Kinkaid Creek Watershed

Planning Committee
Meeting 3

March 14th 2022
10:00 AM

Agenda

i. **Welcome and Introductions**

ii. **Review of Previous Meetings**

iii. **Completed Elements**

- ✓ **Elements A - E**

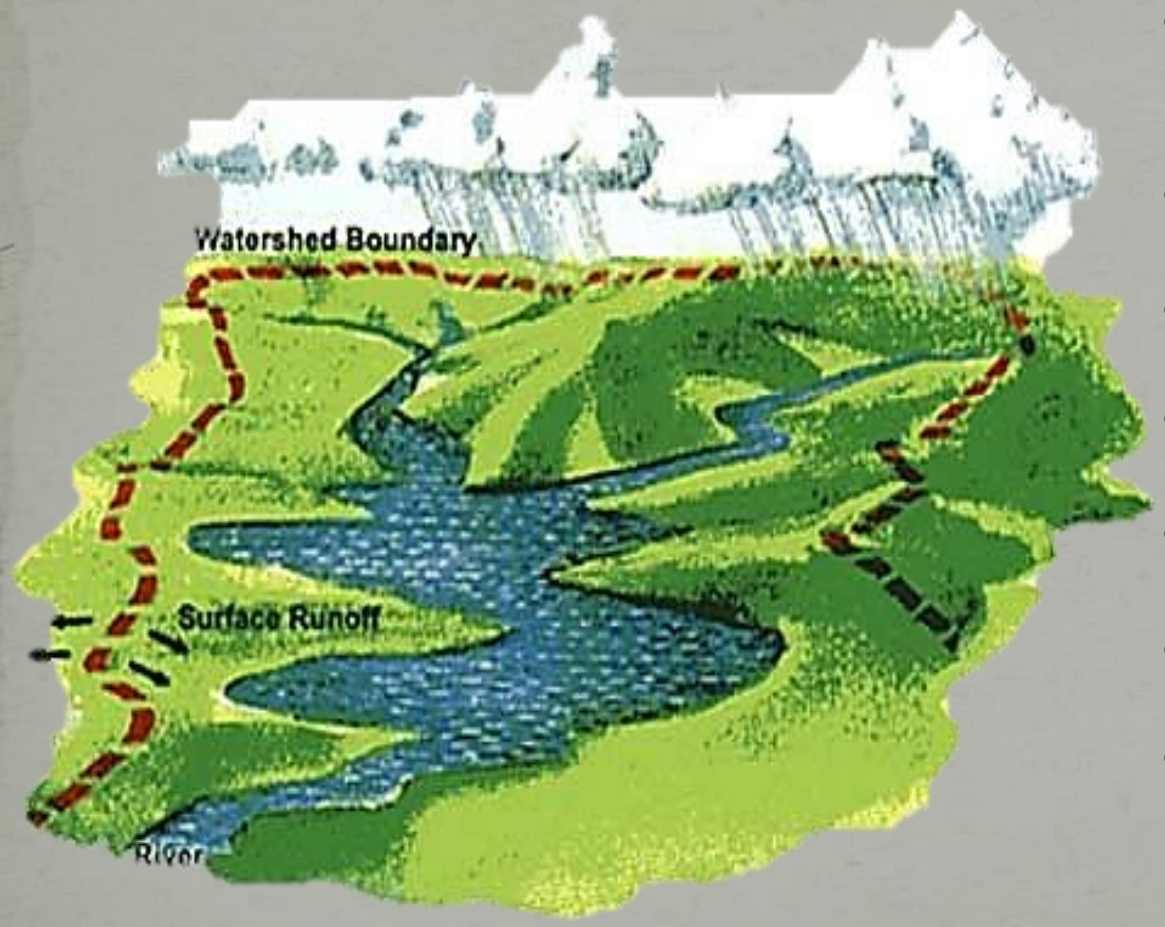
iv. **Element F-I: Implementation and Monitoring Strategy**

- Element F- Implementation schedule of BMP
- Element G- Interim measurable milestones
- Element H- Benchmarks for load reduction targets
- Element I- Monitoring strategy

