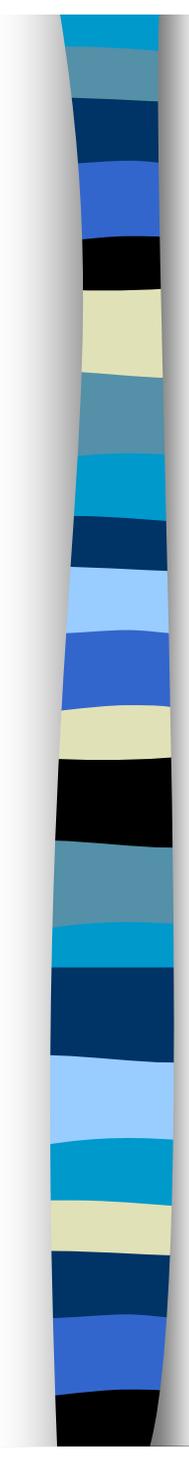


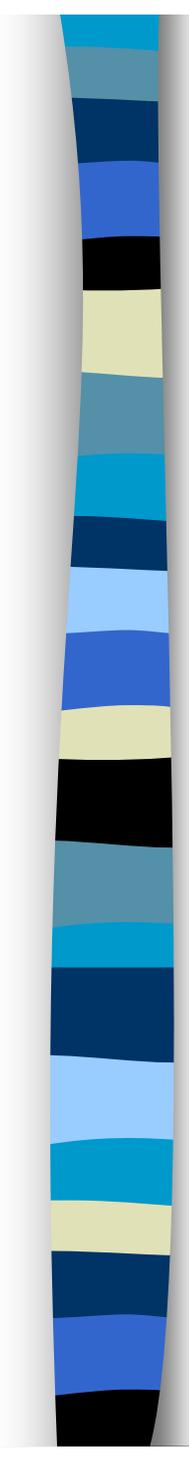
Development of an Inland Sensitivity Atlas for the Missouri River Corridor in Aid of Environmental Planning





Purpose and Goals

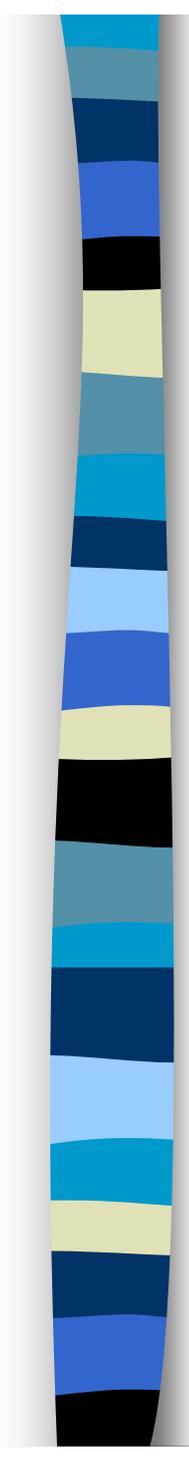
- Identify significant and sensitive species and natural areas within the Missouri river corridor and make these areas easily identifiable in a digital and hard copy atlas. Digital atlas will allow instant identification of specifics for any area (“identify” not available on previous Atlas).
- Identify potential environmental hazards within the Missouri river corridor and point management and planners to these areas quickly using digital and hard copy atlas formats.
- Use new software/delivery mechanisms
- Present these data in an elegant Sensitivity Atlas in both hard copy and interactive digital format for use by managers and planners.
- Minimal training for Sensitivity Atlas users and EPA staff. No cost for software.



Methods

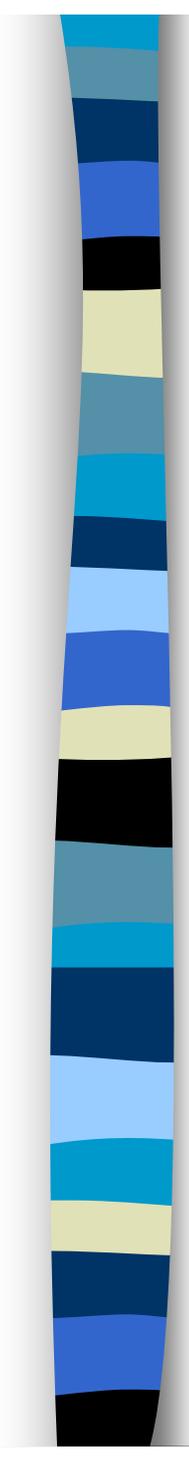
■ Pre-processing

1. Acquire and organize data
2. Project all data layers to Albers
3. Merge appropriate layers together
4. Clip layers to St. Louis and Fulton 100K boundary



