

MEETING NOTES
Forest Health Technical Advisory Committee
March 28, 2012
Central Washington University
Ellensburg, WA

10:05 am Aaron Everett called the meeting to order.

Introductions

Committee members present: Aaron Everett, Reese Lolley, Greg Morris, Bill Gaines, Robert Gara, Connie Mehmel, Dave Peterson, Scott Ketchum, and Doug Daoust.

Others present: Karen Ripley (DNR), Chuck Hersey (DNR), Karen Bicchieri Tapash coordinator (The Nature Conservancy), Mark Hicks (Dept. of Ecology), Phil Hess (consulting forester, landowner), Dave Werntz (Conservation Northwest).

10:00 – 10:15 Welcome, housekeeping, meeting notes

Aaron provided an overview of the agenda for the day. Committee members reviewed notes from February TAC meeting. Notes will be posted on DNR website. Committee members have till the end of the week to let Aaron know if they have any edits to the meeting notes.

10:15 – 10:45 Review coarse-scale evaluation process and results

Aaron reviewed primary responsibilities and draft process outline for the Technical Advisory Committee.

Review of Coarse scale analysis: Watershed Resource Inventory Areas (WRIAs) were analyzed with the following data: National Insect and Disease Risk Map (NIDRM), cumulative mortality 10 to 35 trees per acre from 1996 to 2010, cumulative defoliation 2 yrs or more from 2007 to present, Vegetation Condition Class (VCC, measures departure of vegetation from a historical reference condition) and reserved vs. non-reserved forest. An additional point was added to each WRIA if it fell within as USFS CLFR project boundary.

Reserve forest includes federal lands that are classified as administratively withdrawn, congressional reserve, adaptive management reserve and late successional reserve areas.

Based on the coarse scale analysis four priority landscapes or watershed resource inventory areas (WRIAs) were identified for further consideration and analysis: Klickitat, Okanogan, Kettle and Middle Lake Roosevelt WRIAs. Sanpoil, Methow and Colville were three WRIAs on the bubble based on the coarse scale analysis.

Doug Daoust asked what priority landscapes are in the Tapash Collaborative? Only the Klickitat WRIA is in the Tapash Collaborative. Most of the Klickitat WRIA is Tribal land and the next largest ownership

class is private industrial. Both private and state land managers have obligations to provide spotted owl habitat across some portion of their landscapes.

Dave Peterson asked what are the objectives of the committee? The goal is to analyze threats to forest health in specific areas of eastern Washington and provide land managers specific management guidelines to improve forest health and increase the resiliency of the forest landscape. This will help prioritize cost-share dollars for private forest health treatments. This will also help federal and state land managers to prioritize treatments in specific areas. Looking for a specific place, thing and an action with a defensible process.

Dave likes starting from insect and disease information and using fire/fuel data as a modifier. The insect and disease information is more readily available.

Trying to identify risk (insect and disease risk), evaluate coincidence of risk with departed vegetation and fuels data. The NIDRM data is less geographically specific than the insect and disease aerial survey data and Vegetation Condition Class data so it is inappropriate to overlay NIDRM and VCC to identify specific areas.

Reese said we need to differentiate the coarse scale analysis based on forest types as there are different relationships between insects/disease and fuels based on forest type. We need to include fire regime group in the analysis as FRG is basically a proxy for disturbance regime.

Doug Daoust said we need to consider how the efforts of the TAC would meld with other forest collaborative projects. How would our recommendations coincide with other efforts?

The cost/benefit analysis would need to be considered at the next step of the process (efficacy). We have limited resources, what actions and area would provide the greatest return on investment

10:45 – 12:00 Additional considerations- where these fit with our work

-Potential TPA criteria associated with MPB outbreak stage

Bob Gara: Moving from the coarse scale to specific areas is something we must do deliberately as the forests and pests are dynamic. Bark Beetles are really tied into the conditions of each forest stand. Once an outbreak of bark beetles gets to the eruptive phase it is too late, there are no management activities that can help the stand. We need to identify stands that have conditions that can benefit from management.

Aaron asked if there is some level of bark beetle mortality that would serve as a bench mark for determining areas where management activities can make a difference.

Karen said the aerial survey does not identify trees that are in the process of dying and does not tell you how many trees are left.

Reese said Landsat is fairly accurate at mapping pure stands of Lodgepole pine. Aaron mentioned we have GNN data that is the best dataset we have for mapping current forest types. GNN combines satellite imagery with Forest Inventory Analysis plot data.

Bob said after 12 years of defoliation on the Yakama Reservation most of the trees were dead. Reese said on the Naches most damage from budworm was top kill, did not lead to major mortality. Karen said that the Naches budworm defoliation did not last as long and was not as severe as the budworm outbreak on the Yakama Reservation.

