Thurston County Voluntary Stewardship Program Work Plan

Appendix C – Benchmarks, Monitoring and Adaptive Management

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1 Critical Areas Benchmarks and Monitoring

The measurable objectives and metrics below are organized by each critical area, however many of these objectives and metrics can apply to more than one critical area and implementation of conservation practices can effect more than one critical area and the functions and values of multiple critical areas. VSP goal and benchmark monitoring will be accomplished by comparing ongoing data collected on projects, practices, and conditions for a particular biennial and/or 5-year report with baseline conditions to determine, on a watershed level, whether goals and benchmarks are being met for each type of critical area intersecting lands used for agricultural activities in each participating watershed. For VSP purposes, the relationship between conditions at the time of assessment and baseline conditions will be based on designations, conditions, lists, and policies in effect on July 22, 2011. For more information on implementation of conservation practices see Appendix D for the Individual Stewardship Plan checklist.

1.1 Critical Areas Benchmarks and Metrics

Table 1. Geologically Hazardous Areas Intersecting with Agriculture

Geologic Hazard Areas: areas susceptible to erosion, sliding, earthquake, or other geologic events, where development is not suitable due to public health or safety concerns. Ch. 17.15 TCC.	
Purpose—Agriculture and Geologic Hazard Areas	
Purpose 1.	Avoid and minimize impacts of erosion and landslide hazards on stream quality, important fish and wildlife habitats, and protect areas designated or with high potential for marine aquaculture activities from degradation by upland agriculture uses.
Purpose 2.	Avoid and minimize damage to agricultural activities due to erosion, landslides or other naturally occurring geologic event.
Geologic Hazard Areas Benchmark	
CA B-1.	At each five year benchmark reporting period, baseline conditions of geologically hazardous areas are protected on lands used for agricultural activities in each watershed.
CA B-2.	At each five year benchmark reporting period, enhancements of baseline conditions of geologically hazardous areas are promoted and accounted for on lands used for agricultural activities in each watershed.
Geologic Hazard Area Measurable Objectives	
Promote and monitor practices that:	
CA Obj-1.	Maintain or reduce erosion and sediment loads. Focus efforts in watersheds with water quality impairments and TMDL allocations for sediment.
CA Obj-2.	Stabilize steep slopes.
CA Obj-3.	Manage risk of landslides.
CA Obj-4.	Avoid compaction of soil.
CA Obj-5.	Avoid disturbing top and toe of steep slopes.
CA Obj-6.	Avoid irrigating unstable slopes.
Geologic Hazard Area Measurements and Monitoring	
CA M-a.	Type, number, and extent of conservation practices (CPs) retained or implemented, as well as percent of acres (as applicable), in areas of intersect with CPs for meeting the geologic hazard area objectives (see Appendix C).
CA M-b.	Number of agricultural operators and acreage or percent of acreage meeting conservation compliance certification (AD-1026) requirements for steep slopes and highly erodible lands in order to qualify for Farm Bill incentives.[1]

[1] The VSP statute (RCW 36.70A.755) states that in implementing the work plan the Workgroup should "Administer the program in a manner that allows participants to be eligible for public or private environmental protection and enhancement incentives while protecting and enhancing critical area functions and values." The NRCS link below provides more detail on 5 steps to meeting conservation compliance: http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/wa/home/?cid=nrcseprd340750

Table 2. Fish and Wildlife Habitat Areas Intersecting with Agriculture

Fish and Wildlife Habitat Conservation Areas: areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. Includes:

- **Rare or vulnerable ecological systems, communities, and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors.**
- **Areas with high relative population density or species richness**
- **Habitats and species of local importance, as determined locally[2]**

Additional considerations for fish and wildlife habitat conservation areas include:

- **Commercial and recreational shellfish areas**
- **Kelp and eelgrass beds; herring, smelt, and other forage fish spawning areas**
- **Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat**
- **Waters of the state**
- **Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;**

Does not include: artificial features such as irrigation infrastructure, irrigation canals, or drainage ditches maintained by port district or an irrigation district company.

Habitat areas defined by WAC 365-190-030 and additional considerations Ch. 24.03.010 TCC.

Purpose—Agriculture and Fish and Wildlife Habitat Conservation Areas

Purpose 3.	Preserve habitat adequate to support viable populations of native fish and wildlife, protect the functions and values of priority and locally important habitat, and provide for connectivity among habitats.
Purpose 4.	Encourage voluntary and non-regulatory methods of habitat retention and enhancement through education, incentives, and other programs.

Fish and Wildlife Habitat Benchmarks

CA B-3.	At each five year benchmark reporting period, baseline conditions of fish and wildlife habitat conservation areas are protected on lands used for agricultural activities, including shellfish areas, in each watershed.
CA B-4.	At each five year benchmark reporting period, enhancements of baseline conditions of fish and wildlife habitat conservation areas are promoted and accounted for on lands used for agricultural activities, including shellfish areas, in each watershed.

Fish and Wildlife Habitat Measurable Objectives

Promote and monitor practices that:

CA Obj-7.	Maintain or increase stream miles or total area of riparian areas. Focus efforts in watersheds with water quality impairments (based on the most current list of EPA-approved Water Quality Assessment category 4 and 5 waters).
CA Obj-8.	Replace culverts and other salmon passage barriers on private agricultural lands and expand salmonid access to high priority habitat.
CA Obj-9.	Maintain or increase acreage or percent of acreage of functional habitat for locally important, priority, and rare species, including suitable native plant communities, in areas with agricultural activities. Focus on preserving and / or enhancing the functions and values of priority habitats, including but not limited to: Oak habitat, prairie, and riparian habitat areas.

Fish and Wildlife Habitat Measurements and Monitoring

CA M-c.	Type, number, and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs for reducing erosion and sediment loads to fish and wildlife habitat conservation areas.
CA M-d.	Type, number, and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs to protect fish and wildlife habitat and meet the above objectives.
CA M-e.	Type, number, and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs to enhance fish and wildlife habitat and meet the above objectives.

