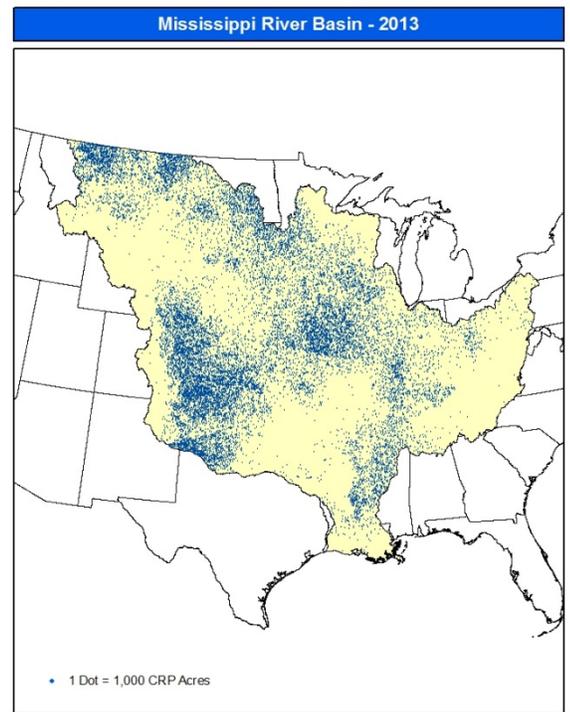


# *Environmental Benefits of the Conservation Reserve Program*

2013

## Mississippi River Basin



	<u>Fiscal Year</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
<b>Land Enrolled *</b>	million acres	23.4	22.7	21.0	20.7	19.4	17.6
<b>In Buffers</b>	million acres	1.39	1.32	1.40	1.31	1.32	1.32
<b>In Wetland</b>	million acres	1.21	1.22	1.29	1.35	1.32	1.18
<b>Reductions (not leaving field or intercepted by buffers)**</b>							
<b>Sediment</b>	million tons	175	164	159	165	163	158
<b>Nitrogen</b>	million lbs	430	431	431	446	439	423
<b>Phosphorus</b>	million lbs	89	89	89	91	90	86
<b>Greenhouse Gas Reduction ( CO2 equivalent/year)**</b>							
<b>CO2 Sequestered</b>	Mil. metric tons	30	29	28	28	27	25
<b>Reduced Fuel and Fertilizer Use</b>	Mil. metric tons	<u>6</u>	<u>6</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>4</u>
<b>Total</b>	Mil. metric tons	36	35	33	33	32	29

\*Cumulative acres. \*\* Annual estimate, see Estimation Methodology.

- CRP reduces the nitrogen and phosphorus leaving a field in runoff and percolate. CRP reduces the nitrogen and phosphorus leaving a field in runoff and percolate. Nitrogen and phosphorus leaving CRP fields are 95 and 86 percent less, respectively, compared to land that is cropped.
- Grass filter strips and riparian buffers intercept sediment, nitrogen, phosphorus, and other contaminants, before they enter waterways. Because buffers both reduce contaminants on the land they occupy and intercept contaminants from other lands they have disproportionate water quality benefits.

- Using models developed by the Food and Agricultural Policy Research Institute (FAPRI), CRP reduced nutrient losses in FY 2013, by an estimated 423 million pounds of nitrogen and 86 million pounds of phosphorus, compared to land that is cropped. Sediment losses were reduced by an estimated 158 million tons.
- Wetlands restored and constructed by CRP improve water quality by converting nitrate-nitrogen into benign atmospheric nitrogen through denitrification. Nitrate is a form of nitrogen that is biologically available to algae. Excess nitrate contributes to the formation of hypoxic zones in the Gulf of Mexico. Iowa's 94 CREP constructed wetland projects are designed to intercept and treat water from underground agricultural drainage systems. In FY 2013, these projects removed 1.1 million pounds nitrate from agricultural drainage water.
- Mississippi State University researchers found that quail populations were positively related to CRP upland buffer enrollment, estimating an increase of 730 thousand quail. Overall breeding season bobwhite densities were 70-75% greater on CRP buffers than control fields. Fall covey densities exhibited an increasing effect from 50% in 2006 to 110% in 2008.
- The CRP has repeatedly been identified as an important conservation program for grassland birds by the North American Bird Conservation Initiative (NABCI). Serious declines in grassland bird populations have been documented by the USWFS. The 2013 'State of the Birds' report states: "Conservation Reserve Program is restoring grassland habitat for breeding birds. Henslow's Sparrow populations, which have declined more than 95% since the mid-1960s, have rebounded in some areas through CRP. In Illinois, the regional Henslow's Sparrow population has significantly increased; spring bird counts for the species are now about 25 times greater than 30 years ago, prior to CRP." Researchers from the United States Fish and Wildlife Service, U.S. Geological Survey, and the University of Montana found that CRP had a large impact on grassland bird populations in the Northern Plains, including two birds designated as species of continental importance by Partners in Flight.
- In prime ringed-neck-pheasant habitat, a 4 percent increase in CRP herbaceous vegetation was associated with a 22 percent increase in pheasant count.
- CRP's SAFE program identifies priority habitat to be conserved for wildlife species that are threatened or endangered, have suffered significant population declines, or are important environmentally, economically, or socially. SAFE areas have created habitat for Northern Bobwhite in Missouri; and American Woodcock, Henslow's Sparrow, Sedge Wren, and Grasshopper Sparrow in Indiana
- Upstream CRP lands reduce downstream flood damage. Peak flows are reduced by slowing, storing, and infiltrating storm water runoff. For example, U.S. Army Corps of Engineers found that urban areas realized significant monetary flood damage reduction benefits due to existing CRP land in the Indian Creek basin of Iowa.