

Table 1. Source and location of data layers used in Arkansas watershed prioritization

Category	Subcategory	Description	Data Source	Data Location
1	a-d, f	Water body impairments	ADEQ*	www.adeq.state.ar.us/water/branch_planning/pdfs/303d_list_2008.pdf
	e	Nutrient sensitive watersheds	ANRC	www.geostor.arkansas.gov/G6/Home.html?q=nutrient+surplus+area
2	a-c, f	Water use impairments	ADEQ	www.adeq.state.ar.us/water/branch_planning/pdfs/303d_list_2008.pdf
	d	Environmentally sensitive waters	ADEQ	www.geostor.arkansas.gov/G6/Home.html?q=ecologically+sensitive+streams
	e	Extraordinary resource waters	ADEQ	www.geostor.arkansas.gov/G6/Home.html?q=extraordinary+resource+line
3	a-e	Biotic impacts	ADEQ	www.adeq.state.ar.us/water/branch_planning/pdfs/303d_list_2008.pdf
4	a-d	Human exposure	Various	Ranking based on risk of human exposure to environmental pollutants
5		Urban/suburban population	U.S. Census Bureau	www.factfinder.census.gov
6		Impervious surface	CAST	www.geostor.arkansas.gov/G6/Home.html?q=Land+Use+Land+Cover+006
7	a	Change in economic activity	CAST	Difference of 1999 and 2006 land-use layers (www.geostor.arkansas.gov)
	b	Shale development	AOGC	www.geostor.arkansas.gov/G6/Home.html?q=Oil+Gas+Well+Point
	c	Other economic activity	ADEQ	www.geostor.arkansas.gov/G6/Home.html?q=Environmental+Permitted+Sites
8		Cropland	USDA	www.agcensus.usda.gov
9	a	Pasture	CAST	www.geostor.arkansas.gov/G6/Home.html?q=Land+Use+Land+Cover+2006
	b	Livestock	USDA	www.agcensus.usda.gov
10		Unpaved roads	AHTD	www.geostor.arkansas.gov/G6/Home.html?q=road+all+line
11	a-c	Forestry	Various	2006 land-use layer (CAST), state and private forest (USDA Forest Service)
12	a-b	Neighboring state's priority	ANRC	Based on stakeholder meeting discussions

*ADEQ = Arkansas Department of Environmental Quality; ANRC = Arkansas Natural Resources Commission; AHTD = Arkansas State Highway and Transportation Department; AOGC = Arkansas Oil and Gas Commission; CAST = Center for Advanced Spatial Technologies; USDA = U.S. Department of Agriculture.

