



How wet must a wetland be to have federal protections in post-Sackett US?

Estimating a range of potential impacts from Sackett v. EPA

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Link to
Science
paper



Outline

- Clean Water Act
- Methods
- Results
- Conclusions
- Data Viewer
- Questions

Clean Water Act

- Passed by Congress in 1972 to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters"
- Designates select waters and wetlands as "federally jurisdictional" Waters of the US (**WOTUS**), meaning that permits are required to impact them.
 - Traditionally navigable waters
 - Tributaries (relatively permanent)
 - Adjacent wetlands

Sackett v. EPA

- Supreme Court removed “significant nexus” and re-defined ***which*** wetlands are federally protected
- For a wetland to be jurisdictional it must be:
 - “indistinguishable from waters of the United States.”
 - “This occurs only when wetlands have “a **continuous surface connection** to bodies that are ‘waters of the United States’ in their own right, so that there is **no clear demarcation between ‘waters’ and wetlands.**”



EPA's recent "WOTUS notice" and memo

Memo: Removed wetlands separated from downstream by discrete features

Notice: Asking for feedback on the scope and which features are covered by:

- "relatively permanent" waters
- "continuous surface connection"
 - "connection to"
 - "temporary interruptions in surface connection may sometimes occur because of phenomena like low tides or dry spells."
- Jurisdictional ditches

Is this a “continuous surface connection”?

Pocosins



Is this a “continuous surface connection”?

Freshwater marsh



Is this a “continuous surface connection”?

Pine flat



Is this a “continuous surface connection”?

Riverine wetlands



Which wetlands are protected post-Sackett?

Study goals:

1. Estimate impacts of potential interpretations of Sackett v. EPA based on “wetness”
2. Determine which states might have most unprotected wetland area

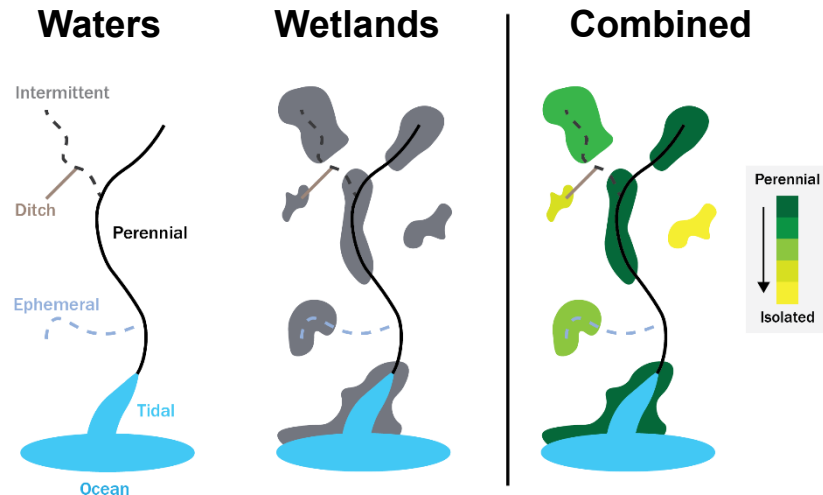


Methods

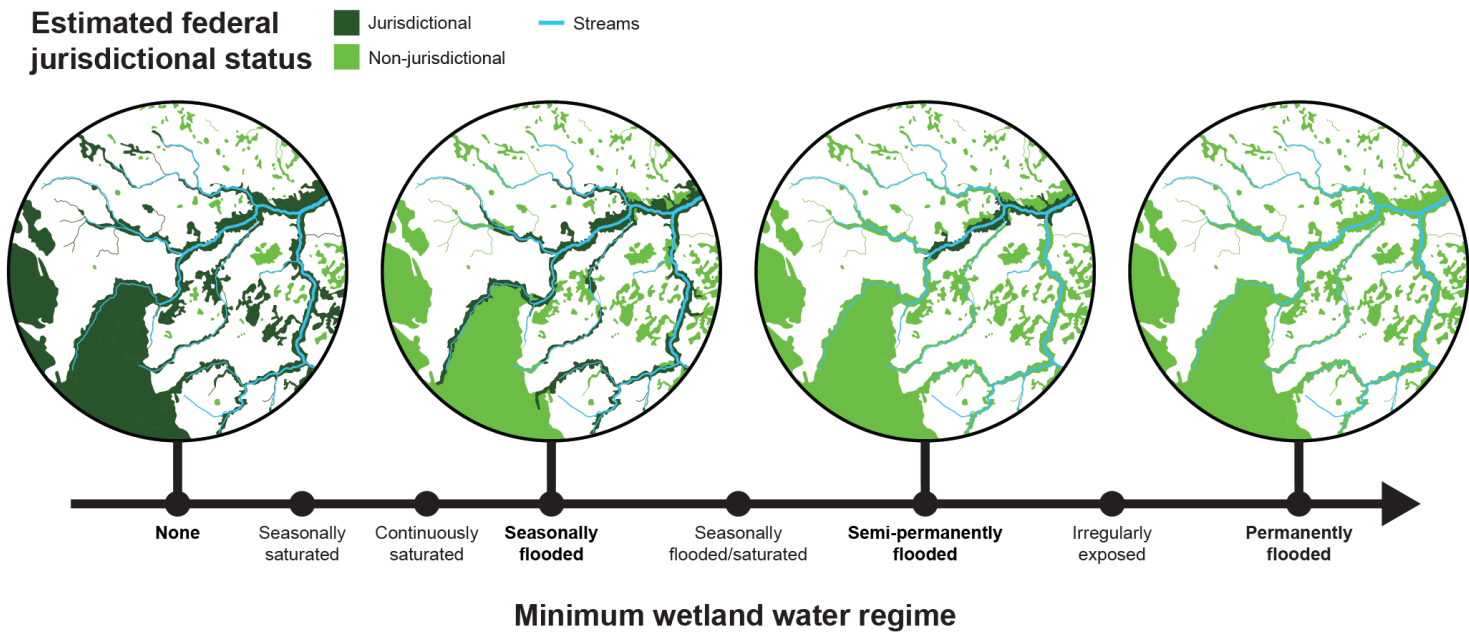
These results are estimates provided for informational purposes only and do not represent actual federal jurisdictional status as determined solely by the US government. Results of this analysis are only suitable for interpretation at large spatial scales due to resolution limitations in the underlying data. Jurisdictional determinations for specific wetlands or properties require higher-resolution data than used in this study and also typically require field visits.

