

**Table 1 – Quality Criteria - Water Quantity**

<b>RESOURCE CONCERN DEFINITIONS</b>	<b>QUALITY CRITERIA</b>	<b>ASSESSMENT TOOL</b>	<b>PRACTICES THAT MAY PROVIDE POSITIVE ENVIRONMENTAL EFFECTS*</b>
<u>Excess amounts (poor drainage):</u> Subsurface water accumulates in the soil profile restricting the desired land use.	Subsurface water is reduced to a level that no longer restricts the desired land use and the system meets federal and state regulations.	Visual observation	Subsurface Drain 606 Structure for Water Control 587 Surface Drainage, Field Ditch 607 Surface Drainage, Main or Lateral 608 Pumping Plant for Water Control 533
	Subsurface water is utilized to restore wetland ecosystem.	Visual Observation  EFM Chapter 13	Conservation Cover 327 Wetland Wildlife Habitat Management 644 Wetland Restoration 657 Wetland Enhancement 659
<u>Excess amounts (runoff/ponding):</u> water accumulates on the land surface and restricts the desired land use.	Ponding and excess surface runoff is reduced to a level that does not adversely affect the desired land use.	Visual observation	Contour Buffer Strip 332 Contour Stripcropping 585 Diversion 362 Pond 378 Subsurface Drain 606 Structure for Water Control 587 Surface Drainage, Field Ditch 607 Surface Drainage, Main or Lateral 608 Water and Sediment Control Basin 638 Terrace 600
	Subsurface water is utilized to restore wetland ecosystem.	Visual observation  EFM Chapter 13	Conservation Cover 327 Wetland Wildlife Habitat Management 644 Wetland Restoration 657 Wetland Enhancement 659
<u>Excess amounts (seeps):</u> Subsurface water flows on to the surface restricting the desired land use.	Seeps do not cause accumulation of surface waters in volumes that restrict the desired land use.	Visual observation	Subsurface Drain 606 Structure for Water Control 587 Surface Drainage, Field Ditch 607 Surface Drainage, Main or Lateral 608
	Subsurface water is utilized to restore wetland ecosystem.	Visual observation  EFM Chapter 13	Conservation Cover 327 Wetland Wildlife Habitat Management 644 Wetland Restoration 657 Wetland Enhancement 659

<p><u>Deficient amounts</u>: Soil moisture is insufficient to sustain growth of desired vegetation.</p>	<p>Management decisions provide optimum use of natural or applied moisture for the intended land use. Applied water is in balance with expected seasonally available moisture and does not deplete the water resource.</p>	<p>Visual observation.</p>	<p>Crop Residue Use 344 Irrigation Land Leveling 464 Irrigation System, Sprinkler 442 Mulching 484 Residue Management, No-Till and Strip Till 329A Residue Management, Mulch Till 329B Residue Management, Ridge Till 329C Terrace 600</p>
<p><u>Inadequate outlets</u>: Water conveyance channels and structures to collect and remove water from the land are unsuitable.</p>	<p>All water discharges are safely disposed of through stable outlets that have adequate capacity.</p>	<p>Visual observation  EFM Chapter 13</p>	<p>Pumping Plant for Water Control 533 Structure for Water Control 587 Subsurface Drain 606</p>
<p><u>Restricted capacity (sediment deposition in ponds, lakes, and conveyance systems, etc.)</u>: Loss of conveyance and storage capacity in ponds, lakes, etc.</p>	<p>Storage and conveyance capacity is maintained/improved/restored and the actions of the decision-maker do not adversely contribute to the identified problem.</p>	<p>Visual observation  Sediment Delivery Model</p>	<p>Conservation Cover 327 Conservation Crop Rotation 328 Contour Buffer Strips 332 Contour Farming 330 Contour Stripcropping 585 Filter Strip 393 Grade Stabilization Structure 410 Grassed Waterway 412 Prescribed Grazing 528A Residue Management, No-Till and Strip Till 329A Residue Management, Mulch Till 329B Residue Management, Ridge Till 329C Residue Management, Seasonal 344 Riparian Forest Buffer 391 Sediment Basin 350 Structure for Water Control 587 Terrace 600 Water and Sediment Control Basin 638</p>

\*Combination of practices which will likely meet quality criteria may be found in the FOTG, Section V.

