



Land Use Workgroup and Urban Stormwater Workgroup Joint Meeting

Wednesday, September 23rd, 2026
1:00 PM –2:45 PM

[Visit the meeting webpage for meeting materials and additional information.](#)

Purpose: This is a joint meeting between the Land Use Workgroup and Urban Stormwater Workgroup to discuss the Chesapeake Bay Land Change Model (CBLCM) for Phase 7.

Minutes

I. Welcome and Announcements

Lead: LUWG and USWG Chairs

II. Chesapeake Bay Land Change Model (CBLCM) Approval and Discussion of Final Results

Lead: Peter Claggett and Sarah McDonald, USGS

Sarah McDonald gave an overview [presentation](#) of how the forecasted development is translated from the CBLCM into the Phase 7 Land Use. She walked through the rules for determining Phase 7 land use classes accounting for growth from agricultural and natural sectors, differentiating between rules in residential areas, commercial and mixed areas, and solar. She also described how construction is treated in this process.

Peter Claggett gave an overview [presentation](#) on the updates made to the CBLCM. He reminded members about the purpose of the CBLCM, outlined the review process, highlighted major changes from Run #2 to Run #3 and walked through annualized land conversion and land use change numbers for residential, commercial and solar. Peter noted considerations for whether data centers can and should be addressed in the CBLCM. Finally, Peter walked through the map viewer.

Due to delay in the solar forecast's final run, LUWG and USWG were not able to call a vote to approve the CBLCM at the Sept 23rd meeting. LUWG and USWG members asked questions and discussed the decisions to be requested via email following the meeting, which is summarized in the discussion notes below.

Materials: [Sarah's Presentation](#), [Peter's Presentation](#), [CBLCM Web Viewer](#) (includes latest FAQ document and LULC crosswalk table)

Decisions Requested Post-Meeting via email by Friday October 9th:

1. The USWG is asked to approve the final forecast of utility scale solar for the “Business as Usual” scenario for Phase 7.
2. The LUWG is asked to approve the final land use forecast for the “Business as Usual” scenario for Phase 7.
3. The LUWG is asked to approve the “burning in” of existing and proposed data centers in the 2021/22 land use/land cover for the “Business as Usual” scenario for Phase 7. In this approach, data centers would not be mapped as a separate land use class, but rather, each data center would add up to 11 acres of impervious surface to the commercial land use footprint in the simulated forecasts.
4. As a follow up to the discussion about the land use forecasts and the Clean Water Goal Team discussions about periodic model updates, the LUWG is asked to indicate their level of support for incorporating critical, foundational datasets -- such as the high-resolution land use/land cover data, Census of Agriculture, and updated land use forecasts -- in CAST, as they become available, starting in 2029. This will ensure the most up to date information is used in the model to evaluate Watershed Implementation Plans and progress towards the TMDL.

Actions:

1. The CBLCM web viewer will be updated with the most recent results (Run #3.1), along with an updated FAQ document and land use crosswalk, with updates include the acreage of solar per county that has been built between 2021/22 and 2025/26.
2. An email with further details on the requested decisions will be sent out.
3. A small discussion will be held Thursday, October 8th to discuss opinions about the inclusion of data centers in the CLBCM. If you want to join, please reach out to Jackie Pickford.

Discussion:

- Sarah McDonald’s Presentation
 - Norm Goulet, NVRC asked for Figure 1 for all the states, including commercial and residential.
 - Jackie Pickford responded she will send it out via email.
 - Dave Montali, Tetra Tech asked for confirmation on where the numbers came from for the construction example shown.
 - Sarah confirmed they are imaginary numbers for the sake of the example. In this example, the 240 acres of development is 240 acres total of residential, commercial, and solar. So the 30 acres would encompass all of them.
 - Dave Montali asked what metric is used to figure out how much comes from ag vs natural when projecting solar.
 - Peter Claggett answered that is the stochastic part of the model that grows development from a patch-sized distribution of solar field sizes, which are grown using a probability surface developed by Chesapeake Conservancy. That is done 101 times and the results are averaged. If the probability surface and the distribution of LULC favors development on natural lands, then that's what happens. So, the proportion of whether natural lands or agricultural lands are converted is not something we dictate to the model. It's an emergent property of the model.
- Peter Claggett’s Presentation

