



Voluntary Stewardship Program Lincoln County Work Group



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Agenda

- Re-cap from Prior Work Group Meeting
- Work Plan Elements Summary
- Draft Work Plan Outline
- Agricultural and Conservation Practices Framework
- Hypothetical examples in Rangelands
- Next Steps

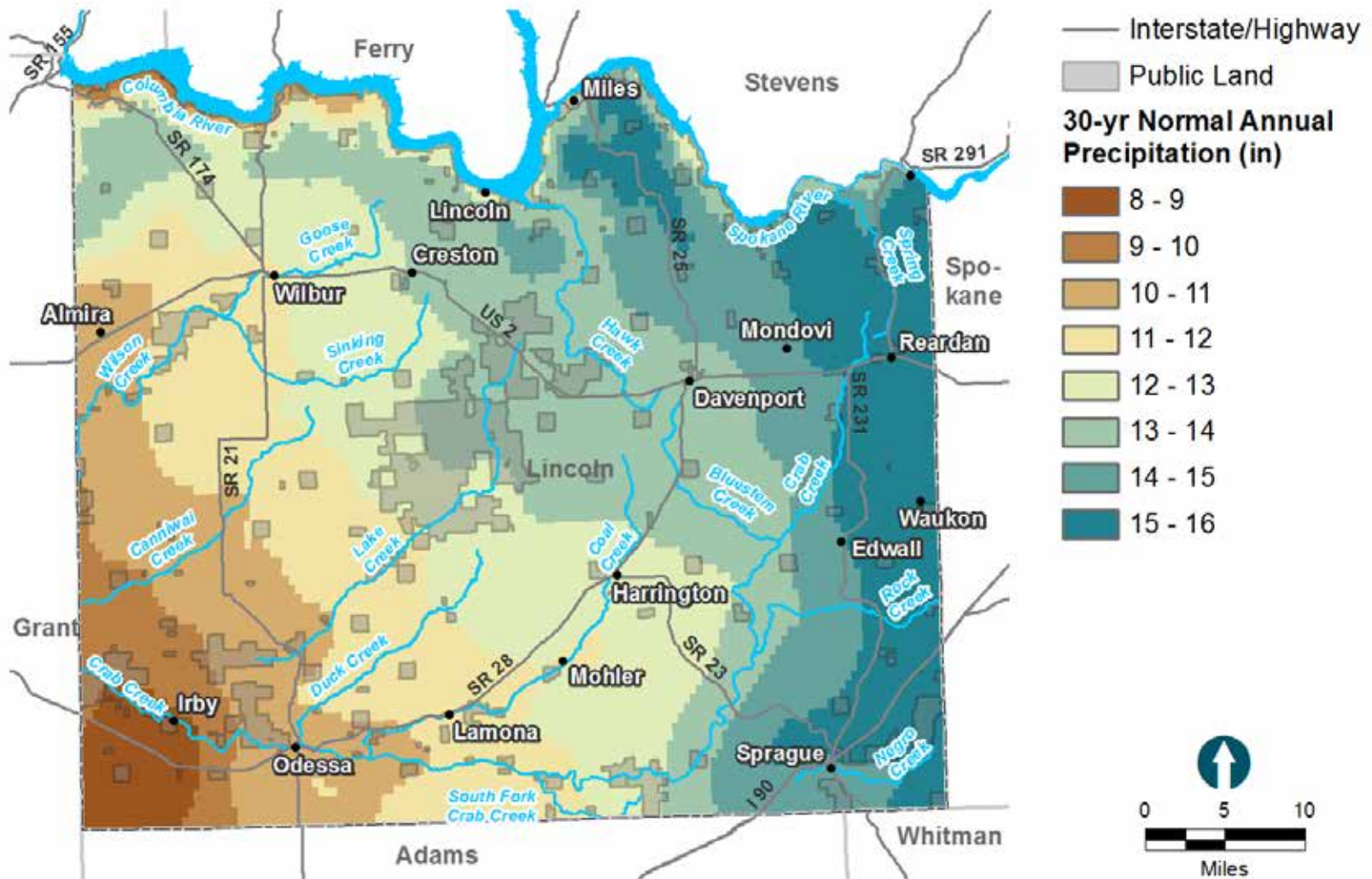
Re-cap

July Work Group Meeting

