Forestry Workgroup
11-5-14
Notes

Attendance:
Alex, FSA
David Taylor, FSA
Frank Rodgers, Cacapon Institute
Rebecca Hammer, Chair
Rob Feldt
Tanner Haid, Cacapon Institute
John Flocke, NY FSA
Shirley Hall, FSA
Craig Highfield, Forests for the Bay
Matt Poirot, VA Dept of Forestry
Ryan Williams, ERS, USDA
Sally Claggett, USFS
Eric Sprague, Alliance for the Bay
Colin Jones, MDA
Steve Harris, WV GIS specialist
Anne Hairston-Strang MD
Heather Hepburn, MD Forest Service
Judy Okay, VA
Lauren Taneyhill for Tuana Phillips, CRC

Riparian Forest GIS Analysis, Rob Feldt
Rob presents his new data…
?: What's difference between single photon and high resolution data?

Rob: Single photon is more sensitive than previous sensors. It's mounted on the plane. The data I'll show you was generated using an instrument that can collect 1.5-3 points per square meter. You get more data points per square meter for canopy heights.

?: Can use data sets to get to a more refined map of what forest cover could look like?
?: It has to meet the definition of forest to be considered tree canopy cover… 10%

Sally: It looks like you're talking about forest cover on the left, but not all tree cover fits forest cover definition. Is that because there are breaks in the forest that we can't see?

Rob: Yes.

?: We want to be able to distinguish forest vs. something we'd consider tree canopy (not forest).
?: Plus 2001 data was based on the national landcover data set – 30 meter didn't capture everything it could have.

Rob: We're using tree height data to see where there might be warbler habitat.

Rob: We can use this data to help in the riparian forest buffer effort.
Rob: The tool can help focus on which landowners need to reach out to. We can see the percentage of forest cover in 35 foot buffers.

?: Can you distinguish if it's a grass filter strip?

Rob: No, we can't distinguish that. There could be a filter strip down there. I'm not sure how we could do that unless we had a shape file of landowners who have had a filter strip installed.

?: Those are available.

Matt, VA: Could this tool be utilized to more closely define what we need to get? There looks to be this finer detail … we might be further along than we think we are in terms of riparian buffer establishment.

Rob: Yeah, we're measuring at a finer scale – hopefully we find more buffers there.

?: Looking primarily at 35 ft. – does better job of capturing. 30ft data was not reliable resolution.

?: It was mentioned there were 1619 issues. How do you see those issues coming in – looking at LiDAR data we're looking at now?

Alex: 1619 only applies relative to information given to FFA by the farmer.

?: Just looking at images we're looking at, how does that…

?: Given shape files - those are prohibited from the public

Judy: Has there been any ground-truthing? Have you picked segments and seen what's there?

Rob: Not at all. We've just received the data just 2 weeks ago. I hope there are plans to do that. It's important for validation.

?: The things we've looked at are how closely does GIS classification match detailed … needs level of interpretation. Can't add up all the red and say it has to be forest buffer.

It's DM based – a riparian buffer delineation tool.

Sally will send around the link to the presentation after this meeting.

?: TNC has identified flood prone / high denitrification areas. You could combine that with this analysis.

Lawn to Woodland – targeting landowners with 2-10 acres of turf.
Looking to improve – counting areas that hadn't been before with NLCD.
LiDAR is getting cheaper and faster to collect.

?: I'd like stream temperature to be included to identify subsurface flow inputs. All the mapping we have is based on LiDAR and surface. Where subsurface inputs are can show you where you need to focus buffers for fish habitat. If you see changes in stream temperature that can't be related to land use it's probably related to the subsurface flow.

Shirley Hall: You said you received LiDAR from NASA – do they provide all your data or do you get it from different sources?

Rob: The project they just completed was a compilation of projects they'd completed over many years. It was cleaned up with 2011 imagery. Something went wrong in Anne Arundel Co. – there were lots of errors. Other counties were spot on. In the next couple years when they fly the state again we're hoping for fresh data with no issues.

?: MD hasn't had state-wide LiDAR – it's mostly local data. There is some consistency with coastal counties. The only real hurdle in VA would be the LiDAR issue.

Rob: The state of MD received the color IR band for free.

Shirley Hall: We decided to add the IR band as part of the regular product. It's on a 2-year cycle as long as the funding is stable. We plan to fly again in 2015. We have buy-ups for the ½ meter. There is capability for that if the funding is available at the state level.
In terms of forest cover, don't need that data, but need it for streams.

Sally: It's also helpful to look at tree species.

?: That might be different data. I'd like a presentation on hyper-spectral … identifying Ash species.

Sally: FSA might be interested in that to see how we use the higher resolution stuff.

?: Also for crop distinction, health, and weed issues. NAPE data has been useful for those kind of things.

Rob: If anyone wants forest cover or tree cover data for MD we are able to give that out, including stream lines.

Frank, Cacapon: Was it already clipped to the state boundary when you got it from NASA? We're hoping the assessment picked up some of WV where the Potomac snakes around.

Rob: I believe it was already clipped. When they fly that stuff it always spills over to other states. I'll look into it. Feel free to email me. Sally has my slides. They're on the Forestry WG calendar page for today.

