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Reviews

Wetlands at your service: reducing impacts of agriculture at the watershed scale

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In the Upper Midwestern region of the US, three ecosystem services (flood abatement, water quality improvement, and biodiversity support) declined when about 60% of the region's historical wetland area was drained, mostly for agriculture. Some of the lost services could potentially be regained through wetland restoration measures authorized in the 2002 Farm Bill. Because no single wetland can provide all ecosystem services indefinitely, ecologists can help to identify combinations of projects that will best restore ecosystem services within watersheds. "Strategic" restoration would use an adaptive management approach, targeting former wetlands with marginal crop production, and prioritizing the location, size, and type of wetland needed for a watershed to provide optimal levels of all three services. Given that the Farm Bill includes over \$1 billion per year to conserve natural resources on agricultural lands, we are in an excellent position to increase the effectiveness of wetland restoration.

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