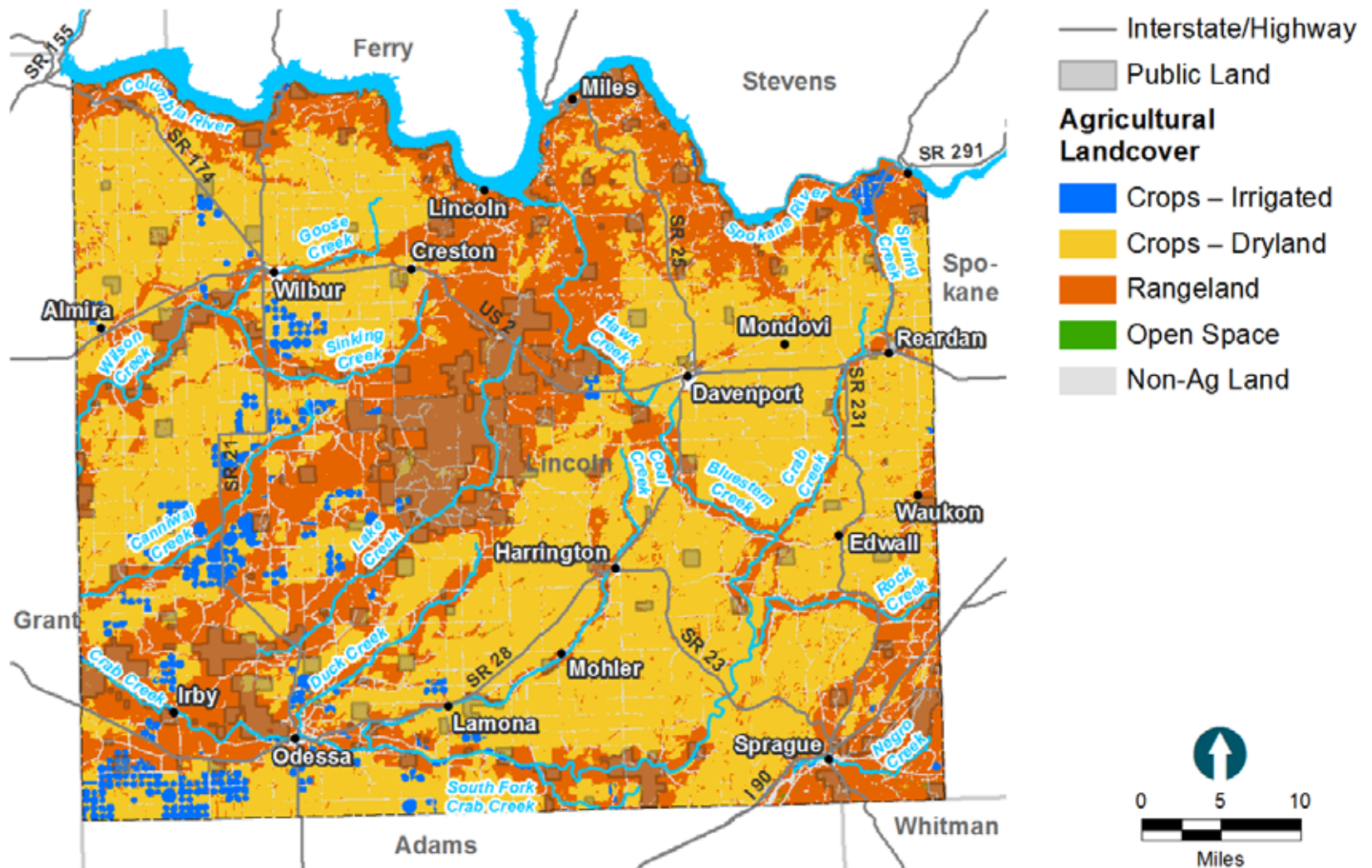
7/19 Work Group Meeting Re-cap

- Supportive of web meetings
- Reviewed Crab Creek Drainage baseline case study
 - Ag activities, critical areas functions, and ag intersects
- Discussed including mapping for public lands
 - WSCC issued clarification that public lands are not managed under VSP
- VSP staff to start identifying typical conservation practices implemented in County

