

# SI Partnership Benchmark Survey

## Participating Lakes

Higgins Lake

Mullet Lake

Lake Leelanau

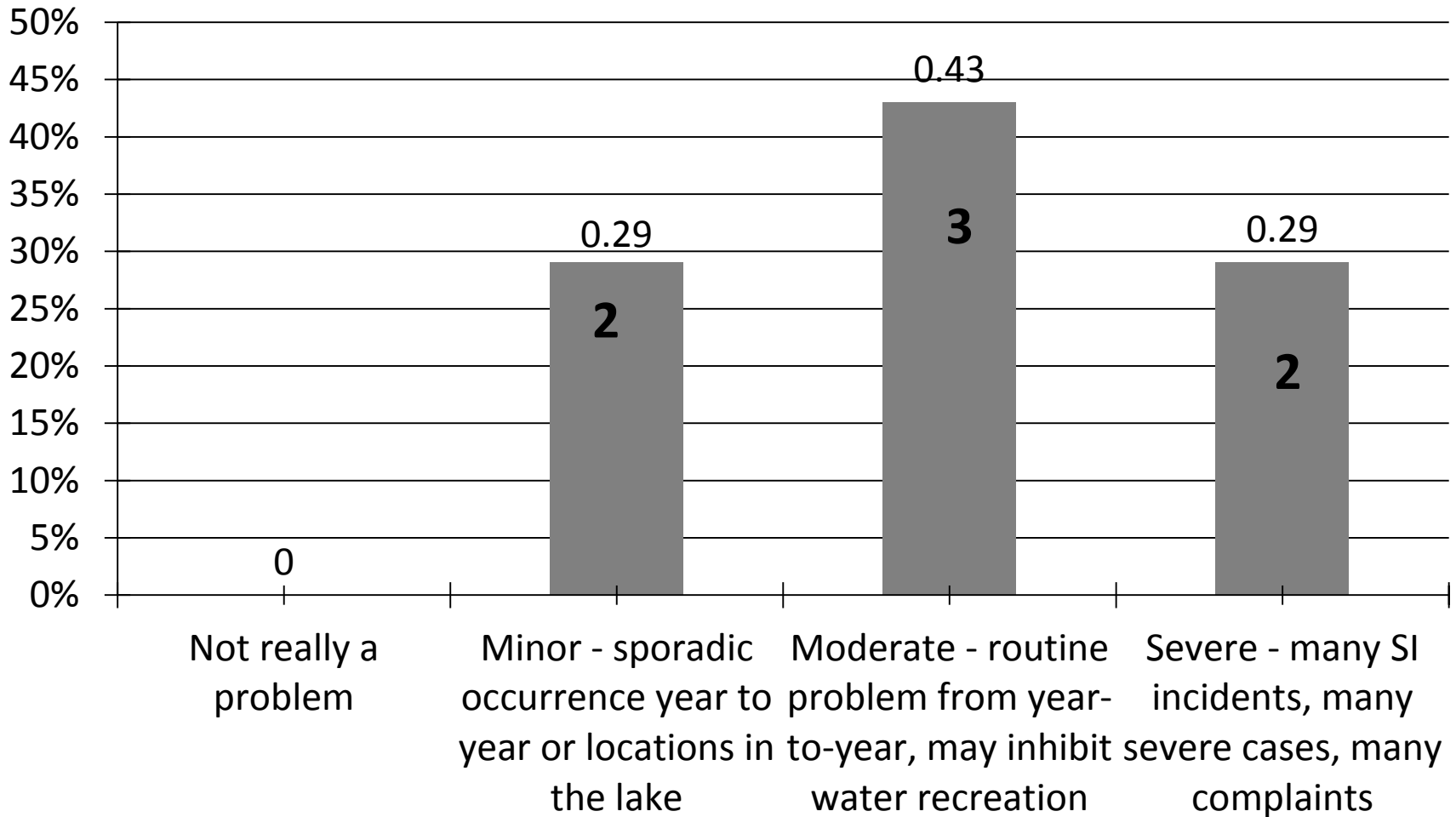
