

Lake Erie 4R Nutrient Stewardship Certification: Water Quality Markets



Great Lakes in unprecedented danger, Chicago mayor says

Lake Erie Algae Bloom Crisis Is Putting Pressure On Ohio. Farm

Sta
Po

The New York Times

Lake Erie

The discussion
the five big lak
who rely on the



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Share 15

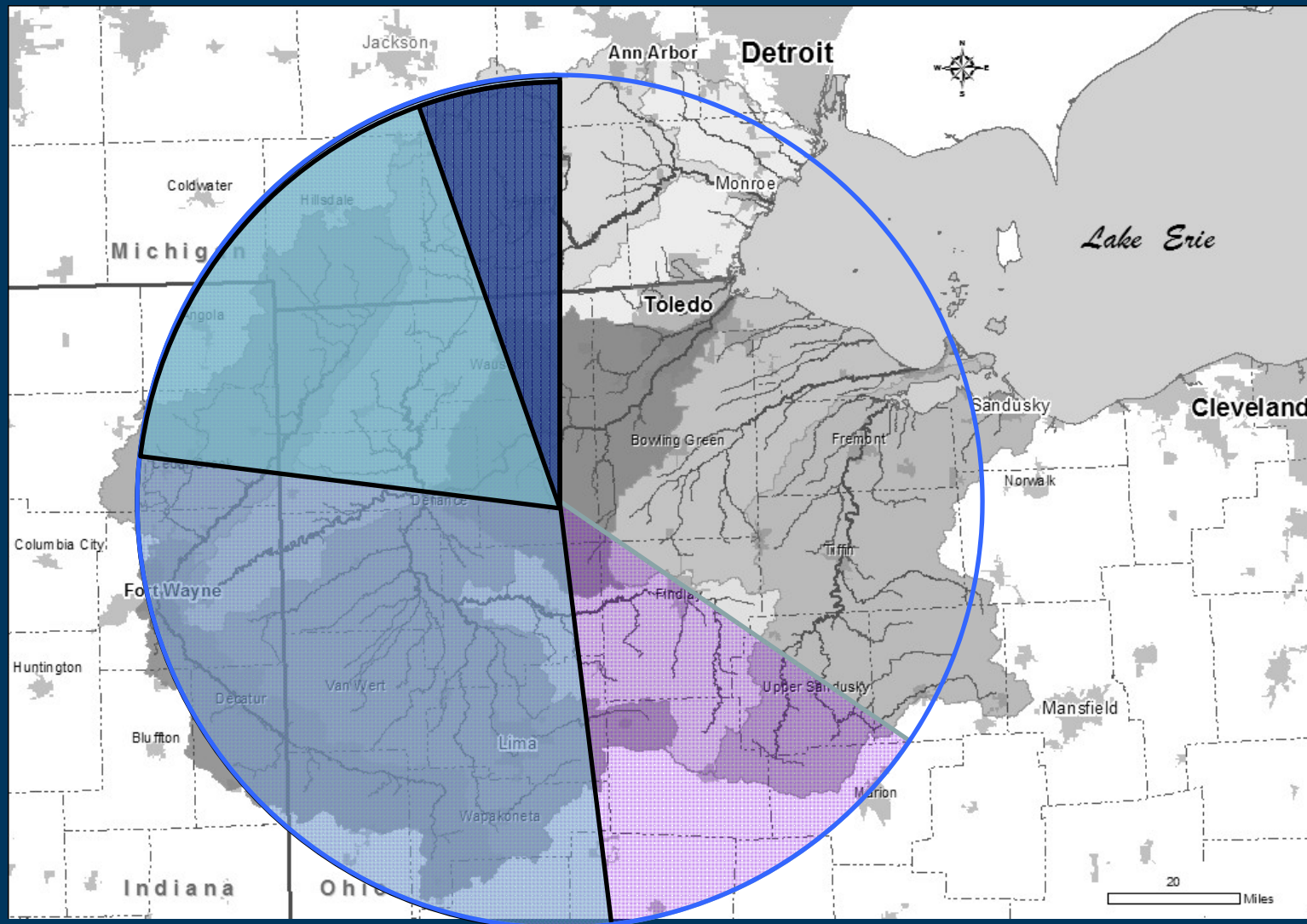
ne edge of one of
gest source of
et, it's easy to feel
s created by
ot all the water
ever need, some of the best

Fertilizer pollution fears bubble up Toledo water crisis

Experts say that lax rules for fertilizer and creeping climate change brought on algae bloom that tainted city's taps



Western Lake Erie Basin







Cumulative Impacts



NOTICE
An algae bloom has made
this area potentially
unsafe for water contact.
Avoid direct contact with
visible surface scum.



