Taylor Pond Association

Annual Meeting
August 27, 2023
7:00pm
Taylor Pond Yacht Club

Invitation by:
Dana little; President


July
2023
www.nalms.org
Lakes Appreciation Month

ALL MAINE LAKES are VULNERABLE

Some More So Than Others

A Provocative and Bold Statement

Let's explore supporting information that leads me to make the statement.

Since 1959 I have been involved with and visited over 2000 of Maine's lakes and ponds, most in the public domain.

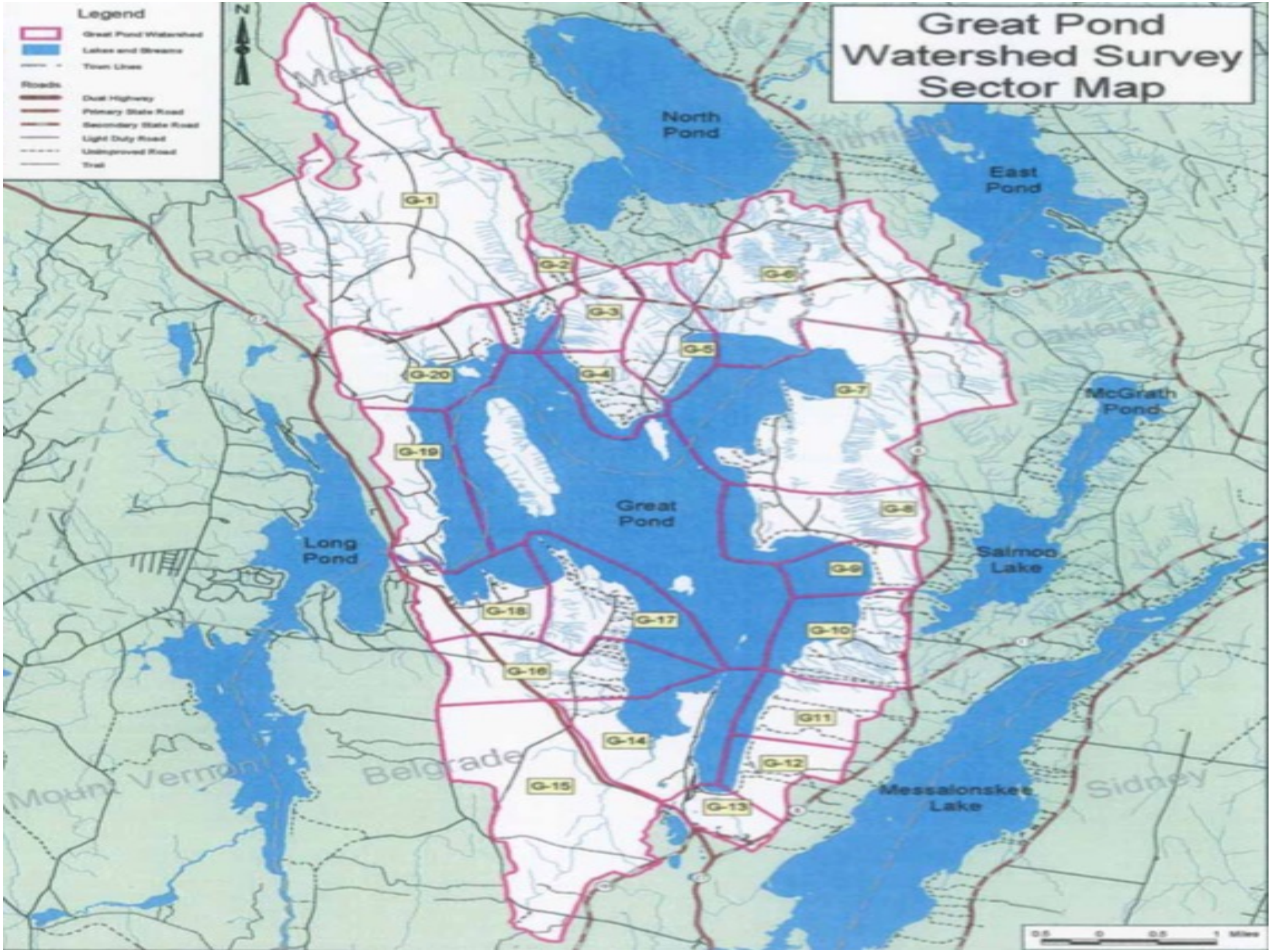
The common denominator, of all concern, is people.

People are the problems of pollution.

