Upper Silver Creek Watershed Plan & Implementation - Update

JANET BUCHANAN, HEARTLANDS CONSERVANCY
About HeartLands Conservancy

- Land Conservation, Building Greener Communities, & Engaging People with Nature

- Jingle Hike Challenge 2016
About the watershed

- Headwaters
- Largely farmland
- Water quality challenges
- Flooding events

EPA Watershed Planning grant
# The Watershed Planning process

## YEAR ONE: Watershed Resources Inventory
- Identify existing conditions
- Assess issues (challenges and threats)

## YEAR TWO: Watershed Plan
- Identify Best Management Practices (BMPs)
- Select BMPs and locations

## THROUGHOUT
- Stakeholder engagement & technical support
Existing Conditions Assessment

- Conditions assessed:
  - Land use
  - Topography
  - Pollution – measurements and estimates
  - Flood prevalence, frequency, & impacts

- Methods:
  - On-the-ground assessment
  - Modeling & mapping
Thank you in advance for taking the time to fill out this survey regarding the impact of floods on homes, businesses, and property in Madison County. This voluntary survey is an important part of the Upper Silver Creek Watershed Plan. Your response is greatly appreciated and will help in determining strategies and recommendations for addressing flooding problems in the Silver Creek Watershed. Flooding has tremendous costs including damage to homes, businesses, and infrastructure.
Critical Areas

- Locations in the watershed where:
  - existing or potential future causes and sources of pollutants or existing functions are significantly worse than other areas of the watershed, OR
  - there is significant potential for the area to make a difference in making improvements towards one or more of the plan’s goals.
Identifying BMPs

- BMPs for urban land
  - Green infrastructure for infiltration
  - Detention/retention basin maintenance

Rain garden. Photo: USEPA.
Detention basin maintenance. Photo: Urban Drainage and Flood Control District, Denver, CO.
Identifying BMPs

- BMPs for urban land
  - Green infrastructure for infiltration
  - Detention/retention basin maintenance

- BMPs for streams
  - Bank stabilization
  - Grade control
  - Logjam removal
BMPs for agricultural land: The ACPF
Selecting recommendations

- Meeting goals & targets
- Specific recommendations
- General recommendations
- Review by Technical Committee

<table>
<thead>
<tr>
<th>Impairment: Cause of Impairment</th>
<th>Basis for Impairment</th>
<th>Reduction Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Quality/Aquatic Life: Phosphorus</td>
<td>264,952 lbs/year of phosphorus loading, based on STEPL model</td>
<td>25% or 66,238 lbs/year reduction in phosphorus loading by 2025, based on the Illinois Nutrient Loss Reduction Strategy</td>
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<tr>
<td>Water Quality/Aquatic Life: Sediment</td>
<td>60,230 tons/year of sediment loading, based on STEPL model</td>
<td>20% or 12,046 tons/year reduction in sediment loading by 2045 (the long-term watershed planning horizon), based on estimated impacts of proposed BMPs.</td>
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<tr>
<td>Water Quality/Aquatic Life: Nitrogen</td>
<td>1,178,496 lbs/year of nitrogen loading, based on STEPL model</td>
<td>15% or 176,774 lbs/year reduction in nitrogen loading by 2025, based on the Illinois Nutrient Loss Reduction Strategy</td>
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Finding funding

- Grant applications: 319 (IEPA)
- NRCS programs: CRP, CREP, EQIP, NWQI, etc.
- Landowner/Farmer Survey identified needs & provided education/outreach

**Upper Silver Creek Watershed Plan**

**Landowner/Farmer Survey: Land Management Practices and Funding**

Dear Landowner/Farmer,

As an owner and steward of some of southwestern Illinois’ finest land, you already know the importance of clean water and a thriving agricultural economy to our region. You’re probably also aware of issues with flooding, poor water quality, topsoil loss, and streambank erosion. Fortunately, there are efforts underway to address these issues in a thorough, effective manner — a Watershed Plan. And we’d love you to be a part of it.

Please take this opportunity to read about the Upper Silver Creek Watershed Plan underway in this area, funding sources for implementing Best Management Practices, and the types of practices eligible. Then take our quick survey to let us know what your issues are and what you would like to do!

Please return the survey by July 10th.
Other Plan elements: Monitoring Plan

- To measure success:
  - Monitoring at Troy USGS gauge
  - Portable gauge
  - Illinois RiverWatch
Other Plan elements:
Information and Education Plan

- General watershed education
- Student and citizen monitoring
- Volunteer opportunities
Implementation Begins

- Plan approved by IEPA, Nov 2015; county adoption
- Implementation thru 319 grant – signup period Oct 2016, field work now, education activities 2017
- Continued outreach to stakeholders
Other Plans underway

- **Completed:**
  - Upper Silver Creek

- **In progress:**
  - Lower Silver Creek
  - Indian-Cahokia Creek
  - Canteen-Cahokia Creek

- **Outreach begun:**
  - American Bottom

**Madison County Stormwater Management Plan** – “umbrella” plan
Thank You!

Questions?

Contact:
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