

# How We Abuse the Shoreline...and Why?

22<sup>nd</sup> Annual National Conference

## Enhancing the States' Lake Management Programs

*On the Edge: Enhancing Ecological Integrity of Shorelines*



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We are drawn to the water



People have been enjoying and living on lakes for many years. This scene along Indiana's Lake Tippecanoe is from 1909.





# Recreation at lakes increased greatly after WW II



- Increased affluence
- Shorter work week
- National highway system
- Widespread auto ownership



WALKERS LANDING TIPPECANOE LAKE IND.



Small, seasonal lakeshore cottages in the past had fairly benign impacts on lakes and shorelands <sup>5</sup>



# Large, 'city mansions' are appearing on many of Indiana's lakes



Geist Reservoir, Indianapolis



# New construction on the lakeshore must be more sensible than this



Meserve Lake, IN



**TOLL FREE 1(888)495-LAND**

**SOLD**

*Available Waterfront Property Is Vanishing...  
Like A Sunset.*

**Claim Your Piece Of Nature. Call John Christianson**





in Indiana and other states - Cottages are being torn down...





...and replaced with dream houses



# Is this good shoreline stewardship?



A \$10 million re-development project on  
Lake Tippecanoe, Indiana



The slope at this re-developed property is too steep for the stone to stay in place



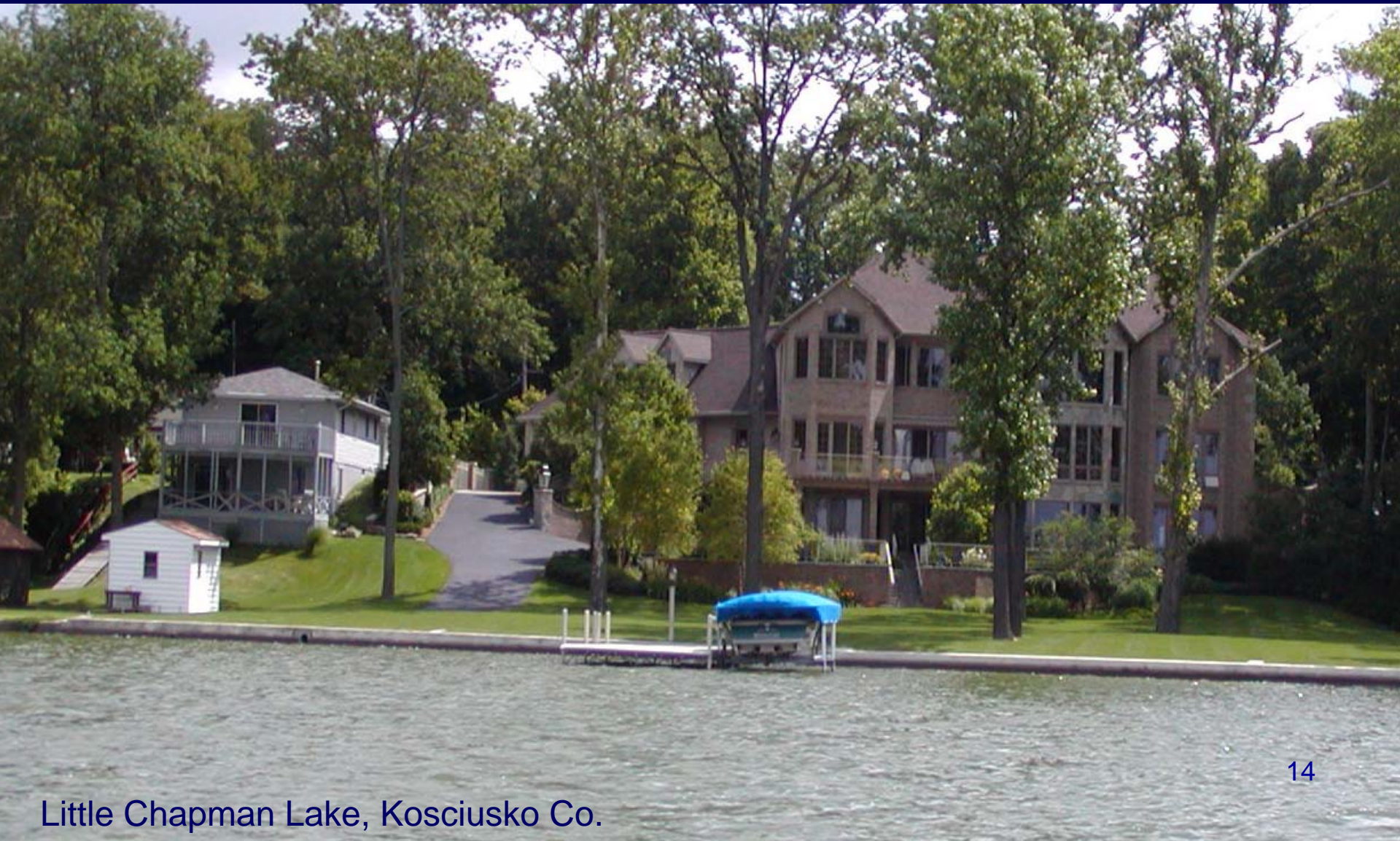


# Re-developed property on Lake Maxinkuckee...100% impervious surfaces





A common element in "modern" lakeshore development is a sterile shoreline with little ecological value or sustainability







What 'ecological functions' are present on this shoreline?



By their actions, shoreland owners destroy the very features that attracted them to the lakeshore





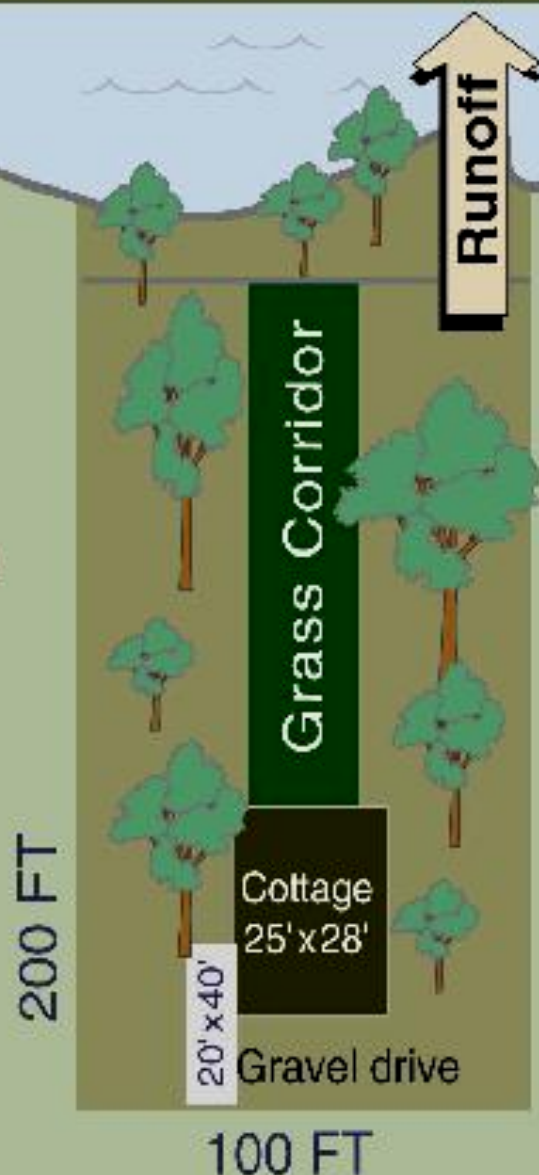


Habitat for people or habitat for Geese?



## 1940s development – Apr.-Oct. phosphorus/sediment runoff model

- maple-beech forest
- 6% slope to lake
- grass corridor 20'-wide
- cottage 700 ft<sup>2</sup> perimeter
- gravel drive 800 ft<sup>2</sup>
- 35'-wide buffer strip

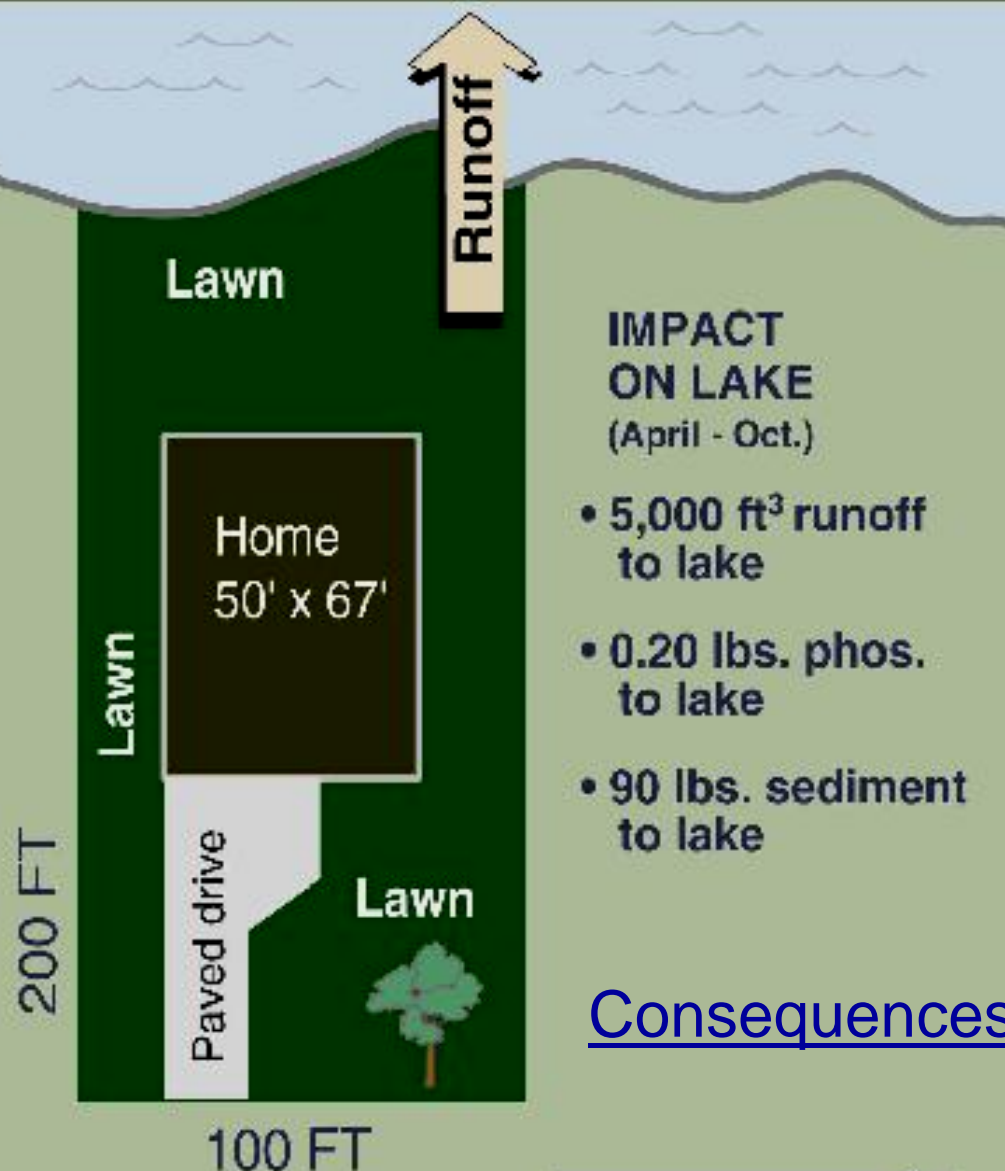


### IMPACT ON LAKE (April - Oct.)

- 1,000 ft<sup>3</sup> runoff to lake
- 0.03 lbs. phos. to lake
- 20 lbs. sediment to lake

## 1990s development – Apr.-Oct. phosphorus/sediment runoff model

- maintained lawn, soil graded
- 6% slope to lake
- home 3,350 ft<sup>2</sup> perimeter
- paved drive 770 ft<sup>2</sup>



### IMPACT ON LAKE (April - Oct.)

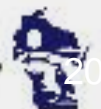
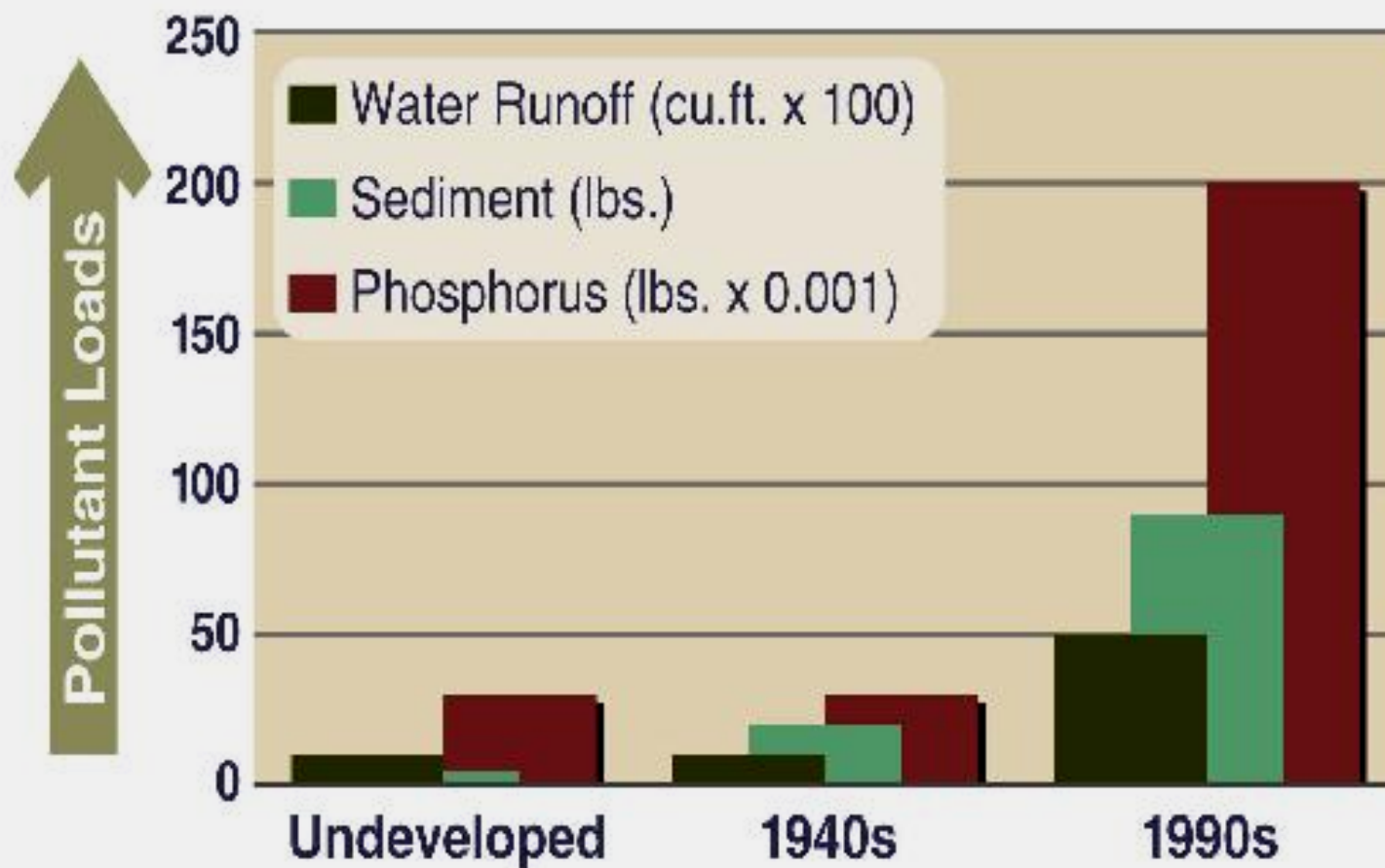
- 5,000 ft<sup>3</sup> runoff to lake
- 0.20 lbs. phos. to lake
- 90 lbs. sediment to lake

[Consequences](#)





## Impacts of Lake Development





Our shoreland reach extends out  
into the water



How many boats does one family need?



# What is wrong with this picture?



With higher densities of people  
come higher densities of piers



Group pier for lakeside condos



# Aquatic Toys



- Navigation hazards
- Shoreline impacts?





# Un-permitted beach installation on Martin Lake, IN





Homeowners love bulkhead seawalls



Poured cement seawall



# Sheet piling seawall





# Wood seawall





??





# Why do people love seawalls?



1. Like the neat, clean appearance
2. Bulkheads are the default option
3. To match up with neighbor's seawall
4. Snakes





Even when the shoreline is stable and vegetated...

Some shoreline owners will still install a bulkhead





And when aquatic plants somehow insist on growing, there's always the weedwacker





# Shoreline Classification in Indiana

## 1. Significant wetland :

- a) >2,500 square feet of contiguous emergent vegetation or rooted vegetation with floating leaves; or
- b) adjacent wetland areas designated by a federal or state agency; or
- c) existence of animals or plants that are listed as extirpated, endangered, threatened, or rare

## 2. Natural shoreline : unaltered shoreline for >250 feet.

## 3. Area of special concern:

- a) >625 square feet of contiguous emergent vegetation or rooted vegetation with floating leaves;
- b) unaltered shoreline where bulkhead seawalls are >250 feet apart,
- c) bogs, fens, muck flats, sand flats, or marl beaches.

## 4. Developed area: none of the above



# Current Permitting Problem

“Retaining walls” negate shoreline rules -  
A loophole big enough to drive a truck through.



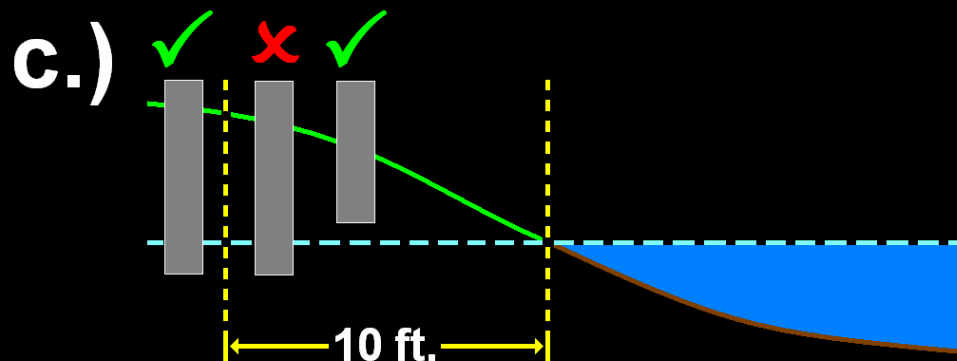
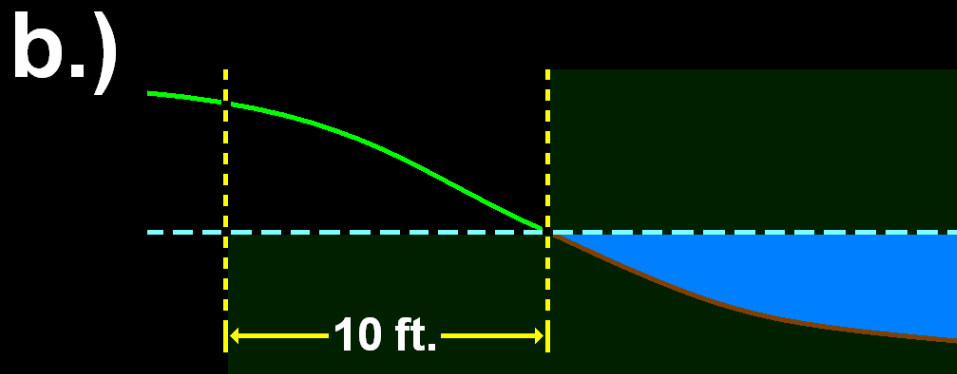
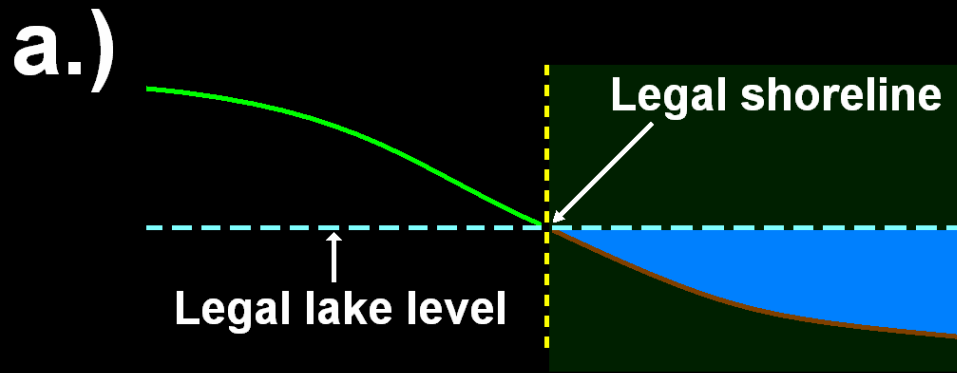


# Another retaining wall - soon to be a seawall



Photo: Jeremy Price, IDNR





New rule  
extends  
IDNR  
jurisdiction  
10 feet  
inland  
beneath the  
legal lake  
shoreline



# Aesthetics

What feature of this lakeshore catches your eye?





**'We think of land as a civil liberty  
instead of as a social resource' - Bob  
Korth**







Dense trees remain for riparian stability

Sight lines maintained by trimming lower branches only

Lakeshore homes don't  
have to ruin lakeshore  
aesthetics





## Funneling aka Keyhole Dev.

- purchase and develop an 'off-lake' property
- purchase adjacent lake property to allow lake access
- extend riparian rights to entire parcel through one lake lot
- get huge group piers as a result



Even in a state with little zoning, there are those who think there is too much

(HOOSIER)

**"YOU'RE THE BOSS"  
DEMAND LESS  
PLANNING AND ZONING**

**JOIN POSITIVE PROGRESS**

**WE MEAN BUSINESS CALL 332-5677**



# Why the assault on shorelines?

- Ignorance about aquatic ecology
- "This is how we did it in town"
- Man over Nature Syndrome
- Selfishness - it is my property



Shoreland  
landscaping with  
purple loosestrife



# Solutions?

- Education
- Continue to set good examples
- Economics

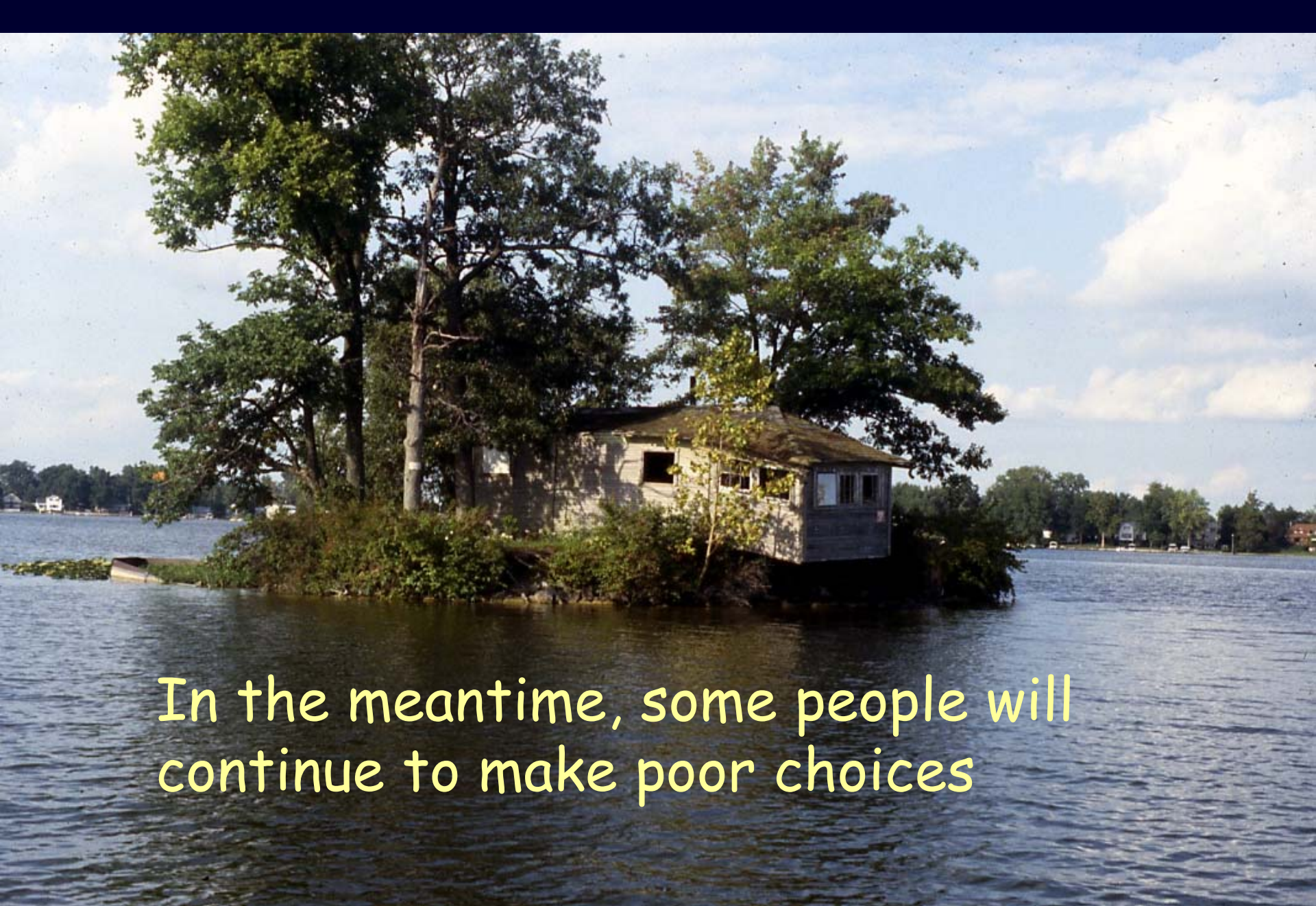


Crystal Lake, WI



Saugany Lake, IN





In the meantime, some people will continue to make poor choices