Appendix A
Self-Assessment Checklist

Working together, farmers can use voluntary efforts to avoid additional regulatory controls.

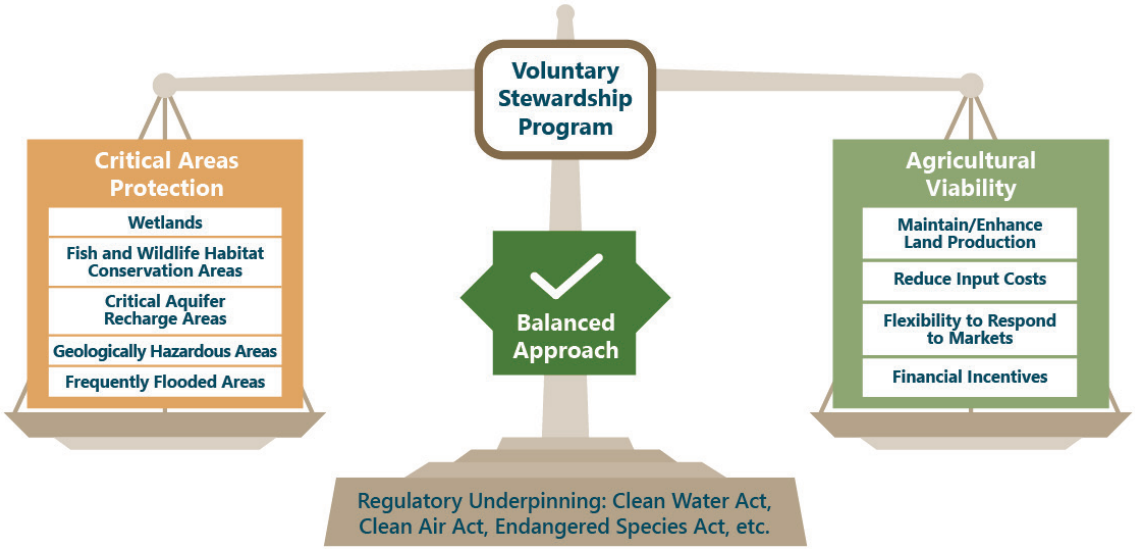
The Voluntary Stewardship Program (VSP) is a new, non-regulatory, and incentive-based approach that supports individual farm operations while protecting critical areas and maintaining agriculture viability in Kittitas County through **voluntary stewardship strategies and practices**.

Failure to meet protection and associated participation goals in the County will trigger the **traditional regulatory approach** to critical area protection under the County's Critical Areas Ordinance process.

How Can the VSP Support Operations on Your Farm?

VSP allows farmers to have more flexibility through ongoing agricultural stewardship practices, than traditional regulatory approaches for protecting critical areas. VSP also requires that this approach maintain and enhance the long-term viability of agriculture. Many farmers in the County are already conducting and tracking stewardship activities and practices that promote farm viability while also providing protections to critical area functions. This Self-Assessment Checklist will allow farmers to take credit for the actions they are already implementing.

Balanced Approach of Critical Area Protection and Agricultural Viability



Kittitas County VSP
Self-Assessment Checklist

The main objectives of the VSP checklist are to:

- Identify and document existing stewardship strategies or practices you have implemented since 2011 (effective date of VSP), either through existing publicly funded programs or voluntarily implemented through producer-funded practices.
- Identify opportunities to:
  - Maintain or improve existing stewardship strategies and practices
  - Implement additional stewardship strategies and practices on your land and connect you with technical service providers for implementing these practices
- Encourage high producer participation, through implementation of voluntary stewardship strategies and practices to help ensure the success of VSP.

What are critical areas?

Critical areas include:

- Wetlands
- Fish and Wildlife Habitat Conservation Areas
- Critical Aquifer Recharge Areas
- Geologically Hazardous Areas
- Frequently Flooded Areas

Stewardship Practices on Your Farm

Stewardship practices are broadly defined as any practice that, when implemented, further protects critical areas directly or indirectly, and maintains or improves agricultural viability whether or not they meet a Natural Resources Conservation Service (NRCS) conservation practice or other standard recognized by VSP.

This checklist can assist in documenting all stewardship strategies and practices currently being implemented by producers in the County and identify additional stewardship practices that might apply to your property. Because stewardship strategies and practices may fall under multiple categories, please include each implemented practice **only once**.

Privacy Note:

Stewardship strategies and practices documented through a local government agency, such as the Conservation Districts, are generally exempt from disclosure under the state Public Records Act. At the same time, the VSP Watershed Group requires some level of substantive information to be able to monitor ongoing program effectiveness in meeting VSP requirements and goals and benchmarks, and to support the Watershed Group's finding that aggregate baseline critical area conditions are being protected.

Information collected by producers using this checklist will be used to quantify, at the County-level, stewardship measures that have been implemented, as well as associated critical area protections and enhancements and agricultural viability benefits.

General Location (voluntary information):

If you are inclined to share, what Community Area is your farm located within?

- ☐ Forested Upland
- ☐ Shrub Steppe Upland
- ☐ Intensive Cropland – Kittitas Valley
- ☐ Intensive Cropland – Northern Kittitas County

Land Management and Agricultural Viability:

What types of land management or agricultural viability concerns do you have on your property?

- ☐ Water availability
- ☐ Fish screening and passage
- ☐ Soil loss (erosion)
- ☐ Weed management
- ☐ Pollinator/beneficial organism management
- ☐ Yield/fertility
- ☐ Inputs reduction (e.g., crop protection tools and/or nutrients)
- ☐ Other(s) please list: _____ _____

Water Management

Water availability is a major concern in Kittitas County. Stewardship practices that reduce the overall water consumption benefit the farmers that rely on irrigation water while increasing the amount of water available for fish and wildlife.

Grazing

Managing grazing to improve plant communities helps to reduce run-off, increases water infiltration, restores degraded habitat, and maintains healthy plant communities.

54 ## What Stewardship Practices Are Being Implemented on Your Farm?

Conservation Practices Examples[1]	I do this	I'm interested in this	Does not apply	Not interested	Average units/year (acres/feet/other)
Water Management					
Sprinkler Systems	○	○	○	○	_____ acres
Irrigation Water Management	○	○	○	○	_____ acres
Micro-irrigation	○	○	○	○	_____ acres
Irrigation Pipeline	○	○	○	○	_____ feet
Other(s): _____	○	○	○	○	_____ _____ *(unit)*
Pest and Nutrient Management					
Pest Management	○	○	○	○	_____ acres
Nutrient Management	○	○	○	○	_____ acres
Other(s): _____	○	○	○	○	_____ acres
Range Management					
Managed Grazing	○	○	○	○	_____ acres
Stock Watering Facilities/Wells	○	○	○	○	_____ acres
Other(s): _____	○	○	○	○	_____ _____ *(unit)*
Soil Management					
Cover Crop	○	○	○	○	_____ acres
Mulch	○	○	○	○	_____ acres
Other(s): _____	○	○	○	○	_____ acres
Habitat Management					
Stream Habitat Improvement and Management	○	○	○	○	_____ acres
Riparian Herbaceous Cover	○	○	○	○	_____ acres
Tree/Shrub Establishment	○	○	○	○	_____ acres
Fencing	○	○	○	○	_____ feet
Other(s): _____	○	○	○	○	_____ ____ *(unit)*
Stream Enhancement					
Streambank and Shoreline Protection	○	○	○	○	_____ acres
Aquatic Organism Passage	○	○	○	○	_____ no.
Structure for Water Control (fish screen)	○	○	○	○	_____ no.
Other(s): _____	○	○	○	○	_____ ____ *(unit)*

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[1] There are a variety of implementation methods that are acceptable within each type of stewardship practice. Under VSP, a goal is to document and take credit for all conservation practices that provide benefits to critical areas functions and values.

Additional Information and Assistance

Critical areas exist throughout the County. You can direct questions about the presence of critical areas on your property or participation in the VSP to the Kittitas County VSP Coordinator by using the contact information below. Additional information on the VSP can be found at the Kittitas County Conservation District website http://www.kccd.net/VoluntaryStewardship.htm.

VSP Technical Assistance Providers

Kittitas County Conservation District
Anna Lael (VSP Coordinator) District Manager Kittitas County Conservation District 2211 W Dolarway Road, Ste 4 Ellensburg, WA 98926 a-lael@conservewa.net (509) 925-3352

Other Local Resources:

- Washington Cattlemen's Association: http://www.washingtoncattlemen.org/
- Organization of Kittitas County Timothy Hay Growers and Suppliers: http://www.kittitastimothy.org/
- U.S. Department of Agriculture Natural Resources Conservation Service: https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/
- Washington State University Extension: http://extension.wsu.edu/

Appendix B
Baseline Conditions Summary

Appendix B-1
Methods and Data Sources

Appendix B-1: Baseline Conditions Summary Method and Data Sources

Overview

The effective date of the VSP legislation is July 22, 2011. This is also the date chosen by the legislature as the applicable baseline for accomplishing the following items (RCW 36.70A.703):

- Protecting critical areas functions and values.
- Providing incentive based voluntary enhancements to critical areas functions and values.
- Maintaining and enhancing the viability of agriculture in the County.

The 2011 baseline sets the conditions from which the County will measure progress in implementing the Work Plan and meeting measurable benchmarks. Measurable benchmarks are a required Work Plan element under VSP (RCW 36.70A.720 (1)(E)) and provided in the Kittitas County VSP Work Plan, Section 5: Goals, Benchmarks, and Adaptive Management.

The methods and data sources relied upon to establish 2011 baseline conditions for the County's five critical areas and agricultural activities are described in the following sections.

Methods for Establishing Baseline Conditions

The 2011 baseline conditions summary prepared includes an inventory of agriculture land cover and critical area resources. The following methods were applied in the baseline conditions inventory (see Table 1 for a complete list of data sources):

- **Agricultural landcover assessment.** This was based primarily on Washington State Department of Agriculture (WSDA) 2011 agricultural landcover data for croplands (irrigated agriculture). U.S. Department of Agriculture (USDA) 2011 agricultural landcover data was primarily relied upon for additional data on dryland agriculture. Kittitas County tax parcel data was used for rangelands through the Department of Revenue code category of Resource Production and Extraction, including 81-Agriculture, 83-Agriculture Current Use, and 88-Designated Forestland. Three major agricultural land categories were characterized within the County: 1) irrigated; 2); shrub-steppe rangeland and 3) forested rangeland. These categories are associated with different crops, agricultural activities, stewardship practices, and intersections with critical areas.
- **Critical areas assessment** was based on:
  - Critical areas designations included in the County's Critical Areas Ordinance (CAO; 2011) (see Appendix B-3 for CAO summary).
  - Data sources for planning-level critical areas mapping and critical area/agricultural intersections summaries (Appendix B-4: Baseline Conditions Critical Areas Data

Summary Tables) ranged from 2010 to 2016. See Table 1 for a complete list of data sources.

- **Privately owned lands.** These were used when assessing critical area intersections with agricultural lands. The VSP does not apply to agricultural activities occurring on public lands through leases or other agreements.
- **Mid-Columbia summer steelhead critical habitat and bull trout critical habitat.** Data sources and VSP critical areas mapping were used to assess potential areas where final critical habitat for bull trout occur. These areas provide notice to the public and land managers of the importance of these areas to the conservation of this species. Special protections and/or restrictions are possible in areas where federal funding, permits, licenses, or actions occur or are required.
- **Other fish data.** Data sources and VSP critical areas mapping were used to assess potential areas where fish distribution and activity is important. These data represent believed instances of fish distribution or habitat that likely supports fish distribution, and as every stream has not been fully evaluated, this is not an all-inclusive list of fish distribution in this region. Each arc included in this coverage represents a stream segment of suitable habitat believed to be used by wild, natural, and/or hatchery fish populations and/or streams where sightings of wild, natural, and/or hatchery fish has been documented. Fish species represented are coho, spring Chinook, and sockeye salmon.
- **Wellhead protection area.** Kittitas County Code 17A.08.025 refers to 13.20.040 wellhead protection areas, which vary on setback distance (50 to 100 feet) depending on well classification. Wellhead locations were acquired from Washington State Department of Health and applied 100-foot buffer radius from each wellhead location.
- **Critical aquifer recharge areas.** Per Kittitas County Code 17A.08.010, no critical aquifer recharge locations have been identified in Kittitas County. If highly vulnerable recharge areas are identified, studies will be initiated to determine if ground water contamination has occurred. Future classification of these areas will include consideration of the degree to which the aquifer is used as a potable water source, feasibility of protective measures to preclude further degradation, availability of treatment measures to maintain potability, and availability of potable water sources. Preliminary maps of aquifer susceptibility in coordination with Kittitas County's Critical Areas update were created in December 2013. Kittitas County Community Development Services retains copies of draft maps that were developed, however, they are not adopted at this time.
- **Channel migration zones.** Kittitas County Shoreline Master Program (WAC 73-26-201.3.c.vii) was updated and approved March 7, 2016. A Channel Migration Zone Mapping effort was made in conjunction with the Shoreline Master Program Update. Channel Migration Zones were mapped as a subset of streams under Shoreline Management Act jurisdiction with the potential to migrate, as identified by Washington State Department of Ecology. Where

sufficient data were available, mapping within the alluvial valley was refined to better identify portions of the valley that, because of inherent geomorphological conditions, are not subject to channel migration and therefore are outside the potential channel migration zone. Maps of Channel Migration Zones are available at Kittitas County Community Development services or on the Kittitas County website[1].

- **Use of maps.** Data sources and VSP critical areas mapping that were used to assess the potential presence of critical areas within the County and intersection with agricultural lands were used for planning-level purposes only. Actual critical areas presence is determined on a case-by-case basis through farm stewardship planning.

Data Sources

The data sources listed in Table 1 were used in the baseline conditions inventory, to assess the conditions as close to the 2011 baseline as data availability allowed.

Table 1
2011 Baseline Conditions Data Sources

Title	Year	Author
Watershed Resource Inventory Area (WRIA)	2000	DOE
Wellhead Protection Area	2009	DOH
National Landcover Data Set	2011	USGS
National Wetland Inventory Data	2011	USFWS
Priority Habitat and Species Data	2011	WDFW
Frequently Flooded Areas	2011	FEMA
USDA Agricultural Landcover	2011	USDA
WSDA Agricultural Landcover	2011	WSDA
PRISM Climate Group Precipitation Data	2012	OSU
Hydraulic Unit Code (HUC) 10 data	2013	BLM
Public Lands (Public Lands Inventory)	2014	WRCO
Streams and Rivers Data	2015	WDNR
Water Erosion Potential	2015	NRCS
Wind Erosion Susceptibility	2015	NRCS
Agriculture Region Boundaries	2016	AQEA
Public Lands (Gap Analysis Program)	2016	USGS
Bull Trout Critical Habitat	2010	NOAA
Distribution (Coho Salmon, Fall & Spring Chinook Salmon, Mid-Columbia Summer Steelhead)	2003	Pacific States Marine Fisheries Commission

[1] https://www.co.kittitas.wa.us/cds/smp/reports.aspx

Appendix B-2
Community Planning Areas

[to be completed when critical areas data is finalized]

Appendix B-3
Critical Areas Ordinance Summary

Appendix B-3: Kittitas County Critical Areas Designations and Definitions

Kittitas County Draft Critical Areas Ordinance November 2014 (Chapter 17A)

During development of the Kittitas County Voluntary Stewardship Program (VSP) Work Plan, Kittitas County was in the process of updating the Critical Areas Ordinance. The definitions and designations excerpted in this Appendix are from the November 2014 Draft Critical Areas Ordinance. Any difference between what is reflected in the VSP and the adopted Critical Areas Ordinance will be address during adaptive management.

General Provisions

Critical areas in Kittitas County are categorized as follows:

1. Wetlands
2. Frequently Flooded Areas
3. Critical Aquifer Recharge Areas
4. Geologically Hazardous Areas
5. Fish and Wildlife Habitat Conservation Areas

Wetlands

Identification and Designation (KCC 17A.07.XXX)

Designation. Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include, but are not limited to, swamps, marshes, bogs, ponds, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate the conversion of wetlands. *[RCW 36.70A.175]*

Maps and References (KCC 17A.07.XXX)

Mapping. The approximate location and extent of wetlands are shown on maps maintained by the County. These maps are useful as a guide for project applicants and/or property owners, but do not provide a conclusive or definitive indication of wetland presence or extent. Other wetlands may exist that do not appear on the maps, and some wetlands that appear on the maps may not meet all of

the wetland designation criteria. The County shall update the maps periodically as new wetland areas are identified and as new wetland information becomes available.

Fish and Wildlife Habitat Conservation Areas (HCAs)

Identification and Designation (KCC 17A.04.XXX)

Fish and wildlife habitat conservation areas include:

- Waters of the state.
- Areas with which federally designated endangered, threatened, and sensitive aquatic species have a primary association. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current federal listing status.
- Areas with which state designated endangered, threatened, and sensitive aquatic species have a primary association. The Washington Department of Fish and Wildlife should be consulted for current state listing status.
- State priority habitats and areas associated with state priority species. The state Department of Fish and Wildlife should be consulted for current listing of priority habitats and species.
- Habitats and species of local importance. Kittitas County recognizes that the priority habitats and species designated by the Washington Department of Fish and Wildlife that occur within the County are locally important, and are hereby designated as habitats and species of local importance.
- Naturally occurring ponds under twenty (20) acres. Lakes, ponds, streams, and rivers planted with game fish by a government or tribal entity.
- State natural area preserves, natural resource conservation areas. Natural area preserves and natural resource conservation areas are defined, established, and managed by the Washington State Department of Natural Resources.
- State wildlife areas. State wildlife areas are defined, established, and managed by the Washington Department of Fish and Wildlife. *[WAC 365-190-130]*

Maps and References (KCC 17A.04.XXX)

2. **Mapping.** The approximate location and extent of fish and wildlife habitat conservation areas are shown on the County's critical area maps. These maps are to be used as a guide and do not provide definitive information about fish and wildlife habitat conservation area size or presence. Fish and wildlife habitat conservation areas may exist that do not appear on the maps. The County shall update the maps periodically as new fish and wildlife habitat conservation areas are identified and as new information becomes available.

Critical Aquifer Recharge Areas (CARAs)

Identification and Designation (KCC 17A.03.XXX)

17A.03.020 Classification, designation, and mapping.

1. **Classification.** Lands within Kittitas County shall be classified as having either high, medium, or low aquifer susceptibility as determined by the criteria established by the Washington State Department of Ecology. *[WAC 365-190-100]*

2. **Designation.** Critical aquifer recharge areas are areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of water. All lands classified as having moderate-to-high aquifer susceptibility—together with wellhead protection areas for Class A water systems—are hereby designated as critical aquifer recharge areas. *[WAC 365-190-030]*

3. **Mapping.** The general location and extent of critical aquifer recharge areas are shown on maps maintained by the County. These maps are useful as a guide for Kittitas County, project applicants, and/or property owners, and may be updated as more information on aquifer recharge and susceptibility becomes available. These maps are a reference and do not provide a conclusive or final critical area designation. *[WAC 365-190-100]*

Maps and References (KCC 17A.03.XXX)

Geologically Hazardous Areas (GHAs)

Identification and Designation (KCC 17A.06.XXX)

The purpose of this Chapter is to protect human life and safety, prevent damage to structures and property, and minimize impacts to water quality and fish and wildlife caused by geologic hazards.

- **Landslide Hazard Areas.** Landslide hazard areas shall include areas potentially subject to landslides based on a combination of geologic, topographic, and hydrologic factors. They include any areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors. Landslide hazard areas shall be further classified as follows:
  - Areas of historic failures, such as:
    - Those areas delineated by the Natural Resource Conservation Service (NRCS) as having a "severe" limitation for building site development; or
    - Areas designated as quaternary slumps, earth-flows, mudflows, lahars, or landslides on maps published by the U.S. Geological Survey or Washington State Department of Natural Resources.
  - Areas with all three (3) of the following characteristics:

    - Slopes steeper than fifteen percent (15%);
    - Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and
    - Springs or groundwater seepage.
  - Areas that have shown movement and/or are underlain or covered by mass wastage debris;
  - Slopes that are parallel or sub-parallel to planes of weakness (which may include but not be limited to bedding planes, soft clay layers, joint systems, and fault planes) in subsurface materials;
  - Slopes having gradients steeper than eighty percent (80%) subject to rock fall during seismic shaking;
  - Areas that show evidence of, or are at risk from snow avalanches; and
  - Any area with a slope of forty percent (40%) or steeper and with a vertical relief of ten (10) or more feet except areas composed of competent bedrock. A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least ten (10) feet of vertical relief.
- **Erosion Hazard Areas.** Erosion hazard areas shall include areas containing soils that may experience significant erosion, including:
  - Slopes forty percent (40%) or steeper with a vertical relief of ten (10) or more feet, except areas composed of consolidated rock.
  - Concave slope forms equal to or greater than fifteen percent (15%) with a vertical relief of ten (10) or more feet, except areas composed of consolidated rock.
  - Channel migration zones, which are defined as the areas along a river within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river and its surroundings.
- **Alluvial Fan Hazard Areas**. Alluvial fan hazard areas shall include those areas on alluvial fans where debris flows, debris floods, or clear water floods have the potential to significantly damage or harm the health or welfare of the community. They include the area generally corresponding to the path of potential flooding, channel changes, sediment and debris deposition, or debris flow paths as determined by analysis of watershed hydrology and slope conditions, topography, valley bottom and channel conditions, potential for channel changes, and surface and subsurface geology.
- **Seismic Hazard Areas.** Seismic hazard areas shall include areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, or surface faulting.
- **Volcanic Hazard Areas**. Volcanic hazard areas shall include areas subject to pyroclastic flows, lava flows, debris avalanche, inundation by debris flows, mudflows, or related flooding

resulting from volcanic activity. There are no active or dormant volcanoes located within Kittitas County; however, Mount Rainer and Mount St. Helens are relatively near. Hazards to Kittitas County residents from these volcanoes are likely limited to ash deposition.

