

Viral Hemorrhagic Septicemia (VHS): Proposed Rule and Surveillance through Cooperative Agreements

Jill Rolland
Assistance Director, ASEP



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What is VHS?

VHS is a serious viral disease of certain fish species

VHS is listed by the World Organization for Animal Health (OIE) as notifiable due to several factors

The virus was first isolated in Denmark in 1963

There are currently 5 known strains of VHS (Europe, Japan and N. America)



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What is VHS?

VHS infection causes disease in susceptible fish

Clinical signs include lethargy, darkening, pale gills, and external and internal hemorrhages which can ultimately lead to death

Prior to 2005, VHS in the US was due to Type IV, which caused disease mainly in marine fish species on both N. American coasts



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Photos courtesy of M. Faisal, Michigan State University



Why is VHS important now?

New virus, new hosts, new environment

No treatments are effective

Unregulated movement of VHS-susceptible species puts
US farmed fish health at risk

State regulations variable

Affected vs. Non-affected areas



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VHS in the Great Lakes

First reported in the Great Lakes in April 2005 from Freshwater Drum on the Canadian side of Lake Ontario

- New location
- New species

A second VHS finding was reported in December 2005 from a muskellunge in Lake St. Clair, and subsequently found from samples collected in 2003.



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Some Freshwater species from which VHS virus has been isolated include:

- Round gobies
- Smallmouth bass
- Largemouth bass
- Muskellunge
- Northern pike
- Burbot
- Freshwater drum
- Yellow Perch
- Walleye
- Bluntnose minnow
- Black crappie
- Catfish
- Bluegill
- Gizzard Shad
- Emerald shiners
- Brown trout
- Rainbow trout
- Atlantic salmon
- Pacific salmon (spp)
- White bass
- White perch
- Rockling
- Rock bass
- Redhorse sucker
- Rockling



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March 14, 2006: Gizzard Shad Mortalities

