

THURSTON COUNTY VOLUNTARY STEWARDSHIP PROGRAM WORK PLAN

The Thurston VSP Workgroup submits the following clarifications regarding Monitoring Methods and Adaptive Management (Appendix C), in response to questions raised by the Technical Panel during its April 12 and April 18, 2017 meetings, as approved by the Workgroup on April 17, 2017, and as amended (in red) with Workgroup approval following the Technical Panel meeting on April 18, 2017. These amendments are adopted by reference and incorporated into the Work Plan.

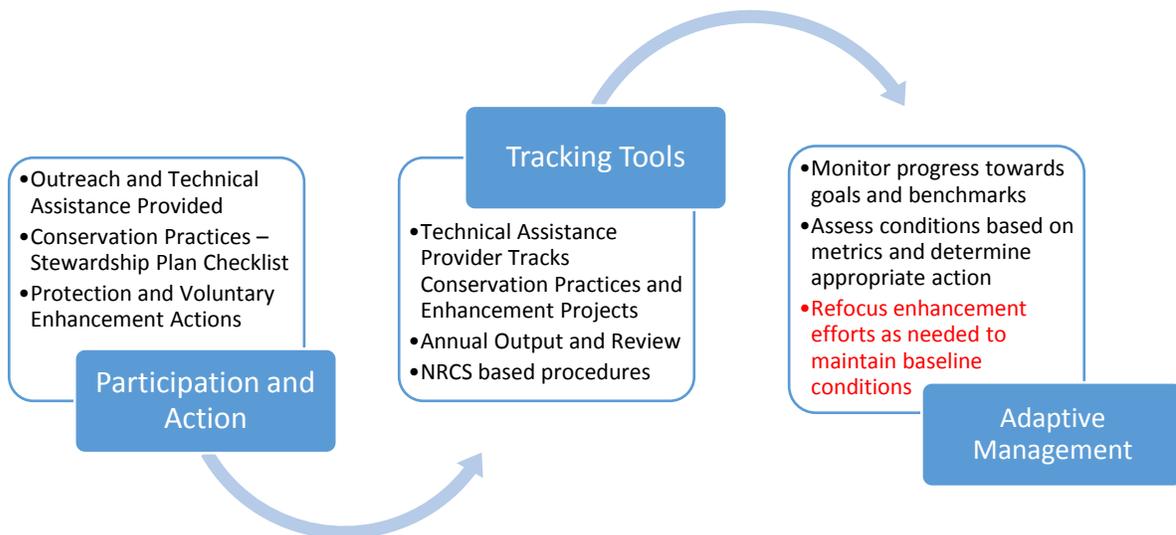
ADAPTIVE MANAGEMENT

To ensure goals and benchmarks are met, the Workgroup and Thurston County have initiated an adaptive management process to fully consider, for incorporation into the VSP work plan (per RCW 36.70A.720), portions of the Agricultural Critical Areas Ordinance (CAO) Chapter 17.15 Thurston County Code (TCC). Following plan adoption, Thurston County can also “adopt or amend development regulations to protect critical areas as they specifically apply to agricultural activities...” (RCW 36.70A.130(8)). See Appendix I page 9 for more detail.

If, before the first 5-year report is due, the Workgroup determines that it cannot assure that critical area conditions (especially for Geologic Hazard Areas and Critical Aquifer Recharge Areas) will be maintained at or above the 2011 baseline as affected by agricultural activities in participating watersheds, then the Workgroup, through its adaptive management (AM) process, will either:

- a) Develop a non-regulatory (preferred) approach to ensure protection, including but not limited to implementing AM actions identified in Appendix C and the monitoring matrix;
- b) Incorporate into the Work Plan portions of the Thurston County Agricultural CAO Chapter 17.15 TCC (per RCW 36.70A.720), especially relating to Geologic Hazard Areas and Critical Aquifer Recharge Areas; or
- c) Request that Thurston County “adopt or amend development regulations to protect critical areas as they specifically apply to agricultural activities” (RCW 36.70A.130(8)).