- **Mine Hazard Areas**. Mine hazard areas shall include areas underlain by abandoned mine shafts, secondary passages between shaft tunnels, or air vents. Mine hazards include subsidence, which is the uneven downward movement of the ground surface caused by underground workings caving in; contamination to ground and surface water from tailings and underground workings; concentrations of lethal or noxious gases; and underground fires. *[WAC 365-190-080]*

As noted in the VSP Work Plan, structures in agricultural lands will continue to be permitted and regulated through the County's Critical Areas Ordinance, notably for landslide, mine, and seismic hazard areas. Geologically hazardous areas for erosion hazards have primary applicability in the VSP context.

Maps and References (KCC 17A.06.XXX)

Mapping. The approximate location and extent of geologically hazardous areas are shown on maps maintained by the County. These maps are useful as a guide for project applicants and/or property owners, but do not provide a conclusive or definitive indication of geologically hazardous area presence or extent. Other geologically hazardous areas may exist that do not appear on the maps, and some geologically hazardous areas that appear on the maps may not meet the geologically hazardous areas designation criteria. The County shall update the maps periodically as new information becomes available and may require additional studies during the development review process to supplement and/or confirm the mapping. Historic maps showing the locations of known coal mines within the County are available from the Washington State Department of Natural Resources. *[NEW]*

Frequently Flooded Areas (FFAs)

Designation and Mapping (KCC 17A.05.XXX)

Mapped areas. All lands classified as floodway or special flood hazard areas in the Federal Emergency Management Agency report titled "The Flood Insurance Study for the County of Kittitas County" dated November 5, 1980, as now or hereafter amended, with accompanying Flood Insurance Rates and Boundary Maps, are designated as frequently flooded areas. The study and maps are on file at Kittitas County. *[KCC 14.08.030 / WAC 365-190-030(8)]*

Other areas. The Flood Insurance Study maps may not show all potential flood hazard areas. The Director (as defined by Kittitas County) may designate unmapped frequently flooded areas. Such

designations may be appealed pursuant to Section 14.08.160. The Director's designation of an unmapped frequently flooded area shall be based upon the following criteria:

- Documented history of flood damage;
- Presence of alluvial fan hazards and/or channel migration zones; and/or
- Evidence of stream channel instability and susceptibility to erosion.

Appendix B-4
Critical Areas Data Summary

[to be completed when critical areas data is finalized]

Appendix B-5
Agricultural Viability Summary

Appendix B-5: Agricultural Viability Interviews Summary

Kittitas County is unique in location, growing climate, and agricultural diversity, which are all important factors in considering agricultural viability. Watershed Group producers were interviewed to provide their firsthand insights and perspectives on agricultural viability. Their responses are summarized below.

What do you see in terms of trends for agricultural viability in Kittitas County or the region?

- Majority of hay crops are exported overseas (Pacific Rim, Middle East, China), resulting in reliance on longshoreman's union, exchange rate, trade policies.
- There is a constant evolution in practices, for example precision farming practices like cell phone activated pump systems, drone technology, real time infrared photos, etc.
- Labor costs and availability result in a trend toward more mechanization, especially with tree fruit.
- Conversion of traditional crops to tree crops is putting pressure on traditional producers in some areas (particularly south of Fourth Parallel Rd) by driving up land prices.
- The trend towards reduced tillage helps economically because it reduces trips across the field.
- Land prices are high and the ownership pattern is changing. There is a trend of farms that are purchased to be a nice place to live, but do not need to be an economically viable farm. These are especially prevalent in Northern Kittitas County.
- The reliability of water is threatened by weather conditions and other things.
- There is a strong market for small production, but it requires a large amount of work.
- It is hard for young farmers to break into agriculture due to high land prices.
- Trend towards bigger and faster equipment, which has higher costs.
- Pacific Northwest regional market for hay (feed stores or direct to consumer)
- We can be viable if we are not over regulated. We have a product that has worldwide demand as long as we can keep our costs at a reasonable level.
- We see local farmers trying to minimize labor and overall farm cost by using overhead sprinkler systems and many are using GPS guidance for field work and irrigation application.
- It's getting more difficult in a place like Kittitas County with pressure being put on what used to be a niche market for Timothy hay. Larger producers can create an oversupply in a short amount of time. A shorter growing season limits our options for certain crops that might otherwise be attractive. But as long as we have good dirt, ample water supply, and a willingness to work, we should be able to get by.
- New rotation crops (such as beans, sunflowers, canola), less tillage, and change to sprinkler irrigation

- Due to growth and economic strength of Washington, it seems that agricultural viability, be it small market direct or export, will continue to be strong. The limiting factors would be development trends and increased regulations at the state level.

How do you see the international market affecting agricultural viability?

- International export of hay drives the economy of the valley. Trade policy, shipping (longshoreman), and exchange rate (strength of the dollar) all impact agricultural viability.
- Globalization is becoming more prominent every day; therefore, the international market will always be a concern. We must compete on quality and diversity if we are to stay competitive.
- The exporting of Kittitas Valley hay has been a driving force for farmers expanding operations and trying new hay varieties. The longshoreman strike was very damaging because it affected the export of our farms' products for years after the strike ended.
- The international market is what makes the Kittitas Valley viable. Without it, agriculture in this Valley cannot survive.
- Currently the international market offers the best return.
- Seems there will always be strong demand as populations grow worldwide.

In regards to the local agriculture market or practices, what do you see are some strengths, weaknesses, opportunities, and threats (SWOT)?

Strengths:

- Export options to international markets
- Smart and talented producers are trying new approaches
- Land is mostly owned by family farms
- Intergenerational producers with understanding of the land and resources of the County
- Excellent climate for quality Timothy hay production
- Proximity to ports and existing transportation infrastructure (interstates, etc.)
- Local presence of buyers and processors for hay market
- Proximity to urban markets for direct sell of products
- County has a Right to Farm ordinance in place
- Available public land leases for livestock producers
- Special demand for valley hay to the export market
- Have hay brokers in the valley to work with that have well established customers
- A long history of quality forage production
- Good soil and moderate climate
- Is a central hub for the hay market
- We sell domestic hay- and grass-fed bovine on a small scale. I feel that with the wealth of the westside and the continued search for local grown and farm raised products should continue to be strong.

Weaknesses:

- Electricity expense and availability
- Lack of water storage, pro-ratable water for large portion of producers
- Volatility of access to ports (longshoreman union)
- Access to meat processors (must go to Rochester or Chewelah) for retail meat sales
- Few viable rotation crops
- Not enough diversity of crops due to short growing season
- Access by west side residents
- Public lands grazing leases
- We need an ability to use the land to the fullest. An example is the placement of solar farms and low-density zoning (3-acre minimum to 20 acre). The ability to have a diverse income stream equates to economic strength and health of the producer.
- The removal of agricultural lands for residential housing, solar farms, and other industrial uses
- Small producers have a hard time competing with larger operations.
- Limited interest in farming shown by younger people.

Opportunities:

- Yakima Basin Integrated Plan, which is a collaborative effort with partners addressing all land uses and threats (i.e., agriculture, fish habitat, and water availability)
- First county east of King County
- County Agricultural advisory commission
- New technologies such as precision agriculture
- New crops for dryland farms
- Grazing opportunities on public lands for habitat improvement
- Agricultural tourism to supplement production agriculture
- Developing new profitable rotation crops
- Supporting and growing local vendors, which offer superior service and great products close to home
- Increased efficiency
- Technology and irrigation upgrades

Threats:

- Land conversion and rising land prices
- Excessive regulations related to direct sell of agricultural products
- High wages and housing costs
- Depredation of crops and livestock by elk, cougars, wolves, etc.
- Endangered Species Act and Clean Water Act
- Urban and suburban sprawl

- Centralization of land regulations so that regulations don't fit specific local conditions
- Paperwork and restrictions that are required under existing and future regulations

Do agricultural producers have the flexibility to respond to fluctuating market conditions that is needed? Are there opportunities to increase flexibility?

- Market trends are really hard to predict and are not the only fluctuating conditions to which producers are responding
- It is costly to change crops because equipment and infrastructure changes are needed
- For many, limited alternative crop options if markets or other conditions change for traditional crops
- It seems market trends are much faster and shorter lived than growing seasons. I have always felt that there is a lag and that the trend may be over by the time the producer is up and running 2 years later. Some way to anticipate the coming trends is the trick.
- The flexibility is here, the opportunities are not.
- There is not much flexibility for the agricultural producer pertaining to the market. We are limited on crop rotation and equipment to harvest.

Are there programs at the regional level that you would like to see that would support a more resilient local agriculture market (i.e., infrastructure and services, support for best practices, education or training, a welcoming business environment)?

- Yakima Basin Integrated Plan which is a collaborative effort with partners addressing all land uses and threats (i.e., agriculture, fish habitat, and water availability)
- Provide more flexibility in regulations or less regulations overall. Farmers find it harder and harder to farm and maintain their land especially around and along water ways.
- The practices of agriculture and the wants of the new residents are often in conflict (irrigation water, clogging of roads with commuters, spraying, etc.). I have always thought transfer of development rights (TDR) are the way to go. Make the developer pay the farmer not to convert farmland. This protects the land and pushes the development into areas that are not prime leaving agriculture the uninhibited ability to keep farming.
- A welcome business environment and help with infrastructure

At a farm level, what would help agricultural producers remain viable (i.e., reducing input costs, maintain/enhance land productivity, increased incentives)?

- Allow farmers to maintain creeks and water ways
- Improve farm to market roads
- Consistent farm labor
- Reduction of or protection/exemption from regulations that hamper operations or add expensive and time-consuming compliance
- Help with irrigation system updates would increase production and decrease labor costs

- Conservation district efforts to help enhance agricultural activities in our area are critical. Funding is key to help producers remain competitive.

Other Thoughts

- The government needs to take an active role in making sure our products can make it to market. Good roads, keeping the ports open at all times, and ensuring taxes remain as low as possible.

Appendix B-6
Kittitas County Water Quality 303(d) Listings (2017)

Kittitas County Water Quality 303(d) Category 5 Listings (2017) –
Parameters with Potential Intersects with Agricultural Activities

Water Quality Parameter	Potential Agricultural-related Source
4,4'-DDD	Insecticide
4,4'-DDE	Byproduct of DDT
Bacteria	Animal waste
Dieldrin	Insecticide
Dissolved Oxygen	Organic matter decomposition
pH	Indicator
Temperature	Erosion/sediment/canopy cover

Source: Washington Department of Ecology Water Quality Assessment Data accessed 11/1/2017

Appendix C
Methods and Initial Results

APPENDIX C: Benchmarks – Methods and Initial Results

Methods

Linking Stewardship Practices to Resource Protection

Conservation practice benefits are related to critical areas functions and values through the use of the national conservation practice physical effect (CPPE) scores developed by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS; NRCS 2017). The CPPE describes how NRCS practices affect the human-economic environment (e.g., Agricultural Viability) and natural resources (e.g., Critical Functions) and helps field planners describe in detail how each practice affects agricultural viability and natural resource critical functions. Scores range between +5 and -5, with positive scores denoting a functional beneficial effect, 0 denoting no effect, and negative scores having an adverse effect.

For each of the four key critical area functions (i.e., soil health, hydrology, water quality, and habitat), resource concerns were tailored to Kittitas County by including concerns applicable to the County and were averaged together to provide an overall function score. Where a resource concern was listed as not applicable to a practice, this resource concern was not factored into the average function score. Table 1 and Attachments 1 and 2 provide additional details on methods applied to summary tables of practice effects on resource function in Kittitas County:

- **Table 1: CPPE Resource Concerns for Kittitas County** summarizes the resource concerns identified as applicable to Kittitas County conditions, pared down for applicability from the comprehensive list of resource concerns in the NRCS National CPPE Summary Tool, dated 7/28/2015, and available from the NRCS CPPE webpage (NRCS 2017) at https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/econ/data/?cid=nrcs143_009740.
- **Attachment 1: Kittitas County CPPE Resource Concerns and Scores** provides a detailed summary of applicable individual resource scores (identified in Table 1) and average function scores per key critical area function for all NRCS conservation practices. Resource concerns listed as a zero (and colored in red) indicate the score is applicable to the conservation practice as having no effect. Zero scores not highlighted in red indicate a resource concern that is not applicable to the practice and is therefore not factored into the average function score.
- **Attachment 2: Kittitas County Practice Toolbox with CPPE Averaged Function Scores** provides an overview of NRCS conservation practices currently implemented in Kittitas County, showing quantitative scores and additional applicable and key practices (scores greater than 3) for each function category.

Table 1
CPPE Resource Concerns for Kittitas County

Function	Resource Concern
Soil	The soil score averaged soil erosion and soil condition scores based on the associated resource concerns listed below.
Soil Erosion	• Sheet and rill • Wind • Ephemeral gully • Classic gully • Streambank/shoreline/conveyance
Soil Condition	• Organic matter depletion • Compaction • Subsidence • Contaminants: Salts or other chemicals
Hydrology	• Excessive seepage • Excessive runoff, flooding, or ponding • Excessive subsurface water • Drifted snow • Inefficient water use on irrigated land • Inefficient water use on non-irrigated land
Water Quality	• Pesticides in surface water • Pesticides in groundwater • Nutrients in surface water • Nutrients in groundwater • Salts in surface water • Salts in groundwater • Excess pathogens and chemicals from manure, bio-solids, or compost applications in surface water • Excess pathogens and chemicals from manure, bio-solids, or compost applications in groundwater • Excessive sediments in surface water • Elevated water temperature • Petroleum, heavy metals, and other pollutants transported to surface water • Petroleum, heavy metals, and other pollutants transported to groundwater
Habitat	• Inadequate food • Inadequate cover/shelter • Inadequate water • Inadequate space

Function	Resource Concern
Agricultural Viability	• Domestic animals: inadequate food/forage, shelter, stock water, and stress/mortality • Change in land use • Change in land production • Change in equipment • Total investment cost • Annual cost • Credit and farm program eligibility • Labor • Change in management level • Risk: yield, flexibility, timing, cash flow

Application for Future Practices

The spreadsheets in Attachments 1 and 2 may be used to track enrollment in future practices and to continue to assess functional indicators of these practices. New NRCS practices may also be added to Kittitas County's palette of protection and enhancement tools (Attachment 2).

For practices outside of NRCS, equivalent function scores should be developed to estimate the benefit or impact on soil health, hydrology, water quality, and habitat based on the understanding that scores range from +5 and -5, with positive scores denoting a beneficial effect and negative scores indicating an adverse impact. The following steps are suggested for this process:

- Assess whether the new practice is similar to an existing NRCS practice and use the resource concern scores from the existing NRCS practice as a starting point to develop function scores.
- Use experience and available technical information to develop scores, with the understanding that although a practice may have a beneficial effect on a target resource, there may be impacts to other resources. Also, not all practices will have an effect on all possible resource concerns; many will have no effect, and some will not be applicable and should be listed as a zero.

Initial Results (2011 to 2016)

To track performance from implemented conservation practices from 2011 to 2016, enrollment in conservation practices was tabulated and average function scores (Attachment 2) were applied. This provided a functional indicator that accounted for the beneficial and adverse effects of each practice.

Although NRCS enrollment data are available since 2011, the discontinuation of practices during that period was not recorded. The rate of discontinuation of practices often varies based on whether implemented practices involve stewardship investment (e.g., irrigation management systems), stewardship actions (e.g., cover cropping), or permanent conversion into conservation easements.

Table 2 summarizes the proposed approach to account for the varied disenrollment rates based on some of these categories of practices.

Table 2
Calculating Disenrollment for Conservation Practices

Assumed Range of Disenrollment/ Discontinuation	Conservation Practice Category	Example Practices
None	**Easements and Infrastructure** • Permanent conservation practices	• Permanent easements • Major infrastructure
Lower 0-3%	**Conservation Investments** • High barriers to entry/exit – Conservation investments – Maintenance cost – Effectiveness • Increases land productivity • Lowers cost	• Irrigation systems (e.g., sprinklers, pipelines) • Habitat management and restoration • Watering facilities • Fencing
Higher 3-7%	**Conservation Actions** • Low barriers to entry/exit – Easily removed • Reduced land in production • Rotational use – Market driven rotation • Reliance on unstable conservation funding or incentives (e.g., Conservation Resource Program)	• Irrigation management • Pest management • Nutrient management • Prescribed grazing • Cover crop/mulching • Anionic Polyacrylamide (PAM) Application

Figures 1 through 4 illustrate the functional indicator results from 2011 to 2016 based on reported practices enrolled/implemented and estimated discontinuation of practices within that time. Figures 1 through 4 indicate a net gain in function over time for soil health, hydrology, water quality, and habitat.