Intersecting wetlands and streams

- Used national streams and wetlands datasets
- Classify wetlands by flow-permanence of streams
- Created a range of “jurisdictional waters” based on flow permanence



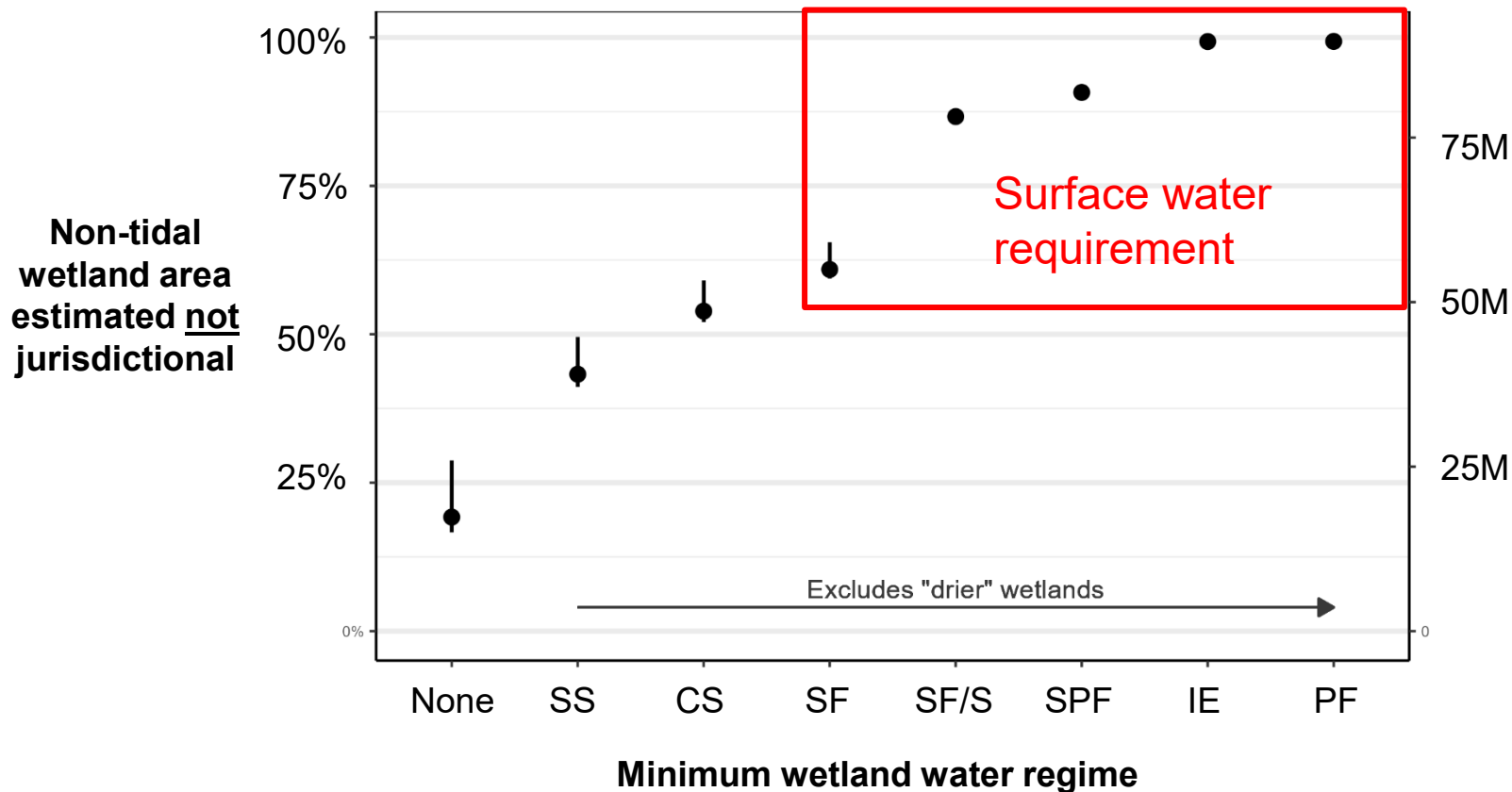
Excluding “drier” wetlands





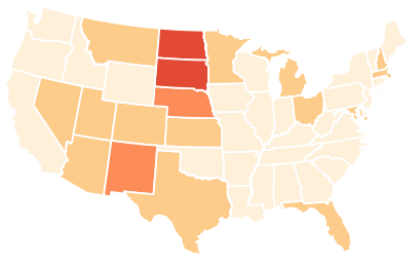
Results

Majority of non-tidal wetland area in US could be non-jurisdictional

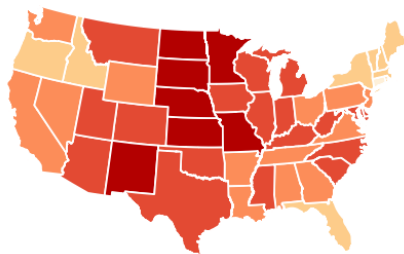


Majority of non-tidal wetland area in US could be non-jurisdictional

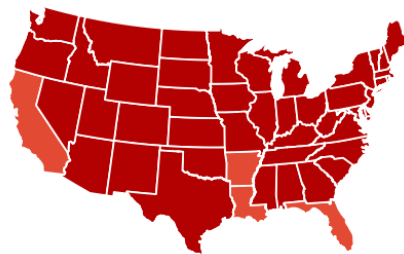
No minimum wetland
water regime



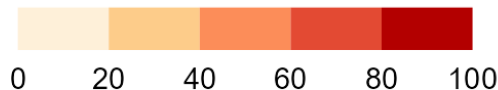
Wetlands must
“Seasonally flooded”
or wetter



