Appendix A: Detailed Subwatershed Scoring

Objective

During the November 3, 2003 Technical Subcommittee meeting and during prior meetings, in part, various strategies for prioritizing concerns and focusing implementation activities were discussed. Designated uses were initially determined at the river valley segment level, of which there are five for the St. Joseph River Watershed. However, that geographic division is too coarse for identifying specific areas in which to focus implementation activities. It may be suitable for general, broad-scale recommendations. A method employing Zones of Implementation was discussed, in which implementation activities are determined by a specific locale's proximity to a surface water body.

It was decided, however, to score areas of the basin at the subwatershed level, of which there are 217 units. Available GIS layers were intersected with the subwatershed boundaries and used in a scoring system to determine areas to target for preservation or mitigation practices.

Scoring for Preservation

Key parameters, including percent forest land, percent wetlands, length of trout streams and area of trout lakes, were mapped at the subwatershed level and utilized to pinpoint those drainage units containing the greatest natural features. It was assumed that those parameters would represent those least disturbed subwatersheds, which, in turn, would contain the greatest natural features.

Among the products developed through the nonpoint source loading model were maps illustrating the percentage of each of four types of land cover in each subwatershed: urban, agricultural, forest/open land and wetland/open water. The percent coverage of forest/open land and wetlands/open water in each subwatershed was entered into a spreadsheet. Forest cover ranged from 2.4 to 44.9%. Wetland cover ranged from 0.5 to 28.5%. So that the greatest percentage of forest and the greatest percentage of wetland land cover resulted in a similar score, the forest percentage was divided by 10, and the wetland percentage was divided by 8. The forest land cover scores ranged from 0.24 for Subwatershed 206, Turkey Creek, to 4.49 for 2, North Branch Paw Paw River. The wetland scores ranged from 0.1 for 185, Yellow Creek, to 3.6 for 12, Gourdneck Creek.

The proximity of urban centers to areas containing prime natural features was considered a determining factor in the level of threat posed to that area. Therefore, proximity to urban areas was scored for each subwatershed, with those closest to or within urban areas receiving the highest scores. This signals the urgency for targeting those areas earliest in the implementation phase. Using GIS, a continuous grid of distances from defined urban areas was developed. That grid was intersected with the subwatershed boundaries, and an average distance falling within each subwatershed was reported. See Figure 1, below.

Average distances were reported in units of meters, with 20,300 meters (12.6 miles) being the greatest distance encountered. To compute a score, the inverse of each distance divided by 1,000 was determine. This resulted in scores ranging from 0.049 for Subwatershed 48, Nottawa Creek, to 3.12 for Subwatershed 146, St. Joseph River in South Bend, in which the smallest distances received the greatest scores. Those scores were summed with those scores for wetland and forest land cover.

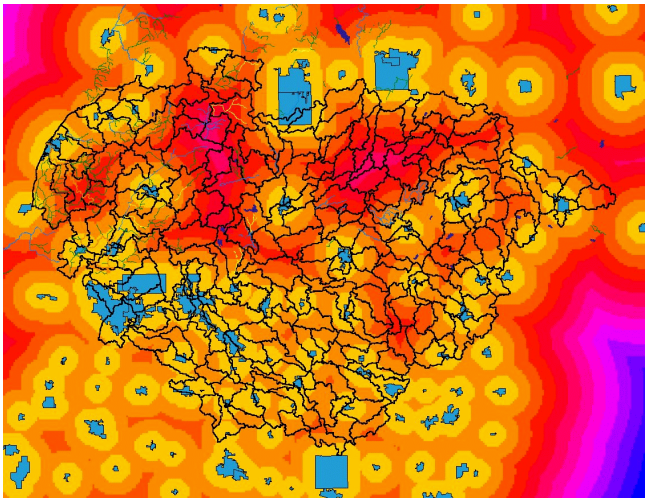

Figure 1. Grid of distances from urban areas underlying subwatershed boundaries. Trout streams and lakes are also included in the figure.

The attached table lists the subwatersheds and their scores for each parameter. Two subwatersheds received a score greater than 6: 2, North Branch Paw Paw River and 12, Gourdneck Creek.

The length of trout streams and area of trout lakes in each subwatershed was also considered an important consideration for targeting preservation efforts. GIS shapefiles of those attributes are available for Michigan, but do not exist for Indiana. However, the trout streams and lakes in the Indiana portion of the watershed were considered negligible, due to the largely agricultural nature of the area. Only nine subwatersheds contained trout lakes. They were assigned a score of two or one, depending upon the area of the lakes contained within their boundaries. (A score of 2 was assigned to lake areas of the magnitude 10^6 square meters, and a score of 1 was assigned to lake areas of 10^5 square meters.) All other subwatersheds received a score of zero. Fifty subwatersheds contained trout streams. The length of streams in each subwatershed was calculated. Subwatersheds were assigned a score of 0-3 depending on the total length by natural breaks. (Subwatersheds having 61-97 km of streams were assigned a score of 3;36-53, 2; 4-32, 1, and; 1-3.9, 0. Those subwatersheds having no designated trout streams also received a score of zero.

When the scores for trout-supporting water bodies were summed with the above scores, the greatest score achieved was 8.9 for Subwatershed 89, Mill Creek. Those top three subwatersheds are shown in yellow in Figure 2.

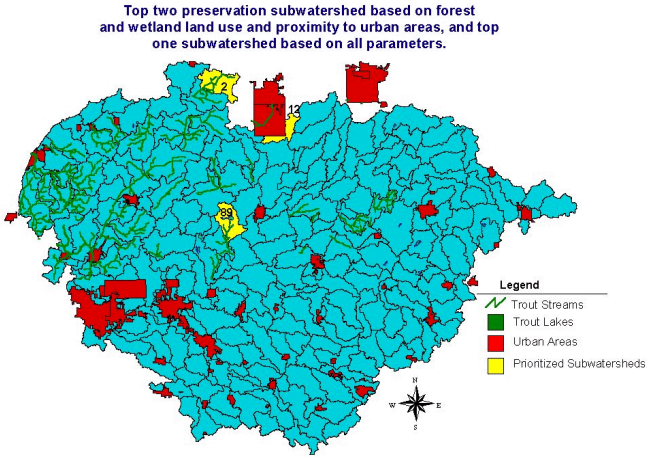

Figure 2. Three prioritized subwatersheds based on all preservation components. Trout streams, trout lakes and urban areas shown.

When natural features are considered, regardless of proximity to urban areas, the top five scoring subwatersheds are: 2, North Branch Paw Paw River; 51, Dowagiac Creek; 87, Hickory Creek; 89, Mill Creek; and, 124, Trout Creek. (See Figure 3, below.) Interestingly, Hickory Creek and the Paw Paw River are both in close proximity to urban areas. Hickory Creek scored highly due to achieving the maximum score for trout streams, likely due to its connection with Lake Michigan.

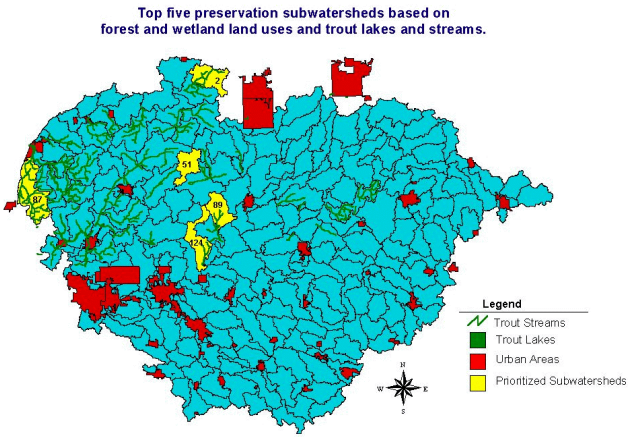

Figure 3. Five prioritized subwatersheds based on all preservation components except proximity to urban areas.