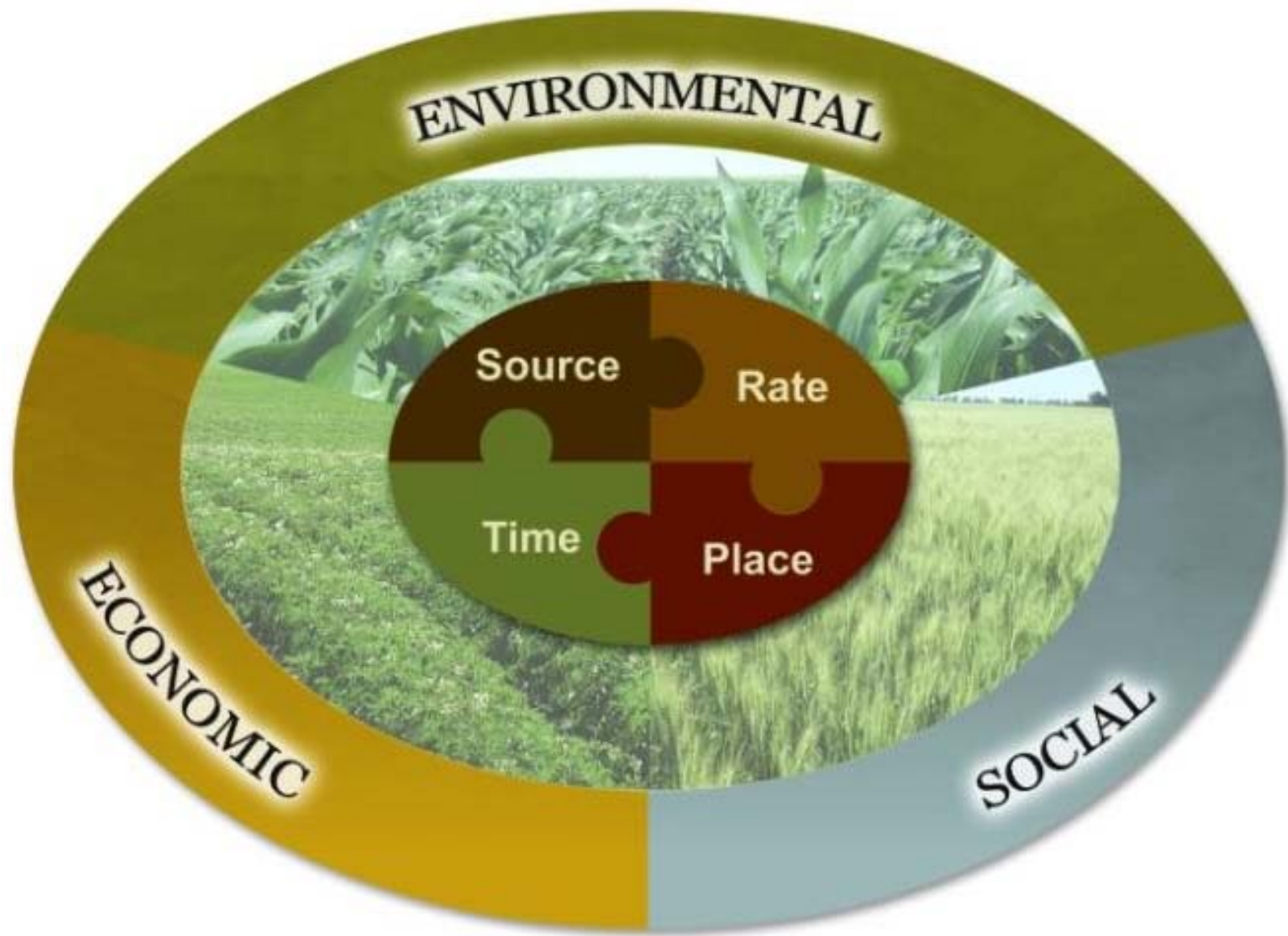
Systems Approach

The diagram illustrates a 'Systems Approach' for agriculture, centered around four interconnected light blue hexagonal nodes on a dark blue background. Each node is connected to the others by a network of lines. Each node contains a text label and a small white hexagonal icon. Surrounding the central nodes are four larger hexagonal images, each connected to a node by a line. The top image shows a grassy field with a line of trees. The bottom image shows a plowed field with a line of trees. The right image shows a grassy field with a line of trees. The left image shows a plowed field with a line of trees.