Wetlands must
“Semi-permanently
flooded” or wetter

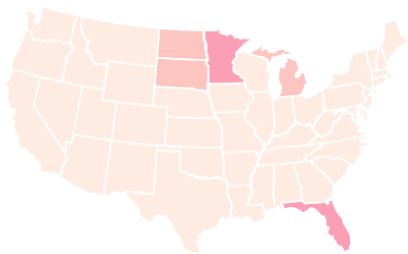


Non-tidal wetland area estimated
not jurisdictional (%)

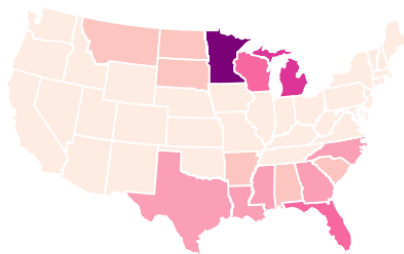


Majority of non-tidal wetland area in US could be non-jurisdictional

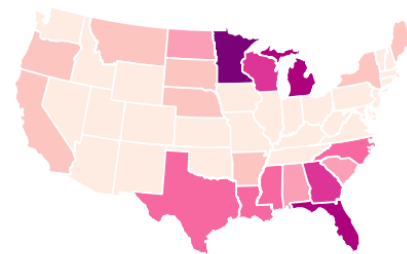
No minimum wetland
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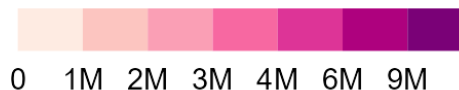
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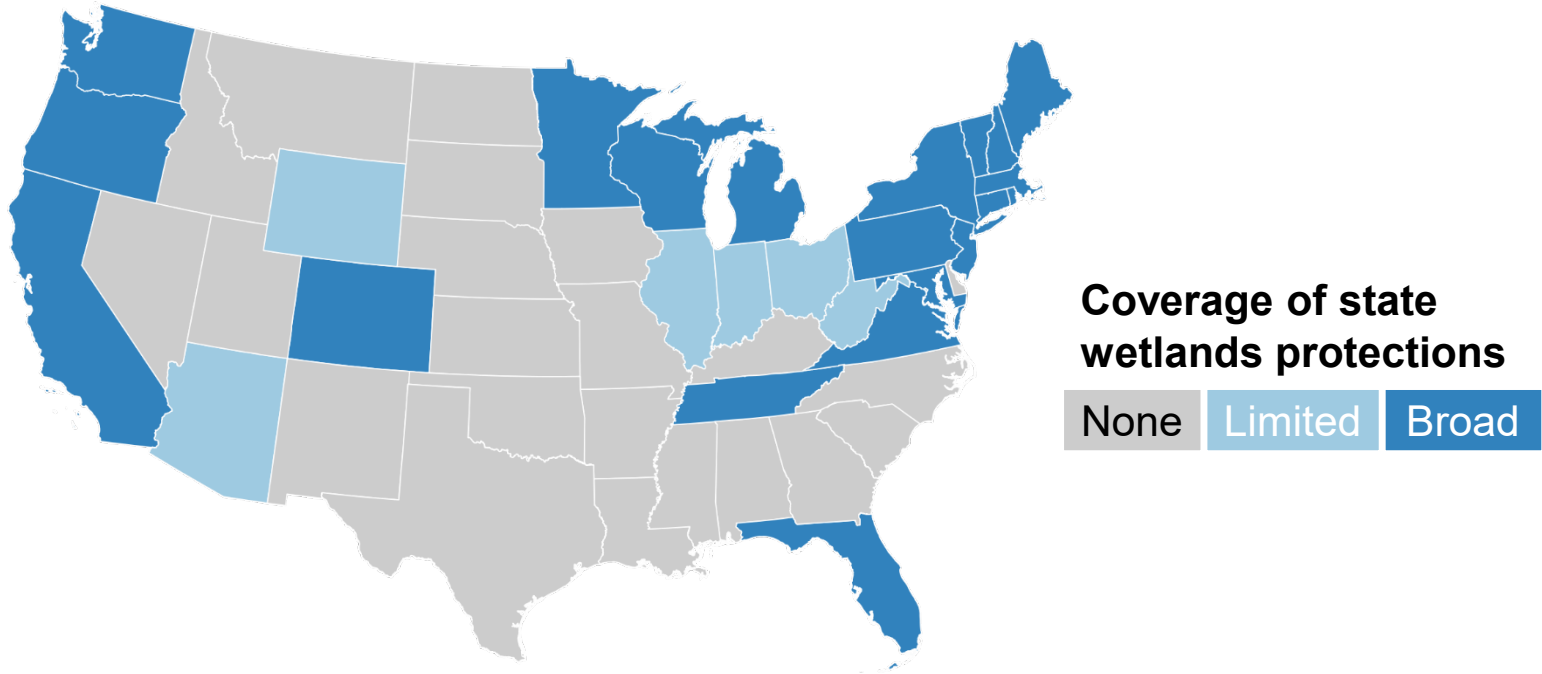
Wetlands must
“Semi-permanently
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Non-tidal wetland area estimated
not jurisdictional (Acres)

