

Metropolitan Council, Environmental Services  
**Curricula Supporting Water Quality Projects**  
**Aligned with Minnesota Graduation Standards**

1 = Very strong, direct connection at this grade level  
 2 = Requires some adaptation for a strong connection  
 b = Good background for this standard

	• PROJECTS •	General Issues	Reconnaissance	Water Testing	Soil Testing	Clean-Ups	Aquatic Habitat	Prevent Erosion	Stencil Drains	Public Education	• STANDARDS •	Background	1. Read, View, Listen	2. Write and Speak	3. Arts and Literature	4. Mathematical Aps.	5. Inquiry (Research Skills)	6. Scientific Aps.	7. Social Studies	8. Decision-Making	9. Resource Manag.	10. World Languages
<b>Grades K-12</b>																						
<i>Save Our Streams</i>																						
• Watersheds Unit, p. 4 (overview, including stream walk).	1	1	-	-	-	-	-	-	1	1												
• Measuring Stream Health Unit, p. 43 (biological, chem.).	1	-	1	-	-	-	-	-	1	1												
• Relationship... Land Use & Water Quality Unit, p. 79.....	1	1	-	1	1	1	1	1	1	1												
• Extensions (hist., newsletter, media, laws, game), p. 134.	1	-	-	-	-	-	-	-	-	1												
<i>Wonders of Wetlands</i> - Excellent habitat related activities....	-	1	1	-	-	1	1	1	1	1												
<i>Aquatic Project Wild</i>																						
• Aquatic Times, p. 126 (develop newspaper).....	1	-	-	-	-	-	-	-	1	1												
<b>Grades K-3</b>																						
<i>Environmental Resource Guide (ERG)</i>																						
• What Goes Around Comes Around, p. 8 (pollution).....	1	-	-	-	-	-	-	-	-	1		1	-	1	-	-	-	1	-	-	-	-
• A Hiking We Will Go, p. 11 (basic field reconnaissance)..	1	1	-	-	-	-	-	-	-	1		1	-	1	-	-	-	1	-	-	-	-
• Don't Runoff, p. 27 (types pollution, sources in runoff)...	1	-	-	-	-	-	-	1	-	1		1	-	-	-	-	-	1	-	-	-	-
• Pond Scum, p. 41 (observe types & effects of pollution)...	1	-	1	1	-	-	-	-	1	1		1	-	1	-	-	-	1	-	-	-	-
• Down with Pollutants, p. 51 (model groundwater pollut.).	1	-	-	-	-	-	-	-	-	1		1	-	-	-	-	-	1	-	-	-	-
• Can It, p. 59 (clean up and analysis of trash).....	1	-	-	-	1	-	-	-	1	1		1	-	-	-	-	-	2	-	-	-	-
• Pollution Solutions, p. 67 [Assessment].....	1	-	-	-	-	-	-	-	-	1												
<i>(Following from ERG Grades 3-5 Book)</i>																						
• Can You 'Point' It Out? p. 5 (overview).....	1	-	-	-	-	-	-	-	-	1		1	-	-	-	-	-	2	-	-	-	-
• I Spy, p. 21 (types, characteristics of nonpoint pollution).	1	1	-	-	-	-	-	-	-	-		1	-	-	-	-	-	2	-	-	-	-
• Nasty Waters, 31 (simulate polluted pond).....	1	-	-	-	1	-	-	-	1	1		1	-	-	-	-	-	1	-	-	-	-
• Wet Blankets, p. 39 (explore soil erosion).....	1	-	-	-	-	-	-	1	-	-		1	-	-	-	-	-	1	-	-	-	-
• Too Many Nutrients, p. 45 (observe nutrient pollution)....	1	-	-	1	-	-	-	-	1	-		1	-	-	-	-	-	2	-	-	-	-
• Danger - Pesticides, p. 49 (obs. groundwater pollution)....	1	-	-	-	-	-	-	-	-	1		1	-	-	-	-	-	2	-	-	-	-
• From Streets to Streams, p. 57 (urban runoff model).....	1	1	-	-	-	-	-	-	1	1		1	-	-	-	-	-	2	-	-	-	-
• Leaky Landfills, p. 63 (model landfill with leachate).....	1	-	-	-	1	-	-	-	-	1		1	-	-	-	-	-	2	-	-	-	-
• Riprap Roads, p. 71 (erosion-prevention measures).....	1	-	-	-	-	-	-	1	-	-		1	-	-	-	-	-	2	-	-	-	-
• Stop That Soil! p. 75 (construction erosion prevention)....	1	1	-	-	-	-	-	1	-	1		1	-	-	-	-	-	2	-	-	-	-
• Farming Ugly! p. 83 (agricultural erosion prevention).....	1	1	-	-	-	-	-	1	-	1		1	-	-	-	-	-	2	-	-	-	-
<b>Grades K-5</b>																						
<i>Project WET</i>																						
• Stream Sense, p. 191 (basic stream reconnaissance).....	1	1	1	-	-	-	-	-	-	1												
• A-maze-ing Water, p. 219 (nonpoint source pollutants)....	1	1	-	-	-	-	-	-	1	1												

