



Iron County Water Quality
A Watershed Approach



***Iron County Watershed Coalition
Iron County Lakes & Streams Partnership
Baraga-Iron Conservation District
MDEQ, USFS, MDNR***

White Water Associates, Inc.

OVERVIEW

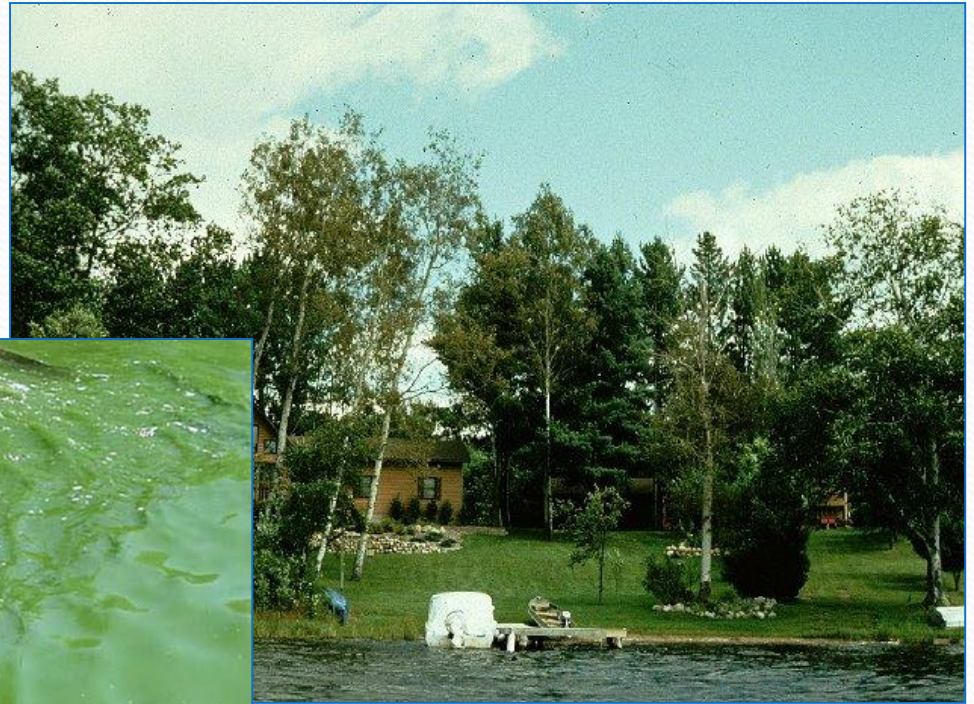
- **Why should we care about water quality?**
- **Why is our water special?**
- **What is a watershed?**
- **What are the threats to our watersheds?**
- **How can we help?**



**Why should we
care about water
quality?**

Our Water Quality is Changing Faster than Ever

- Groundwater pollution
- Destruction of shoreline habitat
- Lake and stream pollution and invasive species