Figure 1
Soil Functional Indictors: 2011 to 2016 NRCS Practice Enrollments

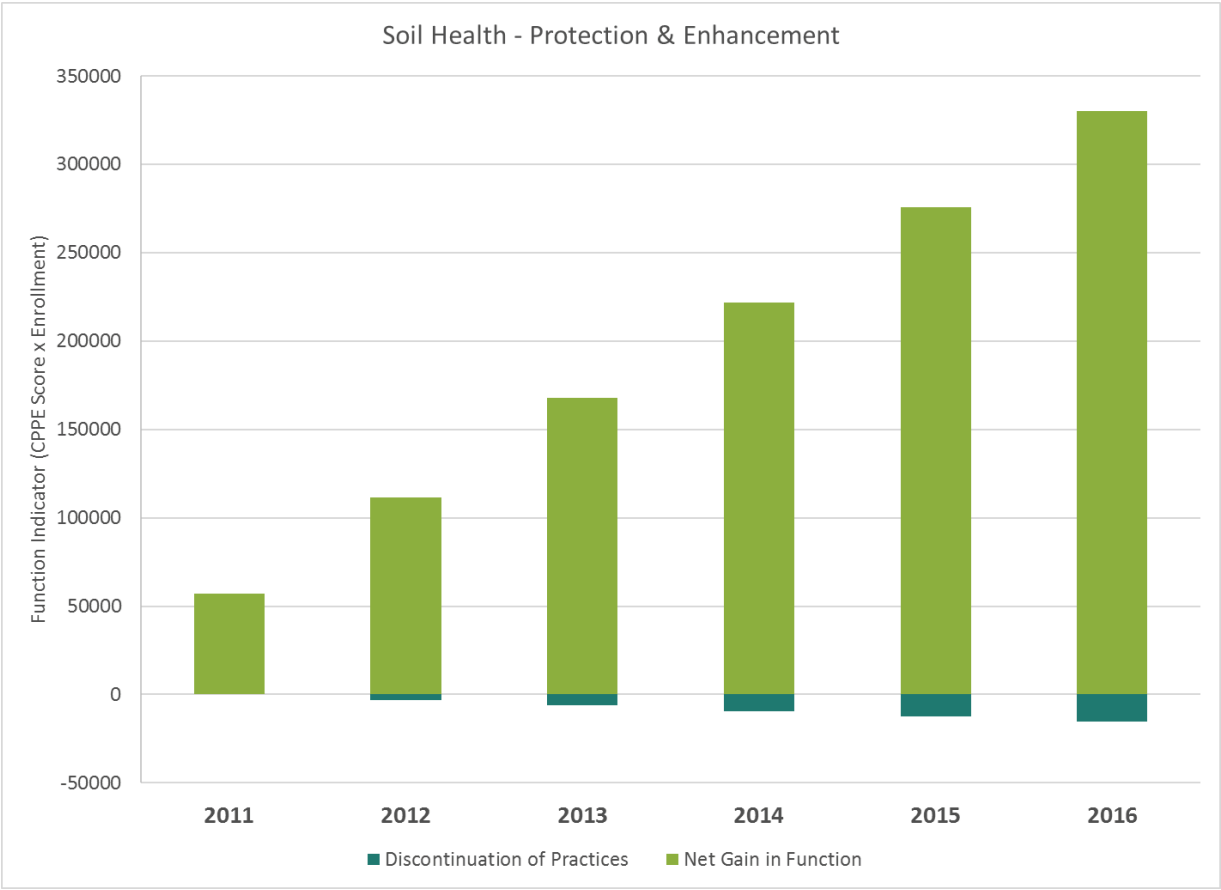
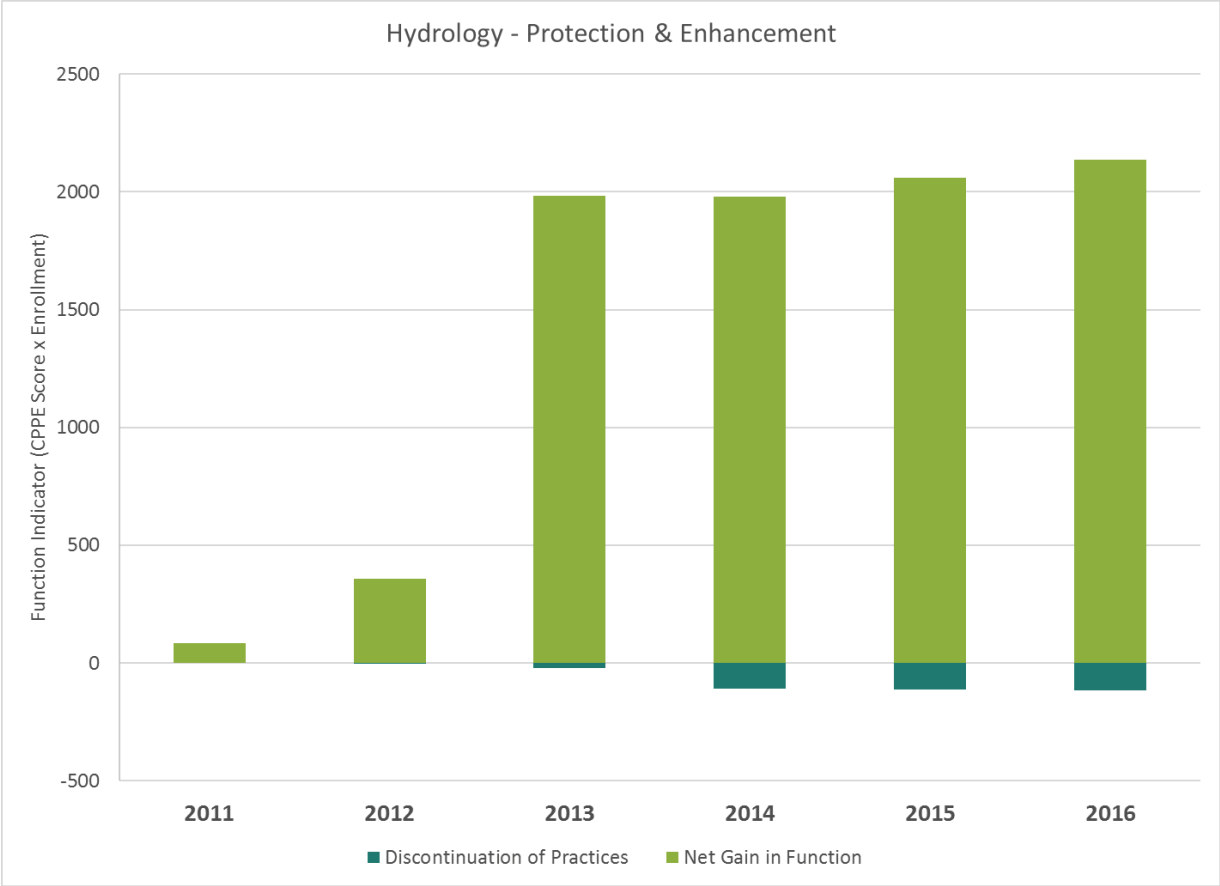


Figure 2
Hydrology Functional Indictors: 2011 to 2016 NRCS Practice Enrollments



71

72

Figure 3
Water Quality Functional Indictors: 2011 to 2016 NRCS Practice Enrollments

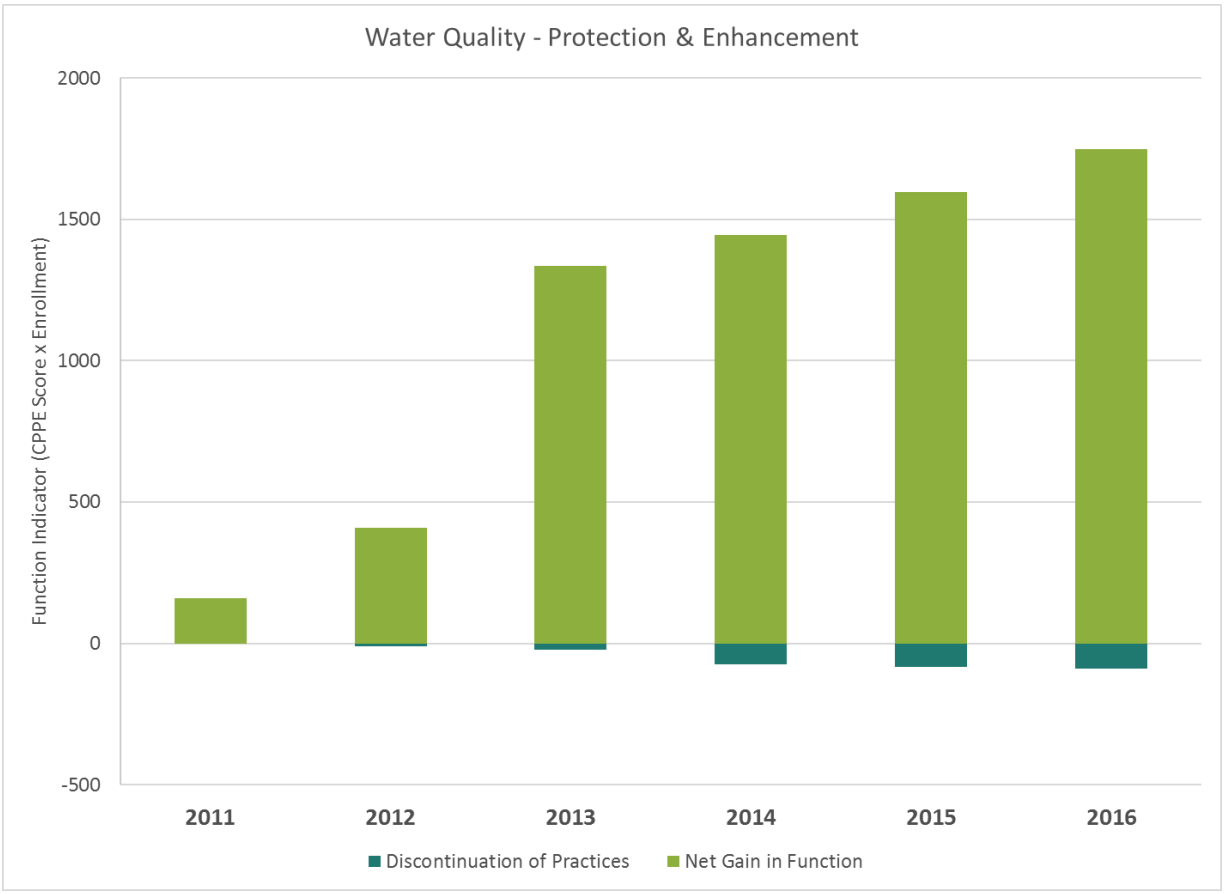


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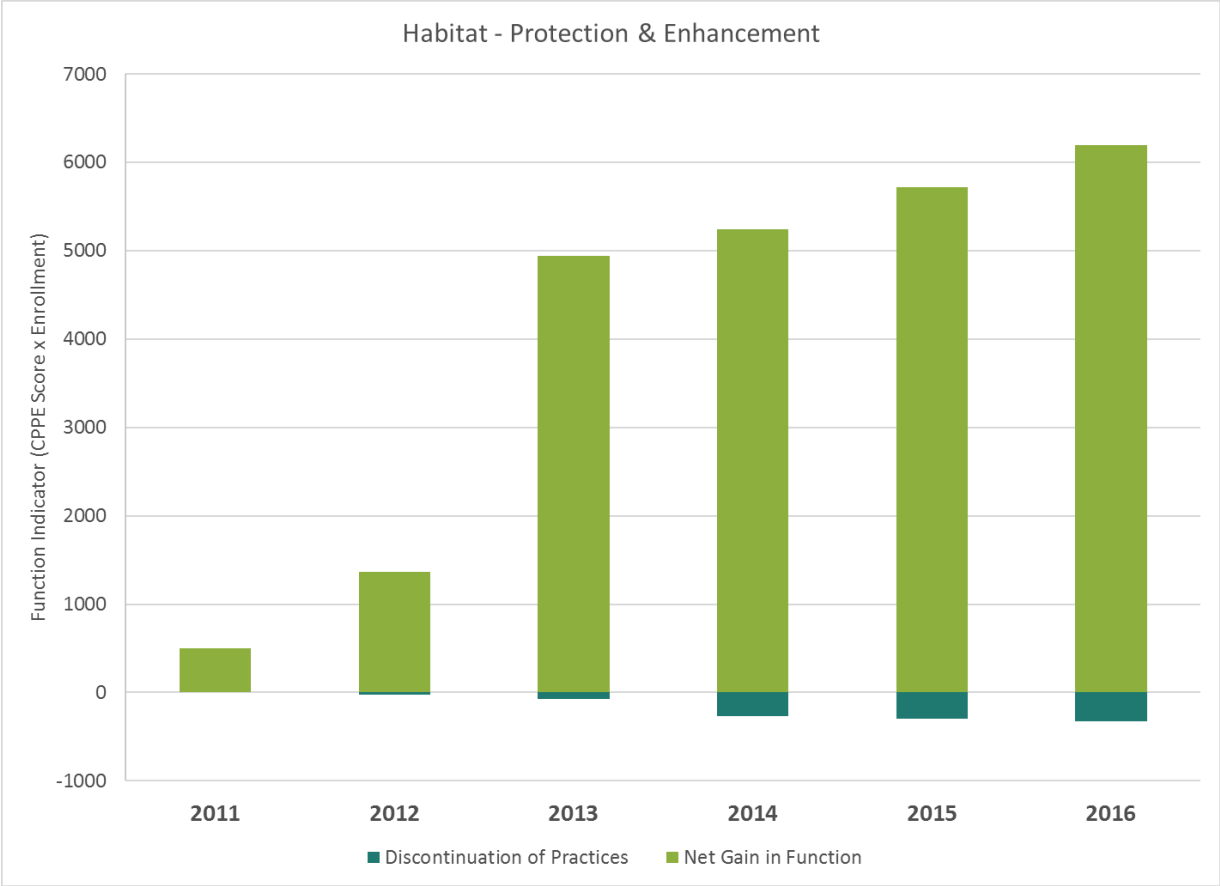
Figure 4
Habitat Functional Indictors: 2011 to 2016 NRCS Practice Enrollments



Reference

NRCS (Natural Resources Conservation Service), 2017. NRCS Conservation Practice Physical Effects CPPE | NRCS Economics. Accessed March 2017. Available at https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/econ/data/?cid=nrcs143_009740.

Attachment 1
Kittitas County CPPE Resource Concerns and Scores

Kittitas County VSP Work Plan	Code	Soil Erosion – Sheet and Rill	Soil Erosion – Wind	Soil Erosion – Ephemeral Gully	Soil Erosion – Classic Gully	Soil Erosion – Streambank/ Shoreline/ Conveyance	Soil Erosion Average	Soil Condition – Organic Matter Depletion	Soil Condition – Compaction	Soil Condition – Subsidence	Soil Condition – Contaminants: Salts or Other Chemicals	Soil Condition Average	Soil Function	Water Quantity – Excessive Seepage	Water Quantity – Excessive Runoff, Flooding, or Ponding	Water Quantity – Excessive Subsurface Water	Water Quantity – Drifted Snow	Water Quantity – Inefficient Water Use on Irrigated Land	Water Quantity – Inefficient Water Use on Nonirrigated Land	Hydrology Average	Water Quality Degradation - Pesticides in Surface Water	Water Quality Degradation - Pesticides in Groundwater	Water Quality Degradation - Nutrients in Surface water	Water Quality Degradation - Nutrients in Groundwater	Water Quality Degradation - Salts in Surface Water	Water Quality Degradation - Salts in Groundwater	Water Quality Degradation - Excess Pathogens and Chemicals from Manure, Bio-solids or Compost Applications in Surface Water	Water Quality Degradation - Excess Pathogens and Chemicals from Manure, Bio-solids or Compost Applications in Groundwater
Access Control	472	3	1	4	4	5	3.40	1	4	0	0	2.50	2.95	1	1	2	0	0	3	1.75	1	0	1	1	0	0	1	1
Access Road	560	1	0	1	1	0	1.00	0	2	0	0	2.00	1.50	0	1	0	0	2	0	1.50	0	0	0	0	0	0	0	0
Agrichemical Handling Facility	309	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	5	5	5	5	0	0	0	0
Air Filtration and Scrubbing	371	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Alley Cropping	311	5	5	5	3	0	4.50	5	2	0	1	2.67	3.58	1	1	2	3	3	0	2.00	3	1	3	1	1	1	3	1
Amending Soil Properties with Gypsum Products	333	1	1	0	0	0	1.00	1	0	0	1	1.00	1.00	0	1	0	0	1	0	1.00	0	0	0	0	0	0	0	0
Amendments for Treatment of Agricultural Waste	591	0	0	0	0	0	0.00	1	0	0	0	0.50	0.25	0	0	0	0	1	0	0.50	0	0	2	2	2	2	2	2
Anaerobic Digester	366	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	2	0	0	0	2	0
Animal Mortality Facility	316	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	2	2	0	0	2	2
Anionic Polyacrylamide (PAM) Erosion Control	450	2	2	2	0	0	2.00	0	2	0	0	2.00	2.00	0	0	0	0	1	1	1.00	2	-1	2	-1	0	0	0	0
Aquaculture Ponds	397	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	-2	-2	0	0	-2	0
Aquatic Organism Passage	396	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Bedding	310	2	0	0	0	0	2.00	-1	-1	0	1	-0.33	0.83	0	5	0	0	0	-1	2.00	-2	1	-2	1	-2	1	-2	1
Bivalve Aquaculture Gear and Biofouling Control	400	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	2	0	0	0	2	0
Brush Management	314	1	1	1	1	0	1.00	0	0	0	0	0.00	0.50	0	1	0	0	0	2	1.50	-1	0	0	0	0	0	0	0
Building Envelope Improvement	672	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Channel Bed Stabilization	584	0	0	0	2	2	2.00	0	0	0	0	0.00	1.00	2	0	0	0	0	0	2.00	0	0	0	0	0	0	0	0
Clearing & Snagging	326	0	0	0	0	2	2.00	0	0	0	0	0.00	1.00	0	2	0	0	0	0	2.00	0	0	0	0	0	0	0	0
Combustion System Improvement	372	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Composting Facility	317	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	2	2	0	0	2	2
Conservation Cover	327	4	5	2	2	2	3.00	5	3	0	2	3.33	3.17	1	2	1	1	0	2	1.40	3	3	4	4	5	2	1	2
Conservation Crop Rotation	328	4	4	0	0	0	4.00	4	1	0	2	2.33	3.17	1	2	1	0	2	2	1.60	2	2	2	2	1	2	1	0
Constructed Wetland	656	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	2	0	0	0	0	2.00	2	1	4	1	1	1	4	3
Contour Buffer Strips	332	3	0	0	0	0	3.00	2	0	0	0	2.00	2.50	-2	1	-1	0	0	0	-0.67	2	0	2	-1	1	-1	1	-1
Contour Farming	330	2	0	0	0	0	2.00	1	0	0	0	1.00	1.50	-2	1	-1	0	0	1	-0.25	1	-1	2	-1	1	-1	1	0
Contour Orchard and Other Perennial Crops	331	4	0	1	0	0	2.50	2	0	0	0	2.00	2.25	-2	1	-1	0	1	2	0.20	1	-1	2	-1	1	-1	0	0
Controlled Traffic Farming	334	0	0	0	0	0	0.00	0	4	0	0	4.00	2.00	0	0	0	0	1	1	1.00	0	0	0	0	0	0	0	0
Cover Crop	340	4	4	3	0	0	3.67	2	2	0	1	1.25	2.46	1	2	1	0	1	2	1.40	3	3	3	3	0	3	2	3
Critical Area Planting	342	5	5	5	4	4	4.60	5	2	0	1	2.67	3.63	0	0	0	0	0	0	0.00	3	0	3	2	3	0	3	0
Cross Wind Ridges	588	0	4	0	0	0	4.00	1	0	0	0	1.00	2.50	0	0	0	0	0	0	0.00	1	0	1	0	1	0	0	0
Cross Wind Trap Strips	589C	0	4	0	0	0	4.00	2	0	0	0	2.00	3.00	0	0	0	0	0	0	0.00	2	0	2	0	1	0	0	0
Dam	402	0	0	0	2	1	1.50	0	0	0	-1	-1.00	0.25	-2	2	-1	0	2	0	0.25	0	0	0	-1	0	0	-2	0
Dam, Diversion	348	0	0	0	0	-1	-1.00	0	0	0	0	0.00	-0.50	0	2	0	0	2	2	2.00	0	0	0	0	0	0	0	0
Deep Tillage	324	0	0	0	0	0	0.00	-4	5	-1	2	0.50	0.25	-2	0	2	0	2	2	1.00	0	0	1	-2	1	0	0	0
Denitrifying Bioreactor	605	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	3	1	0	0	0	0
Dike	356	0	0	0	1	-2	-0.50	0	0	0	0	0.00	-0.25	-1	2	-1	0	0	0	0.00	2	2	0	0	0	0	0	0
Diversion	362	1	0	2	2	1	1.50	0	0	0	0	0.00	0.75	-1	2	2	0	2	2	1.40	1	1	0	-1	0	0	1	0
Drainage Water Management	554	0	2	0	0	0	2.00	2	-1	2	0	1.00	1.50	1	-2	2	0	0	0	0.33	2	2	1	-1	0	0	1	1
Dry Hydrant	432	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	-1	-1	-1.00	0	0	0	0	0	0	0	0
Dust Control from Animal Activity on Open Lot Surfaces	375	0	2	0	0	0	2.00	0	0	0	0	0.00	1.00	0	0	0	0	0	0	0.00	0	0	1	0	1	0	1	0
Dust Control on Unpaved Roads and Surfaces	373	2	5	0	0	0	3.50	0	0	0	-1	-1.00	1.25	0	0	0	0	0	0	0.00	0	0	-1	0	-1	0	0	0
Early Successional Habitat Development/Mgt.	647	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Emergency Animal Mortality Management	368	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	2	2	0	0	2	2
Farmstead Energy Improvement	374	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Feed Management	592	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	2	2	1	0	1	1
Fence	382	1	0	0	0	0	1.00	0	3	0	0	3.00	2.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	2	0
Field Border	386	4	4	1	0	1	2.50	4	2	0	0	2.00	2.25	0	1	0	0	0	0	1.00	2	2	1	1	0	1	1	0
Field Operations Emissions Reduction	376	1	4	0	0	0	2.50	0	0	0	0	0.00	1.25	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Filter Strip	393	0	0	0	0	0	0.00	5	0	0	0	5.00	2.50	0	0	0	0	0	0	0.00	2	1	5	2	1	1	3	1
Firebreak	394	-1	-1	-1	-1	0	-0.80	-2	-2	0	0	-2.00	-1.40	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Fish Raceway or Tank	398	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	-1	-1	-1	0	-1	-1
Fishpond Management	399	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	-2	0	0	0	0
Forage and Biomass Planting	512	1	1	0	0	0	1.00	1	2	0	0	1.50	1.25	0	1	0	0	0	0	1.00	1	0	1	0	0	0	1	0
Forage Harvest Management	511	1	1	0	0	0	1.00	1	3	0	0	2.00	1.50	0	0	0	0	1	1	1.00	2	0	1	0	0	0	1	0
Forest Stand Improvement	666	1	0	1	1	0	0.75	1	-1	0	0	0.00	0.38	0	0	0	0	0	3	3.00	0	0	1	2	1	0	1	1
Forest Trails and Landings	655	-1	0	-1	-1	0	-0.75	-1	1	0	0	0.00	-0.38	0	0	0	0	0	0	0.00	0	0	1	0	0	0	0	0
Fuel Break	383	-1	-1	-1	-1	0	-1.00	-3	-1	0	0	-2.00	-1.50	0	0	-1	0	0	0	-1.00	-1	-1	0	0	0	0	0	0
Grade Stabilization Structure	410	0	0	0	2	2	2.00	0	0	0	0	0.00	1.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Grassed Waterway	412	0	0	5	4	1	3.33	3	0	0	-1	1.00	2.17	0	3	2	0	0	0	2.50	2	0	2	0	0	0	1	0
Grazing Land Mechanical Treatment	548	1	1	0	0	0	1.00	1	0	0	0	1.00	1.00	0	2	0	0	0	2	2.00	0	0	1	0	0	0	1	0
Groundwater Testing	355	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Heavy Use Area Protection	561	2	2	2	0	0	2.00	0	-1	0	0	-0.50	0.75	0	-1	0	0	0	0	-1.00	0	0	1	0	0	0	2	0
Hedgerow Planting	422	0	1	0	0	0	1.00	2	1	0	0	1.50	1.25	0	0	0	2	0	0	2.00	1	0	2	0	0	0	0	0
Herbaceous Weed Control	315	4	4	2	2	4	3.20	0	0	0	0	0.00	1.60	0	0	0	0	2	0	2.00	-1	0	0	0	0	0	0	0
Herbaceous Wind Barriers	603	0	4	0	0	0	4.00	2	0	0	0	2.00	3.00	0	0	0	0	0	3	3.00	1	0	1	0	0	0	0	0
High Tunnel System	325	0	0	-1	0	0	-1.00	1	0	0	0	1.00	0.00	0	-3	0	0	0	-1	-2.00	0	0	0	0	0	0	0	0
Hillside Ditch	423	2	0	2	2	1	1.75	0	0	0	0	0.00	0.88	0	4	0	0	0	1	2.50	1	0	-1	-1	0	0	-2	0
Integrated Pest Management	595	2	2	2	2	0	2.00	2	2	0	0	2.00	2.00	0	0	0	0	0	0	0.00	5	5	0	0	0	0	0	0
Irrigation Canal or Lateral	320	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	2	-2	0	5	0	1.67	0	0	-2	0	0	0	-2	0
Irrigation Ditch Lining	428	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	1	0	-1	0	5	0	1.67	0	0	1	1	1	2	-1	1
Irrigation Field Ditch	388	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	1	-1	0	5	0	1.25	0	0	0	0	0	0	-1	0
Irrigation Land Leveling	464	1	0	1	0	0	1.00	-2	-2	0	-1	-1.67	-0.33	0	1	2	0	4	0	2.33	2	2	2	2	0	2	2	2
Irrigation Pipeline	430	0	0	0	2	0	2.00	0	0	0	0	0.00	1.00	1	0	1	0	2	0	1.33	0	0	1	0	1	2	1	1
Irrigation Reservoir	436	0	0	0	2	1	1.50	0	0	0	0	0.00	0.75	-1	2	-1	0	2	0	0.50	0	0	0	-1	0	0	0	0
Irrigation System, Microirrigation	441	0	0	0	0	0	0.00	0	0	0	1	1.00	0.50	2	2	2	0	2	0	2.00	2	2	2	2	0	2	2	2
Irrigation System, Surface & Subsurface	443	0	1	0	-1	-1	-0.33	0	-1	0	0	-0.50	-0.42	1	1	1	0	2	0	1.25	1	1	1	1	1	1	1	1
Irrigation System, Tailwater Recovery	447	0	0	1	1	1	1.00	0	-1	0	-1	-1.00	0.00	-1	1	-1	0	2	0	0.25	2	2	2	-1	1	-1	1	0
Irrigation Water Management	449	0	3	0	0	0	3.00	1	0	0	2	1.50	2.25	0	0	2	0	2	0	2.00	3	2	3	2	3	2	3	2
Karst Sinkhole Treatment	527	0	0	4	4	0	4.00	0	0	0	2	2.00	3.00	0	-2	0	0	0	0	-2.00	2	2	2	2	0	2	2	2
Land Clearing	460	0	0	0	0	0	0.00	-3	-1	0	0	-2.00	-1.00	0	-1	0	0	0	0	-1.00	-1	0	-1	0	0	0	-1	0
Land Reclamation, Abandoned Mined Land	543	4	4	4	1	0	3.25	3	1	0	4	2.67	2.96	0	3	0	0	0	0	3.00	0	0	0	0	1	1	3	0
Land Reclamation, Currently Mined Land	544	4	4	4	1	0	3.25	3	1	0	4	2.67	2.96	0	3	0	0	0	0	3.00	0	0	0	0	1	1	3	0
Land Reclamation, Landslide Treatment	453	2	2	2	0	0	2.00	2	0	0	0	0.67	1.33	2	0	2	0	0	0	2.00	0	0	0	0	0	0	1	0
Land Reclamation, Toxic Discharge Control	455	2	2	2	0	0	2.00	0	0	0	2	2.00	2.00	2	1	2	0	0	0	1.67	0	0	0	0	0	2	0	0
Land Smoothing	466	0	0	1	0	0	0.50	-2	-2	0	-1	-1.67	-0.58	2	2	2	0	2	2	2.00	1	1	1	2	0	0	0	0
Lighting System Improvement	670	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Lined Waterway or Outlet	468	0	0	5	2	0	3.50	0	0	0	0	0.00	1.75	2	2	2	0	0	0	2.00	0	0	0	2	0	0	0	0
Livestock Pipeline	516	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Livestock Shelter Structure	576	0	0	0	0	3	3.00	0	0	0	0	0.00	1.50	0	0	0	0	0	0	0.00	0	0	3	0	0	0	2	0
Mine Shaft & Adit Closing	457	0	0	0	0	0	0.00	0	0	2	0	2.00	1.00	0	0	2	0	0	0	2.00	0	0	0	0	0	2	0	0
Mole Drain	482	1	0	1	0	-1	0.20	-2	1	-2	2	-0.25	-0.03	2	2	2	0	0	0	1.20	1	1	-4	2	-2	2	0	2
Monitoring Well	353	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0

