THURSTON COUNTY VOLUNTARY STEWARDSHIP PROGRAM WORK PLAN

Core Statutory Compliance Analysis

The Thurston County VSP Workgroup (a diverse group consisting of a wide spectrum of county residents aided by a host of local, state, and federal agency advisors) was convened by Thurston County and met more than 31 times during the planning time frame allotted by statute. This dedicated Workgroup labored through hours of analysis and vigorously debated the statutory requirements of VSP. The culmination of this effort is the draft Work Plan submitted to the Washington State Conservation Commission on March 9, 2017.

The Work Plan successfully demonstrates a thorough analysis and development of goals, benchmarks, and monitoring as required under the provisions of RCW 36.70A. It is designed such that *"at the end of ten years after receipt of funding, the work plan, in conjunction with other existing plans and regulations, will protect critical areas while maintaining and enhancing the viability of agriculture in the watershed." RCW 36.70A.725.*

To assist the Technical Panel and other readers of the plan, following is a brief cross reference chart locating details addressing each of the statutory requirements of RCW 36.70A.720(1) (a)-(l). There is also a more detailed analysis of each point in the following Executive Summary.

(a) Review and incorporate applicable water quality, watershed management, farmland protection, and species recovery data and plans	Appendix H (details on existing plans and information incorporated for each watershed starts on pg. 84); Appendix E, F, and G (maps)
(b) Seek input from tribes, agencies, and stakeholders	Work Plan Section 1 (pg. 3); Appendix N Outreach Section 1.1 and Section 1.2 (pg. 1-6)
(c) Develop goals for participation by agricultural operators	Work Plan Section 2.2 (pg. 15-16); Appendix N Section 1.3 (pg. 6); Appendix C Section 1.2 Participation Measurable Objectives (pg. 5)
(d) Ensure outreach and technical assistance is provided to agricultural operators	Work Plan Section 1.1.3 (pg. 4 and 5); Appendix N
(e) Create measurable benchmarks	Work Plan Section 2.1 (pg. 14); Appendix C
(f) Designate the entity or entities that will provide technical assistance	Work Plan Section 1.1.3 (pg. 4); Appendix N (pg. 7); Appendix O (pg. 5)
(g) Work with the entity providing technical assistance to ensure individual stewardship plans contribute to the goals and benchmarks	Appendix D (Stewardship Plan); Appendix J; Appendix N Section 2.1 (pg. 10); Appendix O Section 2.3 (pg. 8)
(h) Incorporate into the work plan any existing development regulations relied upon to achieve the goals and benchmarks for protection	Work Plan Section 1.1.3 (pg. 6) and Appendix I Section 2 starting on page 5
(i) Establish baseline monitoring	Work Plan Section 2 and 3; Appendices C, H Section 1.5 (pg. 25-30), E, F, G, & O Section 2.2
(j) Conduct periodic evaluations, institute adaptive management, and provide a written report of the status of plans	Work Plan Section 3 starting on page 17; Appendix C Section 2 starting on page 9
(k) Assist state agencies in their monitoring programs	Work Plan Section 3
(l) Satisfy any other reporting requirements of the program.	Work Plan Section 3

Tech Panel Practice Pointer: Provide a cover sheet or a cross-walk table with the work plan that lists each element of RCW 36.70A.720(1) (a)-(l) and where to find it in the work plan.

The cross-walk table above supplements the cross-walk provided on page iii of the Thurston VSP Work Plan, which summarizes statutory requirements and where they are addressed in the work plan. More detail on each point is available in the analysis of core statutory compliance elements below and the Workgroup responses to the Technical Panel questions sent in writing on April 4, 2017 (starting on pg. 7).

Detailed Core Statutory Compliance Analysis

(a) Review and incorporate applicable water quality, watershed management, farmland protection, and species recovery data and plans;

See Appendix H for descriptions of data and plans incorporated and detailed baseline conditions reports used to help make baseline determinations for each participating watershed. The Workgroup relied on existing plans and data to establish the baseline and scope for intersecting critical areas and agricultural activities in the county. See Work Plan Section 2 for a summary of agricultural and critical areas context and information on baseline establishment in participating watersheds. See also Appendix E, F, and G respectively for maps of critical areas, agricultural activities, and the scope and intersection of agriculture and critical areas.