Our county's fresh water is rare

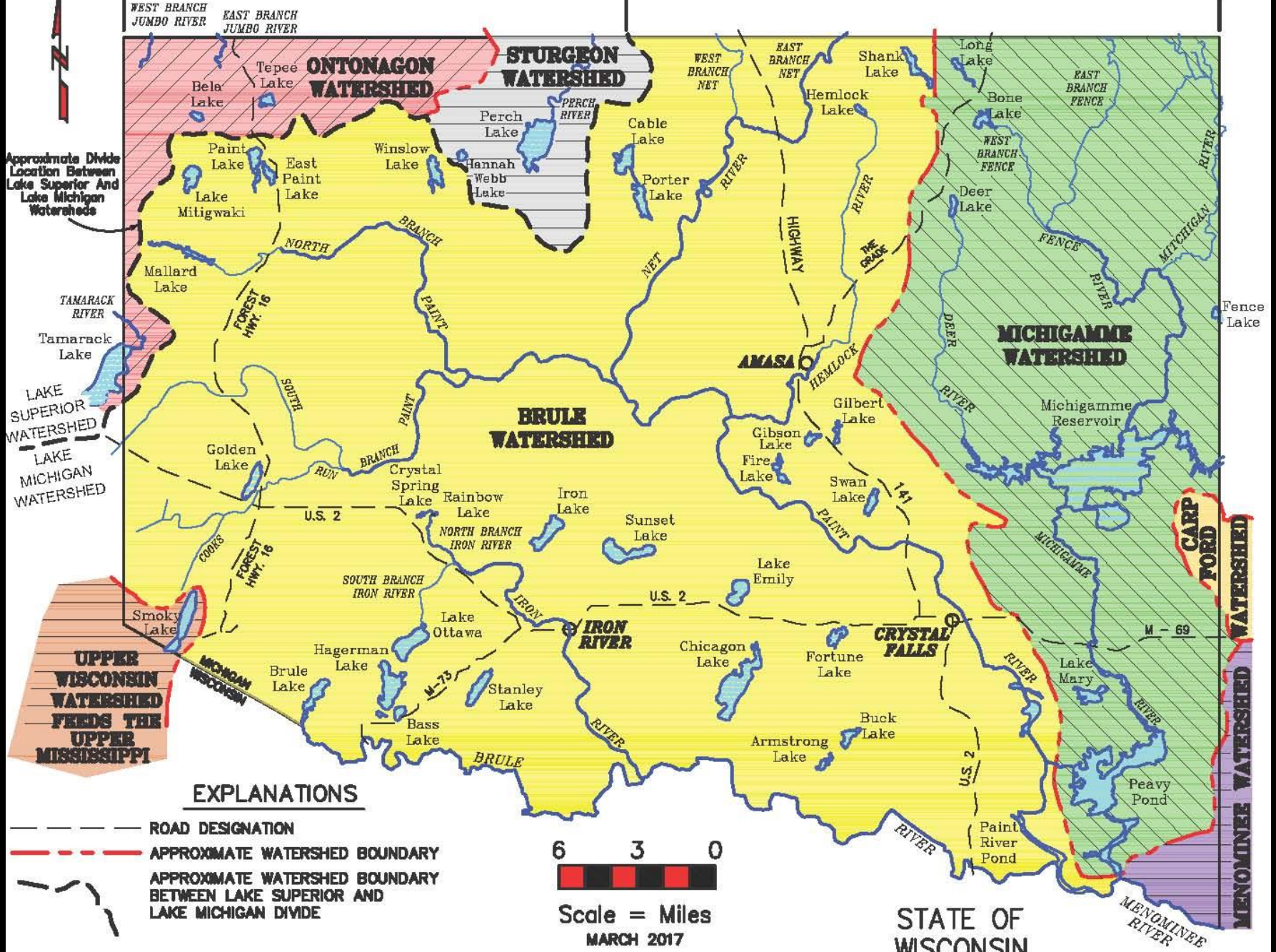
- 71% Earth's surface covered by water
- <1% Water on earth is freshwater
- There are over 220 lakes and 200 miles of river on Iron County watersheds.
- All of Iron County depends on groundwater in our watersheds for drinking water



What is a Watershed?

- A watershed is an area of land that contains a common set of streams, rivers and lakes that all drain into a single larger body of water.
- Iron County has seven major watersheds
- These watersheds drain into Lake Superior, Lake Michigan or the Mississippi River
- A person in Iron County is never more than 2-1/2 miles from a lake, river, stream, creek or pond.

LAKE SUPERIOR WATERSHED **LAKE MICHIGAN WATERSHED**



EXPLANATIONS

- ROAD DESIGNATION
- APPROXIMATE WATERSHED BOUNDARY
- APPROXIMATE WATERSHED BOUNDARY BETWEEN LAKE SUPERIOR AND LAKE MICHIGAN DIVIDE