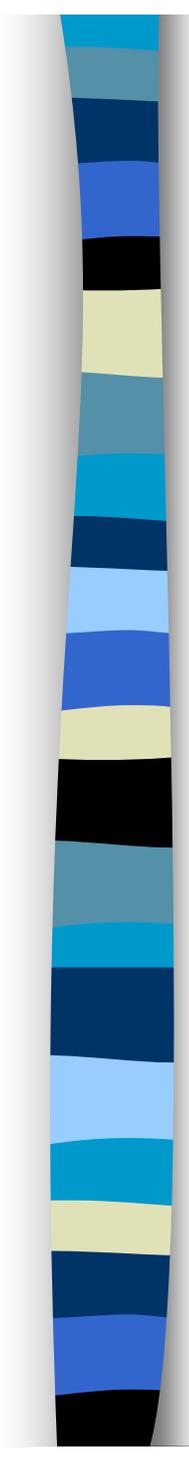
■ Processing

1. Cull through each data layer to determine which attributes can be eliminated and what should be added to present the user with the most relevant and valuable information
2. Make attributes as consistent as possible with the Mississippi River Atlas
3. Ensure consistency of data attributes between St. Louis and Fulton quads
4. Compile data in a useable and realistic format for easy access by the user using new software solutions



■ Map creation

1. Bring 100K DRGs of St. Louis and Fulton quads into ArcMap
2. Bring shapefiles into ArcMap
3. Select appropriate icons and symbolization
4. Tile map layouts using ArcMap extension DSMapBook
5. Final digital Atlas delivery via ArcReader freeware; data on CD
6. Final hard copy via 8.5 X 11 Atlas



Data

*denotes data layers new to EPA R7 Atlas

Boundaries

- Designated Natural Areas
- Managed Areas
- Nature Conservancy Areas
- Missouri Department of Conservation Areas

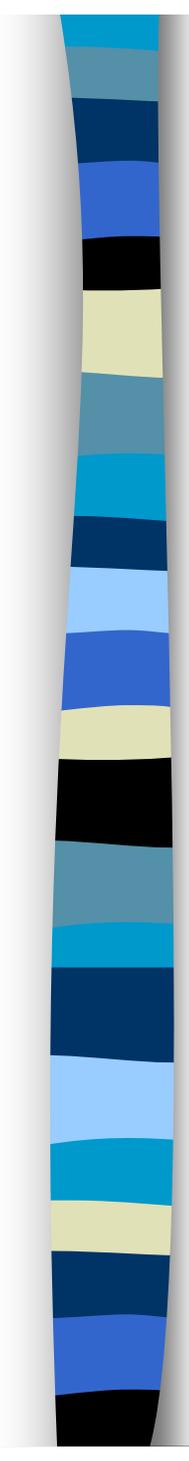


Natural

- High Resolution 1:24,000 National Hydrography Dataset (NHD) points
- High Resolution NHD streams
- High Resolution NHD waterbodies
- Conservation Opportunity Areas
- Sensitive Species data

Threat

- Oil pipelines
- Oil storage facilities



Structures

- Levees
- Public waters source wells
- Facility Response Planning Facilities (FRP) sites
- National Register of Historic Places data
- Boat access areas
- Dams
- Potable water intakes
- Industrial water intakes
- Highways

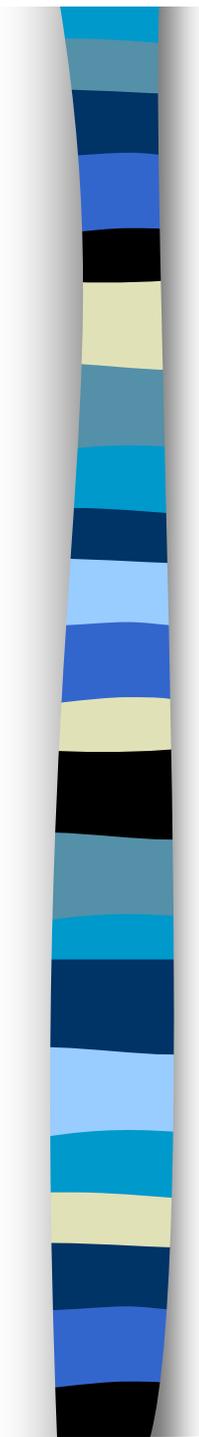
Map Legend: Missouri River Sensitivity Atlas, 2003