Additionally, this Work Plan relies upon many existing and ongoing plans, programs and actions to protect the viability of farmers and farmland. Many actions implemented since the VSP baseline date of July 22, 2011, for instance, have helped to maintain and/or enhance agricultural viability. This includes 2014 Farm Bill Programs and ongoing technical assistance to help producers quality for existing tax incentives, financial incentives, grants, loans, business planning, farm transition planning, marketing assistance, value-added product development, crop insurance premium incentives, disaster assistance, regulatory risk reduction strategies, and other ag-enhancing programs.

(b) Seek input from tribes, agencies, and stakeholders;

See Work Plan Section 1 and Appendix N Section 1.1 for Establishment of the Workgroup and Section 1.2 for Ongoing Outreach.

The Plan and Appendices provide greater detail on how Thurston County and Thurston Conservation District staff will help the Thurston VSP Work Group and greater agricultural community work with, and gather input from, technical assistance providers and county, state, federal and tribal agencies to protect critical areas while also maintaining and enhancing agricultural viability in county watersheds. Implementation of the Work Plan is largely designed to fit within the framework of established programs. Many efforts already in place help agricultural producers protect and, in many cases, enhance critical areas. Numerous existing programs, activities and efforts also help maintain and enhance agricultural viability. Significant progress has been made to promote these mutually beneficial objectives in recent years. These ongoing efforts will be further supported and supplemented by VSP efforts to concurrently meet agricultural and environmental objectives.

(c) Develop goals for participation by agricultural operators conducting commercial and noncommercial agricultural activities in the watershed necessary to meet the protection and enhancement benchmarks of the work plan;

See Work Plan Section 2.2 for a summary of how the work plan addresses participation and stewardship activities. See Appendix N Section 1.3 on the post Work Plan approval outreach stage and for how potential participants will be encouraged to participate in the VSP and complete individual stewardship plans as needed to meet plan benchmarks. See Appendix C Section 1.2 for participation goals and

measurable objectives and how direct and indirect effects from participation in the VSP will be accounted for, as well as agricultural viability objectives and indicators.

(d) Ensure outreach and technical assistance is provided to agricultural operators in the watershed;

See Work Plan Section 1.1.3 for information on the primary Technical Assistance provider chosen by the Workgroup and the focus of Work Plan implementation efforts (pg. 4 and 5) and Appendix N on Outreach to agricultural operators. Ongoing activities by the Thurston Conservation District (TCD) primarily include hosting VSP participation events, educating willing landowners on voluntary conservation practices, incentives and opportunities, and monitoring and reporting of stewardship actions planned and implemented. The focused and coordinated implementation of this Work Plan's goals, benchmarks, monitoring and adaptive management provisions are designed to promote producer participation, concurrently maintain and enhance agricultural viability, and protect and voluntarily enhance critical areas where needed through voluntary stewardship. Plan approval will help drive funding into technical assistance efforts designed to increase producer participation and broaden collective benefits from conservation and agricultural viability programs.

(e) 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;

See Work Plan Section 2.1 on the overarching ten-year Goals and Benchmarks designed to promote voluntary, incentive-based measures 1) to provide long-term protection of critical areas and 2) to encourage voluntary enhancements to improve critical area conditions. See Appendix C for Benchmarks and Monitoring of each critical area category intersecting with agricultural activities.

(f) Designate the entity or entities that will provide technical assistance;

As described in Work Plan Section 1.1.3 the Thurston Conservation District (TCD) is designated as the lead Technical Assistance provider. Also see Appendix N for more detail on the role of the TCD in outreach and implementation of the Thurston VSP Work Plan.

(g) Work with the entity providing technical assistance to ensure that individual stewardship plans contribute to the goals and benchmarks of the work plan;

See Appendix D for the VSP Stewardship Plan Checklist the technical assistance provider (TCD) will use for individual stewardship plans referenced in the VSP law to help participants contribute to the goals and benchmarks of the VSP Work Plan. The results of the checklist regarding conservation practices installed post July 2011, as well conservation practices to be installed moving forward, are linked to each type of critical area.

> Tech Panel Practice Pointer: Clearly set out how agricultural practices will protect critical area functions and how that compares to practices used at the baseline.

See Appendix J on Critical Area Functions and Agricultural Activities. Section 2 starting on page 13 in Appendix J provides a summary table and detailed information on NRCS conservation practice effects on the primary critical area functions. The Thurston VSP Work Plan uses NRCS conservation practices that are developed from Land Grant University research with State and Federal agency input. These practices under-go review every 5 years and are vetted through the USDA Agricultural Research Service (ARS). The ARS Conservation Effects Assessment Project maintains a clearinghouse of research on the topic of conservation practice and program effects on critical area functions and values.