Scoring based on trout lakes and streams appeared to favor subwatersheds at the west side of the basin, due to those waters' connection to Lake Michigan. In addition, the presence of designated trout lakes and streams may be an ecological expression of high forest and wetland coverage in a subwatershed. Giving the same weight to these parameters as to the land cover parameters has the potential of "double counting" the same natural feature. Further, no trout data were available for Indiana, causing those subwatersheds to possibly be inaccurately characterized. Therefore, the scores for trout lakes and streams were discounted by one-third in a fourth scoring scenario. These discounted scores were added to the sum of the scores for wetland/open water and forest/open land cover. In this scenario, proximity to urban areas is used as an "urgency" rating for those subwatersheds identified as having the greatest natural features. In other words, after the subwatersheds are scored for their preservation potential, the timeline recommended for initiating preservation activities is based on proximity to urban areas, i.e., the threat to those subwatersheds.

Table 1 lists the top five subwatersheds for four different preservation scoring scenarios:

1. Proximity to urban lands, percent forest/open land and percent wetland/open water.
2. Scenario 1 plus trout lakes and streams.
3. Scenario 2 minus proximity to urban land.
4. Scenario 3 with trout lakes and streams discounted by 1/3.

Figure 4 illustrates these subwatersheds. Interestingly, Subwatersheds 2, 89 and 124 appear in all scenarios, indicating that they all have high percentages of forest/open land and wetlands/open water, the common parameter in all four scenarios. Of the five subwatersheds identified in Scenario 4, 2, North Branch Paw Paw River, lies the closest to an urban area, the City of Kalamazoo, MI.

Table 1. Top five preservation subwatersheds for three scenarios, listed in order of score. Scores indicated in parentheses.

Scenario 1 Subwatersheds	**Scenario 2 Subwatersheds**	**Scenario 3 Subwatersheds**	**Scenario 4 Subwatersheds**
12, Gourdneck Creek (6.3)	89, Mill Creek (8.9)	89, Mill Creek (8.7)	89, Mill Creek (6.7)
2, N. Branch Paw Paw River (6.0)	124, Trout Creek (8.6)	124, Trout Creek (8.5)	124, Trout Creek (6.5)
89, Mill Creek (5.9)	2, N. Branch Paw Paw River (7.0)	2, N. Branch Paw Paw River (6.9)	2, N. Branch Paw Paw River (6.2)
124, Trout Creek (5.6)	87, Hickory Creek (6.8)	87, Hickory Creek (6.7)	86, Paradise Lake (5.4)
86, Paradise Lake (5.5)	36, St. Joseph River at mouth (6.6)	51, Dowagiac Creek (6.1)	51, Dowagiac Creek (5.4)

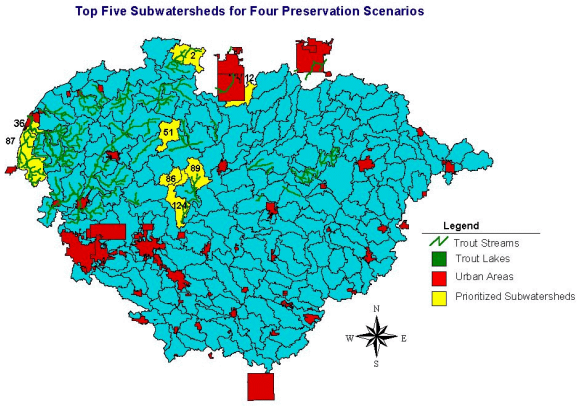

Figure 4. Top five subwatersheds for four preservation scenarios.

Other data strengthen the analysis completed with the GIS data. The Nature Conservancy is working to protect 139 acres of prairie fen in the Paw Paw River headwaters. The area has been identified as providing habitat for Mitchell's satyr butterfly, Blanding's turtle and the eastern massasauga rattlesnake. Further, the areas of the watershed along the coast of Lake Michigan support extensive freshwater sand dune systems that are threatened by mining.

Several areas have been identified as high quality habitat areas and areas needing preservation through other studies. The U.S. Environmental Protection Agency Great Lakes Program Office has identified Northeast Indiana as an Ecologically Rich Area. This area historically contained many fens, bogs, marshes, prairies, lakes and forests. Presently, much of the ecological value is related to aquatic habitats. It is noted that the St. Joseph River, Fish Creek and Pigeon River provide habitat to threatened and endangered fish and mussel species and contain high biodiversity. The Pigeon River ecosystem contains the state's largest tamarack swamp. The identification of this region of the watershed by "on-the-ground" data collection indicates that the GIS level analysis is only one component of the prioritization of subwatersheds for

preservation, as these areas identified by the U.S. EPA contain high percentages of agricultural land uses and impaired waters.

Scoring for Mitigation

Subwatersheds requiring mitigation efforts (BMPs) were also targeted according to GIS-based attributes. Subwatersheds were scored by their land use type, the presence of known impairments, population and agricultural statistics. Just as the percent of forest and wetland land use type by subwatershed was used to score subwatersheds for preservation, urban and agricultural land use percentages were scored for mitigation. Percent agricultural land uses ranges extensively from 12% at 36, St. Joseph River at the mouth, to 97% at 206 at Turkey Creek, while urban land use ranged from 0% at 206, Turkey Creek, to 46% at 36, St. Joseph River at mouth. Interestingly, Subwatershed 36 scored high for preservation in Scenario 2, even though it has the greatest percentage of urban land use. This is due to its proximity to urban areas and its extensive trout streams, due to its connection to Lake Michigan. This highlights the need to preserve urban aquatic habitats and "backyard" habitats, as well as large, relatively undisturbed areas. Agricultural and urban land uses were divided by 20 and 10, respectively, to achieve a maximum score of approximately 4 for each.

Subwatersheds were also scored based on the presence of known impaired waters (TMDL waters). Because the GIS layer illustrating these data does not correspond to the exact length of the impaired segments, subwatersheds were simply scored based on the presence or absence of these waters, as opposed to the sizes of impaired water bodies. Therefore, subwatersheds having impaired waters received a score of two, while the others received a score of zero.

Several county level data available from the U.S. Census (2000), the U.S. Census of Agriculture (1997) and the USDA National Agricultural Statistics Service (NASS) have been mapped for the watershed. These county level data were also utilized to assign scores to the subwatersheds. The areas of each county in each suwatershed were calculated using the GIS "tabulate areas" function and displayed in a spreadsheet. County level data for three parameters (animal units, atrazine use and population) were then queried and scored by natural breaks in those data. Animal units were defined as the number of cattle plus 0.4 times the number of hogs reported in the 1997 Census of Agriculture. (The definition of animal units was obtained from the MDEQ General Permit for CAFO's.) Animal units ranged from 13,000 in Stueben County, IN to 77,000 in Cass County, MI. Scores from 0 to 3 were assigned to each county based on these data.

Atrazine use by county was calculated based on 2001 corn production data by county and by a statewide application rate and a statewide average percent of corn crop treated, as recorded by the USDA NASS. A mass of atrazine applied (in pounds) for each county resulted. These data ranged from 30,000 pounds in VanBuren County, MI to 119,000 pounds in Kosciusko County, IN. Human population data for each county, based on the 2000 U.S. Census, was also available. These values ranged from 33,000 in Stueben County, IN to 266,000 in St. Joseph County, IN. As with animal units, scores from 0 to 3 were assigned to each county for atrazine use and human population. For each parameter, an area-weighted score was calculated for each subwatershed. This was achieved by multiplying the score for each county by the land area of each county in a particular subwatershed. These values were summed and divided by the total land area of the subwatershed. This approach was utilized because several subwatersheds lie in multiple counties. Therefore, a simple assignment of scores based on the county location would not accurately portray the characteristics of that subwatershed.