Karen asked if there is a good spatially explicit dataset of vapor pressure deficit. Dave Peterson said that it is being developed and possibly may be available.

-Action item: We will research the availability of vapor pressure deficit data to incorporate into the analysis.

Doug Daoust asked if we should push the USFS to release their 2012 NIDRM data so we can use it in this process. Karen said that USFS is planning on releasing the 2012 NIDRM data around April 16. Aaron said at this stage we will move forward without the updated 2012 NIDRM data.

-Orienting insect hazards with fuel hazards using FCCS

Dave Peterson provided an overview of the Fuel Characteristic Classification System (FCCS). FCCS is a new way to characterize fuels. Old systems just model surface fuels. FCCS model incorporates crown, shrub and surface fuels. Surface fire potential, crown fire potential and available fuel potential are an index from 1 to 9. Available fuel potential is a proxy for smoke potential. Flame length (feet, a proxy for how likely to lead to a crown fire) and rate of spread (feet/minute) are two useful metrics. Dave said the most useful metric for the TAC process might be flame length as it helps to get at the potential for crown fires depending on the stand structure. Dave said there are detailed fuelbeds developed for the Okanogan Wenatchee National Forest. Dave said that individual fuelbeds can be customized based on insect and disease models.

Aaron said FCCS would be used in the fine scale analysis. What is the relationship between insect and disease damage and fire behavior? We will use FCCS to help model fuels and integrate with insect and disease damage.

-VCC vs FRCC vs FRG vs PVT

Reese described VCC and FRG. VCC is a measure of the current condition of five structure classes across the landscape for each forest type and compares them to a model of historical vegetation reference conditions. Fire Regime Group is a description of the disturbance regime of a forest, what is the average fire return interval and severity. Fire regime group 1 and group 3 are the best candidates for active management.

Bill Gaines suggested to intersect VCC 2 and 3 with FRG 1 and 3 to develop a layer of areas that are highly departed that could benefit from management.

The Nature Conservancy has completed a document entitled *An Ecological Context for “Whole System” Conservation of Eastern Washington Forests*. They are working with ILAP and the Tapash Collaborative to model how much of the landscape needs to be treated over time to achieve the desired future conditions.

Dave asked if the committee would be looking to develop estimates of acreage desired future conditions and in turn develop levels of management activity needed to achieve the level of desired future conditions. Aaron said we can develop specific recommendations and goals for treated acreage or keep recommendations more general and broad. Dave said he gravitates to more quantitatively specific guidelines.

Landscape level resiliency of insect and disease damage has not been researched and developed anywhere near to the extent of stand specific actions and prescriptions for dealing with insects and disease. Reese said that developing landscape level recommendations can help to expedite stand level actions.

Greg Morris highlighted the regulatory obstacles to implementing recommendations and treatments, especially for smaller landowners. Aaron said that the charge of DNR would be to provide enhanced technical assistance to areas the TAC process identified.

Bob Gara asked if we are going to consider drought or weather patterns in our analysis? Aaron said we will research vapor pressure deficit data and see if we can use that in our analysis.

1:00 – 2:30 Considerations for determining further action and recommendations

Aaron reviewed considerations that the Forest Health Law (RCW 76.06) requires and those that are at the discretion of the TAC. This is a draft outline of considerations for evaluating further recommendations for action. The data and considerations below will be used to analyze and compare priority landscapes to determine if any warrant the issuance of a forest health hazard warning or order.

-Considerations under Forest Health Law

1. Existing forest stand conditions
Data: forest structural stage by cover type (GNN), Vegetation Condition Class (VCC), NIDRM, Potential Vegetation Type (GNN), (Reese said it is actually PVG Potential Vegetation Group as specific types are grouped).
Determination: Conditions align with risk factors for one or more identified damage agents of concern. Conditions represent “uncharacteristic” potential
2. Presence of an uncharacteristic outbreak
Data: Aerial survey damage, historical reference data on past outbreaks.
Determination: Yes/no. Identify damage agent or combination of agents comprising the outbreak.

3. Extent/likelihood of spread to multiple ownerships
Data: Aerial survey damage by ownership. Distribution of susceptible forest types (GNN)
Determination: Yes/No
4. Extent/likelihood of significantly increased forest fuels relating to uncharacteristic fire
Data: Fuels Characteristic Classification System (FCCS), aerial survey damage.
Determination: Yes/No.

