

# Checklist of Resource Concerns

## CROPLAND

JULY 2014

<b>CLIENT</b>		<b>LOCATION</b>			
<b>PLANNER</b>		<b>MODIFIERS</b>	Irrigated		
<b>LAND UNITS</b>		<b>FARM No.</b>		<b>Wildlife</b>	
<b>DATE</b>		<b>TRACT No.</b>		<b>Grazed</b>	

This check sheet is designed to assist planners and clients in identifying resource concerns during the planning process. The planning criteria in Section III of the eFOTG sets the minimum level of treatment needed. If a screening question is NO, this indicates no resource concern exists and no assessment is required. If a screening question is YES, the assessment must be completed to evaluate if there is a resource concern. If the Assessment is YES, Planning Criteria is met. If the Assessment is NO, the Planning Criteria is not met and a Resource Concern exists.

**Cropland** - Land used primarily for the production and harvest of annual or perennial field, forage, food, fiber, horticultural, orchards, vineyards and/or energy crops.

Resource Concern	Screening Questions  No = Met Screening (Not a Resource Concern) YES = Needs to be Assessed  <i>Suggested soils reports are italicized</i>	YES or NO or NA (Not Applicable)	Assessment Tools  (check all that were used)	Assessment Level Required to Meet Planning Criteria  YES = Meets Planning Criteria  NO = Resource Concern	YES or NO or NA (Not Applicable)
<b>SOILS RESOURCES</b>					
<b>1. SOIL EROSION: Sheet and rill</b>  <b>AND</b>  <b>Wind</b>	Are slopes greater than 10%? (When ground surface cover is greater than 80% during the entire rotation, answer NO.)		<input type="checkbox"/> Revised Universal Soil Loss Equation Version 2 (RUSLE2)  <input type="checkbox"/> Visual Inspection	Is the Water erosion rate less than or equal to T?  <b>AND</b>  Is the Wind erosion rate less than or equal to T?  (T = Tolerable Soil Loss)	
	Is ground surface cover less than 60% during any period of the rotation?		<input type="checkbox"/> Wind Erosion Prediction System (WEPS)  <input type="checkbox"/> Visual Inspection		
<b>2.SOIL EROSION: Concentrated flow erosion</b>	Do ephemeral gullies occur?  <b>AND/OR</b> Are classic gullies present?		<input type="checkbox"/> Field measurements  <input type="checkbox"/> Visual Inspection	Are conservation practices and managements in place to prevent or control ephemeral gullies?  <b>AND</b>  Is classic gully management adequate to stop the progression of head cutting and widening and are offsite impacts minimized by vegetation and/or structures?	

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3. SOIL EROSION: Excessive bank erosion from streams, shorelines or water conveyance channels	Are streams or shoreline on or adjacent to site?  <b>AND/OR</b> Is bank erosion from streams, shorelines or conveyance channels present?		<input type="checkbox"/> Stream Visual Assessment Protocol Version 2 (SVAP 2)	For shorelines and water conveyance channels:  Are banks stable or commensurate with normal geomorphological processes?  <b>AND</b> <b>For streambanks;</b> Is SVAP2 bank condition element score greater than or equal to 7?  <b>OR</b> Bank erosion caused solely by upstream/ upland landuse and management decisions that are beyond the client's control.	
4. SOIL QUALITY DEGRADATION: Subsidence	Are there Histisol soils present exhibiting subsidence?  <i>Hydric Soils, Soil Features</i>		<input type="checkbox"/> Visual Inspection	Is subsidence adequately managed to meet the client's objectives?	
5. SOIL QUALITY DEGRADATION: Compaction	Is soil compaction a problem?  <b>OR</b> Do activities cause soil compaction problems?		<input type="checkbox"/> Soil Compaction Tester  <input type="checkbox"/> Observation of soil and plant condition	Is compaction managed to meet Client's production and management objectives?	
6. SOIL QUALITY DEGRADATION: Organic matter depletion	Is permanent ground cover less than 80%?		<input type="checkbox"/> Revised Universal Soil Loss Equation Version 2 (RUSLE2)  <input type="checkbox"/> Wind Erosion Prediction System (WEPS) Soil Conditioning Index  <input type="checkbox"/> Observation of soil and plant condition  <input type="checkbox"/> Soil Test	Soil Condition Index (SCI) is greater than 0.3	
7. SOIL QUALITY DEGRADATION: Concentration of Salts or other chemicals	Do activities cause salinity/sodicity problems?		<input type="checkbox"/> Soil Test  <input type="checkbox"/> Visual Inspection	Are conservation practices and managements in place to mitigate on-site effects?	

