

## CHESAPEAKE BAY PROGRAM LAND USE WORKGROUP

Meeting Minutes

Sep 1<sup>st</sup>, 2021

1:00 PM – 3:00 PM

Meeting Materials: [link](#)

### **Summary of Actions and Decisions**

**Decision:** The LUWG approved the [August meeting minutes](#).

**Action:** LUWG members and interested parties are encouraged to nominate at-large members via email to the LUWG leadership ([pclagget@chesapeakebay.net](mailto:pclagget@chesapeakebay.net); [kfilippino@hrpdcva.gov](mailto:kfilippino@hrpdcva.gov); [kberger@mwkog.org](mailto:kberger@mwkog.org); [pickford.jacqueline@epa.gov](mailto:pickford.jacqueline@epa.gov)) by **COB Wednesday, Sep 29th**.

**Action:** Jackie Pickford will work with GIT6 to clarify questions raised about the at-large voting process.

**Action:** Please provide all other feedback on the CAST-21 Process to the LUWG leadership ([pclagget@chesapeakebay.net](mailto:pclagget@chesapeakebay.net); [kfilippino@hrpdcva.gov](mailto:kfilippino@hrpdcva.gov); [kberger@mwkog.org](mailto:kberger@mwkog.org); [pickford.jacqueline@epa.gov](mailto:pickford.jacqueline@epa.gov)) by **COB Tuesday, Oct 5th**.

**Action:** Please provide all other feedback on the Land Use Methods and Metrics Outcome to Peter Claggett ([pclagget@chesapeakebay.net](mailto:pclagget@chesapeakebay.net)) by **COB Tuesday, Oct 5th**.

**Action:** Peter Claggett will distribute a detailed description of the adjustment of land use acres to avoid double counting timber harvest acres in the land use change data product.

Welcome, Roll Call, Review of Meeting Minutes, Action Item Update – KC Filippino, Hampton Roads Planning District Commission.

**Decision:** The LUWG approved the [August meeting minutes](#).

Review of Membership/Call for At-large Member Nominations – KC Filippino, HRPDC.  
*KC Filippino reviewed the current membership and announced a call for nominations of potential at-large members. There were questions raised about co-chairs being at-large members and whether they need to be nominated to continue their role. KC Filippino and Karl Berger were nominated.*

**Action:** LUWG members and interested parties are encouraged to nominate at-large members via email to the LUWG leadership ([pclagget@chesapeakebay.net](mailto:pclagget@chesapeakebay.net); [kfilippino@hrpdcva.gov](mailto:kfilippino@hrpdcva.gov); [kberger@mwkog.org](mailto:kberger@mwkog.org); [pickford.jacqueline@epa.gov](mailto:pickford.jacqueline@epa.gov)) by **COB Wednesday, Sep 29th**.

**Action:** Jackie Pickford will work with GIT6 to clarify questions raised about the at-large voting process.

WQGIT Land Use Change Product Decision Item Update – Peter Claggett, USGS

*Peter Claggett informed the group that the WQGIT unanimously approved the 2013-2017 land use change data as the best available data to inform CAST-21, with the caveat that some adjustments will be made to minimize the potential for double counting timber harvest.*

