

An aerial photograph of a vast agricultural landscape. The fields are a mix of dark brown and reddish-brown, indicating different soil types or crop stages. A prominent, winding green waterway, likely a canal or a natural watercourse, cuts through the fields, providing a stark contrast to the earthy tones. The perspective is from a high angle, looking down on the terrain.

The Use of Water Quality Trading and Wetland Restoration to Address Hypoxia in the Gulf of Mexico

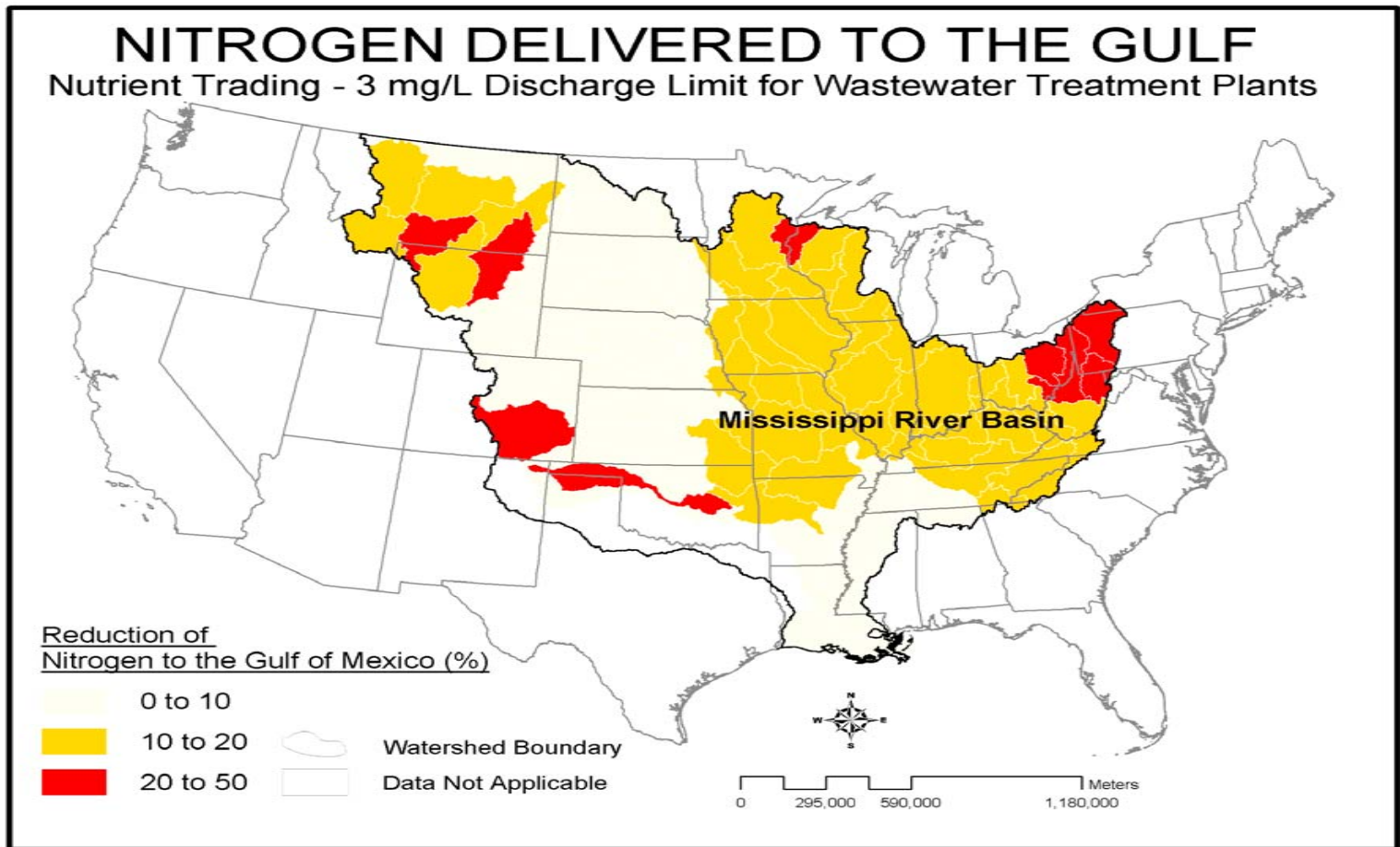
Paul Faeth & Tracy Mehan

Hypoxia in the Gulf of Mexico



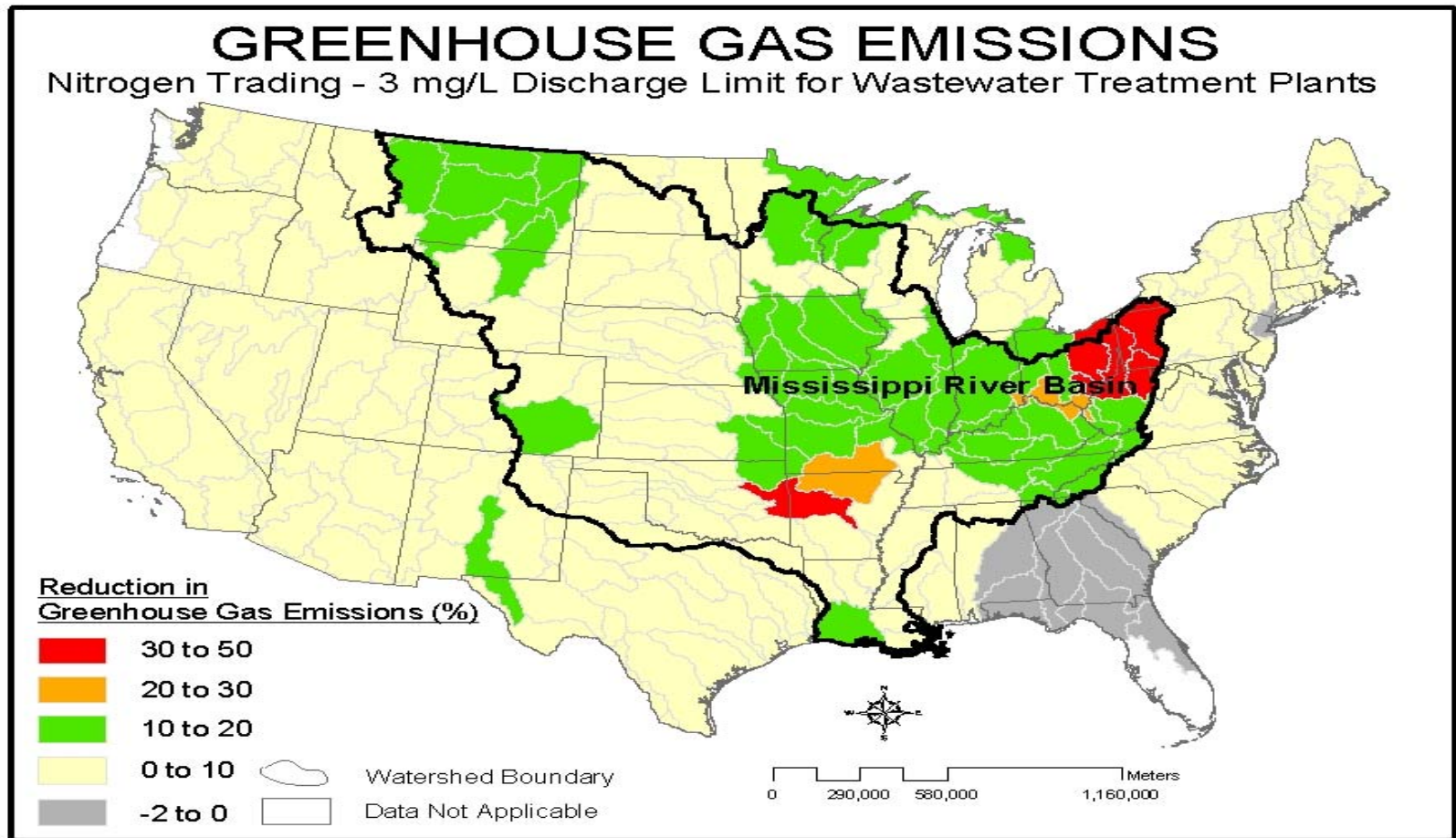


Regional Impacts





Regional Impacts





