

A View from the Bottom of the Watershed: Managing Hypoxia and Nutrient Pollution

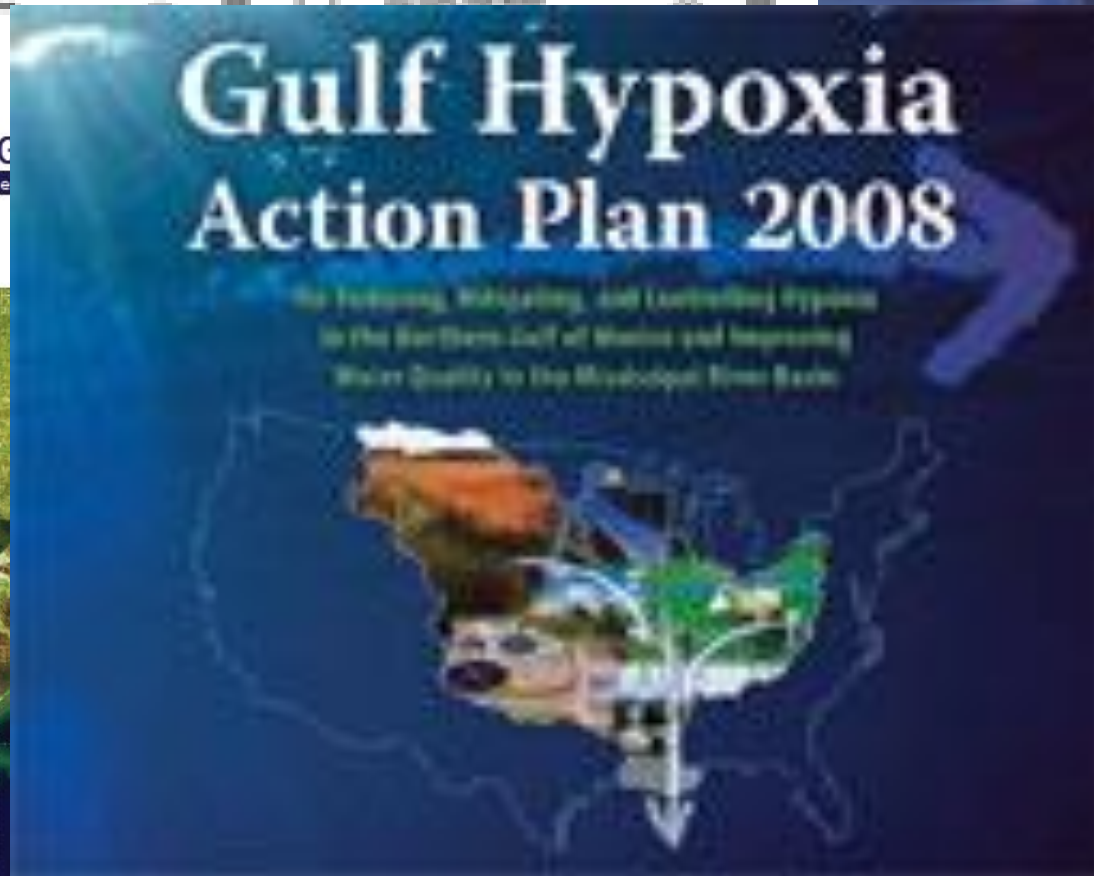
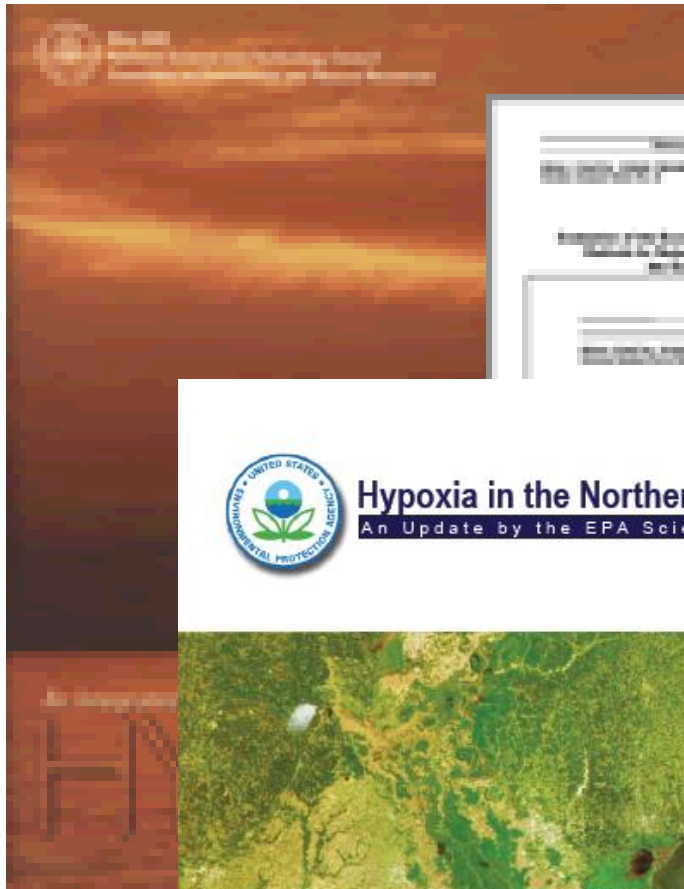
Tulane Environmental Law and Policy Summit