Thus we are also the solution

Maine Lake Vulnerability

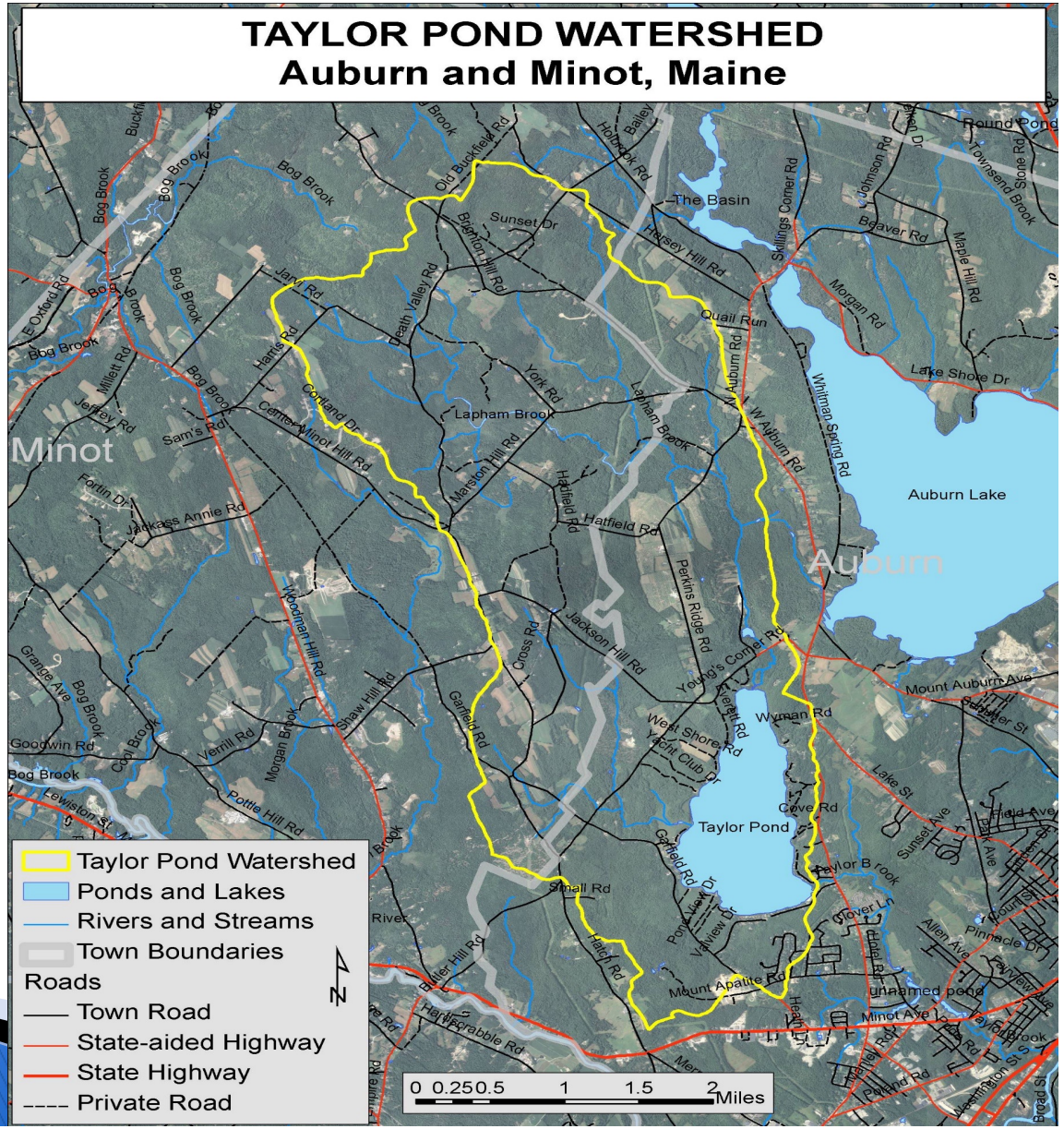
- All lakes are vulnerable over time
- All lakes in Maine are different: small, large some are eutrophic and some oligotrophic and many are mesotrophic.
- The vulnerability depends on how all of us treat and care for the water quality.
- Time will tell us what the future holds