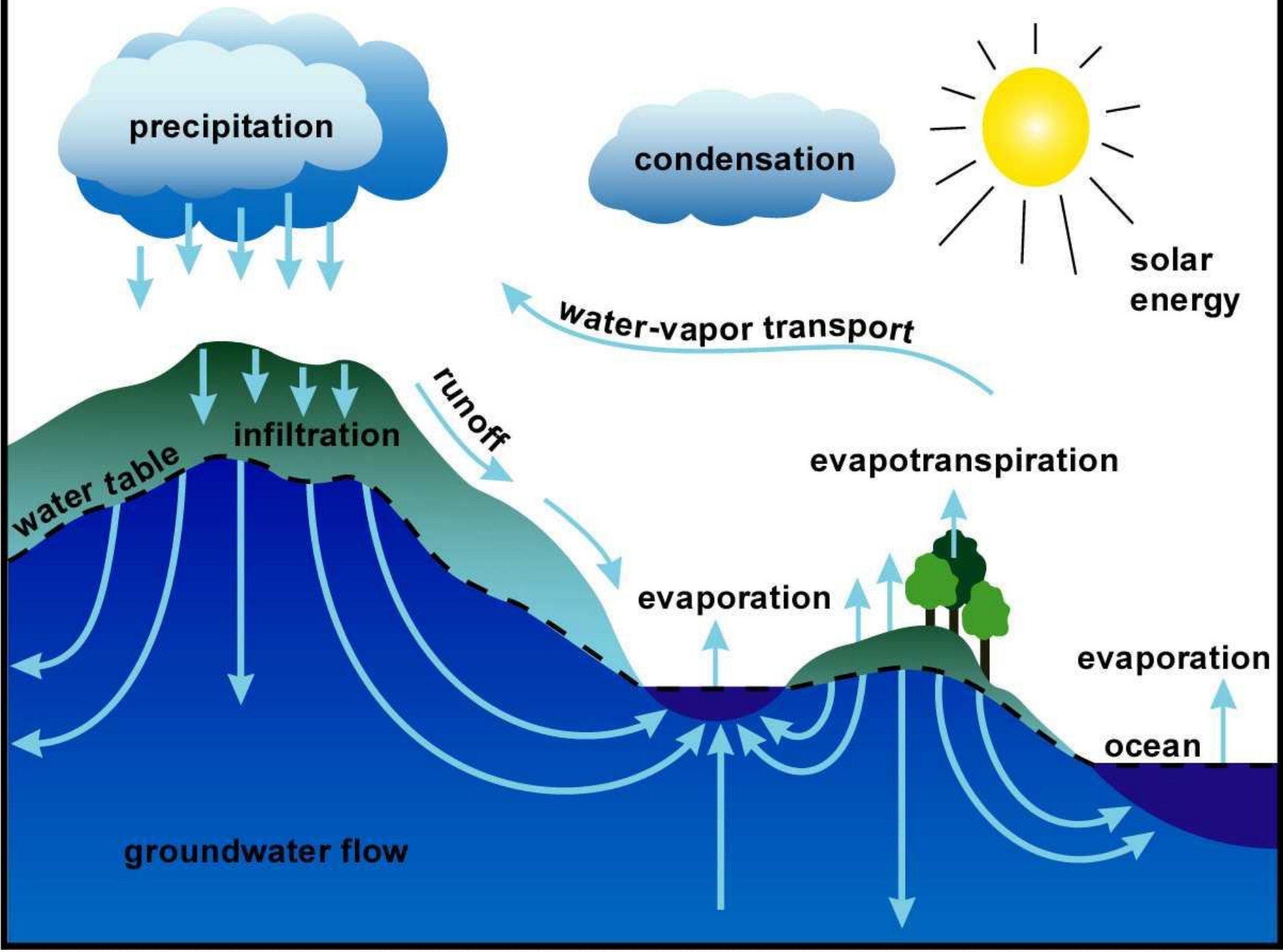


Scale = Miles
MARCH 2017

STATE OF WISCONSIN

We live on
and influence
the watershed





precipitation

condensation

solar energy

water-vapor transport

infiltration

runoff

water table

evapotranspiration

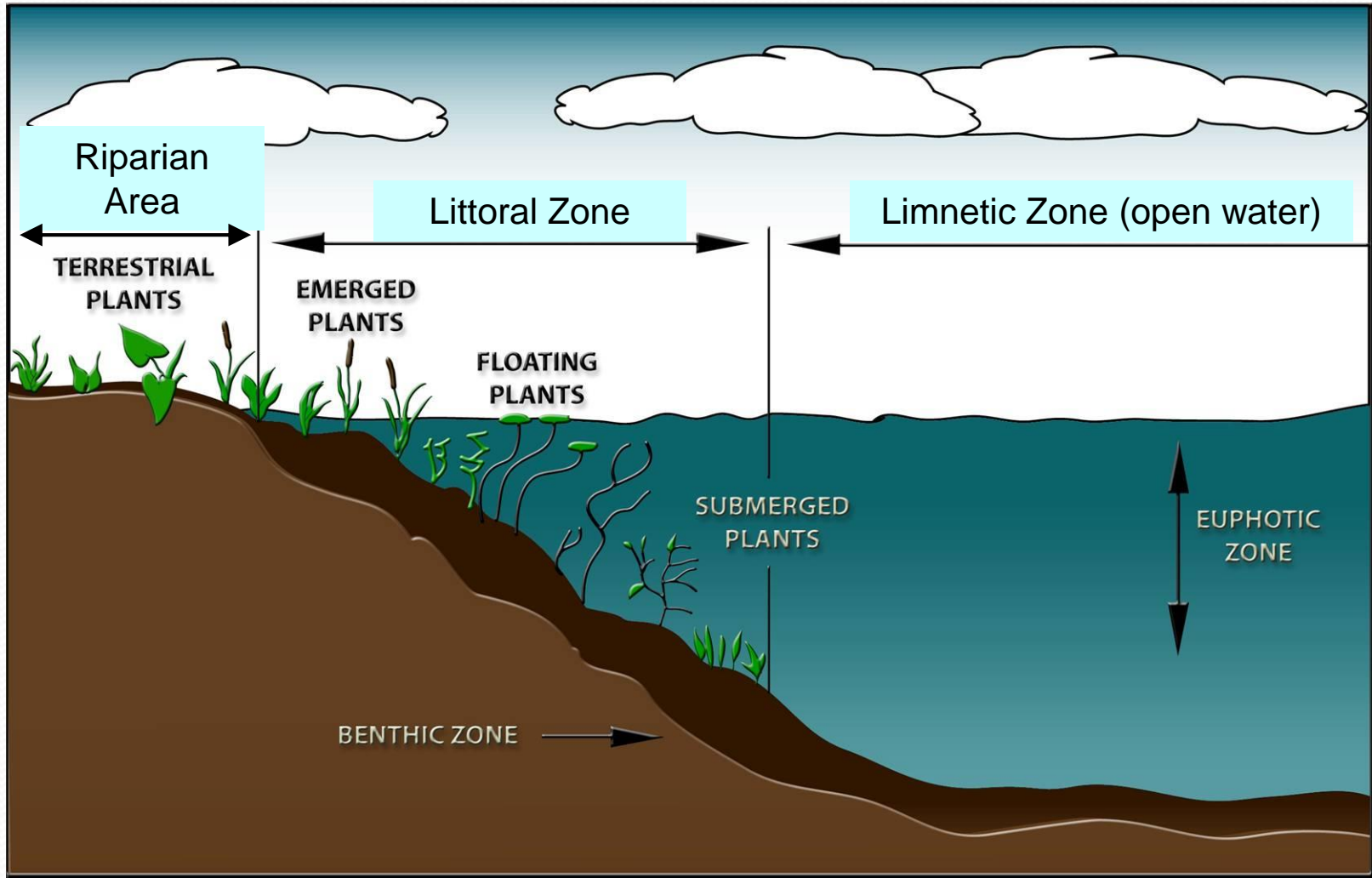
evaporation