Lincoln County – Precipitation and Public Lands



Lincoln County – Ag Land Cover/Public Lands



RCW 36.70A.720

Work Plan Necessary Elements

Work Plan Elements

- **Review and incorporate** applicable water quality, watershed management, farmland protection, and species recovery **data and plans**;
- **Seek input** from tribes, agencies, and stakeholders;
- **Develop goals** for participation by agricultural operators necessary to meet the protection and enhancement **benchmarks** of the watershed plan;
- **Ensure outreach and technical assistance** is provided to agricultural operators in the watershed;

Work Plan Elements (continued)

- **Create measurable benchmarks** that, within 10 years after receipt of funding, are designed to result in the protection and enhancement of critical areas functions and values through voluntary, incentive-based measures;
- **Designate the entity** that will provide technical assistance;
- Work with the entity providing technical assistance to ensure **individual stewardship plans** contribute to the goals and benchmarks of the watershed plan;
- **Incorporate** into the watershed plan **existing development regulations** relied upon to achieve the goals and benchmarks for protection;

Work Plan Elements (continued)

- Establish baseline **monitoring**
- Conduct periodic **evaluations**, institute **adaptive management**, and provide a **written report** of the status of plans and accomplishments to the county and the Commission within 60 days after the end of each biennium;
- **Assist state agencies** in their monitoring programs; and
- Satisfy any **other reporting requirements** of the program.

Agricultural operators—Withdrawal from program (RCW 36.70A.760)

An agricultural operator participating in the program:

- May withdraw from the program
- Is not required to continue voluntary measures after the expiration of an applicable contract.

The watershed group must account for any loss of protection resulting from withdrawals when establishing goals and benchmarks for protection and a work plan.

VSP Work Plan

Draft Outline

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VSP Work Plan

Draft Outline

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VSP Work Plan - Appendices

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- Appendix C Critical Areas Functions and Values Tables
- Appendix D Goals, Benchmarks, and Measurements Tables
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Agricultural Activities/ Conservation Practices Framework and Ag Viability

Agricultural Activity	Conservation Practice Examples	NRCS Code	Agricultural Viability					
			Soil Health	Prevent Soil Loss	Moisture Management	Weed Management	Pollinator/ Beneficial Organisms	Increased Yield/ Fertility
All	Brush Management	314						
	Herbaceous Weed Control	315		X		X		X
	Channel Bank Vegetation	322		X		X	X	
	Deep Tillage	324						
	High Tunnel System	325						
	Critical Area Planting	342		X		X	X	
	Farmstead Energy Improvements	374						
	Sediment Basin	350		X				
	Windbreak/Shelterbelt Establishment	380	X	X	X	X	X	X
	Fuel Break	383						
	Riparian Herbaceous Cover	390		X	X	X	X	
	Riparian Forest Buffer	391				X	X	
	Firebreak	394						
	Stream Habitat Improvement and Management	395			X	X	X	
	Grassed Waterway	412		X				
	Irrigation Pipeline	430						
	Irrigation System, Sprinkler	442						
	Irrigation Water Management	449						
	Land Clearing	460						
	Access Control	472	X	X		X	X	X
	Tree/shrub Site Preparation	490				X	X	
	Obstruction Removal	500						
	Pasture and Hay Planting	512						
	Prescribed Grazing	528						
	Range Planting	550						
	Access Road	560		X				
	Heavy Use Area Protection	561						

Agricultural Activity	Conservation Practice Examples	NRCS Code	Agricultural Viability					
			Soil Health	Prevent Soil Loss	Moisture Management	Weed Management	Pollinator/ Beneficial Organisms	Increased Yield/ Fertility
All	Stream Crossing	578						
	Streambank and Shoreline Protection	580		X			X	
	Open Channel	582						
	Channel Bed Stabilization	584				X		
	Structure for Water Control	587			X			X
	Nutrient Management	590	X					X
	Integrated Pest Management	595	X			X	X	
	Terrace	600						
	Vegetative Barrier	601		X	X	X	X	
	Tree/shrub establishment	612		X			X	
	Restoration and Management of Rare or Declining Habitats	643						
	Wetland Wildlife Habitat Management	644	X			X	X	
	Upland Wildlife Management	645		X			X	X
	Constructed Wetland	656						
	Wetland Enhancement	659	X			X	X	
	Tree/Shrub Pruning	660						
	Forest Stand Improvement	666						
	Building Envelope Improvement	672						
	Seasonal High Tunnel	798						
	Other Vegetation Management			x	x	X	X	
	Other (Workgroup Members please add other measures)							