Image below to be inserted on Work Plan p 21.



Monitoring Roles, Responsibilities, and Timeline Summary

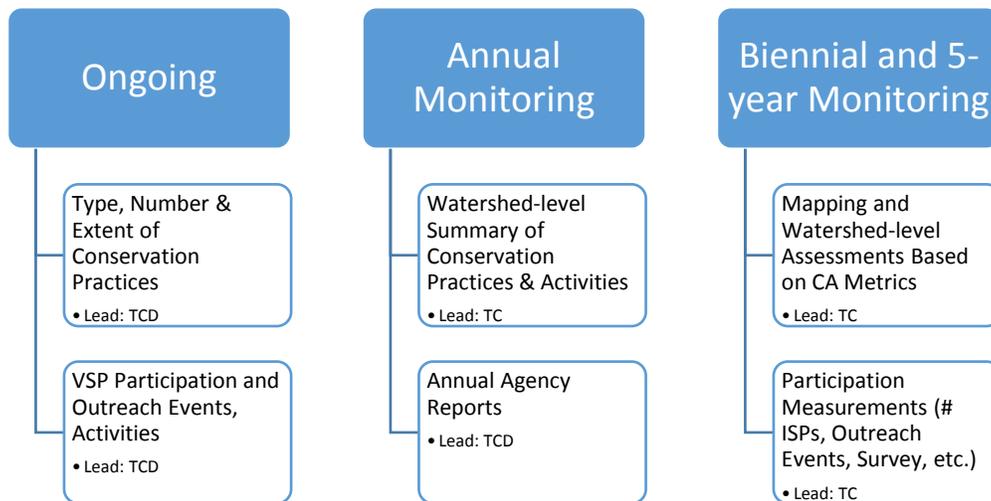
The Thurston Conservation District (TCD) is the lead technical assistance provider. Thurston County (TC) will serve as administrator of the Work Plan monitoring and implementation. The figure below illustrates ongoing, annual, and biennial and five-year activities by the TCD and TC.

Ongoing activities by the TCD primarily and other technical assistance providers secondarily include conservation practices and voluntary enhancement with willing landowners and VSP participation events. TC staff regularly meet with watershed planning units as well as other agencies and non-profit organizations to coordinate monitoring efforts related to agriculture and critical areas.

Annually, TC staff or an Ag Liaison will evaluate the reports from the TCD and technical assistance providers to describe conservation practices and voluntary enhancement projects during the prior year and present it to the Workgroup. Annually, TCD will prepare a report describing VSP implementation based on the ISPs and implementation agreements with willing landowners and any other grants or programs that implement VSP efforts.

Biennially and every five years, TC staff or an Ag Liaison will conduct watershed-level mapping and surveys, and compile the annual watershed-level monitoring reports described in Appendix C in collaboration with other partnering agencies, such as TCD and WSU extension, which collect data on an ongoing basis.

Image below to be inserted on p 21 of Work Plan.



Agricultural Viability Objectives and Measurements

Monitoring for agricultural viability takes into account the Strengths, Weaknesses, Opportunities, and Threats (SWOT) identified in Appendix M Section 1.3. for each of the five critical elements identified as necessary for 'agricultural viability' in Thurston County – 1) Land, 2) Water, 3) Infrastructure, 4) Regulatory Reform, and 5) Access to Markets, Finance, and Information. The Subcommittee then developed measurable objectives and metrics for these five critical elements.

For example, weaknesses and threats for the infrastructure element were specifically identified by Thurston farmers as a need for cold storage, dry storage, washing and packing infrastructure (Appendix M, pg. 12). Therefore, infrastructure monitoring (Indic-10) will focus on the number and availability of cold storage, dry storage and washing and packing facilities in Thurston County.