[2] For VSP watershed-level reporting purposes, in identifying and protecting important habitats and species of local importance the question of whether critical area protection requirements and critical area protection and enhancement goals and benchmarks have been met will be determined based on the relationship between conditions at the time of the assessment and conditions as of the July 22, 2011 baseline.

CA M-f.	Quality and function (e.g. effective shade) of riparian areas in relation to acreage or percent of acreage and/or stream miles and average width on lands used for agricultural activities.
CA M-g.	Acreage of suitable[3] native plant communities (e.g. Oak woodland, grassland, etc.) on lands used for agricultural activities in the watershed.
CA M-h.	Acreage of rare habitat types and important, priority, and rare species habitats on lands used for agriculture activities (verified on-site[4]).
CA M-i.	Number of culverts replaced and stream miles opened for the enhancement of FWHCA on lands used for agricultural activities.

Table 3. Wetlands Intersecting with Agriculture

Wetlands: critical areas that are inundated or saturated by surface water or groundwater supporting a prevalence of vegetation adapted for life in saturated soil conditions. Includes: • **Swamps, marshes, bogs, and similar areas** **Does not include: Artificial wetlands intentionally created from non-wetland sites (i.e. irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities) unless permitted for wetland mitigation (WAC 365-190-030(22) PCC).**	
Purpose—Agriculture and Wetlands	
Purpose 5.	Achieve no net loss of wetlands (maintain aggregate baseline conditions) on lands used for agricultural activities in each watershed, avoid and minimize adverse impacts, and increase the quality and functions of wetlands through voluntary measures.
Purpose 6.	Ensure that agricultural activities in wetlands and riparian areas are implemented in a way that will avoid or minimize potential impacts.
Wetlands Benchmark	
CA B-5.	At each five year benchmark reporting period, baseline conditions of wetlands are protected on lands used for agricultural activities in each watershed.
CA B-6.	At each five year benchmark reporting period, enhancements of baseline conditions of wetlands are promoted and accounted for on lands used for agricultural activities in each watershed.
Wetland Measurable Objectives	
Promote and monitor practices that:	
CA Obj-10.	Maintain (no net loss) extent of baseline wetland functions and values on lands used for agricultural activities in each watershed
CA Obj-11.	Avoid unmitigated alterations to wetlands.
CA Obj-12.	Maintain or increase suitable native plant communities in wetlands and associated riparian protection areas.
CA Obj-13.	Implement conservation practices for wetland management, creation, or enhancement.
Wetland Measurements and Monitoring	
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, with CPs for reducing erosion and sediment loads to wetland critical areas.
CA M-k.	Type, number, and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs that protect wetland and associated riparian area functions and values (measured using NRCS or equivalent monitoring tools and standards tailored to reflect VSP purposes and definitions).
CA M-l.	Type, number, and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs that enhance wetland and associated riparian area functions and values.
CA M-m.	Acreage of suitable native plant communities in wetlands and associated riparian areas.

[3] "Suitable" native plant communities are defined as a plant communities that are appropriate for the relevant habitat type and are native and directly support functions and values of fish and/or wildlife habitat. Not all native plants may be considered "suitable" (e.g. Douglas-fir in a prairie habitat).

[4] County critical area designations for Fish and Wildlife Habitat Conservation Critical Areas and associated Priority Habitat Species data in existence on July 22, 2011 will be used as a starting point to determine baseline area of rare habitat types. The Thurston Conservation District [or other technical assistance provider] may consult an expert in verifying (e.g. WDFW).

CA M-n.	Extent and rating of wetlands present on participating lands used for agricultural activities, as determined in the 2014 Washington State Wetland Rating System (or as revised).[5]
CA M-o.	Number of agriculture operators and/or acreage or percent of acreage meeting wetland conservation compliance certification (AD-1026) requirements for Farm Bill incentive eligibility.

Table 4. Frequently Flooded Areas Intersecting with Agriculture

Frequently Flooded Areas: critical areas in the flood plain subject to at least a one percent or greater chance of flooding in any given year or areas within the highest known recorded flood elevation, or within areas subject to flooding due to high groundwater. Includes: • **Special flood hazard areas (as defined in Ch. 14.38) streams, rivers, lakes, coastal areas, wetlands, and areas where high groundwater forms ponds on the ground surface** • **All areas within unincorporated Thurston County identified on flood insurance rate maps prepared by the Federal Insurance Administration** **Agricultural activities and uses must meet the requirements of Chapter 14.38) for development in flood hazard areas[6].**	
Purpose—Agriculture and Frequently Flooded Areas	
Purpose 7.	Preserve natural flood control, stormwater storage and drainage, and maintain the linkages of the stream to its floodplain, including flood channels or high-flow channels.
Purpose 8.	Minimize flood damage to agricultural properties and operations.
Frequently Flooded Areas Benchmark	
CA B-7.	At each five year benchmark reporting period, baseline conditions of frequently flooded areas are protected on lands used for agricultural activities in each watershed.
CA B-8.	At each five year benchmark reporting period, enhancements of baseline conditions of frequently flooded areas are promoted and accounted for on lands used for agricultural activities in each watershed.
Frequently Flooded Areas Measurable Objectives	
Promote and monitor practices that:	
CA Obj-14.	Maintain or reduce impervious surfaces.
CA Obj-15.	Avoid permanent unmitigated alterations to floodplain areas that increase net floodwater displacement in the watershed.
CA Obj-16.	Where development or alterations are necessary, follow Ch. 14.38.[6]
CA Obj-17.	Maintain and/or enhance floodplain area functions and connectivity of streams to their floodplains.
Frequently Flooded Areas Measurements and Monitoring	
CA M-p.	Type, number and extent of conservation practices retained or implemented for reducing erosion and sediment loads to frequently flooded areas.
CA M-q.	Type, number and extent of conservation practices retained or implemented that protect flood storage capacity, drainage, and connectivity.
CA M-r.	Type, number and extent of conservation practices retained or implemented that enhance flood storage capacity, drainage, and connectivity.
CA M-s.	Acres of impervious surface[7]on lands used for agricultural activities in each watershed.