Great Pond Watershed Survey Sector Map
Legend
Great Pond Watershed
Lakes and Streams
Town Lines
Roads
Dual Highway
Primary State Road
Secondary State Road
Light Duty Road
Unimproved Road
Trail
N
W
E
S
Mercer
North Pond
East Pond
Rome
Oakland
McGrath Pond
G-1
G-2
G-3
G-4
G-5
G-6
G-7
G-8
G-9
G-10
G11
G-12
G-13
G-14
G-15
G-16
G-17
G-18
G-19
G-20
Great Pond
Long Pond
Salmon Lake
Messalonskee Lake
Belgrade
Mount Vernon
Sidney
0.5
0
0.5
1
Miles

DEP Threatened List

- Taylor pond is on that list
- Sediment Chemistry analysis:
  Al:Fe (<3:1)ratio and Al:P ratio (<25:1)
- Sensitive due to additional TP and modeled for a 1 ppb increase in 25years or less.
- Means the DEP will give more attention to Taylor and its WQ

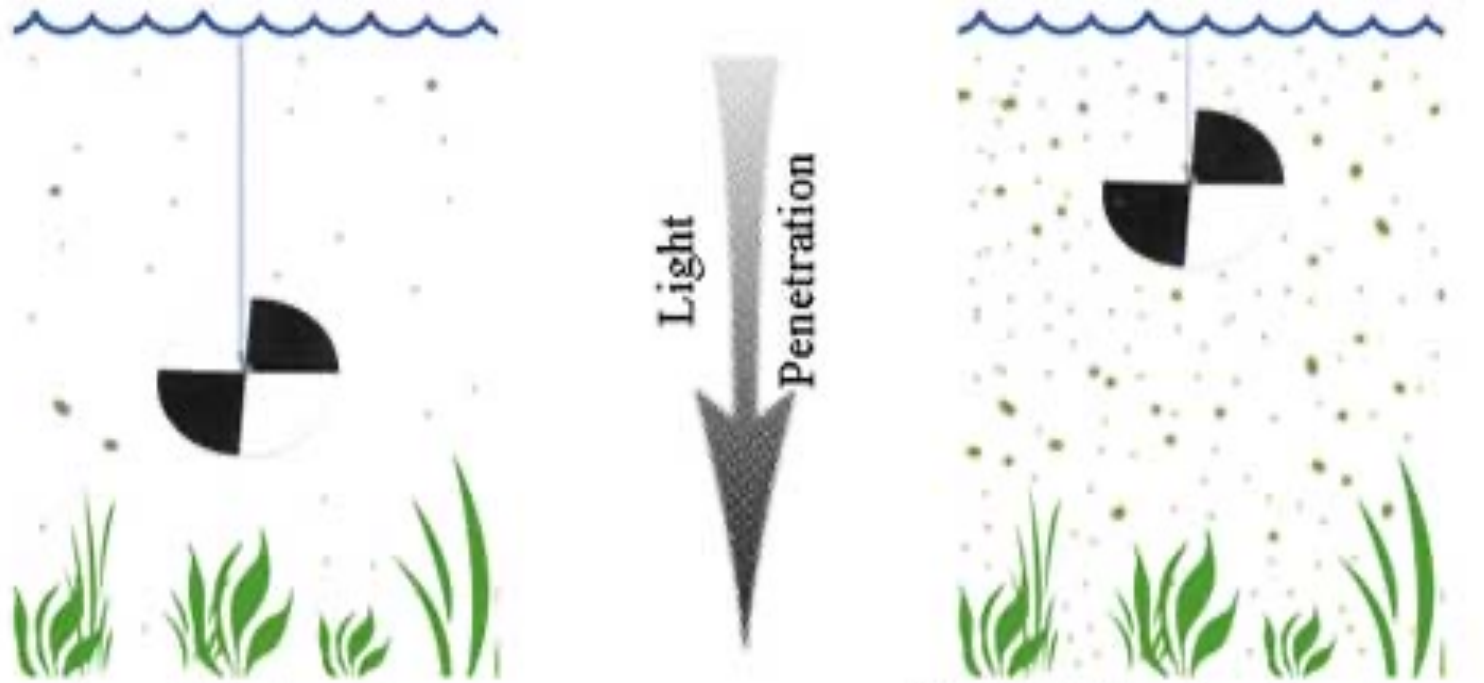
Very unique Watershed with Adjacent Auburn lake



Taylor Pond Physical Data

- Unique drainage area for a small lake
- Max. Depth – 44’
- Mean Depth– 17’
- Surface area – 653 acres
- Drainage Area –13.58 sq. mi.=86,912 acres

- Flushing rate 1.34 per year



Clear lake having a small algal population results in a deep SDT reading, high clarity