The indicators for agricultural viability will be evaluated for each reporting period. Monitoring will be conducted by the responsible agency identified in the Monitoring Matrix for each reporting period (See Appendix M page 24). Agricultural economy data will be tracked using the USDA Census of Agriculture, WSU Extension Reports, other agency reports, and data from farmers markets. If there is a trend in decline of the indicators, such as a reduction in revenue, acreage of land in agriculture, production and value, etc. the responsible agency will determine if it is due to natural causes or regulatory causes. If regulatory in nature, they will conduct a study to determine how to address the issue identified based on the indicator.

Bullets below to be inserted in corresponding columns in Monitoring and AM Matrix (Appendix C).

PROTECTION MONITORING

Overarching Critical Area (OCA) Protection Measurements

- **OCA M-a.** Aerial photography and repeat baseline critical area mapping to identify significant agriculture-related changes from baseline conditions in the extent or amount of critical areas intersecting agriculture **at the watershed-scale.**
 - The AM threshold for mapping that is repeated for every 5-year reporting period is a decline below the 2011 baseline extent or amount of critical areas
 - The mapping will be compared to the metrics for each critical area type (m-a through m-u) to determine significant agriculture-related changes in extent, amount, or *quality* of critical areas intersecting agriculture, **ground-truthing will occur at the parcel-level with the technical assistance provider**
 - **Aerial photography interpretation and mapping will be used to flag areas of intersect in each watershed with any significant changes for on-the-ground follow-up to determine if the loss of critical area extent, amount, or quality was due to agricultural activities, and to prioritize areas for AM actions, such as enhancement or stewardship actions to be implemented with willing landowners**
 - The AM threshold for the assessments (**assessments are based on the a comprehensive review of** metrics for each critical area type) will be primarily monitored by the technical assistance provider who will collect data on the parcel level from individual stewardship plans (ISPs) on an on-going basis (at development of ISPs, implementation of ISPs, and through annual monitoring) and track the trend in data in order to provide **aggregate** annual watershed-level reports to the County and the Workgroup, which will be included in each biennial and 5-year report
 - **Clarification: “annual monitoring” used throughout this document will be conducted through surveys, phone calls, e-mail, or other methods. In cases where site visits are required, this will be done for the 5-year reporting period.**

areas of intersect using aerial photography plus site visits by technical assistance providers **for each 5-year reporting period**

Wetland Critical Area Protections

- **CA M-j.** Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect implementing CPs intended to reduce erosion and sediment loads to wetlands
- **CA M-k.** Conservation practice indicators tracked (via ISP and annual monitoring) include, but are not limited to: percent of fencing miles managing livestock access and percent of wetland acres in areas of intersect
- **CA M-m.** Tracked at development of ISPs and annual monitoring (**e.g. windshield surveys and remote check-ins with participants**) to verify suitable plant communities are maintained or enhanced per ISPs
- **CA M-n.** Wetland rating will be determined at development of ISPs and at annual monitoring. Change from baseline tracked using aerial photography and 2014 rating system, extent tracked via aerial and onsite assessment of significant change in percent of intersect acres
- **CA M-o.** Aggregate tracking of number and acres enrolled in watershed as Wetlands per NRCS Farm Bill reports

Frequently Flooded Area Protections

- **CA M-p.** Type, number and extent of CPs retained and implemented, as well as percent of acres (as applicable) in areas of intersect implementing CPs intended to reduce erosion potential, reported in the aggregate for each watershed
- **CA M-q.** Type, number and extent of CPs retained and implemented, as well as percent of acres (as applicable) in areas of intersect implementing CPs to meet the FFA objectives (Appendix C pg. 5). The regulatory backstop incorporated for frequently flooded areas also applies:
 - Continued application of County agricultural critical area regulations for flood hazard areas and agricultural structures (TCC 14.38) incorporated into work plan (Appendix I pg. 10)
- **CA M-s.** For sample areas, impervious surface area will be tracked by percent of acres in areas of intersect using HRCD. Measured on watershed level.

