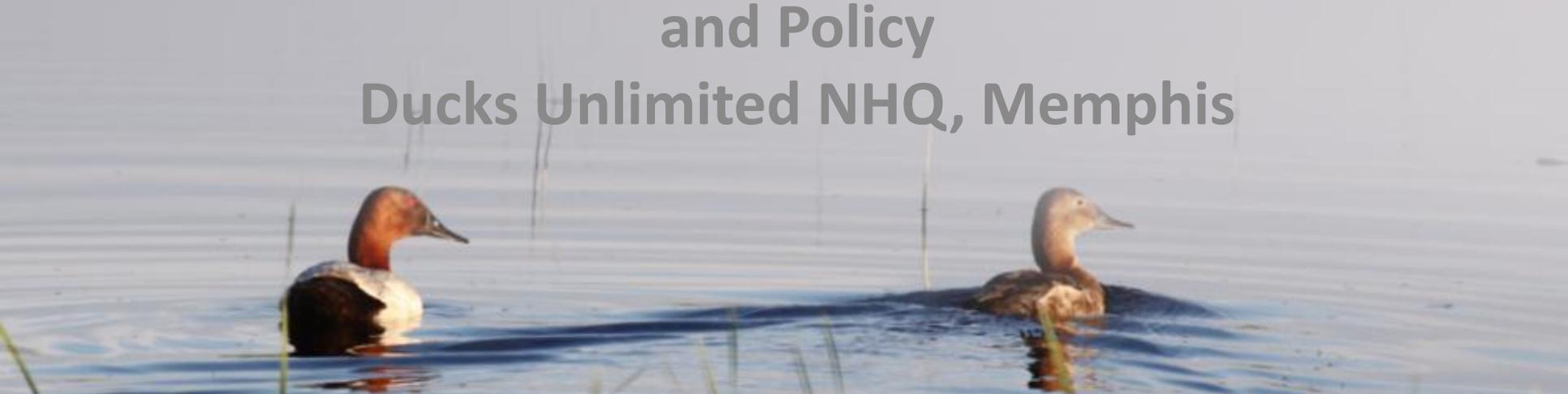


***Ducks Unlimited Public Comments
and Recommendations:
“Connectivity of Streams and
Wetlands to Downstream Waters”***

Scott C. Yaich, Ph.D.

National Director of Conservation Planning
and Policy

Ducks Unlimited NHQ, Memphis



Overall Clarity and Technical Accuracy

- **Broad in scope; strong scientific foundation; impressive compilation**
- **Conclusions generally technically accurate**
- **Conclusions sometimes seem excessively constrained or qualified in light of the preponderance of the science**

***Dr. Scott C. Yaich, Ducks Unlimited
EPA Public Meeting, Washington, DC
December 16, 2013***

Report's Conceptual Framework

Two Key Elements:

- **Aggregation of analysis of connectivity**
- **Watershed –based analysis as the most appropriate, science-based approach**

