

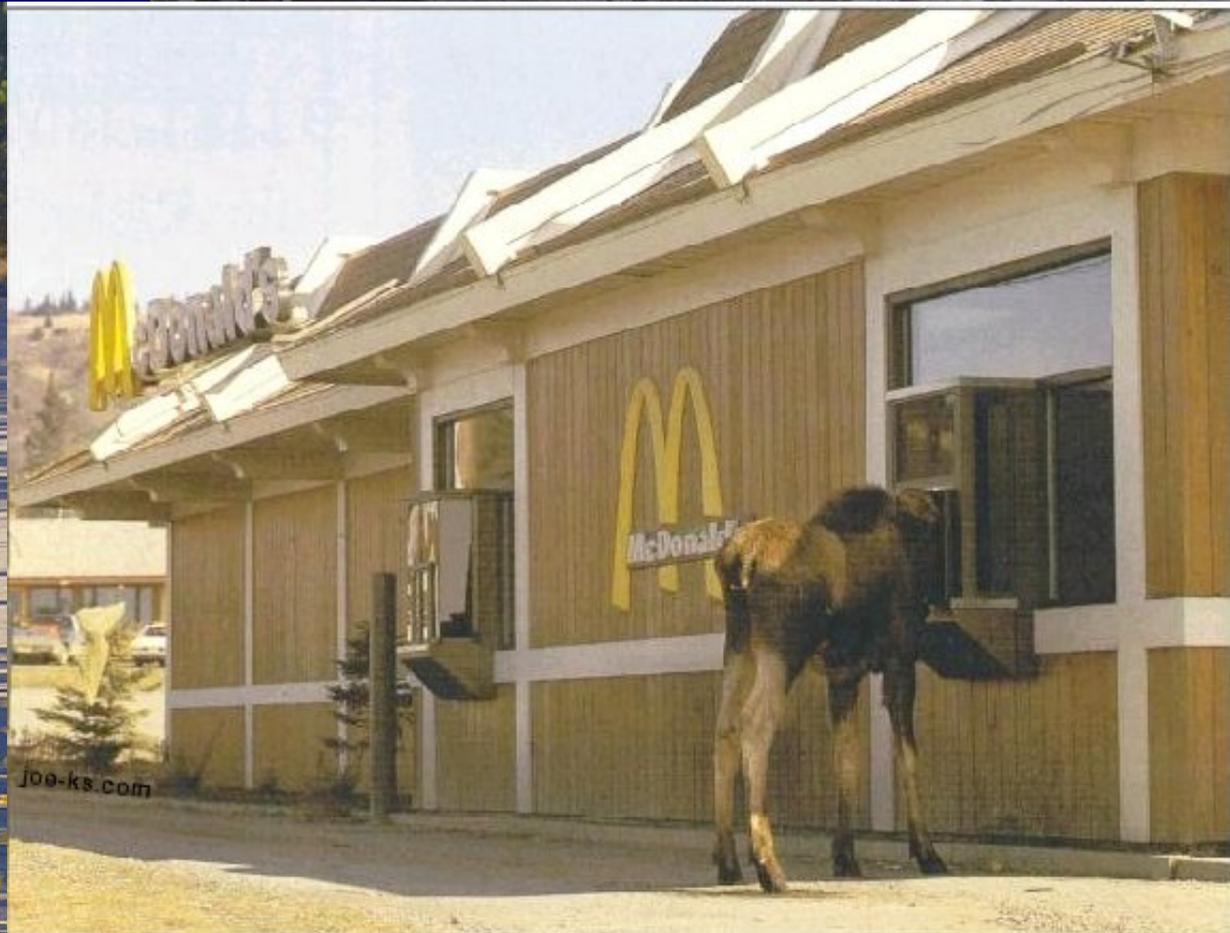
Maine's Watershed Stewards Program - Who, What, & Why

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Extension Education

Have to be more than one shot wonders



Penobscot Bay Marine Program

- Developed by SPO in mid 1990's
- 25 hour program on land use impacts to Penobscot Bay ... service component



