

Key Conservation Activities		Critical Area Functions: Protection Metrics (averaged CPPE Function Effects Score)					Critical Area Protections (Direct/Indirect)					Applicable Commodity type		
NRCS Code	Activity	Soil Health	Hydrology	Water Quality	F&W Habitat	Ag Viability	Wetland	Habitat	CARA	GHA	FFA	Dryland	Rangeland	Irrigated
327	Conservation Cover	2.62	1.25	2.89	3.60	4.00	I	D, I	D, I	D, I	I	X	X	
328	Conservation Crop Rotation	3.00	1.60	1.75	2.00	2.60	I	D, I	D, I	D, I	I	X		
340	Cover Crop	2.66	1.40	1.75	2.50	3.00	I	D, I	D, I	D, I	D, I	X		X
382	Fence	1.00	0.00	2.00	2.00	3.00	D	D	D	D, I	D, I		X	
386	Field Border	2.67	1.00	1.43	2.00	0.00	I	D	I	D, I	I	X		X
441	Irrigation System - Micro irrigation	0.50	2.00	1.00	0.50	2.20	I	I	D, I					X
449	Irrigation Water Management	1.67	1.50	1.82	1.00	2.25	I	I	I					X
516	Livestock Pipeline	0.00	0.00	0.00	2.00	3.00	I	D					X	
590	Nutrient Management	0.83	0.00	3.50	0.00	2.50		I	D, I			X		X
595	Pest Management	2.00	0.00	4.00	2.00	2.00		D, I	D, I			X	X	X
528	Prescribed Grazing	2.88	1.50	1.30	4.00	3.16	D	D		D	I		X	
550	Range Planting	3.13	0.75	1.33	3.67	4.75		D	D	D, I	I			
329	Residue and Tillage Management - No-Till/ Strip Till/ Direct Seed	3.00	0.80	2.00	1.67	3.33	I	D, I	D, I	D, I	I	X		
345	Residue Management - Reduced Till	2.75	1.33	2.20	1.67	2.00	I	D, I	D, I	D, I	I	X		
442	Sprinkler System	1.00	2.67	1.55	1.00	2.20	I	I	D, I					X
649	Structures for Wildlife	0.00	0.00	0.00	4.00	0.00		D				X	X	X
645	Upland Wildlife Habitat Management	2.40	-0.50	2.00	4.50	3.33		D		D, I	I	X	X	X
614	Watering Facility	2.00	0.00	1.71	2.33	3.00	D	D		D	I		X	
BMP	Riparian Buffer	Compare to Field Border and/or Range Planting					D	D		D	D	X	X	X
WSDA	Organic Certification	Compare to Nutrient Management and Pest Management					D, I	D, I	D, I			X	X	X
n/a	GlobalG.A.P IFA Fruit & Vegetables Standard Certificate	Many environmental standards must be met; CPPE comparison depends on the category of the standard					I	D, I	D, I	D, I	D, I			X
Multiple	Pollinator Habitat Creation/Management	Depends on which conservation activity is used						D				X	X	X

CPPE Score Key

- 5 Substantial Improvement
- 4 Moderate to Substantial Improvement
- 3 Moderate Improvement
- 2 Slight to Moderate Improvement
- 1 Slight Improvement
- 0 No Effect
- 1 Slight Worsening