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<b>WATER RESOURCES</b>					
<b>8. EXCESS WATER:</b> Ponding, flooding, seasonal high water table, seeps and drifted snow	Is excess water a problem? <b>OR</b> Do activities cause ponding/flooding problems? <i>Map Unit Descriptions (MUD), Water Features</i>		<input type="checkbox"/> Visual Inspection  <input type="checkbox"/> Web Soil Survey (flooding, frequency, class)	Is excess water managed to meet Client's objectives?	
<b>9. INSUFFICIENT WATER:</b> Inefficient moisture management	Is Moisture Management a problem? <b>OR</b> Do activities cause inefficient moisture management?		<input type="checkbox"/> Visual Inspection	Are runoff and evapotranspiration levels minimized to meet Client's management objectives?	
<b>10. INSUFFICIENT WATER:</b> Inefficient use of irrigation water	Is the Planned Land Unit (PLU) irrigated?  <b>AND</b> Is there a stream present ?		<input type="checkbox"/> Farm Irrigation Rating Index (FIRI) WA 2014  <input type="checkbox"/> Stream Visual Assessment Protocol Version 2 (SVAP 2)	Is the Irrigation System efficiency greater than or equal to 85%? <b>OR</b> Less than 10% water savings meets Planning Criteria and is not a resource concern.  <b>AND</b> Are SVAP2 hydrologic alteration element and barriers to fish movement element scores greater than or equal to 7?	
<b>11. WATER QUALITY DEGRADATION:</b> Excess nutrients in surface and groundwater	Are organic or inorganic nutrients applied? <b>OR</b> Is the Planned Land Unit (PLU) grazed?  <b>OR</b> Is there a water course on or adjacent to the site with State Agency identified nutrient impairment? (Washington Department of Ecology 303d listed for nutrients)		<input type="checkbox"/> Revised Universal Soil Loss Equation Version 2 (RUSLE2) <input type="checkbox"/> Wind Erosion Prediction System (WEPS) <input type="checkbox"/> 303d Listing or Maps <input type="checkbox"/> Washington Water Quality Technical Note 1 <input type="checkbox"/> Washington Water Quality Technical Note 2 <input type="checkbox"/> Washington Water Quality Technical Note 3 <input type="checkbox"/> Stream Visual Assessment Protocol Version 2 (SVAP 2) <input type="checkbox"/> Nutrient Budget <input type="checkbox"/> Soil Test	Are nutrients applied, based on a soil test, tissue tests or nutrient budget?  <b>AND</b> Are conservation practices and management in place to minimize offsite impacts?  <b>AND</b> Is SVAP2 nutrient enrichment element score greater than or equal to 7?	