- **Norm Goulet** suggested that the calculations should be compared to the numbers of what the Virginia Dept of Forestry (DOF) submits. He also raised a concern that this change will have implications on the data beyond the loads.
  - **Peter Claggett** assured him that Sarah McDonald is working on a classification of the change that will have more classes (25-30 classes), which will allow us to provide localities with much more detailed information on how the land is changing, to complement what is in CAST.
- **James Martin** suggested an alternative approach (taking the amount of forest that went to development as a percentage of the total forest loss and taking the amount of MO that went to development as a percentage of total forest loss, apply the sum of those two percentages to the forest change to get development, and the rest will likely grow back into forest.)
  - **Peter Claggett**: The reason we chose this particular method is because we wanted to minimize the potential for double counting without diving into too many manipulations that could potentially have other consequences. The FWG task force will dive deeper into this in the upcoming months.
- **KC Filippino**: Why weren't any assumptions made that forest clearing went to ag?
  - **Peter Claggett**: There's some but it's not something we see that often. We base it off context and what the cropland data layer tells us. It's challenging to validate that though.
- **Norm Goulet**: Would one way to constrain the impact be to limit this conversion within the land river segments within the states that report forest harvesting? For example, if there's no forest harvesting happening in the city of Manassas then can we not apply this to that area?
  - **Peter Claggett**: Yes, I think we could do that.
  - **KC Filippino**: Can we go a step further and say the ones that don't report would have to pick this method or the 1.5%?
  - **Olivia Devereux**: The problem with that is that Peter is doing the LU once every two years and we're getting the data annually, so I don't think that would work.
  - **Peter Claggett**: Yeah, there can be issues with reporting.
  - **Dave Montali**: Right, there's a myriad of issues that need to be addressed. WV harvested forest isn't correlated with what you're seeing in the LU change and I would like to understand why to address it in detail moving forward. It's easy to make a mistake if we try to do this in a couple of weeks.
  - **James Martin (in chat)**: CAST21 will be out for Partnership review so we will have a chance to look at the effect of this change throughout the watershed and at any scale.

**Action:** Peter Claggett will distribute a detailed description of the adjustment of land use acres to avoid double counting timber harvest acres in the land use change data product.

Feedback on CAST-21 Process - Peter Claggett, USGS.

*LUWG members provided the following feedback on the CAST-21 process:*

- *The approach of utilizing prototype counties for the review process was effective, but there were issues with running the land use using draft land cover before the land cover errors were fixed.*
- *In the future, it would be beneficial to have a more organized approach to the review process and hopefully utilize project management tools. See specific recommendations below.*
- *Further discussion about updating the land use classification in CAST23 needs to occur. See discussion below.*

**CAST23 Discussion:** The group discussed CAST23 and whether or not the land use classification should stay the same due to a shorter review period.

- **Norm Goulet:** I would suggest that we don't change the land use classification moving forward for CAST23 because we'll have a shorter time frame.
- **Arianna Johns (in chat):** I agree with Norm. Stability is good.
- **Dave Montali:** If we do revise for CAST23, it gets very confusing to have two different sets of land uses, so maybe there's a way to separate the future classification schema out of that.
- **James Martin (in chat):** Is the process for the 2021 imagery going to be the same as this v1 change product or will it be like the v2 change product?
  - **Rachel Soobitsky (in chat):** James, ideally, we would only have one version of the 2021 data instead of doing a V1 and V2. The only reason we would need to do different versions is if the timing doesn't work out smoothly with the NAIP release and the CAST23 deadline.
  - **Peter Claggett:** We'll have a separate discussion of the CAST23 process and not muddle it with that timeline. It's going to be insanely challenging for CAST23. A version 1 and V2 are probably going to be needed but depends on how good the initial land cover is and when we get the 21/22 imagery for each state.
  - **James Martin:** The hard part of the deadline isn't the development process, it's that the 21/22 imagery probably won't be available in time.
  - **KC Filippino:** Perhaps next time we can do priority states, as opposed to counties, because we won't have VA or PA data.
- **Mark Dubin** mentioned that USDA-NASS will be producing a new Census of Agriculture in 2023 based on a 2022 producer survey which may produce a need to make adjustments to land uses based on the new ag data being incorporated.
  - **Olivia Devereux (in chat):** We will incorporate the new Ag Census Data whether Peter's team provides new data. Incorporating the ag census crops and pasture is not dependent on anything Peter's team does.

