CHESAPEAKE BAY PROGRAM LAND USE WORKGROUP

Face-to-Face Meeting Minutes
September 20, 2017
10:00AM-2:30PM

Meeting Materials: Link

Actions & Decisions:
Decision: The LUWG agreed to the "concept" of using the Bay Program and Maryland Department of Planning's growth models to inform the Phase III WIPs, noting that the forecasts provide a reasonable simulation of future urban growth at the county-level. The "Historic Trends" and "Current Policy" scenarios will be combined and renamed as the "Current Zoning" scenario. Members expressed concerns about sub-county inaccuracies (related to the Land Data Team's generalized interpretation of local zoning data) that -- although unlikely to have much impact on estimates of load changes at the county level based on the growth forecasts -- may lead county officials to question the overall accuracy of the model. In response, the workgroup agreed on the following actions to address this concern:

- The Bay Program's Land Data Team will continue to further refine the "Current Zoning" scenario for use in the Phase III WIPs over the next several months.
- To help in this refinement process, the team -- working with the LUWG members and state partners -- will distribute county-level and LRSEG-level tabular and spatial forecast data for all counties to review.

Two other aspects of the growth forecasting process also are important to note in addressing local concerns about accuracy:

- Change in land use based on the growth forecasts will be most accurate at the county scale. County and LRSEG-level accuracies vary based on the quality and interpretations of input data. The Chesapeake Bay Program is committed to updating its growth forecasts every two years with the best available information; these updates will more accurately simulate 2025 conditions with each milestone period.

Action: The Land Data Team will merge the Historic Trends and Current Policy forecasts into a single "Current Zoning" forecast.
Action: The Land Data Team will develop a summary of the assumptions and methods it has used to create the "Current Zoning" forecast.
Action: The Land Data Team will provide county and LRSEG-level tabular data for the forecasts to LUWG, USWG, and WWTWG for review before the next LUWG meeting on October 4.

Scenario Years for the Phase III WIP Planning Targets and Phase III WIPs – M. Johnston, UMD
Matt Johnston briefed the workgroup on the context for developing the 2025 growth projections, and how they could potentially be used to inform the Phase III WIP planning target and Phase III WIP development.

Discussion:

- Norm Goulet noted that the methods to calculate planning targets could be modified by either the WQGIT or MB. Matt Johnston replied that this was correct, but that he was presenting methods that have been agreed-to by the Partnership up to this point.
- Tanya Spano: If growth that's potentially being shifted is significant, then it may feed into discussions on revisiting initial assumptions.
- Matt Johnston explained that the PSC will be making a final decision on whatever the WQGIT recommends during their two-day meeting.
- Tanya Spano identified a request for information on the assumptions in the relationship between projected growth and loads.
- Mary Gattis asked the scale at which planning targets are developed. Matt Johnston replied that it's the state-basin scale, and added that local area planning goals are an expectation for WIPs.
- Karl Berger: In terms of the load impact from new development, states can submit their current regulations and use runoff reduction curves to provide that information.
- Erik Fisher asked if there was a way for states to understand their load reductions such that they could manage assumed load reductions from new development on agricultural lands.

Historic Trends Scenario: Results and Methodology – P. Claggett, USGS
Peter Claggett presented the results and methods for the Historic Trends 2025 growth projection.

Discussion:

- Karl Berger noted that the purpose of the meeting was to review and assess the validity of the 2025 forecasted land use scenarios. Peter noted that there was no representation from NY and official state representation from VA at the meeting.
- Karl Berger asked if Maryland was the only jurisdiction with future growth forecasts. Peter replied that was correct.
- Karl Berger noted that infill would not be a constant rate in any jurisdiction – that it would change over time. He asked if that was factored into the forecasts. Peter replied that he was not able to factor that in yet; the infill analysis used was done by Renee Thompson; the CBP Land Data Team is in the process of spatially predicting where redevelopment could occur, trying to account for the rest time in redeveloping the same parcel.
- Tanya Spano: We would still like to see the GIS layers for CSO, MS4, wastewater, etc. Do you have anything here that will address projected growth for some other sectors, like wastewater?
    - Peter replied that he will delve into it in the afternoon, and will work to post the spatial information.
- Tanya Spano: Given the large signature of the MWCOG region relative to the watershed population – the way COG projects uses an econometric model that balances projections at the local level.

- Karl Berger: If people are looking at load per capita, and we accept that 1 million more people in the watershed is inevitable, then DC will be right at the top of least load impact.
- Matt Johnston asked if the forecast results are planned to be released on some tool. Peter replied that he is working to post the results on the USGS Phase 6 Land Use viewer, but is not sure if he will be able to post 1 simulation, or all of the simulations.
    - Suggestion to post online the probability surface layer.
- Karl Berger: There's 5 urban classes, so when your model predicts 100 acres of new development, for example, how does it distribute that new development between the 5 developed land uses?
    - Peter Claggett: We can't apply the county-wide, or watershed wide proportions of the land use classes because they don't mesh at the scale of a development patch. If lot sizes are very small, we don't introduce mixed open – that land use is only introduced in those larger parcel sizes.
    - Norm Goulet noted that if land is being converted from farmland, the it would likely be moved to mixed open.
    - Comment that for every 10-acre property, there would be 40 households – such that there aren't a lot of people, but a lot of land is converted.
- Erik Fisher asked how the model accounts for clustered development when accounting for land use distributions. If a large parcel is zoned for smaller lots, does the model assume that the small lots convert the entire parcel?
    - Peter Claggett: We don't do parcels, we work with patches. If the density is something like a 3-acre lot, what's developed first is the farmland portion, and then forest. The idea is that if it's already cleared, it's easier to develop than a forest.
    - Erik Fisher cautioned against that assumption, noting that a parcel will develop based on ownership. In Maryland, people don't necessarily avoid forested parcels because their forested.
    - Peter Claggett added that forest-versus-farm is a dichotomous variable in their regressions, with a slight bias on the probability surface towards farmland. LUWG members suggested tilting this slight bias towards forest as opposed to agriculture.
- Question about how sewer and septic are being factored in. Peter replied that it was suggested they consider these variables, but that the team will try to incorporate them in an alternative, future scenario, unless it's already captured in zoning data.
- Matt Johnston reminded the group that the model will be continuously refining its estimates in two-year intervals.