Threat	Protection and Enhancement Strategies	Monitoring ¹
Fire	Community Wildfire Protection Plan	Remote Vegetation Monitoring and Change Detection
	BM-17	
	Firewise program	
	Post-fire support and technical assistance with restoration	
	Develop a fuels management program	
	Farm scale planning - fire breaks, potential fire lines	
Invasive Plant Species	Cooperative Weed Management Area	The CWMA will develop a Comprehensive Weed Management Plan that will outline a strategy to map and monitor invasive species at the watershed scale.
	Conservation activities that contribute to BM-3, BM-8, BM-10, BM-13, BM-14	
	Biocontrol Program	
	Watershed Management Plan actions	
Conversion/Fragmentation	Farm scale planning - Technical Assistance with an emphasis on Integrated Weed Management	Remote Vegetation Monitoring and Change Detection
	Conservation activities that contribute to BM-3, BM-10, BM-13, BM-14, BM-15, BM-16, BM-18	
	Conservation Reserve Program and Safe Acres for Wildlife - if acres are unenrolled encourage enrollment into conservation activities that contribute to BMs listed above	
Erosion	MSGCP - watershed scale connectivity will be considered in developing Site Specific Plans that contain habitat restoration or conversion of unproductive dryland fields back to habitat	Water quality monitoring with a turbidity parameter will be a good indicator to measure erosion over time
	Conservation activities that contribute to BM-3, BM-7, BM-10, BM-14	
	Watershed Management Plan actions	
	Conservation Reserve Program and Safe Acres for Wildlife - if acres are unenrolled encourage enrollment into conservation activities that contribute to BMs listed above	
Loss of productivity	Farm scale planning - encourage conservation activities that contribute to BMs listed above	Monitoring activities undertaken by the MSGCP will assess on the ground habitat values at enrolled and control points across the county
	Conservation activities that contribute to BM-2, BM-3, BM-11, BM-12, BM-14	
	Sage Grouse Initiative	
Altered Hydrology	Farm scale planning - provide quality technical assistance to promote sound rotation and management activities that contribute to the BMs listed above	Ground and surface water levels across the county will provide a good indicator of hydraulic function
	Conservation activities that contribute to BM-1, BM-2, BM-3, BM-4, BM-5, BM-6, BM-10	
	Watershed Management Plan actions	
	Conservation Reserve Program and Safe Acres for Wildlife - if acres are unenrolled encourage enrollment into conservation activities that contribute to BMs listed above	
Contamination to soil, surface water, and groundwater	Farm scale planning - provide quality technical assistance to promote activities that protect natural hydraulic function and storage and contribute to the BMs listed above	WA Department of Health groundwater quality monitoring data relevant to agriculture. Surface water quality monitoring will be conducted across the county with the parameters pH and dissolved oxygen used to detect contamination.
	Conservation activities that contribute to BM-3, BM-7, BM-8, BM-9, BM-10	

¹ For more detailed information on indicators and monitoring please refer to chapters 8 and 9, and Appendix H

Goal	Objective	Benchmark	Key voluntary conservation activities		Historic Enrollment Data 2004-2011		Estimated Yearly Discontinuation			Every 5 year Protection Benchmark ^{1 2} (add an additional x acres, feet, etc.)	Every 5 year Enhancement Benchmark ³ (add an additional x acres, feet, etc.)	VSP Implementation 2012-2017			
			NRCS Code	Activity	Unit	Average Annual	Annual %	Average Annual Discontinuation	Summed Annual Discontinuation			NRCS	CD projects	Self-funded	Total
Protect and/or enhance baseline hydraulic functions and values of critical areas in Douglas County where agricultural activities occur	Protect and/or enhance natural hydraulic storage capacity through the implementation of voluntary conservation activities	BM-1 Maintain and/or increase voluntary conservation activities that promote soil-water holding capacity	328	Conservation Crop Rotation	Acres	216.8	6%	13	24.8	124	2,993.0	26,884.90	5560		32,444.90
			340	Cover Crop	Acres	19	6%	1							
			329	Residue and Tillage Management- No Till	Acres	362.8	3%	10.8							
			345	Residue and Tillage Management- Reduced Till	Acres	None	3%	0							
		BM-2 Maintain and/or increase voluntary conservation activities that limit soil compaction	528	Prescribed Grazing	Acres	2,392.30	6%	143.5	155.3	776.70	13,870.5	80,805.20	5560		86,365.20
			329	Residue and Tillage Management- No Till	Acres	362.8	3%	10.8							
			345	Residue and Tillage Management- Reduced Till	Acres	None	3%	0							
			340	Cover Crop	Acres	19	6%	1							
		BM-3 Maintain and/or increase voluntary conservation activities that protect riparian and wetland systems	528	Prescribed Grazing	Acres	2392.3	6%	143.5	143.5	717.5	11,961.5	57,935.30			57,935.30
			382	Fence	Feet	9401.6	3%	282	282	1,410.20	47,008.0	102,841.70			102,841.70
			614	Watering Facility	#	4	0%	0	0	0	20.0	52			52
		BM-4 Maintain and/or increase voluntary conservation activities that decrease evapotranspiration	328	Conservation Crop Rotation	Acres	216.8	6%	13	23.8	119	2,898.0	26,037	5,560		31,597
			329	Residue and Tillage Management- No Till	Acres	362.8	3%	10.8							
			345	Residue and Tillage Management- Reduced Till	Acres	None	3%	0							
	Promote the efficient and beneficial use of water in Agriculture	BM-5 Maintain and/or increase voluntary conservation activities that promote the efficient use of irrigation water	442	Sprinkler System	Acres	18.5	0%	0	1	5	297.0	86.5			86.5
			441	Irrigation System - Micro irrigation	Acres	5.5	0%	0							
			449	Irrigation Water Management	Acres	35.4	3%	1							
		BM-6 Maintain and/or increase voluntary	614	Watering Facility	#	4	0%	0	0	0	4.0	52			52