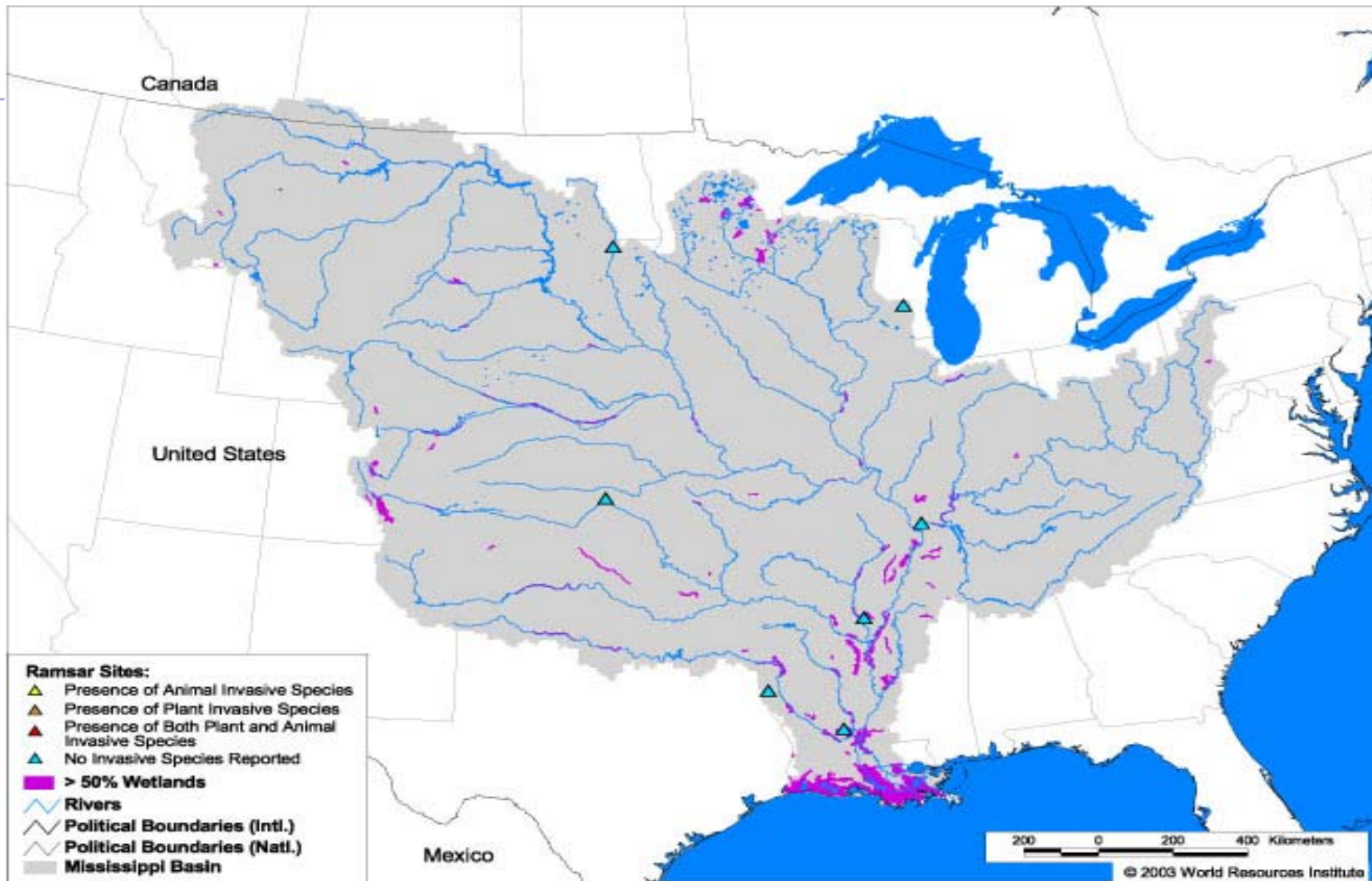
Nitrogen reduction costs using wetlands

Source	\$/lb of N	\$/acre of wetland
Hey	\$0.27	\$137
Purdue	\$2.75 – \$5.41 (-\$0.99 – \$1.94)	\$368 – \$781 (-\$132 - \$280)
CENR	\$0.87 - \$1.37	\$495 - \$2191
HLD project	\$0.280 - \$1.30	\$111 - \$514
NutrientNet	\$0.90	\$300