Turbid lake having large algal population results in shallow SDT reading, low clarity

Taylor Pond

MIDAS # 3750

Auburn, Androscoggin Co. - Delorme Page 11 - 653 acres

Boat Launch | Lake Sample Stations | # Depth (FT) | Roads | Town Lines

0 0.35 0.7 1.05 1.4 1.75 Miles

N W E S

Secchi Disc Transparency (SDT)

- Of all the parameters that we measure the SDT is the most important and is an integrator of the TP, and Chl a

- It is a unique measure and standard for all lakes and ponds, reservoirs and impoundments

Taylor Pond

MIDAS # 3750

Auburn, Androscoggin Co. - Delorme Page 11 - 653 acres

Boat Launch Lake Sample Stations # Depth (FT)

0 0.3 0.6 0.9 1.2 1.5 Miles

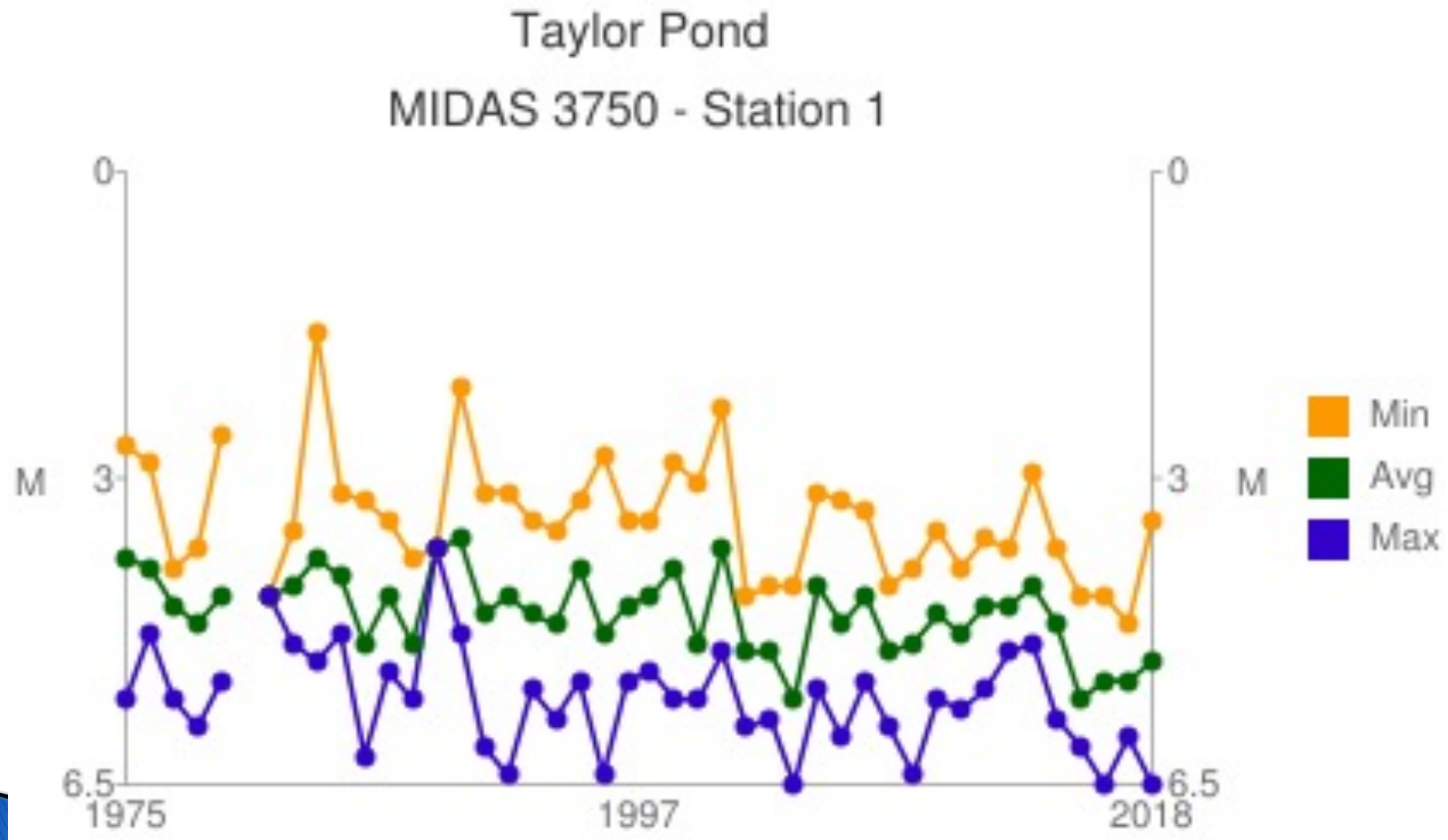
N W E S

Taylor Pond WQ Data

- Secchi Disk 13.1'-18.4' over a 53 year cycle
- Color 19 spu; light side
- TA – average 17 ppm
- Chl a – average 4.2 ppb
- TP – Surface 10 ppb; Core 11 ppb; Bottom 24ppb
- pH – 7.02 neutral