Kittitas County VSP Work Plan	Code	Soil Erosion – Sheet and Rill	Soil Erosion – Wind	Soil Erosion – Ephemeral Gully	Soil Erosion – Classic Gully	Soil Erosion – Streambank/ Shoreline/ Conveyance	Soil Erosion Average	Soil Condition – Organic Matter Depletion	Soil Condition – Compaction	Soil Condition – Subsidence	Soil Condition – Contaminants: Salts or Other Chemicals	Soil Condition Average	Soil Function	Water Quantity – Excessive Seepage	Water Quantity – Excessive Runoff, Flooding, or Ponding	Water Quantity – Excessive Subsurface Water	Water Quantity – Drifted Snow	Water Quantity – Inefficient Water Use on Irrigated Land	Water Quantity – Inefficient Water Use on Nonirrigated Land	Hydrology Average	Water Quality Degradation - Pesticides in Surface Water	Water Quality Degradation - Pesticides in Groundwater	Water Quality Degradation - Nutrients in Surface water	Water Quality Degradation - Nutrients in Groundwater	Water Quality Degradation - Salts in Surface Water	Water Quality Degradation - Salts in Groundwater	Water Quality Degradation - Excess Pathogens and Chemicals from Manure, Bio-solids or Compost Applications in Surface Water	Water Quality Degradation - Excess Pathogens and Chemicals from Manure, Bio-solids or Compost Applications in Groundwater
Mulching	**484**	4	4	0	0	0	4.00	1	0	0	1	1.00	2.50	-1	1	-1	0	2	2	0.60	2	0	2	-1	1	-1	0	0
Multi-Story Cropping	**379**	1	1	1	1	0	1.00	5	2	1	1	2.25	1.63	1	1	1	0	0	0	1.00	3	1	1	0	1	0	1	1
Nutrient Management	**590**	0	0	0	0	0	0.00	2	-1	0	4	1.67	0.83	0	0	0	0	0	0	0.00	0	0	5	5	3	3	4	4
Obstruction Removal	**500**	0	0	0	0	0	0.00	1	-1	0	0	0.00	0.00	0	0	0	2	0	0	2.00	0	0	0	0	0	0	0	0
On-Farm Secondary Containment Facility	**319**	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Open Channel	**582**	0	0	0	0	2	2.00	0	0	0	0	0.00	1.00	1	5	2	0	0	0	2.67	0	0	-1	0	0	0	0	0
Pond	**378**	0	0	0	2	1	1.50	0	0	0	-1	-1.00	0.25	-2	2	-1	0	2	2	0.60	0	0	2	-1	0	0	-2	0
Pond Sealing or Lining, Concrete	**522**	0	0	0	0	0	0.00	0	0	0	1	1.00	0.50	1	0	2	0	2	2	1.75	0	0	2	2	0	3	0	2
Pond Sealing or Lining, Compacted Soil Treatment	**520**	0	0	0	0	0	0.00	0	0	0	1	1.00	0.50	1	0	2	0	2	2	1.75	0	0	2	2	0	3	0	2
Pond Sealing or Lining, Flexible Membrane	**521A**	0	0	0	0	0	0.00	0	0	0	1	1.00	0.50	1	0	2	0	2	2	1.75	0	0	2	2	0	3	0	2
Precision Land Forming	**462**	0	0	2	4	0	2.00	-2	-1	0	1	-0.67	0.67	2	2	2	0	0	2	2.00	1	1	1	2	0	1	0	1
Prescribed Burning	**338**	2	2	1	1	1	1.40	1	0	-1	-1	-0.33	0.53	0	1	0	0	0	0	1.00	0	0	2	1	0	0	0	0
Prescribed Grazing	**528**	4	4	3	1	3	3.00	4	3	0	2	3.00	3.00	0	1	0	0	0	2	1.50	2	2	3	3	2	2	3	3
Pumping Plant	**533**	0	0	0	0	0	0.00	0	0	2	0	2.00	1.00	2	2	2	0	2	2	2.00	0	0	0	0	0	0	0	0
Range Planting	**550**	4	4	4	2	2	3.20	4	4	0	1	3.00	3.10	0	0	0	1	0	2	0.75	2	2	1	1	1	1	1	1
Recreation Area Improvement	**562**	1	1	1	1	1	1.00	1	1	0	0	1.00	1.00	0	1	0	0	0	0	1.00	1	1	0	0	0	0	0	0
Recreation Land Grading and Shaping	**566**	0	0	0	4	2	1.20	1	0	0	0	0.50	0.85	0	2	0	0	0	0	2.00	0	0	0	0	0	0	0	0
Residue and Tillage Management, No Till	**329**	4	4	1	0	0	3.00	2	2	0	0	2.00	2.50	-1	2	-1	0	2	2	0.80	4	0	3	0	2	0	2	0
Residue and Tillage Management, Reduced Till	**345**	4	4	1	0	0	3.00	2	2	0	1	1.67	2.33	0	1	0	0	1	2	1.33	4	0	3	0	2	0	2	0
Restoration and Management of Rare or Declining Habitats	**643**	2	3	2	0	2	2.25	0	0	0	0	0.00	1.13	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Riparian Forest Buffer	**391**	3	2	1	3	4	2.60	4	2	0	1	2.33	2.47	1	-1	2	0	0	0	0.67	3	1	5	5	1	1	3	1
Riparian Herbaceous Cover	**390**	2	2	1	0	4	2.25	4	4	0	2	3.33	2.79	2	-3	2	0	0	0	0.33	2	2	5	5	1	1	3	2
Road/Trail/Landing Closure and Treatment	**654**	5	1	5	5	4	4.00	5	2	0	0	2.33	3.17	1	3	4	0	0	1	2.25	0	0	1	1	0	0	1	1
Rock Barrier	**555**	5	0	5	1	1	3.00	0	0	0	0	0.00	1.50	1	0	1	2	0	0	1.33	0	0	0	0	1	-1	1	0
Roof Runoff Structure	**558**	1	0	3	1	1	1.50	0	0	0	0	0.00	0.75	1	-1	1	0	0	3	1.00	0	0	2	2	2	0	2	0
Roofs and Covers	**367**	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	-1	0	0	0	0	-1.00	0	0	0	0	0	0	0	1
Row Arrangement	**557**	3	1	3	0	0	2.33	1	0	0	1	1.00	1.67	-1	2	-1	0	4	4	1.60	1	-1	-2	2	0	0	1	0
Salinity and Sodic Soil Management	**610**	0	0	0	0	0	0.00	0	0	0	2	2.00	1.00	0	0	0	0	2	2	2.00	0	0	0	0	-2	-2	0	-1
Saturated Buffer	**604**	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	5	0	0	0	0	0
Sediment Basin	**350**	0	0	2	2	0	1.33	0	0	0	0	0.00	0.67	-2	2	-2	0	0	0	-0.67	2	-1	5	-1	2	-1	2	-1
Shallow Water Development and Management	**646**	0	0	0	0	0	0.00	1	0	0	0	1.00	0.50	0	2	0	0	0	0	2.00	0	0	1	1	0	-1	2	-1
Short Term Storage of Animal Waste and Byproducts	**318**	0	0	0	0	0	0.00	1	1	0	0	1.00	0.50	0	0	0	0	0	0	0.00	0	0	4	2	2	1	2	2
Silvopasture Establishment	**381**	4	3	3	2	2	2.80	3	0	0	0	3.00	2.90	1	2	1	2	0	2	1.60	2	1	3	2	1	1	1	1
Spoil Spreading	**572**	0	0	0	0	0	0.00	1	-1	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Spring Development	**574**	0	0	0	1	1	1.00	0	-1	0	0	-1.00	0.00	2	1	2	0	2	2	1.80	0	0	0	0	1	0	1	0
Sprinkler System	**442**	0	2	0	0	0	2.00	0	-1	0	2	0.50	1.25	1	2	1	0	5	0	2.25	2	2	2	1	2	2	2	1
Stormwater Runoff Control	**570**	0	0	2	0	3	2.50	0	1	0	0	1.00	1.75	-1	4	-1	0	0	0	0.67	0	0	2	0	0	0	0	0
Streambank and Shoreline Protection	**580**	0	0	0	0	4	4.00	0	0	0	0	0.00	2.00	0	0	0	0	0	0	0.00	0	0	1	0	0	0	1	0
Stream Crossing	**578**	0	0	0	0	2	2.00	0	0	0	0	0.00	1.00	0	0	0	0	0	0	0.00	0	0	-1	0	0	0	-3	0
Stream Habitat Improvement and Management	**395**	0	0	0	0	5	5.00	0	0	0	0	0.00	2.50	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Stripcropping	**585**	4	4	0	0	0	4.00	2	0	0	0	2.00	3.00	-2	1	-1	1	0	1	0.00	2	0	2	0	1	-1	1	0
Structure for Water Control	**587**	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	2	0	0	2	2	2.00	0	0	0	0	0	0	0	0
Structures for Wildlife	**649**	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
Subsurface Drain	**606**	4	-1	4	1	1	1.80	-2	2	-2	2	0.00	0.90	4	4	4	0	2	1	3.00	2	2	-2	1	-2	2	0	1
Surface Drainage, Field Ditch	**607**	1	-1	2	0	0	0.67	-2	1	-1	2	0.00	0.33	0	2	2	0	2	2	2.00	0	1	-2	1	-2	1	-2	1
Surface Drainage, Main or Lateral	**608**	0	-1	2	0	0	0.50	0	0	0	0	0.00	0.25	0	2	2	0	2	2	2.00	0	0	-2	1	-2	2	-2	2
Surface Roughening	**609**	0	3	0	0	0	3.00	0	0	0	0	0.00	1.50	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	-1
Terrace	**600**	5	1	4	2	1	2.60	2	-1	0	0	0.50	1.55	-1	4	-1	-1	0	3	0.80	2	-2	2	-2	2	-2	2	-1
Trails and Walkways	**575**	1	1	1	4	2	1.80	0	2	0	0	2.00	1.90	0	2	0	0	0	0	2.00	0	0	0	0	0	0	1	0
Tree/Shrub Establishment	**612**	5	5	4	2	2	3.60	4	2	0	1	2.33	2.97	2	0	2	1	0	1	1.50	2	2	2	2	2	2	2	2
Tree/Shrub Site Preparation	**490**	-1	-1	-2	-1	0	-1.25	-2	-1	0	0	-1.50	-1.38	0	0	0	0	0	2	2.00	-1	-1	0	0	0	0	0	0
Tree/Shrub Pruning	**660**	1	0	0	0	0	1.00	1	0	0	0	1.00	1.00	0	0	0	0	0	0	0.00	1	1	1	1	0	0	0	0
Underground Outlet	**620**	0	0	5	4	-1	2.67	0	0	0	0	0.00	1.33	0	4	0	0	0	0	4.00	-1	0	-1	0	0	0	-1	0
Upland Wildlife Habitat Management	**645**	3	3	3	2	1	2.40	0	0	0	0	0.00	1.20	0	-3	2	0	0	0	-0.50	0	0	0	0	0	0	0	0
Vegetated Treatment Area	**635**	4	4	0	0	0	4.00	3	3	0	-2	1.33	2.67	-1	0	-2	0	0	0	-1.50	0	0	4	-2	2	-2	5	0
Vegetative Barrier	**601**	4	1	1	0	0	2.00	0	0	0	-2	-2.00	0.00	0	0	0	0	0	0	0.00	2	0	2	0	1	0	1	0
Vertical Drain	**630**	0	0	0	1	0	1.00	0	0	0	0	0.00	0.50	0	4	-2	0	0	0	1.00	0	-2	1	-2	1	-1	1	-1
Waste Facility Closure	**360**	0	0	0	0	0	0.00	0	0	0	2	2.00	1.00	0	0	0	0	0	0	0.00	0	0	2	2	0	1	0	2
Waste Recycling	**633**	0	0	0	0	0	0.00	1	0	0	0	1.00	0.50	0	0	0	0	1	1	1.00	0	0	2	2	2	2	0	2
Waste Separation Facility (no)	**632**	0	0	0	0	0	0.00	1	0	0	0	0.50	0.25	0	0	0	0	1	0	1.00	0	0	2	2	2	2	2	2
Waste Storage Facility	**313**	0	0	0	0	0	0.00	1	1	0	1	1.00	0.50	0	0	0	0	1	0	1.00	0	0	4	2	2	1	2	2
Waste Transfer	**634**	-1	-1	-1	0	0	-1.00	0	-1	0	0	-1.00	-1.00	0	0	0	0	0	1	1.00	0	0	2	2	2	2	2	2
Waste Treatment	**629**	0	0	0	0	0	0.00	1	1	0	0	1.00	0.50	0	0	0	0	1	0	0.25	0	0	2	2	2	2	2	2
Waste Treatment Lagoon	**359**	0	0	0	0	0	0.00	1	1	0	0	1.00	0.50	0	0	0	0	1	0	0.50	0	0	4	2	2	1	4	2
Water and Sediment Control Basin	**638**	0	0	2	2	0	2.00	0	0	0	0	0.00	1.00	-2	2	-2	0	0	0	-0.67	0	-1	0	-1	0	-1	0	-1
Water Harvesting Catchment	**636**	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	1	0	0	0	0	0	1.00	0	0	0	0	0	0	0	0
Watering Facility	**614**	2	2	2	1	4	2.20	0	0	0	0	0.00	1.10	0	0	0	0	0	0	0.00	0	0	4	0	1	0	2	1
Water Well	**642**	2	2	2	0	0	2.00	0	0	0	1	1.00	1.50	0	0	2	0	2	0	2.00	0	0	0	0	0	0	-1	0
Waterspreading	**640**	0	0	0	-1	0	-1.00	1	0	0	1	1.00	0.00	0	1	-1	0	1	2	0.75	1	-1	2	-1	1	-1	0	-1
Well Decommissioning	**351**	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0	2	0	2	0	2	0	2
Wetland Creation	**658**	0	0	0	0	0	0.00	2	0	0	0	2.00	1.00	0	2	-1	0	0	0	0.50	1	1	3	1	1	0	1	0
Wetland Enhancement	**659**	0	0	0	0	0	0.00	1	0	0	0	1.00	0.50	0	2	0	0	0	0	2.00	1	1	3	1	1	0	1	0
Wetland Restoration	**657**	0	0	0	0	0	0.00	1	0	0	0	1.00	0.50	0	2	0	0	0	0	2.00	1	1	3	1	1	0	1	0
Wetland Wildlife Habitat Management	**644**	0	0	0	0	0	0.00	0	0	0	0	0.00	0.00	0	2	0	0	0	0	2.00	0	0	0	0	0	0	1	0
Windbreak/Shelterbelt Establishment	**380**	1	5	2	0	0	2.67	4	2	0	1	2.33	2.50	2	0	2	5	5	3	2.83	3	0	1	1	0	0	0	0
Windbreak/Shelterbelt Renovation	**650**	1	5	2	0	0	2.67	4	2	0	1	2.33	2.50	2	0	2	5	5	3	2.83	3	0	1	1	0	0	0	0
Woody Residue Treatment	**384**	1	1	1	1	0	1.00	-1	-2	0	0	-1.50	-0.25	0	0	0	0	0	1	1.00	0	0	0	0	0	0	0	0