- Jackie Pickford (in chat): To clarify/reiterate -- we will be updating the data on the CBLCM viewer this week and would like to give you all additional time to review, but would like your approvals via email by October 9th.
- Cecilia Lane, DOEE asked in chat about the units for the two central columns on slide 12. Jackie confirmed they are in acres.
- Dave Montali asked about the difference between the different simulated growth layers in the map viewer. To look for solar, which should be looked at?
 - Peter responded if you want to know where solar is going look at the “2040 Scenario – Solar” layer and the darker colors show where it will be likely developing. Looking in the WV panhandle, you don’t see a lot along the I-81 corridor, but you do see it elsewhere as possibilities. This gives you the patterns of where urban growth and where solar development may occur. It shows possibilities not quantities.
- Cecilia Lane (in chat): What is the difference in the colors shown right now [viewing the map viewer]?
 - Jackie responded (in chat): Peter was showing simulated solar for the year 2040. The darker red was showing 7-10 acres, orange 4-6 acres, and light orange 1-3 acres per 1 km hex.
- Dave Montali noted he had issues with the FAQ document and it doesn’t seem to be updated or all visible.
 - The FAQ document will be updated and the latest version is available at the top right of the map viewer. Sarah noted folks may need to clear the cache on their browsers if they are having issues with the posted links.
- Dave Montali asked whether what is visible in the viewer right now is Run #3.
 - Peter responded it reflects what he presented today and was updated as of this morning. The urban patterns and the urban numbers are not any different than what has been there since the office hours. You’re going to see differences in solar - not so much the patterns, but the magnitude.
- Dave Montali asked about changes referenced at the office hours to Berkeley County, WV.
 - Peter responded they made a significant tweak to the residential densities. For every county, they are estimating residential densities locally within each county. All the densities they try to calculate at a census block level. Since they need densities in every inch of the watershed, they’ll look at its neighbors and use the highest density of its neighbors. For rural areas with growth, they employ a minimum density calculated based on just the data that's within each county.
 - Peter added the annualized rate of housing growth has almost doubled for the simulated period. So, that's driving part of it. The other part of it is that for where development is in Berkeley County, there are lower densities than where development has occurred previously.
 - Dave responded he thinks the bigger issue for West Virginia is with respect to solar. Just looking at it simply, there are 400 acres in 2025 and you're going to project 5,000 for 2040. Part of that issue is that 87% of the energy demand projected into the future is projected to happen in the Chesapeake Bay watershed. Future energy demand may be dictated by unknowns like data centers. How would one say that 87% number being used for all future years needs to be replaced with something?
 - Peter responded that if there’s counter-evidence then we can entertain that. He added that the CWGT is still deciding how often to update the 2040 condition for Phase 7. In the past, WIPs were always based on the

original 2025 condition. Unless the WIPs get updated, then that's that. But for Progress, there should be some point in time where we take a look at all these assumptions and see how things are going and ask whether we're still on track for this 2040 condition or whether we need to revise it.

- Dave responded he understands that. Since the 2040 condition is what will drive what's in the WIPs that is what people will focus on. The reaction was if we're going from 400 to 5,000 acres of solar then where will it go? We didn't have any solar on anybody's map in 2022, but since there are now a couple projects in the counties then it shows all the future ones going in there. I don't know that that's true. I don't know what the number is going to be, but it's not going to be 87% of all that future energy demand happening in the Bay watershed.
- Dave Montali asked for clarification on what "CB Region" refers to in the FAQ.
 - Peter responded it refers to all Chesapeake Bay counties and adjacent counties. We're producing for CAST what's in the watershed, but we're cutting out the watershed from our simulation in this broader region. The stats provided are not watershed specific.
- Eric Hughes, EPA CBPO noted at the bottom of slide 14 he is encouraged by the fact MDA provided data to help this. Did other jurisdictions consult with their departments of ag to provide similar data?
 - Peter responded they did not receive data from other states' Departments of Agriculture. If they had representation at the LUWG then they were likely aware or consulted. They did not put out a data call. MDA reached out with their data independently.
 - Alisha Mulkey, MDA (in chat): MD state regs. require MDA review of all new energy >2 MW, so we track that growth as almost all applications are current cropland. I don't know if this is same regulatory req. in other states.
- Data Centers Discussion
 - Norm Goulet asked what is being proposed for data centers.
 - Peter responded he personally isn't proposing anything with the data centers for the Phase 7 model. He hopes that CBP does something in terms of data centers, but he doesn't think the P7 modeled land use is the place to do it.
 - Jackie added that LUWG originally had a tentative decision on what to do about data centers. At the prior office hours, Jackie asked people to contact her if they felt strongly about simulating the proposed data centers in the CBLCM. Everyone she heard back from was on board with allowing the high-res LULC to pick up the current data centers that are already on the ground or will be in the next round of LULC.
 - Rosa Hance, CCWC: I don't recall that all participants were in agreement on that, so I would request a vote on that. I think there are different perspectives, so would encourage moving forward in a way to capture all of that.
 - Tom Butler, EPA CBPO asked (in chat): Was data available for the conversion to data centers in a similar fashion as solar? The FAQ tables are a good example of what I mean.
 - Peter responded that they used the high-res land use data to look at the data centers that exist now to see what land use they were generally converting. It was mostly forested lands. We've since made a categorical