***Dr. Scott C. Yaich, Ducks Unlimited
EPA Public Meeting, Washington, DC
December 16, 2013***

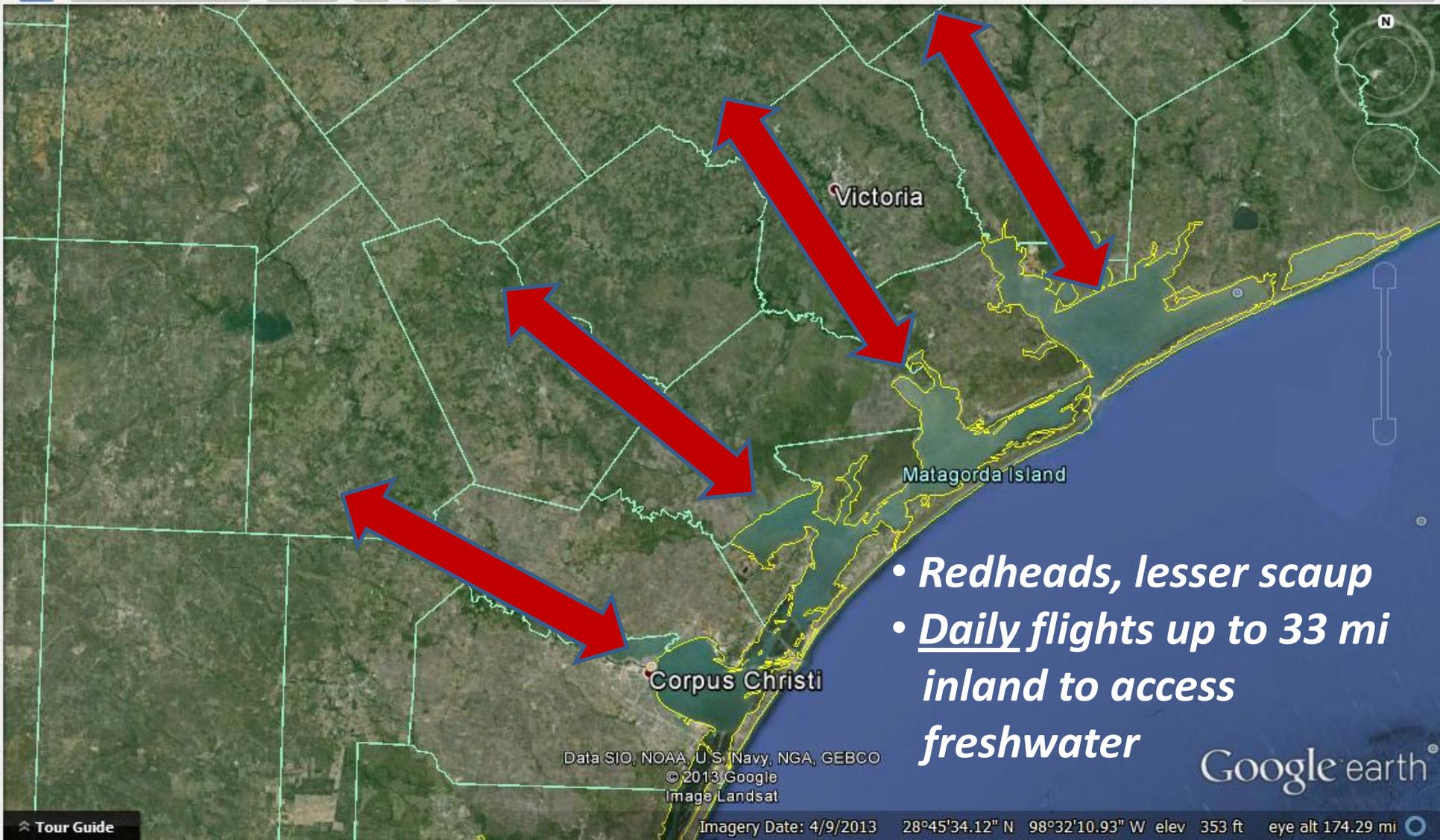
Report's Conceptual Framework

Birds as a Mechanism of Connectivity:

- **Recognize constraints imposed by SWANCC**
- **But – are numerous cases in which birds provide strong biological connectivity (within season, local/regional habitat linkages) such that impacts to wetlands would affect the biological integrity of downstream waters**



Laguna Madre and Inland Unidirectional Freshwater Wetlands (TX)



- *Redheads, lesser scaup*
- *Daily flights up to 33 mi inland to access freshwater*

- **California gulls in CA**
- **White ibises on East Coast**
- **Common goldeneye, Northern shoveler, green-winged teal, phalaropes, White Pelicans at Great Salt Lake (pelicans - 10 mile daily flights)**
- **Northern pintails and teal on LA Gulf Coast (29 mi daily flights)**
- **Northern pintails, white-faced ibis, other species in CA Central Valley (50 mi daily flights)**
- **Sandhill cranes using Platte River, NE**

Assessing 126 citations recently received relating to playas, rainwater basins, Nebraska sandhill wetlands

Report's Conceptual Framework

Birds as a Mechanism of Connectivity:

RECOMMENDATION: *That the literature related to connectivity between wetlands and downstream waters provided by birds and other large, mobile wildlife species be carefully reviewed and incorporated into the final report*