Kittitas County VSP Work Plan	Water Quality Degradation - Excessive Sediment in Surface Water	Water Quality Degradation - Elevated Water Temperature	Water Quality Degradation - Petroleum, Heavy Metals and Other Pollutants Transported to Surface Water	Water Quality Degradation - Petroleum, Heavy Metals and Other Pollutants Transported to Groundwater	Water Quality Average	Fish and Wildlife – Inadequate Food	Fish and Wildlife – Inadequate Cover/Shelter	Fish and Wildlife – Inadequate Water	Fish and Wildlife – Inadequate Space	Habitat Average	Domestic Animals – Inadequate Quantities and Quality of Feed and Forage	Domestic Animals – Inadequate Shelter	Domestic Animals – Inadequate Stock Water	Domestic Animals – Stress and Mortality	Land - Change in Land Use	Land - Land in Production	Capital - Change in Equipment	Capital - Total Investment Cost	Capital - Annual Cost	Capital - Credit & Farm Program Eligibility	Labor - Labor	Labor - Change in Management Level	Risk - Yield	Risk - Flexibility	Risk - Timing	Risk - Cash Flow	Agr Viability	Wetlands	Fish/Wildlife Habitat Conservation Areas	Critical Aquifer Recharge Areas	Geologically Hazardous Areas (Erosion)	Frequently Flooded Areas
Access Control	3	3	1	1	1.44	3	3	1	1	2.00	1	0	0	0	3	-1	2	3	2	0	-2	1	-1	3	-1	2	1.00	1.73	2.00	0.60	3.40	2.22
Access Road	1	0	0	0	1.00	0	0	0	-1	-1.00	0	0	0	0	1	-1	2	3	3	0	2	3	-1	2	1	2	1.55	0.50	-1.00	0.00	1.00	0.90
Agrichemical Handling Facility	0	0	0	0	5.00	0	0	0	0	0.00	1	0	1	0	0	-1	1	1	1	0	1	2	-1	-1	1	1	0.58	1.67	0.00	2.00	0.00	1.00
Air Filtration and Scrubbing	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	1	0	0	1	2	1	0	-1	1	-2	2	1	1	0.70	0.00	0.00	0.00	0.00	0.00
Alley Cropping	3	0	1	1	1.73	2	2	0	3	2.33	0	0	0	0	2	-1	5	5	5	0	3	5	-1	2	1	3	2.64	2.02	2.33	1.00	4.50	2.65
Amending Soil Properties with Gypsum Products	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	2	-1	5	5	5	0	3	5	-1	2	1	3	2.64	0.33	0.00	0.00	1.00	0.60
Amendments for Treatment of Agricultural Waste	0	0	2	2	2.00	0	0	0	0	0.00	0	0	0	1	2	-1	1	3	1	0	-2	2	-1	2	1	1	0.83	0.83	0.00	1.60	0.00	0.60
Anaerobic Digester	0	0	0	0	0.67	0	0	0	0	0.00	3	0	0	1	0	-1	1	3	1	0	-2	1	-2	3	-1	1	0.67	0.22	0.00	0.00	0.00	0.13
Animal Mortality Facility	0	0	0	0	2.00	0	0	0	0	0.00	0	0	0	0	0	0	2	1	1	0	1	1	-3	2	1	1	0.78	0.67	0.00	0.80	0.00	0.40
Anionic Polyacrylamide (PAM) Erosion Control	4	0	1	0	1.17	0	0	0	0	0.00	0	0	0	0	2	-1	3	4	2	0	1	2	2	2	2	2	1.91	0.72	0.00	-0.40	2.00	1.23
Aquaculture Ponds	0	-2	0	0	-2.00	0	0	1	0	1.00	0	1	0	3	0	0	1	1	1	0	1	2	-1	-1	2	1	1.00	-0.33	1.00	-0.40	0.00	-0.20
Aquatic Organism Passage	0	2	0	0	2.00	0	2	1	5	2.67	0	0	0	0	0	0	2	1	1	0	1	1	-3	2	5	1	1.22	1.56	2.67	0.00	0.00	0.93
Bedding	-1	0	-2	1	-0.55	0	0	0	0	0.00	3	3	0	3	0	3	2	3	2	0	2	1	-4	2	5	2	2.08	0.48	0.00	1.00	2.00	0.62
Bivalve Aquaculture Gear and Biofouling Control	0	0	0	0	2.00	0	0	2	0	2.00	0	0	0	0	0	-1	1	3	2	0	1	1	1	2	3	3	1.60	1.33	2.00	0.00	0.00	0.80
Brush Management	2	0	0	0	0.50	2	2	0	1	1.67	0	0	0	0	0	-1	1	4	2	0	1	1	-2	2	1	3	1.20	1.22	1.67	0.00	1.00	0.93
Building Envelope Improvement	0	0	0	0	0.00	0	0	0	0	0.00	1	-1	3	1	0	-1	2	3	3	0	1	2	-1	2	1	5	1.50	0.00	0.00	0.00	0.00	0.00
Channel Bed Stabilization	1	1	0	0	1.00	1	1	1	2	1.25	0	0	3	2	0	3	1	3	2	0	1	3	-1	0	1	1	1.73	1.42	1.25	0.00	2.00	1.25
Clearing & Snagging	-2	-1	0	0	-1.50	-2	-2	-1	-2	-1.75	0	0	0	0	2	-1	3	4	3	0	2	3	-1	2	1	5	2.09	-0.42	-1.75	0.00	2.00	0.15
Combustion System Improvement	0	0	0	0	0.00	0	0	0	0	0.00	0	2	0	0	5	-3	-2	2	1	0	1	1	2	-1	3	1	1.00	0.00	0.00	0.00	0.00	0.00
Composting Facility	0	0	0	0	2.00	0	0	0	0	0.00	0	0	0	0	3	-1	1	1	1	0	1	3	-3	3	5	3	1.55	0.67	0.00	0.80	0.00	0.40
Conservation Cover	4	0	0	0	3.11	4	4	0	2	3.33	0	0	0	0	5	-5	2	5	2	0	-2	2	-1	2	1	3	1.27	2.61	3.33	2.20	3.00	2.84
Conservation Crop Rotation	2	0	0	0	1.75	2	2	0	2	2.00	1	0	0	0	3	-2	1	2	2	0	1	1	-1	2	2	3	1.25	1.78	2.00	1.20	4.00	2.34
Constructed Wetland	5	0	4	1	2.25	3	3	0	2	2.00	0	0	0	0	0	-1	1	2	1	0	2	1	-2	2	1	1	0.80	2.08	2.00	1.40	0.00	1.25
Contour Buffer Strips	2	0	0	0	0.56	2	2	0	2	2.00	0	0	0	0	0	-1	1	2	1	0	2	1	-2	2	1	1	0.80	0.63	2.00	-0.60	3.00	1.38
Contour Farming	2	0	0	0	0.50	0	0	0	0	0.00	0	0	0	0	5	-4	1	1	3	0	2	1	-3	2	5	1	1.27	0.08	0.00	-0.60	2.00	0.65
Contour Orchard and Other Perennial Crops	2	0	0	0	0.43	0	0	0	0	0.00	0	0	0	0	5	-3	1	3	3	0	2	1	-4	-1	3	5	1.36	0.21	0.00	-0.60	2.50	1.03
Controlled Traffic Farming	0	0	0	0	0.00	0	0	0	0	0.00	1	0	0	1	1	-1	1	1	2	0	2	1	-2	2	3	1	1.00	0.33	0.00	0.00	0.00	1.00
Cover Crop	4	0	0	0	3.00	2	2	0	2	2.00	2	0	3	3	5	-5	4	5	3	0	-3	4	-2	2	1	5	1.93	2.13	2.00	2.40	3.67	2.26
Critical Area Planting	4	0	0	0	3.00	2	2	0	2	2.00	0	0	0	0	5	-4	4	3	2	0	-3	4	-2	2	1	5	1.55	1.67	2.00	0.40	4.60	2.45
Cross Wind Ridges	1	0	0	0	1.00	0	0	0	0	0.00	1	0	0	0	0	0	3	1	2	0	2	1	-3	2	5	1	1.50	0.33	0.00	0.00	4.00	1.20
Cross Wind Trap Strips	1	0	0	0	1.50	0	2	0	2	2.00	0	0	0	0	5	-3	2	4	2	0	1	2	-2	2	5	4	2.00	1.17	2.00	0.00	4.00	1.90
Dam	2	0	0	0	-0.25	2	2	0	2	1.50	2	2	3	2	4	-2	3	3	1	0	1	2	-2	2	1	3	1.67	0.50	1.50	-0.20	1.50	0.40
Dam, Diversion	0	-2	0	0	-2.00	-2	-2	-2	-2	-2.00	0	0	3	0	3	3	3	3	2	0	2	3	-3	2	5	2	2.33	-0.67	-2.00	0.00	-1.00	-0.60
Deep Tillage	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0	0	1	2	1	0	1	1	-1	2	1	2	1.11	0.33	0.00	-0.40	0.00	0.30
Denitrifying Bioreactor	0	0	0	0	2.00	0	0	0	0	0.00	2	2	2	1	0	-2	1	1	1	0	3	2	1	1	2	1	1.29	0.67	0.00	0.20	0.00	0.40
Dike	0	0	0	0	1.33	-2	-2	0	1	-0.75	5	0	0	0	0	0	1	1	1	0	2	3	-2	2	1	-2	1.20	0.19	-0.75	0.40	-0.50	0.02
Diversion	2	0	1	0	0.71	0	0	0	0	0.00	1	0	0	0	0	0	1	3	2	0	-1	2	-2	2	1	4	1.30	0.70	0.00	0.00	1.50	0.72
Drainage Water Management	0	0	2	0	0.89	0	0	2	2	2.00	1	0	0	0	3	-3	1	2	1	0	1	1	1	2	2	2	1.17	1.07	2.00	0.40	2.00	1.24
Dry Hydrant	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	3	-3	1	2	1	0	2	2	1	2	2	2	1.36	-0.33	0.00	0.00	0.00	-0.20
Dust Control from Animal Activity on Open Lot Surfaces	0	0	0	0	1.00	0	0	0	0	0.00	0	0	0	0	3	-3	1	2	1	0	2	1	-3	2	5	2	1.18	0.33	0.00	0.00	2.00	0.60
Dust Control on Unpaved Roads and Surfaces	1	0	-1	0	-0.50	0	0	0	0	0.00	5	5	5	0	0	0	1	2	1	0	1	1	-1	2	2	2	2.17	-0.17	0.00	0.00	3.50	0.40
Early Successional Habitat Development/Mgt.	0	-2	0	0	-1.00	4	4	0	4	4.00	0	0	0	0	2	-1	3	4	1	0	2	2	-1	2	2	2	1.64	1.00	4.00	0.00	0.00	0.60
Emergency Animal Mortality Management	0	0	0	0	2.00	0	0	0	0	0.00	0	0	0	0	1	-1	2	1	4	0	3	4	-2	2	5	5	2.18	0.67	0.00	0.80	0.00	0.40
Farmstead Energy Improvement	0	-2	0	0	-2.00	0	0	0	0	0.00	5	0	0	1	0	0	1	1	1	0	1	2	-3	2	5	-1	1.36	-0.67	0.00	0.00	0.00	-0.40
Feed Management	0	0	0	0	1.40	0	0	0	0	0.00	3	0	0	0	0	2	3	3	1	0	3	3	-3	2	5	3	2.27	0.47	0.00	0.60	0.00	0.28
Fence	0	0	0	0	2.00	0	0	1	0	1.00	0	0	0	0	0	1	2	2	1	0	1	2	-3	2	3	2	1.30	1.00	1.00	0.00	1.00	1.40
Field Border	2	0	0	0	1.43	2	2	0	2	2.00	1	0	0	0	0	3	3	3	1	0	4	3	-4	2	2	4	2.00	1.48	2.00	0.80	2.50	1.79
Field Operations Emissions Reduction	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	1	0	-1	3	3	1	0	-2	1	-1	2	3	2	1.09	0.00	0.00	0.00	2.50	0.50
Filter Strip	5	0	4	1	2.36	2	2	0	2	2.00	0	0	0	0	3	-2	2	3	2	0	2	1	-3	3	2	-2	1.00	1.45	2.00	1.20	0.00	1.87
Firebreak	-1	0	0	0	-1.00	0	0	0	-1	-1.00	0	0	3	0	3	-1	2	3	2	0	-1	1	-1	2	1	4	1.50	-0.67	-1.00	0.00	-0.80	-0.96
Fish Raceway or Tank	0	-1	0	0	-1.00	0	0	0	0	0.00	1	0	0	0	4	-3	1	3	2	0	-2	1	-1	-1	4	4	1.08	-0.33	0.00	-0.40	0.00	-0.20
Fishpond Management	0	0	0	0	-2.00	4	4	2	4	3.50	3	0	0	0	0	0	2	3	1	0	3	1	-2	2	3	2	1.80	0.50	3.50	-0.40	0.00	0.30
Forage and Biomass Planting	1	0	1	0	1.00	1	1	0	0	1.00	3	0	0	1	4	-3	1	3	1	0	-1	1	1	2	2	5	1.54	1.00	1.00	0.00	1.00	1.10
Forage Harvest Management	0	0	1	0	1.25	1	1	0	0	1.00	3	3	0	3	2	-1	1	3	1	0	2	1	1	-1	2	1	1.50	1.08	1.00	0.00	1.00	1.25
Forest Stand Improvement	0	1	1	1	0.75	3	1	0	3	2.33	1	3	0	2	2	-1	1	3	1	0	2	1	-1	-1	2	1	1.14	2.03	2.33	0.80	0.75	1.37
Forest Trails and Landings	0	0	0	0	0.50	1	1	0	-1	0.33	0	0	0	0	2	-1	1	4	2	0	2	3	-2	2	1	4	1.64	0.28	0.33	0.00	-0.75	0.02
Fuel Break	-1	0	0	0	-1.00	1	-1	0	0	0.40	0	0	0	0	2	-1	2	4	2	0	2	3	-2	2	1	4	1.73	-0.53	0.40	-0.20	-1.00	-0.92
Grade Stabilization Structure	2	0	0	0	1.00	2	2	1	0	1.67	0	0	0	0	2	-1	2	3	2	0	2	3	-2	2	1	2	1.45	0.89	1.67	0.00	2.00	0.93
Grassed Waterway	2	0	1	0	1.33	1	1	1	1	1.00	0	0	0	0	0	2	2	3	2	0	-1	4	-3	3	5	2	1.90	1.61	1.00	0.00	3.33	1.83
Grazing Land Mechanical Treatment	5	0	0	0	2.33	0	0	0	0	0.00	0	0	0	0	4	-3	4	5	5	0	2	3	-2	2	4	4	2.55	1.44	0.00	0.00	1.00	1.27
Groundwater Testing	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	4	-3	4	5	4	0	2	3	-2	3	4	5	2.64	0.00	0.00	0.00	0.00	0.00
Heavy Use Area Protection	2	0	0	0	1.67	0	0	0	-1	-1.00	0	0	0	0	3	1	4	4	3	0	-2	4	-3	2	5	2	2.09	-0.11	-1.00	0.00	2.00	0.23
Hedgerow Planting	0	1	0	0	1.33	4	4	0	4	4.00	0	0	0	0	3	1	4	4	3	0	-2	4	-3	2	5	2	2.09	2.44	4.00	0.00	1.00	1.97
Herbaceous Weed Control	0	0	0	0	-0.25	2	2	0	1	1.67	0	0	0	0	3	1	4	4	3	0	-3	4	-4	2	5	4	2.09	1.14	1.67	0.00	3.20	1.32
Herbaceous Wind Barriers	1	0	0	0	1.00	2	2	0	2	2.00	0	0	2	0	2	1	3	4	2	0	-1	4	-3	2	4	3	1.92	2.00	2.00	0.00	4.00	2.40
High Tunnel System	-1	0	0	0	-1.00	0	0	0	0	0.00	0	0	0	0	3	-1	4	4	2	0	2	3	-3	2	5	3	2.18	-1.00	0.00	0.00	-1.00	-0.60
Hillside Ditch	2	0	-1	0	-0.25	0	0	1	0	1.00	0	0	0	0	1	0	1	3	1	0	-2	1	-2	2	2	4	1.10	1.08	1.00	-0.20	1.75	1.00
Integrated Pest Management	2	0	0	0	4.00	2	0	2	0	2.00	0	0	0	0	2	1	2	2	1	0	-2	1	-2	2	1	3	1.00	2.00	2.00	1.00	2.00	2.00
Irrigation Canal or Lateral	0	0	0	0	-1.33	0	0	1	0	1.00	0	0	3	0	0	0	2	1	2	0	3	4	-3	3	5	-2	1.80	0.44	1.00	0.00	0.00	0.27
Irrigation Ditch Lining	1	0	-1	1	0.60	0	0	1	0	1.00	1	-1	3	1	5	3	3	4	1	0	-1	1	-2	3	4	4	1.93	1.09	1.00	1.00	0.00	0.65
Irrigation Field Ditch	0	0	1	0	0.00	0	0	1	0	1.00	0	0	0	0	0	1	2	5	2	0	3	4	-3	2	5	5	2.60	0.75	1.00	0.00	0.00	0.45
Irrigation Land Leveling	1	0	1	1	1.70	0	0	0	0	0.00	0	0	0	0	0	3	2	4	3	0	3	4	-4	2	5	4	2.60	1.34	0.00	1.80	1.00	0.67
Irrigation Pipeline	1	0	0	1	1.14	0	0	0	0	0.00	0	0	0	0	5	5	3	5	3	0	3	3	-5	2	4	5	3.00	0.83	0.00	0.80	2.00	0.90
Irrigation Reservoir	2	0	0	0	0.50	2	-1	2	-1	0.50	0	0	0	0	5	5	3	5	3	0	3	3	-5	2	4	5	3.00	0.50	0.50	-0.20	1.50	0.60
Irrigation System, Microirrigation	2	0	2	2	2.00	0	0	1	0	1.00	1	-1	3	1	3	1	3	2	2	0	-1	1	-3	3	5	3	1.53	1.67	1.00	2.00	0.00	1.20
Irrigation System, Surface & Subsurface	0	0	1	1	1.00	0	0	1	0	1.00	0	0	0	0	0	0	2	2	3	0	-1	1	-2	2	4	4	1.67	1.08	1.00	1.00	-0.33	0.48
Irrigation System, Tailwater Recovery	1	0	4	-1	0.73	0	0	1	0	1.00	0	0	0	0	0	0	4	3	2	0	-3	2	-1	1	5	2	1.67	0.66	1.00	-0.20	1.00	0.40
Irrigation Water Management	3	0	3	2	2.55	0	4	0	3	3.50	0	0	0	0	0	0	2	5	1	0	-1	3	-5	1	4	4	1.56	2.68	3.50	2.00	3.00	2.51
Karst Sinkhole Treatment	2	0	0	2	2.00	0	0	0	0	0.00	0	0	0	-1	0	1	1	1	2	0	2	1	-1	2	5	1	1.33	0.00	0.00	2.00	4.00	1.20
Land Clearing	-1	-2	-1	0	-1.00	-2	-2	0	-2	-2.00	0	0	0	0	1	0	1	3	1	0	2	2	-1	2	1	2	1.40	-1.33	-2.00	0.00	0.00	-1.20
Land Reclamation, Abandoned Mined Land	4	0	0	1	2.00	2	2	0	1	1.67	0	0	0	0	0	0	1	2	1	0	2	1	-2	2	5	1	1.44	2.22	1.67	0.40	3.25	2.52
Land Reclamation, Currently Mined Land	4	0	0	1	2.00	2	2	0	1	1.67	1	1	1	1	0	0	1	1	2	0	3	5	-2	2	5	-1	1.54	2.22	1.67	0.40	3.25	2.52
Land Reclamation, Landslide Treatment	4	0	4	0	3.00	2	2	0	0	2.00	0	0	0	0	0	1	2	4	1	0	-1	1	-1	3	1	2	1.30	2.33	2.00	0.00	2.00	1.93
Land Reclamation, Toxic Discharge Control	0	0	4	2	2.67	2	2	0	0	2.00	0	0	0	0	0	-1	2	4	2	0	1	1	-1	2	1	5	1.60	2.11	2.00	0.80	2.00	2.07
Land Smoothing	1	0	1	0	1.17	0	0	0	-1	-1.00	5	0	0	2	3	2	1	3	1	0	2	1	-3	2	4	1	1.85	0.72	-1.00	0.60	0.50	0.20
Lighting System Improvement	0	0	0	0	0.00	0	0	0	0	0.00	3	0	0	0	0	1	2	1	2	0	3	5	-3	3	5	-1	1.91	0.00	0.00	0.00	0.00	0.00
Lined Waterway or Outlet	2	0	0	0	2.00	-2	1	0	0	-0.50	0	0	0	0	2	1	2	3	1	0	-2	1	-2	2	1	2	1.00	1.17	-0.50	0.40	3.50	1.40
Livestock Pipeline	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	3	-2	3	5	2	0	2	3	-1	2	2	4	2.09	0.00	0.00	0.00	0.00	0.00
Livestock Shelter Structure	2	0	0	0	2.33	0	0	0	0	0.00	0	0	3	0	0	0	1	4	1	0	-1	1	-1	2	2	2	1.40	0.78	0.00	0.00	3.00	1.07
Mine Shaft & Adit Closing	0	0	2	1	1.67	0	0	0	2	2.00	0	0	0	0	0	-1	3	4	1	0	1	1	-1	2	4	2	1.60	1.89	2.00	0.60	0.00	1.53
Mole Drain	1	0	0	2	0.56	0	0	0	0	0.00	4	1	0	0	2	3	1	1	1	0	2	3	-2	2	5	-1	1.69	0.59	0.00	1.80	0.20	0.34
Monitoring Well	0	0	0	0	0.00	0	0	0	0	0.00	5	2	0	2	1	2	1	1	2	0	3	4	-3	3	5	-2	1.86	0.00	0.00	0.00	0.00	0.00

