

**Chesapeake Bay Program
Land Use Workgroup
Meeting**

Monday, November 19th, 2012

10:00AM – 3:00 PM

Joe Macknis Memorial Conference Room (Fish Shack)

410 Severn Avenue, Annapolis MD

<http://www.chesapeakebay.net/calendar/event/18999/>

Welcome & Introduction

Updates: WQGIT Mid-point assessment priorities, collection of land use suggestions from workgroups, and inventory of local land use data. (Karl Berger and Jenny Tribo)

- Tribo—WQGIT meeting
 - Need to develop new loading rates. Some conversation about who would develop rates and how; workgroups have requested additional resources to accomplish this
- Comments/questions on draft work plan
- Peter Claggett: would like input on this initial list
 - Send comments
- Number of splits can easily multiply number of classes; need to be selective
- Lee Epstein: to what extent are we improving forest lands/wetlands etc?
 - Also on list, want to do this in conjunction with forestry workgroup
 - Will have meetings focused on agriculture or forestry; such a diverse effort, need to segment these and tackle them one at a time

Delaware Land Use Data (Hall)

- Bryan Hall and Bryan Bloch
 - [http://www.chesapeakebay.net/channel_files/18999/delaware_data_presentation.p
df](http://www.chesapeakebay.net/channel_files/18999/delaware_data_presentation.pdf)
 - He described Delaware's planning process, models, and data layers
 - Lots of great data on septic, but some historical data does not include installation, etc.
 - For land use classes, do not look at zoning, look at density, based on local data
 - Density parameters and assumptions
 - Participatory GIS
 - Phase I WIP identified effort for improved land use data and projections...
 - Work on phase 2 land use model; dwelling units are primary driver, determine taxes, wastewater etc.
 - Going through ESRI audit, identifying redundancies in datasets
- Ted Tesler: any breakout for federal lands?
 - Yes, but there are only 11 acres (post-office, and national guard); potential to shrink to 4 acres
 - Only MS4 permit is for New Castle county; currently under review

- Berger: cooperation between locals and state. How do land uses compare to 5.3.2?
 - Delaware's real focus is density.
- Claggett: will we be updating state land use using new aeriels?
 - That's the plan.
 - Timeline? Turnaround, with edits, about 6 months, but funding will add more time
 - Dubin: comment about irrigated land—we currently have an interim BMP for irrigated cropland, possibility of irrigated cropland as a land use, not management BMP.

Maryland Land Use Data (Baldwin)

- Stephanie Martins, MDP
- http://www.chesapeakebay.net/channel_files/18999/maryland_data_presentation_luwg_11-19-12.pdf
- Described MDP's land use/land cover datasets and land use types
- Future plans--to update around 2015, hope to update every five years
- Able to relate parcel database to sewer service areas; parcels outside are assumed to be on septic
- Jeff White, MDE
 - Collecting data from local jurisdictions on MS4 and stormwater
 - Potentially more counties with comparable datasets
 - Some counties have mapped storm drain systems (e.g. Charles county)
 - SHA has now also mapped their rights-of-way
 - MDE's priority is incorporating impervious cover data into 2017 model
 - Possible to distinguish regulated, non-regulated; connected, disconnected
- Questions
 - Dana York: what's the difference between row and garden crop?
 - In latest update did not focus on the sub-types of land use
 - Berger: locals' feeling about 2010 accuracy?
 - Depends on jurisdiction, but did work with locals to incorporate their suggestions and catch errors
 - Claggett: regarding very low density – could it be a lawn or small farm? Yes, could be either
 - Stewart: some homeowners use pasture to run horses, others do very simple maintenance; difficult to treat them as agriculture, need for minimum income to qualify as agriculture; mainly horses in Baltimore County, which don't qualify for cost share programs
 - Claggett: how do we adjust local data, standardize how we treat local information; important to consider what matters, what assumptions to make (do roads include paved or compacted shoulders, etc)
 - Steve Stewart: Baltimore County updated its comprehensive plan to focus on revitalization. MDP including such factors in their analysis? (Yes).

