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Estimated Cost  
Avoidance Benefits of  
**WETLAND RESERVE  
EASEMENTS**

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# SUMMARY



## Direct Economic Benefits

When agricultural land is placed in Wetland Reserve Easements (WRE) it is no longer cropped. This can create direct economic benefits by avoiding Federal outlays for commodity programs, crop insurance, and disaster assistance.

## \$ Indirect Economic Benefits

WRE also creates a wide range of indirect economic benefits from the environmental values delivered by restoring marginal cropland to shallow water and forested wetlands.

### Functioning wetlands

- improve water quality and fisheries by filtering nutrients and trapping sediment;
- help mitigate climate change by trapping carbon;
- provide wildlife habitat and outdoor recreation;
- reduce the risk of flooding by retaining water and, in some cases, reduce the cost of flood insurance; and
- much more.



## Present and Future Value of Cost Avoidance Benefits

FROM 1990 TO 2023

**2.9** million acres were enrolled in WRE



resulting in an economic benefit of



**\$8.4**  
BILLION

# NET COST AVOIDANCE BENEFITS

All states had WRE-related cost avoidance benefits, based on 2005-2020 data. Twenty-four states had cost avoidance benefits greater than the WRE easement and restoration costs.

## The Calculation

The average national net WRE cost is approximately \$219 per acre. This value is based on the average WRE easement purchase and restoration cost of \$3,135 per acre. We then subtracted the present value of cost avoidance benefits from commodity, cost of crop insurance, and cost of disaster programs, which totaled \$2,916 per acre.

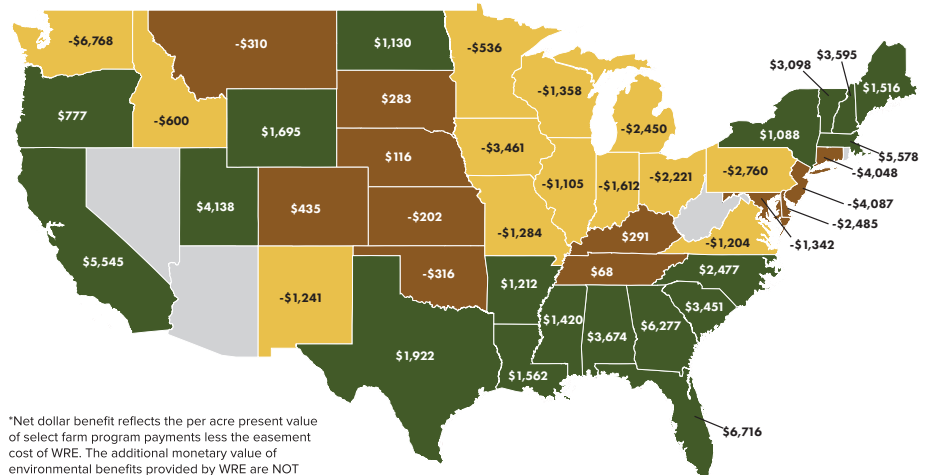
## Benefits Vary by State

In states with higher-than-average USDA program payments and lower-than-average agricultural land values, cost avoidance benefits may be greater than WRE easement acquisition and restoration costs.

All states had WRE-related cost avoidance benefits, based on 2005-2020 data. However, 19 states (shown in green) had cost avoidance benefits much greater than the WRE easement and restoration

costs. Another eight states had mid-range benefits: five with slightly higher cost avoidance benefits (CO, KY, NE, TN, SD) and three with somewhat lower cost avoidance benefits (KS, MT, OK) (shown in brown). Note: Three states shown in grey had insufficient data.

## Estimated WRE Net Cost Avoidance Benefits, per Acre, by State \*



\*Net dollar benefit reflects the per acre present value of select farm program payments less the easement cost of WRE. The additional monetary value of environmental benefits provided by WRE are NOT included in these calculations.

# FEDERAL COMMODITY, CROP INSURANCE, AND DISASTER PROGRAM COSTS AVOIDED

From 2005 through 2020, the national average for total potential costs avoided was \$70/acre annually. This reflects

- \$34 per acre per year for commodity program outlays (from Title 1 programs);
- \$22 per acre per year for Federal crop insurance premium subsidies; and,
- \$14 per acre per year for supplemental and ad-hoc disaster assistance payments.

The present value of those avoided costs over 100 years at a discount rate of 2.1 percent is \$2,916 per acre.

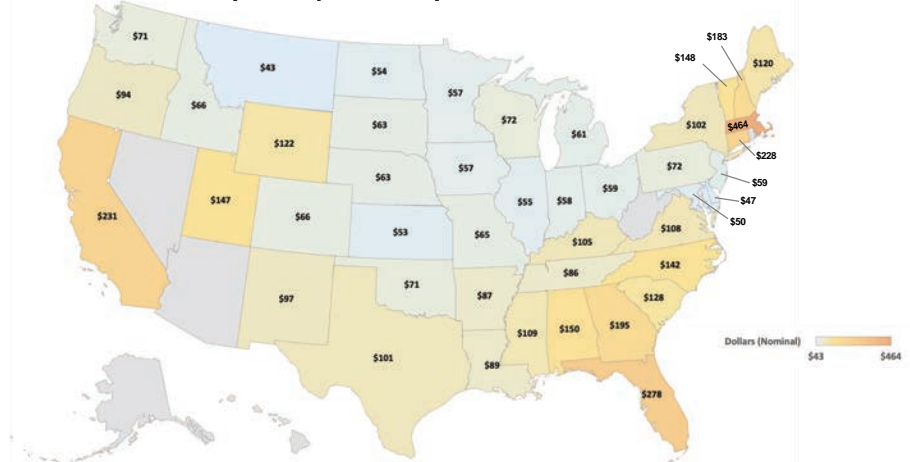
## Federal Program Payments Vary Considerably by State

Combined payments across the three programmatic areas ranged from a low of \$43 per acre in Montana to a high of \$990 per acre in Hawaii.

- Commodity payments ranged from a high of \$128 per acre in Georgia to a low of \$7 per acre in Hawaii. Payments per acre were highest in the Southeast and lowest in the Northern Plains and Mid-Atlantic.
- Supplemental and Ad hoc Disaster Assistance payments showed the widest range of average annual outlays, from \$6 per acre in Illinois and Indiana to nearly \$290 per acre in Alaska and \$983 per acre in Hawaii.

- Federal Crop Insurance subsidies ranged from a high of \$54 per acre in Nevada to a low of \$8 per acre in Maine. The estimated crop insurance costs avoided may be understated since land eligible for WRE (i.e., former wetlands) generally have higher production risks due to their soil and hydrologic characteristics.

**Average Annual Commodity, Crop Insurance, and Supplemental and Ad-hoc Disaster Assistance Payments per Acre, by State, 2005 – 2020 (Nominal Dollars)**



# WRE ACQUISITION & RESTORATION COSTS

From 2005 through 2020, the annual average WRE acquisition and restoration costs (financial and technical assistance) were \$3,135 per acre.

## Costs Vary by State

Per acre costs vary widely, ranging from over \$20,000 in states like Alaska and West Virginia with limited WRE enrollment to as low as \$1,161 in North Dakota.

## Average Wetlands Easement Acquisition and Restoration Costs per Acre (2005 – 2020)