Agricultural Activity	Conservation Practice Examples	NRCS Code	Agricultural Viability					
			Soil Health	Prevent Soil Loss	Moisture Management	Weed Management	Pollinator/ Beneficial Organisms	Increased Yield/ Fertility
Dryland	Conservation Cover	327	X	X	X	X	X	
	Conservation Crop Rotation	328	X	X	X		X	X
	Residue and Tillage management, No-till/Direct seed	329	X	X	X			X
	Countour Buffer Strip	332	X	X	X		X	
	Cover Crop	340	X	X	X	X	X	X
	Residue and Tillage Management, Reduced Till	345	X	X	X			X
	Field Border	386		X		X	X	
	Filter Strip	393		X		X	X	
	Hedgerow Planting	422		X		X	X	
	Mulching	484	X	X	X	X		X
	Heavy Use Area Protection	561		X		X		
	Structures for Wildlife	649		X		X		
	Fish and Wildlife Structure	734						
	Other							
	Other							
Irrigated	Conservation Cover	327	X	X	X	X	X	
	Countour Buffer Strip	332	X	X	X		X	
	Cover Crop	340	X	X	X	X	X	X
	Filter Strip	393				X	X	
	Hedgerow Planting	422		X		X	X	
	Irrigation System, Micro-irrigation	441		X	X			X
	Mulching	484	X	X	X	X		X
	Pumping Plant	533		X	X			X
	Water Well	642			X			X
	Heavy Use Area Protection	561		X		X		
	Structures for Wildlife	649		X		X		
	Fish and Wildlife Sturcture	734						
	Other (Workgroup Members please add other measures)							
	Other							

Agricultural Activity	Conservation Practice Examples	NRCS Code	Agricultural Viability					
			Soil Health	Prevent Soil Loss	Moisture Management	Weed Management	Pollinator/ Beneficial Organisms	Increased Yield/ Fertility
Rangeland	Fence	382		X			X	
	Livestock Pipeline	516						X
	Spring Development	574						X
	Watering Facility	614						X
	Water Well	642			X			X
	Early Successional Habitat Development/Management	647				X	X	
	Heavy Use Area Protection	561		X		X		
	Fish and Wildlife Sturcture	734						
	Other (Workgroup Members please add other measures)							
	Other							
Livestock	Waste Storage Facility	313	X					
	On-Farm Secondary Containment Facility	319	X					
	Roofs and Covers	367	X					
	Fence	382		X			X	
	Livestock Pipeline	516						X
	Pumping Plant	533		X	X			X
	Spring Development	574						X
	Watering Facility	614						X
	Waste Transfer	634			X			
	Water Well	642			X			X
	Heavy Use Area Protection	561		X		X		
	Other (Workgroup Members please add other measures)							
	Other							

Discuss Measures

- Are we missing measures?
- “Other” measures
 - What should be included?
 - How should they be described?
 - How do we account for the many good practices being implemented that are grower funded outside of government programs?

VSP Checklist – Chelan County Example

B. Agriculture Intersecting with Fish and Wildlife Habitat Areas

Definition of 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 (based on RCW 36.70A, WAC 365-190)

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

VSP Checklist – Chelan County Example

Fish and Wildlife Habitat Conservation Areas

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

VSP Checklist – Chelan County Example

A. Agriculture Intersecting with Geologically Hazardous Areas

Definition of 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. (based on RCW 36.70A, WAC 365-190)

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		I do this	I'm interested in this	Not Applicable
	NRCS #			
5. Access road: Locate and build to control or reduce erosion	560	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Conservation cover: to provide permanent vegetative cover to reduce soil erosion and sedimentation, improve soil quality, etc.	327	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Cover crop: Plant crops between rows of trees, vines, or other row crops for cover and conservation. Cover crops include grasses, legumes, and forbs for seasonal cover and other conservation purposes.	340	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. FireWise: wildfire protection plans to maintain cover/reduce soil loss	See CCD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Forest stand improvement	666	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Heavy use area protection to stabilize ground surface	561	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Mulching to control erosion and conserve soil moisture	484	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Prescribed grazing to reduce erosion and manage fuel loads	528	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Tree/shrub establishment for long-term erosion control and water quality improvement	612	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. My ideas to meet objective:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VSP Checklist – Chelan County Example

Geologically Hazardous Areas

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

Guidance on Desired Framework Elements

- Would a similar checklist be desirable for Lincoln County?
- Do you like the look of these examples?
- A tailored checklist can be developed once we agree on the measures to be included