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12. WATER QUALITY DEGRADATION: Pesticides transported to surface and groundwaters	<p>Are pest control chemicals applied?</p> <p>OR</p> <p>Is there a water course on or adjacent to the site with State Agency identified pesticides impairment? (Washington Department of Ecology 303d listed for pesticides)</p>		<input type="checkbox"/> Windows Pesticide Screening Tool (WinPST)  <input type="checkbox"/> 303d Listing or Maps <input type="checkbox"/> Washington Water Quality Technical Note 1  <input type="checkbox"/> Revised Universal Soil Loss Equation Version 2 (RUSLE2) <input type="checkbox"/> Wind Erosion Prediction System (WEPS)  <input type="checkbox"/> Stream Visual Assessment Protocol Version 2 (SVAP 2)	<p>Are pesticides stored, handled, disposed and managed to prevent runoff, spills, leaks and leaching?</p> <p>AND</p> <p>Are conservation practices and management in place to minimize offsite impacts?</p> <p>AND</p> <p>Is SVAP2 water appearance element score greater than or equal to 7?</p>	
13. WATER QUALITY DEGRADATION: Excess pathogens and chemicals from manure, biosolids or compost applications	<p>Is manure, biosolids or compost applied on the land (potential sources of pathogens or pharmaceuticals)</p> <p>OR</p> <p>Is there a water course on or adjacent to the site with State Agency identified fecal coliform impairment? (Washington Department of Ecology 303d listed for fecal coliform)</p>		<input type="checkbox"/> 303d Listing or Maps  <input type="checkbox"/> Revised Universal Soil Loss Equation Version 2 (RUSLE2)  <input type="checkbox"/> Wind Erosion Prediction System (WEPS)  <input type="checkbox"/> Washington Water Quality Technical Note 1  <input type="checkbox"/> Stream Visual Assessment Protocol Version 2 (SVAP 2)	<p>Are organic materials applied, stored, and/or handled to mitigate negative impacts to water sources?</p> <p>AND</p> <p>Are conservation practices and management in place to minimize offsite impacts?</p> <p>AND</p> <p>Are SVAP2 water appearance element and manure or human waste element scores greater than or equal to 7?</p>	
14. WATER QUALITY DEGRADATION: Excessive salts in surface and groundwater	<p>Is salt concentration a limiting factor?</p> <p>OR</p> <p>Is there a water course on or adjacent to the site with State Agency identified pH impairment? (Washington Department of Ecology 303d listed for pH)</p> <p><i>Chemical Properties</i></p>		<input type="checkbox"/> 303d Listing or Maps  <input type="checkbox"/> Revised Universal Soil Loss Equation Version 2 (RUSLE2)  <input type="checkbox"/> Wind Erosion Prediction System (WEPS)  <input type="checkbox"/> Washington Water Quality Technical Note 1  <input type="checkbox"/> Stream Visual Assessment Protocol Version 2 (SVAP 2)	<p>Are salt concentrations managed to mitigate off-site transport to surface or ground waters?</p> <p>AND</p> <p>Are conservation practices and management in place to minimize offsite impacts?</p> <p>AND</p> <p>Is SVAP2 salinity element score greater than or equal to 6?</p>	

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15. WATER QUALITY DEGRADATION: Petroleum, heavy metals and other pollutants transported to receiving waters	Do activities present the potential for contamination?  <b>OR</b> Is there a water course on or adjacent to the site with State Agency identified heavy metals impairment? (Washington Department of Ecology 303d listed for heavy metals)		<input type="checkbox"/> 303d Listing or Maps  <input type="checkbox"/> Washington Water Quality Technical Note 1  <input type="checkbox"/> Revised Universal Soil Loss Equation Version 2 (RUSLE2)  <input type="checkbox"/> Stream Visual Assessment Protocol Version 2 (SVAP 2)	Are petroleum, heavy metals or other potential pollutants stored and handled to avoid runoff or leaching?  <b>AND</b> Are conservation practices and management in place to minimize offsite impacts?  <b>AND</b> Is SVAP2 water appearance element score greater than or equal to 7?	
16. WATER QUALITY DEGRADATION: Excessive sediment in surface waters  T = Tolerable Soil Loss	Are slopes greater than 10%? (When ground surface cover is greater than 80% during the entire rotation, answer NO.)  <b>OR</b> Are classic gullies present?  <b>OR</b> Are streams or shoreline on or adjacent to the site?  <b>OR</b> Is there a water course on or adjacent to the site with State Agency identified sediment impairment? (Washington Department of Ecology 303d listed for sediment)		<input type="checkbox"/> Washington Water Quality Technical Note 1  <input type="checkbox"/> 303d Listing or Maps  <input type="checkbox"/> Stream Visual Assessment Protocol Version 2 (SVAP 2)  <input type="checkbox"/> Revised Universal Soil Loss Equation Version 2 (RUSLE2)  <input type="checkbox"/> Wind Erosion Prediction System (WEPS)	Do upslope treatment and buffer practices address concentrated flows to water bodies?  <b>AND</b> Are livestock and vehicle water crossings stable?  <b>AND</b> SVAP2 - Bank condition element greater than or equal to 7?  <b>AND</b> Is water erosion rate less than or equal to T?  <b>AND</b> Is wind erosion rate less than or equal to T?	