2013 high-res data set that'll make it easier to do a similar analysis, looking at the 150 or so that we've mapped. That's data that we produce, that's not data that we got from another source.

- Sarah McDonald added that if we were to include data centers for that decision they would not be their own land use. They would be part of commercial. If we did add them, we would add the developed area of data centers, but we would not be explicitly tracking data centers the way we are forecasting solar.
- Norm Goulet responded that part of the problem of including data center growth in the model is that this is a business-as-usual model. However, business-as-usual is very up in the air for data centers given the explosion of growth recently and that the landscape is undergoing tremendous changes including political drivers and local opposition. There is tremendous pressure on data centers, so the future is very unclear. For example, the Virginia governor just released an executive order that is going to reign in data center development. If we want to have something on data centers outside of CBLCM, then no problem. We do that with other growth scenarios. My issue is with including it in the business-as-usual scenario.
- Alisha Mulkey (in chat): FYI. Maryland issuance today [Governor Moore Signs Executive Order Codifying Responsible Data Center Development Framework, Calls ...](#)
- Jackie Pickford (in chat): Good point Norm, we could potentially do alternative scenarios that incorporate data centers more explicitly at a later date.
- Rosa Hance (in chat): The acreage proposed per data center of 11 acres is historic not proposed so it's quite conservative to be in line with a reigned in data center scenario; as opposed to the massive growth projected by PJM.
- Cassie Davis, NYSDEC added that NY has a one-year moratorium on data centers, so curious how that would be factored in. I'm not sure what data center growth will look like in the future.
- Peter responded that he doesn't think we have the data we need to forecast data centers in CBLCM. If we started to try to simulate data centers, we would encounter a lot of complexity on a local basis, and they're so politically charged that I think it would be very difficult for us to make progress. The LUWG could do an energy scenario of "what if all these data centers were built." USGS is also currently conducting a national study on the water resource impacts of data centers. I support CBP getting a handle on this, maybe through a STAC workshop. To actually simulate them now would be very challenging and also require much more time. The moratoriums Cassie reference is just one of the reasons it would be challenging.
- Sarah asked for confirmation on whether the decision is around including newly constructed data centers that have occurred between our mapped 2022 data and 2025 or forecasting data centers out to 2040.
 - Peter added they already agreed to burn in the solar fields because it's 10s of thousands of acres that have been developed into solar fields between 2022 and 2026. They could burn in data centers similarly - it's not a lot of acreage and it's going to be mapped anyway in a couple of years. It would be in there as additional impervious surface within

