

Chesapeake Bay Program Land Use Workgroup Meeting

November 20, 2014

10:00AM-3:00PM

Meeting Summary

Summary of Action and Decision Items:

ACTION: Peter Claggett and his team will work with the Chesapeake Conservancy to draw up an outline of the benefits of this data collection and present it to the Bay Program Partnership.

ACTION: Peter's team and MDE will work to develop a defined set of phase 6 land use rules to be applied to the Bay Watershed.

ACTION: Emma Giese (CRC) will send out a Doodle poll to schedule a January 2015 meeting.

Welcome and Introductions – Karl Berger (Co-Chair)

- Karl Berger convened the meeting and verified call participants.
- Berger: We are actively searching for a co-chair for the Land Use Workgroup.

WQGIT meeting recap and review of LUWG responsibilities for the 2017 MPA – Karl Berger

- Karl reviewed the LUWG responsibilities outlined in the Mid-Point Assessment detailed schedule, and recapped LUWG-related decisions from the October WQGIT Face-to-Face meeting.
- For more information, please see Karl's [summary document](#).

Discussion:

- Peter Claggett (USGS): Trend scenario is running a Bay Program model simulation based on land use trends out to 2025. The model is always open to tweaking, it is just a matter of how long some tweaks may make.
- Berger: Are jurisdictions comfortable with their level of input into the land change model?
 - Jeff White (MDE): Maryland is fine with our level of input into the land use model.
 - Ted Tesler (PA DEP): Pennsylvania would like to see the model so we can better understand the algorithms and methodology that goes into the forecasting.
 - Brian Bloch (DE DNREC): Delaware would like to see how our 2012 land use data compares to the land use change model.
 - Mary Gattis (Alliance for the Chesapeake Bay): Local Government Advisory Committee (LGAC) would like to be included so we can help with messaging. Maybe working behind the scenes, I can brief LGAC on how the information is presented.
- Darold Burdick (Fairfax County): Was TetraTech taking a second shot at collecting data?
 - Claggett: TetraTech got data for an additional 8 counties but they are finished now. The Bay Program is going to tell jurisdictions that if the gaps in the datasets are a problem for them, that they have to go out and collect that data themselves.
- Steve Stewart (Baltimore County): What takes precedent when the new VGIN data comes in?
 - Claggett: That is a conversation we will have when May 2016 gets a little closer. Jurisdictions can tell us what most accurately reflects their conditions.

- Burdick: Did the modeling group determine that these other land uses (riparian, urban tree canopy etc.) have different loading rates?
 - Claggett: No one has made a decision yet, but there are panels working on determining that.
- Bill Keeling (VA DEQ): April 30th is the drop dead decision on determining those land uses. If they are considered for BMPs, do we need to worry about them as land uses?
 - Claggett: If the panel comes up with a BMP efficiency and you have it as a land use, we can apply that efficiency to the existing land use. They take up acreage and we have them mapped, so we should still consider them as land uses. We will model and infer land use conditions in the past.
 - Berger: There are many local governments who want credit for what is already on the ground, so we should keep investigating this.
 - Burdick: If this is done again in the future, if we capture it now we will have a nice benchmark moving forward.
- White: How will federal facilities be reporting their land uses?
 - Claggett: They will be putting in their actual land use.
- Berger: After February 2015, we will present the federal facilities data to the LUWG.

Land use metrics and methods outcome management strategy – Peter Claggett

- Peter provided an overview of the options available to meet the land use metrics and methods outcome outlined in the 2014 Bay Agreement.
- For more information, please see his [presentation](#).

Discussion:

- Berger: With regards to the roles outlined on slide 15, the first two are for the LUWG, but the last two may be beyond our group?
 - Peter: The healthy watersheds goal team may take the lead on the last two, but we can tackle a number of these issues.
- Burdick: We are looking at having local TMDLs driving what happens at development site. I would think it definitely will impact water quality.
 - Claggett: I don't think we should just use coefficients from the watershed model without giving it a little more thought.
- Peter: We need a March decision on the methodology.

Land use metrics outcome in the Chesapeake Bay Agreement – Jeff Allenby (Chesapeake Conservancy)

- For more information please see Jeff's [presentation](#).

Discussion:

- Berger: Where will funding come from for this project?
 - Allenby: A contract with Virginia would take care of that portion, which makes up roughly half of the total cost. We have been talking with states and the Bay Program,

but states may be chipping in to the overall pool. Not all of the funding is figured out yet, but we are working on it.

- Claggett: Was there any feedback from the Management Board?
 - Allenby: Everyone was in favor, but no one was enthusiastic about the funding. They know there is a need for the high resolution datasets.
- Berger: If and when you do areas that already have good data sets, will you compare and reconcile your data with their data?
 - Allenby: We haven't had to do that yet but we will if they have good data, we will certainly look at it.
- Berger: How will this fit in with what we are doing? It seems Jeff's efforts do not fit into the timeframe for the first iteration of the phase 6 model?
 - Claggett: We have until May 2016 to get local data, so if in the next 6 months the Conservancy gets funding to fill in local data gaps, we can use the data. Getting at least one wall-to-wall land use coverage even as a baseline, would be so tremendously helpful for the Bay Program's objectives.
- Berger: Would this data be useful to states?
 - Tesler: There is definitely a value in it. I think 30m resolution in the northern parts of the state is adequate. We would benefit from having the detailed 1m resolution in riparian areas and it would better inform the modeling.
- Claggett: Why don't we draft up some language and we will circulate that for people to weigh in on for a recommendation to the WQGIT that an investment be made in higher resolution land use, and identifying key areas.
- Berger: I hesitate because in the Baltimore-Washington metro area where there is already high resolution data, the states might take away funding for this data collection and spend it elsewhere. If this is done quickly, is it likely to be funded on a state-by-state basis? Would it be helpful for Peter and his team to frame this in terms of where we have data, where we don't, and where this will fit in?
 - Claggett: We can make a recommendation to the GITs on the LUWG's perspective. We can pull outcomes from the Bay Agreement and phase 6 model development that would benefit from this data.
- Lee Epstein (CBF): Is the estimated cost dependent on students doing the digitizing?
 - Allenby: It is already included in that number. It is an added cost of about \$300,000-400,000 and we could do it without them, but I think having that data is worth the extra cost.
- Keeling: My concern is that if this isn't phrased right, Virginia would not pay for it.
 - Claggett: I had that concern initially as well. We might not want to put dollars to any of this, just make it a technical recommendation.

