

# NATURE-BASED FLOOD MITIGATION

In 2021, the Iowa legislature designated certain county flood mitigation activities as an essential county purpose. The legislation allows counties to more easily install gray infrastructure, such as levees and floodwalls, and modify waterways to prevent flooding. Adding nature-based solutions to counties' powers would strengthen flood prevention and mitigation.



**PROTECTING  
COMMUNITIES**



**PREVENTING  
AGRICULTURAL LOSS**

## EFFECTIVE ALTERNATIVES

Nature-based flood mitigation, also known as natural infrastructure, uses natural features such as wetlands and floodplain reconnection to restore natural ecological functions. Nature-based flood mitigation is very effective at reducing flood damage, is cost-effective, and provides additional benefits such as cleaner water and wildlife habitat.

## PREPARING FOR CRISIS

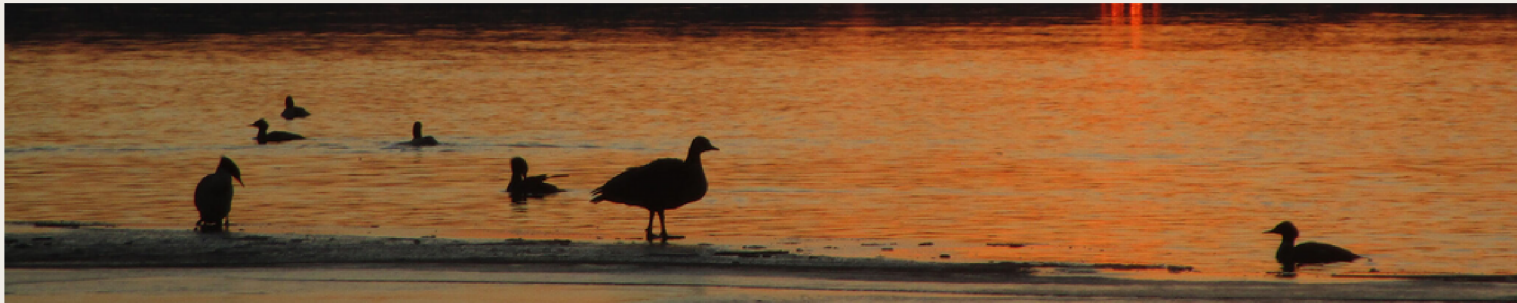
Extreme weather events increasingly threaten Iowa's farms, communities, economy, and public health. Iowa ranks 4th in the nation for states most impacted by natural disasters<sup>1</sup>. Since the 1980s, Iowa suffered \$52 billion in losses due to catastrophic flooding, droughts, tornados, and derechos<sup>2</sup>. Investing in natural infrastructure will protect Iowa lives and property, boost economic stability and development opportunities, and increase our ability to weather and recover from natural disasters.

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## RESOURCES

- <https://dailyiowan.com/2023/01/11/why-iowa-is-one-of-the-states-most-impacted-by-natural-disasters/>
- <https://www.desmoinesregister.com/story/money/agriculture/2022/03/24/tornados-iowa-climate-related-disasters-derechos-flooding-storms-weather/9430309002/>

# SUCCESS STORIES OF NATURAL INFRASTRUCTURE



## NAHANT MARSH RESTORATION: DAVENPORT, IA

- 382-acre restored wetland
- Protects local infrastructure and downstream communities
- Absorbed billions of gallons of water during 2019 floods
- Education center and nature preserve

"It's remarkable what has managed to come back [after the 2019 floods]. Believe it or not but this lower section of our prairie looks better than it did a year ago... I'm convinced that mother nature is resilient."  
– Brian Ritter, Nahant Marsh Executive Director on WQAD<sup>3</sup>

## FLOODPLAIN RECONNECTION: ATCHISON CO, MO

- Flood prevention project in response to historic 2019 floods that breached levee L-536 in seven places
- The 2019 flood caused an estimated \$25 million loss in ag revenue, destroyed 121 miles of roads, and flooded 166 homes
- Collaborative effort between local governments to reconnect floodplains

"It's about preserving nature and coexisting with it. We both benefit when it's done correctly."  
– Ryan Ottmann, President, Atchison County Levee Board<sup>4</sup>

## FLOODPLAIN RECONNECTION: FREMONT CO, IA

- Severe flooding in 1952, 1993, and 2011 resulted in levee breaches on the L-550 and L-575 along the Missouri River
- The 2011 floods amounted to nearly \$2.7 billion in damages and 5 fatalities
- Army Corps of Engineers funded the levee setback, creating more space for the floodplain

"This is a win-win situation – by setting the levee back, we're increasing the floodway and realigning the levee on to a more stable foundation." – Bryan Flere, Omaha District Levee Safety Coordinator<sup>5</sup>

## RESOURCES

3. <https://www.wqad.com/article/news/local/drone/8-in-the-air/wildlife-at-nahant-marsh-bounces-back-after-extreme-spring-flooding/526-ad9376ab-aaa4-4470-9b76-38f6722a1fd5>

4. <https://www.nature.org/en-us/about-us/where-we-work/united-states/missouri/stories-in-missouri/missouri-river-levees/>

5. <https://www.nwo.usace.army.mil/Media/News-Releases/Article/487108/corps-awards-contract-on-3-mile-setback-for-portion-of-levee-l-575/>