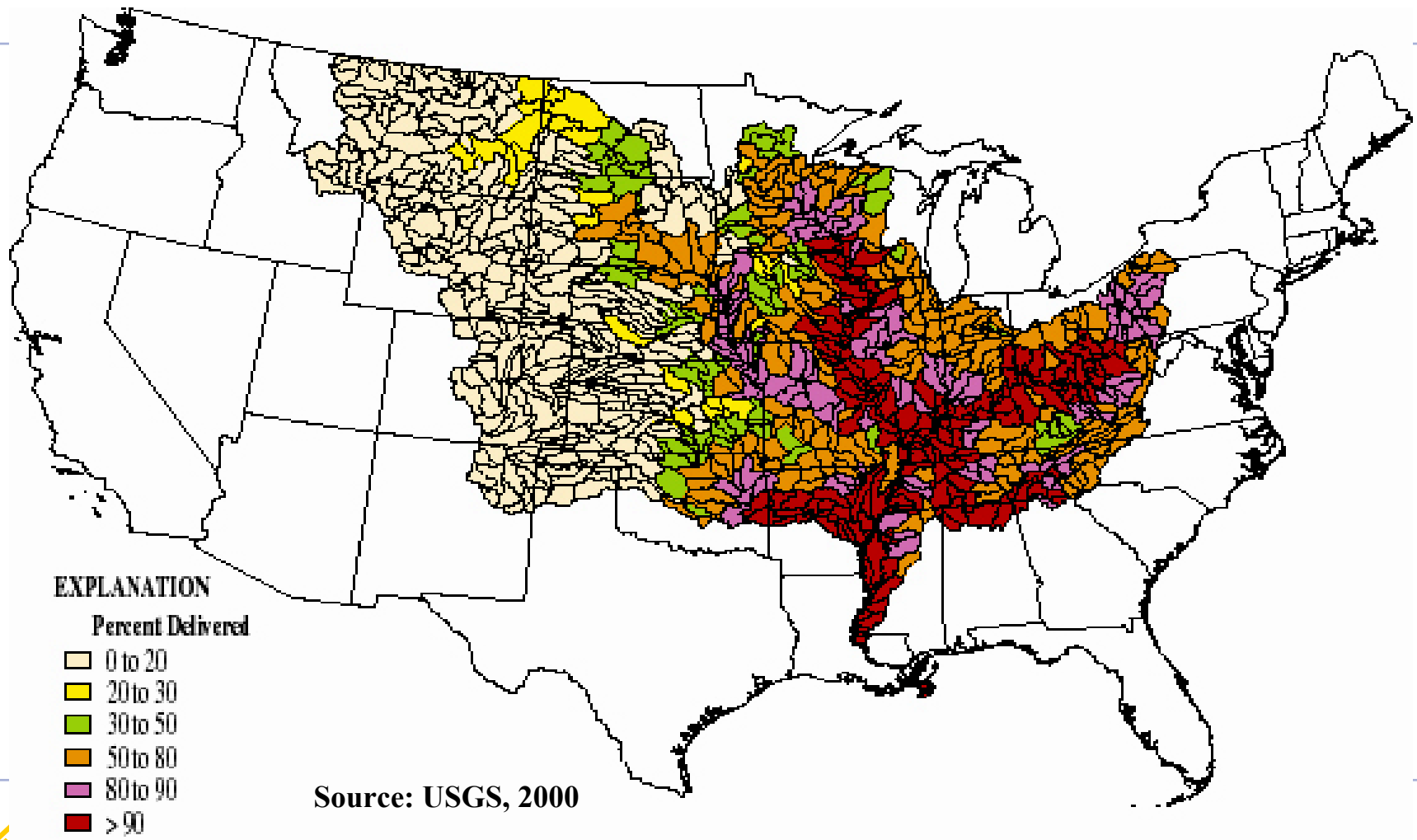


Wetlands in the MRB





N Delivery Ratios



My bids
My offers
Logout

Selected Best Management Practices

Summary	Location	Field details
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About NutrientNet