All scores were then summed to achieve a total mitigation ranking. Scores are presented in the attached table and range from 3.4 in 148, Tamarack Lake Outlet to 15.1 in 160, Yellow Creek, and 177, Elkhart River. Figure 5 illustrates the top 13 scoring subwatersheds, all of which scored greater than 14. Those subwatersheds are illustrated in yellow. The percent urban land use by subwatershed is illustrated in the graduated colors in the remaining areas. Impaired waters are illustrated in green. Interestingly, the identified subwatersheds were located adjacent to each other.

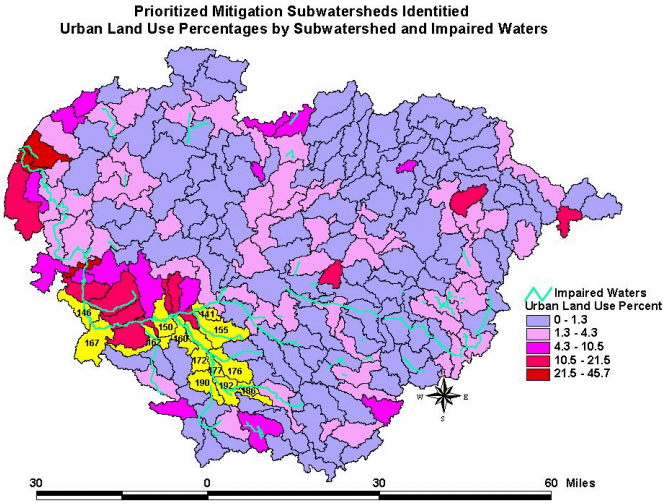

Figure 5. Top 13 mitigation subwatersheds in yellow. Remaining subwatersheds illustrate percent urban land cover. Impaired waters shown in green.

Imperviousness

Percent imperviousness is an additional factor utilized in determining the level of impact on a subwatershed. Watersheds having 10% impervious land cover have been noted as impaired, while those having 5-10% impervious land cover are considered threatened (Bird *et al.*, 2002). Percent imperviousness values were derived for each subwatershed based on the area of urban and mining land uses. Based on guidance from Bird *et al.* (2002), percent total impervious area was calculated by the area of each of the following land uses by the identified factor:

- Low density residential, 40%
- High density residential, 60%
- Industrial/commercial/transportation, 90%
- Quarry, mining, 100%
- Urban grasses (yards, golf courses), 10%

The products for each subwatershed were summed and divided by the total land area for that unit. Thirteen subwatersheds exhibited imperviousness greater than 10%; ten fell in the 5-10% range. Figure 6 illustrates these subwatersheds. Each identified unit overlaps or is adjacent to an urban area.

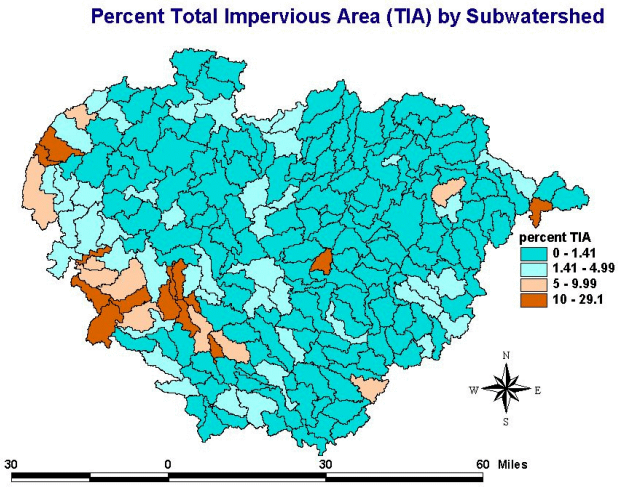

Figure 6. Percent total impervious area by subwatershed.

Conclusions

Scores produced from this exercise were added to the GIS attribute table for the subwatershed layer. Maps illustrating the classed scores of each subwatershed for Scenario 4 preservation and mitigation were produced and provided in Figures 7 and 8, respectively. They allow the spatial distribution of priortized subwatersheds to be analyzed. In Figure 7, it appears that the highest scoring subwatersheds line up in a "green belt". Connected habitats are typically a goal of watershed management planning, and this map illustrates that preservation activities focusing on those subwatersheds would achieve that objective. Most of the lowest scoring subwatersheds lie in Indiana, where agricultural land uses predominate. A single subwatershed at the southern end of the basin, 205, Turkey Creek, which lies adjacent to 206 (also Turkey Creek, which had the greatest percent of agricultural land cover), stands out as a relatively high scoring region. This is due to it containing 25% wetland land cover. This highlights the importance of preserving remaining wildlife "refuges" in otherwise disturbed areas.

Figure 8 illustrates classed rankings of the mitigation scores. Subwatersheds achieving similar scores are also clustered geographically. This is likely due to the three county-level scoring parameters. A cluster of subwatersheds achieving the lowest score class for mitigation is identified at the eastern-central portion of the basin. These subwatersheds lie within Steuben County and received low scores due to the county's low population numbers and low animal units. However, Stueben County is experiencing the most rapid population growth (22%) in the basin, when reported as percent change from 1990 to 2000. Further, a Purdue University Indiana land use study revealed that Stueben County was the locale of the greatest percentage of new residences constructed in the Indiana portion of the basin from 1980 to 1990.

The highest scoring subwatersheds all lie adjacent to one another, with the exception of 207, Wabee Lake. These subwatersheds are predominantly agricultural and contain impaired waters associated with the Elkhart River and the St. Joseph River, both of which are impaired by pathogens. Further, the Elkhart River has been identified as an area of substantial sediment loading.

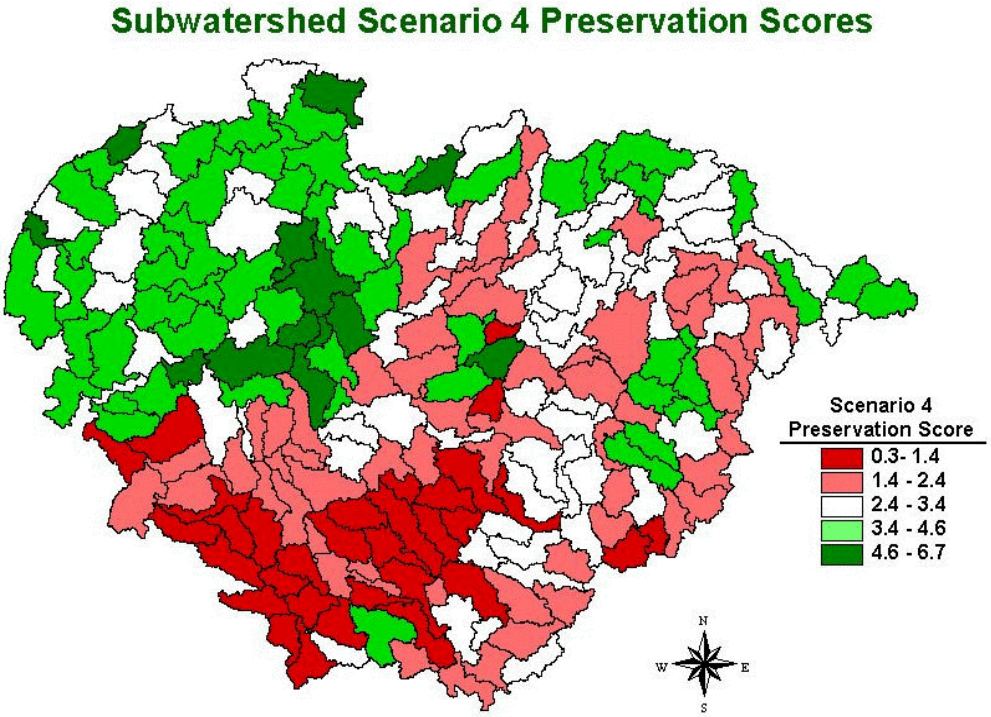

Figure 7. Graduated colors illustrating scenario 4 preservation scores.