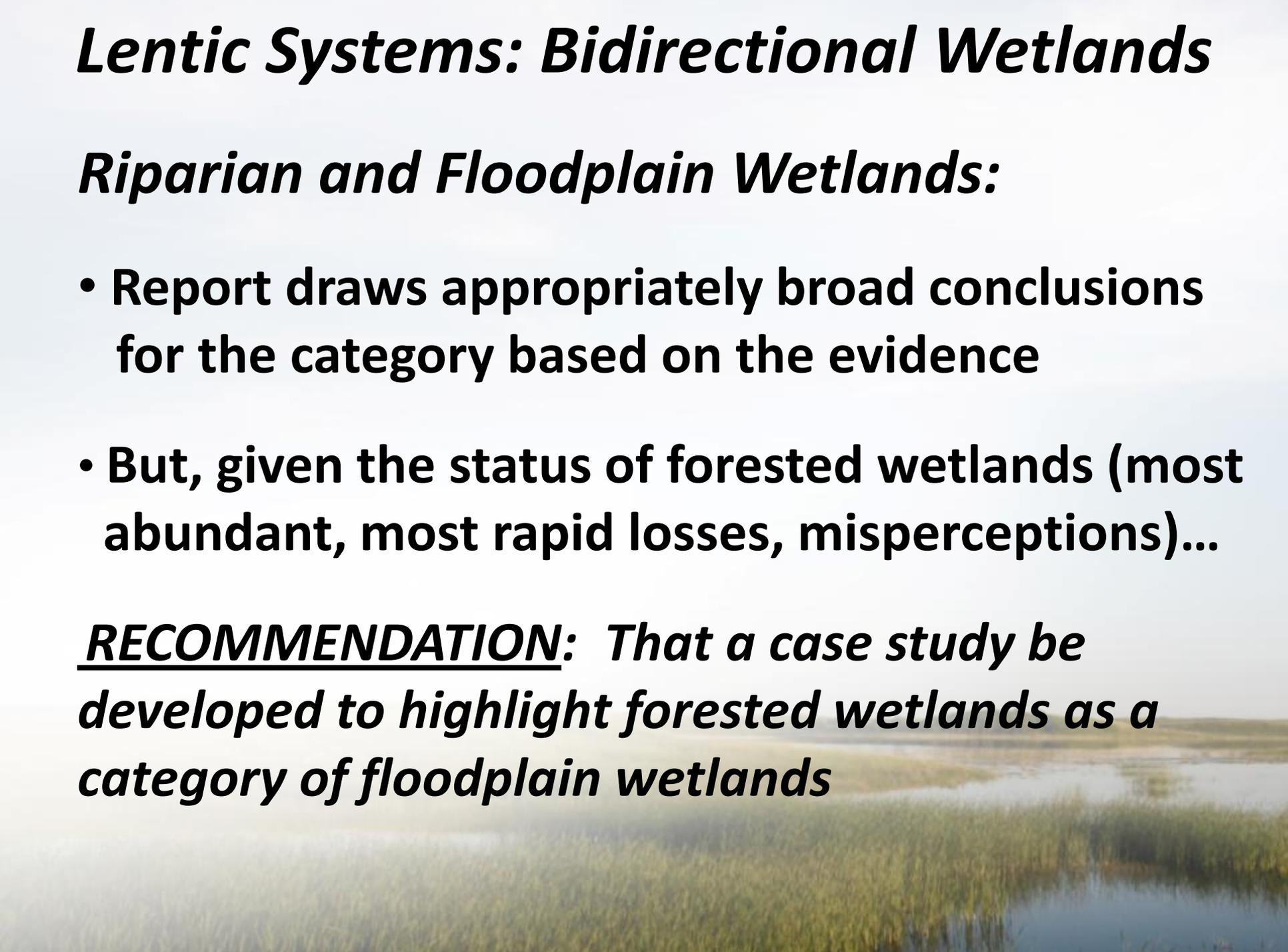
***Dr. Scott C. Yaich, Ducks Unlimited
EPA Public Meeting, Washington, DC
December 16, 2013***

Lentic Systems: Bidirectional Wetlands

Riparian and Floodplain Wetlands:

- **Report draws appropriately broad conclusions for the category based on the evidence**
- **But, given the status of forested wetlands (most abundant, most rapid losses, misperceptions)...**

RECOMMENDATION: *That a case study be developed to highlight forested wetlands as a category of floodplain wetlands*



Lentic Systems: Unidirectional Wetlands

RECOMMENDATION: That the report include conclusions for subcategories of unidirectional wetlands, i.e., for specific landscapes with significant wetland components, consistent with the preponderance of the science