v. **Needs from Committee/ Meeting Schedule**

vi. **Adjourn**

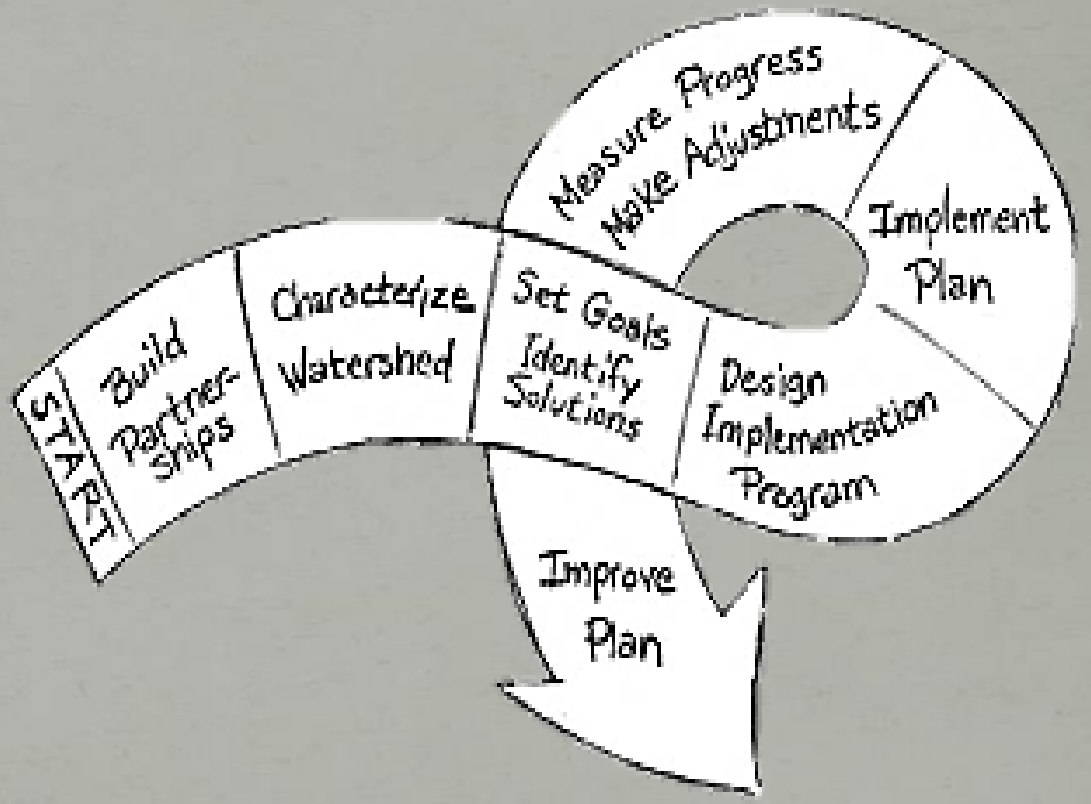
What is a Watershed?



- An area of land where all of the runoff flows to a common waterbody
- Boundaries are generally the highest points
- Watersheds can vary in size
- Surface Water
  - Creeks, Lakes, Wetlands
- Riparian Areas
  - Natural area along banks
- Uplands
  - Steep terrain
- Groundwater
  - Bedrock, Sand and Gravel

Watershed-based Plan

- Summarizes the overall condition of the watershed
- Provides a framework to restore water quality in impaired waters
- Protects water quality in other waters threatened by *point source* and *non-point source* pollution
- Allows for funding of water quality projects through EPA 319 Program



Completed Elements

Elements A-E have been reviewed with the planning committee in past meetings.

1. Identify causes and sources of water pollution and estimate the existing pollutant loads.
2. Set Water Quality goals and Load Reduction targets.
3. Describe the management measures needed to achieve load reduction targets
4. Describe the technical and financial assistance and relevant authorities needed to implement the plan.
5. Enhance public understanding through outreach and education measures.

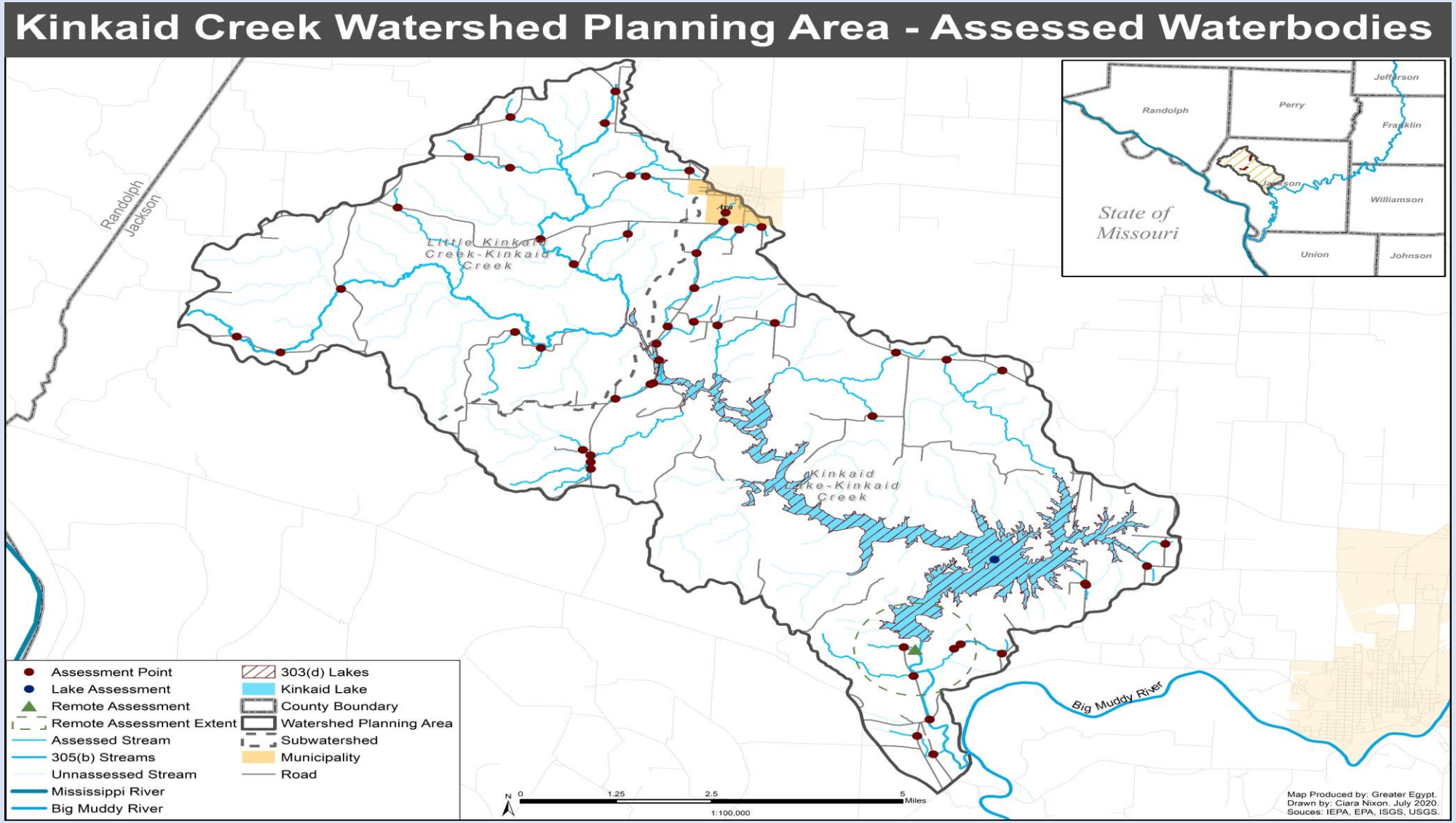
Element D: Technical and Financial Assistance