2023

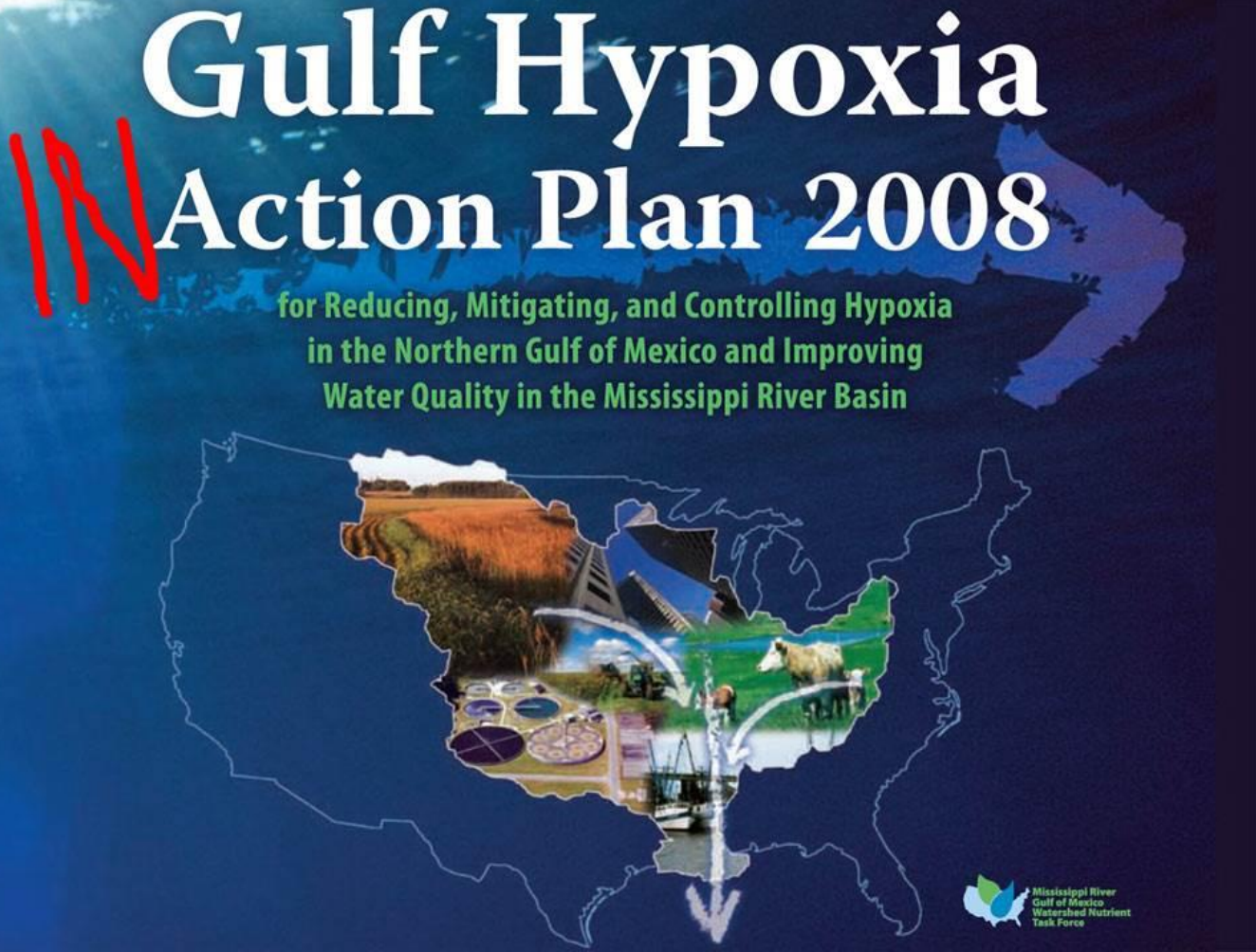
Matt Rota, healthy Gulf

Good at making plans

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the right side of the frame, creating a modern, layered effect against the white background.



Department of the Interior
Bureau of Ocean Energy Management



IN

Gulf Hypoxia Action Plan 2008

for Reducing, Mitigating, and Controlling Hypoxia
in the Northern Gulf of Mexico and Improving
Water Quality in the Mississippi River Basin

Mississippi River
Gulf of Mexico
Watershed Nutrient
Task Force

Kicking the Can Down the Road

“The Task Force has decided to extend the target date for shrinking the dead zone from its current average size of almost 6,000 square miles to about 2,000 square miles from 2015 to 2035. Progress has been made in certain watersheds within the region, but science shows a 45 percent reduction is needed in the nitrogen and phosphorus entering the Gulf of Mexico. In order to track progress and spur action, the Task Force is also aiming at a 20 percent reduction in nutrient loads by 2025.”