[5] Wetland extent will be tracked using acreage or percent of acreage and rating of wetlands in each watershed, in relation to July 22, 2011 baseline ratings systems and information. Measured with the WA Wetland Rating System on the parcel level by the technical assistance provider. Change from baseline extent tracked using aerial photography, with onsite assessment of significant change in percent of intersect acres. 2011 aerial photography will be one tool used to establish a baseline for wetlands intersecting lands used for agricultural activities. Aerial photography and other assessment tools at the time of monitoring will be used to determine any significant change from the baseline.

[6] Development in flood hazard areas must meet the requirements of Ch. 14.38 – Development in Flood Hazard Areas. This improves consistency with FEMA standards and flood insurance requirements.

[7] The 2011 baseline will be measured using NOAA C-CAP. It is the Workgroup's current understanding that, pending funding, the state Department of Fish and Wildlife may continue to produce the High Resolution Change Detection (HRCD) dataset to identify changes in impervious surfaces. This dataset currently exists for WRIAs 11, 13, and 14 for change occurring between 2011-2013 and 2013-2015.

Table 5. Critical Aquifer Recharge Areas Intersecting with Agriculture

Critical Aquifer Recharge Areas: critical areas with a critical recharging effect on aquifers used for potable water including areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water, or is susceptible to reduced recharge.	
Purpose—Agriculture and Critical Aquifer Recharge Areas	
Purpose 9.	Maintain groundwater recharge and prevent the degradation of groundwater resources. Maintain the delicate balance between surface water and groundwater in order to preserve essential biological, physical, and geochemical functions.
Purpose 10.	Protect vital groundwater resources that serve as the primary water source for agricultural activities and balance competing needs for water while preserving natural functions and processes.
Critical Aquifer Recharge Benchmark	
CA B-9.	At each five year benchmark reporting period, baseline conditions of critical aquifer recharge areas are protected on lands used for agricultural activities in each watershed.
CA B-10.	At each five year benchmark reporting period, enhancements of baseline conditions of critical aquifer recharge areas are promoted and accounted for on lands used for agricultural activities in each watershed.
Critical Aquifer Recharge Areas Measurable Objectives	
Promote and monitor practices that:	
CA Obj-18.	Avoid or minimize the risks of ground water contamination from agricultural activities, consistent with county and state water quality standards.
CA Obj-19.	Maintain or improve groundwater recharge and ensure sufficient infiltration of water at the land's surface to sustain aquifers, maintain base flows in fish-bearing streams, and maintain wetland water levels.
Critical Aquifer Recharge Areas Measurements and Monitoring	
CA M-t.	Type, number and extent of conservation practices and stewardship activities retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs for groundwater protection and to maintain recharge functions.
CA M-u.	Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs to enhance groundwater quality and aquifer recharge functions.

1.2 Participation Goals and Objectives

Table 6. Participation Goal and Measurable Objectives

Participation (RCW 36.70A.720 (1)(c))		
Goal	Promote participation and stewardship activities by agricultural operators conducting commercial and noncommercial agricultural activities in order to meet the protection and enhancement benchmarks.	
Participation Objectives	P Obj-1.	Promote producer participation and progress toward meeting the protection and enhancement benchmarks of this work plan with a proactive conservation program delivery process.
	P Obj-2.	Provide adequate technical assistance and information to agricultural producers and operators, encouraging the protection and enhancement of critical areas through voluntary measures.
	P Obj-3.	Increase direct participation over 10 years by commercial and noncommercial agricultural operators in terms of number or percent of operators and/or number or percent of acres participating.
	P Obj-4.	Maintain or increase indirect participation over 10 years by commercial and noncommercial agricultural operators in conservation practices on agricultural land (including but not limited to those described in Appendix J).
Participation Measurement and Monitoring	**Metrics for direct participation** include, but are not limited to:	
	P M-a.	Number of outreach and education events and number of event attendees.

	P M-b.	Number of Individual Stewardship Plan (ISP) checklists submitted to the technical assistance provider.
	P M-c.	Number of Individual Stewardship Plans (ISP) completed by the technical assistance provider, with implementation agreement signed.
	Metrics for indirect participation will be tracked and reported using one or more methods:	
	IP M-a.	Type, number and extent of conservation practices retained or implemented to protect critical area functions and values based on indirect participation in areas with agricultural activities.
	IP M-b.	Type, number and extent of conservation practices retained or implemented to enhance critical area functions and values based on indirect participation in areas with agricultural activities.
	IP M-c.	Random sampling of farmers and ranchers in the field by technical assistance providers.
	IP M-d.	Phone, mail, or online surveys.

1.3 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 Agricultural Viability Subcommittee developed measurable objectives and metrics for these five critical elements (Table 7).

For example, weaknesses and threats for the infrastructure element were specifically identified by Thurston farmers as a need for cold storage, dry storage, and 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.

Table 7. Suggested Agricultural Viability Objectives and Measurements

Agricultural Viability (RCW 36.70A.720 (1)(e)(i) and (i)(iii))		
Goal	Ag Goal-I. Maintain and improve the long-term viability of agriculture as of the July 2011 baseline for Thurston County.	
Agricultural Viability Elements and Indicators		
Land Element	Ag Obj-1.	Maintain or increase a land base with good soil suitable to produce healthy crops of food, fiber and fuel.