ACTION: Peter Claggett and his team will work with the Chesapeake Conservancy to draw up an outline of the benefits of this data collection and present it to the Bay Program Partnership.

MD methodology for developing phase 6 land use data set – Jeff White and Shannon McKenrick (MDE)

- For more information, please see Jeff and Shannon's [presentation](#).

Discussion:

- Berger: Is it your intention to use the Baltimore County-specific data because you have it, but use a more general default for everywhere else?
 - Stephanie Martins (MDE): Yes, we would like to start with state data, and see how much better vision we get by using Baltimore County data.
- Claggett: For the leftover parcels (greater than 5 acres) are you considering that developed open space?
 - White: We wanted to do more developed analysis, but the assumption is it is Ag plus developed open space.
- Keeling: How are you distinguishing winter wheat or winter small grain from turf?
 - White: It is very difficult to distinguish those but we are doing it as carefully as possible.
- Claggett: I had the assumption the partners wanted a single dataset that they could look at and visualize, rather than a tabular approach. Is that this group's impression as well that we actually have a map of the phase 6 land use.
 - White: I think counties now understand that the data is tabular. My impression now is that there is not as much of an issue with the data being tabular.
 - Burdick: I think Fairfax is looking for a map.
 - Tesler: I think they are going to want both. I think they are going to want to know what is being called what, but I think the localities may want to see a spatial representation.
- Berger: Maryland methodology looks good to me even though it may be a challenge to get it done by the deadline. But this will not necessarily be adopted as the bay-wide methodology, it is a state-by-state exercise to decide if they want to use this methodology or another.
 - Peter: Yes, but there have to be standard rules for similar datasets regardless of your location in the watershed. We may need to have a spatial dataset that at least represents to some degree what figures into the tabular dataset.
- Berger: Then Peter will have to write out the distinctions between the different land uses so that they are a clearly defined set of rules.
 - Claggett: We collectively will have to do that, because MD has already made a great deal of progress, for instance. I am hoping other jurisdictions take on this similar challenge and we will build it together.
- Keeling: What happens if spatially refined data conflicts with NASS data?
 - Claggett: The NASS data should take precedence.

ACTION: Peter's team and MDE will work to develop a defined set of phase 6 land use rules to be applied to the Bay Watershed.

Alternative approaches to developing the phase 6 land use data sets – Quentin Stubbs (USGS)

- For more information, please see Quentin's [presentation](#).

Discussion:

- Berger: Is Ag classification something you are actually doing?
 - Claggett: We were going to try to do that with a cropland data layer. In the past we used the percent agriculture in each land river modeling segment from the NLCD. Now, we

could give the proportion of each crop category in each land river segment. It looks rough spatially, but you could use it as is, or you could smooth it out.

- Claggett: We propose we can go to 10m resolution because it seems to be a good compromise since we are reporting the same quantities, just coarsening it. We would take local data where we have it, and NLCD where we don't. What does the group think about having a 10m resolution?
- Stewart: What would the issues be with going to 5m resolution?
 - Claggett: The finest we have to DEM is 10m. We are not entirely sure the 5m will actually gain us much, but you can recognize development patterns pretty well at 10m.
- White: As long as the local data stays the same, we don't really mind the resolution being 10m visually.
- Stubbs: It is an issue of whether jurisdictions want to relate the map to functionality.
- Burdick: If the localities know that the data informing the model doesn't change but that pictorially it is coarser, I think the localities will be ok with that and can use it knowing that information.
- Berger: We want a decision rule that is applicable across all the states?
 - Claggett: That is what we are looking for unless we can really justify a reason for having a difference.

Riparian buffers, urban tree canopy, and urban stream corridors – Peter Claggett

- For more information, please see Peter's [presentation](#).

Discussion:

- No questions or comments were raised.

Future planning – Karl Berger

- The group will hold regular monthly meetings beginning in 2015.
 - Tentatively scheduled for the 4th Thursday of each month.
- MDE and CBP are working on phase 6 land use rules.

ACTION: Emma Giese (CRC) will send out a Doodle poll to schedule a January 2015 meeting.

Adjourn

List of Meeting Participants

Member Name	Affiliation
Karl Berger	MWCOG
Jennifer Tribo	HRPCD
Peter Claggett	USGS
David Wood	CRC

Lee Epstein	CBF
Alisha Mulkey	MDA
Jeff White	MDE
Shannon McKenrick	MDE
Stephanie Martins	MDE
David Newburn	UMD
Steve Stewart	Baltimore County
Ted Tesler	PA DEP
Bryan Bloch	DE DNREC
George Onyullo	DDOE
Bill Keeling	VA DEQ
Rachel Reese	TetraTech
Mary Gattis	Alliance for the Chesapeake
Jeff Allenby	Chesapeake Conservancy
Quentin Stubbs	USGS
Darold Burdick	Fairfax County