-EPA Press Release, Jan. 12, 2015

Numeric Nutrient Criteria

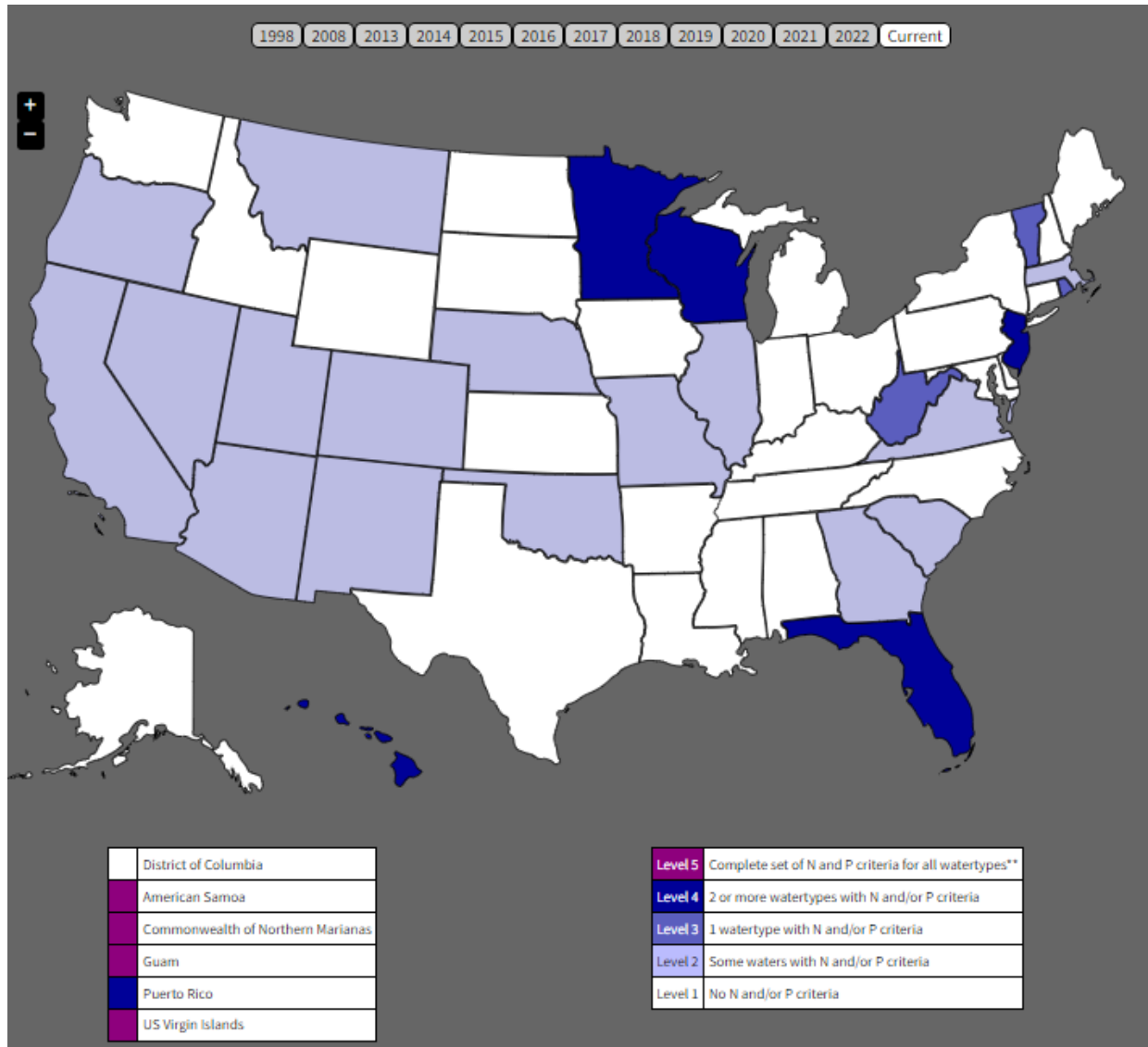


Why isn't the Clean Water Act taking care of these problems?

One reason is that most states have not adopted numeric water quality standards for phosphorus, nitrogen, or algae, meaning:

- ▶ No NPDES permit limits are imposed;
- ▶ No monitoring is done for these pollutants;
- ▶ Nutrient affected waters are not listed as impaired; and
- ▶ Clean up plans (TMDLs) are not done.

States with P or N standards



1998

[Federal Register: June 25, 1998 (Volume 63, Number 122)]
[Notices]
[Page 34648-34650]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr25jn98-98]

ENVIRONMENTAL PROTECTION AGENCY

[OW-FRL-6116-6]

EPA expects all States and Tribes to adopt and implement numerical nutrient criteria into their water quality standards by December 31, 2003. States and Tribes may accomplish this by developing their own regional criteria values in watersheds where applicable data are available or by using the EPA target nutrient ranges...If EPA disapproves the new or revised standard submitted by a State or ...or if EPA determines that a new or revised nutrient standard is necessary...EPA will initiate rulemaking to promulgate nutrient criteria appropriate to the region and waterbody types. Any resulting water quality standard would apply until the State or Tribe adopts and EPA approves a revised standard.