Metropolitan Council, Environmental Services  
**Curricula Supporting Water Quality Projects**  
**Aligned with Minnesota Graduation Standards**

1 = Very strong, direct connection at this grade level  
 2 = Requires some adaptation for a strong connection  
 b = Good background for this standard

	• PROJECTS •	General Issues	Reconnaissance	Water Testing	Soil Testing	Clean-Ups	Aquatic Habitat	Prevent Erosion	Stencil Drains	Public Education	• STANDARDS •	Background	1. Read, View, Listen	2. Write and Speak	3. Arts and Literature	4. Mathematical Aps.	5. Inquiry (Research Skills)	6. Scientific Aps.	7. Social Studies	8. Decision-Making	9. Resource Manag.	10. World Languages
<b>Grades 3-5</b>																						
<i>The Water Sourcebook</i>																						
• Shedding Light on Watersheds, p. 1-39 (model landform)		1	1	-	-	-	-	-	1	1												
• Wetland in a Bottle, p. 2-63 (model wetland as filter).....		1	-	1	-	-	1	1	-	1												
• Settling the Wastewater Problem, p. 2-73 (settling pond)..		1	1	-	-	-	1	1	1	1												
• Living in Water, p. 3-13 (model pond ecosystem).....		1	1	1	-	-	1	-	-	1												
• N, B, & T: Pollutants Three, p. 3-35 (types of pollutants).		1	-	-	-	-	-	-	-	1												
• Stop that Sediment, p. 3-41 (erosion sources).....		1	1	-	1	-	-	1	-	1												
• Pollution Pete Patrol, p. 3-63 (pollution from boating).....		-	-	-	-	1	-	-	-	1												
• Wonderful, Waterful Wetlands, p. 5-1 (model filtering).....		1	1	1	-	-	1	1	-	1												
• What Can You Do? p. p. 5-21 (create wetland posters).....		1	-	-	-	-	1	-	-	1												
<b>Grades 3-8</b>																						
<i>Give Water a Hand - Action Guide - All (plan projects).....</i>																						
<i>Project WET</i>																						
• Rainy Day Hike, p. 186 (outdoor observation).....		1	1	-	-	-	-	-	1	1		1	-	-	-	-	1	1	2	-	-	-
• Capture, Store, and Release, p. 133 (model wetland role).		1	-	-	-	-	1	-	-	1												
• Water Address, p. 122 (map a watershed).....		-	-	-	-	-	1	-	-	-												
• Just Passing Through, p. 166 (habitat retention of water)..		1	1	-	-	-	-	1	-	1												
• Sum of the Parts, p. 267 (role play land use impacts).....		1	1	-	-	-	-	-	-	1												
• Humpty Dumpty, p. 316 (examine habitat restoration).....		-	1	-	-	-	1	1	-	1												
• Macroinvertebrate Mayhem, p. 322 (bio. monitoring).....		1	-	1	-	-	-	-	-	1												
• Water Celebration, p. 446 (plan a public festival).....		-	-	-	-	-	-	-	-	1												
<i>Bottle Biology</i>																						
• TerrAqua Column, p. 61 (model impacts of nutrients).....		1	-	1	1	-	-	1	-	1												
<i>Teaching Tank</i>																						
• Fertilizer Pollution (model impacts of nutrients).....		1	-	1	1	-	-	1	-	1												
• Macro-Pond Life (model impacts of nutrients).....		1	-	1	1	-	-	1	-	1												
<i>Aquatic Project Wild</i>																						
• Watered Down History, p. 116 (culture, history).....		1	1	-	-	-	1	1	1	1												
• The Glass Menagerie, p. 130 (model nutrient impacts).....		1	-	1	1	-	-	1	-	1												
• Something's Fishy Here, p. 176 (examine case study).....		1	1	-	-	-	-	-	1	1												