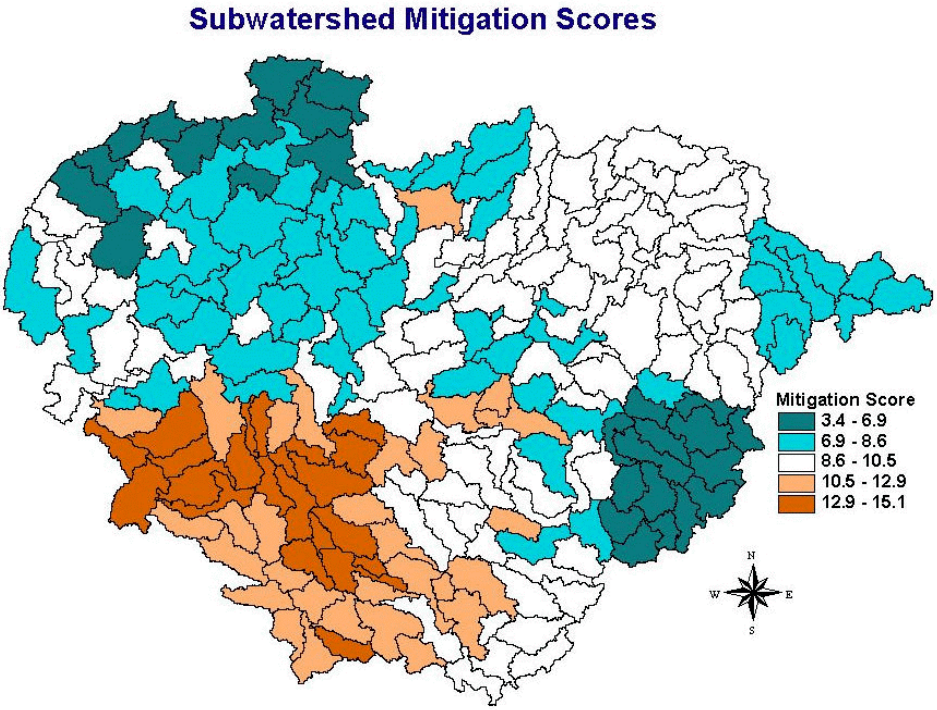

Figure 8. Graduated colors illustrating mitigation scores.

Sources

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Table 1. Subwatershed Scores

Subwatershed	Preservation Component Scores					Scenario Scores				Mitigation Component Scores						Total Score	% Imp.
Number	For. LC	Wetl. LC	Trout Streams	Trout Lakes	Urb. Area Prox.	1	2	3	4	Agric. LC	Urb. LC	TMDL	AU	Atr.	Pop.		
1	2.3	1.0	0	0	0.22	3.5	3.5	3.3	3.3	3.4	0.0	0.0	1.0	0.0	2.0	6.5	0.2
2	4.5	1.4	1	0	0.13	6.0	7.0	6.9	6.2	2.1	0.1	0.0	1.4	0.0	2.4	6.1	0.5
3	3.3	0.8	1	0	0.10	4.3	5.3	5.2	4.5	3.0	0.1	0.0	1.1	0.0	2.1	6.2	0.4
4	2.2	1.2	0	0	0.25	3.7	3.7	3.4	3.4	3.4	0.0	0.0	1.0	0.0	2.0	6.4	0.2
5	2.5	1.8	0	0	0.09	4.3	4.3	4.3	4.3	3.0	0.0	0.0	1.0	0.0	2.0	6.1	0.1
6	2.9	2.1	0	0	0.26	5.3	5.3	5.0	5.0	2.4	0.5	0.0	0.2	0.0	2.8	6.0	2.0
7	1.8	1.4	0	0	0.17	3.4	3.4	3.2	3.2	3.5	0.1	0.0	2.0	0.0	3.0	8.6	0.2
8	2.6	1.2	0	1	0.21	4.0	5.0	4.8	4.1	3.1	0.2	0.0	1.0	0.0	2.0	6.3	1.4
9	2.4	1.3	0	1	0.16	3.8	4.8	4.7	4.0	3.3	0.0	0.0	2.0	1.0	3.0	9.3	0.3
10	2.0	1.5	0	0	0.50	4.0	4.0	3.5	3.5	2.8	0.9	0.0	0.0	0.0	3.0	6.7	6.0
11	1.9	2.6	0	0	0.66	5.1	5.1	4.5	4.5	2.6	0.7	0.0	2.0	0.0	3.0	8.3	3.6
12	1.8	3.6	0	0	0.94	6.3	6.3	5.3	5.3	2.4	0.5	0.0	2.0	0.0	3.0	7.9	1.8
13	3.4	0.6	1	0	0.08	4.1	5.1	5.0	4.4	2.9	0.2	0.0	1.3	0.0	2.3	6.6	1.7
14	1.6	1.2	1	0	0.43	3.3	4.3	3.8	3.2	3.5	0.2	2.0	0.8	0.0	2.2	8.7	2.1
15	2.2	1.0	0	0	0.12	3.3	3.3	3.2	3.2	3.5	0.0	0.0	2.0	1.0	3.0	9.5	0.5
16	3.0	1.3	0	0	0.14	4.4	4.4	4.3	4.3	3.0	0.0	0.0	2.0	1.0	3.0	9.0	0.1
17	1.7	1.0	1	0	0.06	2.8	3.8	3.7	3.0	3.7	0.0	0.0	1.0	0.0	2.0	6.8	0.1
18	3.2	1.2	0	0	0.09	4.4	4.4	4.4	4.4	2.9	0.0	0.0	2.0	1.0	3.0	8.9	0.0
19	1.9	1.8	0	0	0.13	3.8	3.8	3.7	3.7	3.3	0.1	0.0	2.0	0.0	3.0	8.4	0.5
20	3.1	0.2	1	0	0.05	3.3	4.3	4.3	3.6	3.3	0.1	2.0	1.0	0.0	2.0	8.4	1.0
21	2.2	1.6	0	0	0.09	4.0	4.0	3.9	3.9	3.2	0.0	0.0	2.0	1.0	3.0	9.2	0.1
22	2.9	0.6	0	0	0.07	3.5	3.5	3.5	3.5	3.3	0.1	0.0	2.0	1.0	3.0	9.4	0.6
23	1.9	0.6	0	0	0.10	2.5	2.5	2.4	2.4	3.8	0.1	0.0	2.0	0.0	3.0	8.9	0.3
24	1.5	0.5	2	0	0.21	2.2	4.2	4.0	2.7	4.0	0.1	0.0	0.5	0.0	2.5	7.1	0.9
25	2.1	1.3	2	0	0.10	3.4	5.4	5.3	4.0	3.4	0.0	2.0	1.0	0.0	2.0	8.5	0.5
26	2.6	0.8	1	0	0.20	3.5	4.5	4.3	3.7	3.2	0.3	0.0	0.0	0.0	3.0	6.5	1.8
27	2.2	1.0	0	0	0.09	3.3	3.3	3.2	3.2	3.4	0.1	0.0	2.0	1.0	3.0	9.5	0.9
28	1.4	2.4	0	0	0.11	3.9	3.9	3.8	3.8	3.3	0.1	0.0	2.0	1.1	2.8	9.3	0.7
29	1.2	2.2	0	0	0.18	3.6	3.6	3.4	3.4	3.3	0.4	2.0	2.0	0.0	3.0	10.7	1.9
30	0.9	1.6	0	0	0.12	2.6	2.6	2.4	2.4	3.9	0.0	0.0	1.9	0.2	2.9	8.9	0.0
31	1.1	1.1	1	0	0.18	2.4	3.4	3.2	2.5	3.9	0.2	0.0	2.0	0.0	3.0	9.1	0.9
32	2.1	0.8	1	0	0.39	3.2	4.2	3.8	3.2	1.9	2.6	2.0	0.0	0.0	3.0	9.5	16.8
33	1.6	1.6	0	0	0.10	3.3	3.3	3.2	3.2	3.5	0.0	0.0	1.8	0.0	2.7	8.1	0.1
34	2.4	0.9	0	0	0.09	3.3	3.3	3.2	3.2	3.5	0.0	0.0	1.8	0.3	2.8	8.5	0.0
35	2.5	0.8	0	0	0.10	3.4	3.4	3.3	3.3	3.4	0.0	0.0	2.0	1.4	2.1	9.0	0.1
36	1.6	2.4	2	0	0.56	4.6	6.6	6.0	4.7	0.6	4.6	2.0	0.0	0.0	3.0	10.2	25.8
37	1.2	2.7	0	0	0.06	3.9	3.9	3.9	3.9	2.9	0.8	0.0	2.0	2.0	1.0	8.7	4.1
38	2.0	1.1	0	0	0.06	3.1	3.1	3.1	3.1	3.5	0.1	0.0	1.9	1.1	2.7	9.3	0.4
39	1.9	0.4	0	0	0.08	2.4	2.4	2.3	2.3	3.9	0.1	0.0	2.0	1.5	2.0	9.4	0.5
40	1.9	1.0	0	0	0.07	3.0	3.0	2.9	2.9	3.6	0.0	0.0	1.8	0.5	2.8	8.7	0.0
41	2.4	0.5	1	0	0.10	3.0	4.0	3.9	3.3	3.3	0.5	0.0	1.1	1.8	2.1	8.8	0.6
42	2.1	0.4	1	0	0.07	2.6	3.6	3.5	2.8	3.7	0.1	0.0	1.5	0.3	1.7	7.3	0.6
43	1.7	0.9	0	0	0.14	2.7	2.7	2.6	2.6	3.8	0.0	0.0	2.0	2.0	1.0	8.8	0.3

