Wisconsin's hatchery system is unable able to meet current stocking needs, according to a comprehensive study of Wisconsin's hatchery system by HDR Engineering Inc. of Springfield, Ill. Renovations and modernization are needed at nearly all of the 17 facilities. Doing nothing will result in major shortfalls in fish needed for stocking statewide and will affect businesses benefitting from the $2.75 billion in economic impact, 30,000 jobs, and the $196 million in local and state tax revenues fishing provides annually in Wisconsin.

Purpose of study

HDR Engineering, Inc. was hired in April 2009 to look at all of DNR's major production, spawning and rearing facilities to assess how well they met current state standards for human health and safety, environmental compliance, fish health and biosecurity, major building maintenance, minor building maintenance and improvements needed to meet stocking goals.

Key findings from study

- Stocking is one of many essential tools to manage Wisconsin's fisheries, particularly in Lake Michigan and other waters with low or no natural reproduction of fish. Wisconsin's fish propagation program is admired nationally for its ability to produce wild and domestic species along with Great Lakes strains. The current staff is devoted to fish rearing and has a vast knowledge base that cannot be replicated.

- Each of the 17 facilities within the system -- excluding the recently renovated Wild Rose Hatchery -- requires renovation and modernization projects to meet current stocking needs and current environmental laws and building codes.

- Most of the facilities are short of water needed to properly operate the raceways and ponds already in place, and groundwater studies are advised to see if secure supplies exist at the current sites.

- Full stocking of Wisconsin's waters would require renovation of existing facilities and construction of three more new fish production facilities. There is a deficit between what DNR fisheries biologists recommend stocking and what DNR fish hatcheries can currently produce. The deficit is 324,000 pounds for coldwater species like Great Lakes trout and salmon and 93,000 pounds for coolwater fish.

- Great Lakes fish stocking is most at risk. Immediate priority should be given to addressing coldwater facilities that provide trout and salmon for Lake Michigan and Lake Superior. Facilities producing these fish were not designed with such production in mind; DNR started stocking Great Lakes trout and salmon suddenly in the 1960s to control an explosion of alewives then washing up on Lake Michigan shores in huge piles.

- The study contains a comprehensive list of potential projects to rebuild and enhance Wisconsin's state fish production facilities. DNR needs a short-term and long-term investment plan to prioritize and fund these projects. The top methods used by other states to fund this work have been federal Sportfish Restoration Grants, bonding, and grants and gifts.

- If funding were available, private fish farms could be contracted for put and take trout stocking and to provide minnows and other forage fish for DNR hatcheries which use them to feed large walleye and muskellunge fingerlings. However, there are significant barriers to the use of private fish farms for other necessary stocking. Private operations currently do not have the capacity nor access capital to produce the amount of fish needed, under the biosecurity requirements DNR meets, and to change production priorities on short notice.

Wisconsin's Propagation System

	State Fish Hatcheries	***Built or Renovated****
1	Art A. Oehmcke	1990s*
2	Gov. Tommy G. Thompson	1990s*
3	Kettle Moraine Springs	1950s
4	Lake Mills	1930s
5	Les Voigt	1970s
6	Nevin	1870s
7	Osceola	1920s
8	St. Croix Falls	1910s
9	Wild Rose	2000s*

	Rearing Stations	
10	Brule River	1920s
11	Lakewood	1930s
12	Langlade	1930s
13	Thunder River	1930s

	Spawning Stations	***Built***
14	CD Besadny	1980s
15	Root River	1990s
16	Strawberry Creek	1970s

	Outlying Ponds/Facilities
A	Black River Falls
B	Nevin: Token Creek
C	Kettle Moraine Springs

A typical production pond.

A water supply pond.

When challenge meets opportunity - 10-year hatchery modernization and upgrade plan

DNR fisheries management has reviewed H.D. Engineering Inc.'s comprehensive study of the state hatchery system and culled top priorities for a 10-year-plan to address the most critical problems at existing facilities. Making these investments will allow the hatchery system to continue to stock hundreds of Wisconsin waters, including the state's most popular fishing destination, Lake Michigan.

Groundwater Studies **$1.0 million**

Using groundwater instead of lake or river water would minimize hatcheries' risk of contamination by fish diseases and the resulting destruction of their fish, and would allow better control of water quality, temperature and flow to hatcheries. Studies are needed to look at flow, quality and impact on neighboring users of new or increased groundwater pumping.

Renovation of Kettle Moraine Springs State Fish Hatchery **$19.6 million**

Aging infrastructure and water shortages in drought years have led to shortages in fish production at this hatchery, which annually stocks 540,000 trout in Lake Michigan tributaries. Assuming studies show adequate groundwater, DNR would install new wells and water and wastewater treatment systems and make other improvements.

Renovate Les Voigt State Fish Hatchery **$9.7 million**

DNR abandoned the surface water supply to the hatchery several years ago due to concerns over water temperature and the potential that VHS fish virus was present. Current groundwater wells now supply water with high levels of nitrogen and iron, problematic for fish rearing. New water supplies and/or water treatment systems would be needed.

Build Isolation/Quarantine Facility **$5.2 million**

The consultants recommend building what is essentially a mini-hatchery to allow eggs, young fish and wild adult broodstock from VHS-infected waters to be kept separately. The facility would have very strict measures to avoid introducing or spreading fish diseases and aquatic invasive species to the hatcheries where young fish are reared.