Land Indicators *(for measurement and monitoring)*	Ag M-a.	Acreage of agriculture measured by: a) The county baseline agricultural activities that intersect with critical areas and b) The acreage of farmland from the USDA census.
	Ag M-b.	Acreage of agricultural area use change (in Stewardship Plans).
	Ag M-c.	Acreage of designated agricultural land in protection programs (i.e. Open Space Farm and Agriculture or Long-Term Agriculture).
Water Element	Ag Obj-2.	Maintain or increase water resources necessary for farms and ranches to remain viable.
Water Indicators	Ag M-d.	Water resources education and outreach efforts tracked by the number of hits on a water resources clearinghouse webpage and/or the number of outreach materials distributed.
	Ag M-e.	Number of irrigation efficiencies implemented and structural/operational improvements to water infrastructure. Track outcome reporting from NRCS grants for irrigation improvements, TCD projects, and Stewardship Plans.
	Ag M-f.	Number of agriculture related water rights certifications, claims, permits and applications.
Regulatory Reform Element	Ag Obj-3.	Regulatory reform to provide reasonable and predictable standards and streamlined processes to reduce time and costs.
Regulatory Reform Indicators	Ag M-g.	Outreach to farmers: Number of technical assistance staff (TCD and/or Agricultural Liaison) available and resources provided to facilitate a better understanding of the current rules and regulations.
	Ag M-h.	Outreach to policy-makers: Number of efforts/resources provided to support and promote policy-makers and regulators understanding of agriculture related issues and making needed reforms to maintain or enhance agricultural viability.
	Ag M-i.	Number of new or amended agriculture related regulations and how they impact agriculture.
Infrastructure Element	Ag Obj-4.	Maintain and improve agricultural infrastructure (soft and hard) and identify infrastructure gaps, such as processing facilities, financing opportunities, technical assistance capacity, farm transition planning capacity, transportation, and other public facilities.
Infrastructure Indicators	Ag M-j.	New or improved agriculture infrastructure.
	Ag M-k.	Number of events or workshops for networking between farmers or between farmers and agencies.
	Ag M-l.	Number of assistance courses or educational workshops, number of pilot projects or demonstration events.
Markets Element	Ag Obj-5.	Maintain or improve the market and profitability of farm operations and agricultural products.
Markets Indicators	Ag M-m.	Periodic assessment of the local agricultural economy to determine the value that it creates for the Thurston County community and to ascertain if agricultural viability is being “maintained and enhanced”.
	Ag M-n.	Number of farmers markets and annual sales – broken into food processors, producers, vendors and craft sales.
	Ag M-o.	Branding efforts to increase product value (i.e. number of “VSP Good Steward” and Bountiful Byway participants, or other certifications).
	Ag M-p.	Market Value of Agriculture (USDA Census).

Table 8. Suggested Agricultural Viability Activities and Incentives

Activities	Descriptions
Ag Viability Activity 1	Federal, state, and local funding sources should support VSP participation by agricultural operators with priority consideration on applications for conservation practice incentives.
Ag Viability Activity 2	Provide information to agricultural operators about available tax incentives, financial assistance programs, farm bill programs, and other information related to agricultural viability (i.e. through technical assistance and an online clearinghouse for resources and info). Seek new tax incentives by the state legislature that recognize VSP participation.
Ag Viability Activity 3	Increased marketing opportunities for VSP participation through recognition, "Good Steward" branding/certification, and individual farm signs.
Ag Viability Activity 4	Ensure the County Comprehensive Plan, zoning, and other codes provide strong support for agricultural infrastructure and operations.
Ag Viability Activity 5	Regulatory and tax reform: Promote reforms that align Thurston County policies and regulations with VSP objectives to maintain and improve the long-term viability of agriculture. Remove barriers that inhibit the viability of agricultural operations. Review relevant codes to determine alternative strategies. Evaluate fees applied to agricultural activities and identify fees that should be eliminated or modified.
Ag Viability Activity 6	Establish an Agricultural Viability Committee or Agricultural Liaison to advise Thurston County and other agencies on measures to promote the agriculture economy and develop a process to consider needed regulatory and tax reforms.
Ag Viability Activity 7	Evaluate ways to streamline the application and permitting process for agricultural operators.
Ag Viability Activity 8	Evaluate appropriate densities and site planning for rural residential or urban residential uses that abut designated agricultural lands to minimize interface, protect necessary agricultural practices, and reduce agricultural conversion pressures.
Ag Viability Activity 9	Fund and promote assessments by non-regulatory technical assistance providers to identify voluntary protection or enhancement actions that will improve agricultural viability by reducing regulatory risk and business uncertainty for agricultural operators.
Ag Viability Activity 10	Fund and implement an Agricultural Liaison position with a clear mission to promote and protect agricultural viability and provide resources and information on federal, state, and local laws that affect agricultural activities. This position would also support the Workgroup in VSP implementation and watershed-level monitoring and reporting efforts.

2 Monitoring, Reporting, and Adaptive Management

2.1 Conservation Practices Implemented

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 (tables 1-5).

In the past, a total of 15,758.6 acres of conservation practices have been implemented through NRCS in Thurston County between 2005 and 2015. An average of 12 contracts per year have been implemented through the Environmental Quality Incentive Program (EQIP) in that ten year period. Between 2002 and 2008, 14 contracts and 1,551 acres were treated through the Wildlife Habitat Incentives Program (WHIP). Also, between 2005 and 2013 two contracts were implemented through the Conservation Security Program (CSP), which installed 85 acres of conservation practices.

Since 2011, 67 EQIP contracts were developed with a total of 6,991 acres of conservation practices implemented. Furthermore, Thurston Conservation District has developed and completed 45 Conservation Plans between 2012 and 2016, as well as six Dairy Nutrient Management Plans and three Conservation Reserve Enhancement Program (CREP) plans over that five year period for a total of 54 plans and an average annual participation rate of approximately 11 plans per year.[8] The Thurston Conservation District also provides other technical assistance to landowners, including writing "implementation" plans for single practices, which generally consist of a letter with instructions for the landowner.