BMP funding and technical assistance

- BMP Funding sources
  - EPA 319 Grants
  - USDA- CRP, CREP, EQIP
  - DOT
  - Landowners, Municipalities
- BMP technical assistance
  - Contractors
  - Public Works
  - Landowners
  - Volunteers

BMP	Cost	Unit	Technical Assistance	Funding Source(s)
Agricultural Filter Strip	$0.00-$300	acre	Landowner, public works, NRCS	IEPA 319 Grant, FSA CRP (No cost assumes using existing vegetation, if any)
Animal Waste Control (Ordinance)	$0.00*	site	Public Works Departments	Municipality
Bioswale	$42.00	foot	IDOT, contractor, municipality, public works	IEPA 319 Grant
Conservation Tillage	$33.33	acre	Landowner, public works, NRCS	NRCS EQIP, FSA CRP
Cover Crops	$66.67	acre	Landowner, public works, NRCS	NRCS EQIP, FSA CRP
Debris Removal	$486.00	site	Volunteers, landowners, public works, contractor	Volunteers, landowners, public works, contractor
Detention Basin	$0.74	cubic foot	Landowner, IDOT, contractor, municipality, public works	Landowners, municipality

Watershed Summary and Assessment Locations



- The Kinkaid Creek Watershed flows into the Big Muddy River
- Encompasses 41,225 acres in Jackson County, Illinois
- Includes 2 Subwatersheds: Little Kinkaid Creek-Kinkaid Creek and Kinkaid Lake-Kinkaid Creek
- Only Kinkaid lake is listed as impaired on the EPA 303(d) list (see left).