Metropolitan Council, Environmental Services  
**Curricula Supporting Water Quality Projects**  
**Aligned with Minnesota Graduation Standards**

1 = Very strong, direct connection at this grade level  
 2 = Requires some adaptation for a strong connection  
 b = Good background for this standard

	• PROJECTS •	General Issues	Reconnaissance	Water Testing	Soil Testing	Clean-Ups	Aquatic Habitat	Prevent Erosion	Stencil Drains	Public Education	• STANDARDS •	Background	1. Read, View, Listen	2. Write and Speak	3. Arts and Literature	4. Mathematical Aps.	5. Inquiry (Reserach Skills)	6. Scientific Aps.	7. Social Studies	8. Decision-Making	9. Resource Manag.	10. World Languages
<b>Grades 4-5</b>																						
<i>Environmental Resource Guide (ERG)</i>																						
• Can You 'Point' It Out? p. 5 (overview).....	-	-	-	-	-	-	-	-	-	1		1	-	-	-	-	-	b	-	-	-	-
• I Spy, p. 21 (types, characteristics of nonpoint pollution).	-	1	-	-	-	-	-	-	-	-		1	-	-	-	-	1	2	-	-	-	-
• Nasty Waters, p. 31 (simulate polluted pond).....	1	-	-	-	-	1	-	-	1	1		1	-	-	-	-	-	1	-	-	-	-
• Wet Blankets, p. 39 (explore soil erosion).....	-	-	-	-	-	-	-	1	-	-		1	-	-	-	-	-	1	-	-	-	-
• Too Many Nutrients, p. 45 (observe nutrient pollution)....	1	-	-	1	-	-	-	-	1	-		1	-	-	-	-	-	2	-	-	-	-
• Danger - Pesticides, p. 49 (groundwater pollution).....	1	-	-	-	-	-	-	-	-	1		1	-	-	-	-	1	2	-	-	-	-
• From Streets to Streams, p. 57 (observe urban runoff ).....	1	1	-	-	1	-	-	-	1	1		1	-	-	-	-	-	2	-	-	-	-
• Leaky Landfills, p. 63 (model leachate of landfill model).	1	-	-	-	1	-	-	-	-	1		1	-	-	-	-	1	2	-	-	-	-
• Riprap Roads, p. 71 (erosion-prevention measures).....	1	-	-	-	-	-	-	1	-	-		1	-	-	-	-	1	2	-	-	-	-
• Stop That Soil! p. 75 (construction erosion prevention)....	1	1	-	-	-	-	-	1	-	1		1	-	-	-	-	-	2	-	-	-	-
• Get the Job Done with Less, p. 97 (proper pesticide use)..	1	1	-	-	-	1	-	-	-	1		1	-	-	-	-	1	-	-	-	-	-
• Farming Ugly! p. 83 (agricultural erosion prevention).....	1	1	-	-	-	-	1	-	-	1		1	-	-	-	-	-	2	-	-	-	-
• Pollution Preventers, p. 101 (household chemicals).....	1	1	-	-	-	-	-	-	-	1		1	-	-	-	-	2	-	-	-	-	-
<b>Grades 4-12</b>																						
<i>Aquatic Project Wild</i>																						
• Designing a Habitat, p. 20 (model wetland).....	-	-	-	-	-	-	1	-	-	1		-	-	-	-	-	-	-	-	-	-	-
• Water Canaries, p. 38 (sample aquatic organisms).....	1	-	1	-	-	-	1	-	-	1		-	-	-	-	-	-	-	-	-	-	-
• Micro Odyssey, p. 64 (observe aquatic organisms).....	-	-	1	-	-	-	1	-	-	1		-	-	-	-	-	-	-	-	-	-	-
• Fishy Who's Who, p. 86 (local fish populations).....	-	1	1	-	-	-	1	-	-	1		-	-	-	-	-	-	-	-	-	-	-
• Migration Headaches, p. 94 (bird habitat).....	-	1	-	-	-	-	1	-	-	1		-	-	-	-	-	-	-	-	-	-	-
• To Dam or Not to Dam, 134 (decision-making).....	1	-	-	-	-	-	-	-	-	1		-	-	-	-	-	-	-	-	-	-	-
• Dragonfly Pond, p. 154 (decision-making).....	1	-	-	-	-	-	-	-	-	1		-	-	-	-	-	-	-	-	-	-	-
• Watershed, p. 172 (map and analyze).....	1	1	-	-	-	-	-	-	1	1		-	-	-	-	-	-	-	-	-	-	-
<b>Grades 5-6</b>																						
<i>Full Option Science System</i>																						
• Environments Module (model habitats).....	-	-	1	1	-	1	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-

