STEWARDSHIP CHECKLIST

Promoting Agriculture Viability and Protecting Critical Areas

INTRODUCTION

This checklist is intended to encourage agricultural producers to undertake voluntary practices to promote agricultural business prosperity while protecting and enhancing critical areas.

Implementing the conservation and protection practices suggested below offer benefits not only for the environment, but also for producers. It gives producers the means to conserve, improve, and increase efficient use of their natural resources. The practices may help support even higher yields and improved produce quality over the long term.

Voluntary Stewardship Work Plan Agricultural Viability Aim: Avoid unnecessary local critical area regulations due to the prevalence of conservation practices undertaken to improve agricultural viability and promote environmental stewardship.

Disclaimer: Every operation is unique and requires a site-specific assessment of: 1) Whether there is a need to implement conservation practices, and 2) Whether conservation practices are in fact appropriate to a site. Not all the information needed to implement these measures is contained in this checklist. Please see technical assistance providers for more guidance as well as funding opportunities.

STEP 1: ARE THERE CRITICAL AREAS ON YOUR PROPERTY?

Identify Critical Areas

1. Visually survey potential critical areas on or near your property, such as ponds and streams. ☐
2. Use online tools to identify potential critical areas intersecting with agriculture, such as: [Use on-line maps at County website or link to VSP-specific maps] ☐
3. From Steps 1 and 2, the following critical areas exist on or adjacent to my agricultural activities: (check all that apply)
   - Geologically hazardous areas ☐
   - Fish and wildlife habitat conservation areas (e.g. streams, wildlife corridors, etc.) ☐
   - Wetlands ☐
   - Frequently flooded areas ☐
   - Critical aquifer recharge areas ☐

Consider Other Programs that Protect Critical Areas

4. Identify participation in producer programs that address environmental quality (e.g. nutrient management, integrated pest management, spray buffers, etc.).
   - a. Global Gap [Good Agricultural Practices] ☐
   - b. Safe Quality Food Institute ☐
   - c. PrimusLabs GAP ☐
   - d. USDA Produce GAPs Harmonized Food Safety Standard ☐
   - e. Other: _____ ☐
5. Federal and state laws regarding the use and storage of pesticides and standards for water quality continue to apply. ☐

Consult Technical Providers

Contact Technical Advisors to advise you or in order to apply for funding to establish conservation practices.

Lead Technical Assistance Provider: Cascadia Conservation District http://cascadiacd.org/

Supporting Technical Assistance Providers:
USDA Natural Resources Conservation Service http://www.usda.gov/wps/portal/usda/usdahome
Washington State University Extension http://county.wsu.edu/chelan-douglas/agriculture/Pages/default.aspx
Chelan County Natural Resources Department http://www2.co.chelan.wa.us/nr *(VSP Program Administration)*

STEP 2: IDEAS FOR VOLUNTARY PRACTICES TO ENHANCE AGRICULTURE VIABILITY AND PROTECT CRITICAL AREAS

Agriculture Intersecting with Geologically Hazardous Areas

Geologically Hazardous Areas: Areas susceptible to erosion, sliding, earthquake, or other geological events, where development is not suitable due to public health or safety concerns.

VSP Agriculture Viability Aims

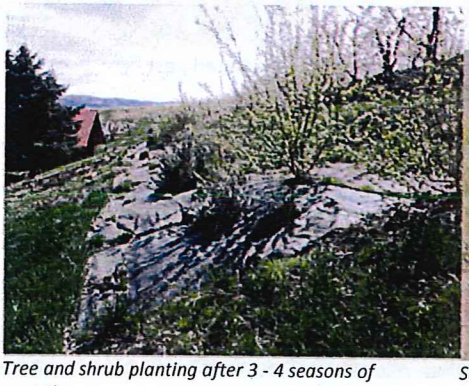
- Protect agricultural activities from geologic hazards such as erosion and landslides.

VSP Geologic Hazard Goals:

- Avoid increases in erosion.
- Avoid steep slopes or help to stabilize steep slopes where practical.
- Manage risk of landslides.
- Avoid compaction of soil.
- Avoid disturbing top and toe of steep slopes and landslide hazard areas.
- Avoid irrigating unstable slopes.