Improve Walleye Stocking **$22.4 million**

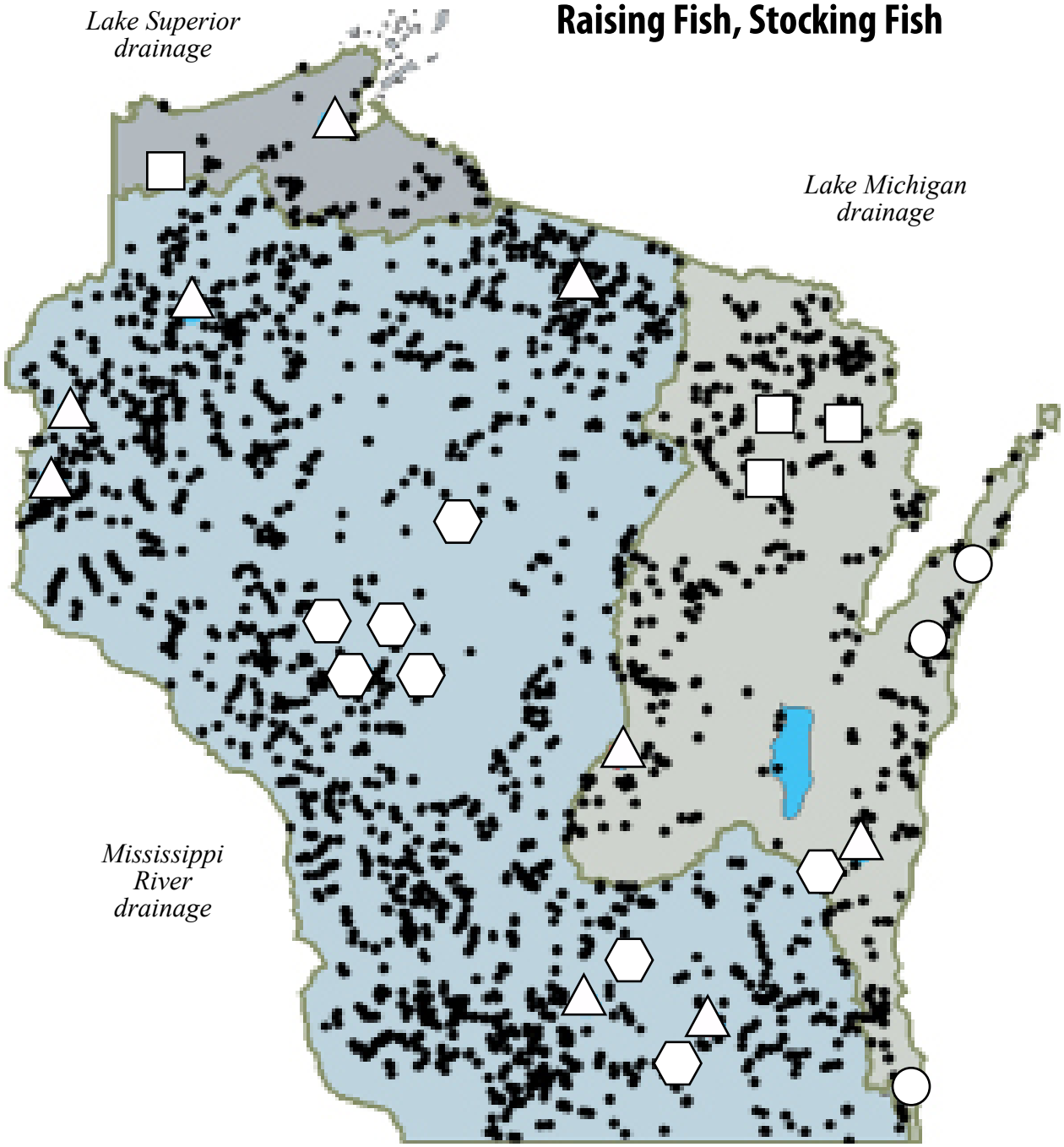
While both Art Oehmcke and Gov. Tommy Thompson hatcheries were renovated in the mid-1990s, more rearing space is needed to allow DNR to meet needs for stocking larger walleye; current water supplies have water quality, quantity and biosecurity issues at the present level of production; improvements would be needed in water supply and wastewater treatment to increase production.

Increased operational expenses and inflation **$12.1 million**

Improvements to the hatcheries and higher production levels are expected to increase operational costs. Feed/forage costs, electrical costs associated with pumping of new wells and/or treating and disinfecting and pumping with recirculating water systems will all cost more.

$70.0 million or
7 million annually

SIGN UP for email Fish Hatchery Study Updates. Go to ***dnr.wi.gov and search for "hatchery study"*** to sign up and stay informed on fish hatchery study issues.



Stocking distribution from 2007-2011 by drainage area with respect to propagation system function (△ state fish hatcheries, □ rearing stations, ○ spawning stations, ⬡ outlying ponds). Increased stocking levels would require a considerable amount of hatchery renovations.

Bureau of Fisheries Management
P.. O. Box 7921
101. S. Webster Street
Madison, WI 53707-7921