Map Legend

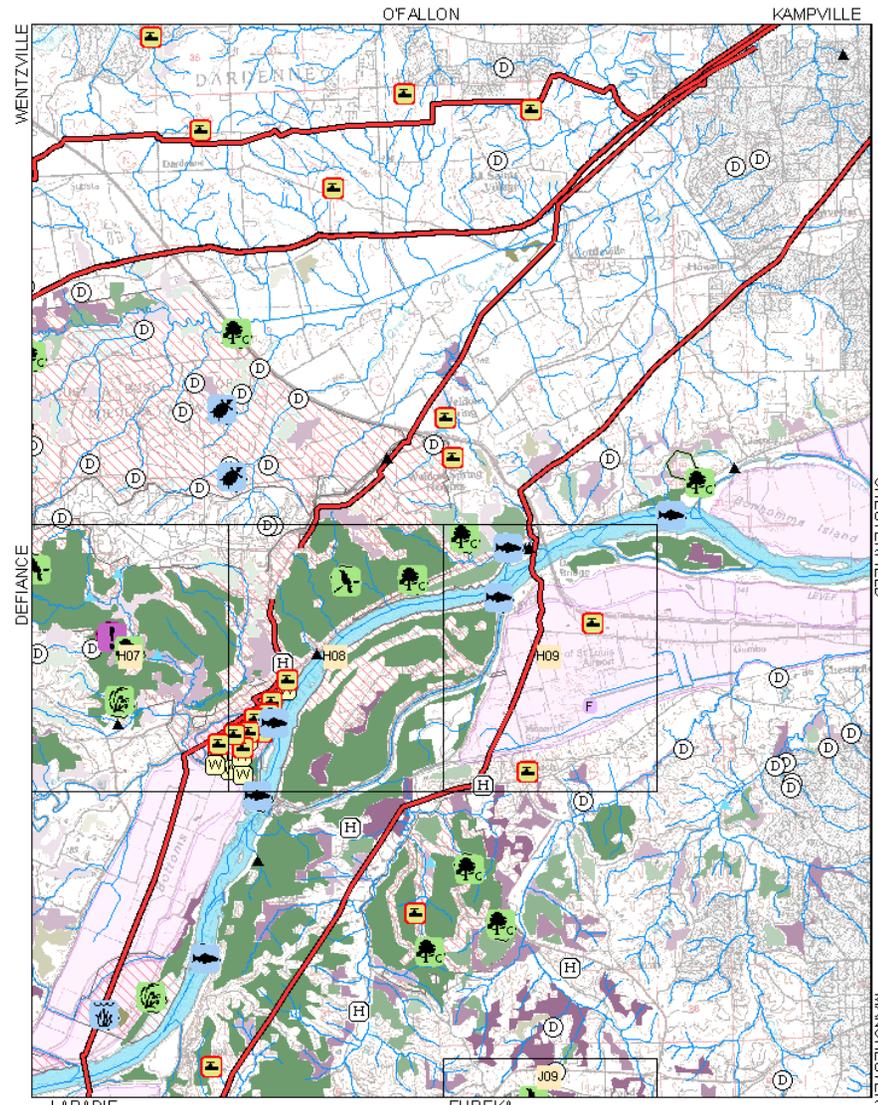
Sensitive Species Label Icons

SYMBOL

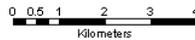
	Aquatic Plant		Public Water Supply
	Terrestrial Plant		Industrial Water Intake
	Aquatic Bird		Facilities Response Planning Facility
	Terrestrial Bird		National Historic Register
	Aquatic Amphibian/Reptile		Non-navigational Dam
	Aquatic Invertebrate		Pipelines
	Terrestrial Invertebrate		Interstates
	Fish		Publicly Managed Areas
	Aquatic Natural Community		Designated Natural Areas
	Terrestrial Natural Community	NHD 24K Points	
	Multiple Species Grouping	Feature Type	
	T/E Aquatic Plant		SINK/RISE
	T/E Terrestrial Plant		SPRING/SEEP
	T/E Aquatic Bird		GAGING STATION
