CHESAPEAKE BAY PROGRAM

LAND USE WORKGROUP (LUWG) MEETING

Meeting Minutes
March 19, 2025
1:00 PM – 3:00 PM

Summary of Actions and Decisions

Decision: The Land Use Workgroup approved KC Filippino as an At-Large Member for the 2025-2026 (two year) term.
Action: If you'd like to serve as an at-large member on the Land Use Workgroup in one of the four remaining positions, please email Caroline Kleis (Kleis.Caroline@epa.gov), LUWG Staffer, and Sarah McDonald (Smcdonald@chesapeakebay.net), LUWG Coordinator.
Action: If you have any questions on the recommendations for the rollup of Phase 7 or additional feedback on how LUWG leadership should go about updating the WQGIT with rollup information, please email Sarah McDonald (Smcdonald@chesapeakebay.net), LUWG Coordinator, and Caroline Kleis, LUWG Staffer (Kleis.Caroline@epa.gov).
Action: If you have any additional questions or comments on the results of the accuracy assessment, please contact Sarah McDonald (Smcdonald@chesapeakebay.net), LUWG Coordinator, or Peter Claggett (pclagget@chesapeakebay.net), USGS.
Action: Members with any additional feedback on the forecast overview, including the value of land policy BMPs and other applications or uses of future forecasts should reach out to Peter Claggett (pclagget@chesapeakebay.net), USGS, Sarah McDonald (Smcdonald@chesapeakebay.net), LUWG Coordinator, and Caroline Kleis, LUWG Staffer (Kleis.Caroline@epa.gov).

Meeting Minutes

1:00 **Introductions and Announcements** – Arianna Johns, VA DEQ (LUWG Chair) (20 min)

- Announcement: At-Large Membership Updates
    - **Decision:** The Land Use Workgroup approved KC Filippino as an At-Large Member for the 2025-2026 (two year) term.
    - **Action:** If you'd like to serve as an at-large member on the Land Use Workgroup in one of the four remaining positions, please email Caroline Kleis (Kleis.Caroline@epa.gov), LUWG Staffer, and Sarah McDonald (Smcdonald@chesapeakebay.net), LUWG Coordinator.
- Announcement: Update on the status of High-Resolution Data
    - Sarah is in the process of uploading the High- Resolution Land Use data to Sciencebase for the public data release. The anticipated timeline for the data release is April 2025.
- Announcement: Update on outcome assessment presentations at the February 27th Management Board meeting

- Peter Claggett, HWGIT Coordinator/USGS, gave an overview of the status of the outcomes currently under the Healthy Watersheds goal (Healthy Watersheds, Land Use Options and Evaluation (LUOE), and Land Use Methods and Metrics (LUMM)).
    - At the February 27th meeting, the HWGIT recommended that LUOE be updated to be a Watershed Planning outcome and that LUMM be reclassified as an output under the Watershed Planning and Watershed Health Outcomes.
    - Given feedback from EPA, DC, PA, and VA, the HWGIT leadership revised their recommendations to reclassify the LUMM and Healthy Watersheds outcomes as outputs under other outcomes and replace the LUOE outcome with a Land Use Decision Support outcome. The purpose of this new outcome would be to make the high-resolution data actionable by other outcomes and states and to work with existing groups to disseminate information to state planners. The intention is that the LUWG will evolve to be a community of practice for land use planning under this new outcome.

1:20 **Recommendations for the Rollup of Phase 7**- Sarah McDonald, USGS (LUWG Coordinator) (20 min)

Following discussions held at the Joint FWG/HWGIT/LUWG meeting and subsequent FWG meetings, Sarah McDonald, LUWG Coordinator, gave an update of the recommendations put forward for the rollup of Phase 7 data. The group was asked to provide any feedback on the proposed rollup, excluding construction and agriculture which are still being discussed at additional workgroups.

Discussion:

Olivia Devereux: Can I ask a clarifying question? Will cropland, pasture, and hay be three separate classes? Sometimes pasture and hay are lumped.

Sarah McDonald: Pasture and hay will be lumped. So, it would be two classes: cropland and then a separate class with pasture and hay together.

Samuel Canfield (in chat): Hello! What is the thought process for including Natural Succession Herbaceous (rural areas) into Forest?