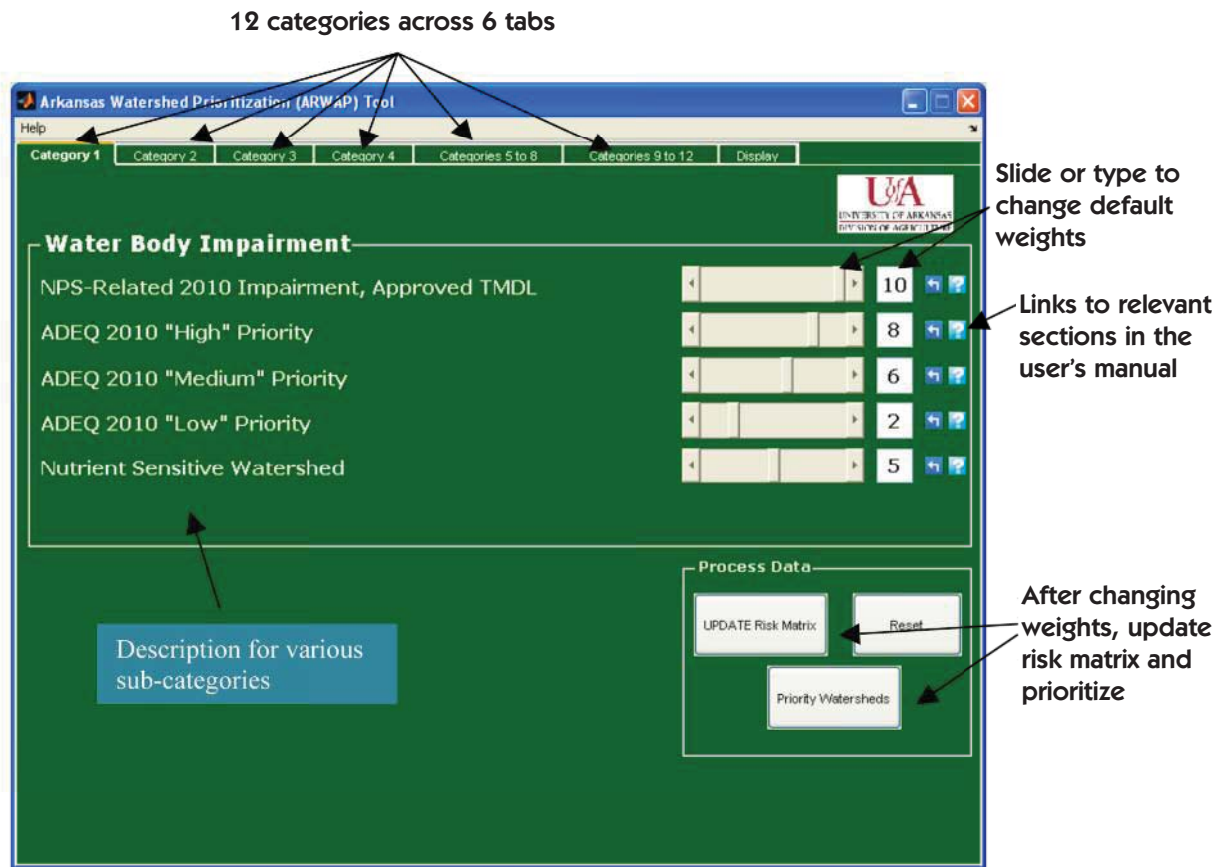


Figure 4. Arkansas Watershed Prioritization (ARWAP) tool user interface

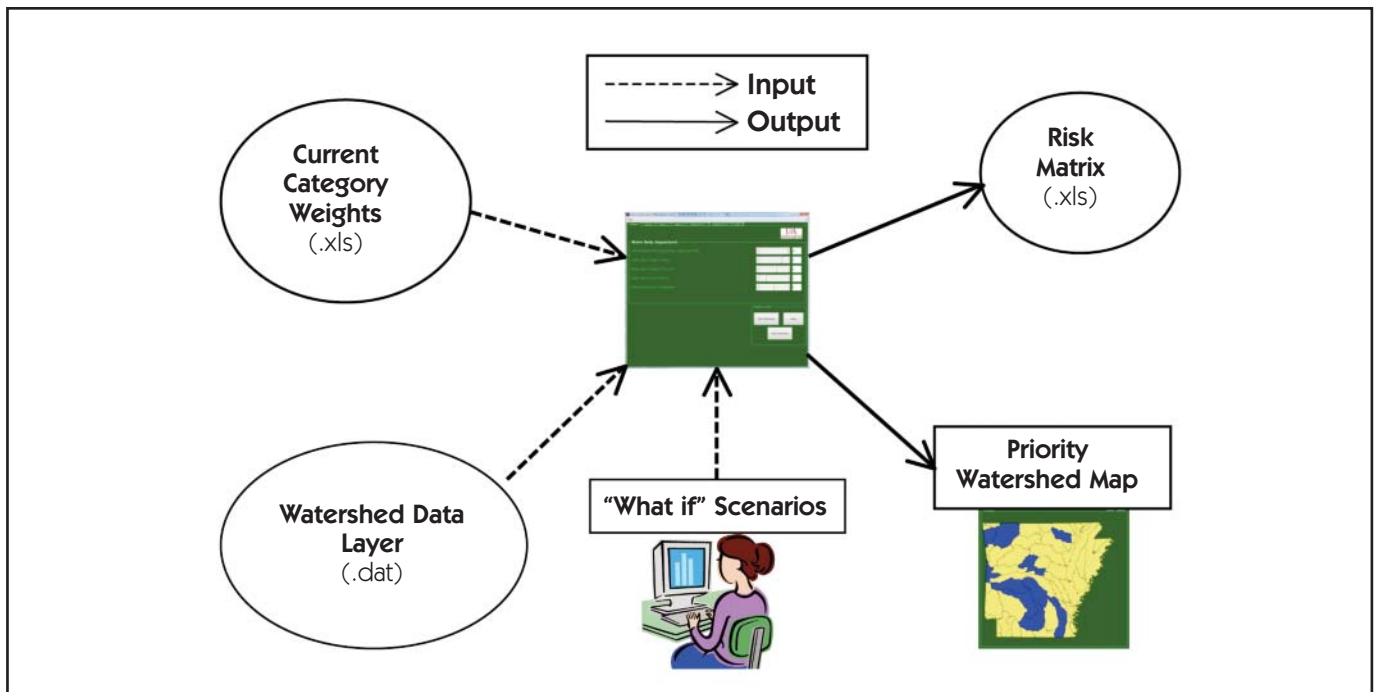


Figure 5. ARWAP tool's procedure to test a “what if” scenario

Additional Reading

Morgan, R., and M. Matlock. 2008. A collaborative learning matrix for combing science with stakeholder involvement to prioritize watershed implementation in Arkansas' nonpoint source state management plan. *Journal of Environmental Assessment Policy and Management* 10(3):307-331.

Footnotes

¹For more detailed information on Arkansas watersheds and the HUC system, refer to Fact Sheet 9521, *Arkansas Watersheds*, www.uaex.edu/Other_Areas/publications/PDF/FSA-9521.pdf.

²http://www.adeq.state.ar.us/water/branch_planning/303d/303d.htm.

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