

## CHESAPEAKE BAY PROGRAM LAND USE WORKGROUP

### Conference Call Meeting Minutes

July 14<sup>th</sup>, 2021

1:00 PM – 3:00 PM

Meeting Materials: [link](#)

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

**Decision:** The LUWG approved the [May 20th Meeting Minutes](#).

**Action:** The LUWG will review the land use change product and the measured (i.e., mapped, observed) vs modeled change for the August meeting. Peter and the Conservancy will work on providing the information requested by the LUWG (see below) to make their decision about using the measured vs modeled data.

**Decision Requested at the August Meeting:** The LUWG is asked to endorse the use of the land use change product as the “best available data” to inform CAST-21.

1:00 Welcome, Roll Call, Review of Meeting Minutes, Action Item Update – KC Filippino, Hampton Roads Planning District Commission (10 min.)

#### Announcements:

- **Decision:** The LUWG approved the [May 20th Meeting Minutes](#).
- Next Meeting: **Wednesday, August 4th from 1:00 - 3:00 PM.**

1:10 Update on Land Use Change Data for CAST-21 – Rachel Soobitsky, Chesapeake Conservancy.

*Rachel gave [an update](#) on the land use change data for CAST-21 and presented a prioritized list of identified errors and fixes to the data.*

#### **Discussion**

“Lessons learned” document

The CIC plans to produce a “Lessons Learned” document. The LUWG requested that the document includes broader workgroup-related lessons along with the technical content. In a future meeting, we will dedicate time for the LUWG to provide feedback on what could be done better next time around, which Rachel will bring back to the Conservancy for inclusion in the document.

Overclassification of Impervious

[KC Filippino](#) noted she had been seeing an overclassification of impervious in Virginia’s land cover data, particularly around structures. [Rachel Soobitsky](#) said it was most likely attributed to different spectral signatures in the NAIP data. UVM has been notified of this and it will be corrected in Version 2. She is not sure if the issue shows up in the Land Use Change.

Deadline for the review of Land Cover

[Lisa Beatty](#) asked if there was a deadline for the review of the Land Cover data. [Rachel Soobitsky](#) noted that the deadline will be more flexible now that they have Version 2 coming out. She is meeting with UVM on Tuesday to discuss the priority order for their QA/QC process, which will give her a better idea of the upcoming timeline.

1:30 Comparison of mapped vs modeled land use change data – Peter Claggett, USGS.

*Peter presented a comparison of mapped vs modeled land use change data for the Chesapeake Bay watershed to illustrate the differences.*

## **Discussion**

### **Change in Forest to Timber Harvest**

- [Dave Montali](#) asked for clarification about the loss of forest changing to timber harvest.
- [Peter Claggett](#): The way reported/calculated timber harvest is handled in CAST currently causes us to double count for the 2017 the timber harvest acres because they will be reported and taken out of forest, but they actually roll up to mixed open.
- [Olivia Devereux](#): The states report construction acres and harvested forest acres, and those are pulled out of the appropriate land uses. The harvested forest acres are pulled from forest. If the methods change for that, it will change how the data is processed in CAST.
- [James Martin](#): How do we avoid continuing that problem in the forecast of forest loss? Should the forest to mixed open component be excluded or partially excluded for that projection?
- [Peter Claggett](#): It is already excluded. They are only projecting urbanization, so in the projected changes from 2017 to 2025, forest loss will be associated with urbanization. They are not projecting the transitions between forest and mixed open.

### **Misclassification of Impervious**

- [James Martin](#) noted the misclassification of impervious and the unlikeliness of these transitions, especially in the magnitude they are showing up.
  - [Peter Claggett](#) stated that it's likely a rule issue from UVM, not a land cover issue. He is meeting with UVM on the 20th to discuss their work plan, and that will involve looking into some of these errors such as overclassification of impervious.
  - [Karl Berger](#) mentioned that CAST will likely not see the loss, but the net gain.

2:00 Group Discussion – All.

The LUWG postponed the decisional item for the August meeting, requesting the following information in the meantime:

### **Concerns Raised by LUWG**

- Misclassification of impervious.
- Misclassification of forest to cropland or pasture (when it should be mixed open).
- Misclassification of mixed open to developed (when it should be crop or pasture to developed).