Markets

Support



Zoom to a ZIP Code Area

 Reference Map Aerial Photos

Help

Use the map tools or ZIP code list to find your area.

Farm Field Tools

Click the **start** button below to draw a new farm field boundary. Once the field is defined, click the **submit** button to proceed.

start

submit

**STEPS:****1. Zoom in**

Click on the map to zoom in to your location area, or select a zip code from the scroll down menu.

2. Define your field

After zooming in, press the start button, and click the boundary corners of your field. If you make a mistake or want to start drawing again, just press the start button again.

3. Save location

Once done click Submit button to continue.

You may also...

- Switch between Aerial photos and Reference map modes by selecting appropriate radio box (in upper right corner).
- Click on Zoom out icon to zoom out one level.

My NutrientNet

My profile

My market / history

Sell credits

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About NutrientNet**Markets****Support****Selected BMPs**

Use this form to select best management practices/mitigations.

Selected Best Management Practices

Summary	Location	Field details
<input type="button" value="Update BMPs"/> <input type="button" value="Go to Summary"/>		

Field name: Field #1

Field area: 175.00 acres

Nitrogen out: 11,662 lbs

Nitrogen in: 15,785 lbs

Nitrogen baseline loading: 3,000 lbs
Selected best management practices

- Cover crop What are these?
- Land conversion
- Conservation tillage
- Filter strip Grass

STEPS:**1. Select BMP**

Click on a checkbox next to the best management practice title to select/deselect appropriate BMP for this field.

2. View BMP effects

Once done with BMP selection click the update BMPs button to fill out BMP details.

You may also...

» Go to the summary by clicking on the Go to Summary button.



Home > My NutrientNet > Field. Filter strip: grass

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Grass filter strip



Use this form to view and update your farming field grass filter strip details.

Selected Best Management Practices

Summary	Location	Field details	Filter strip: grass
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BMP details:

Strip width: ?

Strip length (ft):

Project duration (yrs):

Interest rate (%):

Costs:

Maintainance (\$/ac/yr):

Opportunity cost (\$/ac/yr): ?

Land rent (\$/ac/yr):

Cost sharing:

Do you participate in cost sharing? check for yes

Contract length (yr): ?

Sign-up bonus (\$/ac):

Establishment subsidy (\$/ac):

Land rent subsidy (\$/ac/yr):

STEPS:

1. Enter BMP details
 If you are not sure about a certain value, leave a default one.

2. Save values
 Once done click Save button to continue.

You may also...

- » Click Reset button to restore values you started with.
- » Click on question mark icon for more information about a certain field (where available).

My NutrientNet[My profile](#)[My market / history](#)[Sell credits](#)[My bids](#)[My offers](#)[Logout](#)**About NutrientNet****Markets****Support**

Sell credits

Use this form to review and confirm your offer to sell credits details.

Offer details :Credit amount:

Market: Potomac river basin

Starting price:

Nutrient: Nitrogen

Offer closes: Reserve: (blank for none)Buy now price: (blank for none)**Notes:**

1. **Starting price** - minimum price you want the bidding to start at.
2. **Reserve price** - minimum price you want to sell the credits for.
3. **Buy now price** - price you agree to sell credits for right away, without waiting for the offer to expire.
4. **Offer closes** - date and time when offer expires.



Drivers for Trading

- Water Quality Standards (P and/or N)
- TMDLs, NPDES Permits
- Greenhouse Gas (GHG) credits
- Say's Law (sort of): supply creates the demand
- Brokers, bankers, aggregators





Questions?