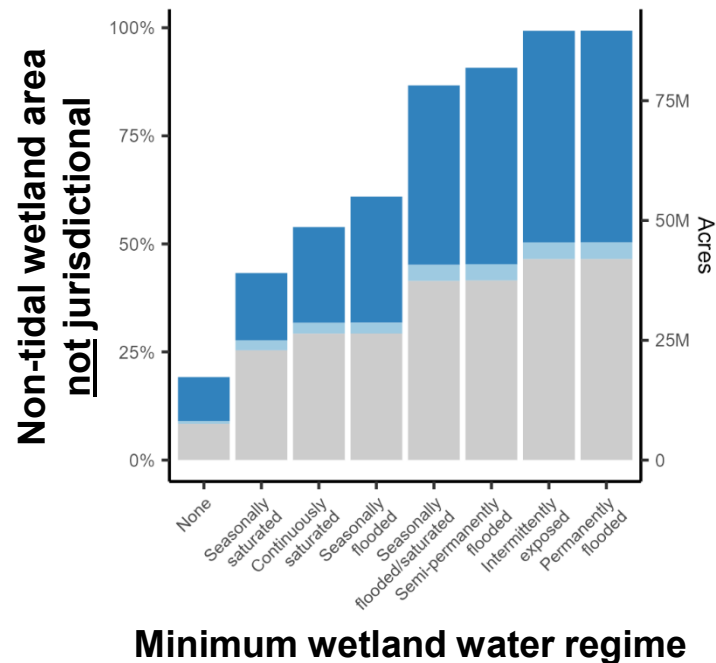
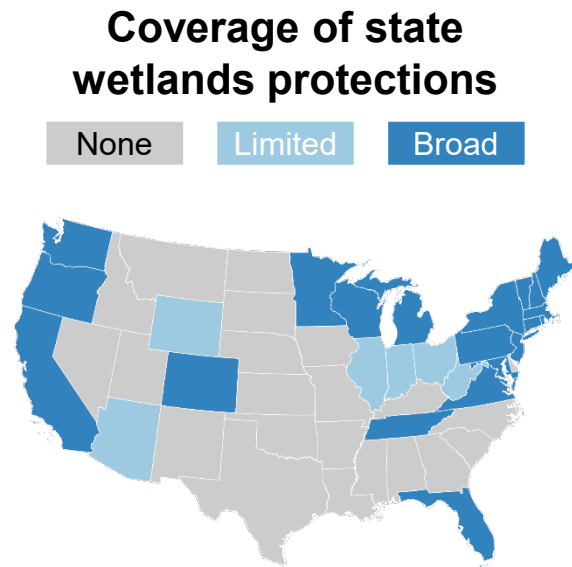


State wetlands protections vary



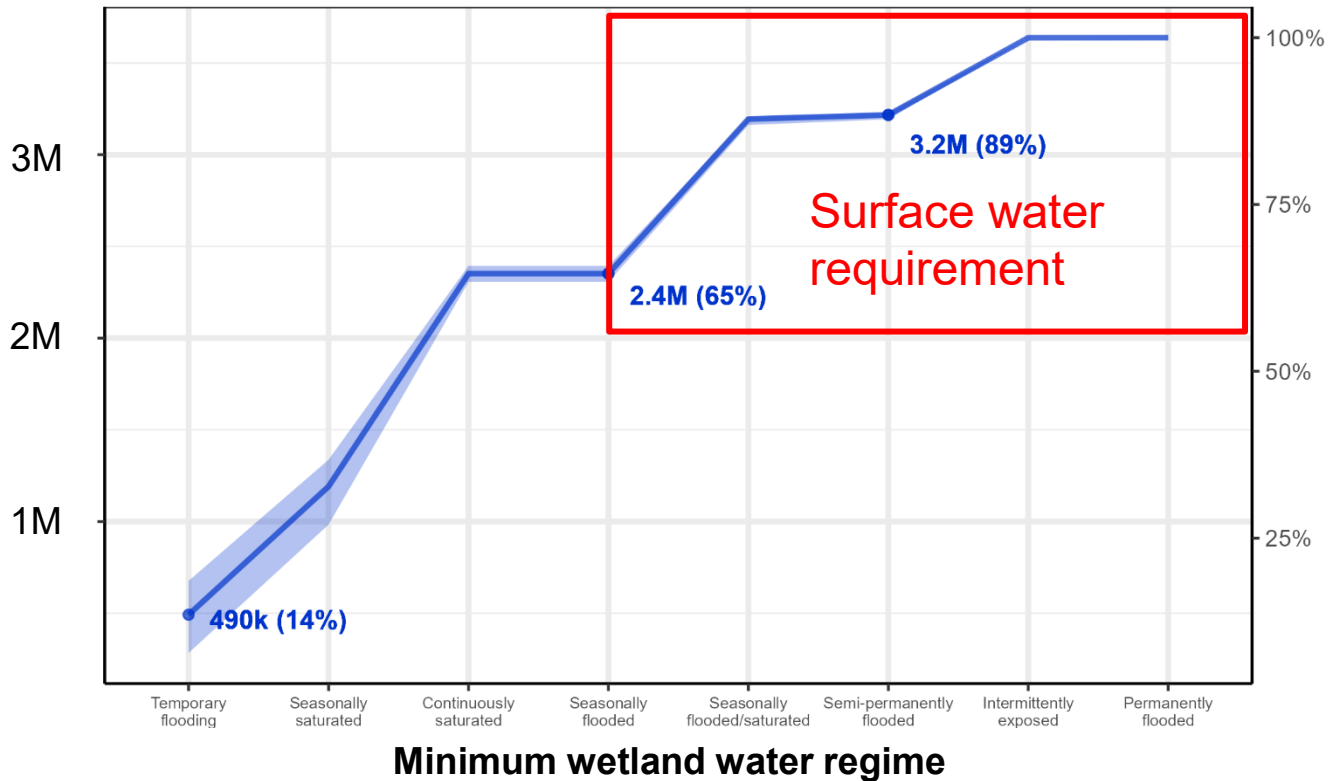
Data from Environmental Law Institute (Kihlslinger et al., 2023)