Kittitas County VSP Work Plan	Water Quality Degradation - Excessive Sediment in Surface Water	Water Quality Degradation - Elevated Water Temperature	Water Quality Degradation - Petroleum, Heavy Metals and Other Pollutants Transported to Surface Water	Water Quality Degradation - Petroleum, Heavy Metals and Other Pollutants Transported to Groundwater	Water Quality Average	Fish and Wildlife – Inadequate Food	Fish and Wildlife – Inadequate Cover/Shelter	Fish and Wildlife – Inadequate Water	Fish and Wildlife – Inadequate Space	Habitat Average	Domestic Animals – Inadequate Quantities and Quality of Feed and Forage	Domestic Animals – Inadequate Shelter	Domestic Animals – Inadequate Stock Water	Domestic Animals – Stress and Mortality	Land - Change in Land Use	Land - Land in Production	Capital - Change in Equipment	Capital - Total Investment Cost	Capital - Annual Cost	Capital - Credit & Farm Program Eligibility	Labor - Labor	Labor - Change in Management Level	Risk - Yield	Risk - Flexibility	Risk - Timing	Risk - Cash Flow	Agr Viability	Wetlands	Fish/Wildlife Habitat Conservation Areas	Critical Aquifer Recharge Areas	Geologically Hazardous Areas (Erosion)	Frequently Flooded Areas
Mulching	2	0	0	0	0.83	1	1	0	0	1.00	0	0	0	0	1	3	4	3	2	0	3	3	-1	3	1	2	2.18	0.81	1.00	-0.40	4.00	1.49
Multi-Story Cropping	1	0	1	1	1.10	3	1	0	1	1.67	5	0	0	2	3	1	1	2	1	0	2	1	-2	3	5	1	1.92	1.26	1.67	0.60	1.00	1.40
Nutrient Management	0	0	2	2	3.50	0	0	0	0	0.00	0	0	0	0	3	2	2	3	1	0	1	1	-1	2	1	2	1.55	1.17	0.00	2.80	0.00	1.03
Obstruction Removal	0	0	0	0	0.00	0	-2	0	0	-2.00	1	-1	3	1	3	2	2	3	1	0	1	1	-1	2	1	2	1.40	0.00	-2.00	0.00	0.00	0.00
On-Farm Secondary Containment Facility	0	0	5	5	5.00	0	0	0	0	0.00	1	-1	3	1	3	2	2	3	1	0	1	1	-1	2	1	1	1.33	1.67	0.00	1.00	0.00	1.00
Open Channel	0	0	-1	0	-0.67	0	0	-2	0	-0.50	1	0	0	0	0	0	2	1	1	0	-3	3	-2	2	-2	-1	0.20	0.50	-0.50	0.00	2.00	0.70
Pond	2	0	0	0	0.20	2	2	4	2	2.50	1	0	0	0	0	0	2	1	1	0	-3	3	-2	2	-2	-1	0.20	1.10	2.50	-0.20	1.50	0.76
Pond Sealing or Lining, Concrete	0	0	0	1	2.00	0	0	1	0	1.00	1	0	0	0	0	0	2	1	1	0	-1	2	-2	2	-2	-1	0.30	1.58	1.00	1.60	0.00	1.15
Pond Sealing or Lining, Compacted Soil Treatment	0	0	0	1	2.00	0	0	1	0	1.00	0	0	0	0	3	1	2	2	1	0	3	3	1	2	2	3	2.09	1.58	1.00	1.60	0.00	1.15
Pond Sealing or Lining, Flexible Membrane	0	0	0	1	2.00	0	0	1	0	1.00	1	2	0	0	3	-2	1	4	1	0	-2	1	1	1	1	2	1.08	1.58	1.00	1.60	0.00	1.15
Precision Land Forming	1	0	1	1	1.11	0	0	0	0	0.00	3	2	0	2	3	-2	1	4	1	0	-2	1	1	1	1	2	1.29	1.04	0.00	1.20	2.00	0.89
Prescribed Burning	1	0	1	0	1.25	2	2	0	4	2.67	0	0	3	0	0	-1	1	3	1	0	1	1	1	2	1	4	1.55	1.64	2.67	0.20	1.40	1.20
Prescribed Grazing	3	2	0	0	2.50	2	2	4	4	3.00	0	0	0	2	0	0	2	4	1	0	1	1	-1	2	2	1	1.50	2.33	3.00	2.00	3.00	2.60
Pumping Plant	0	0	0	0	0.00	0	0	0	0	0.00	2	2	3	2	0	-1	1	1	1	0	2	1	-2	2	2	1	1.21	0.67	0.00	0.00	0.00	0.80
Range Planting	2	1	2	1	1.33	2	2	0	4	2.67	0	0	0	2	0	0	2	4	2	0	1	1	-1	2	2	2	1.70	1.58	2.67	1.20	3.20	2.19
Recreation Area Improvement	1	0	0	0	1.00	1	1	0	-1	0.33	0	0	0	0	1	1	1	1	2	0	2	3	-3	2	3	1	1.27	0.78	0.33	0.20	1.00	0.87
Recreation Land Grading and Shaping	2	0	0	0	2.00	-2	-2	0	-2	-2.00	0	0	2	0	2	-1	3	1	2	0	1	2	-2	2	2	4	1.50	0.67	-2.00	0.00	1.20	0.74
Residue and Tillage Management, No Till	4	0	0	0	3.00	2	2	0	1	1.67	0	0	0	0	0	0	1	1	1	0	2	3	1	2	3	1	1.67	1.82	1.67	0.00	3.00	2.09
Residue and Tillage Management, Reduced Till	4	0	0	0	3.00	2	2	0	1	1.67	3	0	0	0	3	3	1	2	1	0	1	1	-3	2	4	1	1.58	2.00	1.67	0.00	3.00	2.13
Restoration and Management of Rare or Declining Habitats	2	2	0	0	2.00	4	4	4	4	4.00	0	0	0	0	1	3	1	1	3	0	3	4	-1	2	5	5	2.45	2.00	4.00	0.00	2.25	1.65
Riparian Forest Buffer	5	5	3	1	2.83	5	5	1	5	4.00	0	0	0	1	2	-1	3	3	2	0	3	3	-1	2	4	2	1.92	2.50	4.00	1.80	2.60	2.49
Riparian Herbaceous Cover	4	2	2	1	2.50	4	4	2	4	3.50	1	1	1	0	2	-1	2	2	1	0	1	1	1	2	3	4	1.50	2.11	3.50	2.20	2.25	2.38
Road/Trail/Landing Closure and Treatment	3	1	3	1	1.50	1	1	1	3	1.50	0	-5	5	5	1	2	3	3	1	0	1	2	-2	2	2	3	1.64	1.75	1.50	0.60	4.00	2.32
Rock Barrier	2	0	1	0	0.80	0	0	0	0	0.00	0	0	0	0	0	0	1	3	1	0	1	1	-1	2	1	2	1.22	0.71	0.00	-0.20	3.00	1.03
Roof Runoff Structure	1	0	0	0	1.80	0	0	0	0	0.00	0	0	0	0	0	0	1	3	1	0	2	3	-1	2	1	1	1.44	0.93	0.00	0.40	1.50	0.86
Roofs and Covers	0	0	1	1	1.00	0	0	0	0	0.00	0	0	0	0	0	-1	1	4	2	0	1	1	-2	2	1	3	1.20	0.00	0.00	0.40	0.00	0.00
Row Arrangement	2	0	0	0	0.43	0	0	0	0	0.00	1	0	0	0	0	-1	1	1	1	0	1	2	-2	2	3	1	0.91	0.68	0.00	0.20	2.33	1.07
Salinity and Sodic Soil Management	0	0	0	-1	-1.50	0	0	0	0	0.00	-1	-1	-1	-1	1	-1	3	3	1	0	-2	2	-1	2	5	2	0.73	0.17	0.00	-0.80	0.00	0.50
Saturated Buffer	0	0	0	0	5.00	0	0	0	0	0.00	0	0	-1	0	2	1	1	2	1	0	-2	1	-2	2	4	2	0.92	1.67	0.00	0.00	0.00	1.00
Sediment Basin	4	0	2	-1	1.00	-1	-1	1	0	-0.33	0	0	-1	0	2	2	2	3	2	0	-2	1	-2	2	4	2	1.25	0.00	-0.33	-1.00	1.33	0.27
Shallow Water Development and Management	2	0	2	1	0.70	4	2	2	4	3.00	0	0	-1	0	2	2	2	4	2	0	-2	1	-2	2	4	2	1.33	1.90	3.00	0.00	0.00	1.34
Short Term Storage of Animal Waste and Byproducts	0	0	0	1	2.00	0	0	0	0	0.00	0	0	0	0	0	0	1	1	1	0	1	1	-1	2	3	1	1.11	0.67	0.00	1.20	0.00	0.60
Silvopasture Establishment	3	1	1	1	1.50	1	1	0	1	1.00	0	0	3	0	1	-1	1	3	2	0	2	1	-1	1	2	3	1.42	1.37	1.00	1.20	2.80	1.98
Spoil Spreading	2	0	0	0	2.00	0	0	0	0	0.00	0	0	0	0	1	3	1	1	1	0	1	1	-1	2	5	1	1.45	0.67	0.00	0.00	0.00	0.40
Spring Development	1	0	2	0	1.25	0	0	4	2	3.00	-3	3	1	0	4	-2	1	3	1	0	3	1	-3	1	3	2	1.07	2.02	3.00	0.00	1.00	1.21
Sprinkler System	1	0	1	1	1.55	0	0	1	0	1.00	1	-1	0	0	0	0	1	2	1	0	3	1	-2	1	3	1	1.00	1.60	1.00	1.40	2.00	1.46
Stormwater Runoff Control	4	0	2	0	2.67	0	0	0	0	0.00	0	0	0	0	0	-1	1	3	1	0	3	3	1	2	1	1	1.50	1.11	0.00	0.00	2.50	1.37
Streambank and Shoreline Protection	2	1	0	0	1.25	2	2	0	2	1.50	1	0	0	1	0	0	1	1	1	0	1	1	-1	2	1	3	1.09	0.92	1.50	0.00	4.00	1.35
Stream Crossing	2	0	0	0	-0.67	0	0	0	0	0.00	2	0	1	4	5	-3	1	1	1	0	1	1	1	-1	2	1	1.21	-0.22	0.00	0.00	2.00	0.27
Stream Habitat Improvement and Management	2	2	0	0	2.00	2	3	3	4	3.00	0	0	0	0	1	-1	1	2	1	0	2	1	-1	2	3	2	1.18	1.67	3.00	0.00	5.00	2.00
Stripcropping	2	0	0	0	1.17	2	2	0	1	1.67	0	0	0	0	0	-1	1	3	2	0	-2	2	1	2	1	4	1.30	0.94	1.67	-0.20	4.00	1.77
Structure for Water Control	1	1	0	0	1.00	0	0	0	-1	-1.00	0	0	0	0	0	0	2	2	1	0	1	2	-2	2	4	1	1.44	0.67	-1.00	0.00	0.00	0.40
Structures for Wildlife	0	0	0	0	0.00	0	4	0	0	4.00	0	0	0	0	2	-1	4	5	3	0	2	4	-2	3	1	3	2.18	1.33	4.00	0.00	0.00	0.80
Subsurface Drain	2	0	0	1	0.70	0	0	0	0	0.00	0	0	0	1	1	0	4	4	2	0	2	2	-2	2	2	2	1.82	1.23	0.00	1.40	1.80	1.10
Surface Drainage, Field Ditch	1	0	-2	1	-0.20	0	0	0	0	0.00	0	0	0	1	2	-1	4	5	1	0	-1	-2	3	2	3	2	1.58	0.60	0.00	1.00	0.67	0.49
Surface Drainage, Main or Lateral	-1	0	-2	2	-0.22	0	0	0	0	0.00	0	0	0	0	0	0	3	3	2	0	-2	2	1	2	1	3	1.67	0.59	0.00	1.40	0.50	0.46
Surface Roughening	1	0	0	0	0.00	0	0	0	0	0.00	1	0	0	0	1	-1	2	2	2	0	2	1	-3	2	3	5	1.42	0.00	0.00	-0.20	3.00	0.60
Terrace	2	0	2	-1	0.36	0	1	0	0	1.00	0	0	0	0	2	-1	3	3	2	0	-2	3	3	2	1	4	1.82	0.72	1.00	-1.60	2.60	1.05
Trails and Walkways	2	0	0	0	1.50	4	4	2	0	3.33	0	0	0	0	2	-1	2	2	1	0	2	1	-1	2	4	4	1.64	2.28	3.33	0.00	1.80	2.13
Tree/Shrub Establishment	3	2	2	2	2.08	3	3	0	3	3.00	3	3	3	0	1	4	3	4	1	0	1	1	-1	3	3	2	2.21	2.19	3.00	2.00	3.60	2.50
Tree/Shrub Site Preparation	-1	0	0	0	-0.50	0	0	0	0	0.00	0	0	4	0	0	2	2	2	3	0	2	2	-1	2	4	3	2.27	0.50	0.00	-0.20	-1.25	-0.25
Tree/Shrub Pruning	0	0	0	0	1.00	1	1	0	0	1.00	0	0	0	0	1	1	2	1	1	0	3	2	2	2	5	2	2.00	0.67	1.00	0.40	1.00	0.80
Underground Outlet	0	0	1	0	-0.50	0	0	0	0	0.00	0	0	0	0	0	-2	1	2	1	0	1	2	-1	1	3	2	1.00	1.17	0.00	0.00	2.67	1.23
Upland Wildlife Habitat Management	2	0	0	0	2.00	5	5	0	5	5.00	0	0	0	0	0	0	2	1	1	0	3	1	-1	3	4	1	1.67	2.17	5.00	0.00	2.40	1.78
Vegetated Treatment Area	2	0	0	0	1.50	0	0	0	0	0.00	1	0	0	0	5	-4	3	5	1	0	-1	-2	3	-1	3	2	1.25	0.00	0.00	-0.80	4.00	1.07
Vegetative Barrier	2	0	0	0	1.60	1	1	1	1	1.00	2	0	0	0	3	-2	3	3	1	0	1	1	-1	2	5	1	1.58	0.87	1.00	0.00	2.00	0.52
Vertical Drain	1	0	1	-1	-0.20	0	0	0	0	0.00	3	0	0	0	4	-3	3	4	1	0	1	1	-1	2	3	2	1.67	0.27	0.00	-1.40	1.00	0.36
Waste Facility Closure	0	0	0	0	1.75	0	0	0	0	0.00	3	0	0	0	0	0	1	1	1	0	1	1	-1	2	3	3	1.50	0.58	0.00	1.00	0.00	0.75
Waste Recycling	0	0	0	0	1.43	0	0	0	0	0.00	0	0	0	0	1	-1	2	2	3	0	4	4	-1	2	5	1	2.00	0.81	0.00	1.20	0.00	0.69
Waste Separation Facility (no)	0	0	2	2	2.00	0	0	0	0	0.00	0	1	0	3	2	-1	1	3	1	0	-5	-1	3	2	1	1	0.85	1.00	0.00	1.60	0.00	0.70
Waste Storage Facility	0	0	0	1	1.75	0	0	0	0	0.00	0	1	0	3	1	-1	1	2	3	0	3	4	-1	2	5	5	2.15	0.92	0.00	1.20	0.00	0.75
Waste Transfer	0	0	0	0	1.50	0	0	0	0	0.00																		0.83	0.00	1.20	-1.00	0.10
Waste Treatment	0	0	2	2	2.00	0	0	0	0	0.00																		0.75	0.00	1.60	0.00	0.65
Waste Treatment Lagoon	0	0	0	1	2.00	0	0	0	0	0.00																		0.83	0.00	1.20	0.00	0.70
Water and Sediment Control Basin	4	-2	0	-1	-0.43	0	0	2	0	2.00																		0.30	2.00	-1.00	2.00	0.58
Water Harvesting Catchment	0	0	0	0	0.00	0	0	4	2	3.00																		1.33	3.00	0.00	0.00	0.80
Watering Facility	2	1	1	0	1.71	0	0	5	3	4.00																		1.90	4.00	0.20	2.20	1.58
Water Well	0	0	0	0	-1.00	0	0	1	0	1.00																		0.67	1.00	0.00	2.00	1.00
Waterspreading	0	0	1	-1	0.00	2	2	1	0	1.67																		0.81	1.67	-1.00	-1.00	0.48
Well Decommissioning	0	0	0	2	2.00	0	0	0	0	0.00																		0.67	0.00	2.00	0.00	0.40
Wetland Creation	2	0	2	0	1.50	5	5	2	4	4.00																		2.00	4.00	0.40	0.00	1.60
Wetland Enhancement	2	0	2	0	1.50	5	5	2	4	4.00																		2.50	4.00	0.40	0.00	1.70
Wetland Restoration	2	0	2	0	1.50	5	5	2	4	4.00																		2.50	4.00	0.40	0.00	1.70
Wetland Wildlife Habitat Management	3	0	0	0	2.00	5	5	2	4	4.00																		2.67	4.00	0.00	0.00	1.60
Windbreak/Shelterbelt Establishment	1	0	1	0	1.40	3	3	0	3	3.00																		2.41	3.00	0.20	2.67	2.45
Windbreak/Shelterbelt Renovation	1	0	1	0	1.40	3	3	0	3	3.00																		2.41	3.00	0.20	2.67	2.45
Woody Residue Treatment	1	0	0	0	1.00	0	0	0	0	0.00																		0.67	0.00	0.00	1.00	0.30