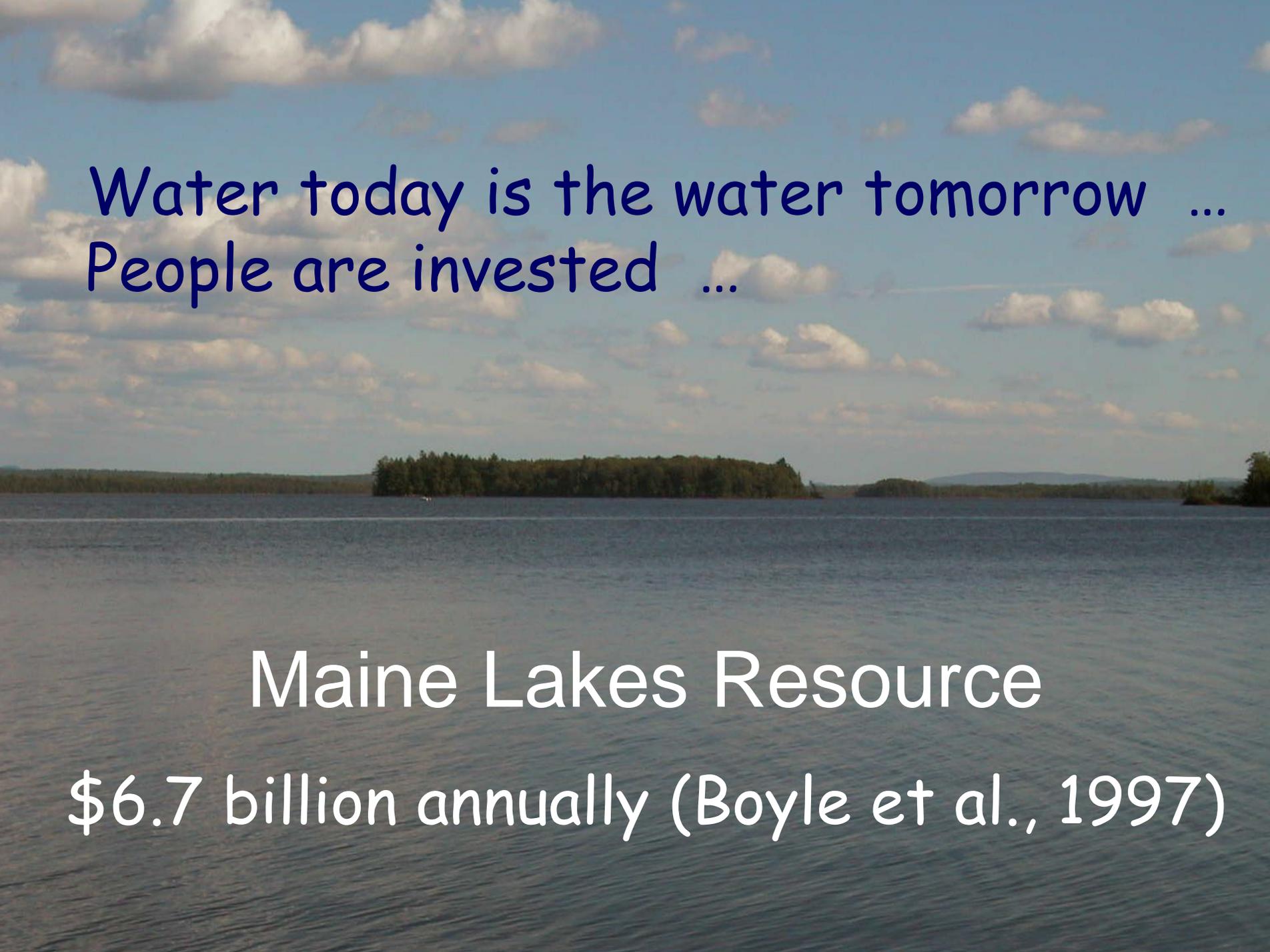
Watershed Stewards Program

- Developed in 1996
- Master Gardener Program format
- What type of watershed ..



lakes ... streams ?

Maine has over 5800 lakes and ponds; 2700 over one acre.



Water today is the water tomorrow ...
People are invested ...

Maine Lakes Resource

\$6.7 billion annually (Boyle et al., 1997)