Long Lake

Crystal Lake

Lake Margrethe

Glen Lake

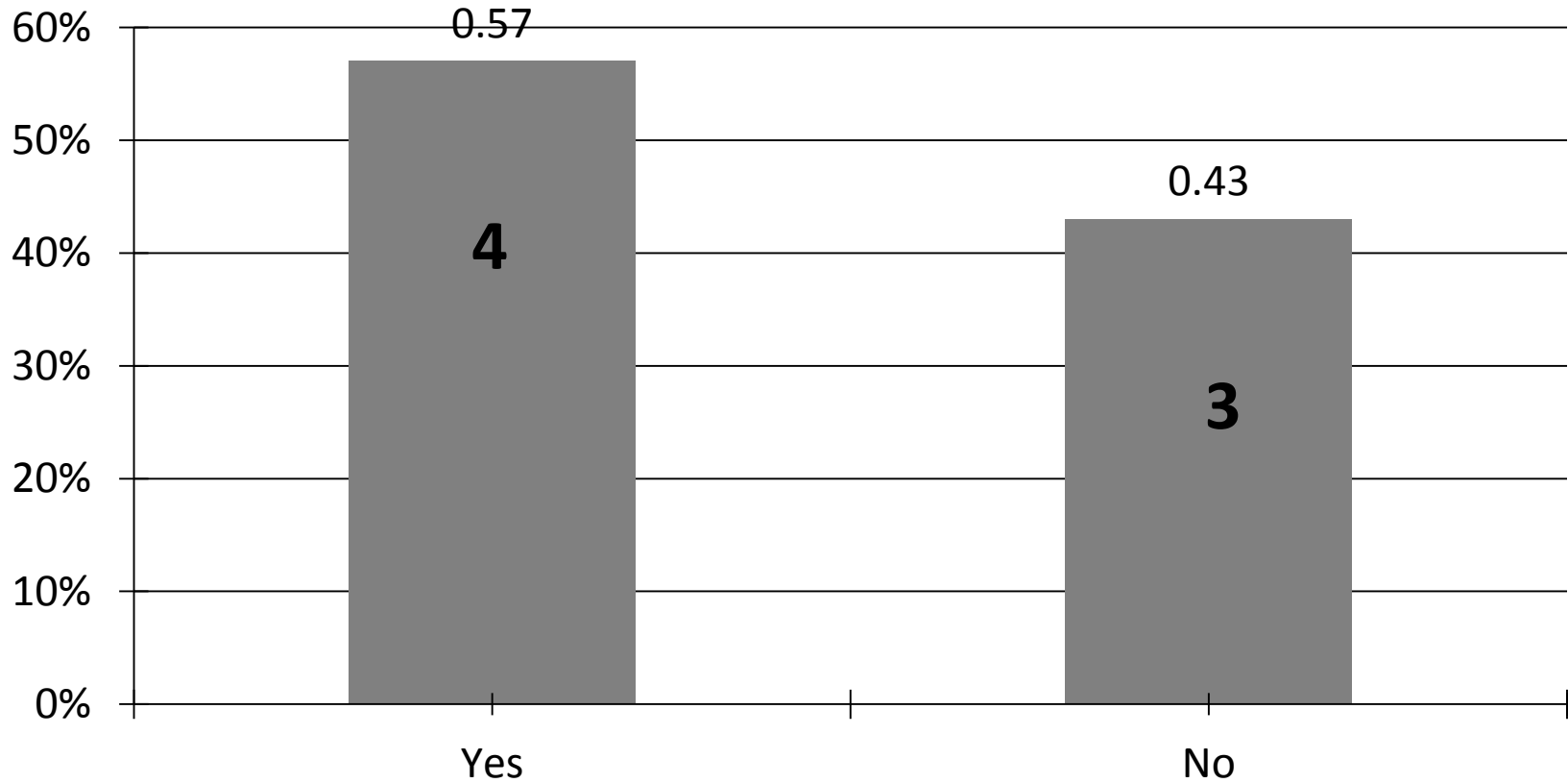
# How Serious is SI ?