These conservation practices implemented are examples of measurable actions that can be monitored during implementation of the VSP work plan. 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.

Table 3. NRCS Conservation Practices Implemented

Program	Range of Practices (NRCS code)	Year Start	Year End	# Contracts	Approx. Acreage
Wildlife Habitat Incentives Program (WHIP) 2002-2008	Restoration of rare and declining habitats (643) Brush Management (314) Conservation Cover (327) Herbaceous Weed Control (315) Tree/Shrub Establishment (612) Forest Stand Improvement (666)	2005	2013	14	1,551
Environmental Quality	Pipeline (516) Irrigation Water Pipeline (430DD) Irrigation Water Management (449)	2006	2012	11	2,191.5

[8] Thurston Conservation District, *personal communication,* May 2016.

Incentives Program (EQIP) 2006	Prescribed Grazing (528) Nutrient Management (590) Watering Facility (614) Cover Crop (340) Pasture and Hayland Planting (512) Fence (382) Forest Site Prep (490) Tree/Shrub Establishment (612) Upland Wildlife Habitat Management (645) Pumping Plant (533) Pest Management (595) Micro Irrigation System (449) Forest Stand Improvement (666) Compost Facility (317 Roof Runoff Structure (558) Underground Outlet (620) Access Control (472) Waste Utilization (633)				
Environmental Quality Incentives Program (EQIP) 2007	Cover Crop (340) Irrigation Water Management (449) Fence (382) Access Control (472) Prescribed Grazing (528) Nutrient Management (590) Tree/Shrub Establishment (612) Forest Stand Improvement (666) Pipeline (516) Watering Facility (614) Tree/Shrub Site Preparation (490) Roof Runoff Structure (558) Heavy Use Protection (561) Underground Outlet (620) Wetland Restoration (657)	2007	2014	5	378.8
Environmental Quality Incentives Program (EQIP) 2008	Irrigation Water Management (449) Pest Management (595) Tree/Shrub Site Preparation (490) Tree/Shrub Establishment (612) Nutrient Management (590) Restoration of Rare and Declining Habitats (643) Forest Stand Improvement (666) Access Road (560) Fence (382) Access Control (472) Pipeline (516) Watering Facility (614) Upland Wildlife Habitat Management (645) Prescribed Grazing (528) Micro Irrigation System (449) Irrigation Water Pipeline (430DD) Cover Crop (340) Road/Landing Removal (722)	2008	2014	8	1,278
Environmental Quality	Irrigation Water Management (449) Cover Crop (340)	2009	2014	5	394.3

Incentives Program (EQIP) 2009	Conservation Crop Rotation (328) Pest Management (595) Nutrient Management (590) Forest Slash Treatment (384) Restoration of Rare and Declining Habitats (643) Access Road (560) Forest Trails and Landings (655) Road/Trail/Landing Closure and Treatment (654) Tree/Shrub Site Preparation (490) Tree/Shrub Establishment (612) Forest Slash Treatment (384) Forest Stand Improvement (666) Micro Irrigation System (449)				
Environmental Quality Incentives Program (EQIP) 2010	Tree/Shrub Establishment (612) Tree/Shrub Site Preparation (490) Field Border (386) Irrigation Water Management (449) Nutrient Management (590) Pest Management (595) Cover Crop (340) Irrigation System Sprinkler (442) Fence (382) Prescribed Grazing (528) Waste Transfer (634) Restoration of Rare and Declining Habitats (643) Forest Stand Improvement (666) Pipeline (516) Seasonal High Tunnel (798) Pasture and Hayland Planting (512) Forest Stand Improvement (666) Forest Slash Treatment (384) Composting Facility (317) Waste Transfer (634) Underground Outlet (620) Watering Facility (614)	2010	2015	16	2,889
Environmental Quality Incentives Program (EQIP) 2011	Pest Management (595) Forest Stand Improvement (666) Restoration of Rare and Declining Habitats (643) Agricultural Energy Management Plan Headquarters (122) Fence (382) Roof Runoff Structure (558) Fence (382) Forest Management Plan (106) Cover Crop (340) Tree/Shrub Site Preparation (490) Nutrient Management (590) Tree/Shrub Establishment (612) Irrigation Pipeline (430DD) Forage Biomass Planting (512) Pumping Plant (533)	2011	2015	23	2,240

	Waste Transfer (634) Waste Storage Facility (313) Underground Outlet (620) Seasonal High Tunnel (798)				
Environmental Quality Incentives Program (EQIP) 2012	Restoration of Rare and Declining Habitats (643) Hedgerow Planting (422) Tree/Shrub Site Preparation (490) Early Successional Habitat Development (647) Seasonal High Tunnel (798) Tree/Shrub Pruining (660) Cover Crop (340) Prescribed Grazing (528) Tree/Shrub Establishment (612) Roof Runoff Structure (558) Underground Outlet (620) Compost Facility (317) Forage Biomass Planting (512) Pipeline (516) Heavy Use Protection (561) Nutrient Management (590) Watering Facility (614) Early Successional Habitat Development (647) Hedgerow Planting (422) Riparian Forest Buffer (391) Agricultural Energy Management Plan Landscape (124)	2012	2015	19	1,768
Environmental Quality Incentives Program (EQIP) 2013	Agricultural Energy Management Plan Headquarters (122) Agricultural Energy Management Plan Landscape (124) Farmstead Energy Improvement (374) Pumping Plant (533) Seasonal High Tunnel (798) Fence (382) Forage Biomass Planting (512) Irrigation Pipeline (430DD) Micro Irrigation System (449) Heavy Use Protection (561) Prescribed Grazing (528) Access Control (472) Brush Management (314) Tree/Shrub Site Preparation (490) Tree/Shrub Establishment (612) Fish and Wildlife Structure (734) Forest Management Plan (106) Riparian Forest Buffer (391) Mulching (484) Forest Stand Improvement (666) Restoration of Rare and Declining Habitats (643)	2013	2015	24	2,366
Environmental Quality	Access Control (472) Restoration of Rare and Declining Habitats (643)	2014	2015	1	617