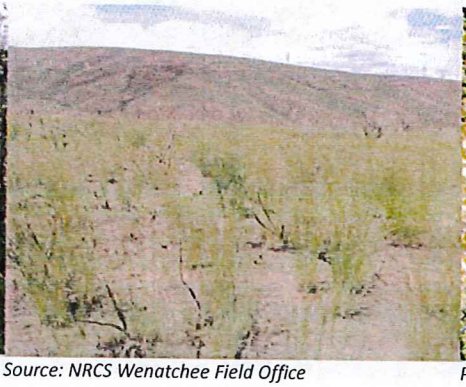
Conservation Practice Examples	NRCS #	I do this	I'm interested in this	Not Applicable
6. Access road: Locate and build to control or reduce erosion	560	☐	☐	☐
7. Conservation cover: to provide permanent vegetative cover	327	☐	☐	☐
8. Cover crop: Crops between rows of trees for cover and conservation	340	☐	☐	☐
9. FireWise: wildfire protection plans to maintain cover/reduce soil loss	See CCD	☐	☐	☐
10. Forest stand improvement	666	☐	☐	☐
11. Heavy use area protection to stabilize ground surface	561	☐	☐	☐
12. Mulching to control erosion and conserve soil moisture	484	☐	☐	☐
13. Prescribed grazing to reduce erosion and manage fuel loads	528	☐	☐	☐
14. Tree/shrub establishment for long-term erosion control and water quality improvement	612	☐	☐	☐
15. My ideas to meet objective: _____		☐	☐	☐

Tree/Shrub Establishment



Tree and shrub planting after 3 - 4 seasons of growth
Source: NRCS Wenatchee Field Office

Replanting after a Fire



Source: NRCS Wenatchee Field Office

Cover Crop

Planting a cover crop between tree rows of forbs and grasses for beneficial pollinators and bugs and erosion control
Source: NRCS Wenatchee Field Office

Some of the threats from landslides and debris flow include rapidly moving water and debris that can cause trauma; broken electrical, water, gas, and sewage lines; and disrupted roadways and railways. This can lead to agricultural impacts including contamination of water, change in vegetation, and harvest and livestock losses.
Earthquake impacts could include loss of harvest or livestock and destruction of irrigation systems and other agricultural infrastructure.

~Agriculture: Natural Events and Disasters, http://www.epa.gov/agriculture/tned.html.

Agriculture Intersecting with Fish and Wildlife Habitat Areas

Fish and Wildlife Habitat Conservation Areas: Land and waters managed to maintain populations of fish and wildlife species in suitable habitats within their natural geographic distribution over the long term within connected habitat blocks and open spaces. **Includes:**

- Ranges and habitat elements where federal and state listed endangered, threatened and sensitive species have a primary association
- Lakes, rivers, ponds, streams, inland waters, and underground waters

Does not include (when no salmonids are present): Artificial features such as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches maintained by a port district or an irrigation district or company

VSP Fish and Wildlife Habitat Goals

- Protect fish and wildlife populations and their associated habitats.
- Promote voluntary restoration and enhancement of fish and wildlife populations and their associated habitats.

VSP Agriculture Viability Aims:

- Protect orchards and vineyards from wildlife and pest damage.
- Promote economical water, soil, pest, and nutrient management that maximizes produce quality.