# How Serious is SI - Responses

- Severe – Si was a low level issue for decades. Approximately 6-10 years ago it has steadily increased to the point in the last 3-4 years it has reached epidemic proportions & has significantly reduced visitors to the state parks, riparian swimming, and local economy, etc.
- Minor – We get occasional complaints from isolated riparians. No real outbreak in several years. DNR applied CuSO<sub>4</sub> to area of concern (about 1 mi of beach front) and problem went away.
- Severe – Lake divided into 2 basins. North basin has significant SI incidents. Most are severe cases (<100 papules). We receive many complaints. South basin has less reported cases, most are moderate (11-99 papules).
- Moderate – It depends on weather and wind actions. Some years it has been severe, however it seems like the last five years it has not been a big issue. Usually this comes up at our membership meetings and has not for the last two years.
- Moderate – Complaints at Congregational Summer Assembly (CSA) Recreation area (170 families participate) also to President of Crystal Lake & Watershed Association (CLWA) and to Chair of the Crystal Lake Swimmers Itch Partnership (CLSIP).
- Minor – We only hear of one or two people every year.
- Moderate – We do not monitor cases and each case that comes to our attention ends up with moderate to severe cases.

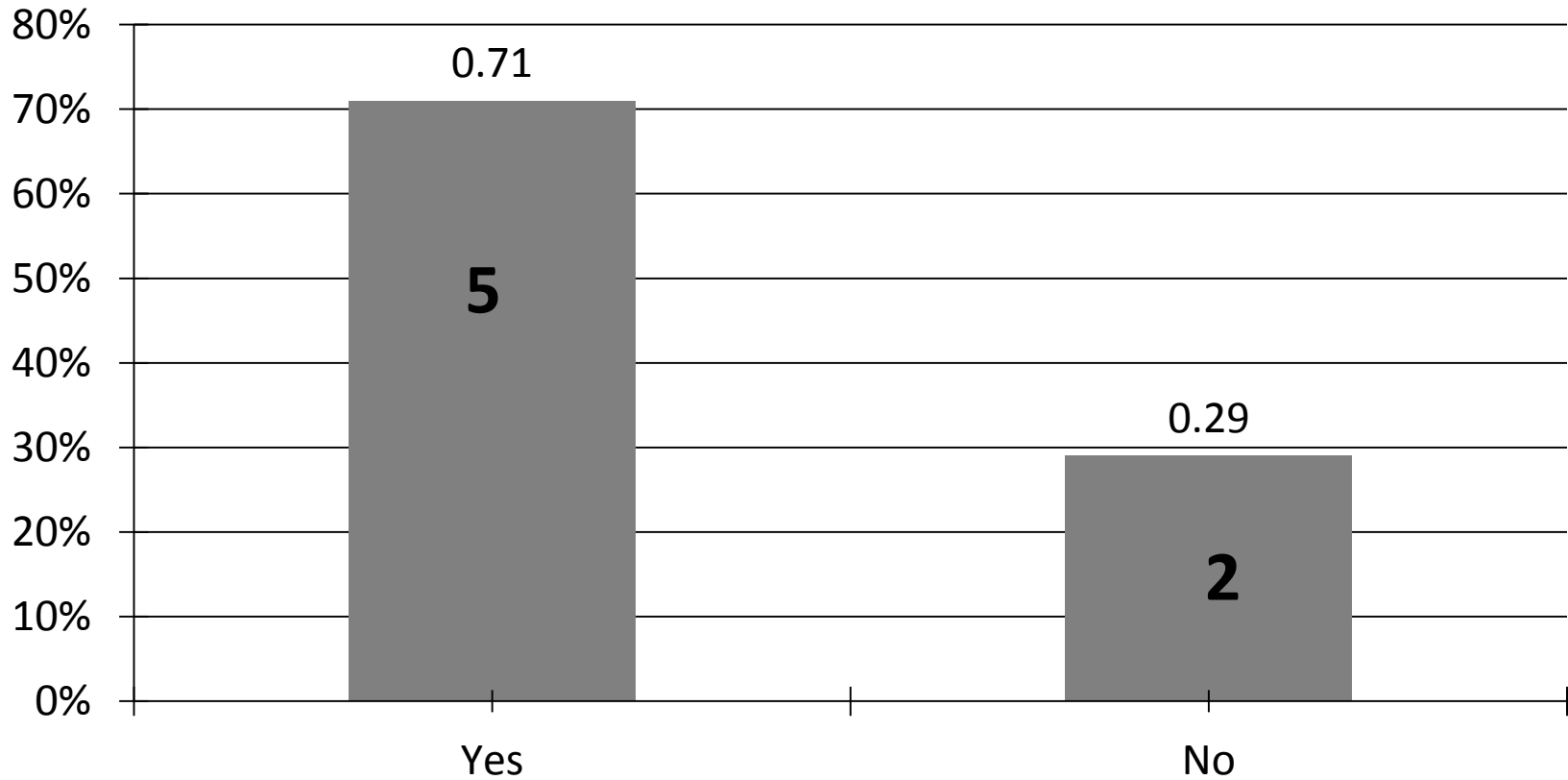
# Have you Conducted SI Research?