	T/E Terrestrial Bird		WELL
	T/E Aquatic Amphibian/Reptile		NHD 24K Streams
	T/E Terrestrial Amphibian/Reptile		NHD 24K Water Bodies
	T/E Terrestrial Mammals		Areas Behind Levees
	T/E Aquatic Invertebrates	Conservation Opportunity Areas	
	T/E Fish	LF_RANK	
	T/E Multiple Species Grouping	fo	
	Aquatic Species		1 - 90
	Multiple Species		91 - 281
	Terrestrial Species		282 - 851
			852 - 3420
		gr	
			1 - 90
			91 - 281
			282 - 851
			852 - 3420
		mo	
			1 - 90
			91 - 281
			282 - 851
			852 - 3420



1:100,000 Scale Sensitivity Atlas, Weldon Spring quad.

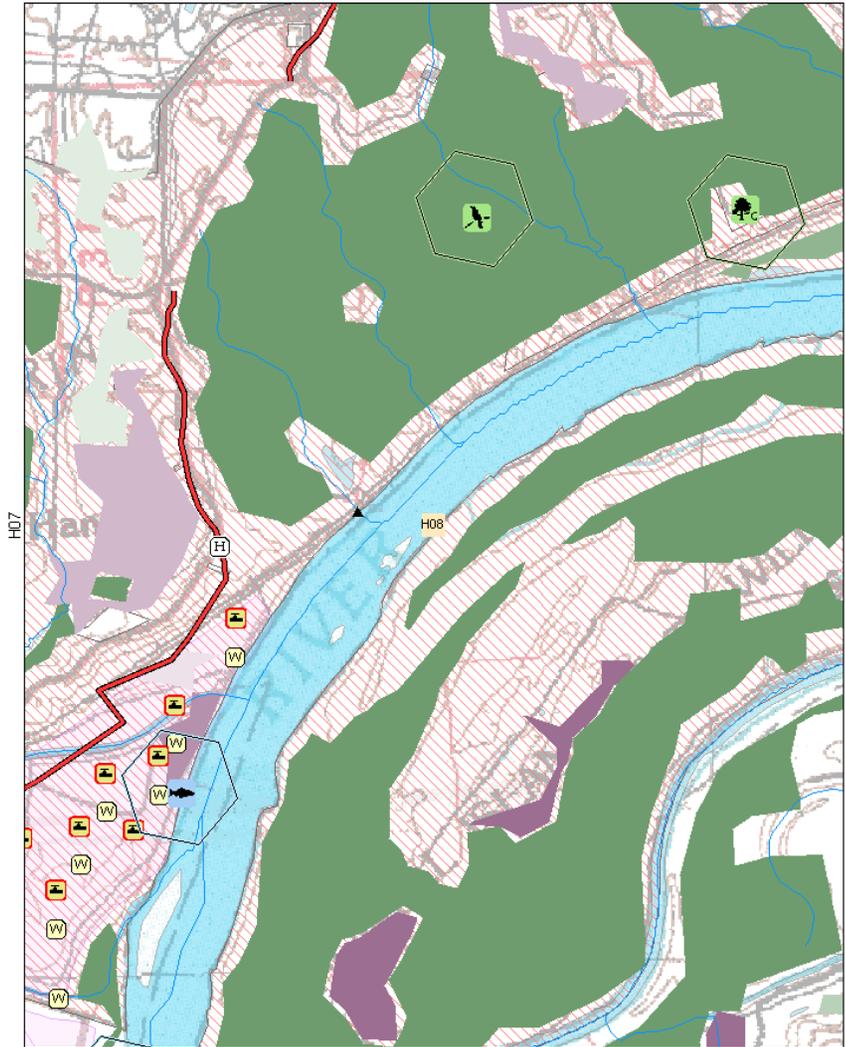


May 15, 2003
1:100,000



WELDON SPRING

Close-up of map tile created from Weldon Spring quad.