evaporation

ocean

groundwater flow

Lake Habitat Zones



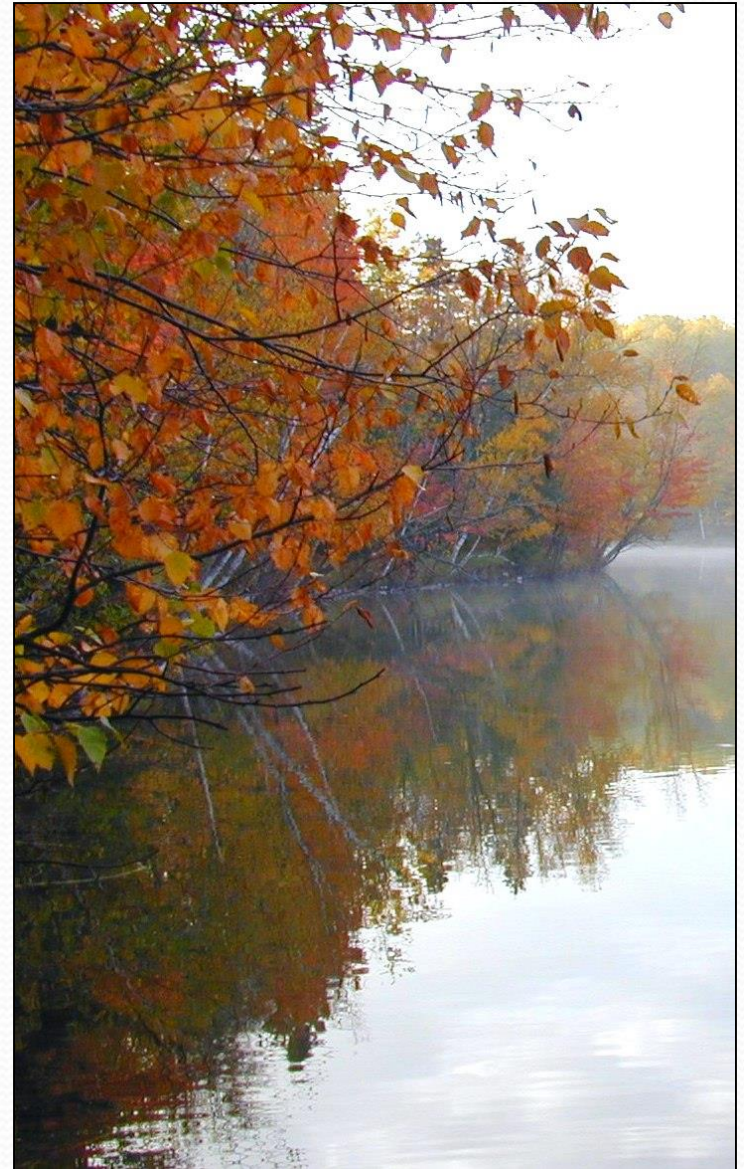
*90% of all lake life is born, raised, and fed in
the area where land and water meet.
(Ontario Ministry of Natural Resources)*



Lake Littoral Zone

Functions include:

- Intercepts Nutrients
- Refuge from Predators
- Nursery for Fish
- Highly productive of plants and invertebrates



Features of Littoral Zone Habitat

- Vegetation
- Substrate
- Woody cover
- Overhanging bank cover
- Depth and depth gradients



Riparian Area

- Filters runoff
- Contributes wood & other organic material
- Where we live & recreate