Kenwood Road, Bldg. 5, Cincinnati, Ohio 45242; fax 1-513-489-8695 or 1-800-490-9198. The fact sheet and the Strategy are also available on the Internet at <http://www.epa.gov/ncepihom/orderpub.html>.
FOR FURTHER INFORMATION CONTACT: Robert Cantilli, Health and Ecological Criteria Division (4304), Office of Science and Technology, Office of Water, U.S. Environmental Protection Agency, 401 M Street SW, Washington, DC 20460-0001, (202) 866-1102

2007




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 25 2007

OFFICE OF
WATER

MEMORANDUM

SUBJECT: Nutrient Pollution and Numeric Water Quality Standards

FROM: Benjamin H. Grumbles 
Assistant Administrator

TO: Directors, State Water Programs
Directors, Great Water Body Programs
Directors, Authorized Tribal Water Quality Standards Programs
State and Interstate Water Pollution Control Administrators

Chesapeake Bay and Tennessee streams. However, overall progress has been uneven over the past nine years. Now is the time for EPA and its partners to take bold steps, relying on a combination of science, innovation and collaboration.

nutrient water quality
ress. EPA published
es have made
n connection with the
n uneven over the
relying on a

Why Action is Needed

High nitrogen and phosphorus loadings, or nutrient pollution, result in harmful algal blooms, reduced spawning grounds and nursery habitats, fish kills, oxygen-starved hypoxic or "dead" zones, and public health concerns related to impaired drinking water sources and increased exposure to toxic microbes such as cyanobacteria. Nutrient problems can exhibit themselves locally or much further downstream leading to degraded estuaries, lakes and reservoirs, and to hypoxic zones where fish and aquatic life can no longer survive.

Nutrient pollution is widespread. The most widely known examples of significant nutrient impacts include the Gulf of Mexico and the Chesapeake Bay. For these two areas alone, there are 35 States that contribute the nutrient loadings. There are also known impacts in over 80 estuaries/bays, and thousands of rivers, streams, and lakes. The significance of this impact has led EPA, States, and the public to come together to place an unprecedented priority on public partnerships, collaboration, better science, and improved tools to reduce nutrient pollution.

Virtually every State and Territory is impacted by nutrient-related degradation of our waterways. All but one State and two Territories have Clean Water Act Section 303(d) listed

Mississippi River Nitrogen and Phosphorus Pollution Suit

2008

BEFORE THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF WATER

Petition for Rulemaking
Under the Clean Water Act

Numeric Water Quality Standards for
Nitrogen and Phosphorus and TMDLs for the

Petition for Rulemaking Under the Clean Water Act

Numeric Water Quality Standards for Nitrogen and Phosphorus and TMDLs for the Mississippi River and the Gulf of Mexico

Agency ("EPA") have known
States are being harmed by
that excess levels of nitrogen
and a huge list of waters in
contributes to low dissolved
on the economic, aesthetic,
phosphorus pollution. Excess
before such water is suitable
are produced as an unwanted
phorus pollution affects

¹ Nutrient Criteria, Technical Guidance Manual, Rivers and Streams, EPA -822-B-00-002 (July 2000) ("Nutrient Criteria Guidance").

² Nutrient Criteria Guidance at 4-5.

Stoner Memo, March 16, 2011 (Nutrient Reduction Frameworks)

Numeric nutrient criteria “ultimately necessary”

8 Recommended Elements of Framework

1. Prioritize watershed on a statewide basis for N and P loading reductions
2. Set watershed load reduction goals based upon best available information
3. Ensure effectiveness of point source permits in targeted/priority sub-watersheds
4. Agricultural areas
5. Stormwater and Septic systems
6. Accountability and verification measures
7. Annual public reporting of implementation and biannual reporting of load reductions
8. Develop work plan and schedule for numeric criteria development

2011



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 29 2011

OFFICE OF
WATER

Kevin Reuther
Legal Director
Minnesota Center for
Environmental Advocacy
26 E. Exchange Street, Suite 206
St. Paul, MN 55101-1167

Albert Ettinger
53 W. Jackson Suite 1664
Chicago, IL 60604

Dear Mr. Reuther and Mr. Ettinger:

U.S. Environmental Protection Agency's (EPA) response to your letter and Petition. While the EPA is in agreement with many of your environmental concerns, we are denying the petition for the reasons explained below. We do not believe that the comprehensive use of federal rulemaking authority is the most effective or practical means of addressing these concerns at this time.

criteria for the Mississippi-Atchafalaya River Basin (MARB) and the northern Gulf of Mexico (i.e., 31 states) in the alternative; and (3) promulgate the same numeric water quality standards for nutrients in the states along the mainstem of the Mississippi River and the northern Gulf of Mexico (i.e., 10 states) at a minimum. Your Petition also requests that the EPA establish total maximum daily loads (TMDLs) for nitrogen (N) and phosphorus (P) for: (1) the mainstem of the Mississippi River and every segment thereof; (2) the tributaries of the Mississippi River that do not meet the criteria the EPA establishes for N or P; (3) the portion of the contiguous zone within the Gulf of Mexico; and (4) the portion of the ocean that is within the coverage of the Clean Water Act (CWA) in the Gulf of Mexico.

The EPA agrees that N and P pollution presents a significant water quality problem facing our nation. N and P pollution in both fresh and marine systems can significantly impact aquatic life and long-term ecosystem health, diversity, and balance. More specifically, high N and P

¹ Wherever the Petition requests that numeric nutrient water quality "standards" be promulgated, EPA understood this to mean numeric nutrient criteria (NNC).

2016 Ruling

- ▶ EPA's assessment that the best approach at this time is to continue in its comprehensive strategy of bringing the States along without the use of federal rule making is subject to the highly deferential and limited review that the Fifth Circuit described in its opinion. *Presumably, there is a point in time at which the agency will have abused its great discretion by refusing to concede that the current approach - albeit the one of first choice under the [Clean Water Act] - is simply not going to work.* But for now plaintiffs have not demonstrated that EPA's assessment was arbitrary, capricious or contrary to law. 224 F. Supp. 3d470. (*emphasis added*)

Ohio River Petition

LOCAL

Sierra Club files petition asking EPA to clean up Ohio River

Posted: Dec 16, 2020 / 08:01 PM CST
Updated: Dec 16, 2020 / 08:01 PM CST



Basic Standards of Care

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the right side of the slide, creating a modern, layered effect. The text 'Basic Standards of Care' is positioned on the left side of the slide in a clean, sans-serif font.

Heal or prevent temporary gullies that are direct pipelines delivering polluted runoff to waterways.



Source: EWG.

Keep at least 50 feet of permanent vegetation between cropland and waterways to filter runoff from farm fields.



Photo Courtesy of the Des Moines Register
Copyright Des Moines Register. Photo by
Christopher Gannon. Register

Control the access of livestock to waterways to minimize damage to streams.



Source: EWG.

End the application of manure to frozen, snow-covered or saturated ground.