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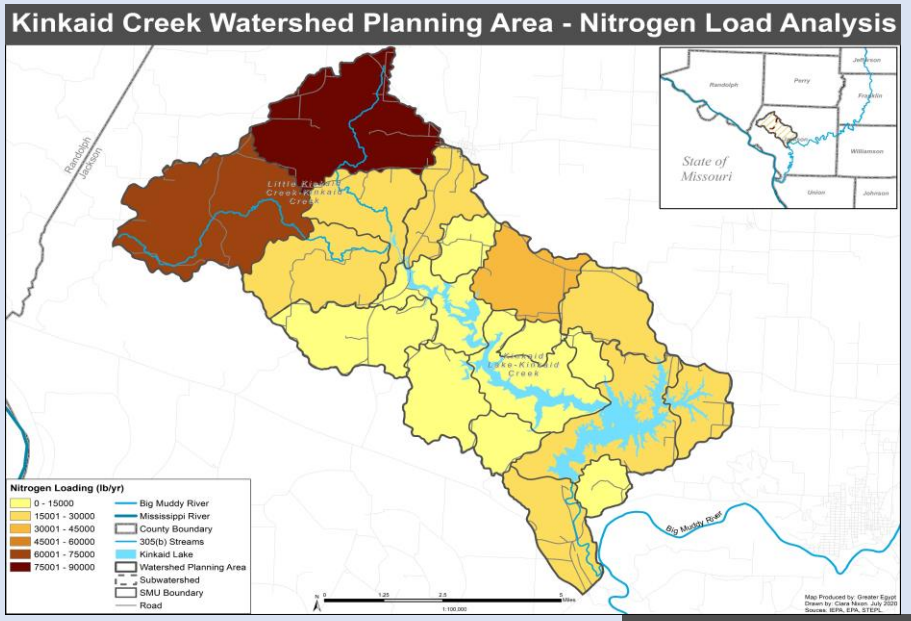
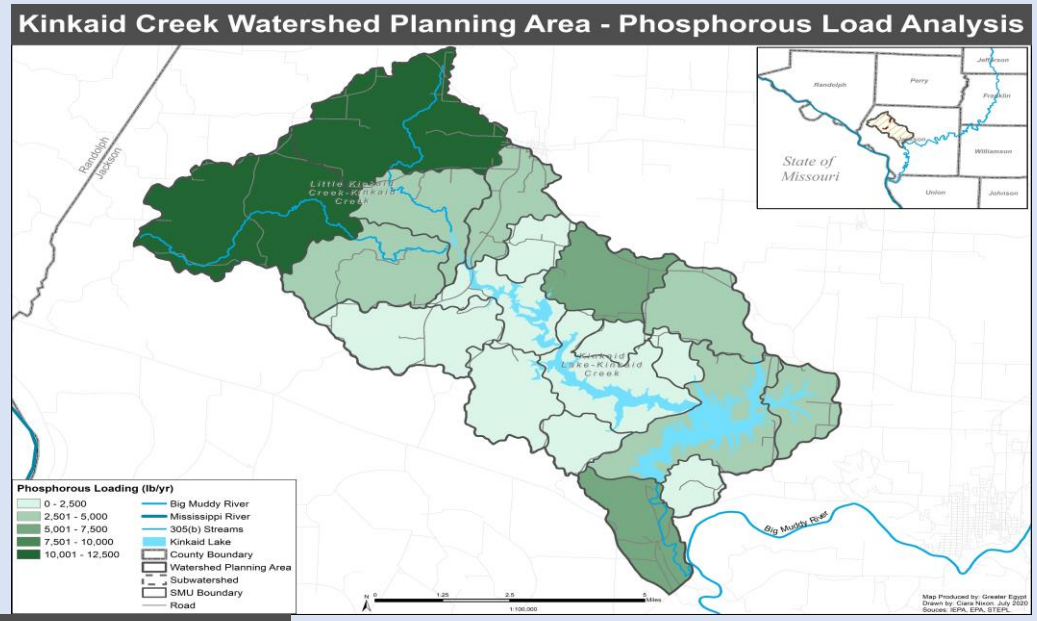
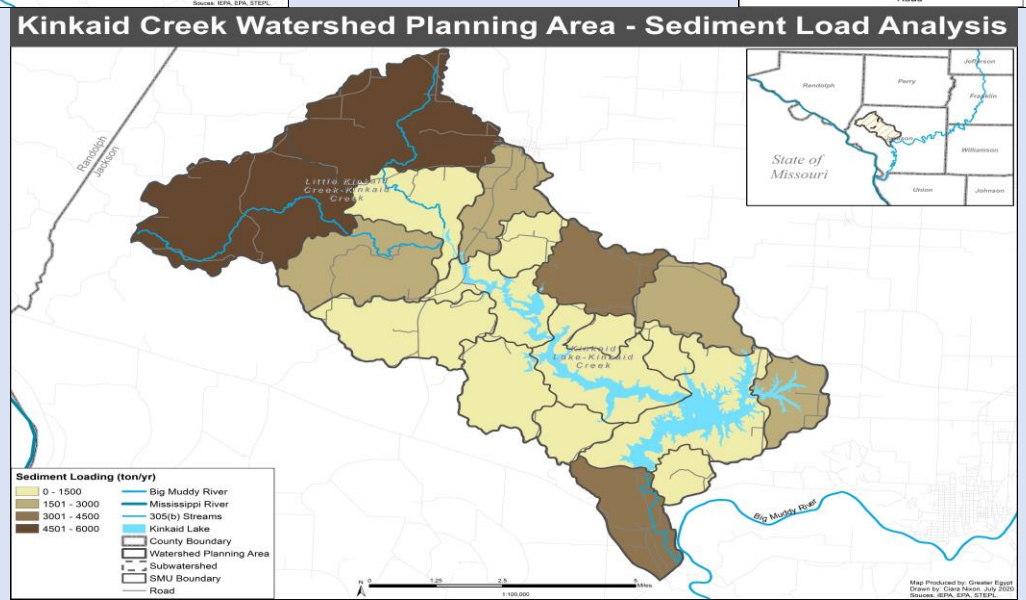
Watershed Pollutant Load Estimates