### **Requests by the LUWG for the August Decision Item**

- VA, PA, and DE requested more information on the accuracy of misclassification of agriculture and mixed open, as well as forest and mixed open. Want to quantify what acres are “unsure”.
- NY requested modeled vs measured tables clipped at the watershed border.
- All requested a few more weeks to review the data.

## **Discussion**

### **Ag Census**

- [Peter Claggett](#) clarified for the group that the data being shown here is different from the CAST data because he is not accounting for the ag census. Currently, in CAST-19, the ag census data gets balanced with the information he provides on urbanization. He also clarified that the AgWG independently made a decision to exclude the ag census acres of production to determine the footprint of agriculture, which leaves the land change model as the input to CAST-21.

## Misclassification of Mixed Open

- [KC Filippino](#) asked about the forest to mixed open misclassification and if the Conservancy was able to quantify how much of the error was fixed. [Sarah McDonald](#) clarified that this was only partially fixed because they don't have statewide harvested forest data from VA. They are unable to get an error assessment of that without some verification data. [Rachel Soobitsky](#) said they might be able to use the harvested forest data for Version 2 if it was provided to them in time.
- [James Martin](#) noted the overclassification of agriculture when it should be mixed open. This issue then causes the model to confuse change based on what the 13 data was classified as (ex. confusion between mixed open to developed or crop/pasture to developed). [KC Filippino](#) added that for forest loss, it was unclear if it was mixed open or in succession at the time.
  - [Peter Claggett](#) mentioned the quality of lidar and imagery may have caused the misclassification. In the future, he wants UVM and the Conservancy to remedy with 2021/2022 data and then retrospectively remedy data back in time.
- Both [James Martin](#) and [KC Filippino](#) agreed that it was difficult to tell if the modeled or measured data is better when there are so many misclassifications in the 13/14 data.
- [Peter Claggett \(in chat\)](#): What I'm hearing is the biggest concern is the confusion between Agriculture (AG) and Mixed Open (MO). This would affect:
  - FOR -> AG vs FOR -> MO
  - MO -> FOR vs AG -> FOR
  - AG -> DEV vs MO -> DEV
- [Peter Claggett](#) mentioned the possibility for CIC or USGS to identify the issues regarding forest to ag. If it was possible, both time-wise and feasibility-wise, he suggested that all 206 counties could be re-run. [Sarah McDonald](#) and others at the Conservancy stated there would be challenges with finding and fixing those errors in a short time frame and it could cause more errors unintentionally. They concluded that it would most likely not be possible to re-run the counties for a decision at the WQGIT in August, and that this is the best available data for now, which is likely still better than the modeled data.

## UPDATED TIMELINE

July 14-Aug 4: The LUWG will review the land use change product and the measured (i.e., mapped, observed) vs modeled change for the August meeting. Peter and the Conservancy will work on providing the information requested by the LUWG to make their decision about using the measured vs modeled data.

July 26th: The WQGIT is presented with CAST data on 2017 land use conditions (via Tableau) comparing CAST-17d, CAST-19, and CAST-21 for all counties in the watershed.

August 4th: The LUWG is asked to endorse the use of the land use change product as the "best available data" to inform CAST-21.

August 23rd: The WQGIT decides whether to approve use of the high-res land use change data in CAST-21.

**Action:** The LUWG will review the land use change product and the measured (i.e., mapped, observed) vs modeled change for the August meeting. Peter and the Conservancy will work on providing the information requested by the LUWG (see below) to make their decision about using the measured vs modeled data.

**Decision Requested at the August Meeting:** The LUWG is asked to endorse the use of the land use change product as the "best available data" to inform CAST-21.