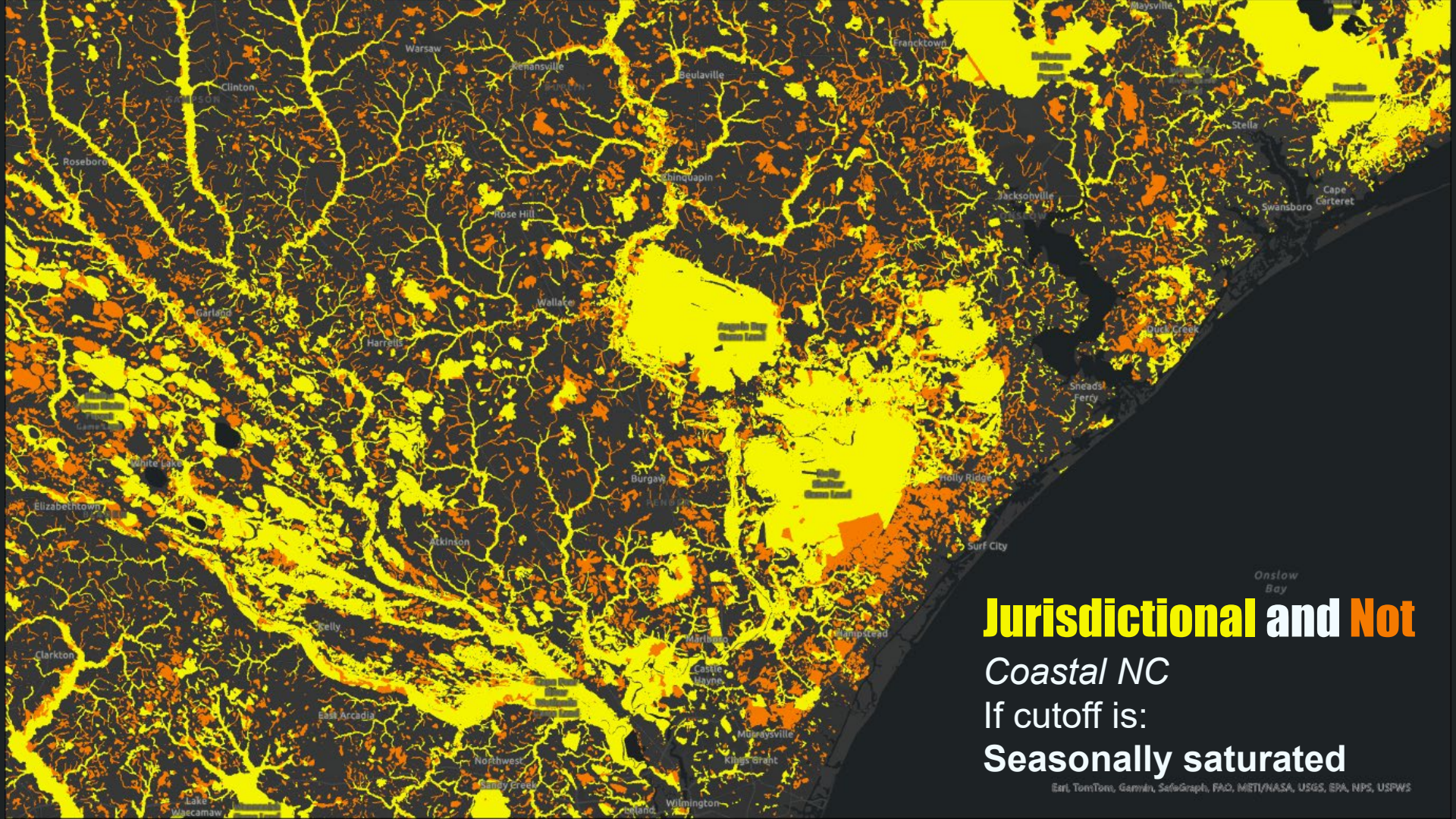
Almost half of non-tidal wetland area estimated as not jurisdictional is not protected