Rangeland Management and Conservation Practices

Rangelands – Bly Property Example

- Approximately 4,000 acres of rangelands
 - 3,800 acres of pasture rangelands
 - 200 acres of meadows irrigated by Crab Creek
- 250 head of cattle
- Approximately same head for calves
- 70-80 yearlings

Typical Range Practices – Bly Property

- Grazing typically begins in May
- 7 fields (500 – 600 ac each)
- Rotate field every week through June
- Begin rotation at first field again
- Free range Oct – Thanksgiving
- Hay feed and meadow grazing through winter feeding

Rangelands – Bly Property Example



Crab Creek (north is to the left)

Rangelands – Bly Property Example



Scrub shrub rangelands – Middle Crab Creek

Rangelands – Bly Property Example



Middle Crab Creek – Riparian Area

Rangelands – Bly Property Example



Irrigation Diversion

Conservation Practices – Bly Property Example

- Environmental Quality Incentives Program (EQIP)
 - Stream re-structuring
 - Cross fencing
 - Creek fencing
 - Water troughs (with bird ladders)
 - Water pipelines
 - Heavy use protection areas
- Changes and challenges
 - Fencing repair and maintenance
 - Weather dependent
 - Riparian study group recommendations

Rangelands – Harder Property Example

- Many of the same practices implemented by Bly
- South of Sprague Lake is grazed and partially fenced
- Practice Highlights:
 - Raising cattle adapted to land (Angus) and good bulls
 - Provide good clean water
 - Cross fencing (over the past 25 years)
 - Stock watering wells (6 to 10 run on solar power)

Rangelands – Harder Property Example



Sprague Lake (looking southwest)

Rangelands – Harder Property Example



Solar Powered Stock Watering Wells

Rangelands – Harder Property Example



Yearlings enjoying fresh water (2014 to present)

Rangelands – Harder Property Example



Yearlings grazing (2014)

Rangelands – Harder Property Example

- Ag viability:
 - Provide better outreach on locally raised beef (currently sells to Country Natural and Tyson)
 - Work with CDs on voluntary measures can be more productive than regulatory
- Challenges:
 - Irrigation water shut-offs (lower Cow Creek)
 - Water storage during high flow for use during dry periods
 - Reduced winter runoff
 - Costs of weed management
 - Moisture management for good grazing conditions

Conservation Practices & Functions

Function	Access control/ Fencing	Cross fencing	Watering facility	Spring Development	Heavy use protection area
Filtration/ Purification	●		●		
Recharge/ Retention/ Discharge				●	
Soil Conservation	●	●	●	●	●
Habitat	●	●	●	●	●
Nutrient Cycling	●	●	●	●	

Potential Risks to Critical Areas and Ag Viability

- Change of upland habitat (vegetation)
- Soil erosion/reduce topsoil
 - Reduce long-term productivity of land
- Modified hydrology
 - Changes in climate and precipitation patterns
 - Changes in vegetation
- Water quality
 - Cattle water supply
- Management actions can help mitigate potential impacts

Participation in VSP

- Option 1 – Do nothing
- Option 2 – Implement changes (producer 100% funded) with no commitment to maintain
- Option 3 – Seek technical assistance (industry, CD, or NRCS), then implement (producer 100% funded)
- Option 4 – Variation of Option 3
 - Determine if applicable program/financial incentive is available, enter into contract, and implement (producer/program funded)

Conservation Practices & Functions and VSP

Function	Baseline July 22, 2011	Current Conditions	Continued Conservation/ Natural Recovery	Increased Intensity or Natural Disturbance	Cumulative With VSP (Increased Conservation)
Flood Control	2011	2011 C	2011 +	2011 -	2011 + - +
Filtration/ Purification					
Recharge/ Retention/ Discharge					
Soil Conservation					
Habitat					
Nutrient Cycling					

Questions, Comments, and Next Steps

Upcoming Meeting Topics

- October
 - Confirm measures to include in Work Plan
 - Verify plans to reference
 - Intro to protection and enhancement benchmarks and grower participation goals
 - Discuss and plan outreach strategy
- November
 - Continue discussing protection and enhancement benchmarks/grower participation goals
 - Review draft checklist
 - Discuss monitoring options
- December to January - Anchor QEA prepares draft plan
- February to April – Discuss/refine draft plan