Katie Brownson: Sarah brought up some examples of areas that were in this bucket, and we think these are largely areas that were previously harvested and are in the process of regenerating into forest. These are areas where we think the soil is intact and, from a water quality perspective, they're probably functioning similar enough to forest. It's also a very small amount of land, overall. So, we were pretty comfortable with that classification in rural areas. In urban areas it's a different story, which is why we wanted to put that in a different classification.

Norm Goulet: I was wondering if somebody could remind me how we're differentiating between the urban and the rural areas. Are we just using the census urbanized areas?

Sarah McDonald: That is something I think we didn't wholly decide on yet. I think we looked at census urban areas as well as census places, and I think we were erring on the side of urban areas. But, I don't think we made a decision on what's actually used to differentiate those two areas. I think that's where we left it.

Peter Claggett: We've created, in house for another purpose, parcel data classified as developed residential or commercial. So, that's unique to us. We have it for the whole Bay Watershed and, when you see the word rural or urban here, it's basically referencing a contextual situation, and

it may be more accurate to use something other than urban areas for that because those are based on population thresholds and other things.
Katie Brownson (in chat): Here's the link to Sarah's presentation at the February Forestry Workgroup meeting:
https://www.chesapeakebay.net/files/documents/Follow_up_FWG_Phase7Classification.pdf
Dave Montali: Going back to the harvested forest, what's the other thing being relocated in harvested forest?
Sarah McDonald: Natural succession barren in rural areas.
Dave Montali: Ok. Is that going to create a situation that's going to alter the paradigm of what we do with reported state data? We've got a certain amount of harvested forest reported every year and the application of the BMP to a big percentage of that. Say, instead of having 100 acres of harvested forest and 98 of them getting the BMP, does this have the potential to have a big chunk of harvested forest not get the BMP?
Sarah McDonald: We have had conversations at the Forestry Workgroup about methods of how we're going to reconcile what's mapped with what's reported. Generally, where we are at now is we are going to use the footprint of what we map. But, instead of using that footprint as the quantifiable number, we'll basically use that to determine where the county and state reporting numbers are going to go on the landscape. I think the part that you are getting at is the part we haven't figured out yet, which is the case that will be rare, because we do generally map less harvested forest than what is reported. In the case that we map more than what's reported, what do we do with that leftover acreage? That is another conversation that needs to be had still.
Dave Montali: Ok. That's fair enough. We'll just have to see how it shakes out. It's probably going to be a non-issue but, philosophically, you could just throw it to forest because it is a chunk of natural succession, and there is not a need to put a BMP on it. It will eventually result in water quality standards attainment. Eventually it's going to get there, but I guess the decision has already been made by the Forestry Workgroup to put it here?
Katie Brownson: I think part of the justification is that we think those natural succession barren areas are actually harvested forest that were probably just misclassified as natural succession barren in the majority of cases. From a water quality perspective, we felt more comfortable putting it in a harvested forest bin when we are seeing these areas that are barren, rather than saying this is functioning as a forest from a water quality perspective.
Sarah McDonald: It's a very small area. Most of what's going to be in that harvested forest class is actually harvested forest herbaceous class.
Katie Brownson: In the Chesapeake watershed, natural succession barren makes up only 0.7% of the total land area, and that's divided between urban and rural. So, we're talking really small.
Dave Montali: Ok, that's fine. If it does somehow come up with something bad, we could look at our rate of discount for the BMP that we use. I think its 2.5% or something like that of harvested forest that we don't put the BMP on because of wildcatting. So, we could potentially look at that, but it's probably not going to matter. What about compacted pervious land use loading rates? Is that this group's determination, and has it been made?
Sarah McDonald: I think that's where this landed. I think, as of now, we're going to stick with the mixed open rates.