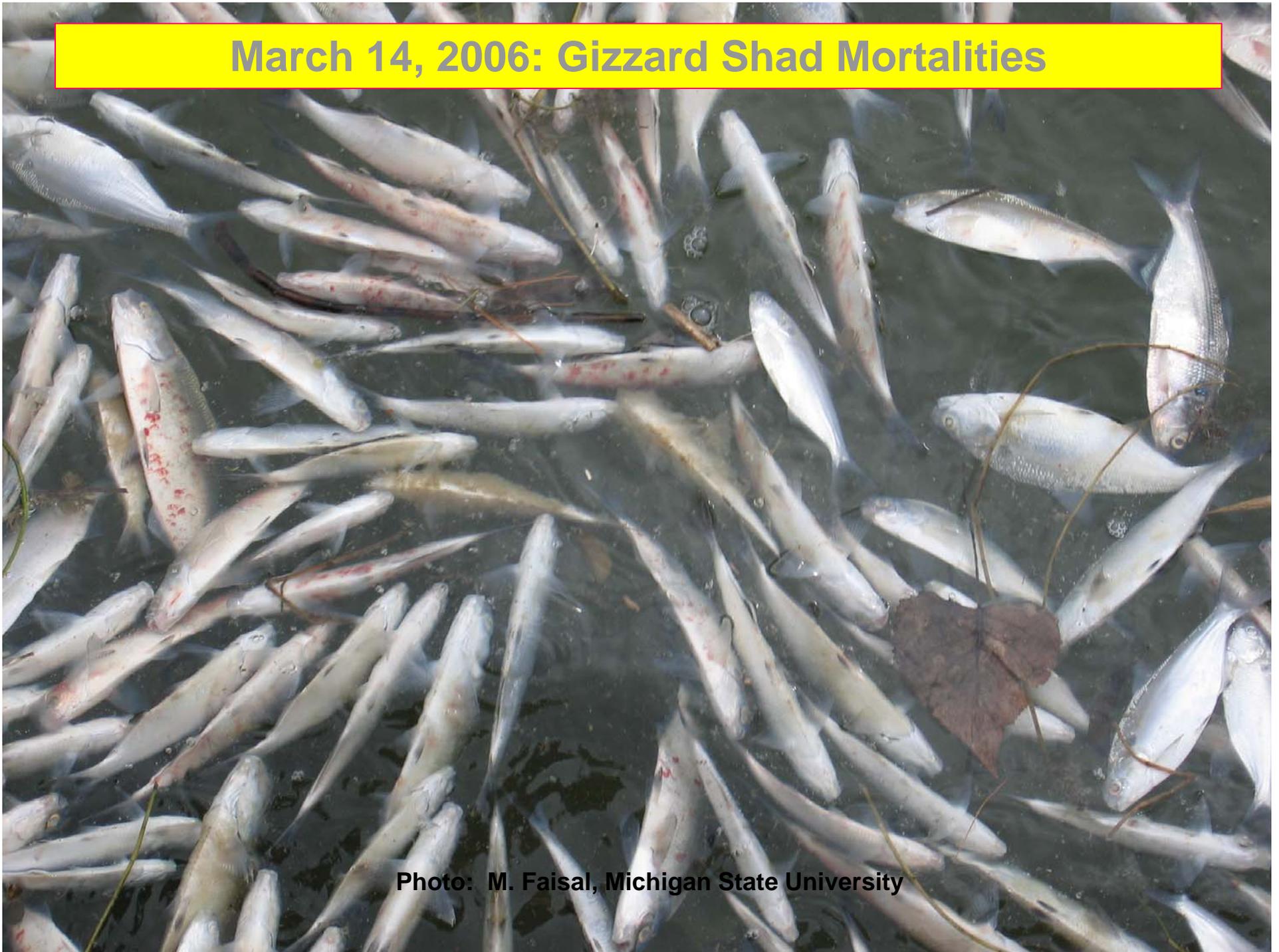


Photo: M. Faisal, Michigan State University

In October 2006 APHIS VS Issued a Federal Order

VHS susceptible species are restricted from moving out of the 8 States and 2 Canadian Provinces bordering the Great Lakes except under certain conditions

- Movement to slaughter with adequate disinfection
- Movement to a research or diagnostic lab with adequate disinfection
- Movement of live fish testing negative for VHS virus by laboratory assays
- Movement of salmonids from Canada that meet FWS requirements



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VHS Interim Rule

Interim Rule published September 9, 2008

On January 2, 2009, implementation delayed indefinitely



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VHS Public Comments

What We Heard

Length of time that testing results from nonsecure water sources would be valid is too short

72-hour visual inspection

Validity of interstate certificate of inspection

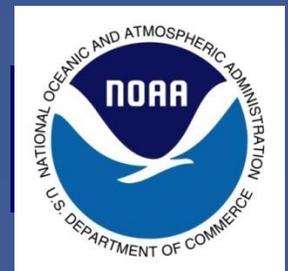
Availability and cost of services

Proscriptive methods for water treatment

Requirements to test fish going to live fish markets



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Indefinite Delay

Wide range of positions from stakeholders across the country

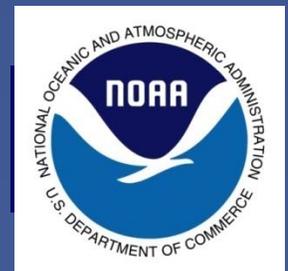
Difficult to find middle ground that still accomplishes the intent of the Federal Order

We desire to publish a reasonable, scientifically valid, implementable rule

Federal Order remains in effect



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Next Steps

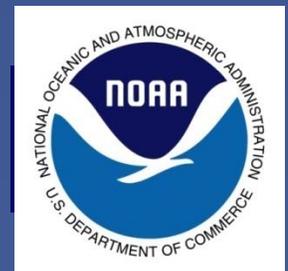
Publish a proposed rule incorporating what we heard in the comments

Proposed rule

- Will have performance standards
- Be more flexible
- Allow VS to respond more quickly