Incentives Program (EQIP) 2014	Forest Stand Improvement (666) Cover Crop (340)				
Conservation Security Program (CSP) 2005-2013	Enhancement _ Energy Management (EEM) Enhancement _ Soil Management (ESM)	2005	2015	2	85
Total					**15,758.6**

Note: Forestry is not covered by VSP though listed in part above. Agricultural activities, however, include "Christmas trees; hybrid cottonwood and similar hardwood trees grown as crops and harvested within twenty years of planting" (RCW 90.58.065 (2)(b)). NRCS practices regarding forest management can create a healthier forest that retains soil and water processes; where activity destroys cover, soils may wash downstream and affect agricultural activities. Agricultural activities may also be occuring in areas with forestry, such as grazing.

Source: NRCS, West Area Office Olympia Service Center, June 2015

2.2 Reporting and Adaptive Management

This section is being written before implementation has begun, and is anticipated to be developed after implementation and monitoring. Thus, the information in this section will be updated and supplemented depending on the needs of the program.

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.

Monitoring results and reports will be attached to this appendix of the Work Plan once completed.

	Critical Area Goals	Benchmark	Performance Metric	Monitoring Method	Adaptive Management Action Threshold	Adaptive Management Action	Who Monitors	When
Definitions	*High level goal of project*	*Environmental conditions desired from project*	*What will be measured to show progress toward objective or if adaptive management is needed*	*How the performance metric will be measured*	*Project result that, if achieved, must be addressed with an action*	*Action that will be taken if threshold is reached (A No Action Alternative is implied as an option for every Objective Listed Below)*	*Person or organization responsible for adaptive management objective monitoring*	*When monitoring will occur (first reporting period 5 years after receipt of funding, then every 5 years)*
CA Goal I. Prevent the degradation of critical area functions and values existing as of the July 22, 2011 baseline due to agricultural activities	**OCA B-1. At each five-year benchmark reporting period, baseline critical area conditions (functions and values) are protected (no net loss at the watershed level) for each critical area type in each watershed through voluntary measures on lands used for agricultural activities**	OCA M-a.Repeat critical area mapping and assessments to identify significant agriculture-related changes from baseline conditions in the extent, amount or quality of critical areas intersecting agriculture at the watershed-scale	Measured on the watershed level (e.g. by the agricultural liaison) and from aggregate data collected by the technical assistance provider, who will also provide on-the ground verification of what is mapped as needed	Decline below the 2011 baseline	Evaluate if changed mapping or aerial interpretation is due to on-the ground loss of critical area from agricultural activities in areas of intersect or due to quality of data or changes in mapping methods	TC or Ag Liason will monitor and report to workgroup	5 year formal reports beginning in July, 2019
		OCA M-b. Number of farms and acreage of land used for agricultural activities that have retained or implemented conservation practices (CPs) for the protection of critical area functions and values	Conservation practices to be tracked, assessed and reported for areas of intersect by basin and by type of critical area on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action (e.g. seek willing landowners to re-establish or establish new conservation practices and/or enhancement projects if below the baseline)	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
	CA B-1. Baseline conditions of geologically hazardous areas are protected on lands used for agricultural activities in each watershed	CA M-a. Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable), in areas of intersect with CPs for meeting the geologic hazard area objectives (see Appendix C)	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action (see example above)	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
		CA M-b. Number of agriculture operators and acreage, or percent of acreage, meeting conservation compliance certification (AD-1026) requirements for steep slopes and highly erodible lands for Farm Bill incentives	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action	CD and other partners/tech assistance (i.e. NRCS)	Biennial reports and 5 year formal reports beginning in July, 2019
		CA M-c. Type, number, and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs for reducing erosion and sediment loads to fish and wildlife habitat conservation areas	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
		CA M-d. Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs to meet the FWHCA objectives (Appendix C)	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action (e.g. seek willing landowners to re-establish or establish new conservation practices and/or enhancement projects for FWHCA)	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
	CA B-3. Baseline conditions of fish and wildlife habitat conservation areas are protected on lands used for agricultural activities, including shellfish areas, in each watershed	CA M-f. Quality and function (e.g. effective shade) of riparian areas in relation to acreage and/or stream miles and average width on lands used for agriculture activities	Measured on the parcel level using the NRCS Riparian Assessment method by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline	Assess issue based on metric and determine appropriate action (e.g. seek willing landowners to re-establish or establish new conservation practices and/or enhancement projects for riparian areas)	CD and other partners/tech assistance (i.e. NRCS)	5 year formal reports beginning in July, 2019
		CA M-g. Acreage of suitable native plant communities on lands used for agriculture activities	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action (e.g. seek willing landowners to re-establish or establish new conservation practices and/or enhancement projects for native plant communities)	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
		CA M-h. Acreage of rare habitat types and important, priority, and rare species habitats on lands used for agriculture activities (verified on-site)	Measured on the watershed level (by TC or the Ag liaison) and verified by the technical assistance provider on-site (may consult an expert). Sample areas will be tracked by percent of acres in areas of intersect using aerial photography plus site visits by technical assistance providers	Decline below the 2011 baseline	Assess issue based on metric and determine appropriate action	CD and other partners/tech assistance (i.e. NRCS)	5 year formal reports beginning in July, 2019
	CA B-5. Baseline conditions of wetlands are protected on lands used for agricultural activities in each watershed	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 with CPs for reducing erosion and sediment loads to wetland critical areas	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
		CA M-k. Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable), that protect wetland and associated riparian area functions and values	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
		CA M-m. Acreage of suitable native plant communities in wetlands and associated riparian areas	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
		CA M-n. Extent and rating of wetlands present on participating lands used for agricultural activities	Measured with the WA Wetland Rating System on the parcel level by the technical assistance provider. Change from baseline extent tracked using aerial photography, with onsite assessment of significant change in percent of intersect acres	Decline below the 2011 baseline OR decline in trend line of ratings for 3 out of 5 years	Assess issue based on metric and determine appropriate action (e.g. seek willing landowners to re-establish or establish new conservation practices and/or enhancement projects for wetlands)	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019