Lancaster County, PA Land Use Data (Gattis)

- http://www.chesapeakebay.net/channel_files/18999/gattis_pa_lancasterco_revised.pdf
- Land use/land cover data in Lancaster County, PA

- In process of updating database based on new imagery
- Mary Gattis and Patrick McKinney
- Regulated vs. unregulated classification
- Have done a country-wide assessment of existing tree canopy
- Have sewer-service area layer, not currently reliable due to changes in criteria over the years. Just finished water resources plan; everything outside these areas is assumed to be serviced by on-site systems
- PA Map program: imagery available for every county sometime between 2003-2008 (approx)
 - Some PA counties have excellent data
- Questions
 - Berger: have you compared CBP pervious/impervious data/estimates with Lancaster county data?
 - Gattis: Lancaster City has been assessing their impervious surfaces while they investigate a stormwater fee
 - Claggett: forthcoming paper compared local and CBP estimates.
 - Berger: would Lancaster data have ability to distinguish connected from disconnected pervious/impervious?
 - Gattis: not sure
 - Pre-1984 storm drains may not be included in the data
 - White: we have a contractor who is currently doing this analysis (in early stages...ICPRB?)
 - Fairfax county has done this analysis, but out-dated
 - Gattis: beginning to collect storm drain data, at municipal level as part of MS4. Some data is available, but not digitized. Getting it as localities get it, trying to help them maintain the data. Conservation district working heavily on agriculture piece.

Virginia Land Use Data (Mertig)

- Karl Mertig and Pam Cowher, Kimley-Horn
- http://www.chesapeakebay.net/channel_files/18999/virginia_data_presentation_luwg_11-19-12.pdf
- Project in Hampton, Virginia Beach, and Norfolk
- Used existing data sources
- Analysis showed Norfolk had 42% impervious cover, compared to 53% from Bay Model
- Virginia's RRM appears to generate more TN and TP than 5.3.2
- 5.3.2 land cover appears consistent in SE VA
- Questions
 - Shenk: TMDL. Many models can come up with differences. Changing the model doesn't change implementation. Difficult to judge against loads. Was the purpose of these models to come up with a different way to meet the TMDL loads?
 - Mertig: Localities did not understand how the numbers for 2025 and current were being generated for them, and as a result weren't able to comment on TMDL.
 - Berger: How many jurisdictions have analyzed the planometric data using GIS?

- Tribo: Norfolk, Hampton, VA Beach have used this methodology so far
- Fairfax: is technical report available? Yes, on city of Norfolk's website
 - <http://www.norfolk.gov/publicworks/SW/pdf/NorfolkBayTMDLReport2-1-2012.pdf> (land cover study is in appendix)

How land uses relate to loads in the Chesapeake Bay watershed Model (Shenk)

- Gary Shenk (EPA, CBPO)
- Determining loading rates are a participatory process, reflect observed monitoring data
- http://www.chesapeakebay.net/channel_files/18999/2012_11_19_luwg_gshenk_relatng_land_uses_to_loads.pdf
- Technical and calibration discussions mostly occur in Modeling workgroup
- Questions
- York: How will you transition from the information in the tools using treated lands to this kind with the applied BMP?
 - Shenk: Moving towards changing nutrient management (agriculture) from land use change to a single land use with management BMPs.
- Epstein: How do you make the model reflect something that may change over time, for example relative permanency of a practice?
 - Shenk: Probably need to stop assuming practices are permanent
- Berger: If land use changes, and still calibrated to the same station, how to still come out with the same loads in calibration?
 - Shenk: Priority number 2 of WQGIT is to develop those methods
 - Berger: When incorporating local data into model, will have different methods/estimates between localities
- Claggett: e.g. riparian buffers, urban tree canopy counted in both land use and BMP. Any problem with this overlap?
 - Shenk: A case by case problem. With urban tree canopy, can be changed at any time and the end result is the same. Changes in amount of forest buffers can affect the calibration.
- Barry Evans: move towards using NASS cropland data layers?
 - Claggett: it's been suggested to use this layer to inform this; move away from high-till low-till towards crops; still to be discussed/determined by AgWG

Discussion: Issues and opportunities for incorporating local land use data into the Phase 6 watershed model.

- Claggett: During last conference call, discussed putting out [local data request](#) to inform current and future land use characterization
 - Data to help understand current conditions
 - Land use, land cover, extractive areas, sewer service areas, stormwater regulated areas, etc.
 - Data to help understand future conditions
 - Zoning, priority funding areas, protected lands, planned/permitted developments, protected lands, special environmental planning areas, transit stations, conservation areas, planned transportation improvements, etc.
- By COB next Wednesday, provide comments/thoughts on draft work plan

- Look at list of land uses and comment on what's missing, etc.
- Consider list of local data request, what's missing from list etc.
- Pat Buckley: for future projections, the WQGIT hasn't decided what land use phase 3 WIP will be based on; if phase 3 WIP is based on 2017 land use, projections may not be necessary; time frame for this decision has not been set yet
 - STAC suggested running multiple scenarios
 - Claggett: choice of scenario is up to jurisdictions
- Strategy to obtain data
 - Claggett: if we're going to collect this data, what's the best way to do it? Which route, etc.
- Berger: next meeting will be conference call, Tuesday December 18th

Adjourn

Next conference call:

Tuesday, December 18th, 10:00AM-12:00PM

<http://www.chesapeakebay.net/calendar/event/19013>

Participants

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