#### **Organizational Feedback**

- **Lisa Beatty:** I'd like to request a cognitive effort to organize the process, for example, making definitions clear and in the beginning of presentations, having a Gantt chart to reflect the process, having clear timelines, referencing the correct source, posting the presentation on the website before the meeting so we can provide feedback and prep.
- **James Martin** suggested that CC utilize a project management professional to help clearly outline and manage the process, work flows, change decisions, and deliverables.
  - **Arianna Johns (in chat):** I agree a dictionary of various definitions of commonly used terms/acronyms would be great just to ensure we are speaking a common language, and stable timelines before the process. I was just about to suggest a PMP.
- **Ellen Mussman (in chat):** Comments from Deb Sward:

- Recommend clear review schedules so we can give local reviewers a heads up and engage them when their feedback matters most
- Would it be helpful for the Bay Program to engage test counties directly in the review (the way they did with the land cover data)? Without clear review timeframes, we ended up in a tricky position of having to inform test county staff about shortened review timeframes, unexpected revisions to data already sent for their review, etc.
- It may be helpful for states and/or CBP to gauge county interest in participating in reviews when selecting test counties.
- When data are updated and sent for our review multiple times, it would be helpful to receive a description of exactly what changed and be able to compare the before/after versions of web maps, tables, etc.

**Action:** Please provide all other feedback on the CAST-21 Process to the LUWG leadership ([pclagget@chesapeakebay.net](mailto:pclagget@chesapeakebay.net); [kfilippino@hrpdcva.gov](mailto:kfilippino@hrpdcva.gov); [kberger@mwcog.org](mailto:kberger@mwcog.org); [pickford.jacqueline@epa.gov](mailto:pickford.jacqueline@epa.gov)) by **COB Tuesday, Oct 5th**.

Timelines for Version 2 Land Cover/Land Use Data - Rachel Soobitsky, Chesapeake Conservancy. *Rachel Soobitsky reviewed the upcoming timelines for finalizing Version 2 of the land cover, land use, and change product data due February 2022. James Martin asked if the final V2 LU/LC will be 2017 land use and the 2013-2017 land use change products and Rachel confirmed. Peter Claggett confirmed that for CAST23, version 1 will be replaced with version 2 for the 13-17 window. Rachel noted that the Conservancy is receptive to feedback about how this data should be distributed to folks when it becomes available. Olivia Devereux suggested speaking with Jason Keppler about formatting and distribution of the data.*

Discussion on LU Methods and Metrics Outcome - Peter Claggett, USGS. *Peter Claggett led a discussion with the LUWG on the Land Use Methods and Metrics Outcome. The LUWG requested automating fact sheets on tree canopy change, extracted lands, and impervious growth (see additional details below). Karl Berger suggested releasing the V2 data on the watershed scale, and Olivia Devereux requested a tabular data product by NHD catchments.*

#### **Automating Fact Sheet Discussion**

- **KC Filippino** suggested automating fact sheets on tree canopy change for counties would be a useful product at the local level.
  - **James Martin:** I agree. It would mesh well with some of the products coming out of the local leadership workgroup with their educational series on keeping trees. So tree canopy loss would be an important piece of the puzzle.
  - **Peter Claggett:** Are there other land use changes that you'd like to see fact sheets on?
  - **Lisa Beatty:** Extracted lands. And differentiating AMD from oil and gas. Hopefully we can explore point data to parcel data for oil and gas. For extracted lands, including details such as how you mapped it, how it was represented, maybe some of the high level processes to incorporate them into the land cover/land use, even some of the challenges of having point data and how it's better to have parcel data.
  - **KC Filippino:** Imperviousness growth.

- **Lee Epstein:** Loss of trees/forest. Gain of impervious surface. Those are the two big things aside from growth in certain land uses like animal ag. But in terms of impact on the land, it's those two.
- **Karl Berger** suggested releasing the V2 data by HUC2, 8, 10, 12, rather than solely on a county scale.
  - **Olivia Devereux** asked for a tabular data product separated by NHD catchments.