		conservation activities that promote the beneficial use of water in ranching	516	Livestock Pipeline	Feet	4,338.10	0%	0	0	0	21,690.5	103,986.40			103,986.40		
Protect and/or enhance baseline water quality functions and values of critical areas in Douglas County where agricultural activities occur	Protect and/or enhance surface water quality by implementing voluntary conservation activities that manage the amount of chemicals and sediments delivered to waterbodies	BM-7 Maintain and/or increase voluntary conservation activities that reduce wind or water soil erosion	328	Conservation Crop Rotation	Acres	216.8	6%	13	169.3	847	15,131.5	84,820	5,560		90,380		
			340	Cover Crop	Acres	19	6%	1									
			329	Residue and Tillage Management- No Till	Acres	362.8	3%	10.8									
			345	Residue and Tillage Management- Reduced Till	Acres	None	3%	0									
			449	Irrigation Water Management	Acres	35.4	3%	1									
			528	Prescribed Grazing	Acres	2392.3	6%	143.5									
		BM-8 Maintain and/or increase voluntary conservation activities that manage chemicals and nutrients	590	Nutrient Management	Acres	6127.8	3%	183.8	279.3	1,397	46,509.5	369.00	1,478.50		1,847.50		
			595	Pest Management	Acres	3174.1	3%	95.5									
		Organic Certification ⁴			Acres	2011 Acreage = 2,200						Maintain > 4400 acres in organic	2016 Acreage = 2,492 + 428 in transition				
		BM-9 Maintain and/or increase voluntary conservation activities that filter chemicals and sediment	328	Conservation Crop Rotation	Acres	216.8	6%	13	15	75	1,246.5	4,868.60	29.4		4,898.00		
			340	Cover Crop	Acres	19	6%	1									
			386	Field Border	Acres	13.5	6%	1									
		BM-3 Maintain and/or increase voluntary conservation activities that protect riparian and wetland systems	See BM-3 above														
		BM-5 Maintain and/or increase voluntary conservation activities that promote the efficient use of irrigation water	See BM-5 above														