Peter Claggett: Yeah, right now it's the mixed open rates unless a group has an issue with that and wants to take leadership over changing those rates relative to forest or something.
Scott Heidel (in chat): I would like to discuss a new land use: managed impervious.
Scott Heidel: I am hoping to discuss the possibility of introducing a new land use type called managed impervious. The reason that I say that is because we've had protective regulations in place since 2010 that require an analysis of the existing hydrology, pre-development, and then a mimicry of that hydrology, post-development, through BMP implementation. The issue is it's very challenging to track down all those BMPs and then report all of those. But, they are required by regulation, and they are also inspected. So, what I am thinking is that as the programs evolve and make things a little bit more streamlined to ensure water quality, there needs to be some method to take that into account. I just wanted to get some thoughts on that.
Peter Claggett: Right now, in the CAST model, we have impervious within MS4 areas, basically regulated impervious, and then you have impervious outside MS4 areas. So, the urban stormwater BMPs get put on the regulated impervious in CAST, and that loads at a lower rate because of those BMPs. It sounds like you are suggesting something different. New impervious anywhere in the state of Pennsylvania is going to have BMPs on it and, therefore, load at a lower rate than unregulated impervious elsewhere.
Scott Heidel: Yes, thank you very much, and that is exactly what I am trying to propose. Our regulations went into place for Chapter 102 in 2010, which is a fantastic year because that's when the TMDL was written. So, yeah, that's exactly what I am trying to get at.
Peter Claggett: Since we are mapping stuff, we can determine how much new impervious there was, particularly since 2013, but we have coarser data going back before that. So, from our mapping side, yes, we can distinguish between pre-2010 impervious and post-2010 impervious how that's dealt with from a loading perspective and what assumptions related to BMPs are employed for Phase 7. I think for that particular issue, that would be an Urban Stormwater Workgroup discussion. Norm or KC can correct me.
KC Filippino: I think this was brought up at the USWG and, if I remember correctly, we talked about it and it was tricky because other states have implemented a lot of programs to track and verify BMPs on urban land, so it was trying to figure out how that's unique from Pennsylvania. We already have programs in place. I think we did discuss it. I cannot remember when.
Norm Goulet: I think there were too many headaches associated with this. The runoff reduction BMP protocol is, in theory, what PA should be reporting on these lands to achieve their reduction numbers. From a mapping standpoint, I can't see how we could differentiate between what's managed and what's not managed. We've had the discussion. There were just too many issues trying to figure this out.
Scott Heidel: That's where it gets interesting, because we did present a really well thought out proposal, and the only thing that came of it was there were too many issues. What I am trying to get at is a simplified proposal to change the land use type to get credit for the regulations that we've had in place since 2010.
Norm Goulet: If you change the land use type, then you also have to have a corresponding loading rate with it.
Scott Heidel: Exactly, and that's something I would love to explore.

KC Filippino: We have regulations. So, in theory, that's supposed to be captured in the monitoring. Our neutral regulations are supposed to capture that, whether it's a policy or a BMP. The BMP is reported, but the policy isn't. That's a load that then would go elsewhere, and that's the hard part.
Norm Goulet: We can take this conversation offline. It's actually not a Land Use Workgroup issue, it's an Urban Stormwater Workgroup issue. So, I don't want to tie up the timeline here.
KC Filippino: It was discussed. Jamie brought the presentation in December.
Scott Heidel: I appreciate you hearing me out. I do think that is a land use issue, and I also think that at the AMT, we did introduce two new land use types. So, I know that there's precedent for it. I'd be very interested to continue the conversation.
Sarah McDonald: Thanks for binging that up. We can follow up via email as well, Scott, to talk this out a bit more. For the sake of time, I am going to move on.
Peter Claggett: When I briefed the WQGIT on the construction land use, it kind of evolved into a discussion about compacted pervious and how compacted it is. That's what they wanted to know. So, I think we'll have to do some follow-up next time we bring this to their attention. The other thing that has come up from Pennsylvania, is they have provided us some data from Resolve Hydro, which are those footprints of cropland and asked if we've classed a field as pasture and they class it as cropland, could we reclass the field as cropland? That then brought out the larger issue which I consulted Olivia on of could USGS take the NRCS BMP points for BMPs that are exclusive to cropland and consider that? USGS has confidential access to NRCS, and I have overlaid those. There's a lot of them, and I have overlaid those onto the land use. In talking to Sarah, I think we could do kind of a post classification of agricultural land uses and say, ok, this is an exclusive BMP for crops, but it's landing in our pasture. Can we reclass that patch as cropland? This would not be for the public data release still on track for next month, because we don't want to delay it. But, exclusively for use in the Phase 7 model, we could do these post classifications that, for specific places, would improve the data. Another thing related to ag is USGS has already started to do a deep dive, with Jackie Pickford's help, between looking at the Ag. Census and Ag. Census proportions of pasture, cropland, and total acres with what we map and trying to utilize some of the agricultural census information to improve our classification, specifically in the crop and pasture proportions and, in some cases, in the total land that's in agriculture because in some counties we overclass agriculture and in some counties we underclass it. So, we're still exploring that. We don't have solutions, but those would be relevant to this whole rollup- how we are improving the data for Phase 7.
Olivia Devereux: I heard from Mark Nardi that the Virginia Cost Share Program shared all of their state data with you as well. You also have the CLU data. All of those should help, not just the NRCS practices.
Peter Claggett: Yes. So, I will look at the data in Virginia. I haven't yet, and the common land unit data is a little bit more tricky because they have 10 classes in there. The only one that really deals with the agricultural fields is Class 2, which they call cropland. It's not always cropland. It includes pasture and animal operations, all kinds of things. The CLU data are essentially hand digitized fields that receive federal subsidies, and we have that data for 2020, and we have the data for 2023. What they help us do is they give us a sense of if we're over or underclassifying agriculture in general. But, they are still problematic because they're not all agricultural fields.