Volunteer WQ Monitor – Citizen Scientist ? Hero

Taylor Pond SDT History



Our Lakes Are Our Legacy

Part of Our Natural Heritage

They Are Habitat

Refuge and Sport

But Our Lakes Are Fragile

An Oligotrophic Lake

A Eutrophic Lake

And surprisingly sensitive to human activity

We can leave them as we found them

if we each do a little to protect them.

Inspiration

Our Lakes Are Invaluable Crown Jewels

- Maine lakes produce *at least $8.0 billion* in economic activity every single year*
- Our lakes are used by 650,000 residents every year and supply drinking water to half our population
- Lakes support 56,000 jobs
- Tourism is Maine's #1 industry

*Based on 2017 dollars

CHANGE


THE
MOST
INVASIVE
SPECIES
OF ALL

Human kind

- Take a look in the mirror:

"We have met the enemy and it is us"
Pogo; ~ 1957

New Threats Are Appearing
Taylor Pond has none

Invasive Aquatic Plants Like Hydrilla
or Eurasian Milfoil

Mile –a–Minute Vine

Zebra Mussels

And Invasive Fish-Northern Pike

Ticks and Insects

- 13 species are in Maine-bacteria, parasite and virus vectors

  Deer, dog, lone star and Rocky Mt.
- West Nile, EEE mosquito- virus vectors
- We may see a Tick Vaccine in the near future

Other Invasive's

- Some are on our doorsteps
- Others are waiting their opportunity
- Some have been beneficial?

Climate Change

- Actually it is here and we must adapt
- We all notice change as a constant
- Population growth
- Invasive species
- Fact is we are invasive
- However some invasive's are beneficial
- Best example European honeybee