#### **Other Suggestions**

- **James Martin:** I wonder if your 'number two' bullet point could be expanded to a broader group of Bay Program outcomes rather than just habitat and water quality. Ultimately the product should build something that will change local gov behavior. Perhaps you could use your ability to forecast trends at the current rate of growth to tell local gov when different areas would/could shift into the world of MS4s for regulated urban areas, and that could potentially change their behavior.
  - **Peter Claggett:** Our ability to do that depends on the census data.
  - **James Martin:** I'm just trying to tie it back to something that local governments will care about. Might be worth asking some local government groups to see what they think might help local decision makers change behavior.
  - **KC Filippino:** I think the data is what is most important. How it's presented is up to those who bring it to the locals.
- **James Martin:** I like the idea of additional cubic yards of run off in a one inch rainfall or something like that.
- **Lisa Beatty:** Kelly Shenk might have some information about messaging. I'm happy to meet offline about the AMD/extractive land stuff.
- **Peter Claggett:** Moving forward we'll want to narrow down a list of products and messages with that outcome. We also need to discuss impacts to communities and what we mean by that.

**Action:** The LUWG is encouraged to provide any other feedback on the Land Use Methods and Metrics Outcome to Peter Claggett ([pclagget@chesapeakebay.net](mailto:pclagget@chesapeakebay.net)) by **COB Tuesday, Oct 5th.**

Priorities for WQGIT Phase 7 Meeting – Peter Claggett, USGS.

*This agenda item was postponed to the October meeting. The LUWG will be asked to provide feedback on any changes in land use inputs they would like to see incorporated into Phase 7 of the Model.*

Meeting Adjourned

**NEXT MEETING:** Thursday, October 7th from 1:00 - 3:00 PM.

Meeting Chat

From Olivia Devereux to Everyone: 01:33 PM

Only DE and NY use the 1.5 of forest. All other states are submitting their harvested forest acres.

From Ted T to Everyone: 01:34 PM

PA's reporting is only harvesting on public land

From Olivia Devereux to Everyone: 01:35 PM

MD state land is a unique situation. PA reporting is appropriate. Hopefully PA can get the private land in the future.

From Me to Everyone: 01:35 PM

For those interested in the Watershed Technical WG call tomorrow:

[https://www.chesapeakebay.net/what/event/watershed\\_technical\\_workgroup\\_conference\\_call\\_september\\_2021](https://www.chesapeakebay.net/what/event/watershed_technical_workgroup_conference_call_september_2021)

From James Martin to Everyone: 01:45 PM

CAST21 will be out for Partnership review so we will have a chance to look at the effect of this change throughout the watershed and at any scale.

From Rachel Soobitsky to Everyone: 01:50 PM

My presentation is quick!

From James Martin to Everyone: 01:59 PM

Is the process for 2021 imagery going to be the same as this v1 change product, or will it be like the v2 change product?

From Arianna Johns to Everyone: 01:59 PM

I agree with Norm. Stability is good

From Rachel Soobitsky to Everyone: 02:00 PM

James, ideally we would only have one version of the 2021 data instead of doing a V1 and V2. The only reason we would need to do different versions is if timing doesn't work out smoothly with NAIP release and the CAST 23 deadline

From Mark Dubin to Everyone: 02:04 PM

In response to the comments regarding the CAST-23 updates, I would note that USDA-NASS will be producing a new Census of Agriculture report in 2023 based on a 2022 producer survey. Thus, I can see a need to make adjustments to land uses based on new agricultural data being incorporated.

From Olivia Devereux to Everyone: 02:05 PM

We will incorporate the new Ag Census whether or not Peter's Team provides new data. Incorporating the Ag Census crops and pasture is not dependent on anything Peter's Team does.

From James Martin to Everyone: 02:05 PM

@Mark - do you think the 2022 ag census data will be available by Sept 1 2023

From James Martin to Everyone: 02:10 PM

@ Rachel - Does CC have a certified project management professional that could help clearly outline and manage the process, work flows, change decisions and deliverables

From Mark Dubin to Everyone: 02:11 PM

James - USDA-NASS releases the Census of Agriculture report the year following the survey, but when exactly it will be available varies.

From James Martin to Everyone: 02:13 PM

Thanks Mark. I guess Sept 1 is the data for decisions on what to include...maybe there is another month or two to actually have the data.

