

Pennsylvania Fish and Boat Commission Bureau of Fisheries



Lake Erie Research Unit

What is VHS

- Viral Hemorrhagic Septicemia
- One of the most serious diseases of fin fish
- Poses NO Human health threat
- 4 strains are recognized (and several types)
 - Great Lakes Strain is VHSv Type IV(b)
- Can result in large mortality events in fish
- Effects nearly 50 species
 - 37 species listed by USDA-APHIS
 - 28 are in Lake Erie
 - 14 have demonstrated mortality events

A Brief History of VHS

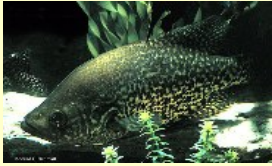
- 1968: VHSV isolated in Europe (Rainbow Trout)
- 1988 VHSV isolated in US in Washington state (Coho and Chinook Salmon)
- 2003 ; Lake St. Claire (Muskellunge)
- 2006: implicated in numerous fish kills /species /locations in the lower Great Lakes

Why is VHS such a hot topic?

- Emergency order issued by USDA-APHIS in October 2006 / Amended November 2006
- Effectively shutdown interstate transport of fish greatly affecting the aquaculture and baitfish industry
- USDA interim rule on VHS will be adopted this spring after public comment period

Lake Erie

Susceptible Species



Lake Erie / Lake Ontario

Documented VHS Fish Kills



VHS Occurrence in the Great Lakes



VHS in the Great Lakes

Date	Location	State or Province	Primary species (Other species)	Estimated	Comments
2003-05	Lake St. Clair	MI	Muskellunge	4 of 27	Samples submitted over several years
Summer 05	Bay of Quinte /Lake Ontario	Ontario	Freshwater Drum (Muskellunge Round Goby)	Several hundred tons	Very large natural mortality
May 06	Sandusky Bay/Lake Erie	OH	Freshwater Drum	Very large mortality	"Windrows" of fish on beach
May 06	St. Lawrence River	NY	Round Goby (Muskellunge)	Large die off	River origin
May 06	Lake Erie	OH	Yellow Perch	Large die off	Fish dying in commercial traps
May 06	Lake Ontario	Ontario	Freshwater Drum Smallmouth Bass Bluegill Crappie	Mortality event	Acute mortality - no external signs
May 06	Lake Erie	OH	Yellow Perch Walleye White bass (Freshwater Drum Smallmouth Bass)	Mortality in wild	Samples from area of traps and mortality
June 06	Lake St. Clair	MI	Gizzard shad Redhorse sucker Blunt nose sucker Northern pike (Yellow perch)	Large mortality	

What is the PFBC doing?

- Quarantine / eliminate broodstock collections from Lake Erie watershed
- Eliminate commercial sale of emerald shiners outside of the LE watershed
- Education
- Proposed regulations on transport of live fish outside of the LE watershed