Maine's Average Annual Temperature

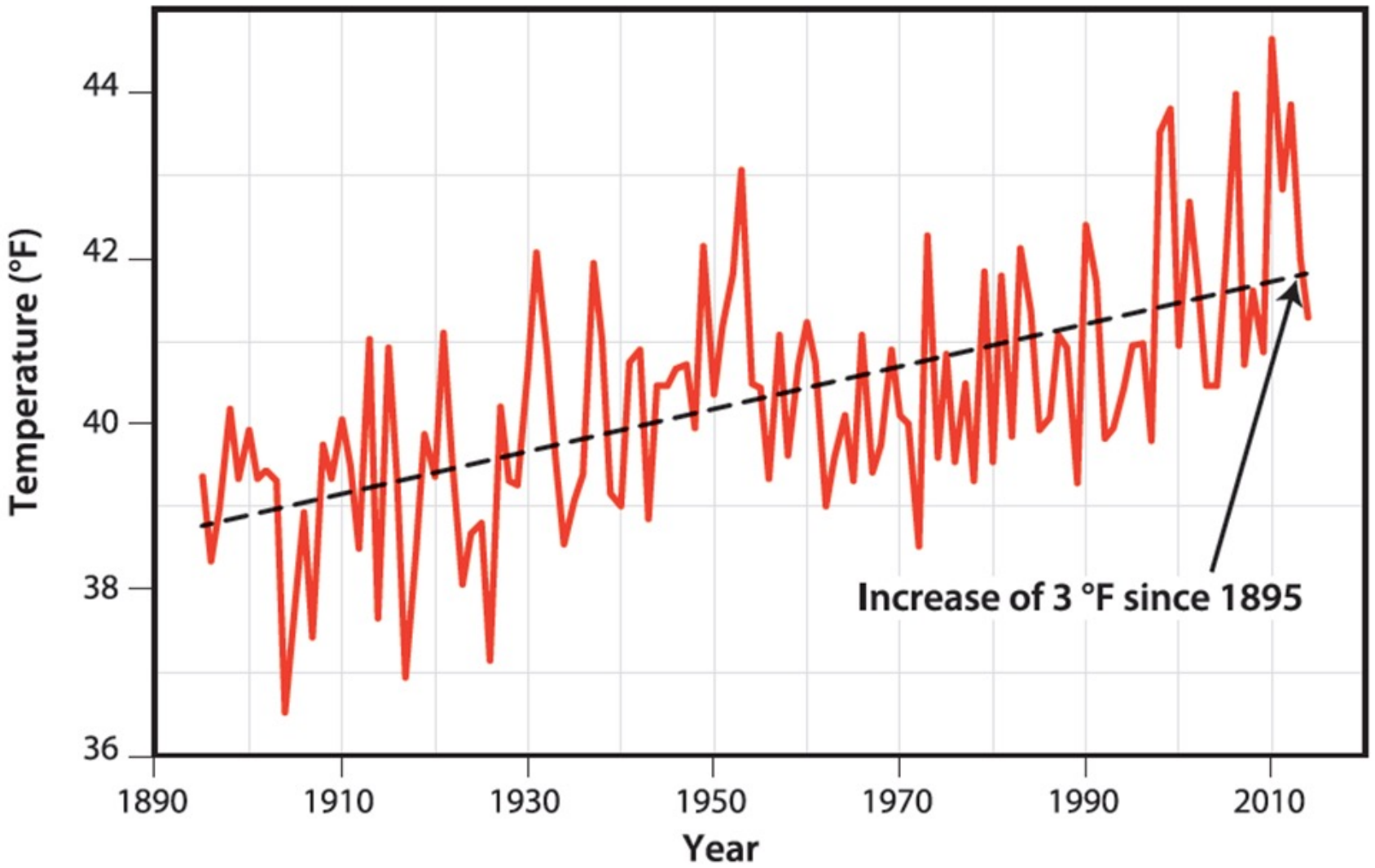