The list of conservation practices implemented and the associated effects on critical area functions as compared to baseline critical area conditions will be accounted for by the Technical Assistance Provider in

the Individual Stewardship Plans. See Appendix N Section 2.1 starting on page 8 for Agency Roles and Responsibilities. The Thurston Conservation District will produce a Record of Decisions for each Individual Stewardship Plan, using a standard template that already exists for conservation plans. The Record of Decisions identifies conservation practices that are planned, the amount, planned year, and lifespan; additionally, implementation is verified yearly. The Record of Decision will be one component (step 4) of the Individual Stewardship Plan, which includes:

1. Administrative – To include Stewardship Plan Checklist, signature sheets and table of contents;
2. Narrative Inventory – To include a plan summary and consideration for the five critical areas with definition of each area, current inventory, and management plan;
3. Maps – To include a selection of critical areas maps and final plan map;
4. Specifications – To include the "Record of Decisions" and practice specifications;
5. Worksheets – To include resource concerns checklist and supporting risk assessments; and
6. Additional Information – To include all additional information both for landowner reference and supporting documentation.

(h) Incorporate into the work plan any existing development regulations relied upon to achieve the goals and benchmarks for protection;

See Work Plan Section 1.1.3 (pg. 6) and Appendix I Section 2 starting on page 5 for the combination of existing local, state and federal "regulatory backstop" provisions in place that maintain protection of critical areas. In addition to the requirement that this Work Plan protect each critical area type in each participating watershed, this Work Plan also incorporates existing Thurston County flood hazard area regulations (Appendix I pg. 10) into the work plan. These incorporated county development regulations will remain in effect for agricultural activities after plan adoption and are relied upon to help achieve Work plan critical area protection goals and benchmarks, per RCW 36.70A.720(h). Furthermore, to promote more likely achievement of the work plan's goals and benchmarks for critical area protection and enhancement, 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 Chapter 17.15 TCC which will otherwise be replaced upon approval of the VSP work plan. This approach is consistent with the VSP directive to conduct biennial evaluations and "institute adaptive management." Following plan adoption, and during implementation of the VSP, 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)) (Appendix I pg. 9).

(i) Establish baseline monitoring for: (i) Participation activities and implementation of the voluntary stewardship plans and projects; (ii) stewardship activities; and (iii) the effects on critical areas and agriculture relevant to the protection and enhancement benchmarks developed for the watershed;

> Tech Panel Practice Pointer: A clearly identified section of the work plan should be identified and in it an explanation of how the July 22, 2011 baseline was established should be included.

See Work Plan Section 2 and 3 for summaries of agricultural and critical areas context, baseline monitoring for producer participation and effects on critical areas and agricultural viability baselines, Appendix H for watershed baseline conditions reports used for baseline establishment, and Section 1.5 starting on page 22 of Appendix H for more detailed information and data on baseline conditions of critical areas and agriculture. See also Appendices E, F, and G for maps of critical areas, agricultural activities, and the areas of critical areas intersecting with agricultural activities in participating watersheds.

> Tech Panel Practice Pointer: Datasets used for monitoring purposes should be repeatable for subsequent analysis.

See Appendix O Section 2.2 for mapping methodology. See also Work Plan Section 3, Appendix C, the maps in Appendices E, F, G, and Appendix H Section 1.5 for more information on monitoring, plans, and

data incorporated and used to make baseline determinations on the scope and intersection of agriculture and critical area conditions.

> Tech Panel Practice Pointer: Clearly explain monitoring, adaptive management, and reporting requirements in the work plan.

