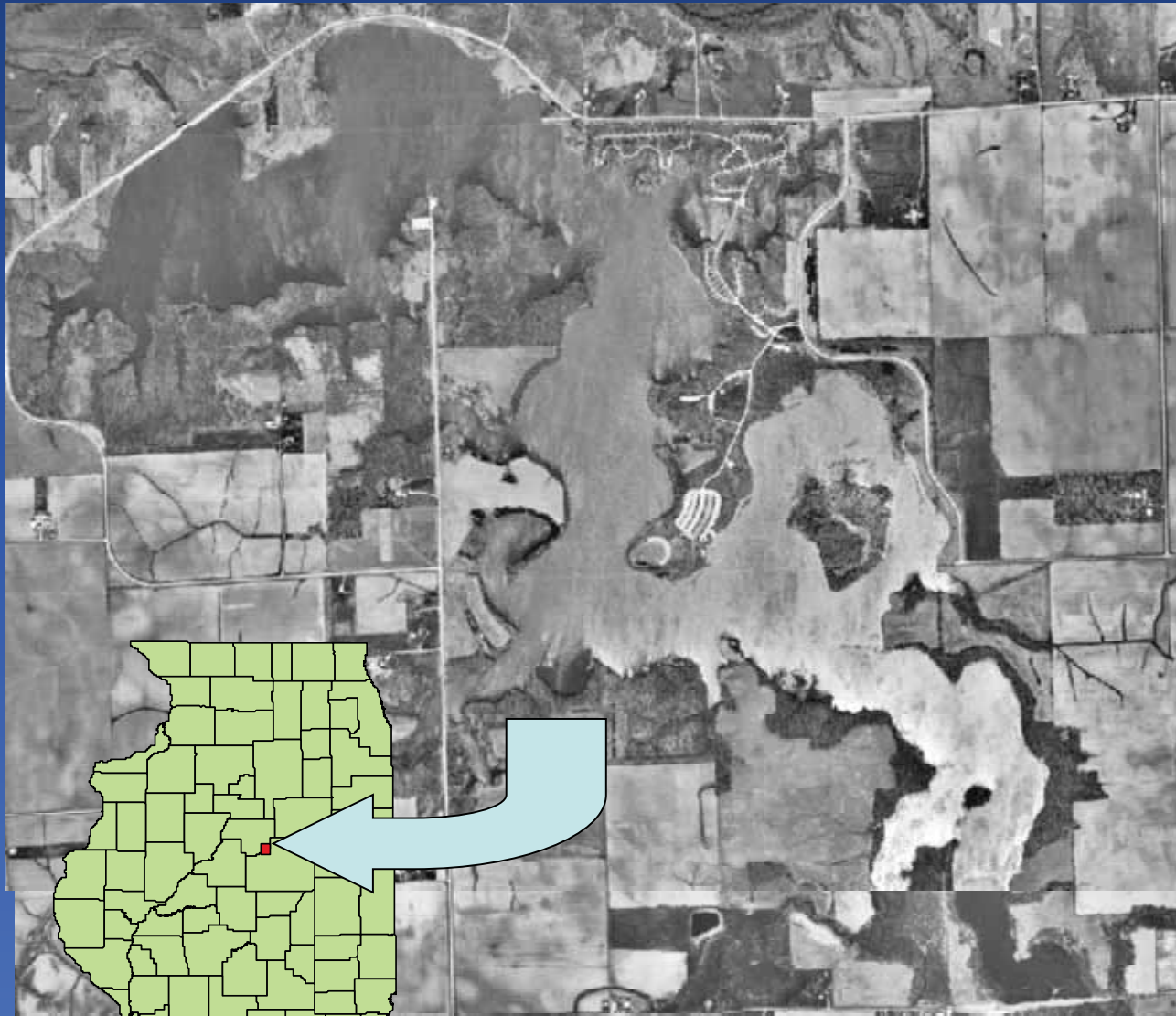


Improving a Bass Fishery: Stocking versus Habitat



Mike Garthaus
District Fisheries Biologist
Illinois Department of Natural Resources



925 Acres

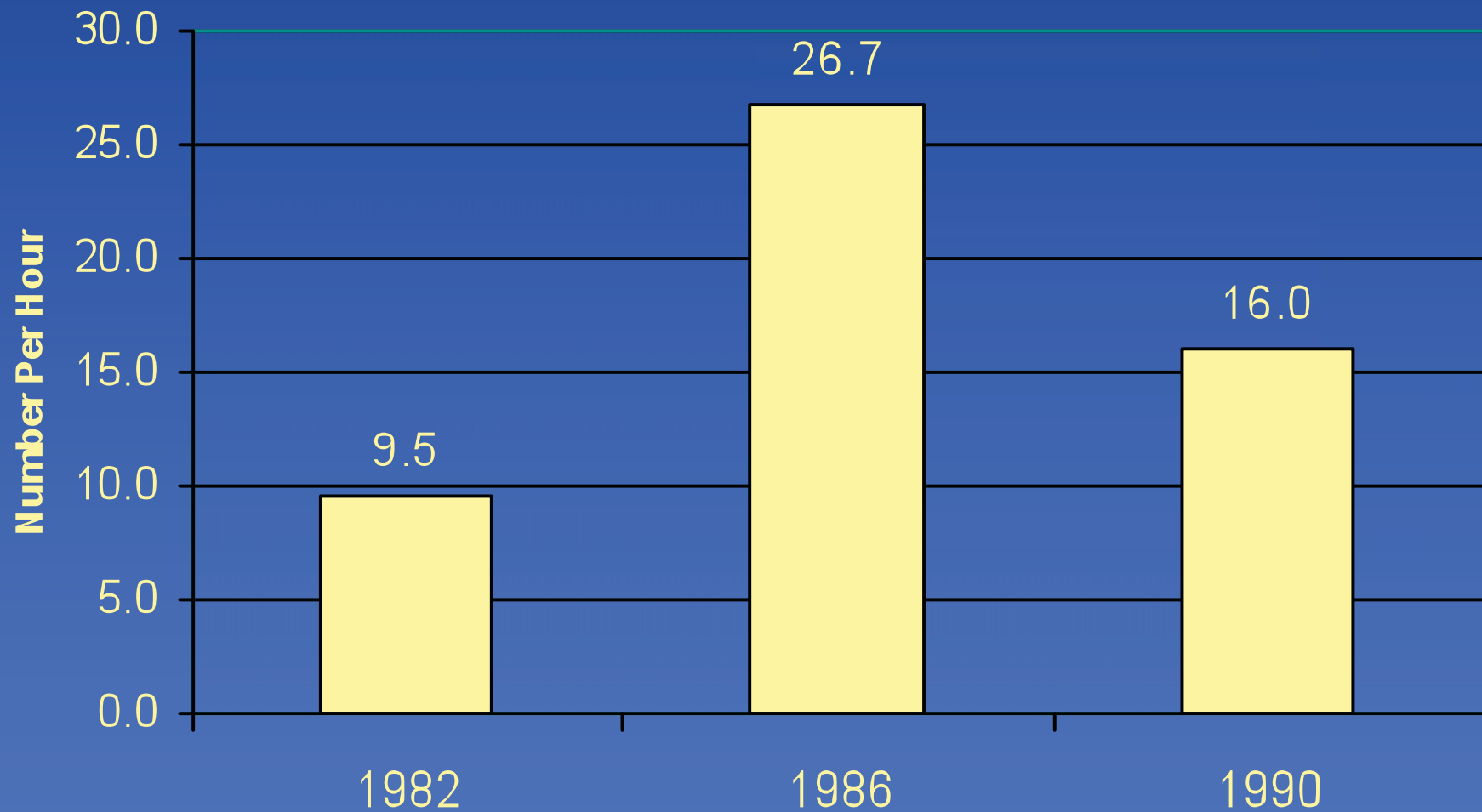
Built in 1970

Secondary Water Source for the City of Bloomington

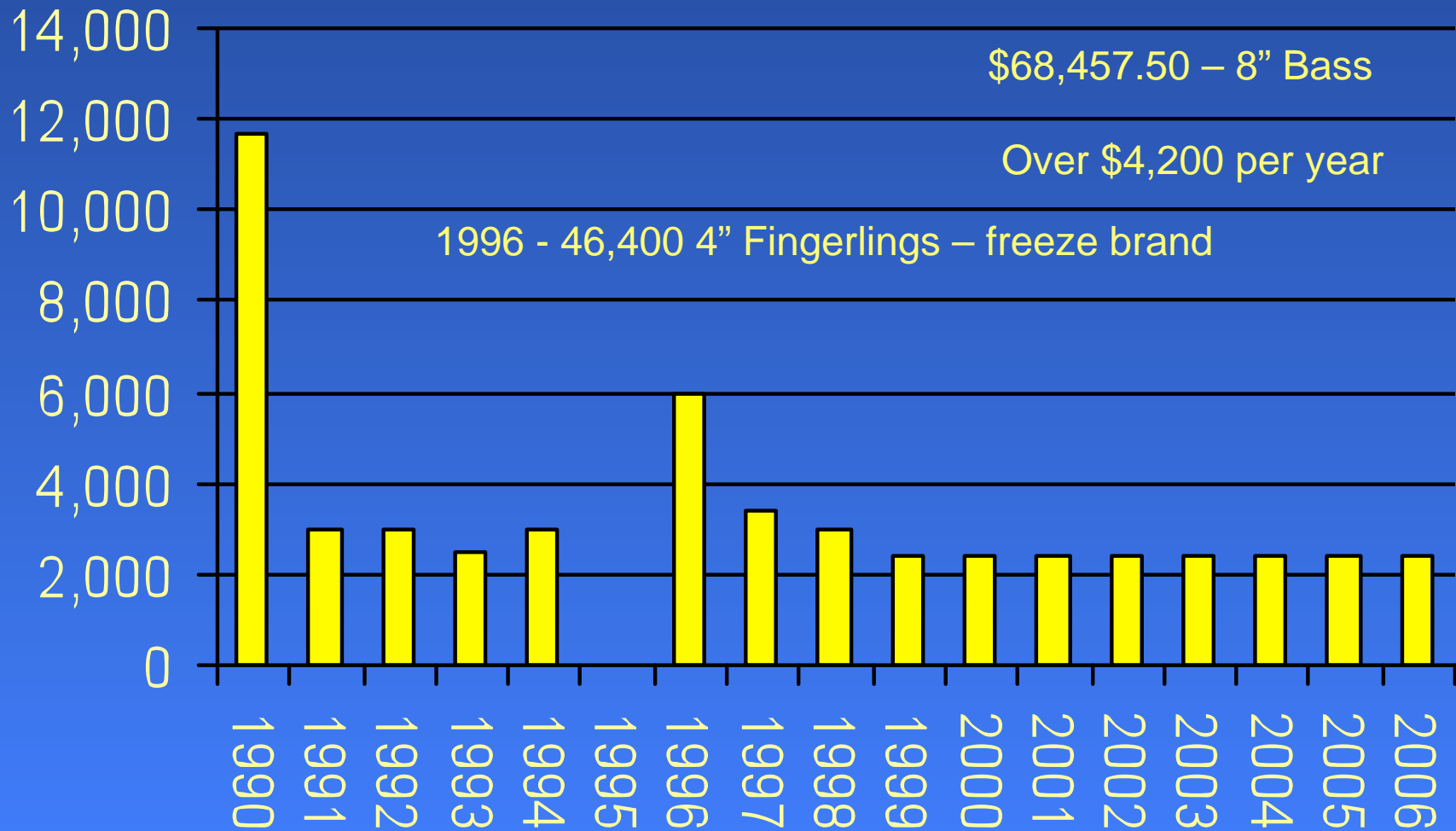
Spillway height increased 5 feet in 1995

Evergreen Lake

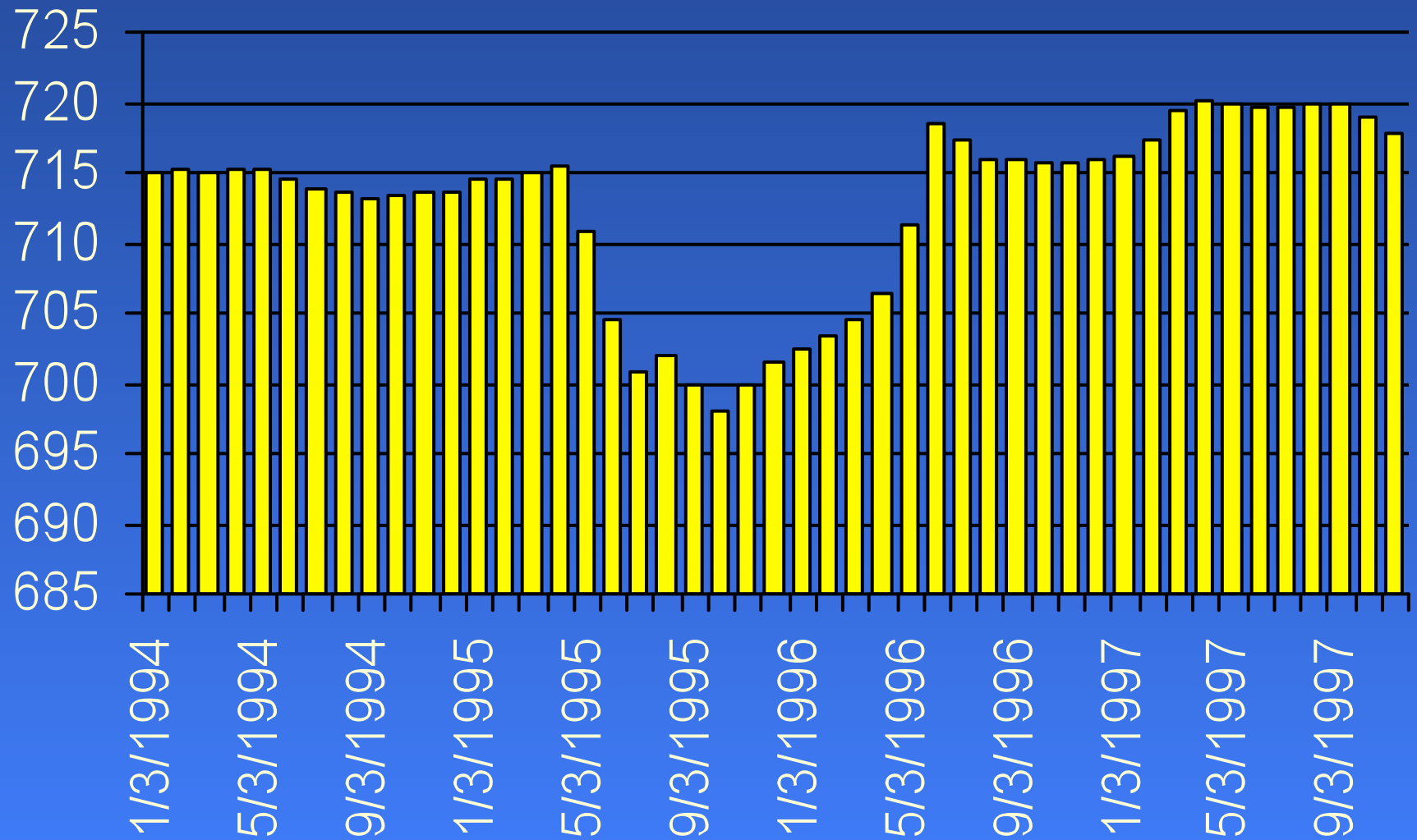
Catch Rate of Largemouth Bass

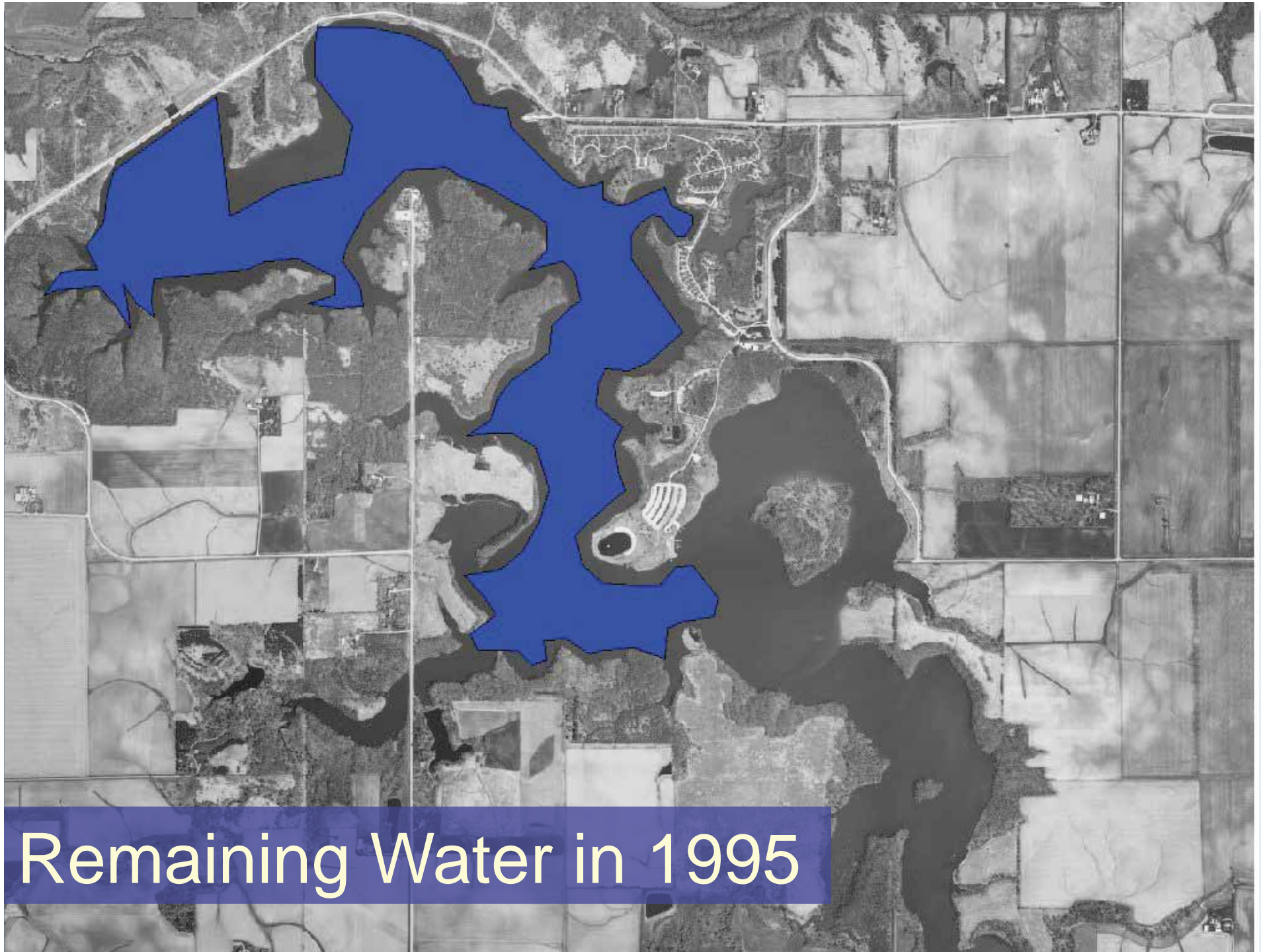


Bass Stockings 8 Inch Fingerlings



Water Level 1994 to 1997



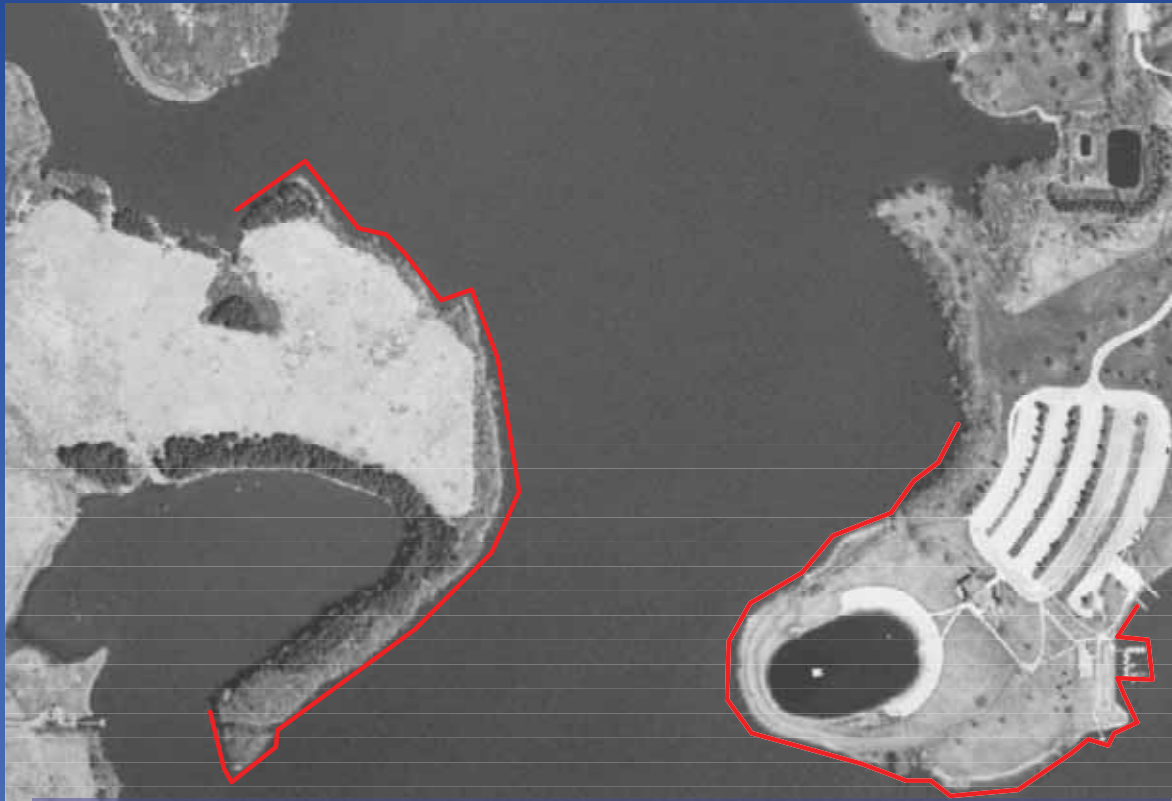


Remaining Water in 1995

Exposed Lake Bottom - 1995

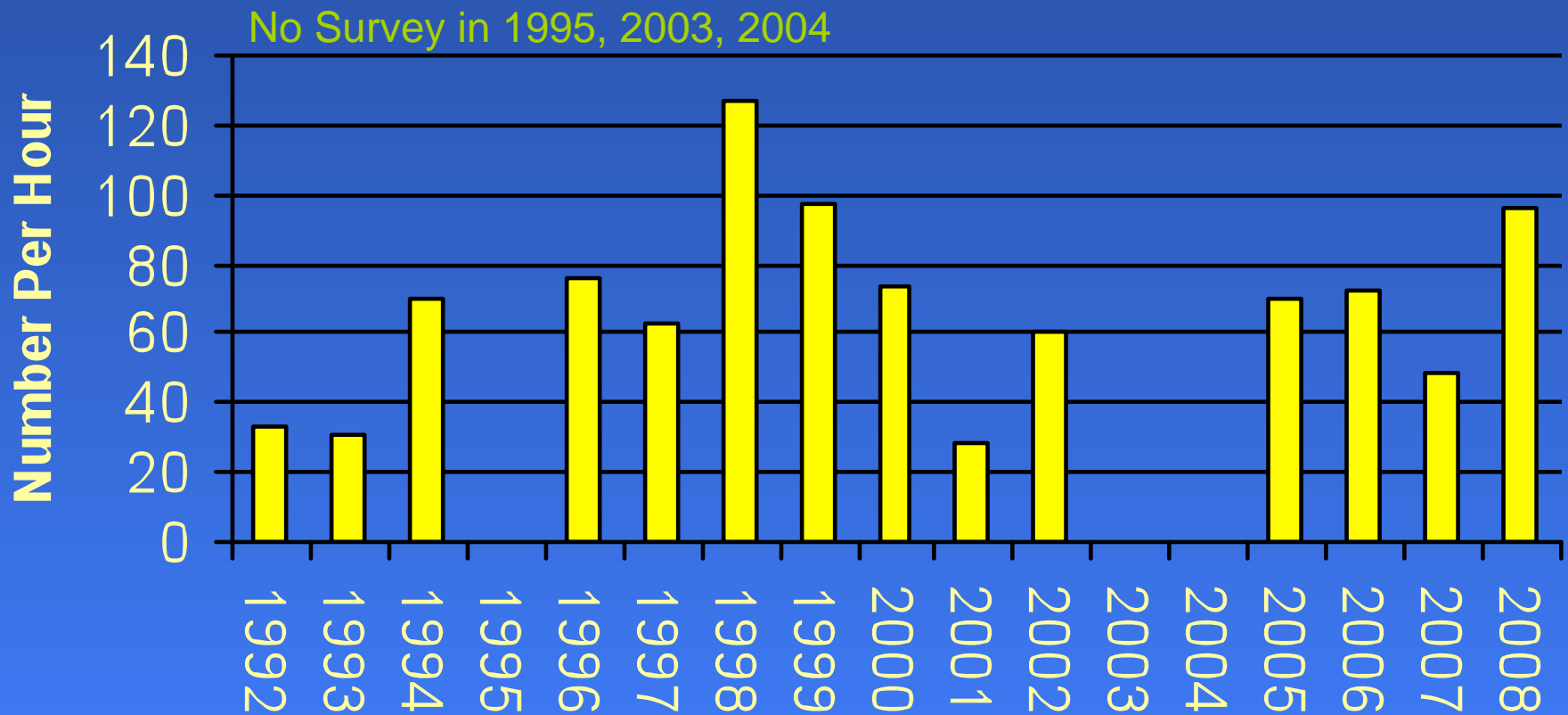


Sampling Locations

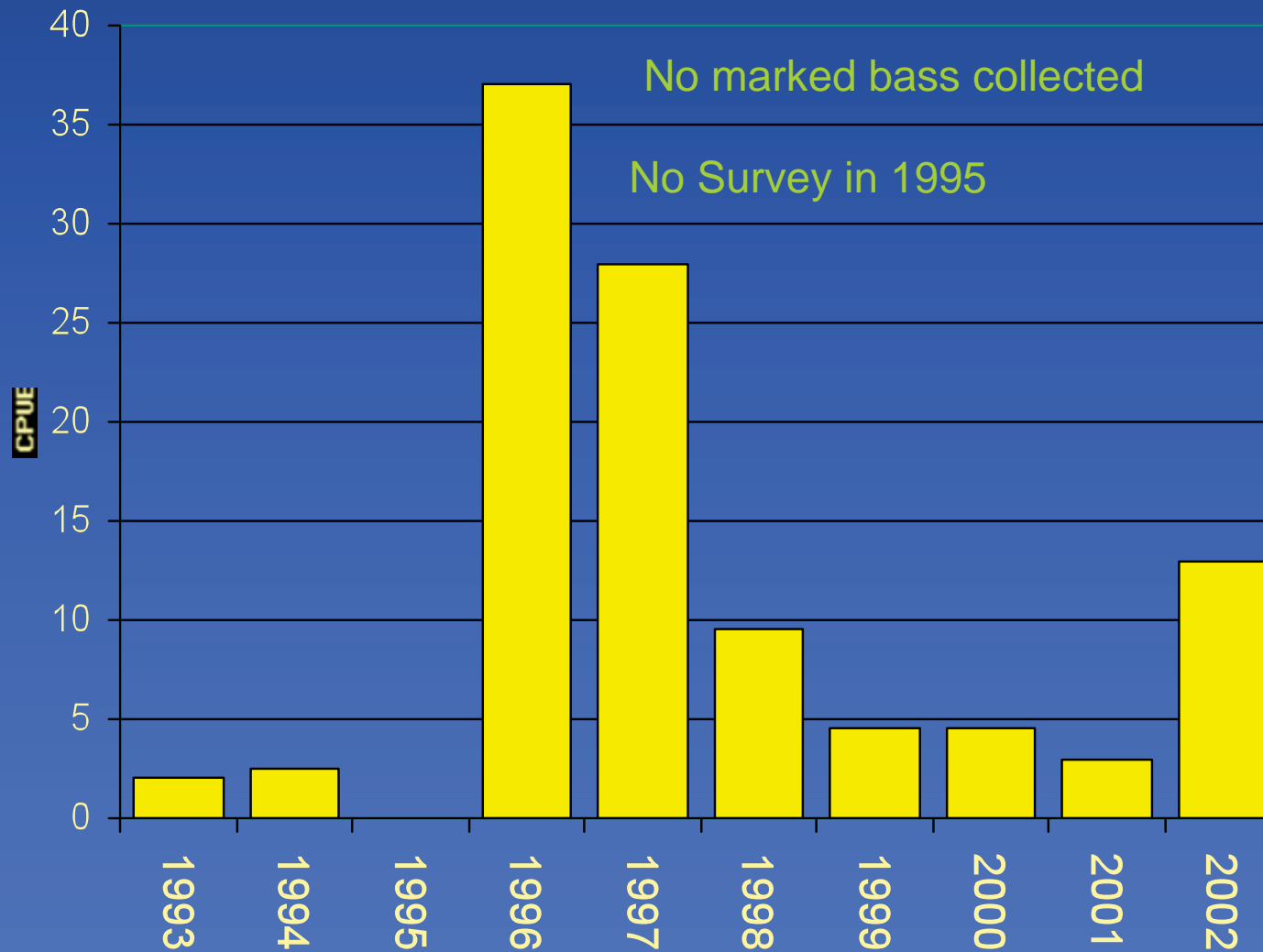


Less than 10% Vegetated
After the loss of terrestrial vegetation

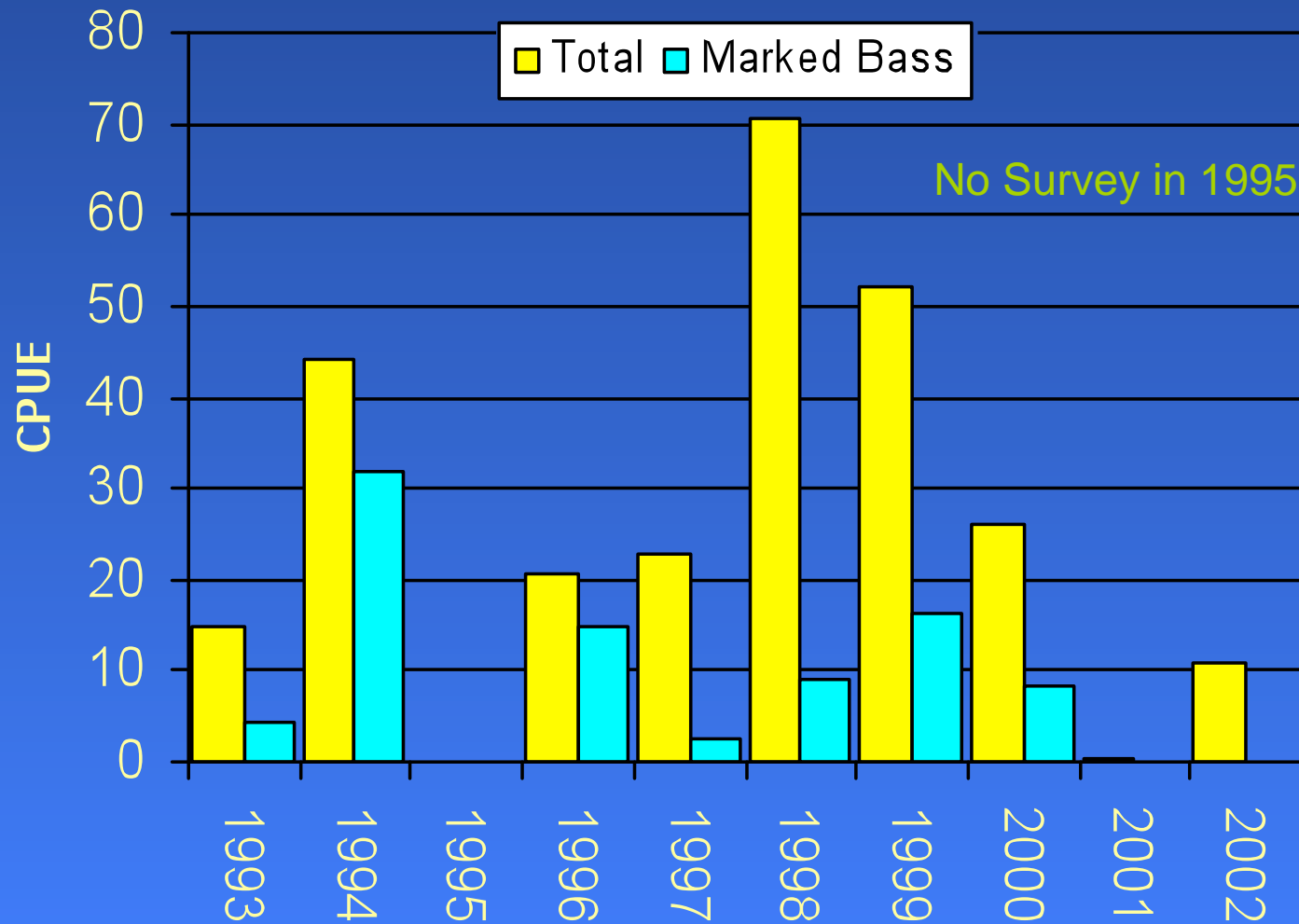
Catch Rate of Largemouth Bass



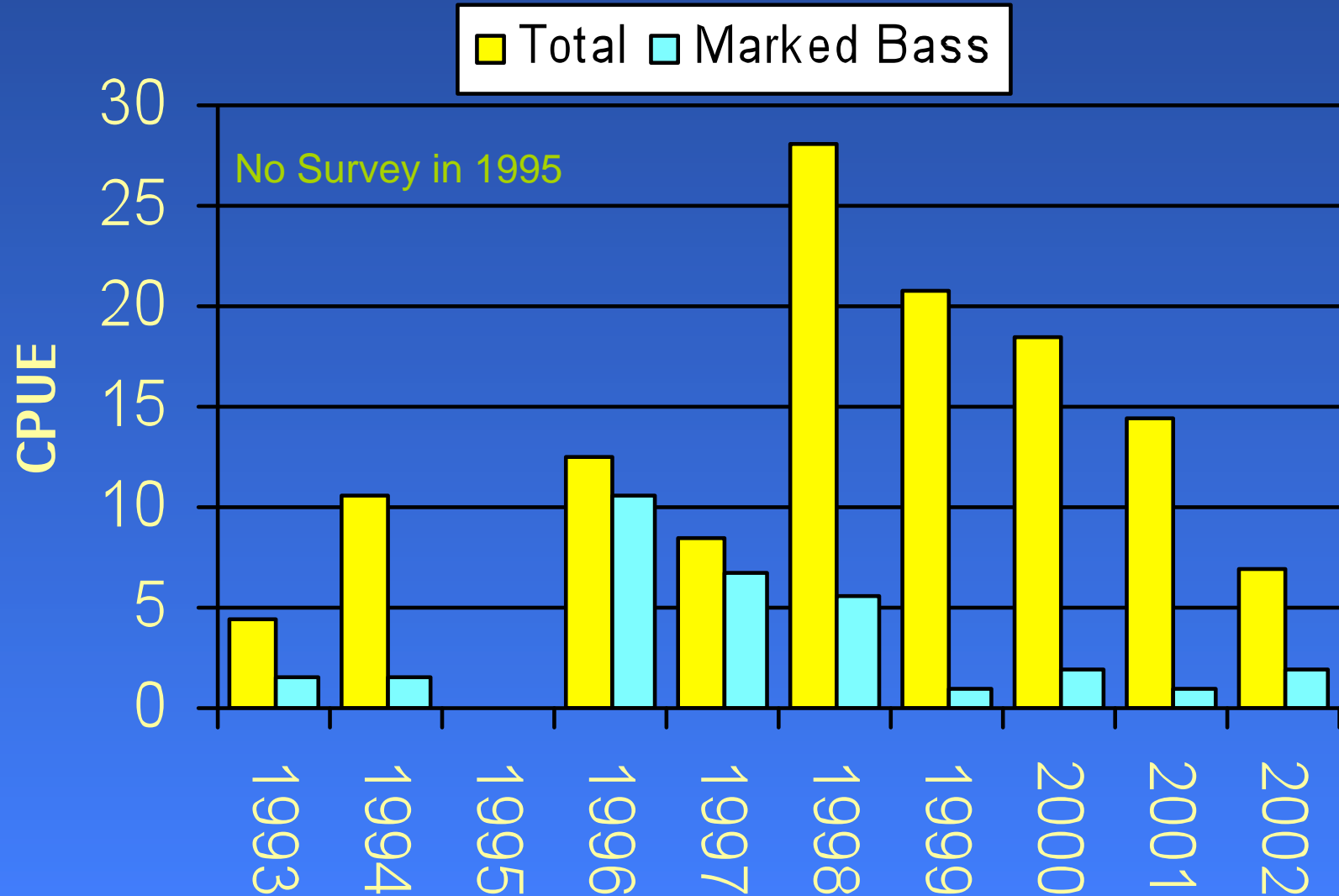
Catch Rate of Bass Less than 8 Inches



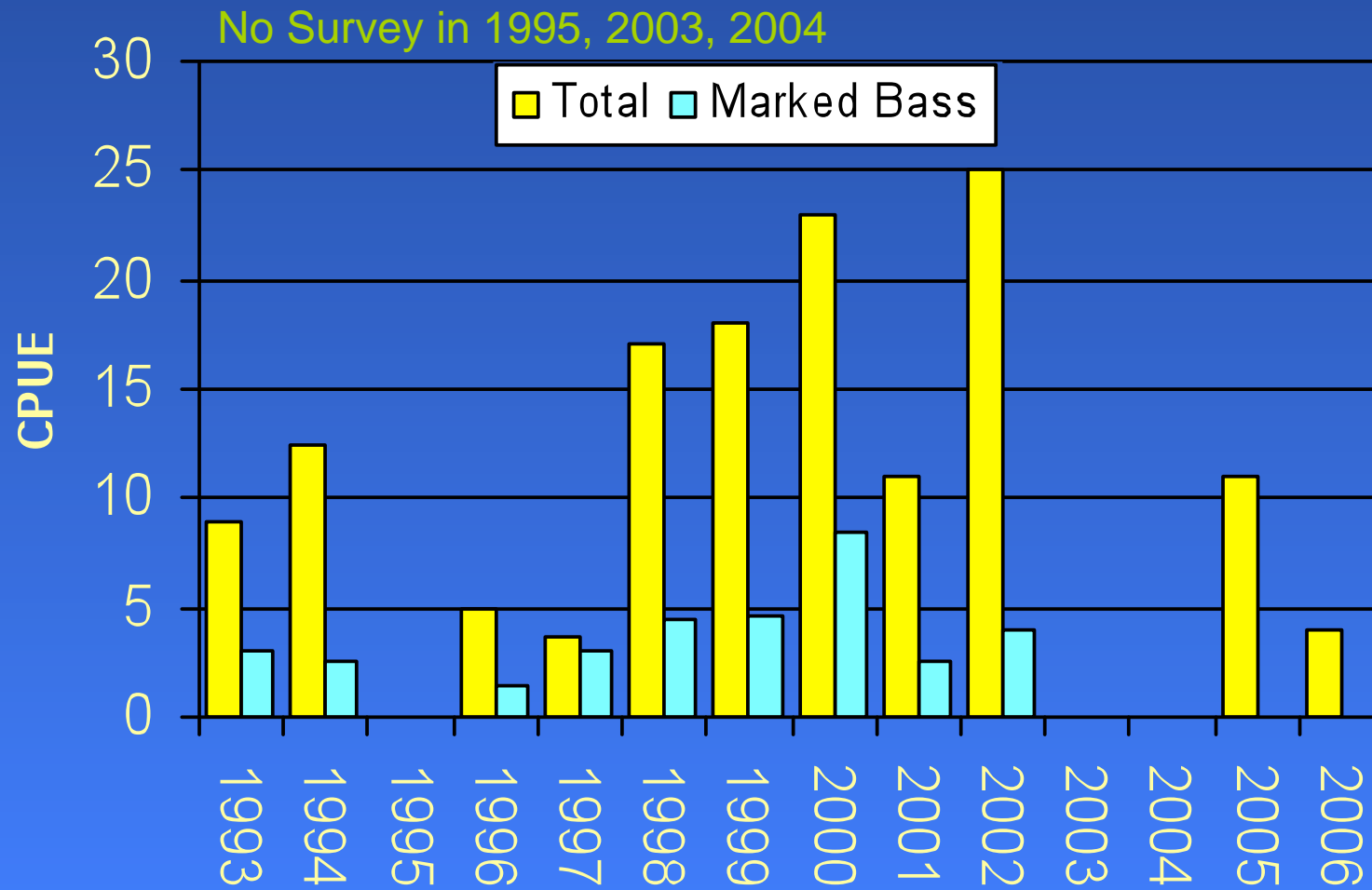
Catch Rate of Bass 8 to 12 Inches



Catch Rate of Bass 12 to 15 Inches



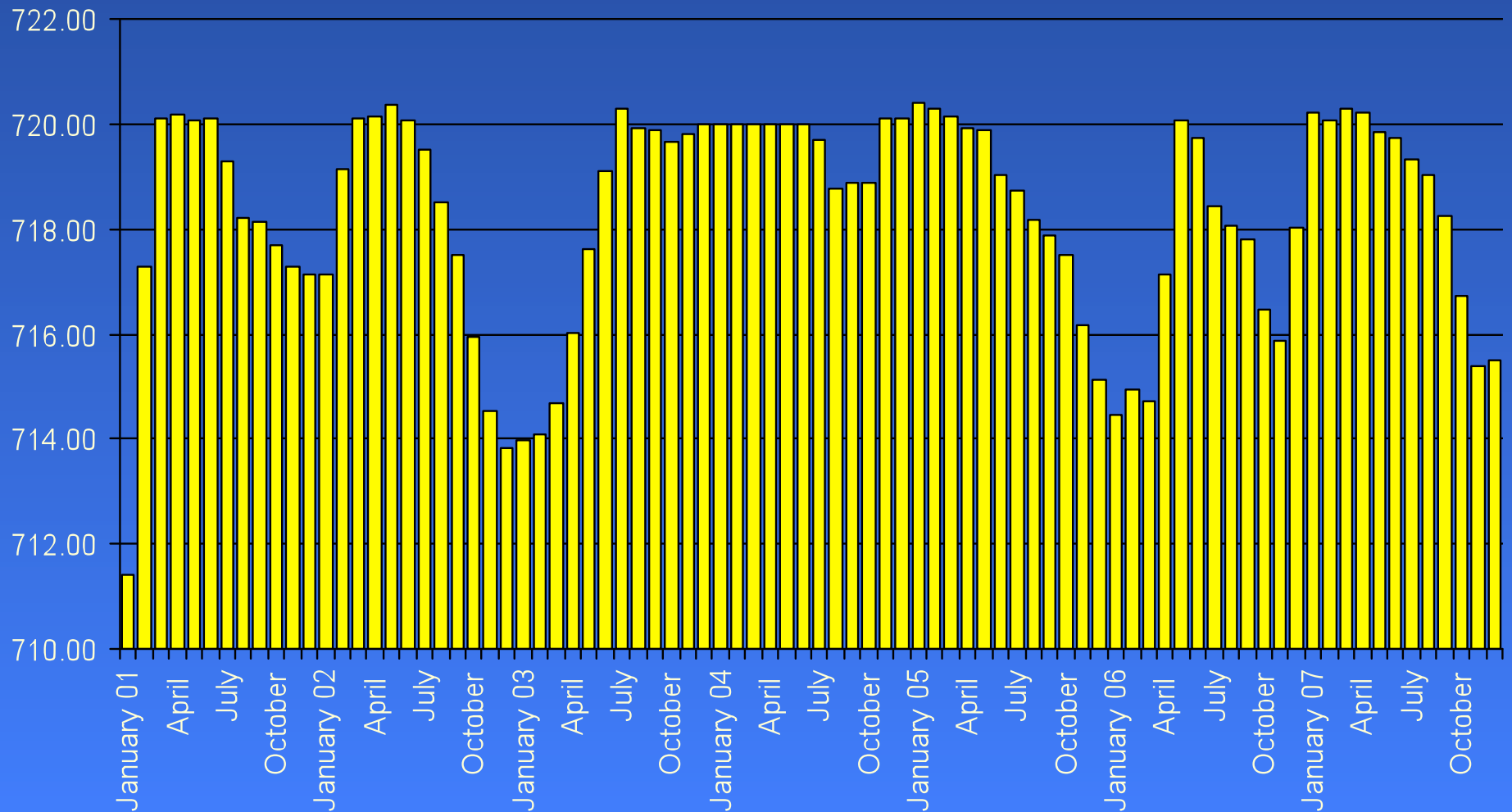
Catch Rate of Bass 15 to 20 Inches



Aquatic Vegetation Project

- **Problems with Establishing Vegetation**
 - High carp densities
 - Water level fluctuations
- **Created In-Lake Nursery Area in 2005**
 - Water Stargrass
 - Vallisneria
 - Sago Pondweed
 - American Pondweed
 - Arrowhead
 - Sweet Flag

Water Level – Full Pool 720 ft. 2001 to 2007



Vegetation Establishment



June 2005



July 2005

Nursery Area



January 2006

Nursery Area – June 2006

Sago Pondweed



American Pondweed



Largemouth Bass in Nursery Area

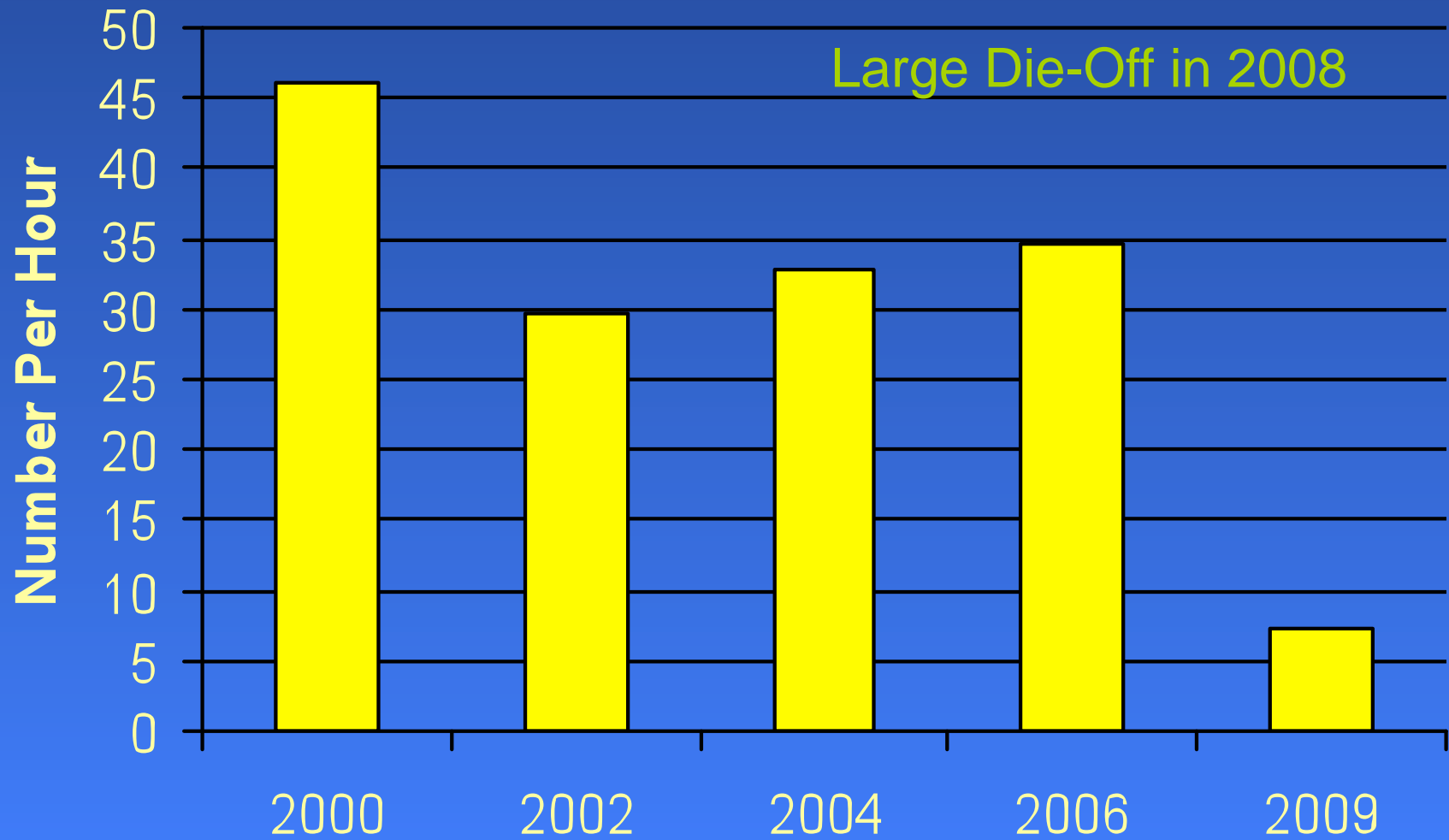


June 2006

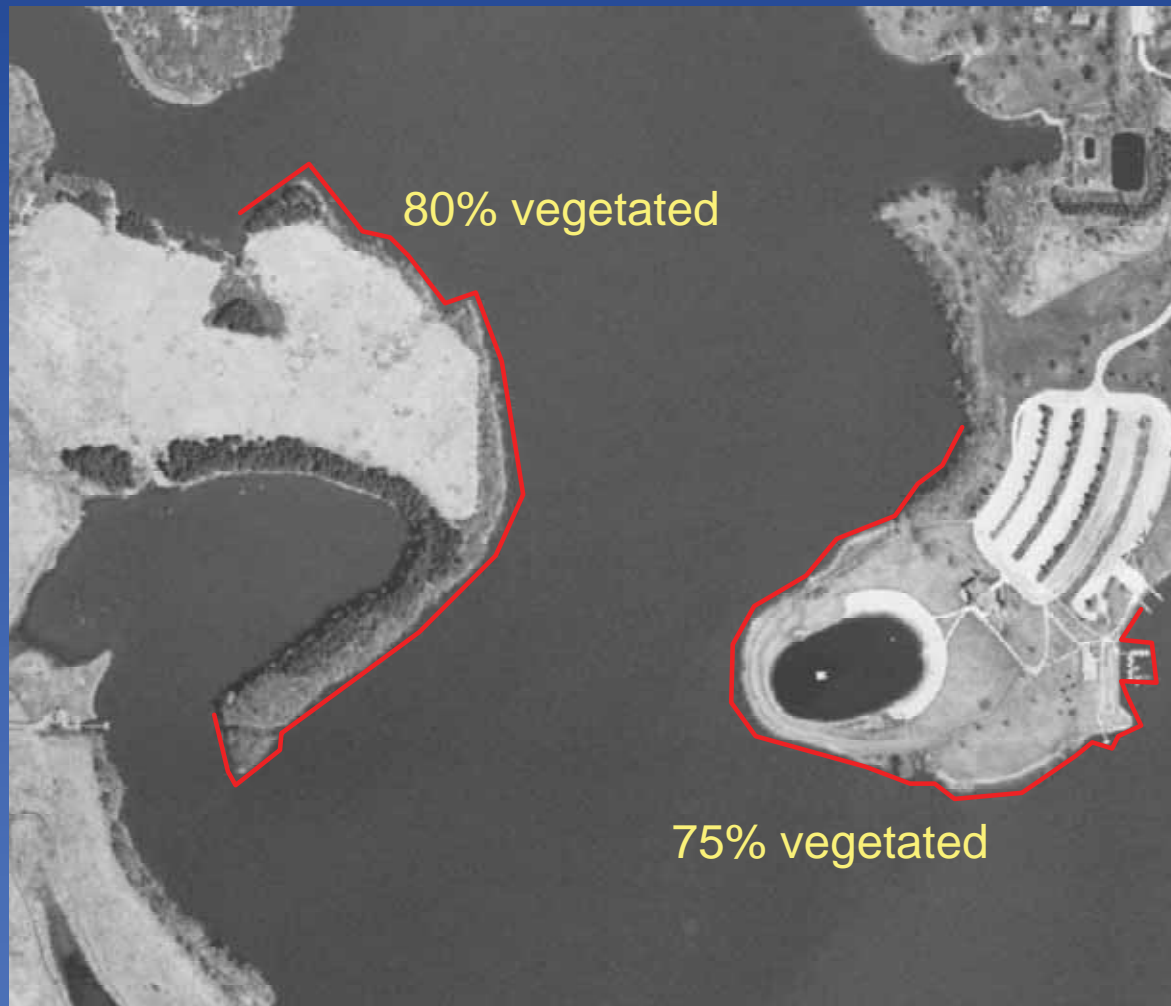
Carp Spawning at Evergreen Lake



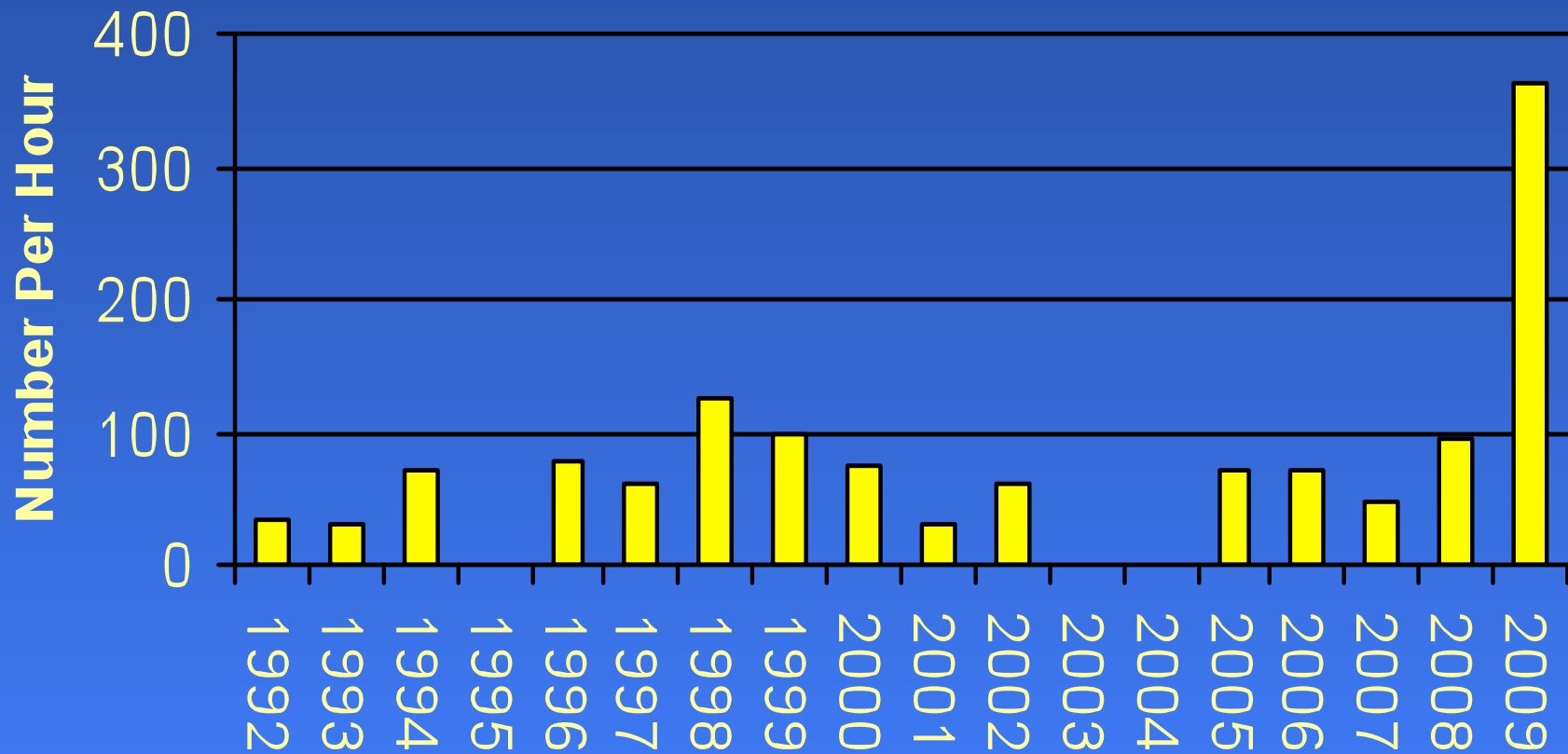
Catch Rate of Common Carp



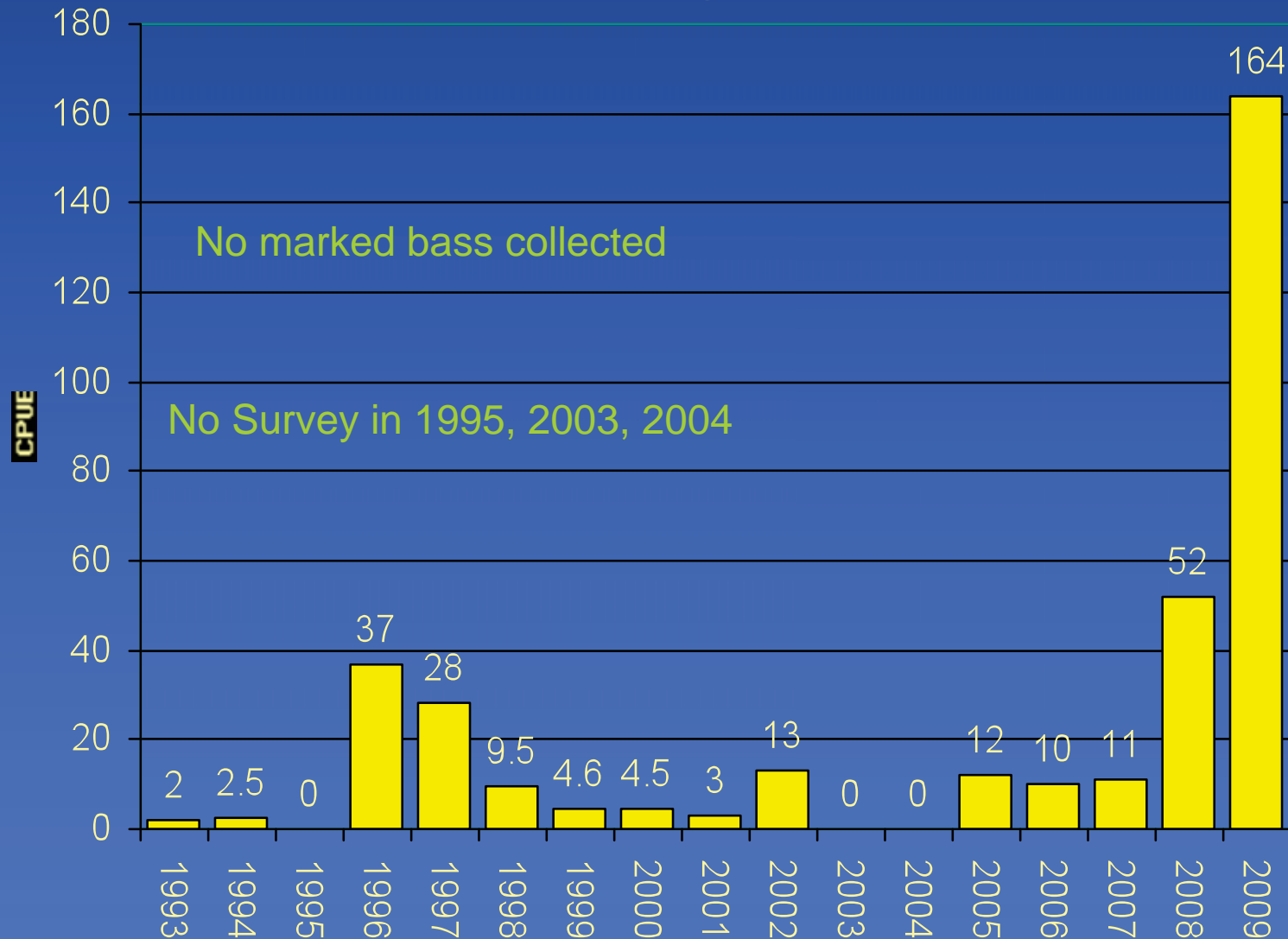
Expansion of Vegetation



Catch Rate of Largemouth Bass



Catch Rate of Bass Less than 8 Inches



Summary

- Naturally produced bass should be the goal of any bass stocking project
- Stocked bass contributed to the fishery when stocked into large areas of habitat
- Naturally produced bass increased with an improvement in quality habitat
- Reduction in carp allowed rapid expansion of vegetation
- Improving quality aquatic habitat should be the focus for improving many sport fish populations
- Avoid stocking bass into a “swimming pool”