Updates on RFB and UTC Efforts

RFB: Sally: We're in the middle of getting state task forces for riparian buffers. The steering committee will meet and go over draft content, share among states and give feedback to states, and take ideas and share them to the other states. The steering committee – made up of a mix of federal and state agencies and NGOs – is meeting next week (Wed) all day to go over the reports. We're well on our way to having a management strategy once we distill this information from the state task force. We will present that back to this group in December. That will be our chance to embellish the management strategy. A lot of outside people have expressed interest – they'll be invited to the December FWG meeting to provide input at that time.

I think we're going to take on riparian forest buffers first. I didn't want to anchor that in because Julie Mawhorter has been gone – she was going to ask if there was a preference. I'd rather hold off on that. As many people as possible should come to both days. We'll hear soon what day will be buffers and which will be urban tree canopy.

We got some interesting data from Alex at FSA on recent enrollment for 2012-2014. It looks really low – new enrollment is way down. Most of the total acres are going into re-enrollment - CREP. We are not even maintaining buffers we currently have, not gaining. There are not as many new acres … we're not reenrolling enough acres, and not compensating with new acres. We're going down in total number of acres.

Alex: The continuous sign-up was only open for 3 months…

Sally: Nick will be going to the Management Board next week to try to rally the states to make sure they're doing & thinking everything they can, not thinking of it as a USDA issue. It's a federal-state partnership.

Anne, MD: Keep in mind the need to check on expired CREP buffers. They're not necessarily getting taken out – they're just not reenrolling.

Sally: That's a problem for the Chesapeake Bay model – we need to check on acres not reenrolled to see if they're still there. If we don't, we have to take them out of the model. Unless we hear they've been checked we have to count them as not forest anymore. All states should be working on that – it's a water quality issue for states. If buffers are not checked, they're coming out of the model.

Judy Okay, VA: It's the 2017 model they will be removed from.

UTC: Eric Sprague, Alliance: Every jurisdiction besides NY came and started crafting the management strategy. We have all of the presentations and audio available. There were lessons learned from local governments. Day 2 was focused on small groups – brainstorming what the strategies would be. The plan from this meeting is the states to go back and craft actions to meet this goal. The Forest Service will be a big part of that in crafting plans going into the management strategy.
UTC Summit Presentations and Audio: http://forests.allianceforthebay.org/what-were-doing/forest-restoration/urban-tree-canopy-summit-proceedings/

Sally: FWG meeting will be 2 days in Annapolis. 1 day will be taking on riparian forest buffers and day 2 on urban tree canopy management strategies. We'll be reviewing draft strategies from the point we have them developed at that time. We need to have them in more final shape by February. It's a good early period to shape these the way it's needed. We'll be doing lots of planning in the next week or two on the agenda. We'll be at Bay Program Office in the Fish Shack on the first day, and the other day at the NPS conference room. We'll send out logistical information.

Anne, MD: There are a lot of different management strategies moving forward at the same time. Workgroup chairs are trying to help coordinate. There's a lot of cross over between what we're doing and other groups are doing. Some of the stuff we just talked about with 1 meter forest cover layer – we want to promote that as a fundamental data source to inform goal setting and progress. We should have a clear message of support for integrated data collection. It will put us in a better position to ask and answer questions we need to.

?: we have a lot to contribute on protection – tracking and what it means. They're looking for protection of all land covers for the Healthy Watersheds Goal.

Sally: Judy was mentioning permit protection. NPS is taking the lead on that management strategy. The other outcome in the new agreement Ann alluded to is the forest loss metric. This will be one where high resolution is handy. We'll develop an easily reportable metric for local governments so they can see

how much forest loss is happening on a regular basis. We'll get an update on those in the December FWG meeting.

Anne: 1 m forest cover…. Land cover from University of Vermont – comparable methodologies. Important for urban tree canopy discussion.
?: We need leadership on policies related to urban and regular forest cover. It's not just the actual buying of priorities, but policies that help with those types of things. Need to think about state policies for protection.

Frank: I'm wondering are you envisioning it being 1 day for urban, 1 day for riparian?
Sally: Yes, that's the idea.
Frank: That will help us decide who from WV should be there.

Rebecca: When would the rough draft documents be available to the FWG in advance of December 3?
Sally: Let's say by December 1 for sure, and my personal target would be November 21 if we can get something together before Thanksgiving week. We'll ask Tuana to send out a message when they're available.
Rebecca: Also send out agenda ahead of time – more notice because of the additional people we want to have and the holiday.

Riparian Forest Buffer Expert Panel Report
Sally: Judy Okay and I are meeting with the Watershed Technical Workgroup again… translating science to the model for the states. There's a new protocol the Water Quality Goal Team put forward to get reviews adopted – it requires we go back to FWG every time there has been a modification to make sure the FWG is ok with it. On Monday it will be asking WQ GIT asking for their approval.