	Critical Area Goals	Benchmark	Performance Metric	Monitoring Method	Adaptive Management Action Threshold	Adaptive Management Action	Who Monitors	When
Definitions	*High level goal of project*	*Environmental conditions desired from project*	*What will be measured to show progress toward objective or if adaptive management is needed*	*How the performance metric will be measured*	*Project result that, if achieved, must be addressed with an action*	*Action that will be taken if threshold is reached (A No Action Alternative is implied as an option for every Objective Listed Below)*	*Person or organization responsible for adaptive management objective monitoring*	*When monitoring will occur (first reporting period 5 years after receipt of funding, then every 5 years)*
			CA M-o. Number of agriculture operators and acreage, or percent of acreage, meeting wetland conservation compliance certification (AD-1026) requirements for Farm Bill incentives	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action	CD and other partners/tech assistance (i.e. NRCS)	Biennial reports and 5 year formal reports beginning in July, 2019
		CA B-7. Baseline conditions of frequently flooded areas are protected on lands used for agricultural activities in each watershed	CA M-p. Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable), in areas of intersect with CPs for reducing erosion potential in frequently flooded areas	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
			CA M-q. Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable), in areas of intersect with CPs for meeting the FFA objectives (Appendix C)	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports and 5 year formal reports beginning in July, 2019
			CA M-s. Acres of impervious surface on lands used for agricultural activities in each watershed	Measured on the watershed level (e.g. by the agricultural liason). For sample areas, impervious surface area will be tracked by percent of acres in areas of intersect using HRCD	Increase above the 2011 baseline	Assess issue based on metric and determine appropriate action if increase is due to agricultural activities	TC or Ag Liason	5 year formal reports beginning in July, 2019
		CA B-9. Baseline conditions of critical aquifer recharge areas are protected on lands used for agricultural activities in each watershed	CA M-t. Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs for groundwater protection and to maintain aquifer recharge functions	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports and 5 year formal reports beginning in July, 2019

	Critical Area Goals	Benchmark	Performance Metric	Monitoring Method	Adaptive Management Action Threshold	Adaptive Management Action	Who Monitors	When
Definitions	*High level goal of project*	*Environmental conditions desired from project*	*What will be measured to show progress toward objective or if adaptive management is needed*	*How the performance metric will be measured*	*Project result that, if achieved, must be addressed with an action*	*Action that will be taken if threshold is reached (A No Action Alternative is implied as an option for every Objective Listed*	*Person or organization responsible for adaptive*	*When monitoring will occur (first reporting period 5 years after receipt of funding, then every 5*
CA Goal-II. Enhance the conditions from the 2011 baseline of critical area functions and values through voluntary measures in areas of agricultural activities.		**OCA B-2. At each five-year benchmark reporting period, enhancements of baseline critical area conditions (functions and values at the watershed level) are promoted and accounted for in each watershed on lands used for agricultural activities**	OCA M-a. Repeat critical area mapping and assessments to identify significant agriculture-related changes from baseline conditions in the extent, amount or quality of critical areas intersecting agriculture at the watershed-scale	Measured on the watershed level (e.g. by the agricultural liaison) and from aggregate data collected by the technical assistance provider, who will also provide on-the ground verification of what is mapped as needed	Decline below the 2011 baseline	Evaluate if changed mapping or aerial interpretation is due to on-the ground loss of critical area from agricultural activities in areas of intersect or due to quality of data or changes in mapping methods	TCD and TC or Ag Liason will monitor and report to workgroup	5 year formal reports beginning in July, 2019
			OCA M-c. Number of farms and acreage of land used for agricultural activities that have retained or implemented conservation practices for the enhancement of critical area functions and values	Conservation practices to be tracked, assessed and reported for areas of intersect by basin and by type of critical area on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action (e.g. seek willing landowners to re-establish or establish new conservation practices and/or enhancement projects if below the baseline)	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
		CA B-2. Enhancements of baseline conditions of geologically hazardous areas are promoted and accounted for on lands used for agricultural activities in each watershed	CA M-a. Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs for meeting the geologic hazard area objectives (see Appendix C)	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action - if decline below the baseline seek willing landowners to implement enhancement projects	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
		CA B-4. Enhancements of basline conditions of fish and wildlife habitat conservation areas are promoted and accounted for on lands used for agricultural activities, including shellfish areas, in each watershed	CA M-e. Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable), in areas of intersect with CPs to enhance FWHCA and meet objectives	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action (e.g. seek willing landowners to re-establish or establish new conservation practices and/or enhancement projects for FWHCA)	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
			CA M-f. Quality and function (e.g. effective shade) of riparian areas in relation to acreage and/or stream miles and average width on lands used for agriculture activities	Measured on the parcel level using the NRCS Riparian Assessment method by the technical assistance provider and reported in the aggregate for each watershed	Decline below the 2011 baseline	Assess issue based on metric and determine appropriate action (e.g. seek willing landowners to re-establish or establish new conservation practices and/or enhancement projects for riparian areas)	CD and other partners/tech assistance (i.e. NRCS)	5 year formal reports beginning in July, 2019
			CA M-g. Acreage of suitable native plant communities on lands used for agriculture activities	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed.	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action (e.g. seek willing landowners to re-establish or establish new conservation practices and/or enhancement projects for native plant communities)	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
			CA M-h. Acreage of rare habitat types and important, priority, and rare species habitats in areas with agriculture activities (verified on-site)	Measured on the watershed level (by TC or the Ag liaison) and verified by the technical assistance provider on-site. Sample areas will be tracked by percent of acres in areas of intersect using aerial photography plus site visits by technical assistance providers	Decline below the 2011 baseline	Assess issue based on metric and determine appropriate action - if decline below the baseline seek willing landowners to implement enhancement projects	CD and other partners/tech assistance (i.e. NRCS)	5 year formal reports beginning in July, 2019
			CA M-i. Number of culverts replaced and stream miles opened for the enhancement of FWHCA on lands used for agricultural activities	Tracked and reported in the aggregate on the watershed level	Decline below the 2011 baseline	Assess issue based on metric and determine appropriate action	TC, CD and other partners/tech assistance (i.e. NRCS)	5 year formal reports beginning in July, 2019
			CA M-l. Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs that enhance wetland and associated riparian area functions and values	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed.	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action - if decline below the baseline seek willing landowners to implement enhancement projects	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
		CA B-6. Enhancements						