See Work Plan Section 3 on Monitoring, Reporting and Adaptive Management. See Appendix C Monitoring and Adaptive Management (AM) Matrix for goals, benchmarks, objectives, monitoring methods, AM action thresholds, who monitors and when. Also see Appendix N Section 2 for details on implementation and reporting of the Thurston VSP and agency roles and responsibilities. Thurston County Resource Stewardship Department will serve as Work Plan administrator and monitoring will in part be a responsibility of the Agricultural (Ag) Liaison or county staff. Any county-wide mapping or data that can be collected on the watershed scale will be collected by the Ag Liaison or staff. This includes (but is not limited to):

- Map agricultural activities in Thurston County for each reporting period, and determining acreages;
- Map critical areas in Thurston County for each reporting period, and determining acreages;
- Map the intersection of agricultural activities for each reporting period, and determining acreages;
- Determine change in acreage of Long Term Agriculture (TC), Nisqually Agriculture (TC), Tidal Shellfish Approved areas (DOH), and Open Space Enrollment for Current Use and Conservation Lands (TC);
- Determine the type, number, and extent of conservation practices using NRCS data;
- Determine number of agricultural operators meeting conservation compliance certification (AD-1026);
- Determine acreage of impervious surfaces and change in acreage over time (using NOAA's Coastal Change Analysis Program and WDFW's High Resolution Change Detection dataset).

Additionally, some data will be collected by the technical assistance provider(s) (TCD) during the implementation of Individual Stewardship Plans and through effectiveness monitoring. Because this data is collected at the parcel level, it will be reported to the Ag Liaison or county staff on a watershed scale to maintain anonymity of farmers. The Ag Liaison or county staff will report on data collected from monitoring and make a recommendation to the Workgroup as to how data informs the benchmarks. The Workgroup will discuss and determine if benchmarks are being met at five and ten years, determine the success of the Voluntary Stewardship Program at ten years, and continue adaptive management as needed (Appendix N pg. 9-10).

See Appendix C Section 2 for more detail on monitoring, reporting and adaptive management, including conservation practices that have been implemented since the July 2011 baseline, which provides detail on projects implemented with producers since 2011 that have had positive effects on critical area conditions, increasing the likelihood that VSP critical area protection tests will be met. Many of these conservation actions have also had the concurrent effect of enhancing Ag Viability and the producer's bottom line. Priority is given to VSP efforts that accomplish both objectives.

> Tech Panel Practice Pointer: Clearly identify and explain adaptive management thresholds in the work plan.

The Thurston County VSP Monitoring and Adaptive Management Matrix (Appendix C) contains three prioritized parts (critical area protection; voluntary enhancement; and participation) to describe monitoring methods and objectives, adaptive management thresholds, and roles and responsibilities. The Matrix specifically identifies what will be measured (performance metric), what results will produce an action

(adaptive management action threshold), responsibilities for implementation and monitoring (who does what), and frequency of monitoring and reporting (when).

The adaptive management threshold is identified for each metric in Appendix C-Monitoring Matrix as column G (6). This trigger is, generally, "decline below the 2011 baseline OR decline in trend line for 3 out of 5 years".

For participation, the trigger is generally "decline below the baseline annual average participation rate".

(j) Conduct periodic evaluations, institute adaptive management, and provide a written report of the status of plans and accomplishments to the county and to the commission within sixty days after the end of each biennium;

See Work Plan Section 3 and Appendix C on Monitoring, Reporting and Adaptive Management. Annually, TCD will report in the aggregate on the watershed level on conservation practices and voluntary enhancement projects implemented during the prior year and present that information to the Workgroup. Biennially and every five years, Thurston County staff or an Ag Liaison will repeat watershed-scale assessments using tools such as mapping, aerial interpretation and surveys. County staff or an Ag Liaison and TCD will also regularly meet with watershed planning units as well as other nonprofits and agencies to refine VSP focus. The Workgroup will receive regular progress reports from TCD and county staff to track progress of priority focus efforts and to ensure that development and implementation of individual stewardship plans is aligned with and contributing to timely achievement of work plan goals and benchmarks (Work Plan pg. 5).

Data collected will help the Workgroup track conservation practices implemented and account for watershed level protections and enhancements of conditions for each critical area type in areas of intersect. Data collected will also help the Workgroup track, vet and account for watershed level degradations in critical area conditions due to intersecting agricultural activities.

Together these monitoring efforts will help the Workgroup determine whether adaptive management is needed based on whether agricultural viability is being maintained and enhanced, baseline critical area functions and values are being protected (no net loss due to agricultural activities at the watershed level), and critical area protection and enhancement goals and benchmarks are being achieved for each critical area type with intersecting agricultural activities in each participating watershed area.

(k) Assist state agencies in their monitoring programs; and

See Work Plan Section 3.

(l) Satisfy any other reporting requirements of the program.
RCW 36.70A.720

See Work Plan Section 3.