Down Stream

Edge-of-Field

In field





Building Relationships can Scale Conservation





4R Nutrient Stewardship Advisory Committee



Corn Marketing Program of Michigan
Michigan Corn Growers Association

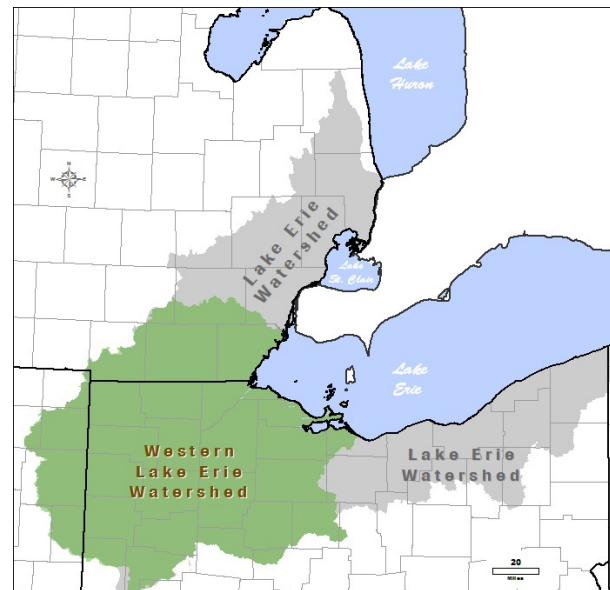




Private Third
Party Auditor

Nutrient Service
Providers

Voluntary





In House Audit – Every 3 Years





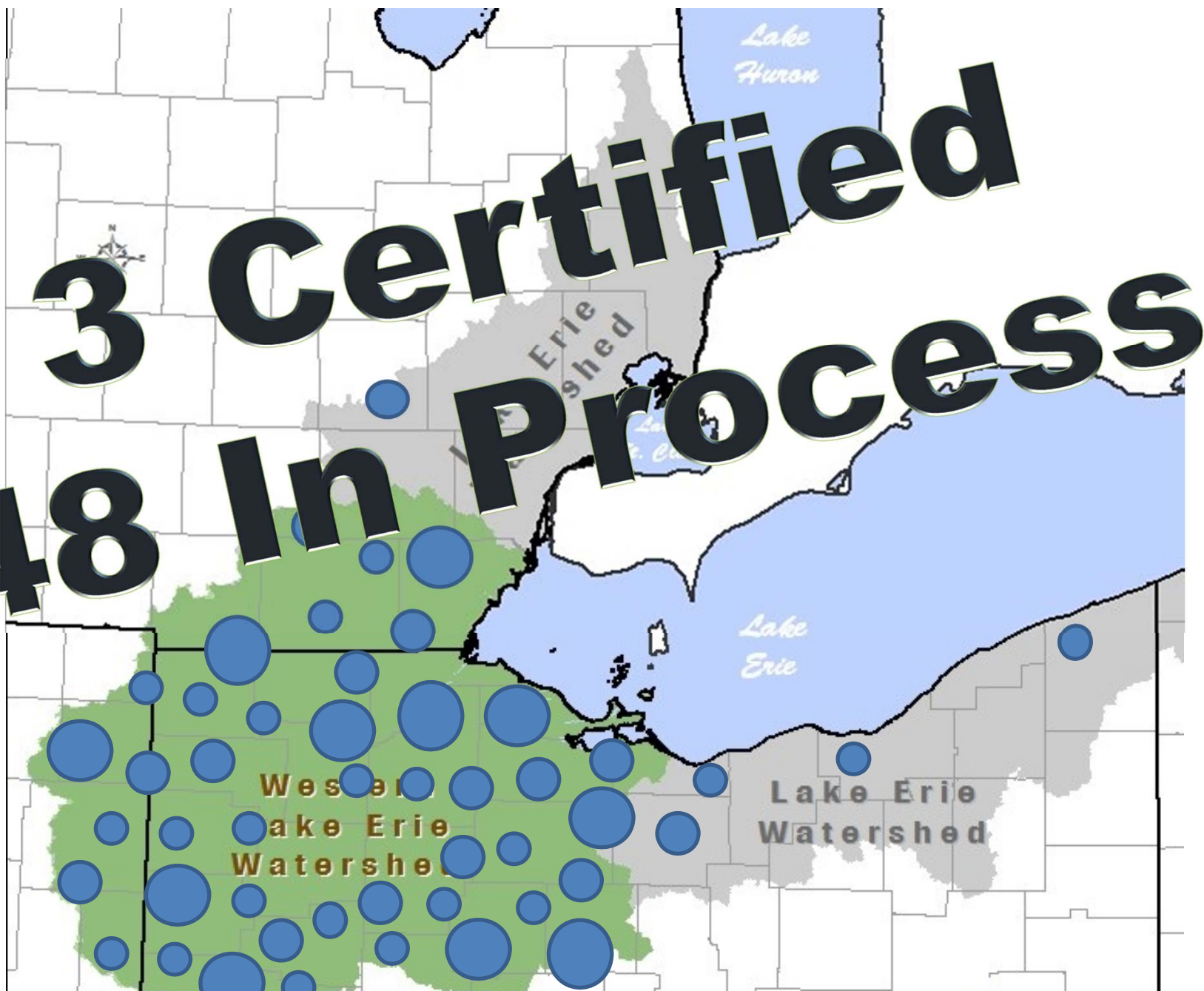
Year 1
Onsite Audit

Year 2
Onsite Audit in the
first certification
cycle, possible
Desk Audit in later
certification cycles

Year 3
Desk Audit for
NSPs that have
performed well in
previous years.

\$600 Annual Registration Fee

+





Continual Review of the Standard



Corn Marketing Program of Michigan
Michigan Corn Growers Association



Triple Bottom Line 5-year Evaluation



INTERNATIONAL
PLANT NUTRITION
INSTITUTE



\$1.25 Million





Field → Watershed → Lake





How can this be Marketed?





www.4Rcertified.org

www.nature.org/wleb

www.nature.org/algae