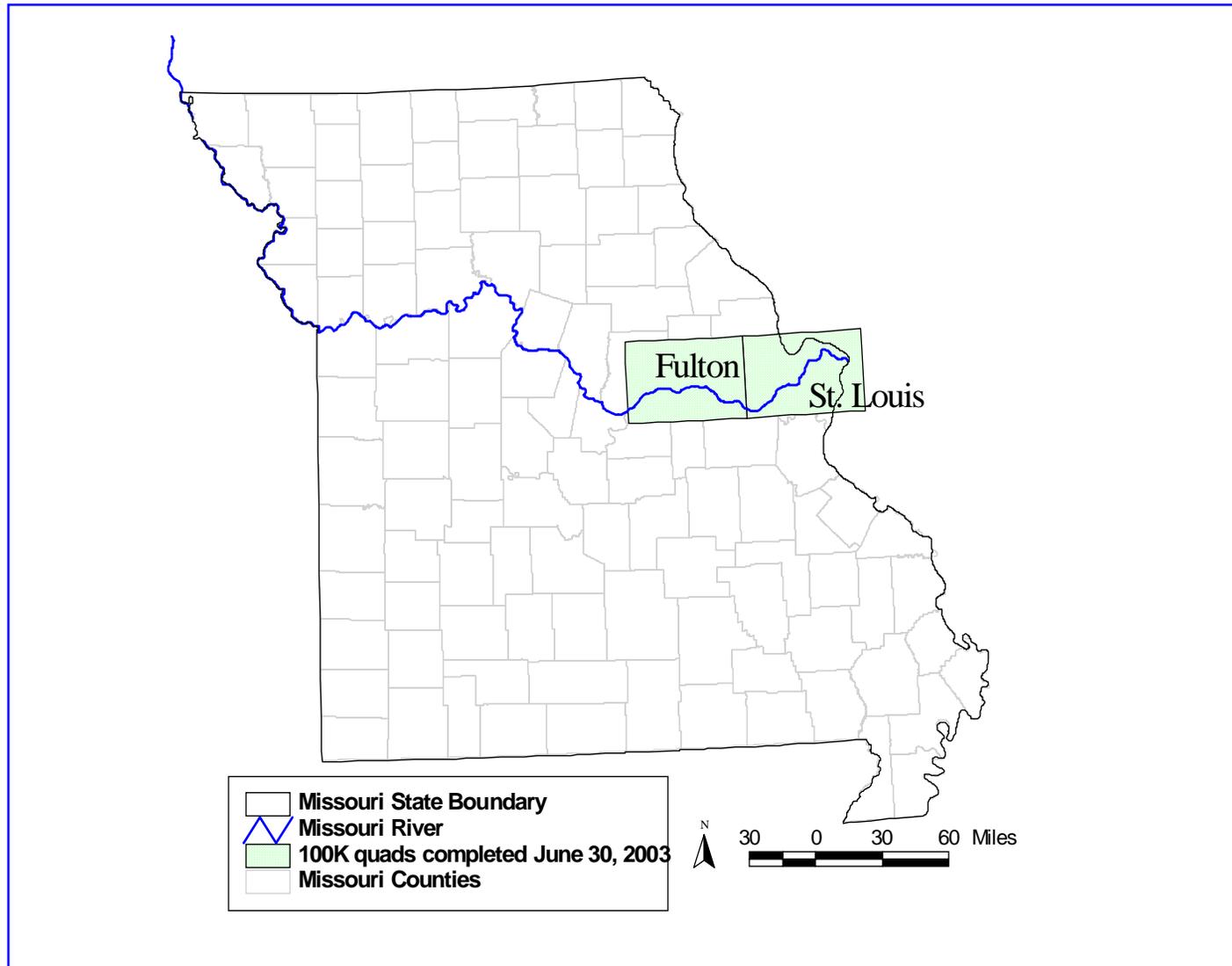
May 15, 2003
1:24,000



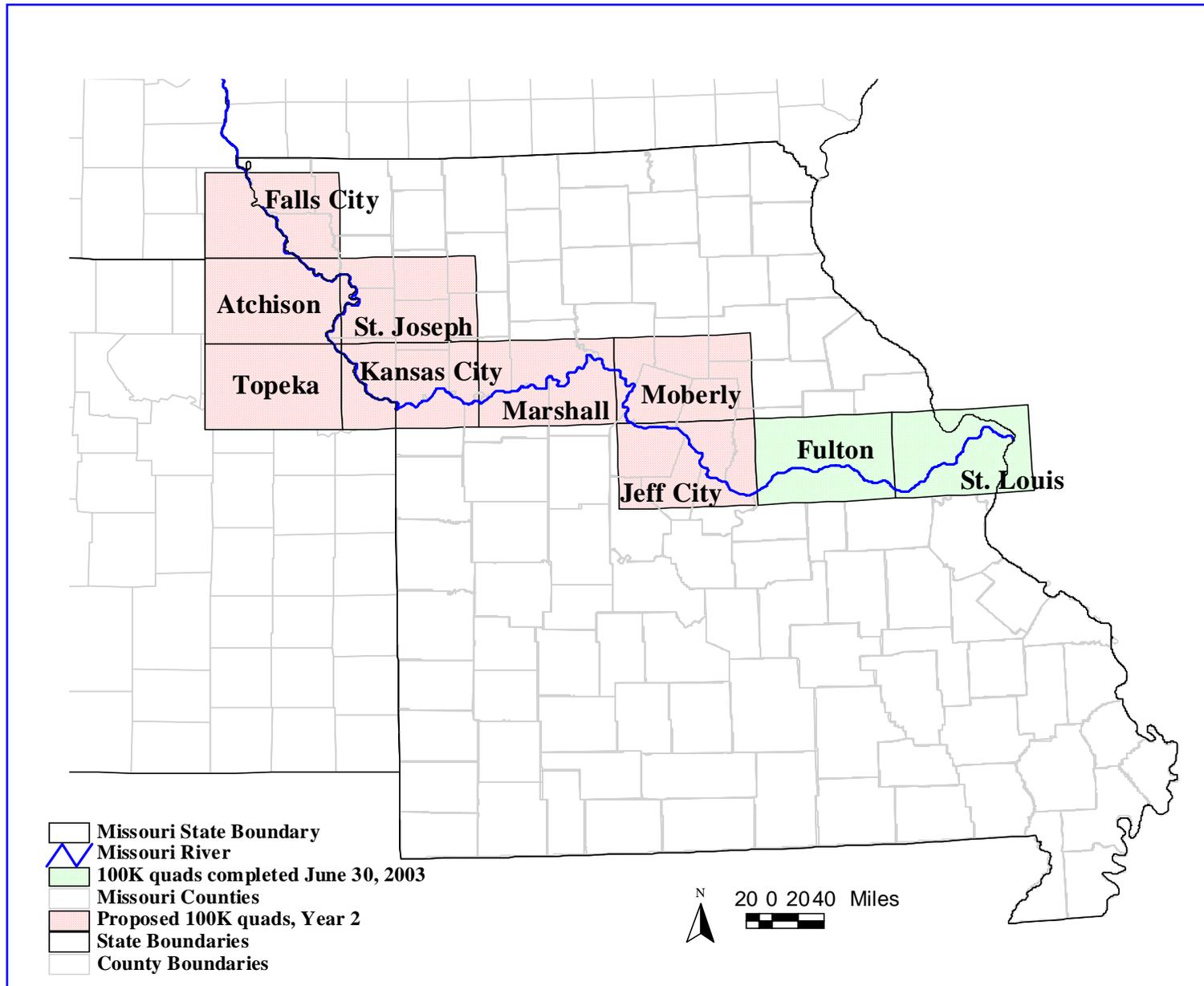
H08



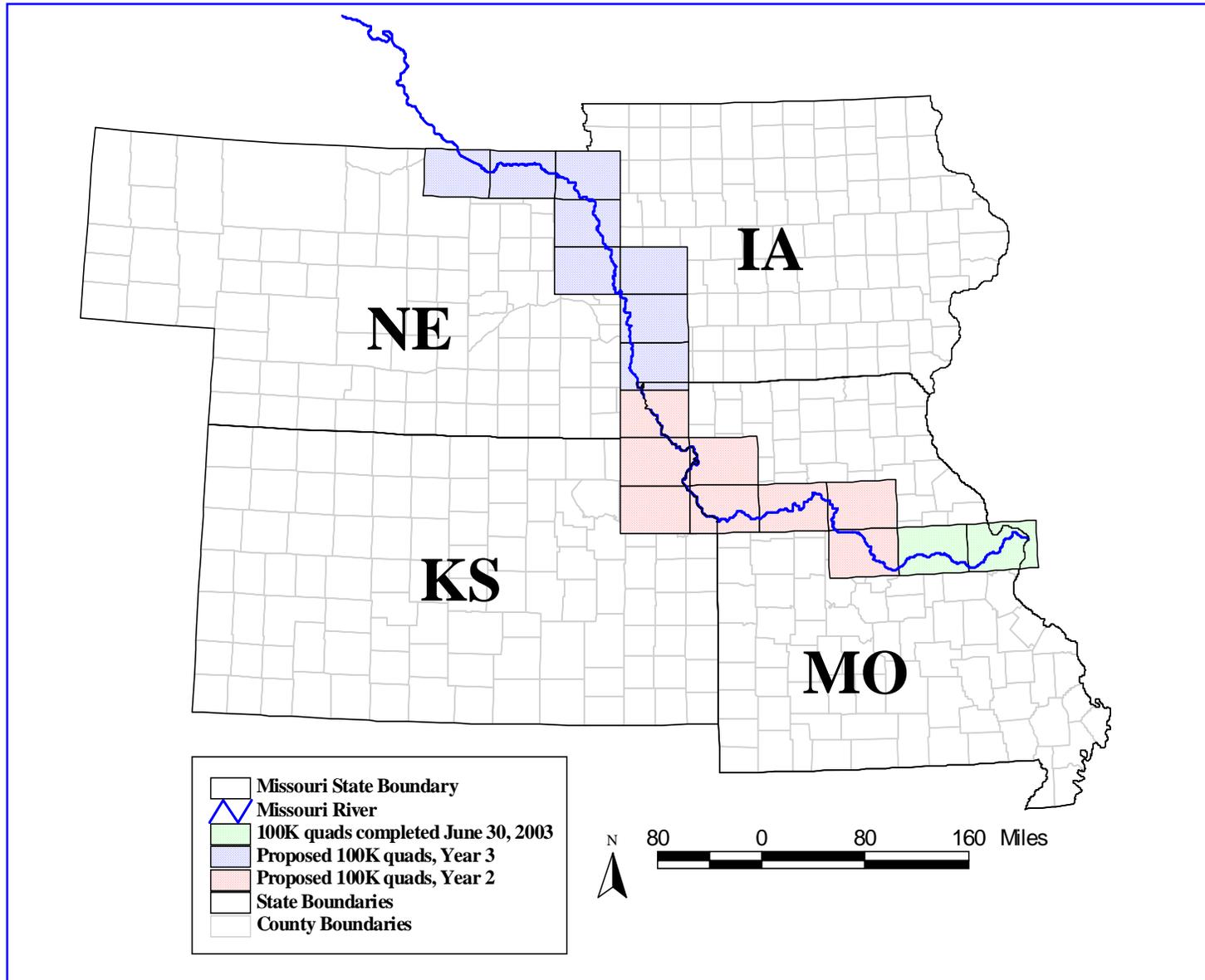
Area to be completed by June 30, 2003