PFBC Actions

Hatchery Operations / Aquaculture

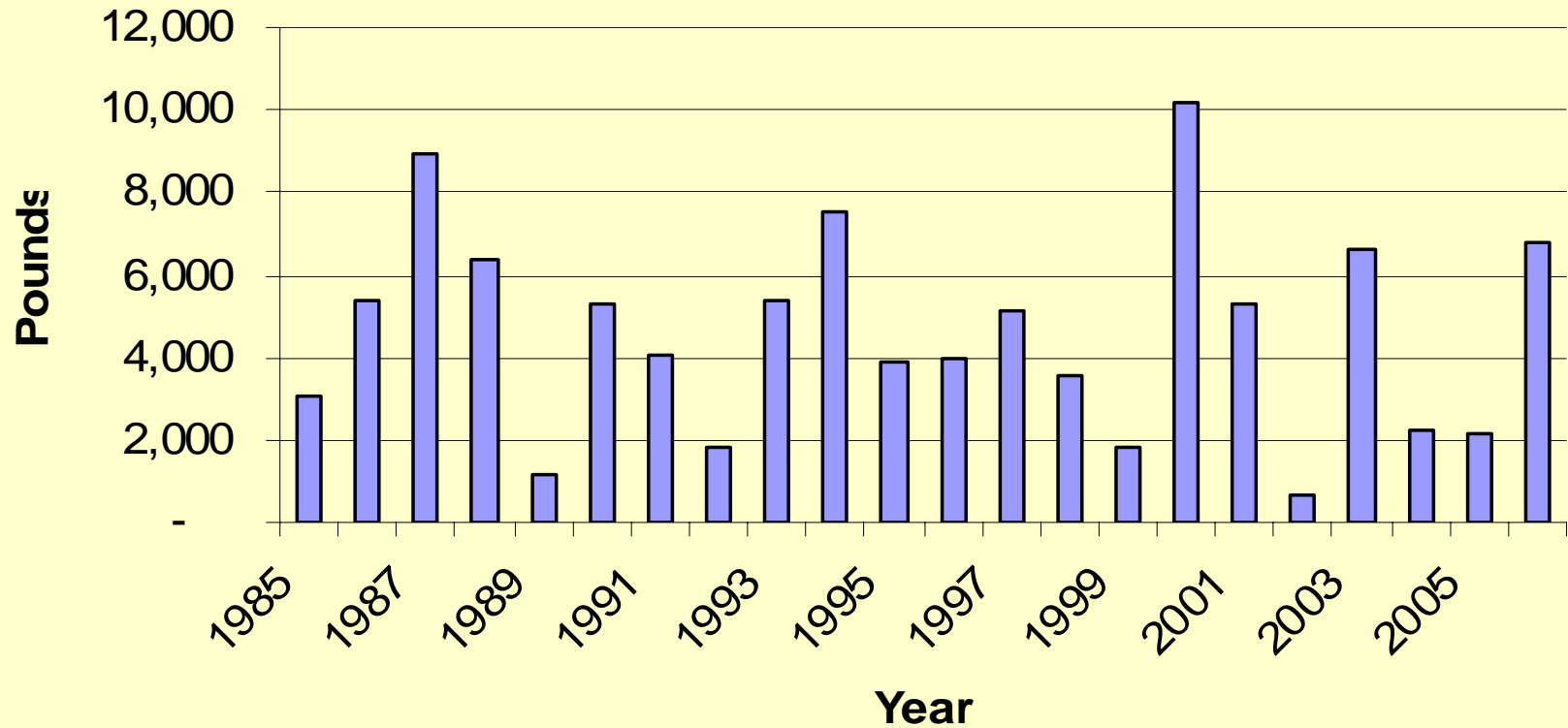
- Steelhead spawning operations relocated from Tionesta FCS to Fairview FCS
- No longer collect N. Pike from PIB for broodstock spawning
- PFBC will adhere to all bio-security measures recommended / mandated by USDA-APHIS

PFBC Actions

Commercial Baitfish Harvest

- Effective with 2007 permitting year
 - No Lake Erie emerald shiners can be sold (wholesale or retail) outside of the Lake Erie Watershed
- This was not a stipulation of earlier permits and was done in some instances

Lake Erie Commercial Emerald Shiner Harvest (PA Waters Only)



Education

(Cooperative Effort PFBC/PA Sea Grant)

- Baitfish Workshop
- Posters and “Watch Cards”
- Dissemination of information by WCO’s and PFBC staff at sport shows / seminars
- Control will take a concerted effort by ALL