Table 1. Subwatershed Scores (continued)

Subwatershed	Preservation Component Scores					Scenario Scores				Mitigation Component Scores						Total Score	% Imp.
Number	For. LC	Wetl. LC	Trout Streams	Trout Lakes	Urb. Area Prox.	1	2	3	4	Agric. LC	Urb. LC	TMDL	AU	Atr.	Pop.		
44	1.4	1.8	1	0	0.11	3.2	4.2	4.1	3.5	3.5	0.1	0.0	1.5	1.0	2.5	8.6	1.1
45	1.6	2.7	0	0	0.13	4.4	4.4	4.3	4.3	3.0	0.2	2.0	2.4	0.7	1.3	9.7	0.8
46	2.1	0.4	3	0	0.12	2.6	5.6	5.5	3.5	3.7	0.2	2.0	0.0	0.0	3.0	8.9	0.9
47	1.4	1.2	0	0	0.08	2.8	2.8	2.7	2.7	3.8	0.0	0.0	1.0	2.0	2.0	8.8	0.1
48	1.2	0.9	0	0	0.05	2.2	2.2	2.1	2.1	4.0	0.0	0.0	1.0	1.9	2.0	9.0	0.1
49	1.4	0.1	0	0	0.07	1.6	1.6	1.5	1.5	4.2	0.1	0.0	1.2	1.6	2.2	9.3	0.4
50	1.9	0.7	0	0	0.12	2.7	2.7	2.6	2.6	3.8	0.0	0.0	2.0	2.0	1.0	8.8	0.0
51	1.9	3.2	1	0	0.05	5.1	6.1	6.1	5.4	2.8	0.0	0.0	2.4	0.7	1.3	7.2	0.2
52	1.9	0.6	2	0	0.09	2.6	4.6	4.5	3.2	3.8	0.0	0.0	0.2	0.0	2.9	6.9	0.1
53	2.3	1.7	1	0	0.08	4.1	5.1	5.0	4.4	3.1	0.0	0.0	1.3	1.1	1.9	7.5	0.1
54	1.6	1.0	0	0	0.06	2.6	2.6	2.6	2.6	3.8	0.0	0.0	2.0	1.7	1.7	9.2	0.1
55	2.1	1.6	1	0	0.17	3.9	4.9	4.7	4.0	3.2	0.2	0.0	2.4	0.7	1.3	7.8	1.0
56	2.2	0.5	0	0	0.10	2.8	2.8	2.7	2.7	3.7	0.0	0.0	2.0	2.0	1.0	8.7	0.2
57	1.7	0.5	0	0	0.19	2.4	2.4	2.2	2.2	3.9	0.0	0.0	2.0	1.2	1.0	8.2	0.2
58	2.2	0.8	0	0	0.13	3.1	3.1	3.0	3.0	3.6	0.0	0.0	2.0	1.5	1.0	8.1	0.2
59	1.6	1.2	0	0	0.06	2.8	2.8	2.8	2.8	3.7	0.0	0.0	1.2	2.0	1.8	8.7	0.3
60	1.1	1.2	0	0	0.08	2.3	2.3	2.2	2.2	3.9	0.1	0.0	1.0	2.0	2.0	9.1	0.7
61	2.4	1.4	0	0	0.19	3.9	3.9	3.7	3.7	3.3	0.0	0.0	2.0	1.0	1.0	7.3	0.0
62	1.9	0.8	0	0	0.33	3.0	3.0	2.7	2.7	3.5	0.3	0.0	2.0	1.1	1.0	7.9	2.7
63	1.6	0.6	0	0	0.17	2.4	2.4	2.2	2.2	3.9	0.1	0.0	2.0	2.0	1.0	9.0	0.9
64	1.6	0.5	2	0	0.11	2.2	4.2	4.1	2.7	3.7	0.5	2.0	0.0	0.0	3.0	9.3	2.1
65	1.5	1.0	0	0	0.13	2.6	2.6	2.4	2.4	3.8	0.2	0.0	1.0	1.9	2.0	9.0	0.8
66	3.0	1.2	0	0	0.57	4.7	4.7	4.2	4.2	2.7	0.4	0.0	3.0	1.0	1.0	8.2	3.1
67	1.4	0.6	0	0	0.48	2.5	2.5	2.0	2.0	3.4	1.1	0.0	2.0	2.0	1.0	9.5	6.1
68	1.7	0.9	0	0	0.09	2.7	2.7	2.6	2.6	3.8	0.0	0.0	1.9	2.0	1.1	8.8	0.1
69	1.6	1.0	2	0	0.08	2.7	4.7	4.6	3.2	3.6	0.4	2.0	0.0	0.0	3.0	8.9	2.5
70	2.8	1.8	1	0	0.07	4.7	5.7	5.6	5.0	2.8	0.1	0.0	2.8	1.1	1.1	7.9	0.4
71	2.3	1.2	0	0	0.12	3.7	3.7	3.6	3.6	3.3	0.0	0.0	2.0	1.0	1.0	7.4	0.2
72	1.6	1.7	0	0	0.23	3.5	3.5	3.3	3.3	3.4	0.3	0.0	1.0	2.0	2.0	8.6	1.7
73	2.2	1.1	1	0	0.11	3.4	4.4	4.3	3.6	3.5	0.0	0.0	3.0	1.0	1.0	8.5	0.1
74	1.9	1.1	3	0	0.09	3.1	6.1	6.0	4.0	3.4	0.3	2.0	0.0	0.0	3.0	8.7	1.8
75	2.6	0.9	0	0	0.27	3.7	3.7	3.5	3.5	3.3	0.0	0.0	2.0	1.0	1.0	7.4	0.2
76	1.4	0.7	1	0	0.07	2.1	3.1	3.0	2.4	4.0	0.0	0.0	1.0	2.0	2.0	9.0	0.0
77	2.8	1.1	0	0	0.24	4.2	4.2	3.9	3.9	3.0	0.2	0.0	1.0	2.0	2.0	8.2	2.0
78	1.9	1.6	1	0	0.21	3.7	4.7	4.5	3.8	3.4	0.0	0.0	2.7	0.9	1.2	8.2	0.2
79	1.6	0.5	0	0	0.41	2.5	2.5	2.0	2.0	3.8	0.4	0.0	2.0	2.0	1.0	9.2	2.3
80	1.6	1.4	0	0	0.33	3.4	3.4	3.0	3.0	3.4	0.3	0.0	2.0	2.0	1.0	8.7	1.4
81	0.7	0.6	0	0	0.11	1.4	1.4	1.3	1.3	4.4	0.0	0.0	1.0	2.0	2.0	9.4	0.0
82	2.4	1.0	0	0	0.83	4.2	4.2	3.4	3.4	2.3	1.8	0.0	2.0	1.0	1.0	8.0	10.2
83	2.2	1.7	0	0	0.07	4.0	4.0	3.9	3.9	3.2	0.1	0.0	3.0	1.0	1.0	8.2	0.3
84	1.5	0.5	3	0	0.13	2.1	5.1	5.0	3.0	4.1	0.0	0.0	1.9	2.0	1.1	9.1	0.1
85	1.5	1.2	0	0	0.13	2.9	2.9	2.7	2.7	3.6	0.2	0.0	2.0	2.0	1.0	8.9	1.1
86	3.2	2.2	0	0	0.06	5.5	5.5	5.4	5.4	2.5	0.1	0.0	3.0	1.0	1.0	7.5	0.3