- commercial, and then they'd deduct that from what is forecasted. It's just a bit complicated and it likely wouldn't make a big difference.
- Rosa commented that I'm just trying to think about how we can make sure that the things that already exist are accounted for in a way that will allow us to project out in any scenario. I do think it makes sense to consider the solar and data centers together since the demand for energy that data centers create will have a utility-scale impact. On the one hand, folks are saying that the data center development may not be quite as big as has happened recently. But, even though limitations are in place now, they may not last. It's a bit confusing where these data centers are being mapped currently. It is unrealistic to say we aren't going to see any data center growth in the watershed. I want to make sure that what we approve is reliable, that folks are going to be able to count on it, and that they understand that it reflects the reality on the ground.
 - Owen Bailey, ESLC added that from a local government perspective, the uncertainty around data centers is why tracking them is important as counties and towns are actively revisiting zoning and land use policies in response to these data center proposals. Even if forecasting is imperfect, having some objective information about potential development patterns can be helpful and better support some of the planning decisions at the local level.
 - Norm Goulet (in chat): "Business as usual" has to be used for the development of allocations. The other scenarios are optional and are available to the states that can be used to help develop WIPs.
 - Peter responded that the issue to him is not whether we look out into the future about data center growth or not. It's about whether we do so as part of the business-as-usual scenario in the P7 model to inform the WIPs that each state is going to refresh.
 - There was discussion between Peter, Jackie, Tom, Rosa and others on whether or not to hold a vote via email or just collect general comments.
 - Jackie Pickford suggested the best path forward is to document feedback and have conversations with folks to alleviate concerns.
 - Rosa responded that given the complexity of this issue, it might be helpful to collect feedback on a number of different options. There are understandable limitations to what can be done within a certain period of time, but given the solar work to still be done, could we have an estimated amount of time so that people understand what the trade-offs are? Could we also provide language on what an alternate scenario might be so people can give feedback on something a little bit more concrete? If we don't take any action on this, then we'll be falling behind. Pretty much every state in the watershed has had some action on data centers. By staying silent we're not helping states prepare for their WIPs.
 - Peter proposed a separate meeting to talk more specifically about data centers and explore it more in depth with Rosa and anyone else interested.
 - Jackie Pickford thanked Labeeb Ahmed, Sarah McDonald and Peter Claggett for all their work on the CBLCM this summer.
 - **Post-meeting update - Jackie clarified via email in the request for decisions:** Although we reached a different point in the discussion during the September meeting, I would like to move forward with a formal vote from the LUWG on how data centers should be accounted for in the forecasts. This will ensure that the LUWG's decision is clearly documented and transparent, and that all

members have an opportunity to formally register their position. If you have additional comments or considerations that you would like included on the record, please feel free to share those as well.

III. Wrap-Up and Adjourn

Next Meeting:

- LUWG – [Wednesday, December 16th at 1-3pm](#)
- USWG – [Tuesday, October 20th at 10am - 12pm](#)

Attendees:

Jackie Pickford, USGS (LUWG Coordinator)
Deborah Herr Cornwell, MDP (LUWG Chair)
Rosa Hance, CCWC (LUWG Vice-Chair)
David Wood, CSN (USWG Coordinator)
Norm Goulet, NVRC (USWG Co-Chair)
Petra Baldwin, CRC (USWG Staffer)
Lori Brown, DNREC
Rachel Owrutsky, DNREC
Young Tsuei, DC DOEE
Shannon McKenrick, MDE
Tyler Trostle, PADEP
Tom Butler, EPA CBPO
Owen Bailey, ESLC
Elaine Webb, DNREC
Bonnie Arvay, DNREC
Cecilia Lane, DC DOEE
Andrea Krug, DC DOEE
Sophia Grossweiler, MDE
Gillian Adkins, MDE
Cassie Davis, NYS DEC
Jamie Eberl, PADEP
Dave Montali, WVDEP
Maggie Woodward, CBC
Auston Smith, EPA CBPO
Jeff Colella, WVSA
Ginny Snead, AMT Engineering

Michaela Kuykendall, MDA
Alisha Mulkey, MDA
Elizabeth Hoffman, MDA
Deborah Sward, MDP
Michel Sheffer, MDOT
Cass Klingaman, NYSDEC
Ashley Hullinger, PADEP
Denise Uzupis, PADEP
Amy Hagerdon, VADEQ
Brock Reggi, VADEQ
Norah Carlos, CBC
Jenna Schueler, CBF
Richard Turcotte, USFS
Angela Jones, DoW
Peter Claggett, USGS
Sarah McDonald, USGS
Labeeb Ahmed, USGS
Michelle Katoski, USGS
Eric Hughes, EPA CBPO
Caroline Kleis, CRC
Jeremy Hanson, CRC
Martin Hurd, Fairfax Co., VA
Mathew Meyers, Fairfax Co., VA
Mark Symborski, MoCo Planning
Eugenia Hart, TetraTech
Jeremy Cox