Protect and/or enhance baseline water quality functions and values of critical areas in Douglas County where agricultural activities occur	Protect and/or enhance surface water quality by implementing voluntary conservation activities that reduce water temperatures	BM-3 Maintain and/or increase voluntary conservation activities that protect riparian and wetland systems	See BM-3 above							
		BM-1 Maintain and/or increase voluntary conservation activities that promote soil-water holding capacity	See BM-1 above							
		BM-10 Implement voluntary conservation activities that enhance and restore riparian and wetland habitat	Department of Ecology BMP - Riparian Buffer	Enhancement Only			25		29.4	
	Protect and/or enhance groundwater quality by implementing voluntary conservation activities that manage the amount of chemicals to groundwater	BM-5 Maintain and/or increase voluntary conservation activities that promote the efficient use of irrigation water	See BM-5 above							
		BM-8 Maintain and/or increase voluntary conservation activities that manage chemicals and nutrients	See BM-8 above							
		BM-9 Maintain and/or increase voluntary conservation activities that filter chemicals	See BM-9 above							
			BM-2 Maintain and/or increase voluntary conservation activities that limit soil compaction	See BM-2 above						

Protect and/or enhance baseline soil health functions and values of critical areas in Douglas County where agricultural activities occur	Protect and/or enhance soil health by implementing voluntary conservation activities that preserve the physical structure and amount of soil	BM-7 Maintain and/or increase voluntary conservation activities that reduce wind or water soil erosion	See Bm-7 above											
		BM-11 Maintain and/or increase voluntary conservation activities that decrease soil bulk density and increase heterogeneity	328	Conservation Crop Rotation	Acres	216.8	6%	13	24.8	124	2,993.0	27,146.90	5,560	32,706.90
			340	Cover Crop	Acres	19	6%	1						
			329	Residue and Tillage Management- No Till	Acres	362.8	3%	10.8						
			345	Residue and Tillage Management- Reduced Till	Acres	None	3%	0						
	550	Range Planting	Acres	None	6%	0								
	Protect and/or enhance soil health by implementing voluntary conservation activities that benefit soil fertility	BM-12 Maintain and/or increase voluntary conservation activities that add organic matter to soil	328	Conservation Crop Rotation	Acres	216.8	6%	13	24.8	124	2,993.0	27,146.90	5,560	32,706.90
			340	Cover Crop	Acres	19	6%	1						
			329	Residue and Tillage Management- No Till	Acres	362.8	3%	10.8						
			345	Residue and Tillage Management- Reduced Till	Acres	None	3%	0						
550		Range Planting	Acres	None	6%	0								
BM-8 Maintain and/or increase voluntary conservation activities that manage chemicals and nutrients	See BM-8 above													
	activities that manage or enhance upland habitat for wildlife	BM-13 Maintain and/or increase voluntary conservation	645	Upland Wildlife Habitat	Acres	1,755	6%	105.3	105.7	529	8,792.5	55,124.70	8,513	8,513
			327	Conservation Cover	Acres	3.5	6%	0.2						
			550	Range Planting	Acres	None	6%	0						
		649	Structures for Wildlife	#	None	6%	0							
	BM-14 Maintain and/or increase voluntary conservation activities that manage or enhance livestock compatibly with wildlife	528	Prescribed Grazing	Acres	2392.3	6%	143.5	143.5	717.7	11,961.5	57,935.30			57,935.30
		382	Fence	Feet	9401.6	3%	282	282	1,410.20	47,008.0	102,841.70			102,841.70
		614	Watering Facility	#	4	0	0	0	0	20.0	52.00			52.00