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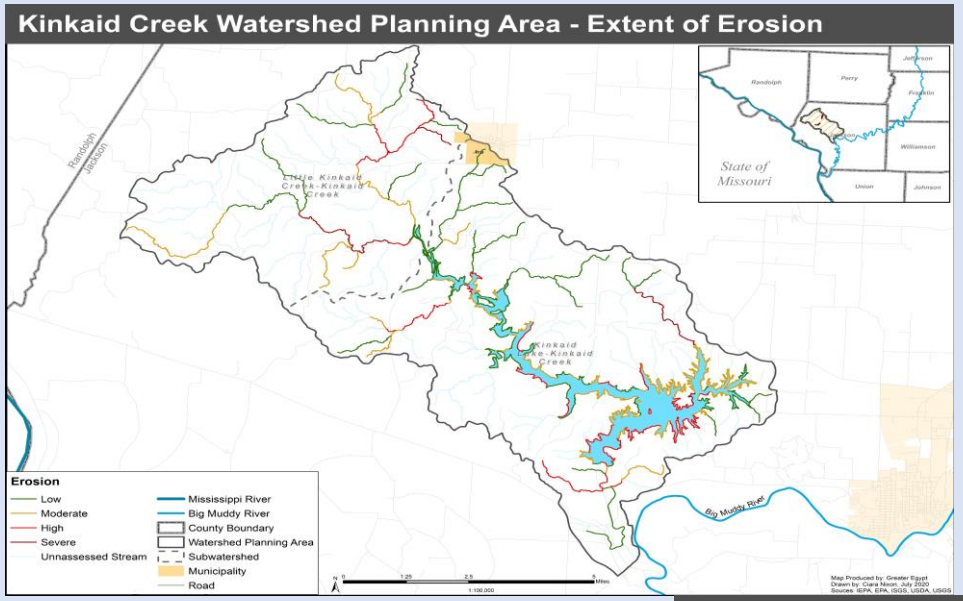
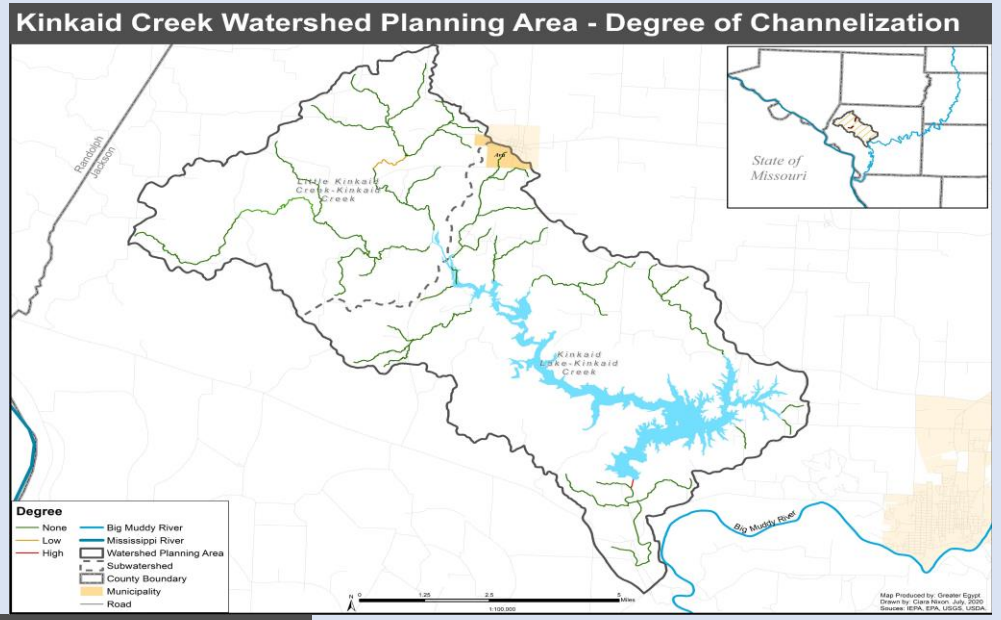
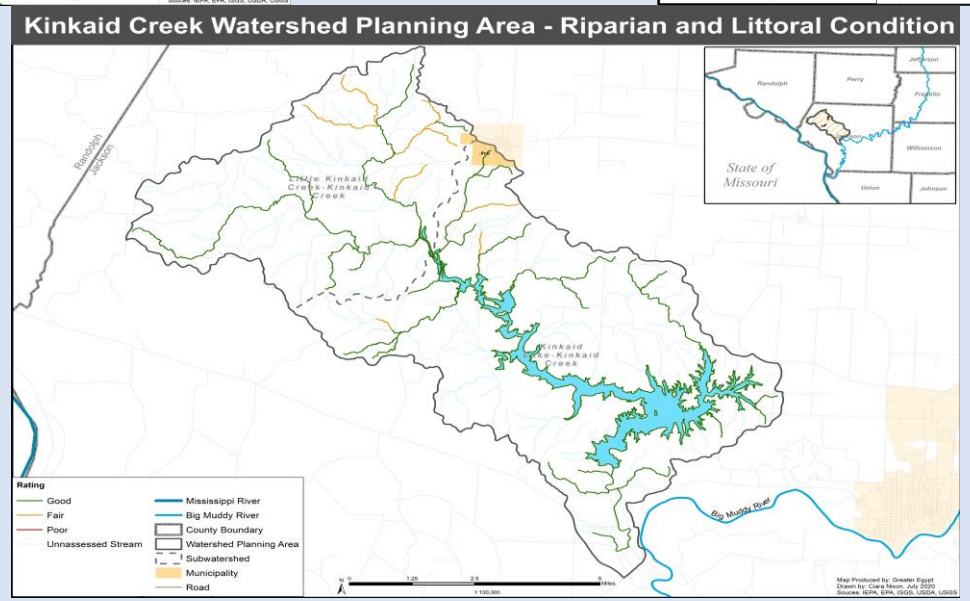
Assessment Results