# Research Responses

- Yes – We have had Dr. Harvey Blankespoor conduct research and institute preventive measures to reduce the number of merganser ducks over a decade ago (cost is not know to me). In 2014 we have held preliminary discussions with Dr. Curt Blankespoor, Harvey's son, as well as Dr. Ron Remick.
- Yes – Dr. Blankespoor conduct research in in 1990's. Approximate costs \$90,000 over 3 years. Identified common merganser and *Stagnicola emarginata* as vectors.
- Yes – 2012 conducted study regarding effectiveness of Swimmers Itch Guard. Al Flory conducted the research project with assistance from Grand Valley State University – no cost involved in initial study. Study concluded Swimmers Itch Guard was more effective than most products but only about 50% effective and not user friendly.
- Yes – Hope College \$400,000. Determined life cycle of SI along with experimenting with control by trapping and relocating for six years.

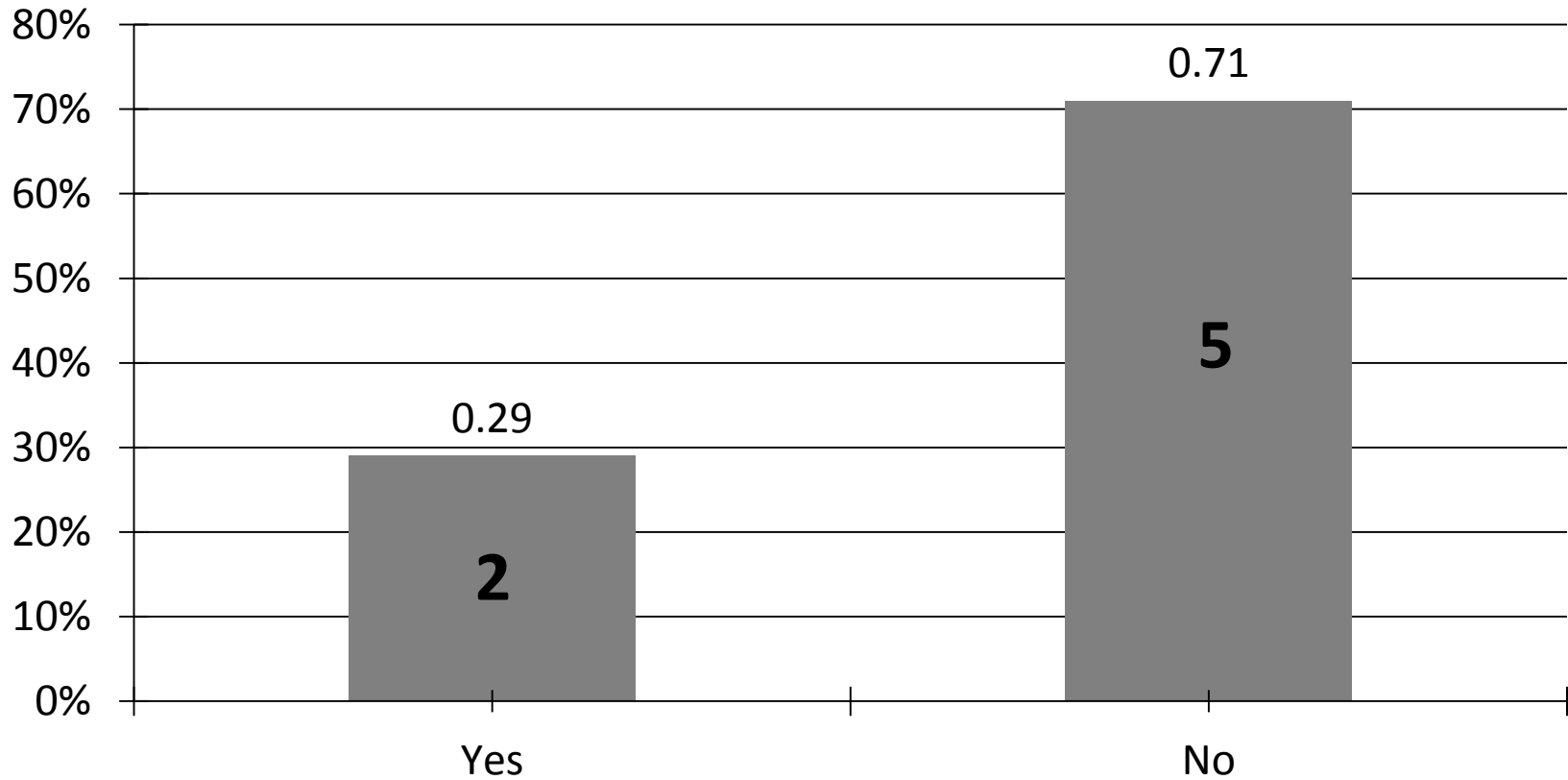
# Do you conduct “Booming”?