From Rachel Soobitsky to Everyone: 02:13 PM

James, I don't believe we have any staff members on our GIS team that have their PMP certificate. However we are looking to have our management team take some formalized trainings in the coming months. I do believe our lessons learned from the last 3 years will be crucial to help better prepare for the next 3 years.

From James Martin to Everyone: 02:15 PM

A PMP could really help smooth the process, and frankly, one of the biggest benefits will be reducing risk to CC.

From Rachel Soobitsky to Everyone: 02:16 PM

Thanks Lisa!!

And yes James, I will give that feedback to our VP of Technology and maybe we can invest in someone getting one or hiring someone with one

From Arianna Johns to Everyone: 02:16 PM

I agree a dictionary of various definitions of commonly used terms/acronyms would be great just to ensure we are speaking a common language, and stable timelines before the process.

Thanks James I was about to suggest that PMP!

From dave montali to Everyone: 02:17 PM

I was under the assumption that a new Ag census would not be available for C23. In the coming months as we talk about using change from new imagery in C23, we absolutely need to know.

From Peter Claggett to Everyone: 02:18 PM

The 2020 Decennial Census of Population and Housing will also be released in time for CAST-23 which will have a sizable impact.

From James Martin to Everyone: 02:19 PM

CAST23 should also include significant improvements to the Land Change model.

From Peter Claggett to Everyone: 02:20 PM

Yes- the CBLCM will be significantly updated- informed by 8 years of high-res change and Census block level changes in population, housing, and employment from 2010-2020.

From Ellen Mussman, MDP to Everyone: 02:20 PM

Comments from Deb Sward:

- Recommend clear review schedules so we can give local reviewers a heads up and engage them when their feedback matters most
- Would it be helpful for the Bay Program to engage test counties directly in the review (the way they did with the land cover data)? Without clear review timeframes, we ended up in a tricky position of having to inform test county staff about shortened review timeframes, unexpected revisions to data already sent for their review, etc.
- It may be helpful for states and/or CBP to gauge county interest in participating in reviews when selecting test counties
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From Olivia Devereux to Everyone: 02:24 PM

The 2022 Ag Census is expected to be released in Spring of 2024. That means it will not be incorporated in the CAST-23 version, as was previously said.

From Mindy Neil to Everyone: 02:32 PM

Will the artificial intelligence used with LC be locked in after the Version 2 work is done? Or will UVM be making additional changes to interpret imagery before CAST 23? Seems like leaving the LC rules the same would keep apples to apples when developing LU change for CAST 23. Meaning, if LC is derived differently, then LU change detected may due to changes in LC. rather than resulting from real on the ground change.

From Rachel Soobitsky to Everyone: 02:37 PM

Mindy, UVM will continue using the same methodology for identifying LC change between dates, other than potentially inputting better quality data (like the data Peter is mentioning buying). Class definitions are remaining the same to make sure it is still apples to apples

From Lisa Beatty, PA DEP to Everyone: 02:52 PM

@Lee Epstein CBF Lee - thank you for your comments. If you would like to further discuss offline please let me know. My email is elbeatty@pa.gov

## Participants

Jackie Pickford, CRC  
KC Filippino, HRPDC  
Karl Berger, MWCOG  
Mindy Neil, WV DEP  
Lori Brown, DNREC  
Arianna Johns, VA DEQ  
Lisa Beatty, PA DEP  
Young Tsuei, DOEE  
Jeff Sweeney, EPA  
Rick Turcotte, USDA Forest Service  
Rachel Soobitsky, Chesapeake Conservancy  
Shannon Mckenrick, MDE  
Olivia Devereux, Devereux Consulting  
Lee Epstein, CBF  
Andrew Szwak, Land Trust Alliance  
Patrick McCabe, Chesapeake Conservancy  
Ted Tesler, PA DEP  
Dave Montali, Tetra Tech WV MWG  
Sarah McDonald, USGS/CBP  
Nicole Christ, MDE  
James Martin, VA DEQ/WQGIT  
Ellen Mussman, MDP  
Tori Nelson, USGS/CBP  
George Onyullo, DOEE