Attachment 2
Kittitas County Practice Toolbox with CPPE Averaged Function Scores

NRCS Practice Code	Conservation Practice	Direct Effect Scores					Average CPPE Scores		Function Effects: Average CPPE Scores				Critical Areas					Agricultural Viability					
		Wetlands	Fish/Wildlife Habitat Conservation Areas	Critical Aquifer Recharge Areas	Geologically Hazardous Areas (Erosion)	Frequently Flooded Areas	Soil Erosion	Soil Condition	Soil Health[1]	Hydrology	Water Quality	Habitat	WET	FFA	CARA	GHA	HCA	Soil Health	Prevent Soil Loss	Moisture Management	Weed/ Pest Management	Pollinator/ Beneficial Organisms	Yield/ Fertility Management
313	Waste Storage Facility	0.92	0.00	1.20	0.00	0.75	0.00	1.00	0.50	1.00	1.75	0.00			x								
315	Herbaceous Weed Control	1.14	1.67	0.00	3.20	1.32	3.20	0.00	1.60	2.00	-0.25	1.67					x				x		
325	Seasonal High Tunnel	-1.00	0.00	0.00	-1.00	-0.60	1.00	0.00	0.50	0.00	0.00	0.00					x			x			
326	Clearing and Snagging	-0.42	-1.75	0.00	2.00	0.15	2.00	0.00	1.00	2.00	-1.50	-1.75				x					x		
327	Conservation Cover	2.61	3.33	2.20	3.00	2.84	3.00	3.33	3.17	1.40	3.11	3.33	x	x		x	x	x	x		x	x	
328	Conservation Crop Rotate	1.78	2.00	1.20	4.00	2.34	4.00	2.33	3.17	1.60	1.75	2.00	x			x	x	x	x	x	x	x	x
329	Residue and Tillage Management - No-till/ Strip Till/ Direct Seed	1.82	1.67	0.00	3.00	2.09	3.00	2.00	2.50	0.80	3.00	1.67	x	x	x	x	x	x	x	x			x
340	Cover Crop	2.13	2.00	2.40	3.67	2.26	3.67	1.25	2.46	1.40	3.00	2.00	x	x	x	x	x	x	x	x	x	x	x
342	Critical Area Planting	1.67	2.00	0.40	4.60	2.45	4.60	2.67	3.63	0.00	3.00	2.00				x							
345	Residue Management - Mulch Till	2.00	1.67	0.00	3.00	2.13	3.00	1.67	2.33	1.33	3.00	1.67	x	x	x	x	x	x	x	x			x
367	Roofs and Covers	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	-1.00	1.00	0.00											
378	Pond	1.10	2.50	-0.20	1.50	0.76	1.50	-1.00	0.25	0.60	0.20	2.50	x				x		x		x	x	
380	Windbreak/Shelterbreak	2.41	3.00	0.20	2.67	2.45	2.67	2.33	2.50	2.83	1.40	3.00	x	x		x	x	x	x	x	x	x	x
382	Fence	1.00	1.00	0.00	1.00	1.40	1.00	3.00	2.00	0.00	2.00	1.00	x			x	x		x			x	
383	Fuel Break	-0.53	0.40	-0.20	-1.00	-0.92	-1.00	-2.00	-1.50	-1.00	-1.00	0.40									x		
384	Woody Residue Treatment	0.67	0.00	0.00	1.00	0.30	1.00	-1.50	-0.25	1.00	1.00	0.00									x		
386	Field Border	1.48	2.00	0.80	2.50	1.79	2.50	2.00	2.25	1.00	1.43	2.00	x	x	x	x	x		x	x			x
390	Riparian Herbaceous Cover	2.11	3.50	2.20	2.25	2.38	2.25	3.33	2.79	0.33	2.50	3.50	x	x		x	x		x		x	x	
391	Riparian Forest Buffer	2.50	4.00	1.80	2.60	2.49	2.60	2.33	2.47	0.67	2.83	4.00	x	x		x	x		x		x	x	
393	Filter Strip	1.45	2.00	1.20	0.00	1.87	0.00	5.00	2.50	0.00	2.36	2.00	x	x		x	x		x		x	x	
395	Stream Habitat Improvement and Management	1.67	3.00	0.00	5.00	2.00	5.00	0.00	2.50	0.00	2.00	3.00	x	x		x	x		x		x	x	
396	Aquatic Organism Passage	1.56	2.67	0.00	0.00	0.93	0.00	0.00	0.00	0.00	2.00	2.67	x	x			x					x	
422	Hedgerow Planting	2.44	4.00	0.00	1.00	1.97	1.00	1.50	1.25	2.00	1.33	4.00	x	x	x	x	x		x	x			x
430	Irrigation Pipeline	0.83	0.00	0.80	2.00	0.90	2.00	0.00	1.00	1.33	1.14	0.00			x				x				x
441	Irrigation system, microirrigation (No)	1.67	1.00	2.00	0.00	1.20	0.00	1.00	0.50	2.00	2.00	1.00	x		x	x	x		x	x			x
442	Sprinkler System	1.60	1.00	1.40	2.00	1.46	2.00	0.50	1.25	2.25	1.55	1.00	x		x	x	x	x	x	x			x
449	Irrigation Water Management	2.68	3.50	2.00	3.00	2.51	3.00	1.50	2.25	2.00	2.55	3.50	x		x	x	x						
450	Anionic Polyacrylamide (PAM) Application	0.72	0.00	-0.40	2.00	1.23	2.00	2.00	2.00	1.00	1.17	0.00				x				x			
472	Access Control	1.73	2.00	0.60	3.40	2.22	3.40	2.50	2.95	1.75	1.44	2.00	x	x	x	x	x	x	x		x	x	x
484	Mulching	0.81	1.00	-0.40	4.00	1.49	4.00	1.00	2.50	0.60	0.83	1.00				x	x	x	x	x			
490	Tree/Shrub Site Preparation	0.50	0.00	-0.20	-1.25	-0.25	-1.25	-1.50	-1.38	2.00	-0.50	0.00	x	x		x	x				x	x	
512	Pasture and Hayland Seeding	1.00	1.00	0.00	1.00	1.10	1.00	1.50	1.25	1.00	1.00	1.00	x	x	x	x	x	x	x	x	x	x	x
516	Pipeline	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			x	x	x						x
528	Prescribed Grazing	2.33	3.00	2.00	3.00	2.60	3.00	3.00	3.00	1.50	2.50	3.00	x	x	x	x	x		x				x
533	Pumping Plant	0.67	0.00	0.00	0.00	0.80	0.00	2.00	1.00	2.00	0.00	0.00		x					x		x		x
550	Range Planting	1.58	2.67	1.20	3.20	2.19	3.20	3.00	3.10	0.75	1.33	2.67				x	x	x	x		x	x	x
561	Heavy Use Area Protection	-0.11	-1.00	0.00	2.00	0.23	2.00	-0.50	0.75	-1.00	1.67	-1.00				x	x		x				
574	Spring Development	2.02	3.00	0.00	1.00	1.21	1.00	-1.00	0.00	1.80	1.25	3.00		x					x		x		x
578	Stream Crossing	-0.22	0.00	0.00	2.00	0.27	2.00	0.00	1.00	0.00	-0.67	0.00	x	x		x	x		x				
580	Streambank and Shoreline Protection	0.92	1.50	0.00	4.00	1.35	4.00	0.00	2.00	0.00	1.25	1.50				x			x				
584	Channel Bed Stabilization	1.42	1.25	0.00	2.00	1.25	2.00	0.00	1.00	2.00	1.00	1.25				x			x				
587	Structure for Water Control	0.67	-1.00	0.00	0.00	0.40	0.00	0.00	0.00	2.00	1.00	-1.00			x					x			
590	Nutrient Management	1.17	0.00	2.80	0.00	1.03	0.00	1.67	0.83	0.00	3.50	0.00			x		x	x					x
595	Pest Management	2.00	2.00	1.00	2.00	2.00	2.00	2.00	2.00	0.00	4.00	2.00			x		x	x			x	x	
600	Terrace	0.72	1.00	-1.60	2.60	1.05	2.60	0.50	1.55	0.80	0.36	1.00				x			x				
601	Vegetative Barrier	0.87	1.00	0.00	2.00	0.52	2.00	-2.00	0.00	0.00	1.60	1.00	x	x	x	x	x		x	x			x
612	Tree/Shrub Establishment	2.19	3.00	2.00	3.60	2.50	3.60	2.33	2.97	1.50	2.08	3.00	x		x	x	x		x			x	
612	Tree Planting	2.19	3.00	2.00	3.60	2.50	3.60	2.33	2.97	1.50	2.08	3.00	x		x	x	x		x			x	
614	Watering Facility	1.90	4.00	0.20	2.20	1.58	2.20	0.00	1.10	0.00	1.71	4.00					x						x
642	Water Well	0.67	1.00	0.00	2.00	1.00	2.00	1.00	1.50	2.00	-1.00	1.00					x			x			x
643	Restoration and Management of Rare and Declining Habitats	2.00	4.00	0.00	2.25	1.65	2.25	0.00	1.13	0.00	2.00	4.00					x				x	x	
644	Wetland Wildlife Habitat Management	2.67	4.00	0.00	0.00	1.60	0.00	0.00	0.00	2.00	2.00	4.00	x				x		x		x	x	
645	Upland Wildlife Habitat Management	2.17	5.00	0.00	2.40	1.78	2.40	0.00	1.20	-0.50	2.00	5.00					x		x		x	x	
647	Early Successional Habitat Development/Management	1.00	4.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	-1.00	4.00					x				x	x	
659	Wetland Enhancement	2.50	4.00	0.40	0.00	1.70	0.00	1.00	0.50	2.00	1.50	4.00	x				x		x		x	x	

Notes:
1. Soil health function scores are based on the average scores for Soil Condition and Soil Erosion as summarized in Attachment 1.
CARA: Critical Aquifer Recharge Areas
CPPE: conservation practice physical effect
FFA: Frequently Flooded Areas
GHA: Geologically Hazardous Areas
HCA: Fish and Wildlife Habitat Conservation Areas
NRCS: Natural Resources Conservation Service
WET: Wetlands

Appendix D
Existing Plans, Programs, and Regulations

APPENDIX D: Existing and Related Plans, Programs, and Regulations

Existing Conservation Programs

As described in the Voluntary Stewardship Program (VSP) Work Plan, the VSP provides a voluntary framework for critical areas protection and enhancement actions carried out by agricultural producers while maintaining and improving agricultural viability. Other similar programs are available to agricultural producers that are designed to incentivize protection and enhancement of critical areas through conservation practices. The availability of these programs is variable, as they are heavily influenced by the federal and state program funding, regulatory environment, industry standards, and the agricultural market. Many of these programs have been in place since the July 22, 2011 baseline and have contributed to conservation practices being implemented across Kittitas County.

There are a variety of voluntary incentive programs for agricultural producers provided by federal, state, and local entities. The VSP was written to be compatible with existing conservation programs to achieve protection and enhancement of critical areas. Table 1 includes a summary of federal programs, and Table 2 includes a summary of state and local programs available to agricultural producers. These tables provide a general representation of available federal, state, and local programs and are not intended to provide an exhaustive list.

The following list includes international organizations that offer a variety of voluntary conservation and certification programs to agricultural producers:

- **GLOBALG.A.P.:** GLOBALG.A.P. is an international non-profit organization that provides a voluntary GLOBALG.A.P. certification for eligible crops and livestock that meet or exceed 16 standards for safe and environmentally sound agricultural practices.
- **Safe Quality Food Institute (SQFI):** SQFI offers certifications recognized by the Global Food Safety Initiative for best agricultural and livestock practices.
- **PrimusLabs:** PrimusLabs, located in North and South America, is a food safety company that provides a Good Agricultural Practices (GAP) auditing program that certifies agricultural producers who comply with standard operating procedures for food safety.

Table 1
Federal Conservation Programs

Lead	Description	Program	Details
Natural Resources Conservation Service (NRCS)	NRCS provides technical and financial assistance to help agricultural producers make and maintain conservation improvements on their land. NRCS also offers conservation easement programs and partnerships to leverage existing conservation efforts on farm lands.	**Environmental Quality Incentives Program (EQIP)**[1]	Voluntary program providing financial and technical assistance for agricultural producers to plan and implement conservation practices improving soil, water, plants, animals, air, and related natural resources.
		Conservation Stewardship Program (CSP)[2]	Voluntary program providing technical assistance for agricultural and forest landowners to develop plans for conservation, management, and enhancement activities.
		Agricultural Conservation Easement Program (ACEP)[3]	Provides conservation partners with financial and technical assistance through land easements to conserve agricultural lands and restore, protect, and enhance wetlands.
		Regional Conservation Partnership Program (RCPP)[4]	Voluntary program with conservation partners to increase conservation through EQIP, CSP, and ACEP funds for priority areas. The "Yakima Basin Integrated Plan – Toppenish to Teanaway Project" is funded through 2021 for Kittitas County.[5]
		Conservation Technical Assistance (CTA)[6]	Voluntary program to provide technical assistance to producers to address opportunities, concerns, and problems related to the use of natural resources.
Farm Service Agency (FSA)	FSA oversees several voluntary, conservation-related programs that work to address several agriculture-related conservation measures.	**Conservation Reserve Program (CRP)**[7]	Voluntary reserve program to conserve environmentally sensitive land through agricultural protections and plant species to improve environmental health.
		Conservation Reserve Enhancement Program (CREP)[8]	Similar to the CRP, this voluntary program targets high-priority conservation issues with typical contract periods of 10 to 15 years.

[1] www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/
[2] www.nrcs.usda.gov/csp
[3] www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/acep/
[4] https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/farmbill/rcpp/
[5] http://www.kccd.net/rcpp.htm
[6] https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/technical/cta/
[7] www.fsa.usda.gov/programs-and-services/conservation-programs/conservation-reserve-program/
[8] www.fsa.usda.gov/FSA/webapp?area=home&subject=lown&topic=cep

Table 2
State and Local Conservation Programs

Lead	Description	Program(s)	Details
Washington State Conservation Commission (WSCC)	WSCC works with conservation districts (CDs) to provide voluntary, incentive-based programs for implementation of conservation practices. WSCC supports the CDs through financial and technical assistance; administrative and operational oversight; program coordination; and promotion of CDs activities and services.	**Coordinated Resource Management (CRM) Program**[9]	Voluntary and locally led program for landowners seeking to resolve land-use and natural resource issues through local coalitions and consensus building.
		Irrigation Efficiencies Grant Program (IEGP)[10]	Provides financial incentives to landowners willing to install irrigation systems that save water.
		Natural Resource Investments (non-shellfish) Grants[11]	Grant program for landowners to complete natural resource enhancement projects necessary to improve water quality in non-shellfish growing areas.
		Office of Farmland Preservation (OFP)[12]	The OFP identifies and addresses farmland loss through agriculture conservation easement programs, providing technical assistance, developing farm transition programs, and providing data and analysis on trends.
Washington State Department of Fish and Wildlife (WDFW)	WDFW provides financial assistance for habitat projects that restore and/or preserve fish and wildlife habitat through funding opportunities such as the ALEA Volunteer Cooperative Grant Program.	**Aquatic Lands Enhancement Account (ALEA)**[13]	Grant program for qualifying landowners who undertake projects that benefit Washington state's fish and wildlife resources.

[9] http://scc.wa.gov/coordinated-resource-management/
[10] http://scc.wa.gov/iegp/
[11] http://scc.wa.gov/wq-nonshellfish/
[12] http://scc.wa.gov/office-of-farmland-preservation/
[13] http://wdfw.wa.gov/Kittitass/alea/index.html

Lead	Description	Program(s)	Details
Washington State Recreation and Conservation Office	The Washington State Recreation and Conservation Office provides funding to protect aquatic lands and for projects aimed at achieving overall salmon recovery, including habitat projects and other activities that result in sustainable and measurable benefits for salmon and other fish species. Funding is provided through programs such as ALEA and the Salmon Recovery Funding Board Grant Program.	**Aquatic Lands Enhancement Account (ALEA)**[14]	Local and state agencies and Native American Tribes can apply for grants to fund aquatic habitat-enhancement projects.
		Salmon Recovery Funding Board Salmon Recovery Grants[15]	Grant program for eligible parties seeking to improve important habitat conditions or watershed processes to benefit salmon and bull trout.
		Farmland Preservation Grants[16]	Grant program for local agencies and non-profits to buy development rights on farmlands to ensure the lands remain available for farming in the future.
Washington State Department of Ecology (Ecology)	Ecology provides funding for water-quality improvement and protection projects, including programs such as the Water Quality Financial Assistance program and voluntary partnership programs such as the Farmed Smart Partnership.	**Water Quality Financial Assistance Program**[17]	Grant and loan program for high-priority projects to protect and improve the health of Washington State waters.
		Yakima Basin Integrated Plan (YBIP)[18]	Grant program through various subcommittees of the Yakima Basin Integrated Plan Workgroup to provide funding for technical and financial assistance for on-the-ground projects that help implement the 30-year water resiliency plan for the Yakima River Basin.

[14] http://www.rco.wa.gov/Kittitass/alea.shtml
[15] http://www.rco.wa.gov/Kittitass/sal_rec_Kittitass.shtml
[16] http://www.rco.wa.gov/Kittitass/farmland.shtml
[17] http://www.ecy.wa.gov/programs/wq/funding/funding.html
[18] https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-supply-projects-EW/Yakima-River-Basin-projects/Yakima-integrated-plan

Lead	Description	Program(s)	Details
Kittitas County Conservation District (KCCD)	KCCD works through voluntary, incentive-based programs to assist landowners and agricultural operators with the conservation of natural resources including cost-share, and assistance in the development of range management and farm conservation plans.	**Yakima Tributary Access and Habitat Program (YTAHP)**[19]	This voluntary program is designed to screen unscreened diversion structures to prevent fish entrainment into artificial waterways, provide for fish passage at man-made barriers, such as diversion dams, culverts, siphons, and bridges, and provide information and assistance to landowners interested in contributing to the improvement of water quality, water reliability, and stream habitat.
		Local Funding	Funding for financial and technical assistance for private landowners in the KCCD boundaries to implement priorities identified in the annual and long-range plans of work. This includes PAM Cost Share, Small Project Cost Share, and technical assistance to complete individual conservation planning, develop larger scale cooperative projects, and seek funding through any of the programs listed with state or federal agencies.
Washington State University (WSU) Extension	The WSU Extension program connects agricultural and natural resource stakeholders and industries, as well as the general public, to extend research-based information and conduct locally relevant applied research in the fields of agriculture and natural resource sciences.	**Agriculture and Natural Resources Program**[20]	Program providing technical assistance, research, and education to producers.

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[19] http://www.kccd.net/YTAHP.htm
[20] http://anr.cw.wsu.edu/

Related Plans and Programs

As required by the Revised Code of Washington (RCW) 36.70A.720(1)(a), the VSP Work Plan must incorporate applicable water quality, watershed management, farmland protection, and species recovery data and plans. Table 3 includes a summary of the planning documents and programs that were referenced for the VSP Work Plan and appendices. This includes watershed management and wildlife management programs prepared applicable to Kittitas County.

The County includes portions of three watersheds, or Water Resource Inventory Areas (WRIAs). As described in the VSP Work Plan, the watershed that overlaps with most of the County is the Upper Yakima (WRIA 39) and a small portion of the eastern County is in the Alkali-Squilchuck (WRIA 40). The Naches (WRIA 38) watershed was not designated by the County to be within the VSP because there is no agricultural activity on private lands within it.

Within the two watersheds included in the VSP, there are four Washington State Department of Ecology water quality improvement projects or Total Maximum Daily Loads (TMDLs) in process or under development:[21]

- Wilson/Cooke Creek: TMDL from fecal coliform which includes many small creeks and irrigation canals in Central Kittitas County. The TMDL was approved in 2005 and is being implemented and monitored.
- Yakima River: There are three TMDLs for the Yakima River, two of which are in development and one which has been approved. They include:
  - An approved TMDL for dieldrin, DDT, suspended sediments, and turbidity in the Upper Yakima River. The TMDL was approved in 2002 and is being implemented and monitored.
  - An in development TMDL for temperature in the Upper Yakima River.
  - An in development TMDL for toxics in the Yakima River.

Table 3
Summary of Planning Documents

Plan or Program	Date	Author/Agency	Description
State and Local Management Plans and Programs			
Yakima Basin Integrated Water Resource Management Plan (Yakima Basin Integrated Plan)	April 2011	Washington Department of Ecology and the U.S. Bureau of Reclamation	The Yakima Basin Integrated Plan includes a suite of actions that benefit both agricultural viability and critical areas. These include fish habitat enhancement projects on the Yakima River and its tributaries and enhanced water conservation efforts.

[21] http://www.ecy.wa.gov/programs/wq/tmdl/TMDLsbyCounty/kittitas.html

Plan or Program	Date	Author/Agency	Description
State and Local Management Plans and Programs			
Kittitas County Hazard Management Plan	October 2012	Kittitas County	The Hazard Management Plan identifies hazards and vulnerable areas within the County, including flood-hazard and landslide-prone areas.
Kittitas County Shoreline Master Program (SMP) and Restoration Plan	March 2016	Kittitas County	The SMP includes shoreline goals and policies for management and protection of shorelines of the state located within the County. The Restoration Plan describes existing restoration planning, programs, and partners and summarizes goals and priorities for the County.
Middle Columbia Steelhead Recovery Plan	November 2009	National Marine Fisheries Service	The recovery plan includes recommendations for several enhancement and implementation measures to restore and protect habitat throughout the middle Columbia Basin, including the Yakima River.
Shrub-steppe and Grassland Restoration Manual for the Columbia River Basin	2011	Washington State Department of Fish and Wildlife	This publication provides guidance for shrub-steppe and grassland restoration practitioners within the Columbia River Basin.
Management Recommendations for Washington's Priority Habitats: Riparian	1997	Washington State Department of Fish and Wildlife	The riparian habitat management plan provides statewide riparian management recommendations based on the best-available science.
Manastash Creek Corridor Habitat Enhancement and Flood Hazard Reduction Plan	2013	Kittitas County Conservation District	This plan is the result of a reach-scale assessment leading to a focused strategy and a list of viable projects to improve aquatic habitat and reduce the impacts of flooding and erosion on Manastash Creek.
Yakima River - Jeffries Levee to Yakima Canyon Habitat Enhancement and Flood Risk Management Plan	2015	Kittitas County Flood Control Zone District	This plan is the result of a reach-scale assessment leading to a focused strategy and a list of viable projects to improve aquatic habitat and reduce the impacts of flooding and erosion on the Yakima River.
Naneum, Wilson, and Cherry Watershed Assessment	2017	Kittitas County Flood Control Zone District	An assessment to gather information and develop an understanding of fish, habitat, irrigation, water quality, flow conditions, and flood issues within each watercourse and within each sub-watershed to help develop recommendations and a strategy for future improvement projects.
Mid-Columbia Recovery Unit Implementation Plan for Bull Trout	2015	U.S. Fish and Wildlife Service	This plan identifies actions to address habitat threats by maintaining, restoring, and protecting riparian and floodplain areas adjacent to spawning, rearing, and forage/migration/overwintering habitats.