Page 15: I highlighted additions and wording changes in gray. There were 2 parts we were asked to elaborate on. Weller's paper – their model for the Chesapeake Bay (call it the flow model) – if the modelers decide to adopt the Weller model it would affect how forest is calibrated in terms of how much upslope acreage…. For now we'll continue with a 4:1 upslope credit. It doesn't change anything with efficiency, but it proposes Weller-Baker be used.

Page 19: There is a new part of the efficiency: if you have a forest buffer on both sides you're getting an additional nutrient reduction credit in nitrogen. You have to report both sides of the stream and it has to be a 5th order stream. 500 ft stream = 7lb reduction. 73lb for the mile. Not new. Had this in last report. Previously reflected as a 4% increase.

Questions/concerns:
Anne: I participate in the panel. These are good changes. It's a valuable thing to have considered as one of the few things to have that will help down the road to encourage retention of existing buffers.

Sally: I wanted to point out – the in-stream processing credit – we realize we don't get it just through acres reported in 1619. Somebody needs to visually affirm there are buffers on both sides of stream. Buffers have to be planted at the same time. Modelers want to know how we're collecting and submitting data to prove they have double-sided forest buffers for in-stream processing.

Rebecca: I didn't see that there was a caveat that both sides had to be a new buffer, as opposed to getting credit because you've buffered the second side.
Judy: if there is a buffer already there it has been counted in some way toward the health of the stream to avoid double counting. It does have to be 2-sided, both new restoration so we're sure we're not taking advantage of something already done & counted.
Sally: most buffers reported are double sided, planted at the same time. Over 80% are planted on both sides.

Derek: Are you saying all double sided buffers have to be 100% groundtruthed?
I don't think that's what they're require. Looking to report same amount of information for 1-sided buffer and check the box that it's 2-sided.
Sally: We have to somehow get this through from states to the models. We need to respond on how that might happen. They can't be submitted from NRCS only.
States have been reporting enough information to the FWG for years that would suffice for verifying because they give more information than NRCS does.

Judy: We were required by the Watershed Technical WG to show what we use to support what we're suggesting. We have a robust reference list with recent literature with technologies… we fared well when we talked about what we're using to support what we're doing. Feel comfortable that whatever is proposed is well supported.

Rebecca: I'll take silence to mean we approve this modified expert panel report. No objections we consider it approved.
APPROVED.

Rebecca: I'm going to listen in to WTWG tomorrow to hear what happens.

Announcements:
Derek, PA: I have mostly a request from anyone in the group – with the recent changes with law activities here in PA related to buffers and ability to require certain things – we have found there are interesting happenings – way law is written they give us a significant opportunity to interpret it to benefit watersheds throughout the state, not just EV/HV watersheds. We're writing as a department. We are looking for info and assistance from you all – we have to do an equivalency demonstration – put policies together that require that. And we have to have solid numbers – equivalency for benefit of buffers. We don't have all the numbers of how each benefits. If any of you have any solid numbers of benefits of buffers or equivalency I'd appreciate it. We need to have all this ready to go Dec 21. Also part of new law has to do with offset policies. If you have or know of anything to help us out I appreciate it.
Sally: are you talking about benefits not just WQ?

Derek: everything – benefits of buffers of any kind. Proper quantifications to having buffers there that the public can understand when translated to policy. We have to put together a doc that will help them make sure it's efficient as a buffer if they're not coming in for a buffer – show us how it provides the same equivalent benefit as buffers do.
Sally: So you want examples of other practices and how they match to buffers?
Derek: No. Flooding for instance – how efficient is a buffer in controlling a 100 year flood. They're coming in to us with an application for any earth disturbance activity – building a house or…. To let them go into a 100 foot buffer if they show equivalency.
?: Anybody working on ecosystem services might have something.
?: Do you have a written request I could forward?
Rebecca: Pose this request in writing and tell us a bit about the new law requirement – what it applies to – then pose an information request. Give us a deadline for when that information is helpful.
?: Chesapeake Network? Center for Watershed Protection? Karen Capiella or Brian Sipe.

Frank, Cacapon Institute: I'd like to invite you all to the Potomac Watershed Partnership – Dec 9 at Stevens City Library at 4:00. Topic is a greening landscape. Speakers are Lou Etgen…. Register at Potomacpartnershp.org. Free & open to public.

Matt, VA: A reminder that Sally sent out a note about the agroforestry workshop in Warrenton at Lord Fairfax Community College. We have 55 registrants for that. Nov 8, 9:00-4:30.

Eric, Alliance: The VA Dept of Forestry & The Alliance selected 200 new acres of forest for carbon benefits.

Craig, Forest for Bay: We had the first legacy workshop. 45 people were in attendance. Offering those in MD through early spring. All presentations will be on our website.

Anne, MD: NFWF grant on Potomac buffers – TNC & ? – landscape scale targeting. Attention to how you place practices to meet TMDL requirements. Happy with targeting approach. May be another tool we can use. They are doing some on-site monitoring – did we get the hydrology right, are we locating areas with active hydrology, interception nutrient flow. Should have site selection by the spring.
We might want to pick up on the idea of what's new / what's best in targeting.
This project would feed into the VA project well – received funding for as part of the Healthy Watershed Goal Team. They're conducting a literature review on where forests are most needed & effective, and building off the STAC report.