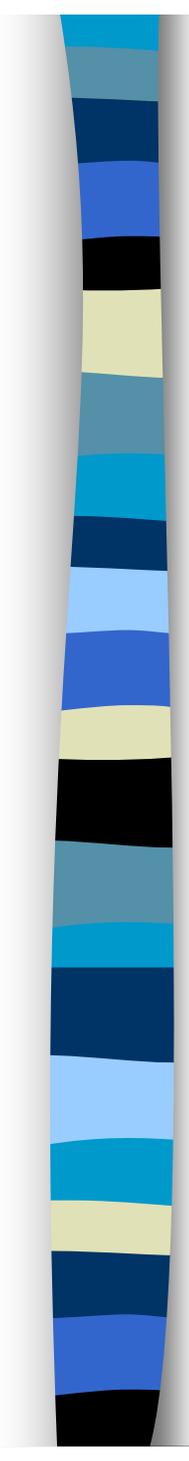


Proposed quads for year 2



Proposed quads for year 3





Benefits of New Style Atlas:

- Mimics familiar existing format & symbols
- Contains more relevant data from EPA-funded efforts and other efforts/existing data sources
- Easier to create and use
- Interactive maps allow zoom-in/out, “pan”, layers can be turned on and off, “identify”
- Use requires minimal training; software is free