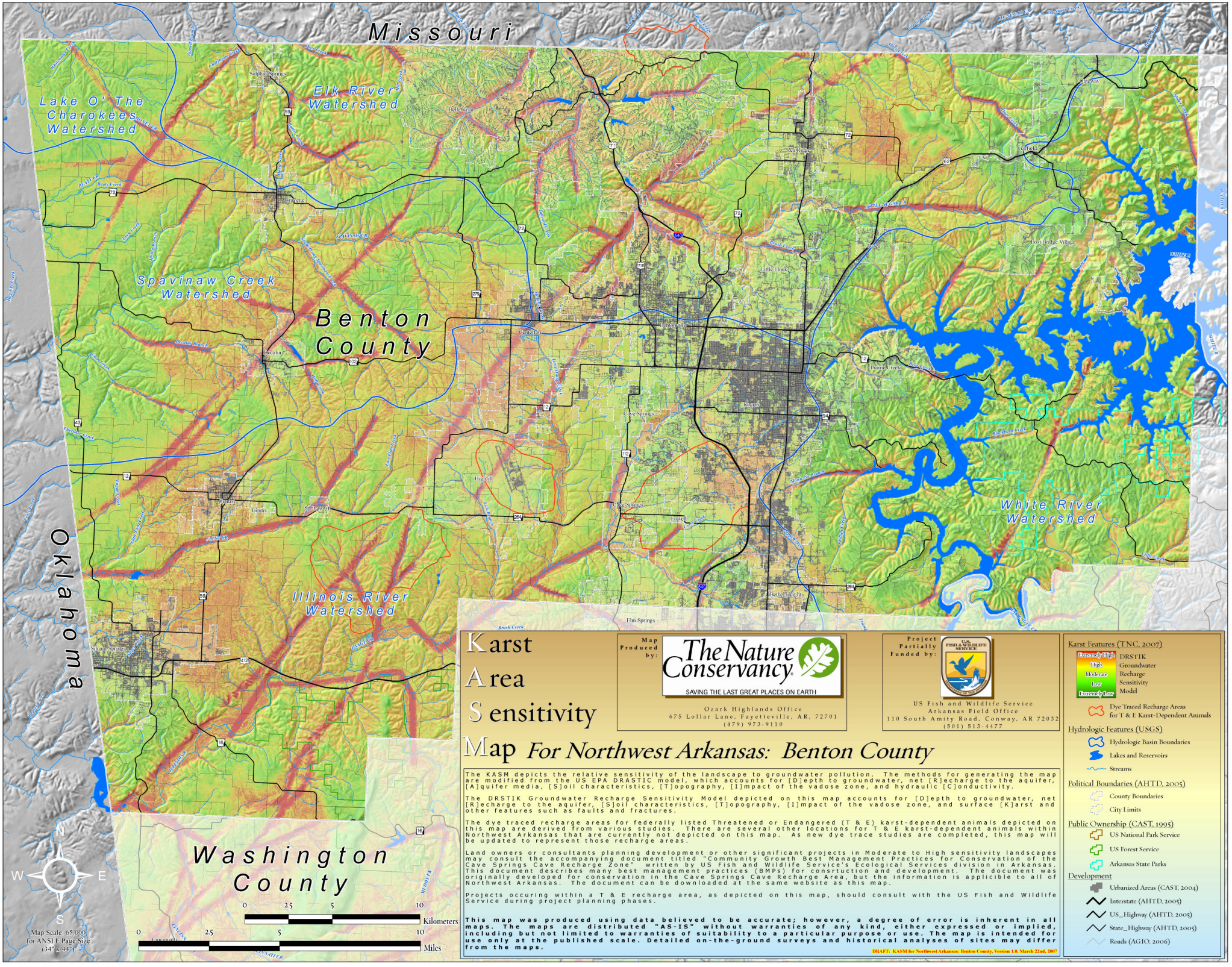

Karst Area Sensitivity Map *For Northwest Arkansas: Benton County*

Map Produced by:

The Nature Conservancy
SAVING THE LAST GREAT PLACES ON EARTH

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Project Partially Funded by:

U.S. Fish & Wildlife Service

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The KASM depicts the relative sensitivity of the landscape to groundwater pollution. The methods for generating the map are modified from the US EPA DRASTIC model, which accounts for [D]epth to groundwater, net [R]echarge to the aquifer, [A]quifer media, [S]oil characteristics, [T]opography, [I]mpact of the vadose zone, and hydraulic [C]onductivity.

The DRSTIK Groundwater Recharge Sensitivity Model depicted on this map accounts for [D]epth to groundwater, net [R]echarge to the aquifer, [S]oil characteristics, [T]opography, [I]mpact of the vadose zone, and surface [K]arst and other features such as faults and fractures.

The dye traced recharge areas for federally listed Threatened or Endangered (T & E) karst-dependent animals depicted on this map are derived from various studies. There are several other locations for T & E karst-dependent animals within Northwest Arkansas that are currently not depicted on this map. As new dye trace studies are completed, this map will be updated to represent those recharge areas.

Land owners or consultants planning development or other significant projects in Moderate to High sensitivity landscapes may consult the accompanying document titled "Community Growth Best Management Practices for Conservation of the Cave Springs Cave Recharge Zone" written by US Fish and Wildlife Service's Ecological Services division in Arkansas. This document describes many best management practices (BMPs) for consrtuction and development. The document was originally developed for conservation in the Cave Springs Cave Recharge Area, but the information is applicible to all of Northwest Arkansas. The document can be downloaded at the same website as this map.

Projects occuring within a T & E recharge area, as depicted on this map, should consult with the US Fish and Wildlife Service during project planning phases.

This map was produced using data believed to be accurate; however, a degree of error is inherent in all maps. The maps are distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. The map is intended for use only at the published scale. Detailed on-the-ground surveys and historical analyses of sites may differ from the maps.

DRAFT: KASM for Northwest Arkansas: Benton County, Version 1.0, March 22nd, 2007

Karst Features (TNC, 2007)
- Extremely High / High / Moderate / Low / Extremely Low: DRSTIK Groundwater Recharge Sensitivity Model
- Dye Traced Recharge Areas for T & E Karst-Dependent Animals

Hydrologic Features (USGS)
- Hydrologic Basin Boundaries
- Lakes and Reservoirs
- Streams

Political Boundaries (AHTD, 2005)
- County Boundaries
- City Limits

Public Ownership (CAST, 1995)
- US National Park Service
- US Forest Service
- Arkansas State Parks

Development
- Urbanized Areas (CAST, 2004)
- Interstate (AHTD, 2005)
- US_Highway (AHTD, 2005)
- State_Highway (AHTD, 2005)
- Roads (AGIO, 2006)