Protect and/or enhance baseline fish and wildlife habitat functions and values of critical areas in Douglas County where agricultural activities occur	Protect and/or enhance terrestrial habitat through implementation of voluntary conservation activities	BM-15 Maintain and/or increase voluntary conservation activities that manage or enhance orchard compatibility with wildlife	n/a	GlobalG.A.P IFA Fruit & Vegetables Standard Certificate	Data is currently lacking, but will be collected as part of the VSP implementation process. The primary source of data collection will be through the VSP Producer Survey. A quantified benchmark will be set following data collection. Other sources of data will be evaluated and incorporated as part of the adaptive management process.										
			Multiple ⁵	Pollinator Habitat Creation/ Management											
			649	Structures for Wildlife											
		BM-16 Maintain and/or increase voluntary conservation activities that manage or enhance dryland farming compatibility with wildlife	328	Conservation Crop Rotation	Acres	216.8	6%	13	24.8	124	2,993.0	12,980.40	5560		18,540.40
			340	Cover Crop	Acres	19	6%	1							
			329	Residue and Tillage Management- No Till	Acres	362.8	3%	10.8							
		BM-17 Maintain and/or increase voluntary conservation activities that manage fuel loads to decrease the risk of fire	528	Prescribed Grazing	Acres	2392.3	6%	143.5	344.3	1,721.60	36,657.0	112,786.00	1,478.50		114,264.50
			645	Upland Wildlife Habitat Management	Acres	1755	6%	105.3							
			595	Pest Management	Acres	3184.1	3%	95.5							
		Protect and/or enhance baseline	Protect and/or enhance riparian and wetland habitat through implementation of voluntary conservation activities	BM-3 Maintain and/or increase voluntary conservation activities that protect riparian and wetland habitat	See BM-3 above										
BM-10 Maintain and/or increase voluntary conservation activities that enhance and restore riparian and wetland habitat	See BM-10 above														
BM-7 Maintain and/or increase voluntary conservation activities that reduce wind or water soil erosion	See BM-7 above														

enhance baseline fish and wildlife habitat functions and values of critical areas in Douglas County where agricultural activities occur	Protect and/or enhance aquatic habitat through implementation of voluntary conservation activities	BM-8 Maintain and/or increase voluntary conservation activities that manage chemicals and nutrients	See BM-8 above				
		BM-9 Maintain and/or increase voluntary conservation activities that filter chemicals and sediment	See BM-9 above				
		BM-3 Maintain and/or increase voluntary conservation activities that protect riparian and wetland systems	See BM-3 above				
		BM-1 Maintain and/or increase voluntary conservation activities that promote soil-water holding capacity	See BM-1 above				
Protect and/or enhance baseline critical area functions and values throughout Douglas County where agricultural activities occur	Protect and/or enhance critical areas by securing conservation easements that allow compatible agricultural activities	BM-18 Maintain and/or increase the number of acres in conservation easements that have active, compatible agricultural activities occurring	Conservation easement	Acres	2011 total = 560		

¹ Estimate of enrollments needed to offset anticipated disenrollment rates and maintain baseline protection at the watershed level. Adjustments, based on actual enrollment and/or disenrollment data, may be needed to correct estimated acres or feet of new enrollment needed to maintain baseline protections (see adaptive management Section 9.5 for details).

² To ensure that conversions from Agriculture to non-Agriculture uses do not inappropriately skew benchmarks, acre or feet metrics assessed and reported here may also be assessed and reported as a percentage of acres or feet.

³ To promote long-term program success, the work group will make separate assessments to determine whether protection goals and benchmarks are being met, on one hand, and whether enhancement goals and benchmarks are being met, on the other. See page 7 of this work plan for more detail on the differing statutory consequences for failing to meet protection goals and benchmarks versus failing to meet enhancement goals and benchmarks.

⁴ Organic Certification data from WSU at <http://csanr.wsu.edu/trends-in-washington-agriculture/organic-statistics/>

⁵ Pollinator habitat can be implemented through many voluntary conservation activities, as long as providing pollinator habitat is a stated objective, including but not limited to: Conservation Cover, Field borders, Buffer Strips, Filter Strips, Hedge Rows, Wind Breaks