Conservation Practice Examples	NRCS #	I do this	I'm interested in this	Not Applicable
WILDLIFE HABITAT				
16. Access control to exclude animals, people, vehicles, and/or equipment from an area	*472*	☐	☐	☐
17. Brush management to manage or remove plants that are invasive or noxious	*314*	☐	☐	☐
18. Conservation cover to provide permanent vegetative cover	*327*	☐	☐	☐
19. Forest stand improvement practices that improve wildlife habitat	*666*	☐	☐	☐
20. Fence: browsing animal management or wildlife movement management	*382*	☐	☐	☐
21. Hedgerows planting that provide food, cover, and corridors for wildlife or to improve water quality as well as to fence or delineate an area	*422*	☐	☐	☐
22. Structures for wildlife: Raptor and bat nesting box for predator patrol	*649*	☐	☐	☐
23. Riparian forest buffer	*391*	☐	☐	☐
24. Riparian herbaceous cover	*390*	☐	☐	☐
25. Tree/shrub establishment	*612*	☐	☐	☐
26. Upland wildlife habitat management	*645*	☐	☐	☐
27. Watering facility for wildlife	*614*			
28. Wildlife and pollinator habitat planting	734	☐	☐	☐
29. My ideas to meet the goal: _____		☐	☐	☐

Raptor Pole with Nesting Box

Source: NRCS Wenatchee Field Office

Livestock Holding, Exclusion Fence

Tillicum Creek Fence Project, Mad River drainage, Entiat
Source: Habitat Work Schedule

Wildlife and Pollinator Habitat Planting

in an orchard and long side a field road
Source: NRCS Wenatchee Field Office

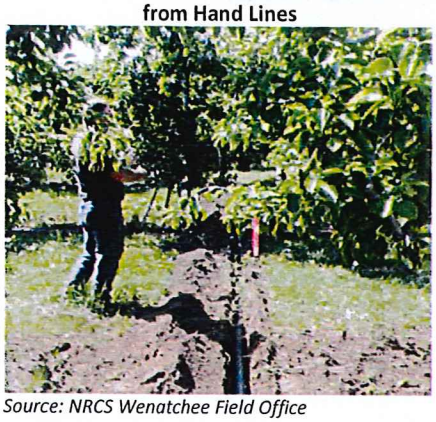
Conservation Practice Examples	NRCS #	I do this	I'm interested in this	Not Applicable
FISH HABITAT				
30. Access road: position away from water bodies and water courses	560	☐	☐	☐
31. Conservation cover	327	☐	☐	☐
32. Irrigation canal or lateral	320	☐	☐	☐
33. Irrigation pipeline	430	☐	☐	☐
34. Irrigation system, microirrigation	441	☐	☐	☐
35. Irrigation water management	449	☐	☐	☐
36. Prescribed grazing	528	☐	☐	☐
37. Riparian forest buffer	391	☐	☐	☐
38. Riparian herbaceous cover	390	☐	☐	☐
39. Seasonal high tunnel system for crops (soil moisture)	798	☐	☐	☐
40. Sprinkler system	442	☐	☐	☐
41. Streambank and shoreline protection	580	☐	☐	☐
42. Tree/shrub establishment	612	☐	☐	☐
43. My idea to meet the goal:		☐	☐	☐

_____

Micro-irrigation

Soveredi

Installation of Solid Set from Hand Lines



Source: NRCS Wenatchee Field Office

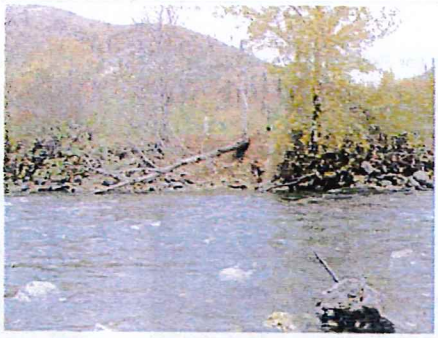
Seasonal High Tunnel

Seasonal High Tunnel with the sides rolled up during hot summer days. Mulching to hold in heat and moisture and reduce weeds.
Source: NRCS Wenatchee Field Office

Riparian Restoration & Wildlife Exclusion

On property with pear and apple orchard, Installed native plants, an irrigation system and herbivory protection (exclusion fencing)
Source: Chelan County Natural Resources Department

Riparian Restoration



Cascadia Conservation District worked with eight landowners to improve riparian habitat and reduce water temperature exceedances.
Source: Cascadia Conservation District

Agriculture Intersecting with Wetlands

Wetlands: Areas that are inundated or saturated by surface water or groundwater supporting a prevalence of vegetation adapted for life in saturated soil conditions.