<u>Current Policy Scenario: Results and Methodology</u> – P. Claggett, USGS
Peter Claggett will present the results and methods for the Current Policy 2025 growth projection.

Discussion:

- Erik Fisher: If MD moves to use the Current Policy scenario, then the assumption is that there will be a certain amount of change based on zoning in place. When a county up-zones something, does this capture any variability in the policy going forward?
    - Peter Claggett: That would be for alternative scenarios.
    - Erik Fisher: Where a historical trend occurred under a zoning regime, that's largely the same as the zoning regime now. So the difference here may just reflect a world where zoning isn't necessarily followed.
    - Peter Claggett: When we don't follow zoning, we get more development.
    - Erik Fisher: Is the Current Zoning scenario realistic? Or does the historic trend basically account for it, because it shows us what happens with zoning given what actually happened.
- Darold Burdick: There's one example where the historical trend replicates policy – whereas Fairfax down-zoned the Accoquan district. I would hope that would be reflected here.
    - Norm Goulet: That area was supposedly included in protected areas.
    - Peter Claggett: We'd have to look more closely.
- Peter Claggett: One thing we don't know, is that if it's down-zoned 10-acre lots, then we don't know if it's built out. If it looks largely undeveloped, it may be built out to capacity but we only see it as develop-able. We only used zoning to determine whether areas were available for commercial, residential, or mixed-use growth; not necessarily to gauge whether something had already been built out.
- Steve Stewart asked to see the data by LRSEG.
- Question on whether spatial data would be available. Peter Claggett replied that it could be joined to county or LRSEG shapefiles.
- Greg Evans noted that the majority of his local stakeholders preferred using a 2025 target as opposed to 2010, so that they could identify high conservation-value lands. He also expressed a wish to see data at the county-scale.
- Stephanie Martins from MDE presented on Maryland's land-use forecasting model. She added that the analysis is constantly being refined and adjusted, and is mostly based on better, more detailed local data.
    - Peter Claggett: The idea that once the data starts to be used will motivate people to submit their better data during those 2-year periods.
- Karl Berger: I just want to ask if anyone has objections if we move forward allowing Maryland to use their forecasting model to develop their Phase III WIP?
    - No concerns or objections were raised.
- Norm Goulet suggested asking the LUWG for an affirmation of the method that has been presented for projecting land use.
- Erik Fisher: The Historical Trends projection seems very solid, especially at the conceptual level. I still have some questions about Current Policy, and worry that people may misinterpret what it represents based on the name.
- Mary Gattis suggested renaming the Current Policy scenario to "Current Zoning", which would help convey the fact that not all jurisdictions submitted zoning data to the CBP.

- Stephanie Martins noted that completely relying on Historic Trends could underestimate areas that have been up-zoned. She supported using the Current Policy scenario.
- Peter Claggett suggested that because zoning is used in such a general way, the Historic Trends and Current Policy scenarios be combined into one scenario. Then, the Current Policy Plus would include a more refined look at zoning and parcel build-out.
- Erik Fisher noted that communications to localities need to enforce that if they can make a change in their zoning and implementation, that it should be reflected in the model. He added that the Historical Trends scenario is a baseline, and that anything jurisdictions do in the future would constitute a management action. Other scenarios would be management actions that could be applied against the Historical Trends scenario.
    - Norm Goulet replied that this was the intent of the alternative future scenarios.

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<u>Next Steps, and Alternative Future Scenario Development</u> – P. Claggett, USGS

Peter discussed next steps to develop the remaining alternative future scenarios that were developed during the June 7th joint LGAC/LUWG forum.

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Next Meeting, General Housekeeping – All

- Workgroup members communicated requests for the 1-meter land use/cover and aerial imagery that informed the Phase 6 land use.
- Peter also noted that the group will need to begin considering the 2014 Bay Agreement outcome that pledges to develop a land change monitoring plan, and track land use conversion.
- October and November LUWG meetings to focus on further refinements to Current Zoning forecast.

Next meeting:
Wednesday, October 4th 10:00 – 12:00 PM Conference Call

Participants:

Name	Affiliation
Karl Berger	MWCOG
Peter Claggett	USGS
Jacob Czawlytko	USGS Contractor
Labeeb Ahmed	USGS Contractor
Fred Irani	USGS
Sally Claggett	USFS
Greg Evans	VA Dept. of Forestry
Norm Goulet	NVRC
Erik Fisher	CBF
Shannon McKenrick	MDE
Darold Burdick	Fairfax County VA
Steve Stewart	Baltimore County MD
David Newburn	UMD
Mary Gattis	LGAC
Sebastian Donner	WV DEP
Megan Grose	WV DEP
Chad Thompson	WV DEP
Travis Stoe	PA DEP
Lee Murphy	PA DEP
Matt Johnston	UMD
Lori Brown	DE DNREC
Tanya Spano	MWCOG