Critical Aquifer Recharge Area Protections

- **CA M-u.** Type, number and extent of CPs retained and implemented, as well as percent of acres (as applicable) in areas of intersect implementing CPs for groundwater protection and to maintain aquifer recharge functions
 - Intersect areas protected by backstop of federal, state and county water and drinking water quality regulations. See the section on Adaptive Management above for more information on incorporation of regulations
 - Thurston County Board of Health provisions (*Article VI, Section 4.2*) still apply directly to agricultural activities, which establish water quality enforcement protections, including civil infraction authorities. A presumption of compliance applies to: “*farm operators with current District approved conservation plans which are being implemented and maintained as scheduled.*” The Federal Clean Water Act and Safe Drinking Water Act, and the State Water Pollution Control Act 90.48 RCW, also continue to apply and provide ongoing protection for aquifers.

ENHANCEMENT MONITORING

Overarching Critical Area (OCA) Enhancement Measurements

- **OCA M-a.** Enhancements will be measured at the watershed level through aggregated ISP reports (see pg. 1 on monitoring roles) and aerial photography
- **OCA M-b.** Enhancement CPs will be tracked, assessed and reported for areas of intersect by watershed and by type of critical area

Geohazard Critical Area Enhancements

- **CA M-a.** Type, number and extent of CPs retained and implemented, as well as percent of acres (as applicable) in areas of intersect implementing CPs intended to meet the geologic hazard area objectives for enhancements

Fish and Wildlife Habitat Conservation Area Enhancements

- **CA M-e.** Type, number and extent of CPs retained and implemented, as well as percent of acres (as applicable) in areas of intersect implementing CPs for enhancement and to meet the FWHCA objectives (Appendix C pg. 3)
- **CA M-i.** Number of culverts replaced and stream miles opened for the enhancement of FWHCA on lands used for agricultural activities will be tracked and reported in aggregate by watershed

Wetland Critical Area Enhancements

- **CA M-l.** Enhancement CPs tracked (via ISP and site-visits) include, but are not limited to: percent of fencing miles installed to manage livestock access and percent of wetland acres enhanced from baseline

Frequently Flooded Area Enhancements

- **CA M-r.** Type, number and extent of CPs retained and implemented, as well as percent of acres (as applicable) in areas of intersect implementing CPs for flood plain enhancements, per NRCS, reported in the aggregate for each watershed.

Critical Aquifer Recharge Area Enhancements

- **CA M-u.** Type, number and extent of CPs retained and implemented, as well as percent of acres (as applicable) in areas of intersect implementing CPs to improve groundwater quality, or reduce potential for groundwater pollution, and enhance aquifer recharge functions, reported in aggregate for each watershed

Other Minor Edits to the Work Plan

- Change all “may” statements to “will” as appropriate for monitoring methods (e.g. Appendix N pg. 11) and add references to metrics when referred to
- Incorporate the above additions and clarifications into Appendix C, the monitoring matrix, and the Work Plan where appropriate
- Add a tab to the monitoring matrix for agricultural viability indicators and monitoring (Being moved from Appendix M, p. 24 to Appendix C, matrix)
- Add more clarification in Appendix N on information the TCD will collect after the initial ISP, annual monitoring, and site visits, as well as the use of aerial imagery for monitoring.
- Fix identified typos in the AM matrix (Participation Obj-1) and Appendix N
- The Workgroup will also work to identify the best metric to use for verifying changes in critical area extent and quality on the watershed level for intersection areas (not just those participating in VSP), particularly for Geologic Hazard Areas and Critical Aquifer Recharge Areas. If the Workgroup cannot identify an appropriate (i.e. applicable, repeatable and practical) watershed-level metric for verifying changes identified from aerial photography, watershed-level mapping, and/or other monitoring methods, then the Workgroup will implement the AM management protocol described above relating to Geologic Hazard Areas and Critical Aquifer Recharge Areas