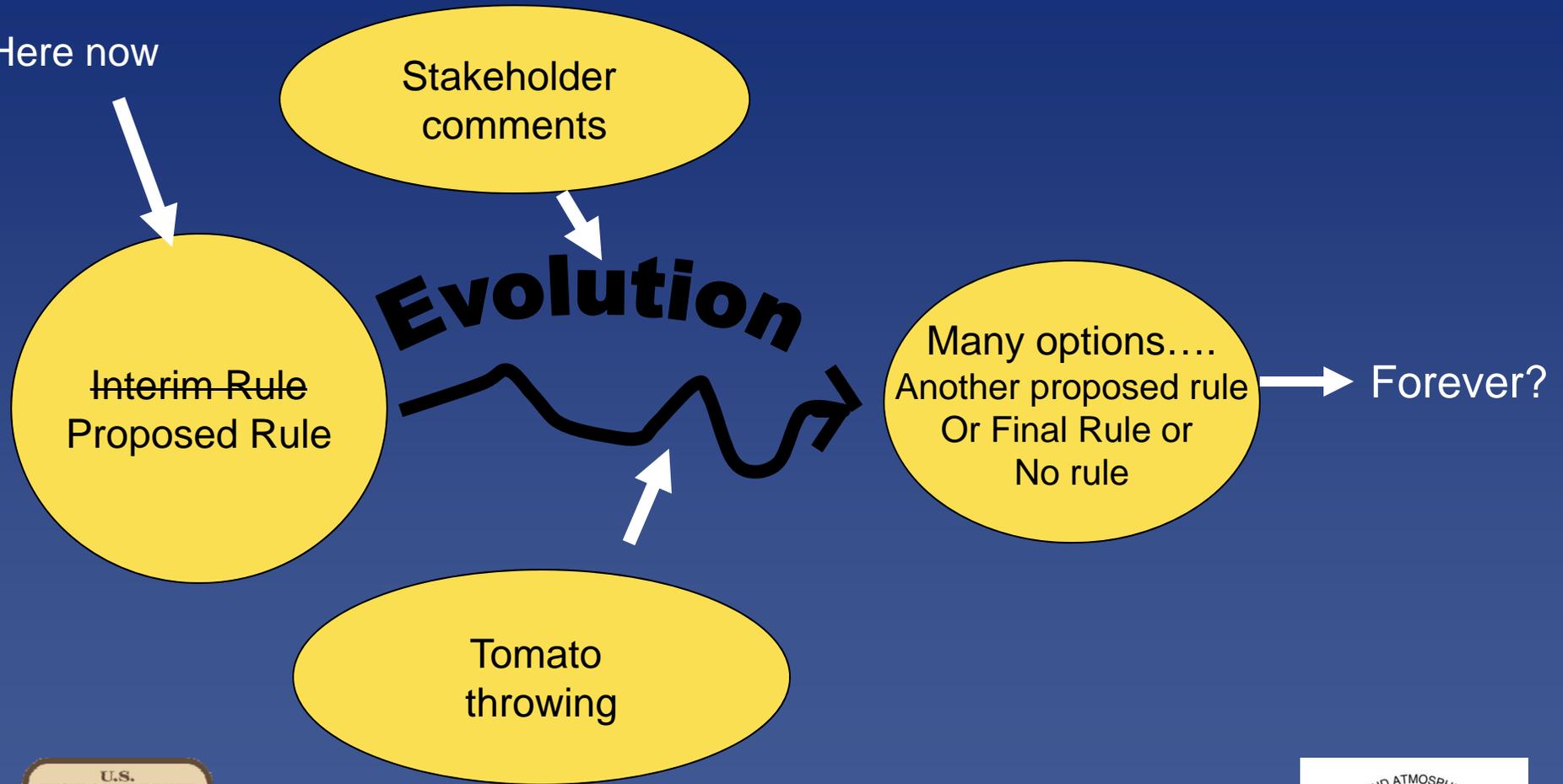


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Future of VHS regulations

Here now



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Scope of Proposed Rule

Same as that for Federal Order:

Live fish

States bordering Great Lakes, unless found elsewhere.



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Recent and Current Surveillance Activities

Since FY 07 APHIS VS has funded surveillance for VHS, primarily in the Great Lakes region, but also in surrounding States.

This FY we intend to offer \$2.4M in cooperative agreements for VHS activities to the States bordering the Great Lakes.



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Recent and Current Surveillance Activities

We intend to offer cooperative agreement funds for those States not bordering the Great Lakes including in the Western region.

All cooperative agreements are moving towards an increased flexibility in the use of those funds.

States still have a significant amount of unused FY 09 funds.



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Thanks and Questions



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