

Developing a Watershed Restoration and Protection Plan for the Spring River Basin in Missouri

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Developing a Watershed Plan for Spring River

1. Establish watershed restoration and protection goals
2. Identify specific water bodies, water quality impairments, and pollution sources to be addressed by plan
3. Determine water quality objectives
 - Pollution load reductions needed to address impairments

Examples of Watershed Goals

- Restore surface waters with existing impairments
- Protect surface waters with no or minimal impairments
- Protect surface waters with recreational value
- Protect surface waters that provide public drinking water
- Restore eroding streambanks and degraded riparian areas

Identify specific water bodies associated with each goal

Examples of Water Quality Objectives

Reduce SEDIMENT loading by X tons/year

Reduce PHOSPHORUS loading by X pounds/year

Reduce NITROGEN loading by X pounds/year

Reduce BACTERIA levels

Type(s) of pollution impacting specific water bodies may vary

Amount of load reduction is specific to each water body

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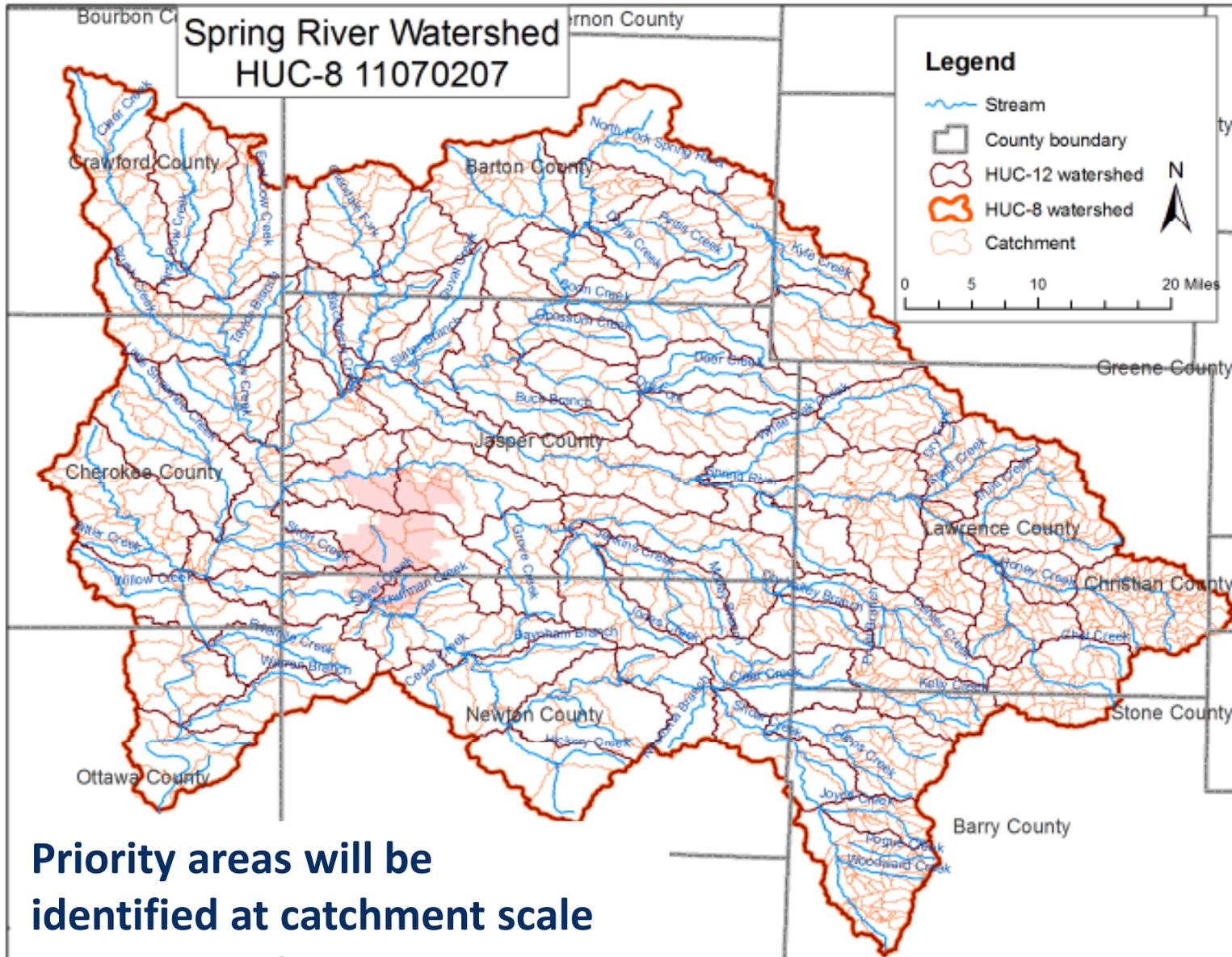
4. Select priority areas in need of conservation practices

- Existing impairments (TMDLs, 303d list)
- Areas with greatest potential to contribute sediment and nutrients
- Emerging water quality trends
- Public water supply protection
- Local concerns and interests

5. Select conservation practices to reduce pollution loading

- Pollution control effectiveness
- Cost-benefit
- Local acceptance

Spring River Watershed Priority Areas



Examples of Conservation Practices

- **Cropland: sediment and nutrient runoff**
 - buffers, no-till, terraces, waterways, permanent vegetation, etc.
- **Livestock production: nutrient and bacteria runoff**
 - off-stream watering, relocation of feeding sites, filter strips, etc.
- **Urban: sediment, nutrient, and bacteria runoff**
 - rain gardens, pervious pavement, grassed wales, filter strips, etc.
- **Streambank stabilization: sediment loading**
 - practices specific to each site

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6. Set adoption rate goals for implementing conservation practices in priority areas

- Realistic potential for installing additional practices over time

7. Develop watershed management scenario based on water quality objectives, priority areas, conservation practices, and adoption rate goals

- Estimates for load reductions, timeframe, and costs

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8. Review watershed management scenario

- Achieve water quality objectives?
- At a reasonable cost?
- In a realistic timeframe?

9. Adjust and finalize watershed management scenario

- “What if?” analysis:
- Change targeted areas
 - Change conservation practices
 - Change adoption rate goals

➔ Changes to scenario impact load reductions, timeline, and costs

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- 10. Identify needs for technical assistance services and outreach activities to support implementation of conservation practices**
- 11. Identify how progress will be measured and evaluated**
 - Outputs ▶ implementation of conservation practices, technical assistance services, and outreach activities
 - Outcomes ▶ measurable water quality improvements
- 12. Compile plan document and distribute for public review**

Developing a Watershed Plan for Spring River

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 - For information about public meetings, call 417-649-6400
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