Development Pressure





Land Use Impacts on Water Quality



Land Use Impacts on Water Quality

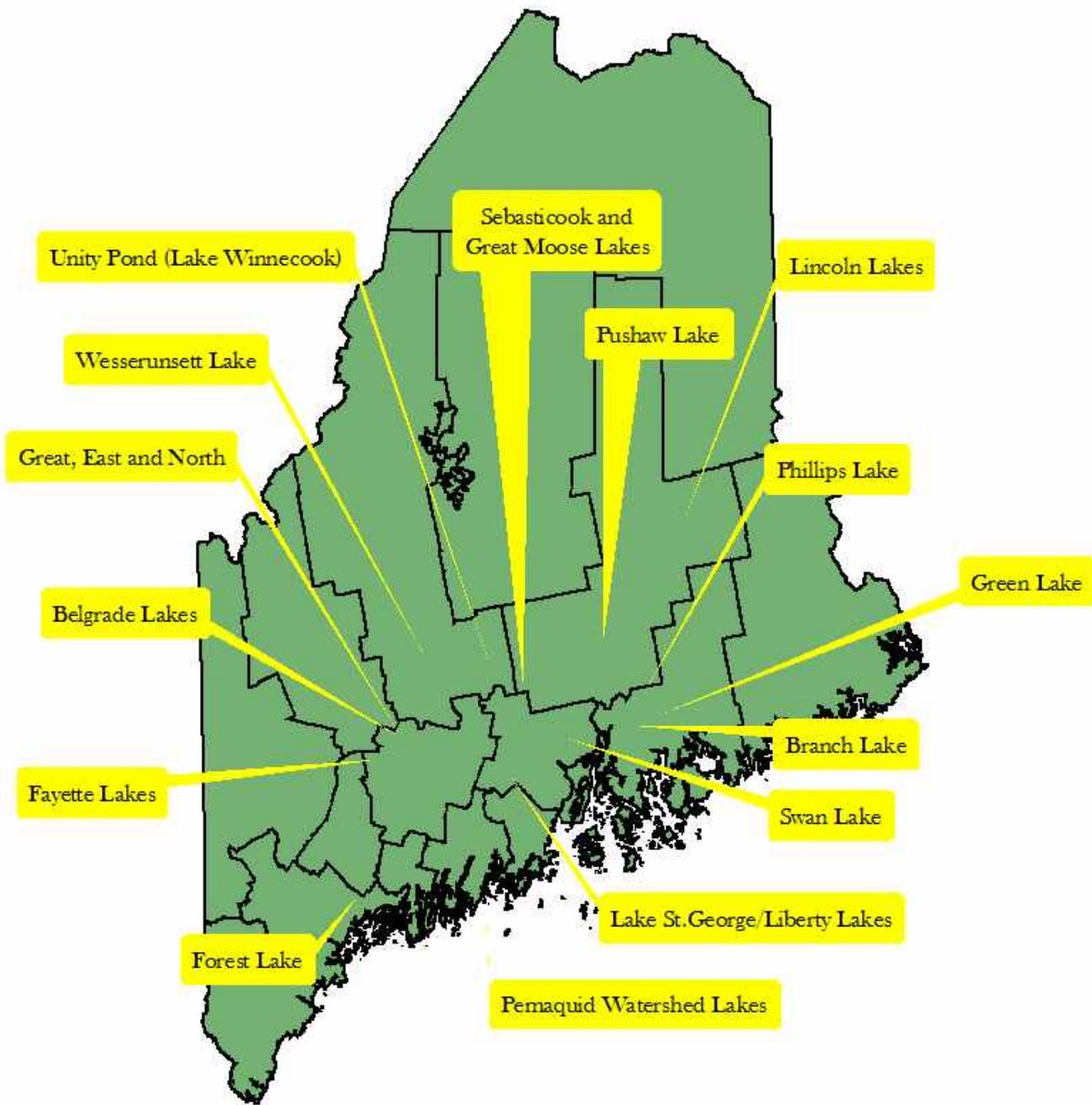


Watershed Stewards Program

- 20 hours of training
- 20 hours of volunteer service
- 16 courses in 6 counties
- Over 300 participants



Transparency as measured by Secchi Disk in Green Lake is over 9 m!



Program Goals

- Protection ... Remediation
- Understand connections:
 - land use and water quality
- Service to the lake
- Change behavior: more lake-friendly land use practices

Partners

- Maine DEP
- County SWCD
- Maine Dept. of Ag.
- Maine VLMP
- County Extension Offices



Course Topics Include

- Lakes 101
- Nonpoint Source Pollution
- Septic System Care and Maintenance
- Camp Road Maintenance
- Vegetated Buffers: what/why
- Shoreland Zoning/NRPA Regulations
- Watershed training day



Edge of road on above hill has caused this large sediment delta which runs into a tributary behind the brush.



Commercial / Residential Sites



Serious Problem

Grant funds to do implementation - CSREES



A photograph showing a dirt road on the left and a stone-lined drainage ditch on the right. The ditch is filled with grey stones and runs parallel to the road. The surrounding area is covered in brown, dry pine needles or leaves. In the background, there are bare trees and a forest. A blue text box is overlaid on the image.

Significant impacts:
>\$225,000 in 319 funds

Long-term Program Evaluation

- Increase knowledge
- Erosion over time in knowledge
- Higher level of community service
- Were stewards "walking the walk"
 - lake-friendly land-use practices?

