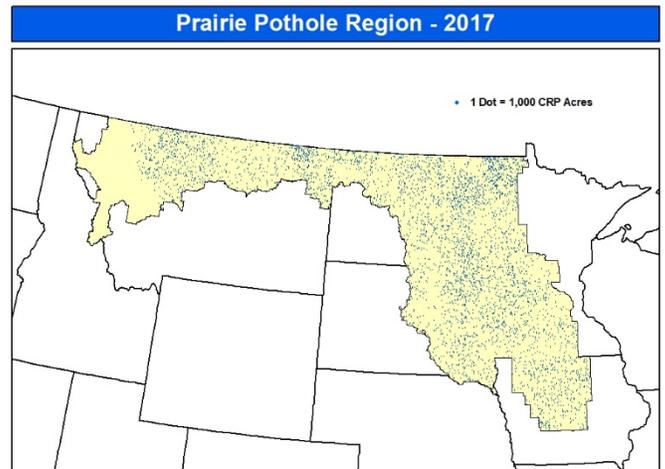


Environmental Benefits of the Conservation Reserve Program

2017

Prairie Pothole Region



<u>Fiscal Year</u>		2012	2013	2014	2015	2016	2017
Land Enrolled*	million acres	6.6	5.4	4.9	4.4	4.5	4.4
In Wetlands	million acres	1.7	1.5	1.4	1.3	1.4	1.5
Buffers	1,000 acres	312	285	274	268	262	246
Reductions (intercepted by buffers or not leaving field) **							
Sediment	million tons	27	24	23	22	22	22
Nitrogen	million lbs	125	110	103	98	99	98
Phosphorus	million lbs	13	12	11	10	11	11
Greenhouse Gas Reduction **	Mil. metric tons CO2 equivalent	11	10	9	8	8	8

*Cumulative acres. ** Annual estimate - See Estimation Methodology at link below.

The Conservation Reserve Program (CRP) improves water quality. CRP water quality benefits accrue in multiple ways:

- Using models developed by the Food and Agricultural Policy Research Institute (FAPRI), CRP reduced nutrient losses in 2017, by an estimated 98 million pounds of nitrogen and 11 million pounds of phosphorus, compared to land that is cropped. Sediment losses were reduced by an estimated 22 million tons.
- CRP reduces the amount of nutrients and chemicals leaving a field in runoff and percolate. On average, CRP covers reduce nitrogen and phosphorus leaving CRP fields by 95 and 86 percent, 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.

CRP enhances wildlife habitat. Grass, trees, and wetlands enrolled in CRP benefit numerous wildlife species. Independent studies have identified benefits to multiple bird populations including:

- The U.S. Fish and Wildlife Service (USFWS) estimated that CRP contributes to a net increase in ducks each year. Between 1992 and 2012 CRP resulted in the hatching of over 37 million additional ducks from the North Dakota, South Dakota, and northeastern Montana portion of the Prairie Pothole region. CRP enrollment in the Prairie Pothole region has decreased, however, with CRP enrollment of 4.5 million acres in the Prairie Pothole region, including 1.4 million acres of wetlands, CRP continues to strongly benefit duck populations.
- In prime ringed-neck-pheasant habitat, a 4 percent increase in CRP herbaceous vegetation was associated with a 22 percent increase in pheasant count.
- Researchers from the USFWS, U.S. Geological Survey (USGS), and the University of Montana have demonstrated that, since its inception, CRP has 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. Further, CRP has repeatedly been identified as important to grassland birds by the North American Bird Conservation Initiative. The 2013 *State of the Birds* report says: “CRP is restoring grassland habitat for breeding birds. Henslow’s Sparrow populations, which declined more than 95 percent between the mid-1960s and 1990s, rebounded in some areas through CRP. In Illinois, the regional Henslow’s Sparrow ... spring bird counts ... are now about 25 times greater than ... prior to CRP.”

CRP benefits honey bees and other pollinators. USGS scientists have shown that beekeepers strongly favor CRP lands when selecting locations to keep honey bee colonies during the summer in the Northern Great Plains; a region that supports over 40 percent of US honey bee colony stock. Beekeepers value CRP lands because it provides pesticide-free areas to keep bees in agricultural landscapes and because of the multiple flower species that grown on CRP. USGS research has highlighted the national importance of CRP lands in supporting honey bee colonies, diverse native bee communities, and monarch butterfly populations. Insect pollinators play a critical role in pollinating agricultural crops and maintaining ecosystem function. In the US insect pollination of agricultural crops is valued at over \$15 billion, annually.

Upstream CRP lands reduce downstream flood damage. Peak flows are reduced by slowing, storing, and infiltrating storm water runoff. CRP restores Prairie Pothole floodwater storage function – USGS estimated that CRP wetland catchments could store approximately 458,000 acre-feet of water annually, reducing water available for downstream flooding.

CRP sequesters carbon. CRP sequesters more carbon on private lands than any other federally administered program. Storing this carbon in soil and vegetation improves soil health. In 2017, CRP resulted in the equivalent of an 8 million metric ton net reduction in atmospheric CO₂ within the Prairie Pothole Region from sequestration, reduced fuel use, and nitrous oxide emissions avoided from not applying fertilizer. Carbon sequestration helps offset the release of greenhouse gases (GHG) from other sources into the atmosphere.

FSA is using CRP enrollment data, the USDA soils and natural resource inventories, and agreements with Federal, State, and other partners to refine these performance measures and to estimate the benefits from CRP. For more information, documentation, and estimation methodology see <http://www.fsa.usda.gov/FSA/webapp?area=home&subject=ecpa&topic=nra>.