North Carolina

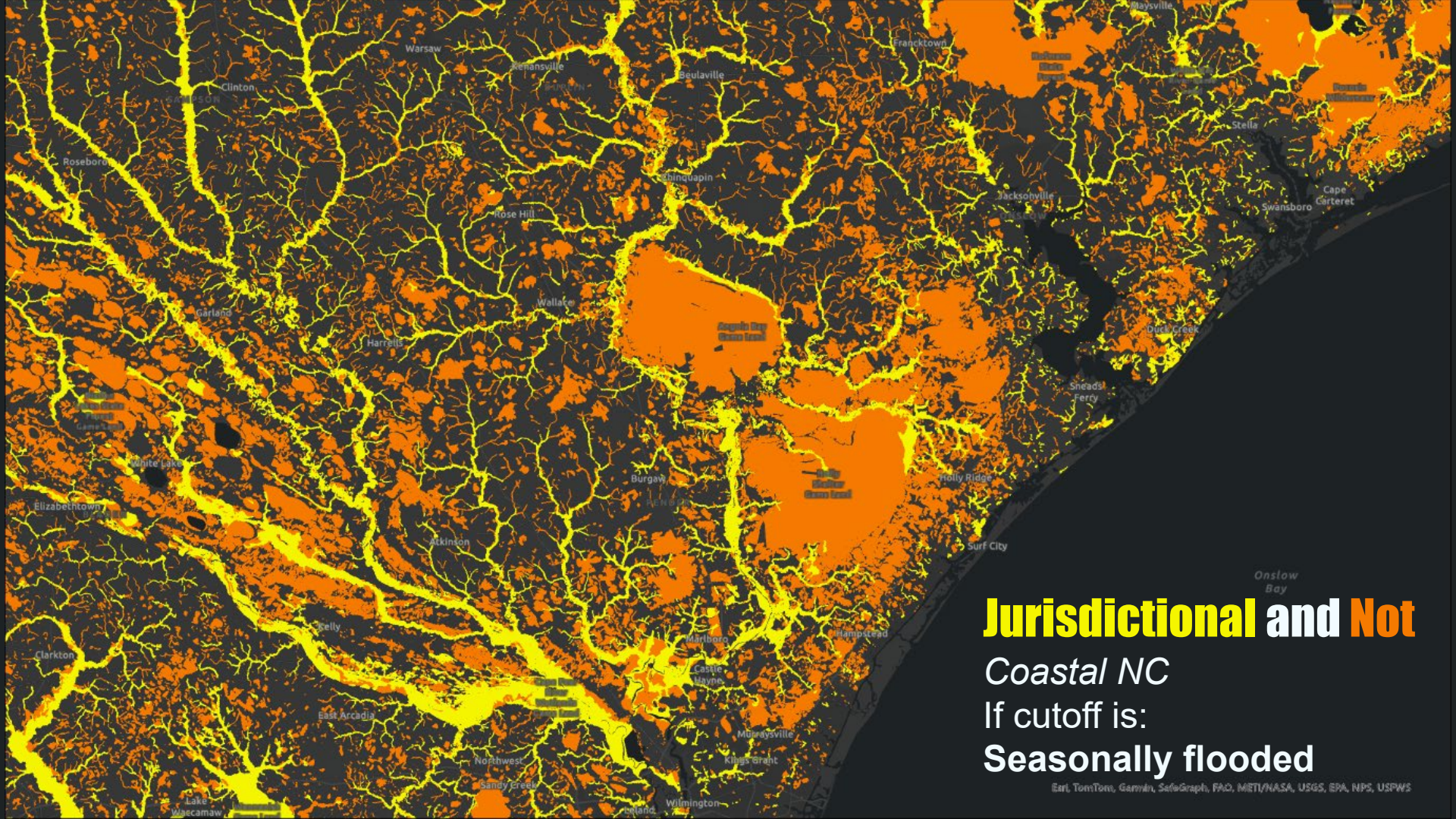
Non-tidal
wetland area
estimated not
jurisdictional





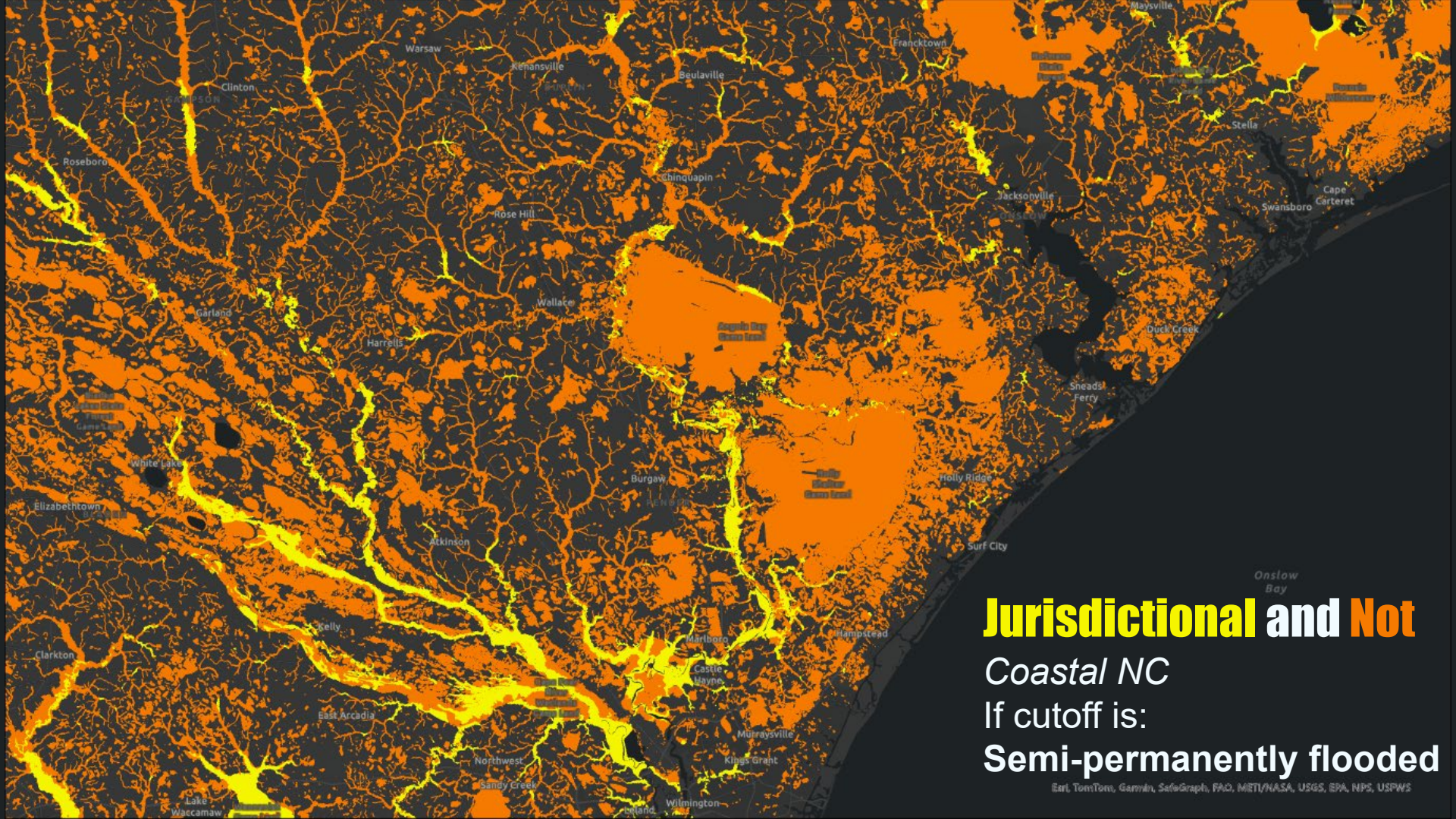
Jurisdictional and Not
Coastal NC
If cutoff is:
Seasonally saturated