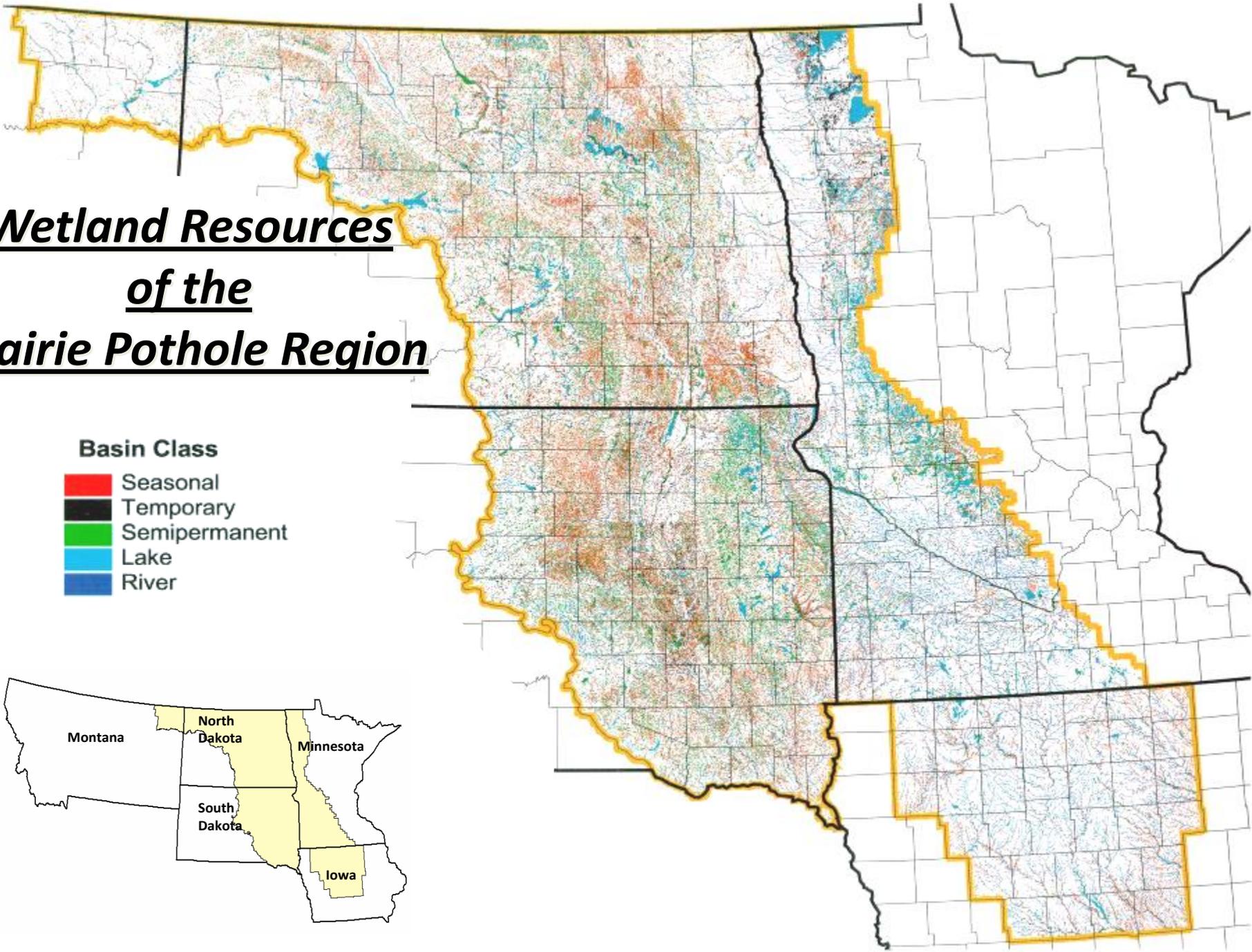


Prairie Pothole Region



Wetland Resources of the Prairie Pothole Region

Basin Class





Prairie Pothole Region



Image USDA Farm Service Agency

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Imagery Date: 8/22/2009

47°57'40.90" N 100°56'02.02" W elev. 1752 ft

Elev. alt. 48693 ft

Map

Satellite

Terrain



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1000 ft

200 m

Imagery ©2011 GeoEye, DigitalGlobe, GeoEye, Map data ©2011 Google - Terms of Use

Map

Satellite

Terrain



POWERED BY
Google

1000 ft

200 m

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Examples of Other Landscapes (Cases) With Significant Unidirectional Wetlands

- **Rainwater Basins - NE**
- **Playas - Southern Great Plains**
- **Carolina Bays - East Coast**

RECOMMENDATION: *That the report include conclusions that are consistent with the preponderance of the science for subcategories of unidirectional wetlands, i.e., for specific landscapes with significant wetland components*

RECOMMENDATION: “The report should explain how, based on your best professional judgment in light of the preponderance of the scientific evidence, that adverse impacts would occur to the biological, chemical, and physical integrity of downstream waters if the biological, chemical, and physical integrity of individual subcategories of unidirectional wetlands were adversely impacted.” *

* Wording based on ruling in *Mississippi v. EPA* Clean Air Act Case and comments of the judge regarding recommendations of the “Clean Air Science Advisory Committee”