**Table 1 – Quality Criteria - Water Quality (Ground)**

RESOURCE CONCERN DEFINITIONS	QUALITY CRITERIA	ASSESSMENT TOOL	PRACTICES THAT MAY PROVIDE POSITIVE ENVIRONMENTAL EFFECTS*
<p><u>Ground water contamination (nutrients and organics)</u>: Ground water pollution problems that result from the addition of natural, manufactured, animal, or other sources of nutrients (N, P, K, and heavy metals).</p>	<p>Application of all added nutrients is in balance with plant requirements, considering all nutrient sources, soil characteristics, optimum yield goals, climatic factors, and methods and timing of application. IDNR regulations for livestock waste management are met.</p>	<p>Soil Quality Test Kit P Index Manure Analysis Corn Stalk Test (ISU) Soil Tests Late Spring Nitrate Test (ISU) Visual Observation</p>	<p>Conservation Cover 327 Conservation Crop Rotation 328 Contour Buffer Strips 332 Contour Stripcropping 585 Cover and Green Manure Crop 340 Diversion 362 Filter Strip 393 Grassed Waterway 412 Nutrient Management 590 Pasture and Hayland Planting 512 Riparian Forest Buffer 391 Waste Utilization 633 Wetland Creation 658</p>
<p><u>Ground water contamination (pesticides)</u>: Ground water pollution problems that occur as a result of inappropriate use of pesticides.</p>	<p>Pests are managed in a manner that does not adversely affect ground water quality. Includes pest scouting and using alternative methods of pest control, using the lowest effective amounts of pesticide, and rotating pesticides.</p>	<p>Soil Quality Test Kit WinPST Visual Observation</p>	<p>Conservation Cover 327 Conservation Crop Rotation 328 Contour Buffer Strips 332 Contour Stripcropping 585 Diversion 362 Filter Strip 393 Grassed Waterway 412 Pasture and Hay Planting 512 Pest Management 595 Riparian forest Buffer 391</p>

\*Combination of practices which will likely meet quality criteria may be found in the FOTG, Section V.

**Table 1 – Quality Criteria - Water Quality (Surface)**

RESOURCE CONCERN DEFINITIONS	QUALITY CRITERIA	ASSESSMENT TOOL	PRACTICES THAT MAY PROVIDE POSITIVE ENVIRONMENTAL EFFECTS*
<p><u>Surface water contamination (nutrients and organics)</u>: Pollution problems that result from the application of nutrients, especially N, P, and total organic carbon.</p>	<p>Application of all added nutrients is in balance with plant requirements, considering all nutrient sources, soil characteristics, optimum yield goals, climatic factors, and methods and timing of application. IDNR regulations regarding livestock waste management are met.</p>	<p>Soil Quality Test Kit  P Index  Soil Tests  Manure Analysis  Corn Stalk Test (ISU)  Late Spring Nitrate Test (ISU)</p>	<p>Conservation Cover 327 Conservation Crop Rotation 328 Contour Stripcropping 585 Cover and Green Manure Crop 340 Filter Strip 393 Grassed Waterway 412 Nutrient Management 590 Pasture and Hay Planting 512 Riparian Forest Buffer 391 Waste Storage Facility 313 Waste Utilization 633 Wetland Creation 658</p>
<p><u>Surface water contamination (pesticides)</u>: Surface water pollution problems that result from the use of pesticides.</p>	<p>Pests are managed in a manner that does not adversely affect ground water quality. Includes pest scouting and using alternative methods of pest control, using the lowest effective amounts of pesticide, and rotating pesticides.</p>	<p>Soil Quality Test Kit  WinPST  Visual Observation</p>	<p>Conservation Cover 327 Conservation Crop Rotation 328 Contour Stripcropping 585 Cover and Green Manure Crop 340 Filter Strip 393 Grassed Waterway 412 Nutrient Management 590 Pest Management 595 Riparian forest Buffer 391</p>
<p><u>Surface water contamination (sediment and suspended solids)</u>: Water pollution from suspended sediment and turbidity.</p>	<p>Treated acres do not contribute contaminants at a level that adversely affects the surface water resource.</p>	<p>Water Quality Monitoring Kit  Visual Observation</p>	<p>Contour Buffer Strips 332 Contour Stripcropping 585 Diversion 362 Filter Strip 393 Grade Stabilization Structure 410 Grassed Waterway 612 Nutrient Management 590 Residue Management, Seasonal 344 Riparian Forest Buffer 391 Terrace 600</p>

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