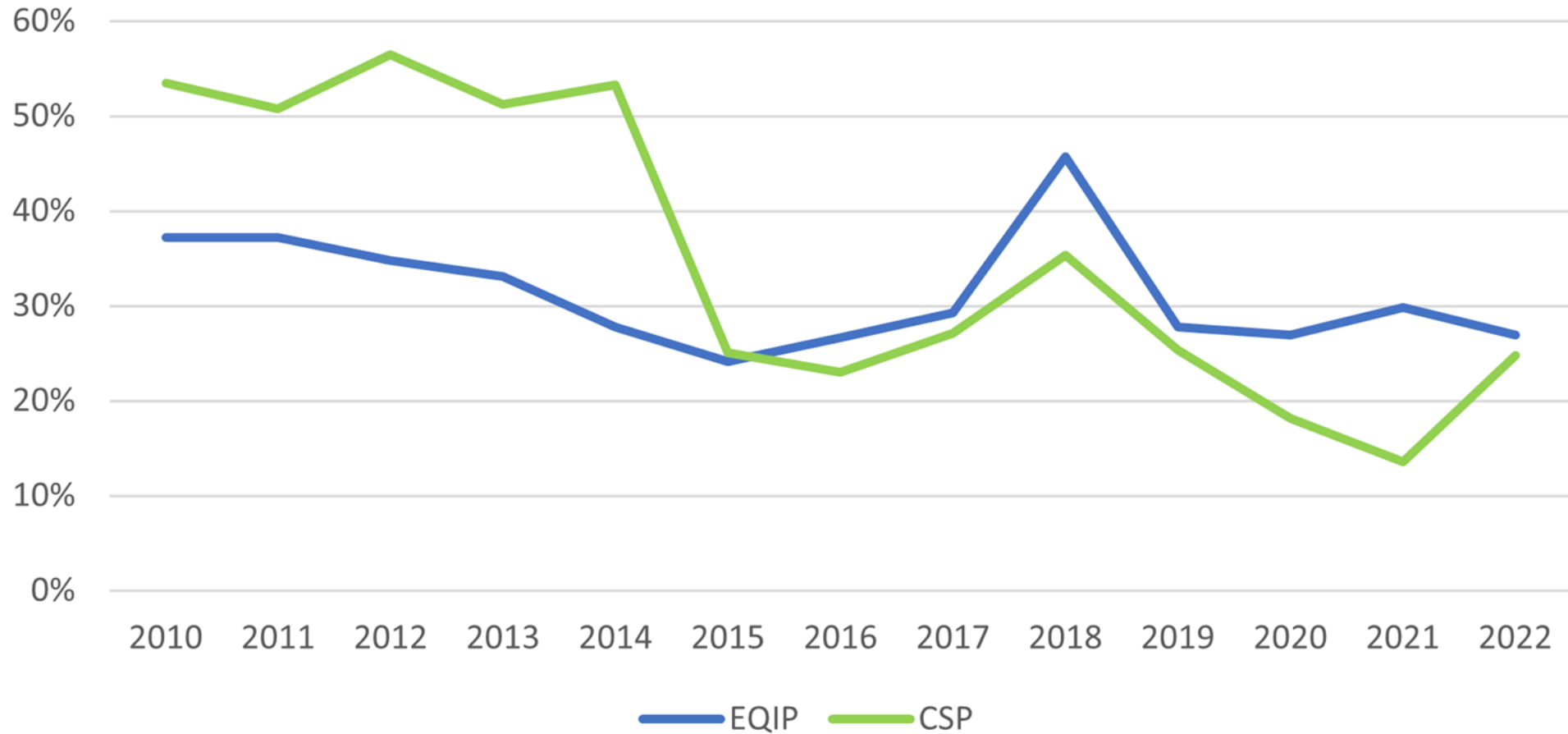
Source: NRCS.

Farm Bill

The background of the slide is white with abstract green geometric shapes on the right side. These shapes include overlapping triangles and polygons in various shades of green, from light lime to dark forest green. A thin grey line also runs diagonally across the white space, intersecting the green shapes.

% of farmers getting \$\$ is decreasing (more farmers apply than receive \$)

Figure 1. CSP and EQIP Applicants Awarded Contracts Nationwide by Percentage, 2010-2022



Michael Happ, IATP, "Still Closed Out,"
March 2023 Report

9 out of 10 mainstem states rank in the bottom 50% of receiving EQIP \$

| EQIP Usage in 10 Mainstem Mississippi River states, 2022 | | | | |
|--|-------------|--------------------|------------------------------|--|
| Ranking (states & territories) | State | # of Applicants | # of Contracts Awarded | % of Applicants Awarded Contracts |
| 18 | Wisconsin | 2,937 | 1,064 | 36.23% |
| 32 | Tennessee | 3,127 | 831 | 26.57% |
| 33 | Minnesota | 3,398 | 903 | 26.57% |
| 36 | Kentucky | 3,142 | 782 | 24.89% |
| 42 | Louisiana | 2,173 | 504 | 23.19% |
| 43 | Missouri | 4,232 | 941 | 22.24% |
| 45 | Arkansas | 7,190 | 1,455 | 20.24% |
| 46 | Iowa | 4,127 | 823 | 19.94% |
| 48 | Mississippi | 11,328 | 2,204 | 19.46% |
| 51 | Illinois | 2,263 | 371 | 16.39% |