-Additional TAC-recommended considerations

5. Inventory of "Tier 1" activities
Data: Recently completed and planned treatment acres by landowners/ managers, historic management activities, technical assistance and outreach.
Determination: Is/is not likely to resolve identified concerns. Is/is not likely to be improved with recommendations from the TAC.
6. Values at risk
Data: Wildlife species and habitats of concern (PHS), existing impaired water quality (303d), timber & economic values, wildland-urban interface.
Determination: Identify and supplement rationale for further recommendations.
7. Efficacy considerations
Data: Timber market proximity, organizational implementation capacity.
Determination: Identify and supplement rationale for further recommendations.
8. Focus area boundary
Data: smaller/larger/different landscape unit boundaries than WRIAs
Determination: Final boundary. Further refined in specific recommendations.

Doug Dauost recommended that we should also consider the Sanpoil WRIA as it is adjacent to three priority landscapes (Okanogan, Kettle and Middle Lake Roosevelt).

Committee analyzed if the Sanpoil WRIA warranted inclusion in the priority landscapes.

Connie asked if there are reserve areas on the Colville Reservation? Aaron said he has requested that information.

Scott recommended including the Sanpoil/Nespelem WRIA in the priority landscapes. The Sanpoil WRIA has consistently been on the edge of the top tier in the rankings through all of the different analysis iterations. Committee members agreed to add the Sanpoil WRIA to the priority landscapes for further consideration and evaluation in the process.

Aaron asked if presence/absence of rare/endangered species or habitat is something the committee should factor into its considerations on selecting an area. Bill said it may impact how, not necessarily where. Scott said if it really limits your management options it is something we should use to select an area. Greg said that the presence of an endangered species that could benefit from forest health activities would mean we should incorporate it into our area selection criteria. Karen said the process loses credibility if we do not include rare/endangered species or habitat data in the process.

The committee recommended to include rare/endangered species in the process. Bill recommended looking at specific species/habitats at the fine-scale.

Mark Hicks recommended that 303d dataset is a good source of information to identify impaired waters to incorporate water quality into the analysis.

Bill Gaines said there is data that identifies key watersheds for salmon.

Scott Ketchum said that the key on timber value is maintaining the forest products infrastructure (loggers, mills, etc.). Should focus on area where existing infrastructure is present to help maintain the infrastructure.

Aaron asked if we should incorporate Community Wildlife Protection Plan data in the analysis. Reese and Dave said it makes sense to include in the analysis.

Dave said that there may be some value to coordinate with the Washington state climate change strategy. Conservative climate change analysis says that the amount of acres burned and damaged by insects is going to increase significantly over the next several decades. We can incorporate their findings into the committee's recommendations as appropriate.

Aaron reviewed detailed reference data for the Kettle WRIA: mortality >10 tpa 1996-2010, defoliation >2 yrs 2007 to 2011, current conditions summary (GNN/VDDT/PNWRS), potential vegetation type, fire regime group and mechanical treatment summary.

Reese said cover type by fire regime group would be helpful to add to the analysis.

Karen recommended that overlaying mortality/defoliation with forest type would be helpful.

Scott Ketchum said we need a baseline of damage for each WRIA to determine characteristic/uncharacteristic outbreak.

Mark said that the change in forest structure/composition to uncharacteristic levels would help satisfy the requirement of the legislation without having to use historical damage data.

Bob Gara said that we need to incorporate weather and time into our analysis. We need to not just look at a snapshot we need to look at a trend. Are things getting better or worse?

Karen said we want to look at the specific forest type data which provides more detail than cover type.

Action items/further data for fine scale analysis:

Priority landscapes for further analysis and evaluation are: Klickitat, Okanogan, Kettle, Sanpoil, and Middle Lake Roosevelt.

Potential data to analyze and evaluate priority landscapes:

- Overlay mortality and defoliation by forest type.
- Determine host trees per acres
- Research vapor pressure deficit
- Potential index of relationship between VPD and TPA (mortality) by host 5 yr time frame.
- Efficacy considerations: availability of technical assistance; ability to leverage federal resources, accessibility.
- Threatened/endangered species and habitats
- 303d impaired waters
- Salmonoid stock status/priority watersheds Upper Columbia RP.
- Wildland urban interface/CWPP
- FCCS, custom fuelbed, quantify anticipated fire behavior changes associated with changed stand conditions.
- Fire Regime Group (FRG) by cover type
- Tribal planned treatments (help to get at capacity)
- Can we create a layer that gets at accessibility/ability to treat, Aaron said that for the biomass analysis they used manager interviews. Reese said to use some combination of roads/slopes/mills data to determine which percent of a landscape is available to harvest.

Does the TAC just give broad recommendations on conditions or does it give specific recommendations that detail the acreage of desired forest types and the level of activity needed.

2:30 – 3:00 Next steps, wrap-up, logistics, set next meeting date

Next TAC meeting is scheduled for 9 am on April 24, 2012 in Ellensburg. Most likely at the same location.