DECISION SUPPORT TOOL MATRIX

	DESCRIPTION	STRENGTHS	LIMITATIONS
ARIES (Artificial Intelligence for Ecosystem Se	Models impacts of landscape changes on ecosystem services, alternative scenarios for climate change, land use, or land cover scenarios and policies.	1. Web based GIS, no ArcGIS access necessary	1. No commercial user support yet. Right now, local data only available for 6 geographies, if outside of that, must contact consortium to add your project area to list of pilot projects.
HPP (Habitat Priority Planner)	In addition to alternative habitat scenarios, the tool also generates pertinent reports, maps, and data tables.	1. Relatively easy to use 2. Produces graphs and reports	1. Requires data to be point, line, or poly. No rasters. Processing times can be long for larger areas. No runoff modeling incorporated.
ISAT (Impervious Surface Analysis Tool)	Helps managers determine impact impervious surface coverage has on local water quality.	1. Very easy to implement and data required are easily accessible.	1. Less accurate on watershed scale. More appropriate for community scale and small land use changes.
InVEST (Integrated Valuation of Ecosystem Services and Trade-offs)	Identifies where ecosystem services are provided, consumed, and how management decisions will affect the economy, human well-being, and the environment.	1. Can model multiple alternative futures 2. Can be run at multiple geographic scales	1. Graphic user interface is not a very inuative for novice users. 2. Data requirements can be excessive.
N-SPECT (Nonpoint Source Pollution and Erosion Comparison)	impacts to rivers and streams from nonpoint source pollution and erosion using various Land cover change scenarios.	1. Works well with local and watershed scales but most effective on med-large watersheds. 2. Alternative land development scenario analysis. 3. several reference case studies to draw from, excellent user documentation and support.	1. Users must download MapWindow GIS to run the extension. However, this is open-source.
SERVES (Simple and Effective Resource for Valuing Ecosystem Services)	natural capital appraisal tool for natural resource managers to estimate the value of a specific area's ecosystem services.	1. The system will automatically adjust for currency, inflation, measurement units (acres/ha) 2. Scalability	1. Subscription required. 2. This economic analysis is beyond the scope of this project.
SPARROW (SPAtially Referenced Regressions On Watershed attributes)	Tracks nutrient delivery locally to the outlets of inland watersheds and regionally to coastal waters.	1. Can be used over scales ranging from single stream reach catchments up to the size of large watersheds.	1. Statistical in nature, not as easily replicated by novice users. Knowledge of SAS software is required to manipulate the model.
WARMF (Watershed Analysis Risk Management Framework)	Identifies and quantifies significant point and non-point sources of phosphorus.	1. Uses readily available data 2. Links catchments, river segments, and lakes to form a seamless river basin model which computes soil and surface hydrology based on physical principles instead of run off coefficients.	1. Limited reference sites with no recent studies implementing the tool to provide as reference sources.