Evaluation/Research

- Statistically valid evaluation
- Compared knowledge and activity (real impacts) of program graduates to other lake land owners not trained
- Compare Stewards vs. 'Non-stewards'

Written Survey

- Developed our test
- Piloted
- Mailed to 161 Stewards
- Mailed to 328 nonstewards, same lakes
- Incentive for nonstewards to return their survey

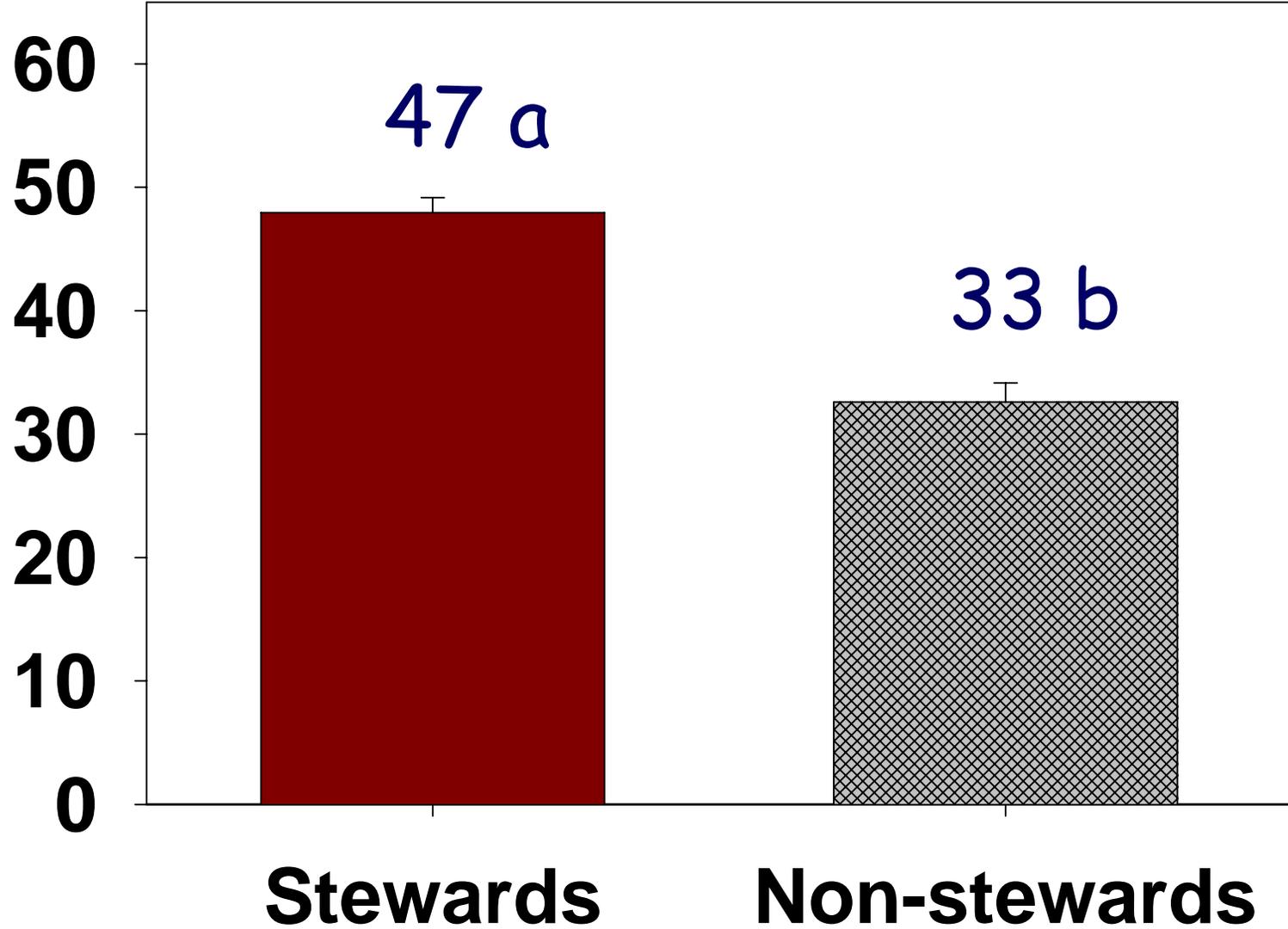


Response

- Stewards:
 - 64 responses or 39%
- Nonstewards:
 - 70 responses or 22%

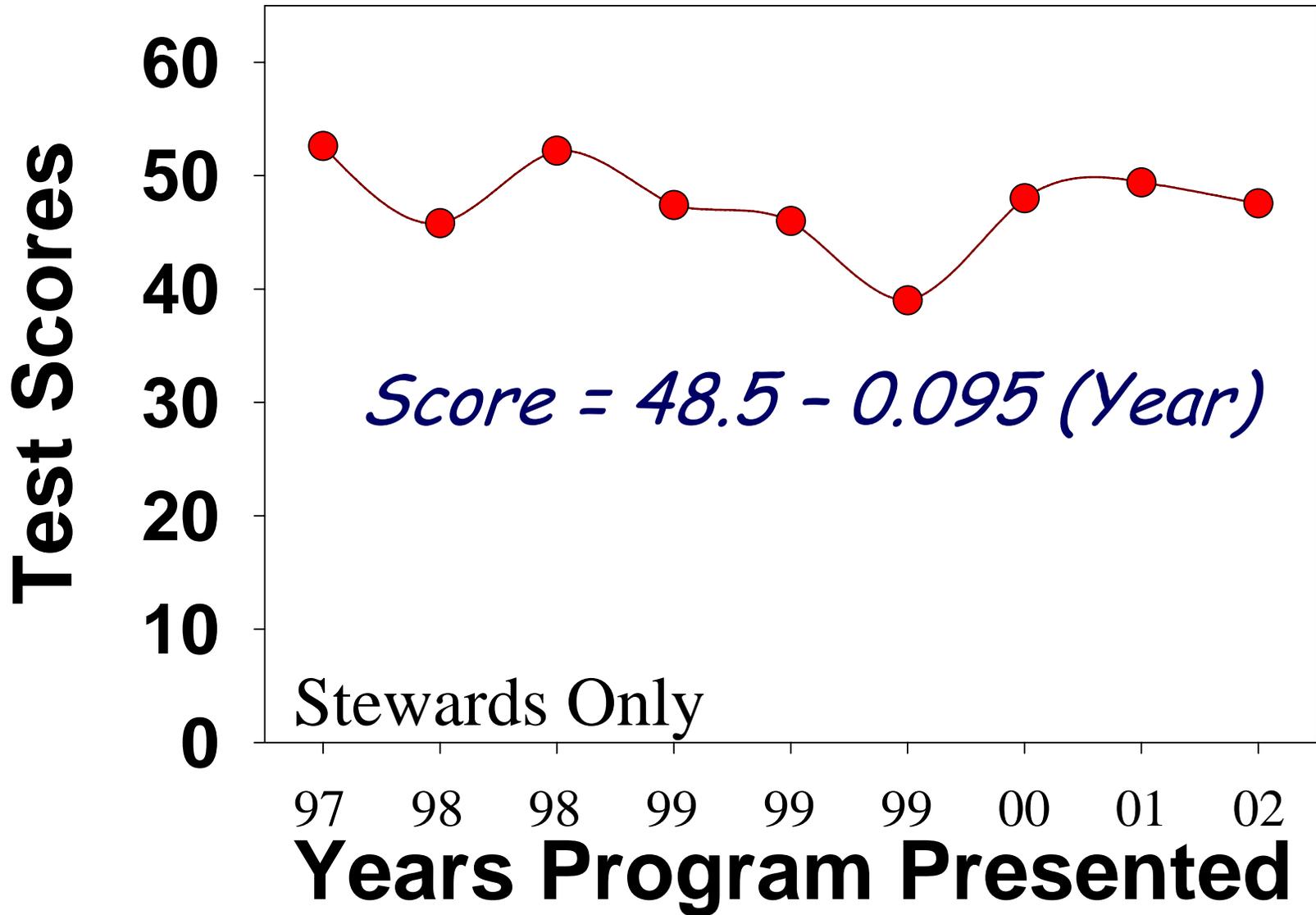
Watershed Program Evaluation

Test Score Averages



Study Participants

Strength of Program Knowledge



Program Goals

- ✓ Increase knowledge from WSP
- Increase community service?
- Change behavior to more lake-friendly land use practices?
 - Telephone survey

Hours	Non-stewards	Stewards
<10	16	3
10 - 20	1	6
20 - 30	1	2
30 - 40		3
40 - 50		2
50 - 100		3
> 100		2

Non-Stewards	Stewards
Jet skis (2)	NPS pollution (5)
Bass	Invasive plants (10)
Ducks and Flooding	Road runoff (4)
Pollution (5)	Development (5)
Don't know (2)	Ignorance (2)

Results

- www.umaine.edu/waterquality
- JOE (accepted for publication)

Conclusions

- * Move more to course-based programming in Extension
- * Validity as educators
- * More potential for impact
- * Opportunities





Healthy Future for Maine Lakes