Table 1. Subwatershed Scores (continued)

Subwatershed	Preservation Component Scores					Scenario Scores				Mitigation Component Scores						Total Score	% Imp.
Number	For. LC	Wetl. LC	Trout Streams	Trout Lakes	Urb. Area Prox.	1	2	3	4	Agric. LC	Urb. LC	TMDL	AU	Atr.	Pop.		
87	2.2	0.5	3	1	0.16	2.8	6.8	6.7	4.0	2.9	1.5	0.0	0.0	0.0	3.0	7.4	7.0
88	1.0	1.9	0	0	0.09	2.9	2.9	2.9	2.9	3.5	0.4	0.0	3.0	1.0	1.0	8.9	3.0
89	3.6	2.1	1	2	0.12	5.9	8.9	8.7	6.7	2.3	0.0	0.0	1.7	1.6	1.6	7.4	0.2
90	2.2	0.6	2	0	0.16	3.0	5.0	4.9	3.5	3.6	0.0	0.0	3.0	1.0	1.0	8.6	0.2
91	1.2	0.7	0	0	0.17	2.1	2.1	1.9	1.9	4.0	0.1	0.0	1.0	2.0	2.0	9.2	0.6
92	1.8	0.6	0	0	0.13	2.5	2.5	2.4	2.4	3.9	0.0	0.0	2.0	1.1	1.0	8.0	0.0
93	2.1	1.9	0	0	0.11	4.1	4.1	4.0	4.0	3.1	0.1	0.0	1.0	2.0	2.0	8.3	0.6
94	1.8	1.1	0	0	0.29	3.2	3.2	2.9	2.9	3.4	0.3	0.0	1.0	2.0	2.0	8.8	2.3
95	1.6	1.7	0	0	0.13	3.4	3.4	3.3	3.3	3.4	0.2	0.0	1.5	2.0	1.5	8.6	0.8
96	1.7	1.0	0	1	0.27	3.0	4.0	3.7	3.0	3.7	0.2	0.0	2.0	1.0	1.0	7.8	0.8
97	2.1	0.7	1	0	0.44	3.2	4.2	3.7	3.1	3.5	0.3	2.0	2.1	0.7	1.6	10.2	2.0
98	2.7	1.1	2	0	0.15	3.9	5.9	5.8	4.5	3.0	0.4	2.0	0.0	0.0	3.0	8.3	2.2
99	2.7	2.2	0	0	0.20	5.0	5.0	4.8	4.8	2.8	0.0	0.0	1.0	2.0	2.0	7.8	0.2
100	1.5	0.9	0	0	0.19	2.6	2.6	2.4	2.4	3.8	0.1	0.0	2.0	2.0	1.0	8.9	0.3
101	1.6	1.8	0	2	0.12	3.5	5.5	5.4	4.0	3.5	0.0	2.0	2.0	2.0	1.0	10.5	0.6
102	3.5	1.0	1	0	0.13	4.6	5.6	5.5	4.8	2.8	0.0	2.0	3.0	1.0	1.0	9.9	0.2
103	2.5	1.9	1	0	0.09	4.5	5.5	5.4	4.7	3.0	0.0	0.0	3.0	1.0	1.0	8.0	0.1
104	2.4	1.1	1	0	0.08	3.6	4.6	4.5	3.9	3.3	0.0	0.0	2.7	1.2	1.2	8.3	0.0
105	2.3	0.7	2	0	0.21	3.1	5.1	4.9	3.6	3.3	0.4	2.0	0.0	0.0	3.0	8.7	2.4
106	1.1	0.8	1	0	0.18	2.0	3.0	2.9	2.2	4.1	0.2	0.0	1.4	2.0	1.6	9.2	0.9
107	1.3	0.5	0	0	0.10	1.9	1.9	1.8	1.8	4.1	0.0	0.0	1.0	2.0	2.0	9.2	0.2
108	2.0	1.8	1	0	0.19	4.0	5.0	4.8	4.1	3.2	0.2	0.0	1.0	2.0	2.0	8.3	0.5
109	1.6	0.4	0	0	0.13	2.2	2.2	2.1	2.1	4.0	0.0	0.0	2.0	2.0	1.0	9.0	0.0
110	1.7	0.6	1	0	0.83	3.1	4.1	3.3	2.6	2.1	2.8	2.0	0.4	0.1	2.7	10.2	16.3
111	1.9	2.7	0	0	0.14	4.7	4.7	4.6	4.6	2.9	0.2	2.0	2.0	2.0	1.0	10.0	0.9
112	1.6	0.7	0	0	0.10	2.4	2.4	2.3	2.3	3.8	0.2	0.0	1.0	2.0	2.0	9.0	1.1
113	2.0	1.7	0	0	0.16	3.8	3.8	3.7	3.7	3.2	0.2	0.0	3.0	1.0	1.0	8.4	0.8
114	1.0	0.9	0	1	0.18	2.1	3.1	2.9	2.2	4.1	0.0	0.0	2.0	2.0	1.0	9.1	0.0
115	3.2	0.6	1	0	0.35	4.1	5.1	4.8	4.1	2.5	1.0	2.0	0.0	0.0	3.0	8.5	7.0
116	1.3	2.2	0	1	0.10	3.6	4.6	4.5	3.8	3.5	0.0	0.0	2.0	2.0	1.0	8.5	0.1
117	1.8	0.5	0	0	0.13	2.5	2.5	2.3	2.3	3.9	0.0	0.0	2.0	2.0	1.0	8.8	0.1
118	1.3	1.3	0	0	0.14	2.8	2.8	2.7	2.7	3.8	0.0	0.0	1.9	2.0	1.1	8.8	0.0
119	1.7	1.4	0	0	0.21	3.3	3.3	3.1	3.1	3.6	0.0	0.0	1.0	2.0	2.0	8.6	0.1
120	2.8	1.3	0	0	0.15	4.2	4.2	4.1	4.1	3.0	0.1	0.0	2.3	1.4	1.4	8.1	0.4
121	0.7	0.1	0	0	1.08	1.9	1.9	0.8	0.8	3.3	1.7	2.0	1.1	2.0	1.9	12.0	14.3
122	2.7	0.7	2	0	0.30	3.6	5.6	5.3	4.0	3.1	0.5	0.0	2.7	0.9	1.2	8.4	2.8
123	2.3	1.0	1	0	0.37	3.7	4.7	4.3	3.6	3.1	0.5	2.0	0.0	0.1	3.0	8.8	3.5
124	3.3	2.2	1	2	0.10	5.6	8.6	8.5	6.5	2.4	0.1	2.0	3.0	1.0	1.1	9.7	0.5
125	1.4	2.3	0	0	0.26	3.9	3.9	3.7	3.7	3.3	0.2	0.0	1.2	1.2	0.6	6.4	1.3
126	0.8	1.6	0	0	0.14	2.5	2.5	2.3	2.3	3.9	0.0	0.0	1.0	1.0	0.5	6.5	1.1
127	1.0	0.7	0	0	0.13	1.9	1.9	1.8	1.8	4.2	0.0	2.0	1.8	2.0	1.2	11.2	0.6
128	3.0	0.2	1	0	0.50	3.7	4.7	4.2	3.5	2.7	1.2	2.0	0.9	1.9	2.8	11.5	7.2
129	1.3	1.4	0	0	0.17	2.9	2.9	2.7	2.7	3.7	0.0	0.0	2.4	1.8	0.3	8.1	1.0