Request for Approval. This Work Plan's viability-centered approach promotes the legislature's intent to "Encourage and foster a spirit of cooperation and partnership among county, tribal, environmental and agricultural interests to assure program success" RCW 36.70A.700. Together this voluntary incentive-based Work Plan meets the three ten-year tests of an approvable VSP Work Plan: 1) critical areas, as effected by agricultural activities in the watershed, will be protected; 2) agricultural viability, as effected by critical area protection and enhancement activities in the watershed, will be maintained and enhanced; and 3) voluntary enhancement of critical areas will be promoted through incentive-based measures. The Thurston County VSP Workgroup believes the Thurston County VSP Work Plan meets all VSP tests and requirements and respectfully requests a recommendation of approval.

1. **Would monitoring under the Thurston County VSP Work Plan (TCWP) only occur on participants in the program?**

No. Some monitoring will occur at the watershed level and evaluates all agriculture/critical areas within the watershed, as opposed to just those participating. Examples from Section 2.1 in the Work Plan and Appendix C include:

- **Overarching Metric-a:** Complete critical area assessments applying the metrics for each critical area type to identify significant agriculture-related changes from baseline conditions in the extent, amount, or quality of critical areas intersecting agriculture (Work Plan pg. 15)
- **M-h**: Acreage of rare habitat types and important, priority, and rare species habitats in areas with agriculture activities (verified on-site) (M-a through u in Appendix C starting on pg. 3)
- **M-i**: Number of culverts replaced and stream miles opened on lands used for agricultural activities
- **M-s**: Acres of impervious surface on lands used for agricultural activities in each watershed
- **Participation metrics** – these will be measured by 1) those participating in VSP and 2) those who implement Conservation Practices and are not participating in the program, either through NRCS or on their own (Appendix C Section 1.2 pg. 5)

As per Appendix C, "Many of the metrics being measured will be collected by the technical assistance provider. The metrics will be collected during Individual Stewardship Plan development and implementation planning with VSP participants. The metrics and conservation practices will be measured throughout monitoring and reported to the Workgroup, and the county VSP program manager or an Agricultural Liaison on the watershed scale.

The Monitoring and Adaptive Management Matrix identifies metrics, benchmarks, thresholds, who is responsible for measuring, and how often the data will be reported on. If an adaptive management threshold is reached for a given metric, the issue will be assessed by the county staff or Agricultural Liaison in collaboration with the technical assistance provider or responsible party identified in the matrix and an appropriate action or actions will be recommended for Workgroup consideration. Participation metrics will also be monitored and managed with an adaptive management threshold in which, if met, the issue is assessed and appropriate action is evaluated" (pg. 13).

The Work Plan is designed to be proactive in monitoring efforts, while also being flexible with adaptive management in order to respond and adjust the program based on results from implementation, as well as to unforeseen events and the uncertainty of available funding and resources.

2. **Is there any more explanation of how the 2011 baseline is established beyond Footnote #7 in Appendix C on page 4?**

Footnote 7 is a specific method for measuring the baseline and change for Metric CA M-s, which looks at "acres of impervious surface on lands used for agricultural activities in each watershed". NOAA C-CAP could be used to gather a rough acreage of impervious surface in the County for 2011. Acreage is captured in 2010 as 3.93% of the County (computes to 19,467.65 acres). The HRCD dataset identifies areas of change (impervious surface gain, vegetation loss) and is currently existing for ¾ watersheds for 2011-2013 and 2013-2015. Pending funding, this method would be used to monitor impervious gain, by WRIA, for the County in the future.

Similarly, Footnote 5 is a specific method for measuring the baseline for metric CA M-n, "extent and rating of wetlands".

See Work Plan Section 2 and 3 for summaries of agricultural and critical areas context, baseline monitoring for producer participation and effects on critical areas and agricultural viability baselines,

Appendix H for watershed baseline conditions reports used for baseline establishment, and Section 1.5 starting on page 22 of Appendix H for more detailed information and data on baseline conditions of critical areas and agriculture.

In the main body Work Plan, page 14, footnote 1: "Baseline conditions are established with available data and mapping of 2011 conditions or at the time of individual stewardship plan (ISP) development if 2011 data is not available." This could be through baseline mapping acreages of critical areas and agricultural activities (Appendix H Section 1.5), conservation practices reported for a given time-period and averaged as number implemented per year (Appendix C Section 2.1 pg. 9), or other methods available, depending on the metric. In the event that there is no 2011 baseline, it would be established at the time of an ISP. Page 17 of the Work Plan states: "When baseline data is not available it may be collected by the technical assistance provider at the time of the development of individual stewardship plans and reported in the aggregate on the watershed level. Once the baseline is established for a site, ongoing data collection with the metrics will be used for measuring progress towards the goals and benchmarks of this work plan."