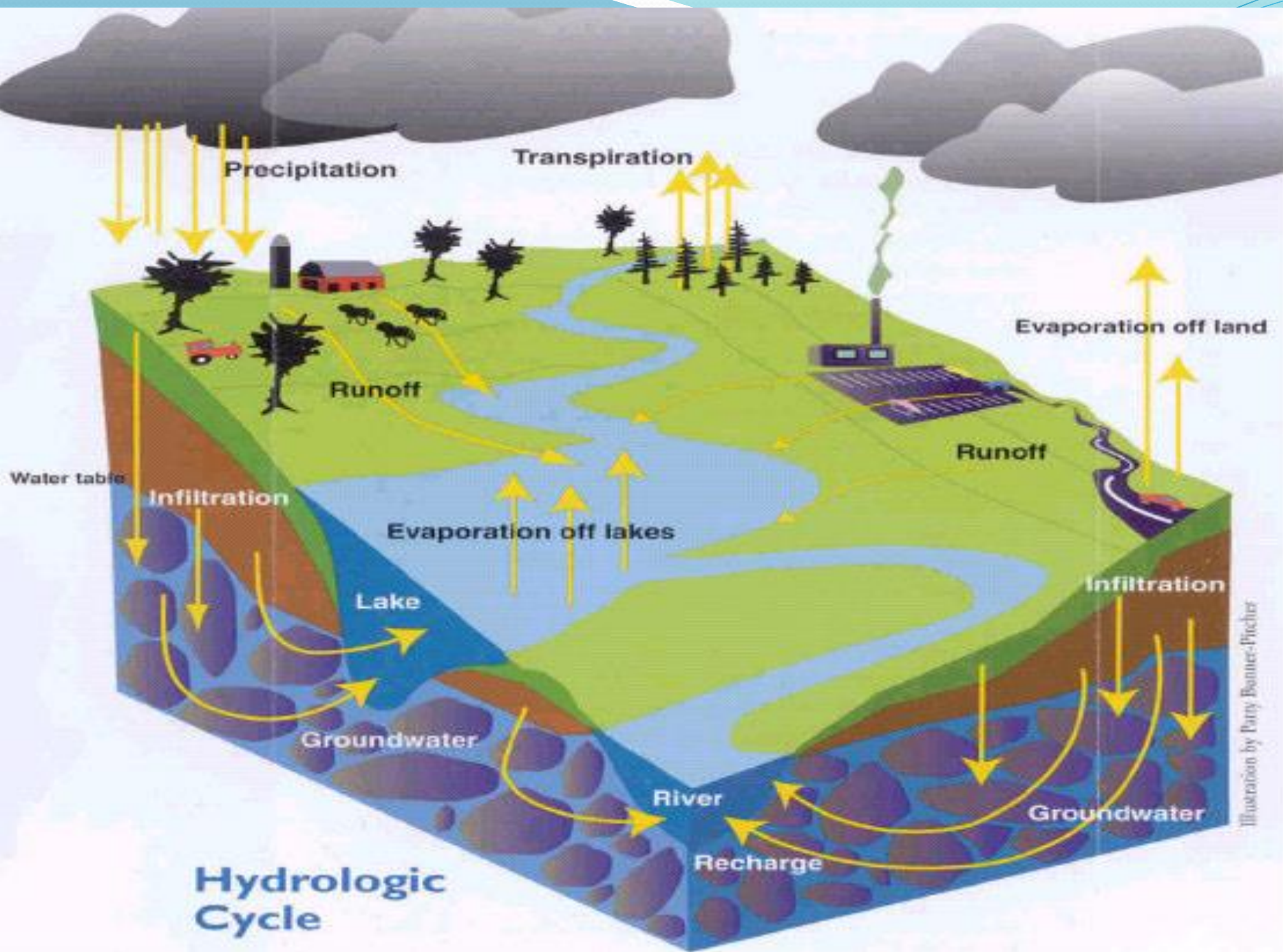


Threats to Lakes and Streams

- Poor lakeshore habitat (riparian vegetation) is the number one stressor of lake ecosystems.
- Poor littoral zone habitat is number two.

The 2007 National Lakes Assessment





Hydrologic Cycle

Illustration by Parry Banner-Pfeifer

Threats to Groundwater

- Leaking underground and above ground storage tanks – gasoline, heating oil, solvents
- Unsuitable or ineffective septic systems
- Intensive use of fertilizers, pesticides and herbicides
- Point Sources
- Improper disposal practices
- Old landfills

How can we help?

- Be aware of your drinking water source and where it comes from.
- Be aware of your septic system and where it goes
- Be aware of all applications and disposal of chemicals on the ground and the potential effects.
- By managing for healthy lake shores (both littoral and riparian), we can make a difference in lake and stream biological integrity (health).
- Monitor the water you drink and play in. Know and understand the health of your watershed.