, if not, at what levels of geography that are below the Land River Segment could this data be provided easily?
Sarah McDonald: Right now, I think I had that in there as like Phase 2. Given our timeline, we're getting closer and closer, and the number of things we have to do is getting higher and higher, so I don't think I'm going to get to Phase 2 section of the workplan, which I didn't present here. It's a separate change detection algorithm on the Landsat Imagery Archive to try and identify changes that aren't captured in the NLCD but could be captured with the imagery if we use a different change detection method. I don't think we are going to be able to do that. That being said, at the bare minimum, we'll have the summary units. The 5-class stuff could happen at the 30M raster scale. Some of the summaries are going to have to happen for validation at the parcel scale for Maryland if we're going to use the Maryland parcel data to approve or to

validate development trends that I'll have to do some sort of summary at that scale, but that's more for the validation. So, if there's certain scales in particular that are useful for planners and folks on the call, if you know, let me know what those scales are, and I can see if maybe I can just merge those into my summary unit scale, so I can aggregate them back to the scale that would be useful to folks.

Deb Sward: Thank you. To make sure I understand, a lot of it will be tabular because there's some interpolation involved with tabular data, like percentages of impervious surfaces that aren't necessarily spatial. So, they have to be kind of aggregated in a tabular way as opposed to just put on the map. Is that right?

Sarah McDonald: Yeah, we have some data that will be coming in at the county scale that I'll then have to kind of spatially allocate some way. That would be the Census data, I think the FIA data is at that scale, so if I were to incorporate forest thinnings, which I talked to Katie Brownson about before, I think that would have to start at a county scale, and then I have to spatially allocate it to the summary units in some manner. So, that's kind of the intention is to have it at the summary unit scale but let me know what scales are useful to folks, and we can see if we can get those incorporated. But, the NLCD, just for context that annual data is 30 m resolution. It's just a different classification schema. So, that data is available from USGS under MRLC, Multi Resolution Land Consortium.

Peter Claggett: They're just releasing their 2024 data the end of this month.

Sarah McDonald: Right now, they have 1985-2023 and they will have 2024 soon.

Arianna Johns: Ok. So, I think we should send out an email with all the information, and people can do a decision via email, and if any one person wants to have a meeting, we have a meeting. Does that work?

Sarah McDonald: That works for me. Are there any hard no's on that plan? I want to make sure I allow time for people to ask questions.

Rob Hirsch (in chat): Will the annual backcast 30-meter GIS data be released for use?

Arianna Johns: Rob asked in the chat, will the annual back-cast 30 M GIS data be released for use?

Sarah McDonald: The 30-meter data is available now as the National Land Cover Database product, my reclass of that, I will not release as a raster, but as a vector database by summary unit.

Peter Claggett: It will be accessible on CAST. Via the CAST interface, you could pull this data.

Rob Hirsch: My apologies, I mistyped there. I was thinking about the 1M back-cast annual data, and I typed 30 by accident.

Sarah McDonald: So, the 1-meter data only exists for three dates in time. 13/14, 17/18, and 21/22. We will, in tabular form, annualize that data, but that won't be a spatial piece. For the images I was showing, do you mean that mixed resolution product?

Rob Hirsch: I was thinking about either that mixed resolution product or, better yet, something that's at least closer to the classifications in CAST. The use case I've got in mind, I've had to try to do this before. We have local TMDLs that are often for units that are smaller than a Bay Program Land River Segment, and we need to do TMDL implementation plans that relate to land use loads and BMP reductions for specific dates in the past. So, producing this type of map is

something I've done locally, and it's a lot of hard work, and I really appreciate you doing this for the whole Chesapeake Bay Watershed. So, some of your intermediary outputs could be really helpful for local governments with waste load allocations.
Sarah McDonald: Ok. That's really helpful to know and understand. Let me revisit the workplan and how I plan to approach it and if some of those intermediates are kind of low hanging fruit in a way, then I can work on maybe doing like an every 5-year raster or something. So, I like your idea. It's really useful to know that that would be helpful to folks. So, I'll revisit and see if that's something that I can work into the workplan without pushing other Phase 7 deliverables off. So, to wrap up, we'll follow up via email, letting people know we will make the decision via email. If you have questions, you can email me directly and ask them. Or, you can say I'd like to chat about this more, and we will come up with a time, and we can have a one on one to talk through some of these things. So, thanks for that.

Action: Caroline Kleis, LUWG Staffer, and Sarah McDonald, LUWG Coordinator, will follow-up with the LUWG members to solicit a vote on the back-cast methods via email. Anyone with additional feedback or questions on the back-cast methods and voting process should contact Sarah McDonald (smcdonald@chesapeakebay.net).

2:15 **Future Land Use Scenarios for Delaware-** Peter Claggett, USGS (25 min).

Peter Claggett, USGS, discussed a recent project with Delaware's Office of State Planning Coordination using the CBLCM to forecast state-derived scenarios.

Note: Due to meeting time constraints, this agenda item did not include additional discussion.

2:40 **Status Report: Land Use Change Model and Forecasting for Phase 7-** Labeeb Ahmed, USGS (15 min).

Labeeb Ahmed, USGS, provided a brief update on the Chesapeake Bay Land Change Model (CBLCM) and preliminary information on developing the model documentation for stakeholders and review process.

Discussion:
Cassie Davis (in chat): NY's parcel data is available for download and frequently updated here: https://data.gis.ny.gov/datasets/sharegisny::nys-tax-parcel-centroid-points/about It's centroid but I believe we have sent the polygons in the past.
Peter Claggett (in chat): Good to know. We've been using parcel polygons from REGRID- vintage 2021/22.
Sarah McDonald (in chat): The parcel scale analyses was developed by Michelle Katoski on our team. Great job, Michelle!

Action: Labeeb Ahmed, USGS, will return to a subsequent LUWG meeting once the Historic Trends for the Land Policy BMP scenarios are available to be presented.

2:55 **Review of Actions/Decisions** – Arianna Johns, VA DEQ/Chair (5 min).

3:00 **Adjourn**

NEXT MEETING: Wednesday, September 17, from 1:00-3:00PM

Participants

Arianna Johns, VA DEQ
Sarah McDonald, USGS
Caroline Kleis, CRC
Samuel Canfield, WVDEP
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Acronym List

CBLCM: Chesapeake Bay Land Change Model
LULC: Land Use / Land Cover
LUWG: Land Use Workgroup
USGS: United States Geological Survey
VADEQ: Virginia Department of Environmental Quality