Table 1. Subwatershed Scores (continued)

Subwatershed	Preservation Component Scores					Scenario Scores				Mitigation Component Scores						Total Score	% Imp.
Number	For. LC	Wetl. LC	Trout Streams	Trout Lakes	Urb. Area Prox.	1	2	3	4	Agric. LC	Urb. LC	TMDL	AU	Atr.	Pop.		
130	1.6	1.2	0	0	0.12	2.9	2.9	2.8	2.8	3.6	0.1	0.0	1.8	2.0	1.5	9.1	1.6
131	0.8	0.8	0	0	0.17	1.8	1.8	1.7	1.7	4.2	0.0	2.0	2.7	2.0	0.3	11.2	1.3
132	1.1	1.8	0	0	0.17	3.0	3.0	2.9	2.9	3.7	0.0	0.0	3.0	2.0	0.0	8.8	0.4
133	2.2	1.0	0	0	0.26	3.4	3.4	3.1	3.1	3.4	0.2	2.0	2.9	2.0	3.0	13.5	1.4
134	1.4	0.9	0	0	0.37	2.6	2.6	2.2	2.2	3.5	0.8	0.0	3.0	1.7	2.4	11.3	4.5
135	1.1	0.8	0	0	0.39	2.2	2.2	1.8	1.8	4.2	0.0	2.0	0.0	0.0	0.0	6.2	0.1
136	1.4	1.1	0	0	1.06	3.5	3.5	2.5	2.5	2.6	1.8	2.0	3.0	1.7	2.4	13.4	12.8
137	1.8	1.5	0	0	0.32	3.7	3.7	3.3	3.3	3.2	0.3	2.0	0.1	0.1	0.0	5.6	3.0
138	1.3	0.1	0	0	1.46	2.8	2.8	1.4	1.4	3.5	1.5	2.0	1.5	2.5	2.5	13.4	8.4
139	1.4	0.3	0	0	0.22	1.9	1.9	1.7	1.7	4.0	0.3	2.0	3.0	1.5	2.1	12.9	2.0
140	1.9	0.7	0	0	0.29	2.9	2.9	2.6	2.6	3.5	0.5	2.0	2.8	1.5	1.8	12.1	3.1
141	1.8	0.5	0	0	0.50	2.8	2.8	2.3	2.3	3.6	0.5	2.0	3.0	2.0	3.0	14.1	2.8
142	0.6	1.1	0	0	0.33	2.1	2.1	1.7	1.7	4.2	0.1	0.0	0.0	0.0	0.0	4.3	0.8
143	2.0	2.6	0	0	0.20	4.8	4.8	4.6	4.6	2.8	0.2	2.0	0.0	0.0	0.0	5.0	1.6
144	2.4	0.8	0	0	0.44	3.7	3.7	3.2	3.2	3.4	0.1	2.0	3.0	2.0	3.0	13.5	0.9
145	1.5	0.3	0	0	1.43	3.3	3.3	1.9	1.9	2.7	2.1	2.0	1.0	3.0	3.0	13.8	15.4
146	0.9	0.4	0	0	3.12	4.4	4.4	1.3	1.3	2.0	3.1	2.0	1.0	3.0	3.0	14.1	26.9
147	1.0	0.9	0	0	0.39	2.3	2.3	1.9	1.9	4.0	0.2	2.0	3.0	2.0	0.0	11.2	1.6
148	1.4	2.2	0	0	0.27	3.8	3.8	3.5	3.5	3.2	0.2	0.0	0.0	0.0	0.0	3.4	2.8
149	0.8	0.8	0	0	0.28	1.8	1.8	1.5	1.5	4.2	0.2	0.0	3.0	2.0	0.0	9.4	1.2
150	0.8	0.7	0	0	2.09	3.6	3.6	1.5	1.5	1.9	2.9	2.0	3.0	2.0	3.0	14.8	29.1
151	1.1	0.5	0	0	0.26	1.8	1.8	1.6	1.6	4.3	0.0	2.0	0.0	0.0	0.0	6.3	0.2
152	1.8	1.6	0	0	0.12	3.5	3.5	3.4	3.4	3.4	0.0	0.0	3.0	2.0	0.0	8.5	0.1
153	1.7	1.6	0	0	0.12	3.4	3.4	3.3	3.3	3.5	0.0	2.0	1.9	1.3	0.0	8.8	0.1
154	0.8	0.2	0	0	0.24	1.2	1.2	1.0	1.0	4.5	0.0	0.0	3.0	2.0	0.6	10.1	0.2
155	1.2	0.4	0	0	0.30	1.9	1.9	1.6	1.6	4.1	0.2	2.0	3.0	2.0	3.0	14.3	1.0
156	0.6	0.2	0	0	0.19	0.9	0.9	0.7	0.7	4.7	0.0	0.0	3.0	2.0	0.0	9.7	0.1
157	0.8	0.5	0	0	0.25	1.5	1.5	1.3	1.3	4.4	0.0	0.0	3.0	2.0	0.0	9.4	0.0
158	1.4	0.7	0	0	0.11	2.2	2.2	2.1	2.1	4.0	0.0	2.0	0.0	0.0	0.0	6.1	0.2
159	1.6	1.0	0	0	0.11	2.7	2.7	2.6	2.6	3.8	0.0	0.0	3.0	2.0	0.0	8.8	0.0
160	1.1	0.4	0	0	1.83	3.3	3.3	1.5	1.5	2.6	2.4	2.0	3.0	2.0	3.0	15.1	17.3
161	1.4	1.2	0	0	0.16	2.7	2.7	2.5	2.5	3.8	0.0	0.0	3.0	2.0	0.0	8.9	0.1
162	0.7	0.4	0	0	0.30	1.4	1.4	1.1	1.1	4.3	0.2	2.0	2.1	2.4	3.0	14.1	1.9
163	1.0	0.8	0	0	0.29	2.0	2.0	1.8	1.8	3.9	0.4	2.0	0.0	0.0	0.0	6.3	2.9
164	1.6	1.6	0	0	0.20	3.5	3.5	3.3	3.3	3.5	0.1	2.0	0.0	0.0	0.0	5.5	1.1
165	0.7	0.1	0	0	0.23	1.0	1.0	0.8	0.8	4.6	0.0	0.0	3.0	2.0	3.0	12.6	0.3
166	0.8	0.4	0	0	0.22	1.4	1.4	1.2	1.2	4.3	0.3	0.0	3.0	2.0	0.0	9.6	2.0
167	1.6	0.4	0	0	1.31	3.2	3.2	1.9	1.9	2.0	3.2	2.0	1.0	3.0	3.0	14.2	21.5
168	0.7	0.2	0	0	0.20	1.1	1.1	0.9	0.9	4.6	0.0	0.0	1.1	3.0	3.0	11.6	0.0
169	0.4	0.2	0	0	0.21	0.8	0.8	0.6	0.6	4.7	0.0	0.0	3.0	2.0	0.0	9.7	0.0
170	0.9	1.9	0	0	0.20	3.0	3.0	2.8	2.8	3.7	0.0	2.0	3.0	2.0	0.0	10.8	0.2
171	1.0	1.1	0	0	0.13	2.2	2.2	2.0	2.0	4.0	0.1	0.0	0.1	0.1	0.0	4.3	0.4
172	1.1	0.4	0	0	0.81	2.3	2.3	1.5	1.5	3.6	1.4	2.0	3.0	2.0	3.0	14.9	5.9