Olivia Devereux: I think it helps because you have points from NRCS, but you don't know how big the area might be. So, if you have a point in the middle of the CLU and the point is for our cover crop, then you can assume it's cropland for that whole area, not because the data is inherent in the CLU data, but because it gives you the full area for that point.
Peter Claggett: We'll have to kind of play around with that because we don't want to reveal the CLU boundaries in our data set in any way. But, yeah, that's helpful. Thanks.

Action: If you have any questions on the recommendations for the rollup of Phase 7 or additional feedback on how LUWG leadership should go about updating the WQGIT with rollup information, please email Sarah McDonald (Smcdonald@chesapeakebay.net), LUWG Coordinator, and Caroline Kleis, LUWG Staffer (Kleis.Caroline@epa.gov).

1:40 **Update on the Results of Accuracy Assessment**- Sarah McDonald, USGS (35 min)

Sarah McDonald, USGS, gave an update on the results of the land cover accuracy assessment on the 2024 LULC data. She also discussed the challenges with assessing the accuracy of land use data and highlighted tree canopy change and impervious change accuracy. Ongoing work to continue evaluating the accuracy of the data include analyses evaluating static and change accuracy by distance to path edge, patch size, and by landscape heterogeneity.

Action: If you have any additional questions or comments on the results of the accuracy assessment, please contact Sarah McDonald (Smcdonald@chesapeakebay.net), LUWG Coordinator, or Peter Claggett (pclagget@chesapeakebay.net), USGS.

2:15 **Forecast Overview for Phase 7-** Peter Claggett and Michelle Katoski (USGS) (40 min)

Peter Claggett, USGS, gave an overview of Chesapeake Bay Land Change Model (CBLCM) and scenarios used for Phase III WIPs. The group discussed how this information was used for Phase 6 and potential improvements for how it can be used in Phase 7. Peter requested input on jurisdictional interest in updating future WIP scenarios for use in Phase 7.

Discussion:

Norm Goulet: Do you have this on an application where we can go in and start poking around at the raw data that went into this, and do you have documentation on everything?
Peter Claggett: We have documentation on the way the model works. We are developing documentation on the way it now works, and we don't have a single website where you can kind of view all of this stuff. Some of it is on the Chesapeake Bay data dashboard in terms of our vulnerability measures.
Labeeb Ahmed: I think it would be good to, if Delaware is ok with it, present to LUWG what we presented to the state of Delaware. That would go through the process of what their request was from the state, how we translated those policy requests into the model, and how we saw the result. I think you had a slide on there which kind of captures what they were expecting. They had implemented certain things, and they had given us the areas we could expand into and how the density should play out. So maybe that would, for now, give all the information about the