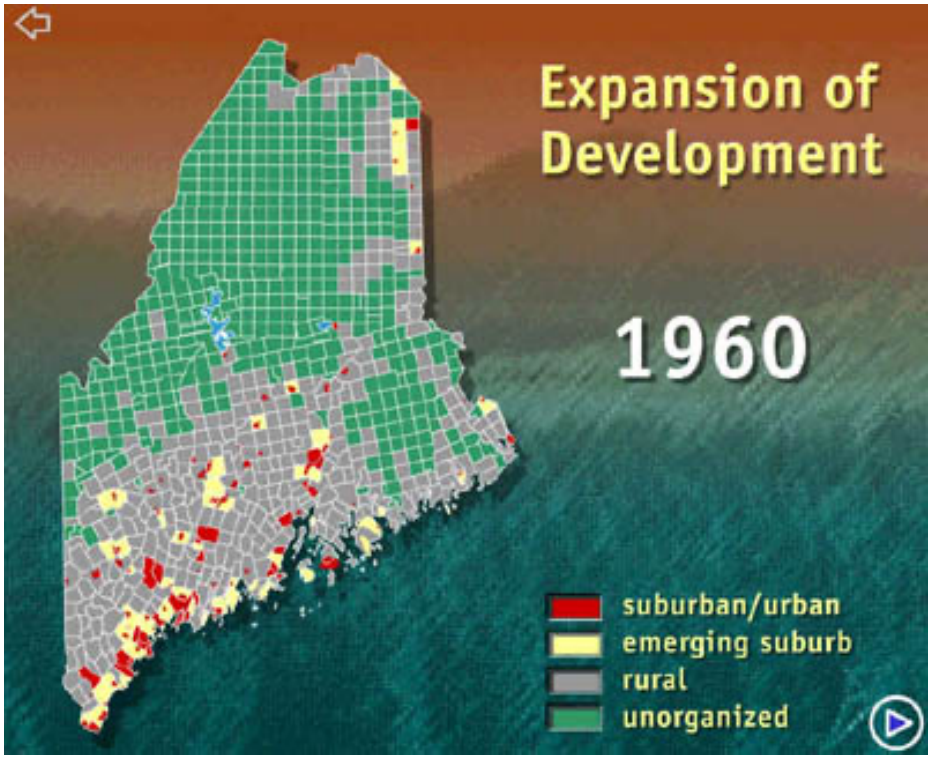
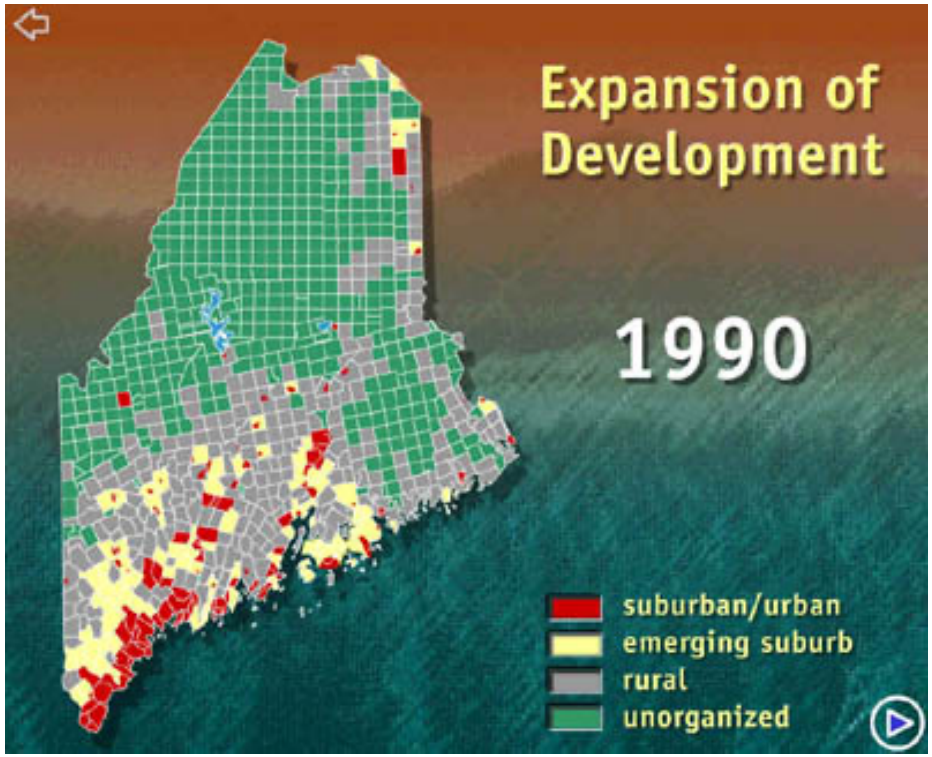