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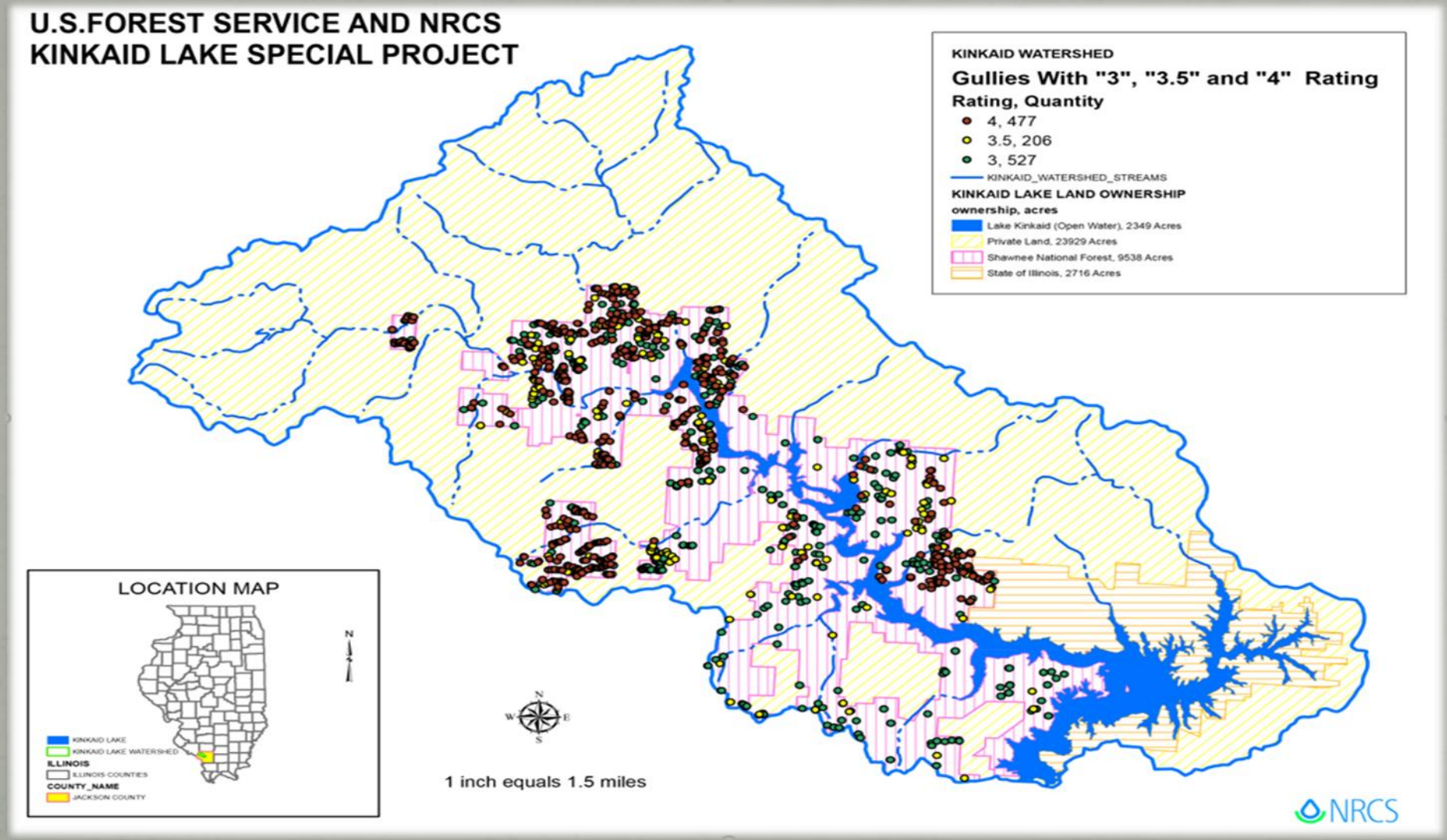
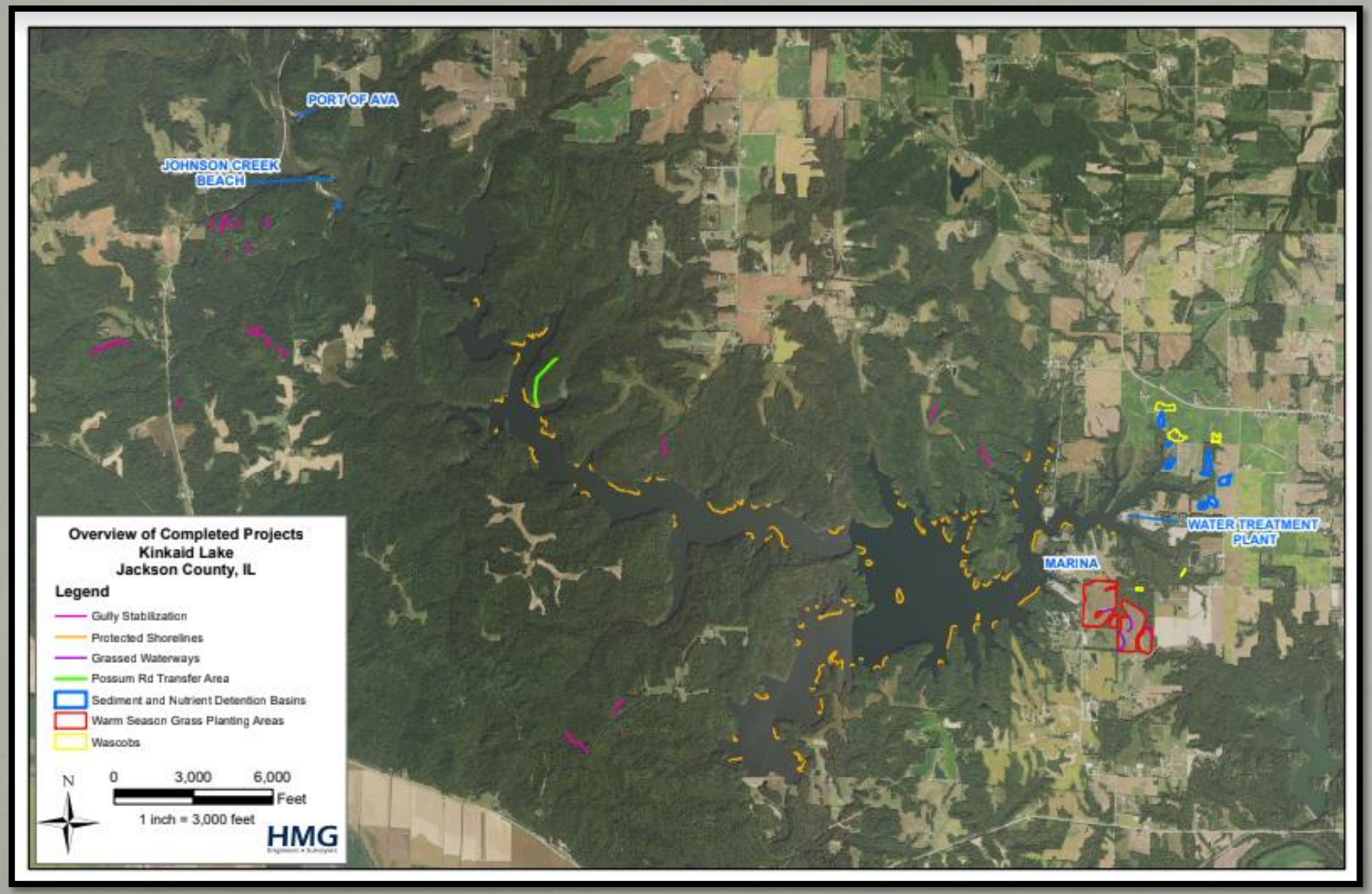
BMP Submissions