	CA B-6. Enhancements of baseline conditions of wetlands are promoted and accounted for on lands used for agricultural activities in each watershed	CA M-m. Acreage of suitable native plant communities in wetlands and associated riparian areas	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed.	Decline below the 2011 baseline OR decline in trend line of ratings for 3 out of 5 years	Assess issue based on metric and determine appropriate action - if decline below the baseline seek willing landowners to implement enhancement projects	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
		CA M-n. Extent and rating of wetlands present on participating lands used for agricultural activities	Measured with the WA Wetland Rating System on the parcel level by the technical assistance provider. Change from baseline extent tracked using aerial photography, with onsite assessment of significant change in percent of intersect acres	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action - if decline below the baseline seek willing landowners to implement enhancement projects	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
	CA B-8. Enhancements of baseline conditions of frequently flooded areas are promoted and accounted for on lands used for agricultural activities	CA M-r. Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs that enhance flood storage capacity, drainage, and connectivity	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed.	Increase above the 2011 baseline OR increase in trend line of impervious surfaces for 3 out of 5 years	Assess issue based on metric and determine appropriate action - if decline below the baseline seek willing landowners to implement enhancement projects	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019
	CA B-10. Enhancements of baseline conditions of critical aquifer recharge are promoted and accounted for on lands used for agricultural activities	CA M-u. Type, number and extent of conservation practices retained or implemented, as well as percent of acres (as applicable) in areas of intersect, with CPs to enhance groundwater quality and aquifer recharge functions	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed.	Decline below the 2011 baseline OR decline in trend line for 3 out of 5 years	Assess issue based on metric and determine appropriate action - if decline below the baseline seek willing landowners to implement enhancement projects	CD and other partners/tech assistance (i.e. NRCS)	Ongoing monitoring, annual summaries, biennial reports, and 5 year formal reports beginning in July, 2019

Participation Goals	Benchmark	Performance Metric	Monitoring Method	Adaptive Management Action Threshold	Adaptive Management Action	Who Monitors	When
High level goal of project	*Measurable objective*	*What will be measured to show progress toward objective or if adaptive management is needed*	*How the performance metric will be measured*	*Project result that, if achieved, must be addressed with an action*	*Action that will be taken if threshold is reached (A No Action Alternative is implied as an option for every Objective Listed Below)*	*Person or organization responsible for adaptive management objective monitoring*	*When monitoring will occur (first reporting period 5 years after receipt of funding, then every 5 years)*
Participation Goal: Promote participation and stewardship activities by agricultural operators conducting commercial and noncommercial activities in order to meet the protection and enhancement benchmarks	**P Obj-1. Promote producer participation and progress toward meeting the protection and enhancement benchmarks of this work plan with a proactive conservation program delivery process.**	P M-a. Number of outreach and education events and number of event attendees	Measured on the watershed level by the agricultural liason.	Decline below the baseline annual average participation rate for TCD plans (30/year)	Assess issue based on metric and determine appropriate action (e.g. increase education and outreach efforts).	Ag Liason, CD	Biennial reports and 5 year formal reports beginning in July, 2019
	P Obj-2. Provide adequate technical assistance and information to agricultural producers and operators, encouraging the protection and enhancement of critical areas through voluntary measures.	P M-b. Number of Stewardship Plan checklists submitted	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed.	Decline below the baseline annual average participation rate for TCD plans (11/year)	Assess issue based on metric and determine appropriate action (e.g. increase technical assistance efforts).	CD and other partners	Biennial reports and 5 year formal reports beginning in July, 2019
	P Obj-3. Increase direct participation by commercial and non-commercial agricultural operators over 10 years.	P M-c. Number of Individual Stewardship Plans (ISP) completed with implementation agreement signed	Measured on the parcel level by the technical assistance provider and reported in the aggregate for each watershed.	Decline below the baseline annual average participation rate for TCD plans (11/year)	Assess issue based on metric and determine appropriate action (e.g. increase education and outreach)	CD and other partners	Biennial reports and 5 year formal reports beginning in July, 2019
	P Obj-4. Maintain or increase indirect participation in conservation practices by agricultural operators over 10 years.	**IP M-a.** Type, number, and extent of conservation practices retained or implemented to protect critical area functions and values based on indirect participation in stewardship activities and conservation practices in areas of intersect. **IP M-b.** Type, number, and extent of conservation practices implemented to enhance critical area functions and values based on indirect participation in stewardship activities and conservation practices in areas of intersect. **IP M-c.** Random sampling of farmers and ranchers in the field by technical assistance providers. **IP M-d**. Phone, mail, or online surveys	**One or more** of the indirect participation metrics measured on the parcel or watershed level by the technical assistance provider or agricultural liason.	Decline below the baseline annual average participation rate for NRCS contracts (12/year)	Assess issue based on metric and determine appropriate action (e.g. increase education and outreach)	Ag Liason, CD, other partners	Biennial reports and 5 year formal reports beginning in July, 2019