Figure 1. Mean annual temperature, 1895–2014, averaged across Maine from gridded monthly station records from the U.S. Climate Divisional Dataset (*ncdc.noaa.gov/monitoring-references/maps/us-climate-divisions.php*). A simplified linear trend (black line) indicates that temperature increased 3 °F over the record period.

CHANGE

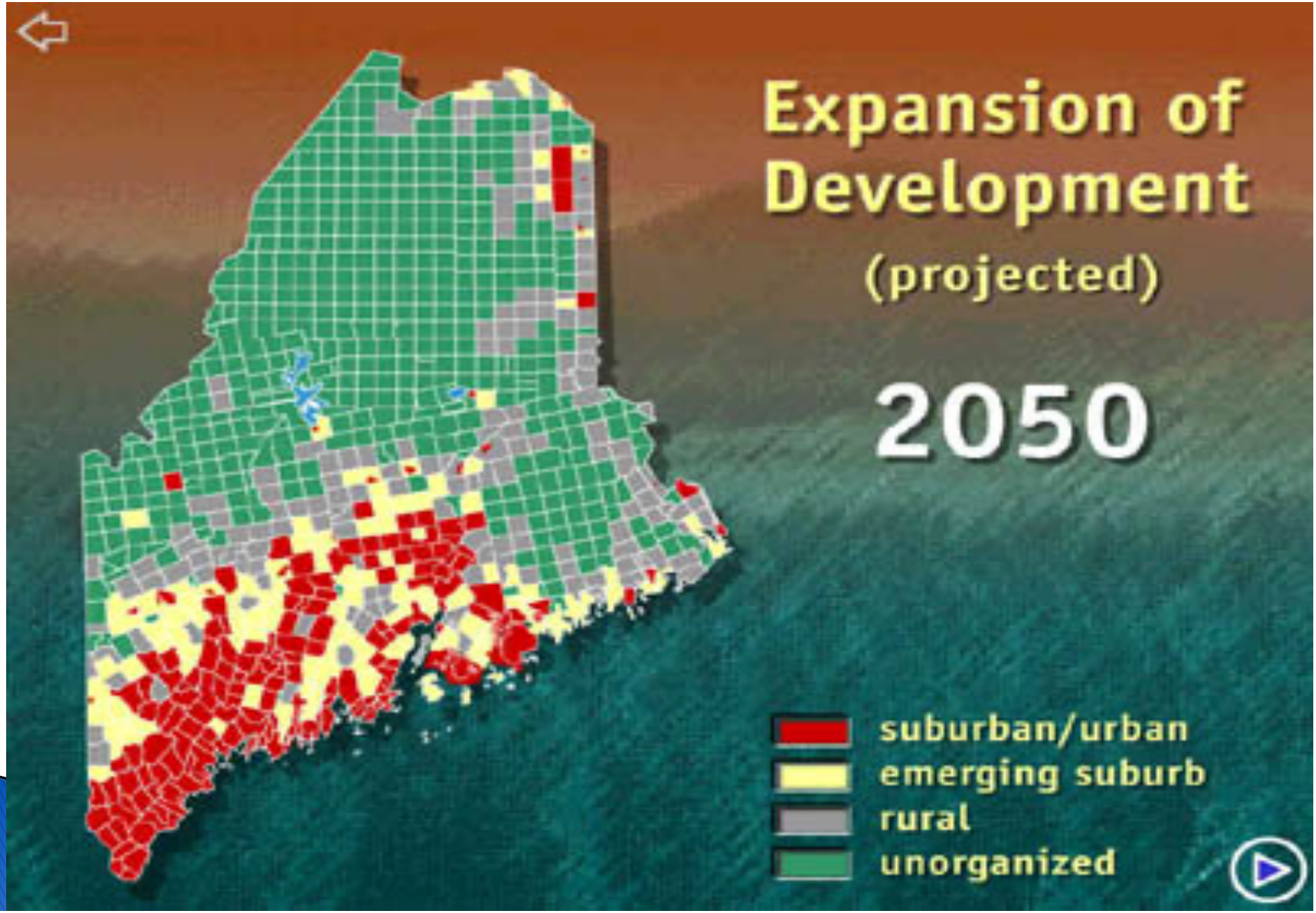
Growth within State





So What will Maine look like in 2050

Projected Growth for Maine



Habitat Fragmentation

- This is where we biologists and citizen scientists see change.
- Development and loss of habitat
- Lakeshore development and year round living
- Habitat being lost due to humankind
- Greater Foot prints and increased Carbon
- Honey bees and other pollinators will suffer or adapt if they can?

Adaptation

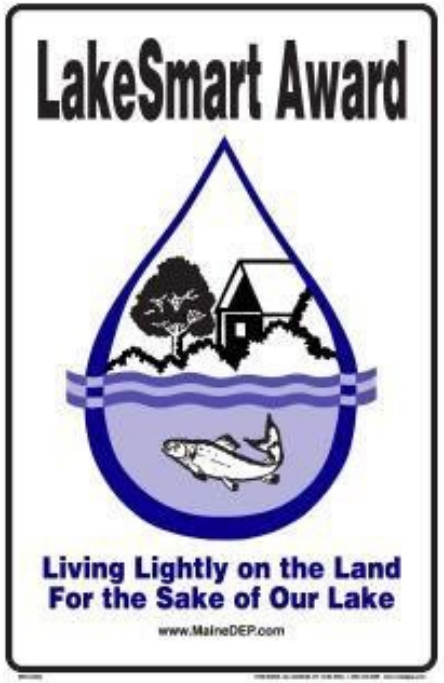
Where to Go for help on Maine Lakes

- Maine DEP –Linda Bacon 207-649-4238
- Lake Stewards of Maine- 207-783-7733
- Maine Lakes – Susan Gallo 207-650-3835
- Inland Fisheries-Gray Office – Jim Pellerin 207- 657-2345

Susan Gallo, ED 207-650-3835

LakeSmart Protects Developed Lakes

- Peer to Peer Learning and Reward Program
- Promotes Lake-friendly Landscaping,
- Brings Understanding and Change,
- And Preserves Habitat



Lake Smart Is Unique

It Changes What People Do

LAKE STEWARDS OF MAINE

Maine Volunteer Lake Monitoring Program

The Drivers – Summary

- Watershed and Landscape fragmentation of shoreline from Development
- Agriculture activity via Pesticides, Lawn Fertilizers and Herbicide applications
- Pollution from all NPS i.e. Roads, Driveways and Lawns
- Climate Change, Weather patterns, bottom of the list

Final-Unique features of your Association

- Federal filing as a 501©3
- Excellent Newsletter
- Ice in and Ice out data
- Lake Smart Program
- Watershed Survey
- Loon project
- WQ Testing by Woody and Michael
- No Eurasian milfoil (not yet)

QUESTIONS

Answers