Gully data submitted by Brooke Haggarty from the USDA Forest Services

BMP Submissions



Completed BMPs' submitted by Gary Raines from HMG Engineers

Remaining Elements

Element F. Schedule for implementing the nonpoint source management measures identified in this plan that is reasonably expeditious.

Element G. A description of interim measurable milestones for determining whether nonpoint source management measures or other control actions are being implemented.

Element H. A set of criteria that can be used to determine whether loading reductions are being achieved over time and substantial progress is being made toward attaining water quality standards.

Element I. A monitoring component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established under element h.

VII. Elements F-I of the Watershed-based Plan

Element F: Implementation Schedule

- Should reflect BMP, educational component, and general goals of plan

Goal	Phase I		Phase II				Phase III			
	Short-term (2 yr)		Mid-term (3-6 yr)				Long-term (7-10 yr)			
	1	2	3	4	5	6	7	8	9	10
Establish watershed action council	X									
Hold public meetings to gain input	X	X	X							
Hold workshops to inform public on stormwater management		X		X		X		X		
Continue researching funding and technical assistance	X	X	X							
Select site-specific BMPs for preliminary designs	X	X	X							
Submit grant applications based on BMPs in plan		X	X	X	X	X	X	X		
Meet with landowners to review BMPs in plan		X	X	X	X	X				
Implement and execute BMPs			X	X	X	X	X	X	X	X
Monitor progress of implementation				X	X	X	X	X	X	X
Announce success of plan implementation					X	X	X	X	X	X
Evaluate Accomplishments					X	X	X	X	X	X