Benchmark	Unit	Every 5 Year Protection Benchmark (add an additional x acres, feet, etc. to account for discontinuation)	Monitoring Method	Action Threshold: Annual Enrollment < the Summed Buffered Estimate of Annual Discontinuation for Contributing Conservation Activities	Actions	Evaluation Frequency	Who is Responsible
BM-1 Maintain and/or increase voluntary conservation activities that promote soil-water holding capacity	Acres	124.0	- NRCS contract data - CD project data - VSP producer survey data	75.7	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
BM-2 Maintain and/or increase voluntary conservation activities that limit soil compaction	Acres	776.7	- NRCS contract data - CD project data - VSP producer survey data	412.2	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
BM-3 Maintain and/or increase voluntary conservation activities that protect riparian and wetland systems	Acres	979.5	- NRCS contract data - CD project data	400.5	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities - Increase implementation of conservation activities that enhance and restore riparian and wetland habitat	Annual	VSP Coordinator
	Feet	1,410.2	- VSP producer survey data	611.3			
BM-4 Maintain and/or increase voluntary conservation activities that decrease evapotranspiration	Acres	119.0	- NRCS contract data - CD project data - VSP producer survey data	72.6	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
BM-5 Maintain and/or increase voluntary conservation activities that promote the efficient use of irrigation water	Acres	5.0	- NRCS contract data - CD project data - VSP producer survey data	2.4	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
BM-6 Maintain and/or increase voluntary conservation activities that promote the beneficial use of water in ranching	Disenrollment rate = 0		- NRCS contract data - CD project data - VSP producer survey data	None		Annual	VSP Coordinator
BM-7 Maintain and/or increase voluntary conservation activities that reduce wind or water soil erosion	Acres	847.0	- NRCS contract data - CD project data - VSP producer survey data	462.1	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
BM-8 Maintain and/or increase voluntary conservation activities that manage chemicals and nutrients	Acres	1,397.0	- NRCS contract data - CD project data - VSP producer survey data	592.5	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
	Acres	2,200.0	data from WSU at http://csanr.wsu.edu/trends-in-washington-agriculture/organic-statistics/	Enrollment drops to < 2,640 acres¹			
BM-9 Maintain and/or increase voluntary conservation activities that filter chemicals and sediment	Acres	75.0	- NRCS contract data - CD project data - VSP producer survey data	51.8	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
BM-10 Implement voluntary conservation activities that enhance and restore riparian and wetland habitat	Enhancement only		- NRCS contract data - CD project data - VSP producer survey data	Increase implementation of conservation activities that enhance and restore riparian and wetland habitat triggered if the trigger for BM-3 reached			
BM-11 Maintain and/or increase voluntary conservation activities that decrease soil bulk density and increase heterogeneity	Acres	124.0	- NRCS contract data - CD project data - VSP producer survey data	75.7	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
BM-12 Maintain and/or increase voluntary conservation activities that add organic matter to soil	Acres	124.0	- NRCS contract data - CD project data - VSP producer survey data	79.2	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
BM-13 Maintain and/or increase voluntary conservation activities that manage or enhance upland habitat for wildlife	Acres	529.0	- NRCS contract data - CD project data - VSP producer survey data	315.8	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
BM-14 Maintain and/or increase voluntary conservation activities that manage or enhance livestock compatibility with wildlife	Acres	717.1	- NRCS contract data - CD project data	383.9	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
	Feet	1,410.2	- VSP producer survey data	611.3			
BM-15 Maintain and/or increase voluntary conservation activities that manage or enhance orchard compatibility with wildlife	Adaptive management to be developed when data becomes available		- CD project data - VSP producer survey data	Adaptive management to be developed when data becomes available		Annual	VSP Coordinator

BM-16 Maintain and/or increase voluntary conservation activities that manage or enhance dryland farming compatibility with wildlife	Acres	124.0	- NRCS contract data - CD project data - VSP producer survey data	28.8	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
BM-17 Maintain and/or increase voluntary conservation activities that manage fuel loads to decrease the risk of fire	Acres	1,721.6	- NRCS contract data - CD project data - VSP producer survey data	972.6	- Check the numbers through verification of data and survey results - Increase outreach to producers - Seek additional cost share opportunities	Annual	VSP Coordinator
BM-18 Maintain and/or increase the number of acres in conservation easements that have active, compatible agricultural activities occurring	Disenrollment rate = 0		Data from Chelan Douglas Land Trust	None		Annual	VSP Coordinator
¹ This action threshold is 120% of actual 2011 enrollment, not the 2004-2011 average of enrollment.							