Some baseline values are provided in Appendix H: Baseline Conditions & Existing Information. For example, Table 2 (p. 17) identifies the 2011 baseline acreage of Open Space programs, versus the current acreage of Open Space programs. Table 4 (p. 24-26) breaks down the acreage of critical areas by watershed in 2011.

3. What does the heading "for illustration purposes only" mean in Appendix C?

This is an error, added in by the original developer of the monitoring matrix template. Will be removed.

4. What is the methodology that will be used to conduct the monitoring described in Appendix C?

The Monitoring Method is identified in the 4th column of the Monitoring Matrix. This identifies the level which monitoring will occur on (and who will monitor it, under column 7 "Who Monitors"). The technical assistance provider and county staff or Ag Liaison will be responsible for most monitoring of metrics.

See Appendix O Section 2.2 for mapping methodology. See also Work Plan Section 3, Appendix C, the maps in Appendices E, F, G, and Appendix H Section 1.5 for more information on monitoring methodology and plans and data incorporated and used to make baseline determinations on the scope and intersection of agriculture and critical area conditions.

In the Work Plan, p. 17: "Aggregate information from parcel level monitoring such as acreage and numbers, including the number of stewardship plans and conservation practices implemented, will be reported in conjunction with watershed level monitoring data".

Furthermore, on p. 18-19: "VSP implementation resources are limited, and no easy or affordable monitoring methods can reliably isolate effects of agricultural activities on critical area conditions at the watershed level. Further, because counties have not been provided state funding for extensive monitoring, and because counties are not responsible for unfunded mandates under the VSP statutes, this work plan will utilize watershed-based monitoring systems already in place at the county level and submissions of monitoring information from state agencies and others, including monitoring data collected by TCD on the implementation of Stewardship Plans, to identify potential degradations of critical area functions due to agricultural activities."

Appendix N also identifies responsibilities as it relates to monitoring. On pg. 9, "Data collection and monitoring will in part be a responsibility of the Ag Liaison or county staff. Any county-wide mapping or data that can be collected on the watershed scale will be collected by the Ag Liaison or staff. This includes (but is not limited to):

- Map agricultural activities in Thurston County for each reporting period, and determining acreages;
- Map critical areas in Thurston County for each reporting period, and determining acreages;
- Map the intersection of agricultural activities for each reporting period, and determining acreages;
- Determine change in acreage of Long Term Agriculture (TC), Nisqually Agriculture (TC), Tidal Shellfish Approved areas (DOH), and Open Space Enrollment for Current Use and Conservation Lands (TC);
- Determine the type, number, and extent of conservation practices using NRCS data;
- Determine number of agricultural operators meeting conservation compliance certification (AD-1026);
- Determine acreage of impervious surfaces and change in acreage over time (using NOAA's Coastal Change Analysis Program and WDFW's High Resolution Change Detection dataset)."

The Thurston Conservation District will periodically revisit properties (annually or biannually) to verify implementation and collect data for monitoring (Appendix N, p. 11). This data will be aggregated and reported on the watershed level and may include:

- Type, number, and extent of conservation practices relevant to each Critical Area.
- Quality and Function (e.g. effective shade) of riparian areas using the NRCS Riparian Assessment method.
- Acreage of suitable native plant communities. Suitable communities are native plants that are appropriate for the relevant habitat.
- Acreage of important, priority, and rare habitat types (may involve consultation with expert).
- Number of culverts voluntarily replaced and stream miles opened.

5. What is the connection between the monitoring and the protection of the critical areas and agricultural viability?

Conservation practices benefit both agricultural viability and critical areas. Many of the metrics for monitoring progress towards the goals and benchmarks of the VSP measure the "type, number, and extent of conservation practices" implemented for a given critical area. The technical assistance provider will track and monitor the conservation practices implemented for meeting the objectives and benchmarks of each critical area (Appendix C pg. 9). See Appendix C Section 1.1 for Critical Areas Benchmarks and Metrics, Section 1.2 for Participation Goals and Measurable Objectives, and Section 1.3 for Agricultural Viability Objectives and Measurements.

