



water

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Restoration of Wetlands for Climate Change Mitigation

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Message from the Guest Editors

Wetlands play key roles in global hydrologic, biogeochemical and climatic cycles and has been extensively implemented and researched. There has been much academic research but little practical research to determine their benefits for climate change mitigation and to identify potential issues, especially in the north-central United States. Some of the roles of wetlands in mitigating climate change include:

- Regulating surface flow to store flood waters and reduce downstream impacts;
- Moderating the loss of carbon dioxide in drained peatlands;
- Regulating methane release and the cycling and transport of pollutants such as mercury and excess nutrients.

Wetland restoration designs have focused on water quality benefits and/or providing waterfowl habitat. Prioritization and design for climate change mitigation is relatively new and may vary from previous goals. For example, establishing the *Sphagnum* moss layer is vital to many ecological processes and carbon retention in restored peatlands. [This Special Issue](#) will focus on the role of peatlands in mitigating climate change; however, research or policy assessment on other types of wetland restoration are welcome.



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Special Issue



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Message from the Editor-in-Chief

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