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<p><b>17. WATER QUALITY DEGRADATION: Elevated water temperature</b></p>	<p>Is there a water course on or adjacent to the site with State Agency identified temperature impairment? (Washington Department of Ecology 303d listed for temperature)</p>		<p><input type="checkbox"/> 303d Listing or Maps</p> <p><input type="checkbox"/> Stream Visual Assessment Protocol Version 2 (SVAP 2)</p>	<p>Is SVAP2 - riparian area quality element score greater than or equal to 7?</p> <p><b>AND</b></p> <p>Is SVAP2 - riparian area quantity element score greater than or equal to 7?</p> <p><b>AND</b></p> <p>Is SVAP2 - canopy cover element score greater than or equal to 7?</p> <p><b>OR</b></p> <p>Are existing practices in place to address water temperature?</p>	
<p><b>PLANT RESOURCES</b></p>					
<p><b>18. DEGRADED PLANT CONDITION: Undesirable plant productivity and health</b></p>	<p>Are plant production and health a client concern?</p>		<p><input type="checkbox"/> Crop Tolerance Table (National Agronomy Manual Table 502-1)</p> <p><input type="checkbox"/> Wind Erosion Prediction System (WEPS)</p> <p><input type="checkbox"/> Visual Inspection</p>	<p>Are plants adapted to the site, meet production goals and do not negatively impact other resources?</p> <p><b>AND</b></p> <p>Is plant damage from wind erosion below Crop Damage Tolerance levels?</p>	
<p><b>19. DEGRADED PLANT CONDITION: Inadequate structure and composition</b></p>			<p><input type="checkbox"/> Visual Inspection</p>		
<p><b>20. DEGRADED PLANT CONDITION: Excessive plant pest pressure</b></p>	<p>Is plant productivity limited from pest pressure?</p>		<p><input type="checkbox"/> County Noxious Weed Lists</p> <p><input type="checkbox"/> Visual Inspection</p>	<p>Is pest damage to plants below economic or environmental thresholds or client- identified criteria?</p> <p><b>AND</b></p> <p>Are plant pests, including noxious and invasive species managed to meet client objectives?</p>	
<p><b>21. DEGRADED PLANT CONDITION: Wildfire hazard, excessive biomass accumulation</b></p>	<p>Is wildfire hazard a concern?</p>		<p><input type="checkbox"/> Visual Inspection</p>	<p>Are fuel loads and fuel ladders managed to provide defensible space and meet client objectives?</p>	

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<b>23. LIVESTOCK PRODUCTION LIMITATION: Inadequate feed and forage</b>	(Grazing Modifier) Is the Planning Land Unit (PLU) grazed?  <i>Range Productivity, Range Vegetation Classification, Plant Composition</i>	<div style="background-color: #e0e0e0; width: 100%; height: 100%;"></div>	<input type="checkbox"/> Livestock Forge Balance Worksheet	Are livestock forage, roughage and supplemental nutritional requirements addressed?	<div style="background-color: #e0e0e0; width: 100%; height: 100%;"></div>
<b>24. LIVESTOCK PRODUCTION LIMITATION: Inadequate livestock shelter</b>	(Grazing Modifier) Is the Planning Land Unit (PLU) grazed?	<div style="background-color: #e0e0e0; width: 100%; height: 100%;"></div>	<input type="checkbox"/> Visual Inspection	Do artificial or natural shelters meet animal health needs and client objectives?	<div style="background-color: #e0e0e0; width: 100%; height: 100%;"></div>
<b>25. LIVESTOCK PRODUCTION LIMITATION: Inadequate livestock water</b>	(Grazing Modifier) Is the Planning Land Unit (PLU) grazed?	<div style="background-color: #e0e0e0; width: 100%; height: 100%;"></div>	<input type="checkbox"/> Washington Engineering Technical Note 19: Water Requirements-Beef Cattle  <input type="checkbox"/> Washington Water Quality Technical Note 1	Is water of acceptable quality and quantity adequately distributed to meet animal needs?	<div style="background-color: #e0e0e0; width: 100%; height: 100%;"></div>
	<b>AND</b> Is there a stream present ?	<div style="background-color: #e0e0e0; width: 100%; height: 100%;"></div>	<input type="checkbox"/> Stream Visual Assessment Protocol Version 2 (SVAP 2)	Are SVAP2 water appearance element and manure or human waste element scores greater than or equal to 8?	<div style="background-color: #e0e0e0; width: 100%; height: 100%;"></div>

Notes: