

Farm Pond Management

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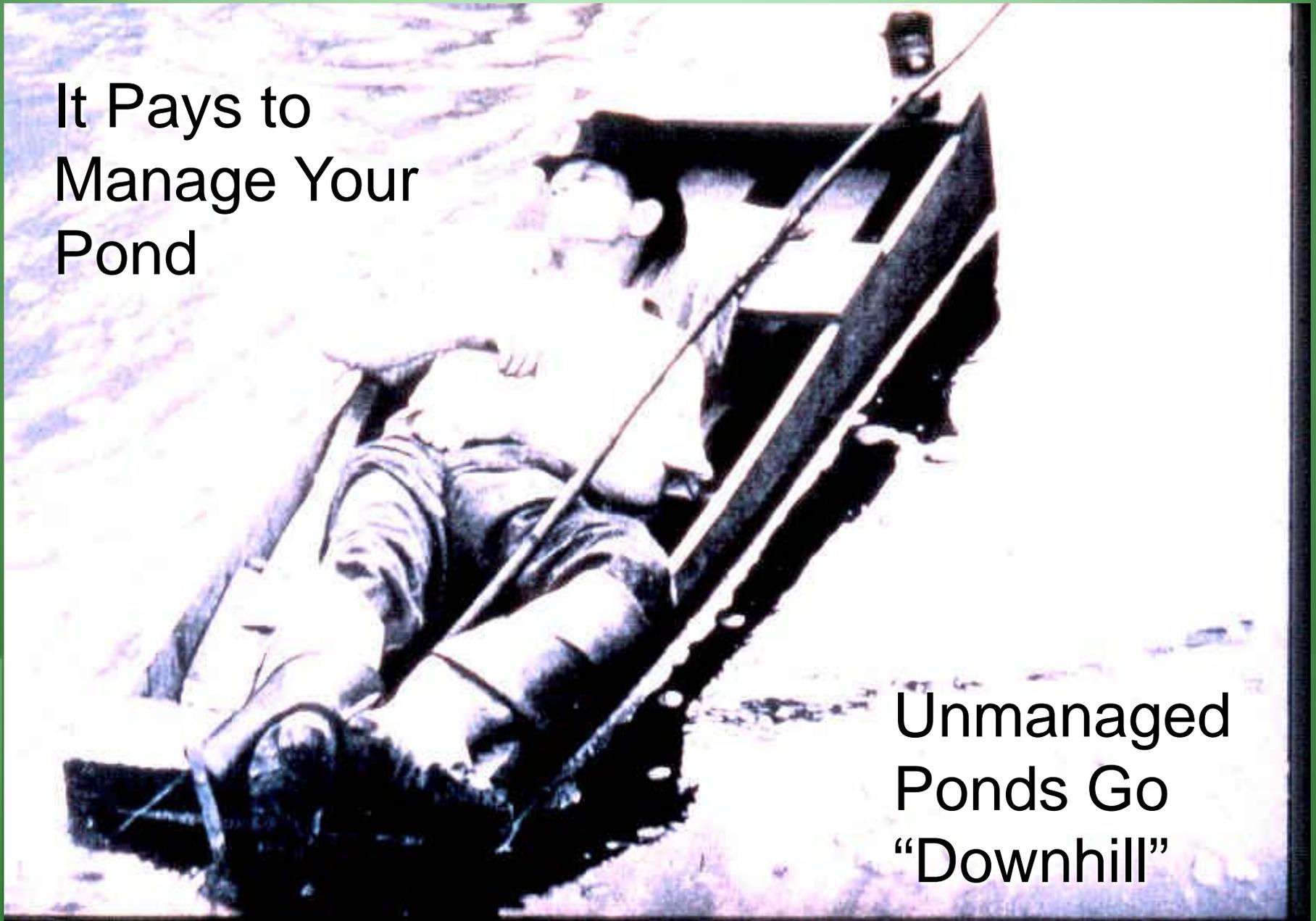
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Ponds are Worth Protecting

- Attractive Ponds → Higher Land Values
- Clean Water → Livestock Gain
- Recreation and View
- Fire Fighting

It Pays to
Manage Your
Pond

Unmanaged
Ponds Go
“Downhill”



What's going on in the Watershed?

- Overgrazing, county roads, construction → erosion and sedimentation and muddiness
- Nutrient sources → algae problems
 - Lawns, livestock feeding areas, never-pumped septic systems
- Pesticides and other toxics
 - No way to guarantee safety of fish for human consumption

Protecting Dams

- Trees
 - Cut down or herbicide trees and shrubs yearly
 - Brush hog if slope is safe
- Burrows
 - Control beaver and muskrats at the earliest sign
 - Call APHIS Wildlife Services for advice
- Erosion
 - Cattle trails: fence cattle off dam
 - Wave action: seek NRCS advice

Livestock watering

- Problem signs
 - Eroding trails on dam
 - Trampled, bare shoreline
 - Shallowed out pond edges → cattails, bullrush
 - Muddy or foul water
- Solutions
 - Fencing to reduce access to a few points
 - Freeze-proof watering troughs

Pond Weeds

- 20% coverage by pond plants is good
 - Refuge for forage fish from bass
 - Insects for fish food
 - Shore erosion wave protection
- 100% plant coverage is a death sentence
 - No sunlight penetration means no oxygen for fish

Plant Management

- Identify problem plant – essential first step
- Excess Nutrients and Shallowness –
Major underlying problems
- Herbicides
- Grass carp
- Dyes
- Drags and other mechanical controls

Leaky Ponds

- Seek NRCS advice before picking site to build a pond...or else there may not be an affordable answer
- Is it leaky or not? 4 feet of evaporation/year is normal

Leaky Ponds

Fixes to Consider (each pond varies)

Situation 1: Pond has never held water

- sandy soil → bentonite, liners, 1 - 2 feet of clay soil
- rock ledges, sand pockets → pack with clay soil

Situation 2: Old pond suddenly won't hold water

- something has broken pond bottom "seal"
- Pinpoint disturbed area if possible
 - Apply bentonite to area

Leaky Ponds

- Bentonite
 - Not a surefire answer
 - If pond can be drained – till in one sack powdered bentonite for every 10 x 10 foot area
 - Standing water – use granular bentonite
- Liners are expensive - \$10,000 + per acre

“Summer” Fish Kills

- You could be at risk and not know it
- Warning sign
 - Can't see more than 12 inches into water because of microscopic algae (green color to water)
 - Be in the habit of checking this regularly
- By the time you see dead fish it is usually too late

“Fall Turnover” Fish Kills

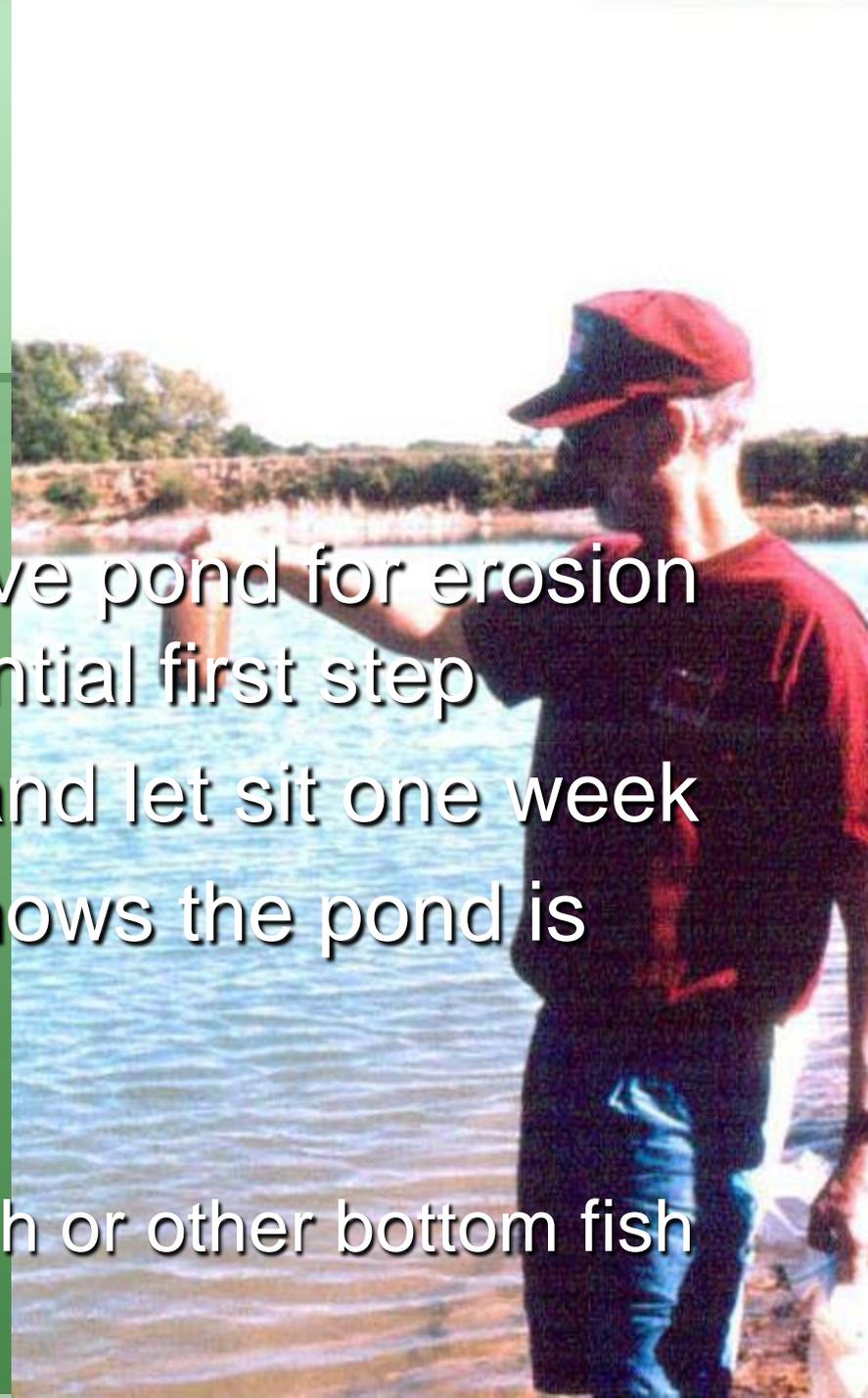
- Usually occurs in deeper ponds
- Cold front and wind causes bottom layer of zero oxygen water to mix with upper layer of water.

Toxic Algae

- Rare – 10 or so cases of livestock death per year in Oklahoma
- No clear warning signs
 - Scum on surface like spilled paint?
- If suspected, contact the OSU Animal Disease Diagnostic Lab for instructions on collecting and transporting water sample.

Muddy Water

- Check all areas above pond for erosion and control it...essential first step
- Collect jar of water and let sit one week
- If it clears up, this shows the pond is being stirred up
 - Wind
 - Common carp, catfish or other bottom fish



Muddy Water

- If water in jar does not clear up
 - Add 2 square bales straw per acre or 500 pounds of gypsum per acre foot of water
- Some ponds cannot be cleared up
 - Consider using them as fed catfish ponds

Poor Fishing

- What is good fishing?
 - Two “keeper size” fish per hour
- Causes of poor fishing
 - Trash fish (bait buckets, ponds above yours)
 - Improper harvest → imbalance of predator/prey

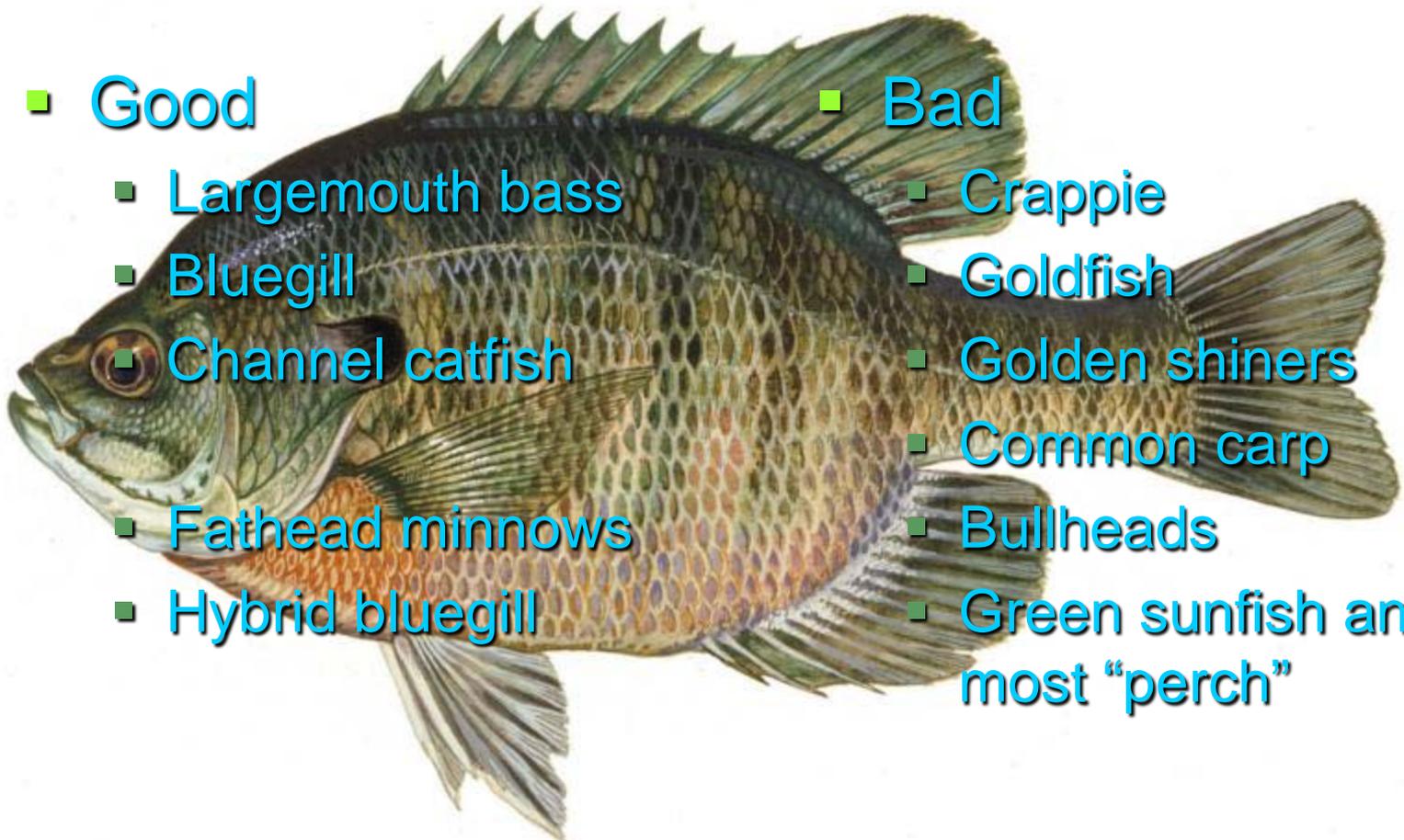
Fish for Farm Ponds

- Good

- Largemouth bass
- Bluegill
- Channel catfish
- Fathead minnows
- Hybrid bluegill

- Bad

- Crappie
- Goldfish
- Golden shiners
- Common carp
- Bullheads
- Green sunfish and most "perch"

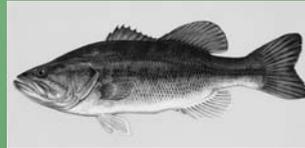


Pond Stocking

- Do not stock fingerlings on top of bass or other predators
- State Hatcheries - game ranger approval
Private Hatcheries - \$\$
- General recipe:
 - Eliminate all fish
 - 500 bluegill per acre in fall
 - 100 largemouth bass per acre in spring
 - 100 channel catfish per acre



12 inches and under
Remove 25 to 50 bass
per year per acre
(starting in year 4)



12 to 18 inch bass
Return all to pond



18 inch and larger
Harvest according to
your objectives

Harvest bluegill by hook
and line as you wish

Harvest Guidelines

Problem:

Overabundant, skinny bass.

**Many with a total body length
of 11 to 12 inches.**

Remove up to 25 pounds of skinny bass per acre. Remove the most abundant size bass and return bass of other sizes which are in good condition. If they remain skinny, remove another 25 pounds of skinny bass per acre.

Problem:

Overabundant, skinny bluegill that are 3 to 5 inches in length with a few large bass.

Stock additional large adult bass and return all bass caught to the pond.

Do not remove bass until the situation improves.

Then follow harvest guidelines

Problem:

Undesirable fish species like green sunfish, common carp, bullheads and goldfish are abundant.

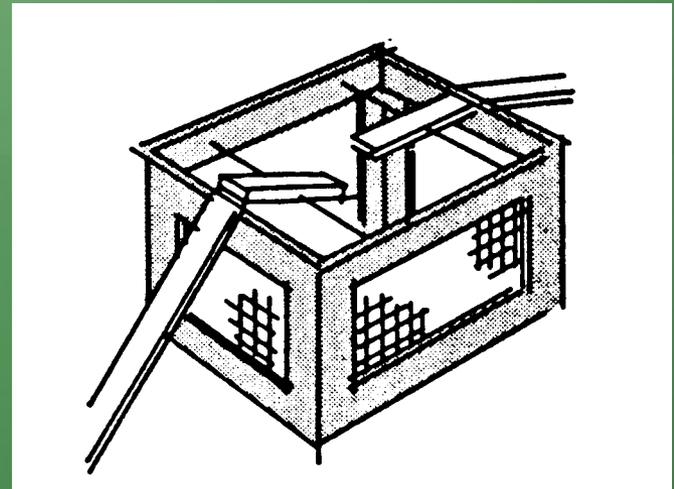
Bass are few in number.

Bluegill are small and skinny.

Renovate the pond (eliminate all fish) and restock.
Prevent undesirable fish from getting into the pond.

Turtles

- Turtle numbers can get out of hand
- Will eat fish food
- Sliders do not harm fish
- Consider teeter traps



Grubs

- Pinhead size spots in muscle or just under the skin (yellow, white, black)
- No direct way to “deworm”
- No harm to people from cooked fish
- Take steps to discourage other hosts of the parasite – fish eating birds and pond snails

Actively Manage Your Pond

- Most important factor is the attitude and knowledge of the pond owner
- Regular checks mean problems will be caught early – “walk your pond”

Recommended Reading

Managing Pond Fisheries in Oklahoma

\$3.00 from ODWC, PO Box 53465, OKC 73152