Includes

- Swamps, marshes, bogs, and similar areas

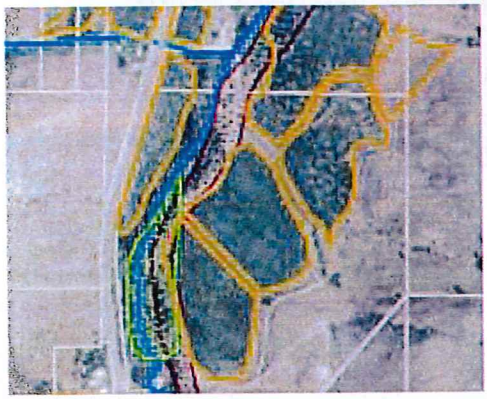
Excludes Artificial wetlands per WAC 365-190-030(22)

Critical Area Protection Goals

- Protect the ecological and environmental functions of wetlands and protect the public health, safety and welfare benefits provided by wetlands by preventing loss of wetlands.
- Where practical, encourage voluntary enhancing or restoring wetland functions and values.

Seek information about **Prior Converted Cropland** for wetlands cleared, drained or manipulated prior to December 23, 1985.

Possible Conservation Practice Examples	NRCS #	I do this	I'm interested in this	Not Applicable
44. Wetland Creation	*658*	☐	☐	☐
45. Wetland Enhancement	*659*	☐	☐	☐
46. Wetland Restoration	*657*	☐	☐	☐
47. Wetland Wildlife Habitat Management	*644*	☐	☐	☐
48. My idea to meet the goal: _____		☐	☐	☐



Chelan County VSP Agricultural and Critical Area Mapping: Wetlands and Floodplain in Stemilt Squilchuck Basin

Agriculture Intersecting with Frequently Flooded Areas

Frequently Flooded Areas: Lands in the flood plain subject to at least a one percent or greater chance of flooding in any given year, or within areas subject to flooding due to high groundwater. **Includes** Streams, rivers, lakes, wetlands, and areas where high groundwater forms ponds on the ground surface

VSP Agriculture Viability Aims

- Avoid water contamination, damage to crops, loss of livestock, increased susceptibility of livestock to disease, and damaged farm machinery due to flooding.

VSP Critical Area Protection Objectives:

- Avoid environmental damage due to flooding such as from loss of floodplain storage or due to agricultural chemicals.

Possible Conservation Practice Examples	NRCS #	I do this	I'm interested in this	Not Applicable
49. Avoid permanent changes in floodplain areas such as buildings, roads, and fill. Where alteration of floodplain is necessary, follow flood hazard regulations.	*See RCW 86.16 See Chelan County Code Ch. 3.20*	☐	☐	☐
50. My idea to meet the objective: _____		☐	☐	☐

Flooding causes many impacts to agricultural production, including water contamination, damage to crops, loss of livestock, increased susceptibility of livestock to disease, flooded farm machinery, and environmental damage to and from agricultural chemicals.
~Agriculture: Natural Events and Disasters, http://www.epa.gov/agriculture/tned.html.

Agriculture Intersecting with Critical Aquifer Recharge Areas

Critical Aquifer Recharge Areas

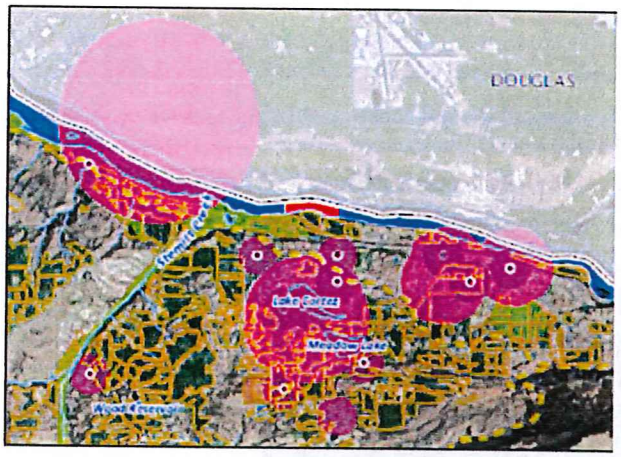
Areas with a critical recharging effect on aquifers used for potable water, including areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water, or is susceptible to reduced recharge.