Table 1. Subwatershed Scores (continued)

Subwatershed	Preservation Component Scores					Scenario Scores				Mitigation Component Scores						Total Score	% Imp.
Number	For. LC	Wetl. LC	Trout Streams	Trout Lakes	Urb. Area Prox.	1	2	3	4	Agric. LC	Urb. LC	TMDL	AU	Atr.	Pop.		
173	0.4	0.3	0	0	0.35	1.0	1.0	0.7	0.7	4.5	0.1	2.0	0.0	0.1	0.1	6.8	2.1
174	1.2	1.0	0	0	0.28	2.5	2.5	2.2	2.2	3.9	0.1	2.0	0.0	0.1	0.1	6.2	0.7
175	0.5	0.2	0	0	0.28	1.0	1.0	0.7	0.7	4.6	0.0	0.0	2.9	2.1	3.0	12.6	0.9
176	0.6	0.3	0	0	0.60	1.5	1.5	0.9	0.9	4.0	0.7	2.0	3.0	2.0	3.0	14.7	7.4
177	0.8	1.5	0	0	2.50	4.7	4.7	2.2	2.2	2.1	3.0	2.0	3.0	2.0	3.0	15.1	18.8
178	0.3	0.1	0	0	0.30	0.7	0.7	0.4	0.4	4.7	0.1	0.0	3.0	2.0	0.0	9.8	1.7
179	1.3	1.6	0	0	0.10	3.0	3.0	2.9	2.9	3.7	0.0	0.0	2.5	1.7	0.1	8.0	0.2
180	0.6	0.2	0	0	0.25	1.0	1.0	0.8	0.8	4.6	0.0	0.0	3.0	2.0	3.0	12.6	0.1
181	1.1	2.3	0	0	0.32	3.6	3.6	3.3	3.3	3.5	0.2	0.0	2.8	2.0	0.2	8.6	1.1
182	1.1	1.4	0	0	0.20	2.7	2.7	2.5	2.5	3.9	0.0	0.0	2.6	2.0	0.4	8.9	0.2
183	0.6	0.4	0	0	0.32	1.4	1.4	1.1	1.1	4.5	0.1	0.0	0.0	0.5	0.5	5.6	0.4
184	0.5	0.4	0	0	0.28	1.1	1.1	0.9	0.9	4.5	0.1	0.0	2.9	2.0	2.0	11.5	0.8
185	0.4	0.1	0	0	0.22	0.7	0.7	0.5	0.5	4.7	0.0	0.0	2.9	2.0	0.9	10.5	0.2
186	1.0	0.8	0	0	0.37	2.2	2.2	1.8	1.8	4.2	0.1	2.0	3.0	2.0	3.0	14.2	0.3
187	1.3	0.9	0	0	0.16	2.4	2.4	2.2	2.2	3.9	0.1	0.0	2.3	2.0	0.7	9.0	0.5
188	0.4	0.1	0	0	0.39	0.9	0.9	0.5	0.5	4.6	0.2	0.0	2.5	2.2	3.0	12.6	1.6
189	1.2	1.8	0	0	0.56	3.5	3.5	3.0	3.0	3.6	0.2	0.0	2.0	2.0	1.0	8.7	1.3
190	0.5	0.7	0	0	0.30	1.5	1.5	1.2	1.2	4.3	0.1	2.0	3.0	2.0	3.0	14.5	1.4
191	0.5	0.1	0	0	0.21	0.8	0.8	0.6	0.6	4.7	0.0	0.0	3.0	2.0	3.0	12.7	0.1
192	0.6	0.8	0	0	0.35	1.8	1.8	1.5	1.5	4.2	0.2	2.0	3.0	2.0	3.0	14.4	0.9
193	0.6	0.9	0	0	0.42	1.9	1.9	1.5	1.5	4.3	0.1	2.0	2.0	2.0	1.0	11.4	0.5
194	0.7	0.4	0	0	0.24	1.2	1.2	1.0	1.0	4.5	0.0	0.0	2.9	2.0	2.8	12.2	0.0
195	0.4	0.1	0	0	0.69	1.2	1.2	0.5	0.5	4.4	0.5	0.0	3.0	2.1	2.9	12.9	4.3
196	0.8	1.4	0	0	0.29	2.6	2.6	2.3	2.3	4.0	0.0	0.0	2.0	2.0	1.0	9.0	0.7
197	0.7	0.8	0	0	0.19	1.6	1.6	1.4	1.4	4.3	0.0	2.0	2.0	2.0	1.0	11.4	0.2
198	0.9	1.0	0	0	1.00	2.9	2.9	1.9	1.9	3.3	1.0	0.0	2.0	2.0	1.0	9.4	9.3
199	0.6	0.4	0	0	0.31	1.3	1.3	1.0	1.0	4.4	0.1	0.0	3.0	2.2	2.8	12.6	1.3
200	0.4	0.6	0	0	0.39	1.4	1.4	1.0	1.0	4.3	0.4	2.0	2.1	2.0	1.3	12.1	2.8
201	0.8	0.6	0	0	0.44	1.8	1.8	1.4	1.4	4.2	0.2	0.0	3.0	2.9	2.1	12.4	2.1
202	1.4	1.3	0	0	0.49	3.2	3.2	2.7	2.7	3.7	0.2	0.0	2.0	2.0	1.0	8.8	0.7
203	0.8	0.7	0	0	0.29	1.8	1.8	1.5	1.5	4.2	0.1	0.0	2.0	2.0	1.0	9.4	1.2
204	1.0	1.7	0	0	0.18	2.9	2.9	2.7	2.7	3.8	0.0	2.0	2.0	2.0	1.0	10.8	0.2
205	1.2	3.2	0	0	0.34	4.8	4.8	4.4	4.4	2.8	0.6	2.0	2.8	2.8	1.9	12.8	2.6
206	0.2	0.1	0	0	0.26	0.6	0.6	0.3	0.3	4.8	0.0	0.0	3.0	3.0	2.0	12.8	0.0
207	0.9	1.6	0	0	0.23	2.8	2.8	2.6	2.6	3.8	0.1	2.0	3.0	3.0	2.0	13.9	0.6
208	0.5	0.2	0	0	0.23	0.9	0.9	0.7	0.7	4.6	0.0	0.0	2.1	2.0	1.2	9.9	0.3
209	0.9	0.9	0	0	0.20	2.0	2.0	1.8	1.8	4.2	0.0	2.0	2.1	2.1	1.1	11.5	0.2
210	2.0	0.9	0	0	0.17	3.0	3.0	2.9	2.9	3.7	0.0	0.0	2.0	2.0	1.0	8.7	0.0
211	1.1	1.2	0	0	0.19	2.4	2.4	2.2	2.2	4.0	0.0	0.0	2.0	2.0	1.0	9.0	0.2
212	1.0	1.3	0	0	0.18	2.5	2.5	2.3	2.3	3.9	0.1	0.0	2.0	2.0	1.0	9.0	0.4
213	0.3	0.1	0	0	0.37	0.8	0.8	0.4	0.4	4.7	0.1	0.0	3.0	3.0	2.0	12.8	0.5
214	1.0	0.9	0	0	0.43	2.4	2.4	1.9	1.9	3.9	0.2	2.0	3.0	2.0	1.8	12.9	2.5
215	2.3	1.3	1	0	0.06	3.7	4.7	4.6	3.9	3.1	0.3	2.0	1.0	0.0	2.0	8.4	2.3
216	1.1	0.9	0	0	0.99	3.0	3.0	2.0	2.0	2.8	1.8	2.0	3.0	1.7	2.5	13.9	13.2
217	1.2	0.6	0	0	0.72	2.5	2.5	1.7	1.7	3.4	1.2	2.0	1.3	2.9	3.0	13.7	8.9