6. When, and at what intervals, and how will monitoring will occur?

See Work Plan Section 3 on Monitoring, Reporting and Adaptive Management. See Appendix C Monitoring and Adaptive Management (AM) Matrix for goals, benchmarks, objectives, monitoring methods, AM action thresholds, who monitors and when. Also see Appendix N Section 2 for details on implementation and reporting of the Thurston VSP and agency roles and responsibilities.

Monitoring will be on-going and reported on biannually and then at 5-year reporting periods. The technical assistance provider will do periodic checks on implementation, and collect monitoring data at those visits (a consistent slow collection of data as opposed to one bulk monitoring period). These visits will monitor the implementation of conservation practices through Individual Stewardship Plans dependent on the time of enrollment into VSP (1-2 years after implementation). Data will be reported biannually and then at 5-year reporting periods. Because this data is collected at the parcel level, it will be reported to the Ag Liaison or county staff on a watershed scale to maintain anonymity of farmers. The Ag Liaison or county staff will report on data collected from monitoring and make a recommendation to the Workgroup as to how data informs the benchmarks. The Workgroup will discuss and determine if benchmarks are

being met at five and ten years, determine the success of the Voluntary Stewardship Program at ten years, and continue adaptive management as needed (Appendix N pg. 9-10).

The county staff or Ag Liaison will repeat mapping and watershed-level monitoring for each reporting period. Other measurements (acreages of Open Space, Long Term Ag, Tidal Shellfish areas, NRCS data on conservation practices) can be collected any time, but will be done with regularity on a biannual basis and for each reporting period.

Specific dates for formal reports is identified in Appendix N, pg. 8-9.

7. What is the adaptive management threshold or trigger?

The Thurston County VSP Monitoring and Adaptive Management Matrix (Appendix C) contains three prioritized parts (critical area protection; voluntary enhancement; and participation) to describe monitoring methods and objectives, adaptive management thresholds, and roles and responsibilities. The Matrix specifically identifies what will be measured (performance metric), what results will produce an action (adaptive management action threshold), responsibilities for implementation and monitoring (who does what), and frequency of monitoring and reporting (when).
The adaptive management threshold is identified for each metric in Appendix C-Monitoring Matrix as column G (6). This trigger is, generally, "decline below the 2011 baseline OR decline in trend line for 3 out of 5 years".

For participation, the trigger is generally "decline below the baseline annual average participation rate".

8. How are the threats to the agricultural community connected to agricultural viability in the TCWP?

A SWOT analysis is included for Agricultural Viability in Appendix M, pg. 10-13. Threats are identified for each of the 5 pillars essential to agricultural viability in the County: land resources, water resources, regulatory risk, infrastructure, and market.

9. What is the scope of the critical areas involved in Thurston County?
10. What is the scope of agriculture in Thurston County?

Thurston Work Plan, p. 2: Scope. VSP statute states that the "program shall be *designed to* protect and enhance critical areas on lands used for agricultural activities through voluntary actions by agricultural operators" (RCW 36.70A.705), and the program "applies to all unincorporated property upon which agricultural activities occur within a participating watershed" (RCW 36.70A.710). Since Thurston County designated all its watersheds as "participating watersheds," all producers farming or ranching on unincorporated property in the county are eligible to voluntarily participate in VSP.

For acreages of critical areas intersecting agricultural activities in each watershed see Appendix H Table 4 starting on page 23.

11. How will Thurston County communicate to potential VSP participants?

Outreach will be conducted through event participation, maintaining an updated webpage, flyer efforts, bulletins, workshops, or other methods. This may involve Thurston Conservation District, WSU, NRCS, or Workgroup members (Appendix N, pg. 9).