Federal, State, and Local Regulations that Apply to Agriculture

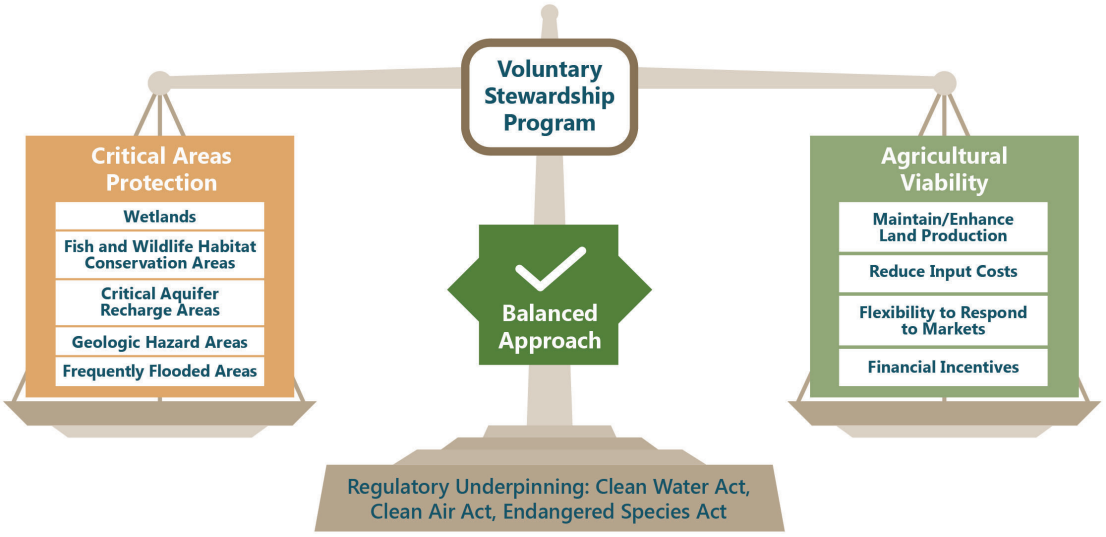
The VSP is provided as an alternative to protecting critical areas used for agricultural activities through development regulations under the Growth Management Act. Despite its voluntary nature, it is still the intent of the VSP to improve, and not limit, "compliance with other laws designed to protect water quality and fish habitat," per RCW 36.70A.700 and 36.70A.702. Per RCW 36.70A.720, the development regulations used to achieve the goals and measurable benchmarks for protection of critical areas must be incorporated into the VSP Work Plan.

Tables 4 and 5 include a summary of federal, state, and local development regulations that are used to achieve the goals and measurable benchmarks of the VSP Work Plan. This list includes the most common environmental regulations affecting agriculture. The list does not include all regulations potentially impacting agricultural producers in the County. For instance, regulations on taxation, employment practices, marijuana production, and other regulations are not included. Because no regulations are enforced via the VSP, regulatory enforcement in the County provides a "regulatory backstop." For example, the Washington State Department of Ecology will continue to regulate wetland conversions on agricultural lands through the local Water Pollution Control Act.[22] Continued compliance with these regulations provides assurance the functions and values of critical areas are protected.

As illustrated in Figure 1, the VSP is intended to balance critical areas protection and agricultural viability at the County level through voluntary actions by agricultural producers. VSP is not a replacement for compliance with other laws and regulations, but participation in the program can often help agricultural producers comply with these requirements.

[22] Washington State Department of Ecology, 2013. The Voluntary Stewardship Program and Clean Water. Available at: https://fortress.wa.gov/ecy/publications/publications/1310030.pdf.

Figure 1
Balanced Approach of Critical Areas Protection and Agricultural Viability



88 **Table 4**
89 **Federal Regulations that Apply to Agriculture**

Regulation(s)	Agency	Description	VSP Intersect
Agricultural Act (Farm Bill)[23]	U.S. Department of Agriculture	The Farm Bill, reauthorized in 2014, eliminates direct payments and continues crop insurance.	The Farm Bill includes the "swampbuster" conservation policy prohibiting land owners from converting wetlands to cropland. The "sodbuster" provision requires participating parties to maintain a specified level of conservation.
Clean Water Act (CWA)[24]	U.S. Environmental Protection Agency (USEPA); regulated locally by Washington State Department of Ecology	The CWA regulates discharges of pollutants into waters of the United States, including discharges of dredge or fill material in wetlands. CWA exemptions for agriculture are designed consistent with and support existing U.S. Department of Agriculture programs.	Compliance with the CWA maintains or enhances water quality, which in turn benefits critical areas, including wetlands and fish and wildlife habitat conservation areas.
Safe Drinking Water Act (SDWA)[25]		The SDWA protects public drinking water supplies in the United States, including sole-source aquifers. The USEPA provides technical and financial resources under the Clean Water State Revolving Fund (CWSRF) for improving water quality, protecting drinking water sources, and controlling nonpoint source pollution.	The SDWA is designed to protect critical aquifer recharge areas, an important source for drinking water that is vulnerable to contamination.
National Pollution Discharge Elimination System (NPDES)[26]		NPDES is promulgated under the CWA to regulate discharges to waters of the United States from animal feeding operations.	Regulated discharges to waters of the United States helps to protect water quality in critical areas, including wetlands and fish and wildlife habitat conservation areas.

[23] https://www.fsa.usda.gov/programs-and-services/farm-bill/index
[24] https://www.epa.gov/laws-regulations/summary-clean-water-act
[25] https://www.epa.gov/sdwa
[26] https://www.epa.gov/npdes

Regulation(s)	Agency	Description	VSP Intersect
Endangered Species Act (ESA)[27][28]	National Marine Fisheries Service and the U.S. Fish and Wildlife Service	The ESA protects threatened and endangered species and critical habitat throughout the United States.	ESA-listed species and critical habitat are protected through avoidance and minimization measures such as the "no-spray" pesticide buffer zones near ESA-listed salmon-bearing waterbodies. The no-spray buffer zones are 60 feet for ground and 300 feet for aerial pesticide applications.
Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)[29]	U.S. Environmental Protection Agency	FIFRA regulates pesticide distribution, sale, and use and includes labeling and registration requirements.	Compliance with FIFRA is intended to maintain or enhance water quality, which in turn benefits critical areas, including wetlands, fish and wildlife habitat conservation areas, and critical aquifer recharge areas.
National Emissions Standards for Hazardous Air Pollutants (NESHAP)[30]	U.S. Environmental Protection Agency	NESHAP regulates hazardous air pollutant emissions, including from new and existing facilities that manufacture organic pesticide active ingredients used in herbicides, insecticides, and fungicides.	These regulations are intended to reduce or eliminate hazardous air pollutant emissions with the potential to spread via aerial application to critical areas, including wetlands and fish and wildlife habitat conservation areas.

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[27] http://www.nmfs.noaa.gov/pr/laws/esa/

[28] https://www.fws.gov/endangered/

[29] https://www.epa.gov/laws-regulations/summary-federal-insecticide-fungicide-and-rodenticide-act

[30] https://www.epa.gov/stationary-sources-air-pollution/national-emission-standards-hazardous-air-pollutants-neshap-9

92 **Table 5**
93 **State and Local Regulations that Apply to Agriculture**

Regulation(s)	Agency	Description	VSP Intersect
Revised Code of Washington (RCW)			
Title 15 Agriculture and Marketing	Washington State Department of Agriculture	RCW Title 15 includes general regulations pertaining to agricultural practices.	• Regulations cover pest and disease control, fertilizers, and commodity commissions.
Title 16 Animals and Livestock	Washington State Department of Agriculture	RCW Title 16 includes general regulations pertaining to animals and livestock practices.	• Regulations cover range areas, meat licensing, feed lot certification, and fencing.
Title 17 Weeds, Rodents, and Pests	Washington State Noxious Weed Control Board*	RCW Title 17 includes general regulations pertaining to weed, rodent, and pest control.	• RCW Title 17.06 establishes intercounty weed districts.
Title 36 Counties	*Various*	RCW Title 36 includes regulations pertaining to counties including the Voluntary Stewardship Program.	• RCW Titles 36.70A.700-904 comprise the Voluntary Stewardship Program, a program designed to promote plans to protect and enhance critical areas while maintaining and improving agricultural viability.
Title 77 Fish and Wildlife	Washington Department of Fish and Wildlife	RCW Title 77 includes fish and wildlife enforcement regulations.	• Salmon recovery and enhancement programs include habitat projects and plans, including voluntary, incentive-based enhancement programs. • In-water construction activities (i.e., hydraulic projects) are regulated under RCW Title 77.55.
Title 87 Irrigation	Irrigation Districts	RCW Title 87 regulates irrigation and irrigation districts.	• RCW Title 87.03 establishes irrigation and improvement districts.
Title 89 Reclamation, Soil Conservation, and Land Settlement	Conservation Districts, Office of Farmland Preservation, and Irrigation Districts	RCW includes general regulations pertaining to reclamation and local conservation districts.	• RCW Title 89.08 establishes conservation districts. • RCW Title 89.10 establishes the Office of Farmland Preservation. • RCW Title 89.12 includes adoption of the Columbia Basin Project Act and related regulations.

Regulation(s)	Agency	Description	VSP Intersect
Title 90 Water Rights – Environment	*Various*	RCW Title 90 regulates various aspects of water rights and appropriation for public and industrial purposes.	• RCW Titles 90.42-46 include regulations pertaining to water resource management, regulation of public groundwater, and reclaimed water use. • RCW Title 90.48 includes the Water Pollution Control Act, which regulates agricultural discharges to surface waters and wetlands. • RCW Title 90.64 includes dairy nutrient management regulations. • RCW Title 90.90 includes the Columbia River Basin water supply rules for allocation and development of water supplies.
Washington Administrative Code (WAC)			
Title 16	Washington State Department of Agriculture	WAC Title 16 includes Washington State Department of Agriculture rules pertaining to agriculture regulation, certification, and marketing.	• WAC Chapters 16-200 through 16-202 include standards for fertilizer and pesticide usage. • WAC Chapter 16-611 includes standards for nutrient management.
Title 173	Washington State Department of Ecology	WAC Title 173 includes Washington State Department of Ecology rules for air and water quality protection.	• WAC Chapters 173-15 through 173-27 include state Shoreline Management Act rules and permitting requirements. The County currently implements the Shoreline Master Program under these state rules. • WAC Chapter 173-158 includes floodplain management rules. • WAC Chapters 173-166, 173-170, and 173-173 include rules for drought relief programs, agricultural water supply facilities, and measuring and reporting water usage. • WAC Chapter 173-220 includes National Pollution Discharge Elimination System rules for discharges to waters of the state. • WAC Chapter 173-430 includes rules for agricultural burning.

Regulation(s)	Agency	Description	VSP Intersect
Title 220 and 232	Washington State Department of Fish and Wildlife	WAC Titles 220 and 232 include Washington State Department of Fish and Wildlife rules for management of fish and wildlife species and habitat.	• WAC Chapter 220-410 defines game management areas, including the Game Management Units in Kittitas County. • WAC Chapter 220-620 describes the volunteer cooperative fish and wildlife enhancement program. • WAC Chapter 220-660 includes the Washington State Hydraulic Code, which regulates in-water construction activities (hydraulic projects) through Hydraulic Project Approvals. • WAC Chapter 232-28 includes wildlife interaction rules, including those pertaining to damage of commercial crops and livestock.
Title 246	Washington State Department of Health	WAC Title 246 includes Washington State Department of Health rules, including those for protection of water systems.	• WAC Chapters 246-290 and 246-291 include rules for Group A and B public water supplies and water systems, respectively. These include regulations for using greywater for irrigation purposes.
Kittitas County Regulations			
Critical Areas Ordinance	Kittitas County Planning Department	The Kittitas County Critical Areas Code is currently being updated	• See Appendix B-3 for a summary of the November 2014 Draft Critical Areas Ordinance
Shoreline Master Program	Kittitas County Planning Department	The Kittitas County Shoreline Master Program is promulgated under KCC 17B	• KCC 17B.06.030 includes policies protecting agricultural land including use of best management practices including NRCS and prohibiting discharge of animal waste into surface waters. • The Shoreline Master Program covers new or additional uses within shorelines of the state (defined as 200 feet from mean higher high water) and does not limit or modify existing or ongoing agricultural practices. The VSP applies to critical areas both inside and outside of the shoreline jurisdiction.

*Includes agencies responsible for overseeing agriculture-specific regulations. Other agencies may be assigned jurisdiction for non-agriculture related regulations described therein.

Appendix E
Outreach Plan

Appendix E: Kittitas County VSP Outreach Plan

The Kittitas County VSP Outreach Plan is intended to provide a framework for outreach both during plan development and implementation. This will ensure that outreach to the agricultural community and other interested parties are involved in all aspects of the VSP.

Public Communication and Outreach Materials

Type	Description
Create email list	KCCD created an email list containing all interested parties (e.g., Watershed Group, Technical Committee, public) for the VSP Work Plan process. All meeting notices and materials as well as documents will continue to be provided to the email list. In addition, KCCD maintains an email list for electronic newsletters, in which information about VSP has been and will continue to be included. The email list was originally created with emails on record from producers, the public, and partners. Anyone may subscribe to the email list from the KCCD website http://www.kccd.net
Update website	KCCD created a webpage specifically for the VSP and will continually update it with meeting notices and materials as well as documents. Additional information will be added for the implementation phase. The website can be found at http://www.kccd.net/VoluntaryStewardship.htm
Newsletter	KCCD publishes one newsletter annually in July that is sent to all rural routes and the City of Cle Elum (all landowners in the District boundaries). The newsletter circulation exceeds 10,000. Information about VSP has been and will continue to be included. KCCD also publishes an electronic newsletter two to three times per year sent out to an email list. VSP is also a topic in that publication. Anyone may subscribe to the email list from the KCCD website http://www.kccd.net
VSP Self-Assessment Checklist	The VSP Self-Assessment Checklist was completed as part of the VSP Work Plan. This checklist will help facilitate participation in VSP and tracking of currently ongoing stewardship practices. The VSP Checklist may potentially be converted to an online fillable document in the future.
Educational Videos	Educational videos are focused on particular critical area issues and agricultural practices available to producers at their convenience, for booths at the fair or farmers markets, and to be incorporated into story maps.
Virtual Tours	Virtual tours are opportunities to share information with producers, partners and the public at their convenience. In particular, story maps combine maps with narrative text, images, and multimedia content.

Potential Community Meetings or Other Outreach Opportunities

Outreach Opportunity	Description
KCCD Meetings	Conduct Annual Meeting to report previous natural resource accomplishments and to lay out plans and opportunities for the year. Conduct workshops for specific issues or opportunities.
County Fair	Host a booth to provide information on the VSP to a broad range for people.

Outreach Opportunity	Description
Farmers Markets	Host a booth to provide information on the VSP to a broad range for people.
Association Meetings	Give presentations at association meetings such as the Association of Kittitas County Hay Growers & Suppliers, Kittitas County Farm Bureau, Kittitas County Cattlemen.
Watershed Group Member Outreach	KCCD led outreach activities with members of the Watershed Group to reach agricultural producers who are more comfortable speaking with a fellow producer.
Newspapers	Provide information to producers though posting in local newspapers.

Government Agencies and Agricultural Groups

Coordination with the following agencies and groups help with outreach and implementation:

- Kittitas County Cattlemen's Association
- Kittitas County Timothy Hay Growers & Suppliers
- U.S. Department of Agriculture Natural Resource Conservation Service
- Washington State University Extension
- Kittitas County Farm Bureau
- Kittitas County Water Purveyors

Formation of the Watershed Group and Watershed Group Meetings

Kittitas County designated the Kittitas County Conservation District (KCCD) to manage and facilitate the VSP process. Potential Watershed Group members were initially identified by the Kittitas County Commissioners and the Kittitas County Conservation District with the goal of the establishing a Watershed Group of approximately 12 individuals representing agriculture, tribal, and environmental interests. The following were groups or types of producers identified in October 2015 for invitation to participate in the Watershed Group:

- Agricultural Operators (lower county)
- Agricultural Operators (upper county)
- Futurewise
- Kittitas Audubon Society
- Kittitas County Cattlemen's Association.
- Kittitas County Conservation Coalition
- Kittitas County Farm Bureau
- Kittitas County Hay Growers Association
- Kittitas Reclamation District
- Small Acreage Operator
- Swauk Teanaway Grange

- The Nature Conservancy
- Yakama Nation

All who responded to the invitation from the Board of County Commissioners were asked at the first meeting in March 2016 to review membership and determine whether additional members were needed to meet the intent of the legislation and to be representative of the specific stakeholders in Kittitas County. The Nature Conservancy, Kittitas County Conservation Coalition, and Futurewise did not attend or respond initially. The invitations to those entities were followed with email or phone conversations in which those entities all indicated that they did not have staff or members with either the time or resources to attend the series of meetings planned for VSP. The Kittitas County Conservation Coalition did express an interest in following the process and were added to the e-mail list. The Kittitas Audubon Society did attend the first two meetings, but declined to attend or participate further citing an objection to any exemption for agriculture practices under the Critical Areas Ordinance. Invitations were sent to the Washington Water Trust, Trout Unlimited, and the Kittitas Conservation Trust, all non-profit organizations working in the County on natural resource projects with private landowners. All three accepted the invitations to participate. In addition to the Watershed Group, there was also a Technical Committee established through a similar process.

The Watershed Group includes agricultural producers, and representatives from the Yakama Nation, environmental groups, and government agencies.

- List of Watershed Group members

Watershed Group Members	Representative Group
Terry Clark	Kittitas County Cattlemen's Association
Mark Charlton	Kittitas County Farm Bureau
Brad Haberman	Kittitas County Farm Bureau-Alternate
Brian Cortese	Kittitas County Hay Grower's Association
Kevin Eslinger	Kittitas Reclamation District
Urban Eberhart	Kittitas Reclamation District-Alternate
Jack Clerf	Cascade Irrigation District
Lila Hanson	Dryland Operator
Karen Poulsen	Lower County Operator
Jim Miller	Upper County Operator
Matthew Cox	Small Acreage
Bambi Miller	Small Acreage (Organic)
Phil Rigdon	Yakama Nation
John Marvin	Yakama Nation - Alternate

Watershed Group Members	Representative Group
Dale Rusho	Swauk Teanaway Grange
Justin Bezold	Trout Unlimited
Arden Thomas	Washington Water Trust
Mitch Long	Kittitas Conservation Trust

Technical Committee Members	Representative Group
Heather Kosaka	Washington State Department of Ecology
Chelsea Benner	Kittitas County Community Development Services
Sherry Swanson	Kittitas County Conservation District
Mark Crowley	Kittitas County Conservation District
Rose Shriner	Kittitas County Conservation District
Karen Hodges	Kittitas County Flood Control Zone District
Kat Satnik	Kittitas County Water Purveyors
Erin Kaczmarzyk	USDA Natural Resources Conservation Service
Brent Dixon	USDA Natural Resources Conservation Service
Larry Leach	Washington Department of Natural Resources
Kelly McLain	Washington Department of Agriculture
Jennifer Nelson	Washington Department of Fish and Wildlife
Tip Hudson	Washington State University Extension

The Work Plan was developed through a series of Watershed Group meetings listed below.

- March 9, 2016 – Watershed Group Meeting
- March 28, 2016 – Watershed Group Meeting
- July 20, 2016 – Watershed Group Meeting
- October 12, 2016 – Watershed Group Meeting
- November 2, 2016 – Watershed Group Meeting
- November 9, 2016 – Watershed Group Meeting
- November 15, 2016 – Watershed Group Meeting
- November 30, 2016 – Watershed Group Meeting
- December 7, 2016 – Watershed Group Meeting
- December 14, 2016 – Watershed Group Meeting
- February 22, 2017 – Watershed Group Meeting

- March 14, 2017 – Watershed Group Meeting
- March 29, 2017 – Technical Committee Meeting
- July 19, 2017 – Watershed Group Meeting
- August 25, 2017 – Technical Committee Meeting
- September 25, 2017 – Technical Committee Meeting
- October 25, 2017 – Watershed Group Meeting
- November 20, 2017 – Watershed Group Meeting
- December 18, 2017 – Watershed Group Meeting
- January 18, 2018 – Watershed Group Meeting