# Booming Responses

- Yes – The two townships have organized a Task Force to conduct booming. The number of volunteers number about a dozen. A harassment permit was obtained thru the DNR. My estimate of cost to run this program is several thousand dollars. To my knowledge the only measure of success was anecdotal.
- Yes – Conducted active booming in mid-1990s. Less booming more recently. Approximate costs of \$5,000/year in 1990s.
- Yes – Our membership does not do this, however we do remind riparians: Do “NOT” feed the ducks. We certainly would be interested how other associations address this issue.
- Yes – Pyrotechnic Program commenced spring 2014 with 15 volunteers. Received approval from DNR. Volunteers paid for launchers and ammunition so no cost to CLWA. CLWA may pay for some ammunition costs in the future – no more than \$500 per year.
- Yes – Six people help. ATF permit has been issued. Costs per year would be approximately \$6,000 per year for boat gas, boat costs, shells, permits, etc.

# Have you trapped & removed birds?

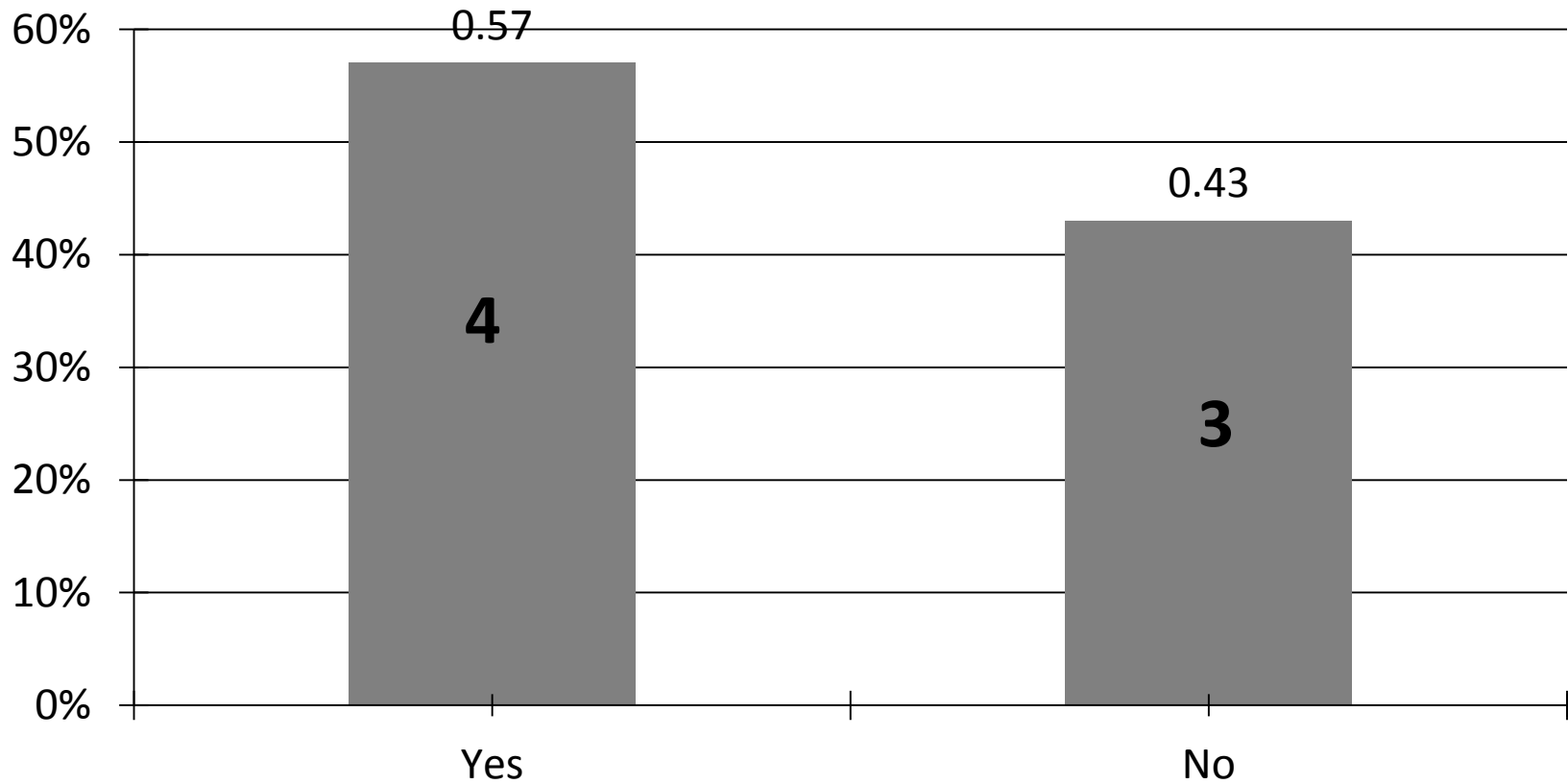




# Trap & Remove Reponses

- Yes – Dr. Blankespoor trapped mergansers in mid 1990's. Cost for 3 years (1993-1995) ~ \$16,000/year. SI incidents still remained but subsided: 67-1993; 63-1994; 35-1995. Dr. Blankespoor again conducted merganser trapping in 2009. Cost of removal ~ \$11,000 for removal of 33 birds. No reporting of SI cases in conjunction with this effort.
- Yes – Approximately 400 mergansers over a six year period of time. Cost to remove were approximately \$40,000 over a six year period of time. Yes, it has been effective, reduced resident population significantly.