3:00 Adjourn

**NEXT MEETING:** Wednesday, August 4th from 1:00 - 3:00 PM.

### **Participants**

Karl Berger, MWCOG  
KC Filippino, HRPDC  
Peter Claggett, USGS  
Jackie Pickford, CRC  
Cassandra Davis, NYSDEC  
Mindy Neil, WV DEP  
Lori Brown, DNREC  
Deborah Sward, MDP  
Arianna Johns, VA DEQ  
Lisa Beatty, PA DEP  
Nicole Christ MDE  
Rachel Soobitsky, Chesapeake Conservancy  
Patrick McCabe, Chesapeake Conservancy  
Jacob Czawlytko, Chesapeake Conservancy  
Olivia Devereux, Devereux Consulting, Inc.  
Sarah McDonald, USGS, CBP  
Norm Goulet, Urban Workgroup  
Lee Epstein, CBF  
Ted Tesler, PADEP  
Travis Stoe - PADEP  
James Martin, VA DEQ, WQGIT  
Mark Symborski, M-NCPPC  
Dave Montali, Tetra Tech, WV

### **Meeting Chat**

From Alana Hartman, WVDEP to Everyone: 01:01 PM

this land is your land...

From Olivia Devereux to Everyone: 01:02 PM

That is a good one. How about Choptin Etude Waterfall.

[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjFjvPthOPxAhWdMVkFHdn-](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjFjvPthOPxAhWdMVkFHdn-DiQQwqsBegQICxAB&url=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DnDyBzloNKhU&usg=AOvVaw0et9b-cT2G5r5KFNwpWXyd)

[DiQQwqsBegQICxAB&url=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DnDyBzloNKhU&usg=AOvVaw0et9b-cT2G5r5KFNwpWXyd](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjFjvPthOPxAhWdMVkFHdn-DiQQwqsBegQICxAB&url=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DnDyBzloNKhU&usg=AOvVaw0et9b-cT2G5r5KFNwpWXyd)

From Rachel Soobitsky to Everyone: 01:35 PM

Yeah I've noticed some new man made ponds in new neighborhoods and such

Mixed open includes: pervious solar field, suspended succession, natural succession, harvested forest, bare developed, extractive, and bare shore

From Mark.Symborski to Everyone: 01:42 PM

We took a look at the modeled land use changes in Montgomery County. The model seems have detected actual changes pretty well. But it is showing a lot of changes that did not happen. In

particular, it greatly overstates changes throughout existing neighborhoods. For example, it shows lots of grass on buildings.

From Rachel Soobitsky to Everyone: 01:44 PM

Thank you Mark- that may be related to remaining LC issues that will hopefully be fixed by V2. We'll take a closer look!

From Rachel Soobitsky to Everyone: 02:02 PM

I think the Accuracy Assessment will help with determining that, too

From Lisa Beatty, PA DEP to Everyone: 02:03 PM

Will the accuracy assessment come after the Land Use change is part of CAST21 or before?

From Rachel Soobitsky to Everyone: 02:04 PM

based on our workplan, the accuracy assessment has always been planned for year 4, which is after incorporation into CAST

From Rachel Soobitsky to Everyone: 02:08 PM

sorry I lost wifi for a second, I am back now

From James Martin to Everyone: 02:14 PM

Sorry all. I need to jump to another meeting

From Lisa Beatty, PA DEP to Everyone: 02:21 PM

We would like more information on the misclassified Ag/transitional acres. Want to quantify what acres are "unsure".

From Deb Sward to Everyone: 02:33 PM

I may be having an audio issue

From Peter Claggett to Everyone: 02:33 PM

What I'm hearing is the biggest concern is the confusion between Agriculture (AG) and Mixed Open (MO). This would affect: FOR -> AG vs FOR -> MO; MO -> FOR vs AG -> FOR; AG -> DEV vs MO -> DEV

From Lori Brown (DE DNREC) to Everyone: 02:48 PM

It is an impressive amount of work the team has done!

From Rachel Soobitsky to Everyone: 02:49 PM

Lisa- I guess the answer to your earlier question- we have time to ask those 2 other counties for their input now!

Thanks Lori!

From Lisa Beatty, PA DEP to Everyone: 02:49 PM

Rachel - can you please give me a due date for you?

From Rachel Soobitsky to Everyone: 02:50 PM

I would think anytime prior to the August meeting

Peter is right I am going to disagree on that lol. This was supposed to be final V1 data, according to timeline and budget, etc. we do not have time to re-run right now not to be negative!

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

Rachel - I will give them July 28th.