VSP Critical Area Protection Objectives:

- Protect water quality and water quantity in areas having a critical recharging effect on aquifers used for potable water.

Legend

Mapped Critical Aquifer Recharge Areas, Portion of Squilchuck–Stemilt Basin



Possible Conservation Practice Examples	NRCS #	I do this	I'm interested in this	Not Applicable
51. Water well: provide access to a groundwater supply suitable for livestock watering, fire control, wildlife, and other agricultural uses	642	☐	☐	☐
52. Groundwater testing to determine the quality of a groundwater supply	355	☐	☐	☐
53. My idea to meet the objective: _____				

STEP 3: IDEAS FOR AGRICULTURE VIABILITY INCENTIVES AND OUTCOMES

Suggested Agricultural Viability Aims:

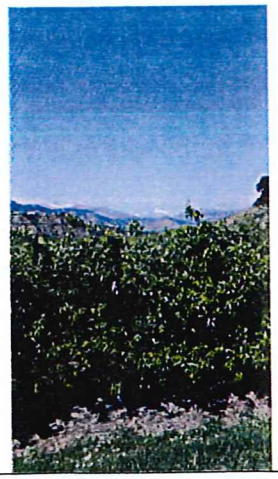
In addition to the Agricultural Viability Aims in Step 2, promote the following aim:

- **The prevalence of conservation practices, helps avoid unnecessary local critical area regulations.**

Suggested Agricultural Viability Incentives and Activities:

Incentive-1	**Priority funding set aside and made available by federal, state, and local sources to support VSP Program participation by farmers and ranchers. Applications for conservation practices could score higher for VSP participants such as through CCD, NRCS, and other agencies.**
Incentive-2	**Provide information to farmers and ranchers about available tax incentives for participating agricultural producers.**

Incentive-3	Seek new tax incentives by the state legislature that recognize VSP participation. Due to local tax burden shifts when an incentive program is authorized by state law, carefully consider new tax incentives.
Incentive-4	Promote VSP participation through recognition, branding for marketing purposes (such as through farmers markets, CSAs, others).
Incentive-5	Ensure carbon taxes and cap and trade systems for greenhouse gas emissions do not apply to agricultural activities like tree fruit that are a permaculture.
Incentive-6	Ensure the County Comprehensive Plan, capital investments, and zoning code provide strong support for agricultural infrastructure that may be located within urban areas, such as packing houses, etc.
Incentive-7	Promote Comprehensive Plan Policies and regulations that support agricultural operators to keep land in farming. Evaluate allowances for agricultural accessory uses or homes for agricultural operators; for example consider where homesteading in County code can be made more flexible.
Incentive-8	Consider alternative alignments for recreational trails to avoid abutting farmers and ranchers.
Incentive-9	Evaluate appropriate densities and site planning for rural residential or urban residential uses that abut designated agricultural lands to minimize interface, protect necessary agricultural practices, and reduce pressure for agricultural conversion.
Incentive-10	Establish an agricultural viability committee that can advise Chelan County and other agencies on measures to promote the agricultural economy.
Incentive-11	Explore a "farmbudsman" program where farmers and ranchers can obtain objective and comprehensive advice on federal, state, and local laws that affect agricultural activities, e.g. water rights.
Suggested Agricultural Viability Outcomes for Information Tracking:	
Based on implementing Agricultural Viability Aims, Incentives, and Activities, track the following desired outcomes:	
Outcome-1	Increased agricultural crop production and economic value annually. See Section 3.1 for baseline as of VSP Work Program.
Outcome-2	Designated agricultural land in Comprehensive Plan continues to be protected.



Agricultural Activities, Wenatchee and Entiat Valleys

FOR MORE INFORMATION

List VSP Project Website
VSP Watershed Work Group Contacts
Technical Assistance Providers