Earl, TomTom, Garmin, SafeGraph, FAO, MET/NASA, USGS, EPA, NPS, USFWS



Jurisdictional and Not
Coastal NC
If cutoff is:
Seasonally flooded

Earl, TomTom, Garmin, SafeGraph, FAO, MET/NASA, USGS, EPA, NPS, USFWS



Jurisdictional and Not
Coastal NC
If cutoff is:
Semi-permanently flooded

Erl, TomTom, Garmin, SafeGraph, FAO, MET/NASA, USGS, EPA, NPS, USFWS



Conclusions

1. Clean Water Act wetlands protections are uncertain
2. Rollback of protections will increase wetlands loss or require states to fill the gap

Data viewer

Boundaries

States Basins

Map color

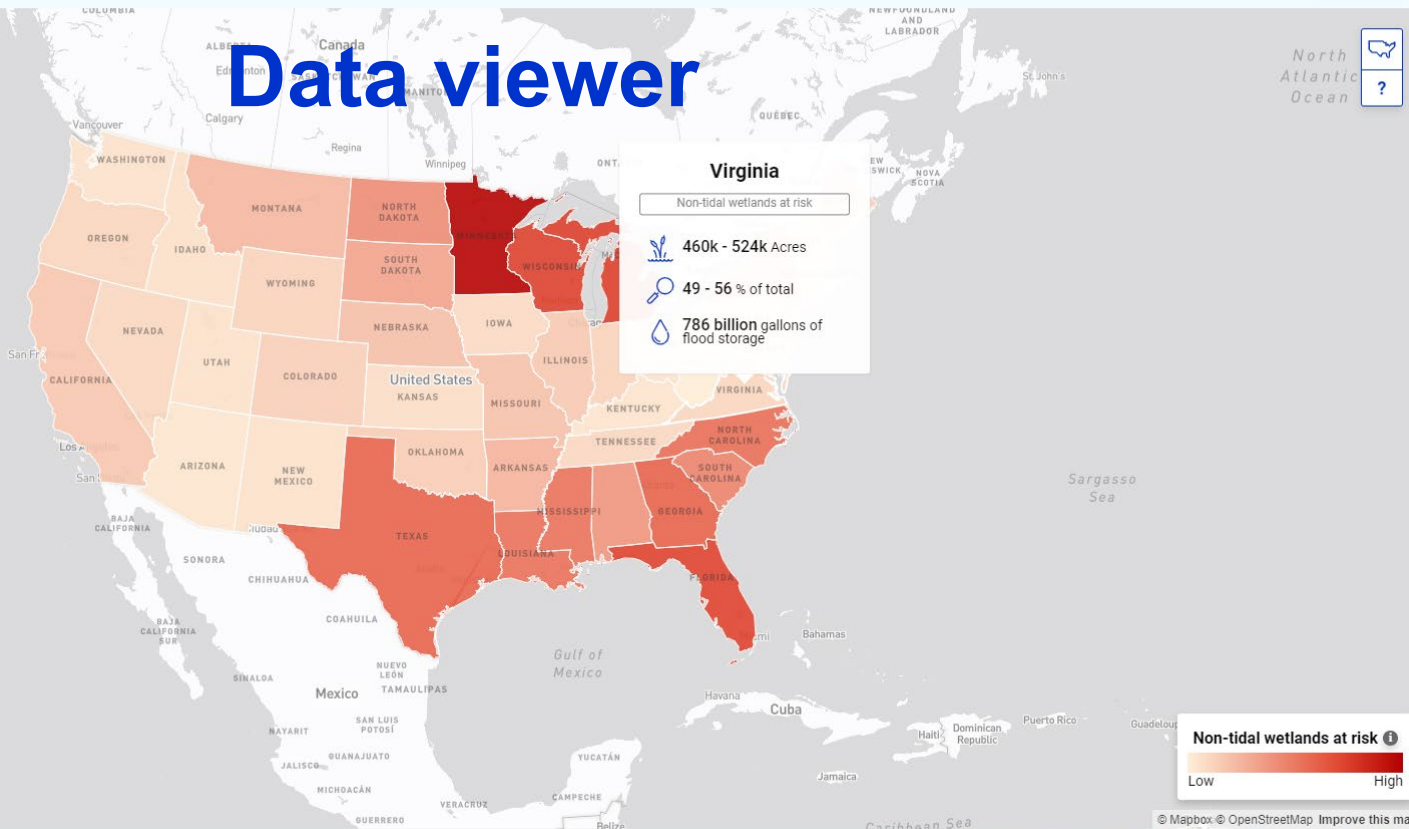
Acres Percent

Scenario ⓘ

Federal wetlands protections have a wetness requirement where wetlands must be at least:

Seasonally flooded

Map options





Questions

EDF.org/wetlands



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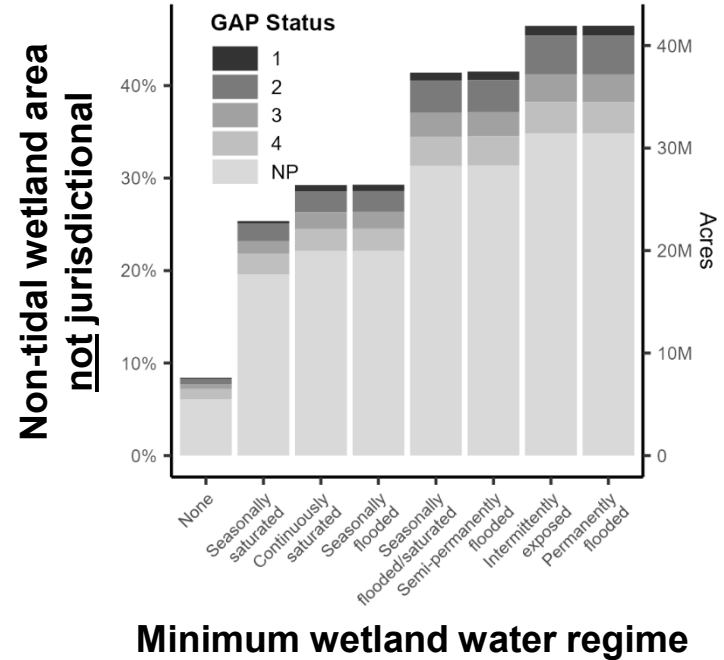
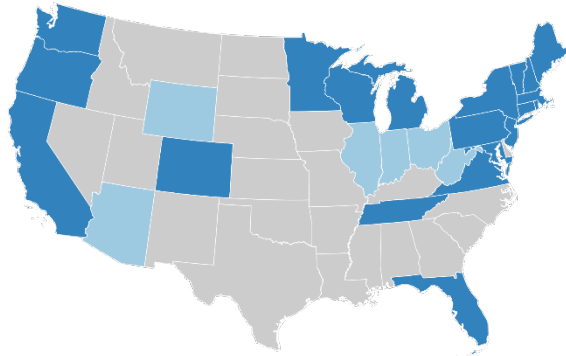
Almost half of non-tidal wetland area estimated as not jurisdictional is not protected

Coverage of state wetlands protections

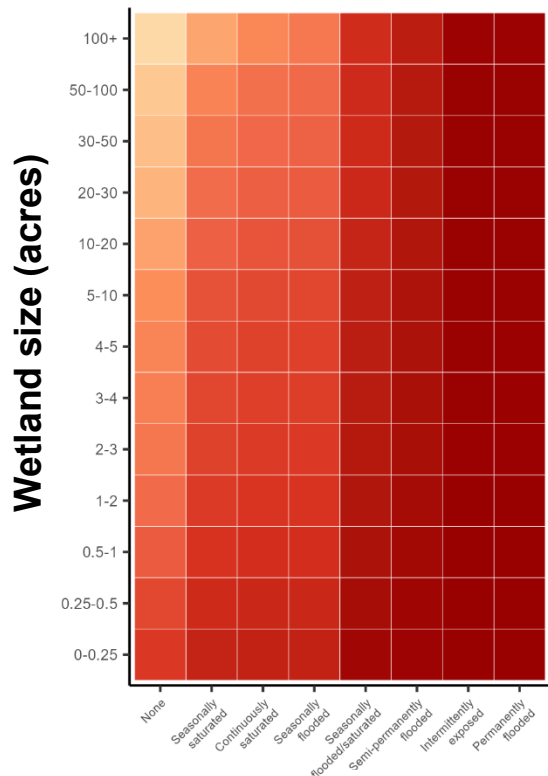
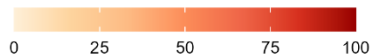
None

Limited

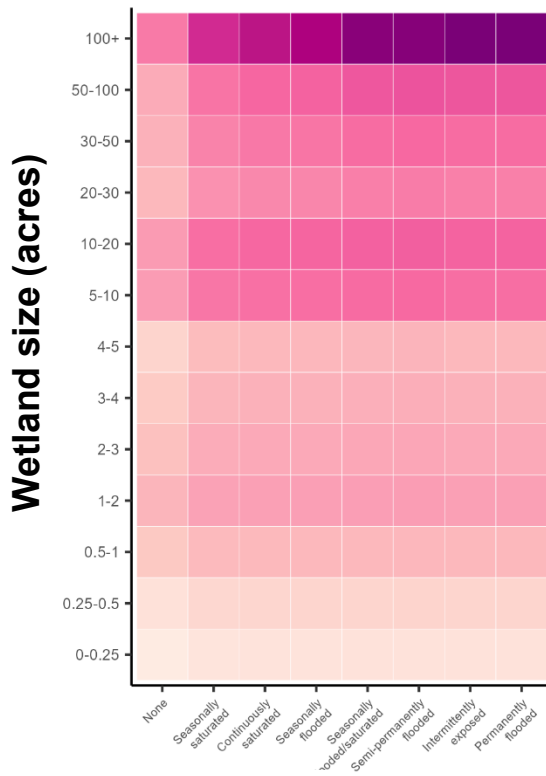
Broad



Non-tidal wetlands estimated not jurisdictional (%)



Non-tidal wetlands estimated not jurisdictional (Acres)



A “wetness” requirement impacts larger wetlands more

Minimum wetland water regime



Next steps

- Estimate value of wetlands for flood risk reduction
- Estimate # of people that benefit from wetlands



Data viewer