Implementation Schedule

Target	Phase I		Phase II				Phase III			
	Short-term (2 yr)		Mid-term (3-6 yr)				Long-term (7-10 yr)			
	1	2	3	4	5	6	7	8	9	10
Establish watershed action committee	X									
Hold public meetings to gain input	X	X	X	X	X	X				
Post watershed signage for public awareness and BMP implementation	X	X	X	X	X	X	X	X	X	X
Create a website for watershed activities and key dates		X								
Enlist volunteers for litter cleanup days		X	X	X	X	X	X	X	X	X
Hold Electronic Recycling Drives			X			X			X	
Distribute educational brochures for stormwater and agricultural management	X		X		X		X		X	
Hold workshops to inform public on agricultural management		X		X		X		X		
Continue researching funding and technical assistance	X	X	X							
Select site-specific BMP for preliminary designs	X	X	X							
Submit grant applications based on BMP in plan		X	X	X	X	X	X	X		
Meet with landowners to review BMP in plan	X	X	X	X	X	X	X	X		
Implement and execute BMP			X	X	X	X	X	X	X	X
Monitor BMP implementation				X	X	X	X	X	X	X
Announce success of plan implementation					X	X	X	X	X	X

Implementation Schedule

- Phase I signifies the short-term actions to be taken in the first two years of the plan.
- Phase II constitutes the mid-term implementation of the plan.
- Phase III indicates the final stage of the plan.

VII. Elements F-I of the Watershed-based Plan

Element G: Interim Measurable Milestones

Interim Measurable Milestones				
Goal	**Indicator**	**Short (2-year)**	**Mid (6-yr)**	**Long (10-yr)**
Address Impairments from Agricultural Practices/ Improve Water Quality	Linear Feet of Streambank Stabilized	-	7,000	14,000
	Agricultural Strips Created	-	6	12
	Acres Converting to Conservation Tillage	-	70	140
	Acres to Implement Cover Crops	-	70	140
	Grassed Waterways Created	-	5	10
	Acres of No Mow Pastures	150	300	600
	Riparian Buffers Created	-	1	2
	Stream Channel Sediment Reduction Channels Created	-	2	5
Improve Recreational Opportunities	Improve Ramp and Dock at Herrin Reservoir	-	-	1

Element G: Interim Measurable Milestones

- These milestones will be used to track implementation of the management measures.

Interim Measurable Milestones				
Goal	Indicator	Short (2-year)	Mid (6-yr)	Long (10-yr)
Outreach and Education	Educational Brochures for Stormwater Management			
	Educational Brochures for Agricultural Management			
	Electronics Recycling Drive			
	Number of Litter Cleanup Days			
	Public Meetings Held			
	Agricultural Management Workshops Held			
Reduce/Mitigate Flooding	Detention Basin			
	Infiltration Basins			

VII. Elements F-I of the Watershed-based Plan

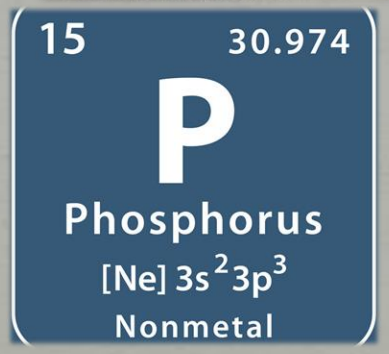
Element H: Benchmarks for load reduction targets

- Targets can be broken down into phases

	Benchmark Reduction Target					
Benchmark Period	**Nitrogen (percent)**	**Nitrogen (lbs/ yr)**	**Phosphorus (percent)**	**Phosphorus (lbs/yr)**	**Sediment (percent)**	**Sediment (tons/yr)**
2 Year (Phase I)	-	-	-	-	-	-
6 Year (Phase II)	7	13,912	10	4,148	15	5,273
10 Year (Phase III)	15	29,811	25	10,369	30	10,547

Element H: Benchmarks for load reduction targets

- Benchmarks in this plan target nitrogen, phosphorus, and sediment. This is largely due to the availability of data from models and nutrient loading information, and the impairment from the 303(d) waterbody in the Kinkaid Creek Watershed.



VII. Elements F-I of the Watershed-based Plan

Element I: Monitoring strategy

- How successful are BMP?
- Should use existing federal, state, and regional programs
- Can collect data from other agencies

Monitoring Component	Phase I		Phase II				Phase III			
	1	2	3	4	5	6	7	8	9	10
Ambient Lakes Monitoring Program	X					X				
Sediment Monitoring	X		X		X		X		X	
Volunteer Lake Monitoring Program	X	X	X	X	X	X	X	X	X	X
Watershed Basin Surveys		X					X			

These monitoring components will be utilized throughout the ten-year planning period. The information from these components will have to be reviewed by the Kinkaid Creek Watershed Action .

Implementation Schedule										
Monitoring Component	Phase I		Phase II				Phase III			
	1	2	3	4	5	6	7	8	9	10
Ambient Water Quality Monitoring Network		X					X			
Dissolved Oxygen Monitoring			X	X	X	X	X	X	X	X
Intensive River Basin Surveys				X					X	
Litter Monitoring Reports	X	X	X	X	X	X	X	X	X	X
NPDES Permit Reviews	X	X	X	X	X	X	X	X	X	X

Needs from the Planning Committee

- BMP Worksheets
  - Turn in BMP proposals by the end of **March**
- Ideas for education/outreach
  - Promote Watershed –based Plan
  - Activities and community workshops
  - Items that can be covered by grants

Questions/Comments

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