Michael Happ, IATP, “Still Closed Out,”
March 2023 Report

All 10 mainstem states rank in the bottom 50% of receiving CSP \$

| CSP Usage in 10 Mainstem Mississippi River states, 2022 | | | | |
|---|-------------|--------------------|------------------------------|--|
| Ranking (states & territories) | State | # of Applicants | # of Contracts Awarded | % of Applicants Awarded Contracts |
| 27 | Tennessee | 685 | 263 | 38.39% |
| 31 | Wisconsin | 1,419 | 487 | 34.32% |
| 32 | Kentucky | 360 | 123 | 34.17% |
| 35 | Iowa | 1,243 | 375 | 30.17% |
| 37 | Missouri | 1,695 | 445 | 26.25% |
| 39 | Louisiana | 874 | 211 | 24.14% |
| 41 | Illinois | 1,252 | 275 | 21.96% |
| 50 | Arkansas | 2,221 | 231 | 10.40% |
| 51 | Minnesota | 3,001 | 241 | 8.03% |
| 52 | Mississippi | 3,227 | 243 | 7.53% |

Michael Happ, IATP, "Still Closed Out,"
March 2023 Report

Corporate Accountability

The background features a series of overlapping, semi-transparent green triangles and polygons of various shades, ranging from light lime green to dark forest green. These shapes are primarily located on the right side of the page, creating a dynamic, modern aesthetic. The text 'Corporate Accountability' is positioned on the left side of the page, centered vertically, in a clean, sans-serif font.

Mighty Earth targeting Tyson to move to sustainable feed. Tyson has responded, committing to improve farming practices on 2 million acres of grain by 2020



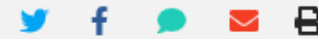
Not quite getting us there

Tyson Foods enrolled less than 5 percent of feed acreage in sustainability program, science group finds

Land used to grow crops for Tyson Foods' cattle, pigs and chickens roughly twice the size of New Jersey

News [FOLLOW NEWS](#) | Feb 9, 2022

-Union of Concerned Scientists



In 2018, Tyson Foods, Inc. set a goal to improve environmental practices on 2 million acres of feed crops by 2020, a goal it trumpeted as the largest-ever by a U.S. protein company. Yet by June 2021, the company reported it had enrolled just 408,000 acres into a pilot program to work toward this goal. New analysis by the Union of Concerned Scientists estimates that Tyson's progress to date accounts for less than 5 percent of the company's total "feed footprint."

The analysis estimates that it took an area of farmland roughly twice the size of New Jersey to grow feed for the 6 million head of cattle, 22 million hogs and nearly 2 billion chickens processed by Tyson in 2020. The findings are based on statistics reported by Tyson and data from the U.S. Department of Agriculture.

As the largest processor of meat and poultry in the United States, Tyson Foods influences farming practices on an estimated 9 to 10 million acres of land – the equivalent of about 5 percent of all U.S. corn and soybean acres – used to produce feed for the chicken, beef and pork processed and sold by the company, according to UCS. Prevailing farming practices contribute to soil erosion and water pollution, and leave farmland and surrounding communities vulnerable to extreme weather.

<https://www.thefencepost.com/news/tyson-foods-enrolled-less-than-5-percent-of-feed-acreage-in-sustainability-program-science-group-finds/>



Matt Rota
Healthy Gulf
504-377-7840

matt@healthygulf.org

[Facebook.com/healthygulf](https://www.facebook.com/healthygulf)

[Instagram.com/healthygulf](https://www.instagram.com/healthygulf)

[Twitter.com/healthygulf](https://twitter.com/healthygulf)