way the model is working now, until we can get to a place where we have all the material ready, the data sets ready, and the documentation for Norm to read.
Sarah McDonald: And we are working on a data release of the Delaware data and a report that goes with that, so that will be posted at some point in the next could of months I imagine.
Norm Goulet: In Virginia, the odds of getting parcel data for the entire Chesapeake Bay region is going to be pretty low.
Peter Claggett: We have it.
Norm Goulet: That's one of the reasons why I want to see the data, Peter. The devil is in the details, and every time we talk about the Chesapeake Bay Land Change Model, there are always issues that pop up with the devil in the details. For instance, in Virginia, what did you use for the population change data? Did it come out of Weldon Cooper or did you use the Metro COG for them? In terms of the parcel data, did you get it down to the cities and the towns? In Virginia, the local governments have absolute control over land use policies, unlike some of the other states. I like the concept, I always have, but we get turned around quite often some of the way it's applied.
Labeeb Ahmed: The parcel data was obtained through EPA's REGRID Program, and it's a data product that's available to all EPA employees. I think what they've been doing is they've been timestamping it with the year they acquired it. So, at this point, they might have additional time periods. So that's the source of the parcel data. Parcel data comes attributed with certain metrics, such as the USPS delivery factor which tells you if an address is registered to an actual postal address and the designation of that postal address. So, that's one of the many other things Michelle uses to kind of triage and figure out what the most likely use of the parcel is. Is it residential? Commercial? Population information is coming from SILVIS. SILVIS is a lab out in the University of Wisconsin, Madison, and they've published extensive 1990-2020 population projections. So, we're not using any of the local data.
Sarah McDonald: That's observed population change. It's derived from the census.
Labeeb Ahmed: That's what we use to capture what's observed. Peter collects from local jurisdictions. That tells us what to expect.
Peter Claggett: The projections in the future are from Weldon Cooper in Virginia, except when we get into the Metropolitan Washington COG region, and then we use the latest cooperative forecast from the COG metro area which trump the other source of the projection data. So, we use the regional data from that area, and we use the Metropolitan Washington COG data for their region. Elsewhere, we use the state produced population and employment projections.
Olivia Devereux: So, the COG's data is prioritized over the state provided data, correct?
Peter Claggett: Correct.
Labeeb Ahmed: State data is used for projections. Census data is used to quantify what's actually observed.
Norm Goulet: So, there's a lot of third-party data that's coming into this as opposed to the actual local government data. I know it's tedious, guys, but the documentation is important. We hear it all the time with the Bay Model. We've said it numerous times with the Land Change Model. The devil is in the details here, and some of us are going to take a deep dive into this because it matters. It's important, and the sooner you guys can put the data out there that we can look at, then we can start going through it and eventually bless this thing.

George Onyullo: Thanks, Peter, for the good presentation. Like Norm, I think I saw some very big changes there on the DC data. I'd like to take a look at what the data looks like. If you could try to flesh it out a little bit before we take a look at the data, that would be great.
Deb Sward: Thanks for the presentation. It seems like a bunch of really interesting developments. You had mentioned the land policy BMPs might not be required right away, but there was some interest in exploring these other scenarios before that point. So, I was curious about the timeline of what would be requested from states for this preliminary exploration. I think Maryland would definitely be interested in seeing some of the data from Delaware because I know last time when we did the land policy BMP, it was a pretty big level of effort and, as you mentioned on your previous slide, the results versus some of the original scenarios weren't that different. So, we'd be interested in learning more about how it might be different this time around, if we think it would result in more incentives for conservation or sustainable growth management and things like that.
Peter Claggett: I guess by the end of 2028, they would probably need to be done. So, that's a little bit away from now. Based on the past, if we are going to work with states to develop these scenarios, we need about a year. So, we'd have to start like early '28 or probably the latter part of '27 to do that. It is a lot of work. They don't make a huge amount of difference, and the reason why they don't make a huge amount of difference is really a decision by the partnership on how land conservation is going to be credited, and it also has to do with the timeframe. The last scenarios were simulated from 2017 to 2025. So, it's 8 years. So, the most credit you could get is what happens over 8 years, like the deflection of growth from conserved lands over an 8 year period. If we do a scenario out to 2040 or 2050, there's going to be more development. There's going to be more deflection. There's going to be a larger benefit the more time goes on. The big thing now is the benefits that we calculated via CAST are essentially due to deflection. So, you conserve a patch of land, but we're still forcing growth to be accommodated, it's not going to go on the parcel of land. It'll go on the adjacent parcel. While I think you could argue that that's kind of realistic, at the same time, there's plenty of ad hoc examples. For example, if someone said, hey, a developer was interesting in this property, but we conserved it, and now there's no similar properties that the developer wants. So, we've prevented that whole development from happening. Why don't we get credit for the whole development? In the international arena, they give credit for avoided development if you just conserve land period. Even if there's no development pressure, they basically give you the maximum credit. They're not dealing with the water quality credit. They're dealing with carbon credits and other things, but that's how the international community incentivizes conservation, and the partnership could do that as well. It's not simple, but it would be a decision to say that you don't need to run 101 scenarios and look at deflection. You could run fewer and basically say whatever's conserved, we're going to assume that otherwise it would be developed, and you get credited in your WIPs the difference between a developed load and say a forest load. That's a big difference. That's much bigger than this 1% effect due to deflection. If the jurisdictions really want land policy options in Phase 7 CAST, then we really need to think about how conservation is treated and how planning is treated, because I think you'd have more control over making these things have a difference. It's not a mechanical modeling problem, it's a policy problem.

