

To: Watershed Work Group

From: Don Brigham, Project Coordinator

Subject: Subcommittee on Mapping Meeting

Date: August 2, 2016

The purpose of this memo is to provide you with a report on our subcommittee meeting, touching upon the highlights (these are not minutes, but a reporting.)

The goals of VSP and the intent of the Work Plan which the Watershed Work Group needs to develop were presented as a refresher. VSP statute requires the Work Group to:

”Create measurable benchmarks that, within ten years after the receipt of funding, are designed to result in (i) the protection of critical area functions and values and (ii) the enhancement of critical area functions and values through voluntary, incentive-based measures.”

The five critical areas which need to be addressed and protected were also presented as a segue into the mapping discussion. It was noted that in our Work Plan, we need to establish metrics that can be measured and monitored every five years (as required under VSP). The question is what do we want to use as our measuring stick?

Examples of metrics that Chelan County has included in their Work Plan were shared as examples. It was noted that every county is different and that Columbia County's topography, climate and types of crops varies from Chelan County. These example metrics are listed here:

- Passive participation in common stewardship practices may be tracked and reported using one or more methods:
  - Mapping and aerial photo evaluation of practices in place
  - Random sampling of farmers and ranchers in the field
  - Phone, mail, or online surveys
- The County Baseline critical area mapping may be repeated for each reporting period and significant changes in extent, amount, or quality of critical areas intersecting agriculture identified similar to Appendices ....
  - Cumulative effects of direct and indirect participation should also be

quantified (e.g., number of habitat acres protected, enhanced, restored, etc.) to determine the cumulative impacts of conservation practices on critical areas throughout the County similar to Table .....

- Acres of agricultural activities with direct participation in conservation

practices related to critical areas is documented using self-certification (e.g. checklist in Appendix .....,), or random sampling in the field, or phone, mail, or online surveys

- Countywide or basin level estimates of tons of sediments due to sheet and rill erosion using USDA NRCS National Resources Inventory method or equivalent method.
- Water quality monitoring of sediments in hydrologic study areas as defined in Appendix ....., where such results can be attributed to agricultural activities.
- Existing or new water quality sampling locations may be used.
- The number and extent of conservation practices that increase stems per acre

(tree/shrub density) in areas of agriculture - critical area intersect or in areas that contribute to critical areas functions and value in sub-basins where intersection occurs.

- Implemented activities show intactness and survival based on specifications of installed projects.
- The number and extent of riparian restoration projects in areas of agriculture

- critical area intersect or in areas that contribute to critical areas functions and value in sub-basins where intersection occurs.

- Implemented activities show intactness and survival based on specifications of installed projects.
- Conservation practices that install or replace wildlife exclusion fencing in areas of intersect during monitoring period.

Brigham shared information on the existing mapping resources that are available. These are all public, on the web and in most cases, user-friendly and capable of being queried to illustrate various elements of interest. They are listed here for the benefit of the Work Group.

**Critical Areas:** Critical aquifer recharge areas used for potable water.

Maps of Wellhead protection zones available through state Dept. of Health

<https://fortress.wa.gov/doh/eh/maps/SWAP/index.html>

**Critical Areas:** Fish and wildlife habitat conservation areas.

Maps available from state Dept of Fish & Wildlife

<http://wdfw.wa.gov/conservation/phs/>

**Critical Areas:** Wetlands

Maps specific to Columbia County are available through the state Dept. of Agriculture

<http://arcg.is/23yRw6e>

We should also have wetland maps in GIS from the Shorelines Master Program

**Critical Areas:** Frequently flooded areas

We should have wetland maps in GIS from the Shorelines Master Program

**Critical Areas:** Geologically hazardous areas

Some mapping and info available from Dept of Natural Resources

<http://www.dnr.wa.gov/geologyportal>

<http://www.dnr.wa.gov/programs-and-services/geology/geologic-hazards/geologic-hazard-maps>

**Ag Lands**

Maps specific to Columbia County are available through the state Dept. of Agriculture

- <http://arcg.is/23yRw6e>
- <http://agr.wa.gov/PestFert/natresources/AgLandUse.aspx>

Kelly stated that WSDA also has maps of susceptible aquifer recharge areas.

Again, the heart of the meeting is addressing the question: what do we want to use as a measuring stick? It can be 5 NCRS practices or 5 acres or 5 ag producers or 5 river miles or 5 widgets – it just needs to be measurable and relevant to the protection of a critical area. It was noted that whatever measure is used, it must be attainable. We don't want to establish a target that we cannot reach. The measure must also be perpetual, not fluctuating. For example, using the number of acres or farmers enrolled in a conservation program could prove to be ineffectual as those numbers will vary over time. Terry mentioned that the conservation programs do quantify measures that include number of acres and/or amount of streambank length. For example, currently there exists 1000 acres enrolled in CREP along the Tucannon and the average buffer width is 167 feet.

Roland said that the true answer to the measurement question is that the goal is to measure function, that is, the function of maintaining environmental processes. But it was acknowledged that measuring function may be beyond our means. We could,

however, look at a combination of different metrics; a variety of different practices that cumulatively protect critical area functions. These could, as examples, include the number of trees planted in a buffer, fencing to direct cattle away from a stream and towards a secondary watering source, and/or conservation easements.

Kelly reported on some of the recent discussions that she participated in with the state VSP task force. She also said that some state agencies (Ecology, Ag, Fish & Wildlife) are going to be measuring certain things, such as F & W looking at the amount of riparian cover. This is noteworthy in that if these agencies are measuring certain items that we want to use as a metric, that agency would provide the County with the measurement data that could be included in our 5-year monitoring reports. Kelly said that she will provide us with additional information on what these agencies will be measuring and then we can decide whether or not we want to use it in our work plan. It was noted that we need to be careful on what we use as our measuring stick. For example, amount of riparian cover is obviously important to protect the function of several types of critical areas, however, a flood event or wildfire or other natural events out of our control could impact that amount of cover and thus it would adversely affect the County's metric.

On a related note, Kelly noted that WSDA is doing groundwater monitoring in selected areas for pesticide contamination. The Walla Walla region is one area being affected.

We had a solid discussion on what mapping may be useful to our purposes and the alternatives to mapping. It was noted that under the County's existing Critical Areas ordinance, most critical areas are addressed in a narrative fashion, defining or describing what a critical area is as opposed to drawing a line on a map showing the location of a critical area. This narrative description could serve our needs and purposes well in the VSP Work Plan and subsequent 5-year monitoring.

We discussed that it would be helpful to have Terry present at our next Watershed Work Group meeting on the various programs and practices involved with the conservation district. This may lead to selecting useful "widgets" to use for our measuring stick. Marie (new conservation district manager) from Grant County will be presenting at the August 31<sup>st</sup> state task force meeting and we may be able to borrow some of that material for our September meeting.

In summary, whereas we initially thought that the primary purpose of this subcommittee meeting was to discuss mapping and alternatives to mapping, it became apparent by

the end of the meeting that we first need to decide what “widgets” we need to measure. Once these “widgets” are decided upon, we can better determine our mapping needs. Some “widgets” may need to be illustrated on maps and others can be measured in other fashions, such as narrative descriptions.