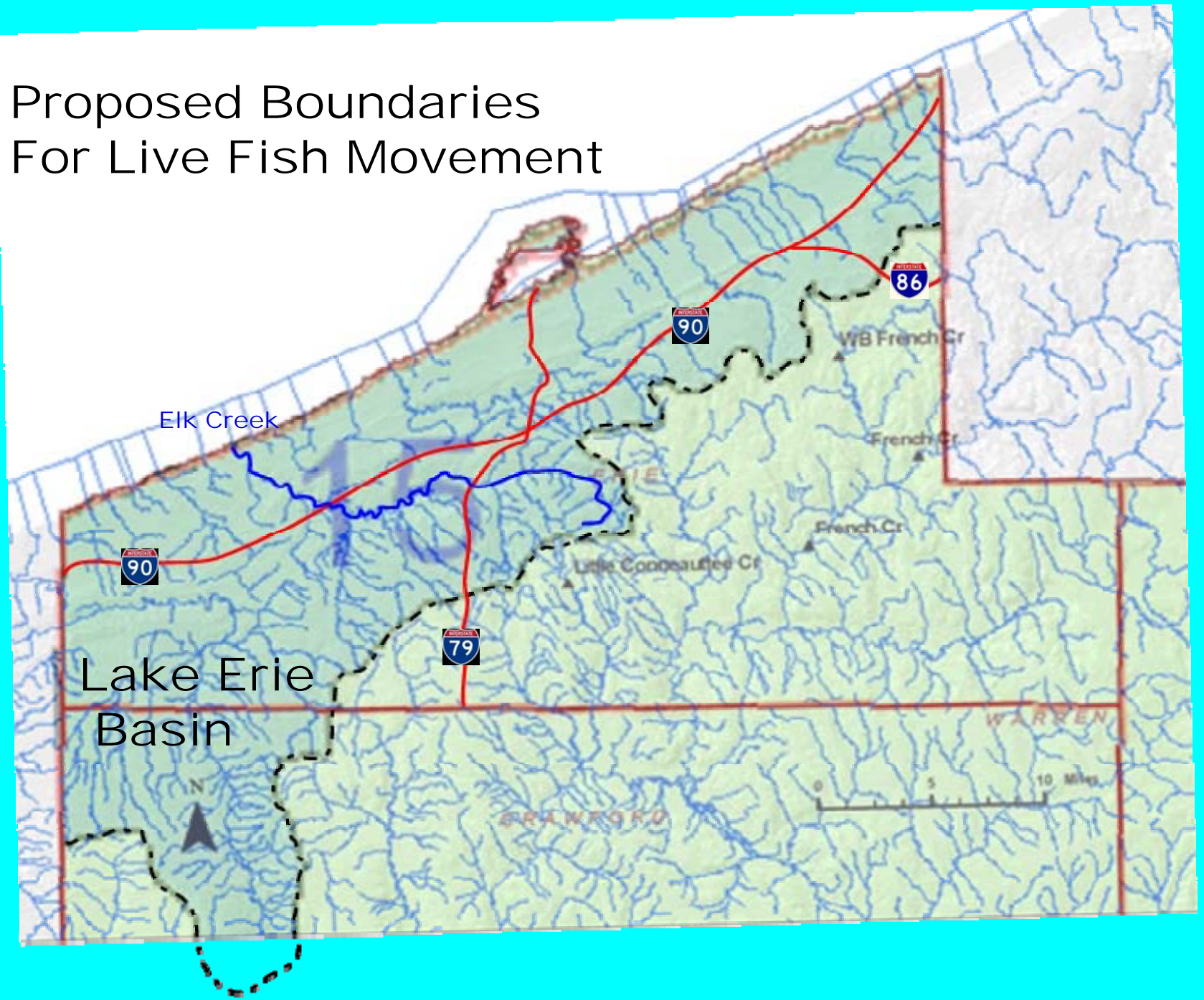
Ways of transporting exotics include bait buckets, live wells, bait dealers and stocking trucks.



Proposed Rulemaking

- Unlawful to transport live fish out of the Pennsylvania portion of the Lake Erie Basin (S. of I-90).
- In addition, this proposal will make it unlawful to release any fish into waters of the Commonwealth from any state or other area designated by the Animal and Plant Inspection Service as at-risk for fish diseases unless APHIS requirements for testing by a Commission approved laboratory have been met and the fish deemed to be disease free.

Proposed Boundaries For Live Fish Movement



PFBC Actions

Regulation Adoption Procedure

- January 22- 23, 2007:Proposed Rulemaking
- Interim: Public Comment Period
- April 16-17, 2007 : Final Rulemaking
- Published in the PA Bulletin
- Published in the Summary Book August 2007

Minimizing the Risk

- Remove all mud, aquatic plants and animals from all gear, boats, motors and trailers before leaving a body of water
- Drain your live well, bilge and bait tanks before leaving the water you are fishing or boating on.
- Disinfect live wells and bait wells with a 10 percent chlorine/water solution. Rinse well to remove all residual chlorine (NYDEC)
- Wash with HOT water
- Do not transport LIVE fish from one body of water to another.
- Information Sharing

Thank You For Your Help In This Effort

