



Forest Health Advisory Committee
Monitoring Sub-Committee
September 11, 2019
10:00 – 11:00 AM

Present: Reese Lolley, Derek Churchill, Jen Watkins, Chuck Hersey, Dave Werntz, Andrew Spaeth, Dave Cass

Meeting Summary:

The primary purpose of the call is to review the list of proposed projects that will support monitoring goals identified in Washington's 20-Year Forest Health Strategic Plan. Derek Churchill along with DNR staff and partners identified a number of different projects to support monitoring goals. The agency is getting closer to finalizing the list of projects and is seeking input from the FHAC monitoring sub-committee today. See the attached list for full list of proposed projects.

The project listed first on the attachment is the treatment unit monitoring protocol. The purpose of the protocol is to develop a consistent way for partners to collect information regarding the effectiveness of forest health treatments. The monitoring will be conducted by partners. DNR will have tablets available that can be sent out to partners. The data will be collected and then sent back to DNR to be uploaded into a shared data base called the Forest Health Tracker. The protocol will build on existing protocols currently being used in the region. Sharon Frazy at Mount Adams Resource Stewards (MARS) is leading this effort in partnership with Amy Ramsey at DNR.

The group discussed the monitoring protocol and shared the following feedback:

- Ensure the protocol is available to all landowner types (small non-industrial, federal, etc.) and provide training to partners that will use the tablets. The training component will be critical to ensuring accurate data collection and consistent use of tool across eastern Washington. This information will answer questions about treatment effectiveness at the stand level and will contribute to answer questions related to "local" and "mid-scale" monitoring.
- DNR should develop a document that articulates how monitoring work for 20-Year FHSP is being conducted at different scales (e.g. large, mid-, and treatment/local) and with different methods and partners. "Mid-scale" monitoring is the unit at which partners are planning projects, where landscape evaluations are being conducted, and the analysis that will occur for reporting outcomes to the legislature and public.
- Monitoring data will be managed by Forest Health and Resilience Program at DNR.
- Add Dave Cass on list to review protocol and make sure it meets the needs of State Parks.

There are a few projects listed related to current conditions data sets and updating the restoration needs assessment that are related to one another. The purpose of the projects is to establish baseline

conditions and then measure progress against our restoration goals over time. The current conditions data set is based on LiDar and DAP with the intent to integrate more site specific data as it become available. Creating an accurate current conditions data set every biennium is critical prior to conducting an updated restoration needs assessment across eastern Washington (based on work by DeMeo et al. 2018 and Haugo et al. 2015). The restoration needs assessment will be updated every biennium. The source data for the needs assessment is collected on an annual basis. Restoration needs assessment will also include an assessment of treatment cost and potential revenue based on landscape evaluation tool that integrates logging systems, roads, and factors relevant to treatment capability (i.e. slope).

Effects of treatment on snow pack is a priority listed in the attached overview document. This is an area of emerging and on-going interest as it relates to upland restoration. Studies to date have estimated that by reducing density, stream flow may increase by 5-20%. This may be a critical adaptation strategy in basins that will transition from more marginal snow accumulation conditions in the future. Increased snowpack can reduce drought stress. The role of the Forest Health team at DNR is to help fund the research needed to improve the landscape level model that has been developed. This is part of a project that was also funded by Upper Columbia Salmon Recovery Board.

The project titled, "Treatment effectiveness and longevity" is intended to monitor treatments implemented 5- 10- and 15- years ago to establish a better understanding of long-term maintenance costs. Currently, the DNR and partners do not have a good handle on on-going maintenance need over time. The proposed project will leverage current doctoral research at University of Washington and expand the study to additional sites across Eastern Washington.

Another priority that has been identified is improving species composition data. One of the weaknesses of GNN data is species composition. Species composition is an important indicator of resistance and resilience and forest habitat conditions. There are new tools and imagery that may provide the state with better species composition maps at the 30m and/or 60m pixel scale. Researchers at Oregon State University are leading the effort and are demonstrating progress in this area.

A member of the group expressed interest in developing a standard approach to evaluating treatment effectiveness post-wildfire. The monitoring should capture information about treatments that experience wildfire events, be linked to the wildfire protection strategy and suppression efforts, and help partners better understand post-fire recovery, including where wildfires helped reduce fuel loads. DNR shared that they plan to follow up with Angie Lane in the Wildfire Division to continue to discuss. DNR is also hiring a fire scientist position and the Prescribed Fire Program is hiring a scientist that will add capacity in this area.

There was interest expressed in evaluating and monitoring aquatic resilience objectives associated with the 20-Year FHSP. There were a number of debris flows following recent rains in burned landscapes and there are on-going issues associated with roads and culverts. DNR shared that there is not an aquatics monitoring approach figured out yet. Snow pack monitoring work is focused on water and hydrologic systems, but not focused on fire effects in that work. The Forest Health team at DNR doesn't currently have expertise in aquatics, but understands that partners are very interested in this part of the 20-Year FHSP. If there are monitoring efforts being conducted that DNR can support it would be great to highlight those. There may be some funding available to help ensure the aquatic monitoring work gets done. A member suggested that monitoring sediment following the Crescent Fire in the Twisp River may be a good project to support.

Related to aquatic systems monitoring members of the group shared feedback that the DNR should continue to look at and develop thinking and an intellectual framework for what monitoring aquatic systems would look like and how we would want to report on it. It is lagging behind vegetation piece. The Okanogen-Wenatchee National Forest aquatic evaluation framework may be a good place to start. Next steps should include developing concrete proposals for aquatic resilience work. DNR shared that there is not likely to be “in-house” expertise in this area in the near future, but DNR would like to support partners that can help accomplish this part of the 20-Year FHSP. DNR staff are happy to help convene, fund, or otherwise support in any way that is most helpful. It was suggested that aquatic systems monitoring would be a good topic for future call with the FHAC monitoring sub-committee.

Members of the committee thanked DNR for their leadership in driving the monitoring work forward. A member of the group suggested that as part of the on-going effort, DNR should clarify what they would like from this sub-committee and how members of the group should anticipate engaging in the future.

The Next Steps/Action Items for this meeting:

- Monitoring Framework Document: DNR will produce a brief document explaining the overall monitoring approach & framework for the 20 YP.
- Need to ensure training for Treatment Unit Protocol
- New DNR Fire Scientist will develop common methodology for quantifying & evaluating wildfire effects and treatment effectiveness at modifying wildfire behavior. Need for “story telling” soon after a fire, plus longer term analysis/monitoring.
- Future Discussion for sub-committee
 - Mid-scale (DNR planning area) monitoring. How do we integrate what DNR will do with what local partners want and may take on.
 - Aquatic monitoring (Derek)

The call ended at 11:07AM.