Additionally, "The Ag Liaison or county staff will be responsible for, in coordination with other agencies, outreach and education of the Voluntary Stewardship Program throughout implementation. This may involve holding VSP events, maintaining an updated webpage, flyer efforts, bulletins, workshops, or other

methods. Outreach also includes any communication with the Board of County Commissioners, which the Workgroup may also participate in." (Appendix N, p. 10)

Additionally, "Because the Thurston Conservation District has established trust with the agricultural community, they will conduct direct outreach with existing farmers that may be eligible for the Voluntary Stewardship Program beginning after plan approval. This will be one of many efforts to communicate and educate farmers about the Voluntary Stewardship Program." (Appendix N, p. 11)

Additionally, "The Washington State University Extension plays a primary role in on-going outreach to farmers because of rapport. This may include reference to the Voluntary Stewardship Program on the web page, flyer distribution, bulletins, workshops, or other methods." (Appendix N, p. 12)

12. How many participants in VSP does Thurston County expect to have? How many non-participants?

The Thurston Work Group discussed this at meetings and has no indicators to project number of participants in the VSP. The average participation rate for farm plans is 11 per year. This is the baseline participation rate, so Thurston County would expect to see a minimum of 11 plans per year (until saturation is reached), otherwise adaptive management will be implemented.

13. Are the data sources listed in Appendix H, page 23 for agriculture repeatable?

These data resources are updated on a [limited] basis (most of them in a 5-year cycle; for example NLCD 2016 is currently under research and development). Windshield surveys are repeatable, but confidential; this component made up a very small portion of the "agricultural activities" layer.

See Appendix O Section 2.2 for mapping methodology.

14. What do the three land indicators in Appendix C, page 6 mean? Are they repeatable? Is there data rigor there? What correlation do these have to protecting critical areas and agricultural viability?

The agricultural viability subcommittee identified "indicators" as surrogate measurements for each of the 5 agricultural viability pillars. These indicators serve only to indicate on the status of land as it relates to agricultural viability. All three of these indicators are repeatable: agricultural activities will be repeated, the USDA census is repeated (these may change due to new and improved measuring methods, which will be taken into consideration); agricultural area use change will be tracked through participants and the technical assistance provider, through either gain or loss in acres of actively farmed land; and Open Space and Long Term Agriculture data is easily accessible and updated regularly through County parcel and zoning data.

Table 7 in Appendix C, page 6 contains several indicators, all aimed at measuring a specific pillar of agricultural viability.

15. How will agricultural practices be used to protect critical area functions?

Appendix J, page 2 contains a table that describes the effect of certain agricultural practices on different critical areas. In the same appendix, starting on page 13 a summary table is provided as well as detailed information on NRCS conservation practice effects on the primary critical area functions. The Thurston VSP Work Plan uses NRCS conservation practices that are developed from Land Grant University research with State and Federal agency input. These practices under-go review every 5 years and are vetted through the USDA Agricultural Research Service (ARS). The ARS Conservation Effects Assessment Project maintains a clearinghouse of research on the topic of conservation practice and program effects on critical area functions and values.

The list of conservation practices implemented and the associated effects on critical area functions as compared to baseline critical area conditions will be accounted for by the Technical Assistance Provider in the Individual Stewardship Plans. See Appendix N Section 2.1 starting on page 8 for Agency Roles and Responsibilities. "The Thurston Conservation District will produce a Record of Decisions for each Individual Stewardship Plan, using a standard template that already exists for conservation plans. The Record of Decisions identifies conservation practices that are planned, the amount, planned year, and lifespan; additionally, implementation is verified yearly. The Record of Decision will be one component (step 4) of the Individual Stewardship Plan, which includes:

7. Administrative – To include Stewardship Plan Checklist, signature sheets and table of contents;
8. Narrative Inventory – To include a plan summary and consideration for the five critical areas with definition of each area, current inventory, and management plan;
9. Maps – To include a selection of critical areas maps and final plan map;
10. Specifications – To include the "Record of Decisions" and practice specifications;
11. Worksheets – To include resource concerns checklist and supporting risk assessments; and
12. Additional Information – To include all additional information both for landowner reference and supporting documentation." (Appendix N pg. 11-12)

16. How does the list of agricultural practices that protect critical area functions compare to the baseline protection already provided by those agricultural practices?

Many of these agricultural practices (see Appendix J starting on page 13 for a summary of the effects on critical area functions) are already being implemented, as of the 2011 baseline, through TCD conservation plans and NRCS contracts. Increased implementation of a given conservation practice would be beneficial for the respective functions. See Appendix C Section 2.1 starting on page 9 for conservation practices that have been implemented since the 2011 baseline. "Conservation practices implemented after 2011 show progress towards the protection and enhancement goals and benchmarks of the work plan. Under the VSP, these are considered stewardship activities that demonstrate the protection and voluntary enhancement of critical area functions and values, as well as the maintenance and improvement of agriculture in Thurston County beyond the 2011 baseline" (Appendix C pg. 9).