Metropolitan Council, Environmental Services  
**Curricula Supporting Water Quality Projects**  
**Aligned with Minnesota Graduation Standards**

1 = Very strong, direct connection at this grade level  
 2 = Requires some adaptation for a strong connection  
 b = Good background for this standard

	• PROJECTS •	General Issues	Reconnaissance	Water Testing	Soil Testing	Clean-Ups	Aquatic Habitat	Prevent Erosion	Stencil Drains	Public Education	• STANDARDS •	Background	1. Read, View, Listen	2. Write and Speak	3. Arts and Literature	4. Mathematical Aps.	5. Inquiry (Reserach Skills)	6. Scientific Aps.	7. Social Studies	8. Decision-Making	9. Resource Manag.	10. World Languages
<b>Grades 6-8</b>																						
<i>Environmental Resource Guide (ERG)</i>																						
Many activities strongly support Inquiry standard.....																						
People and Cultures standard requires a service project .....																						
• Water Pollution Detectives, p. 5 (types of pollution).....	1	1	-	-	-	-	-	-	-	1		1	-	-	-	-	-	2				
• Seeping Septic Tanks, p. 41 (human waste disposal).....	1	-	-	-	-	-	-	-	-	-		1	-	-	-	-	-	2	b	-	-	-
• The Temperature's Rising, p. 27 (test water temperature).	1	-	1	-	-	-	1	-	-	1		1	-	-	-	-	-	1	b	-	-	-
• That Settles It, p. 15 (test water clarity).....	1	-	1	-	-	-	-	1	-	1		1	-	-	-	-	-	1	1	-	-	-
• Pesky Pesticides, p. 49 (agricultural practices).....	1	1	-	-	-	-	-	-	-	1		1	-	-	-	-	-	2	-	-	-	-
• Fertile Green, p. 19 (observe nutrient pollution effects)	1	-	-	1	-	-	-	-	-	1		1	-	-	-	-	-	1	-	-	-	-
<i>Project WET</i>																						
• Branching Out!, p. 129 (build watershed model).....	1	1	-	-	-	-	-	-	-	-												
• Wetland Soils in Living Color, p. 212 (classify soils).....	1	-	-	-	-	-	1	-	-	-												
<i>The Water Sourcebook</i>																						
• Nutrients and Water Quality, p. 1-23 (model pollutants)...	1	-	1	1	-	-	-	-	1	1												
• Indicating Insects, p. 2-55 (biological water test).....	-	-	1	-	-	-	-	-	-	1												
• Bioassessment of Streams, p. 3-1 (biological water test)..	-	-	1	-	-	-	-	-	-	1												
• Algae Growth, p. 3-19 (nutrient pollution experiement)...	-	-	1	1	-	-	-	1	-	1												
• Runoff, p. 3-39 (examine characteristics of runoff).....	1	1	-	-	-	-	-	1	1	1												
• Using Topo Maps & Data Tables.. Water Quality, p. 3-47	1	1	1	-	-	-	-	1	-	1												
• Disposal of Old Paint, p. 4-1 (toxic household products)..	1	1	-	-	-	-	-	-	1	1												
• Role-Playing Game, p. 5-51 (decision-making).p. 12.....	1	-	-	-	-	-	-	-	-	1												
<b>Grades 6-12</b>																						
<i>Project WET</i>																						
• Water Actions, p 12 (plan an action project).....	1	1	-	-	1	1	1	1	1	1												
• Perspectives, p. 397 (simulate debate on proposals).....	1	1	-	-	-	1	-	-	-	1												
<i>Aquatic Project Wild</i>																						
• Riparian Retreat, p. 34 (observe river corridors).....	-	1	-	-	-	1	1	-	-	1												
• Blue Ribbon Niche, p. 72 (observe river corridors).....	-	1	-	-	-	1	1	-	-	1												
• Where Does Water Run Off After School? p. 82 (map).....	1	1	-	-	1	-	-	-	1	1												
• Aquatic Roots, p. 100 (exotics vs. native species).....	-	-	-	-	1	-	-	-	-	1												