Deb Sward: Thanks. I did have one more quick follow-up in terms of the outputs from any of these scenarios. To what extent could people use these outputs to summarize land change or projected land change by smaller levels of geography or do custom summary statistics that might be useful below the state level, just for all kinds of sustainability projects?
Peter Claggett: That's actually very easy for us to do. As long as we know before we run the simulation, we can throw any overlay geography. We can throw 20 different overlays in there, and we can have the results summarized by each.
Dave Montali: What strikes me is, in Beyond 25, there was a lot of effort to place more emphasis on conservation, and my question is, do we really need to hang our hats on the benefits of conservation per the water quality model? Or would life be easier just to give credit for conservation when it happens? In West Virginia, I think deflection is the deal. There's not going to be a big change in water quality, yet we still found the value in our Phase 3 WIPs to recognize all that was going on on conservation and set some ag and forest land goals for the implementation period, even though I think it actually raised our delivered loads a bit, or it was very close. So, I just wonder if we need to hang our hat on the water quality side of it to make conservation more important.
Peter Claggett: It's just one strategy. I don't think we should hang our hats on it. I think we should hang a hat on it.
Dave Montali: Like you said, change of policy and give a load reduction. But, that's not going to be true because of deflection, at least in short term periods. We'll probably be planning for 2035 with this next WIP. So, we'll be in the exact same boat.
Peter Claggett: If the partnership didn't want to go with a policy change, maybe we shouldn't have the land policy BMPs in Phase 7 CAST, and we should look at other ways of incentivizing conservation and valuing it. I think that's something for the Land Use Workgroup to grapple with.

Action: Members with any additional feedback on the forecast overview, including the value of land policy BMPs and other applications or uses of future forecasts should reach out to Peter Claggett (pclagget@chesapeakebay.net), USGS, Sarah McDonald (Smcdonald@chesapeakebay.net), LUWG Coordinator, and Caroline Kleis, LUWG Staffer (Kleis.Caroline@epa.gov).

2:55 **Review of Actions/Decisions** – Arianna Johns, VA DEQ/Chair (5 min).

3:00 **Adjourn**

NEXT MEETING: Wednesday, June 18, from 1:00-3:00PM

Participants

Arianna Johns, VA DEQ
Sarah McDonald, USGS
Caroline Kleis, CRC
Kristy Woodall, VA DEQ
Michaella Kuykendall, MDA
Deb Sward, MDP
Lori Brown, DNREC
Norm Goulet, NVRC
Jeff Sweeney, EPA
George Doumit, DNREC

Helen Golimowski, Devereux Consulting
Rob Hirsch, Baltimore County
Tyler Trostle, PA DEP
Katie Brownson, USFS
Olivia Devereux, Devereux Consulting
Labeeb Ahmed, USGS
Peter Claggett, USGS
Katheryn Barnhart, EPA
Supriya Khadke, NOAA
Mark Symborski, MCPD
Allie Wagner, NVRC
Samuel Canfield, WVDEP
Scott Heidel, PA DEP
Richard Turcotte, USFS
Michelle Katoski, USGS
Ashley Hullinger, PA DEP
Dave Montali, TetraTech/WV
Marilyn Yang, CRC
Shannon McKenrick, MDE
Krystal Reifer, MCEP
Sabine Miller, MDE
KC Filippino, HRPDC
Cassie Davis, NYSDEC
Young Tsuei, DOEE
Bill Merrey, Baltimore County
Emily Heller, EPA

Acronym List

CBP: Chesapeake Bay Program
COB: Close of Business
CRC: Chesapeake Research Consortium
FWG: Forestry Workgroup
HRPDC: Hampton Roads Planning District Commission
LULC: Land Use / Land Cover
LUMM: Land Use Methods and Metrics Outcome
LUOE: Land Use Options Evaluation Outcome
LUWG: Land Use Workgroup
MDP: Maryland Department of Planning
NVRC: Northern Virginia Regional Commission
SRS: Strategy Review System
VA DEQ: Virginia Department of Environmental Quality
USGS: United States Geological Survey
USFS: United States Forest Service