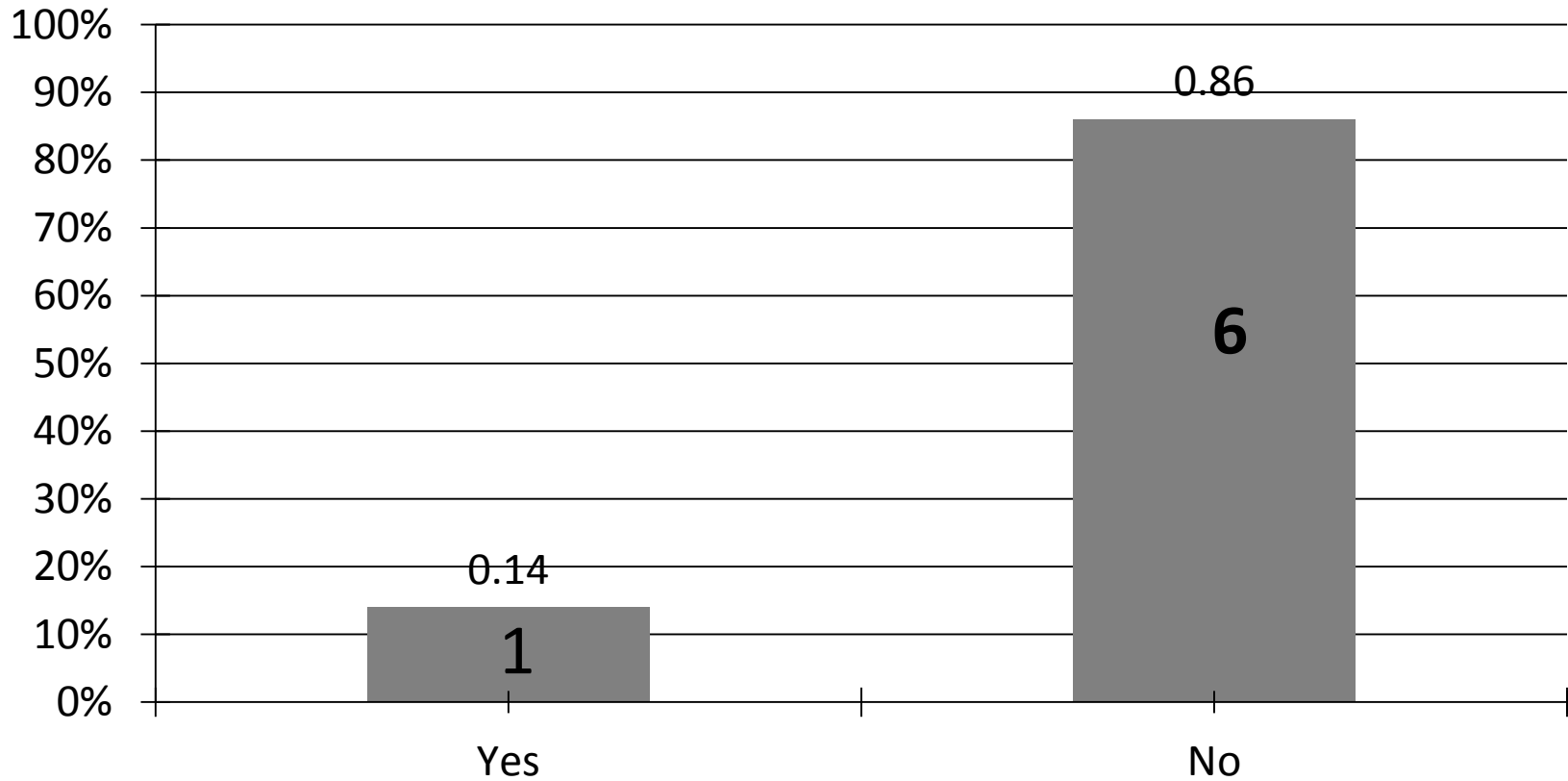
# Is Hunting Used TO Reduce Waterfowl #s?



# Hunting Responses

- Yes – It is done by individuals. Cost and number of birds harvested is unknown.
- Yes – Conducted informal hunting program 2009-2013. Purchased shells to provide local hunters. More than 60 mergansers were harvested for the first couple years, less more recently.
- Yes – Prior to 2014 paid approximately \$1,000 per year for individual hunters. For 2014 recruited volunteer hunters at no cost. This program has been in effect since 2001. The number killed has consistently dropped from 200 per season to 40 in fall 2013. We feel it's been an effective program but hard to judge.
- Yes – I clicked yes, because we have a significant number of duck hunters, but we as an association do not sponsor it. I have no idea how many are harvested, but our population seems less over the last 10 years.

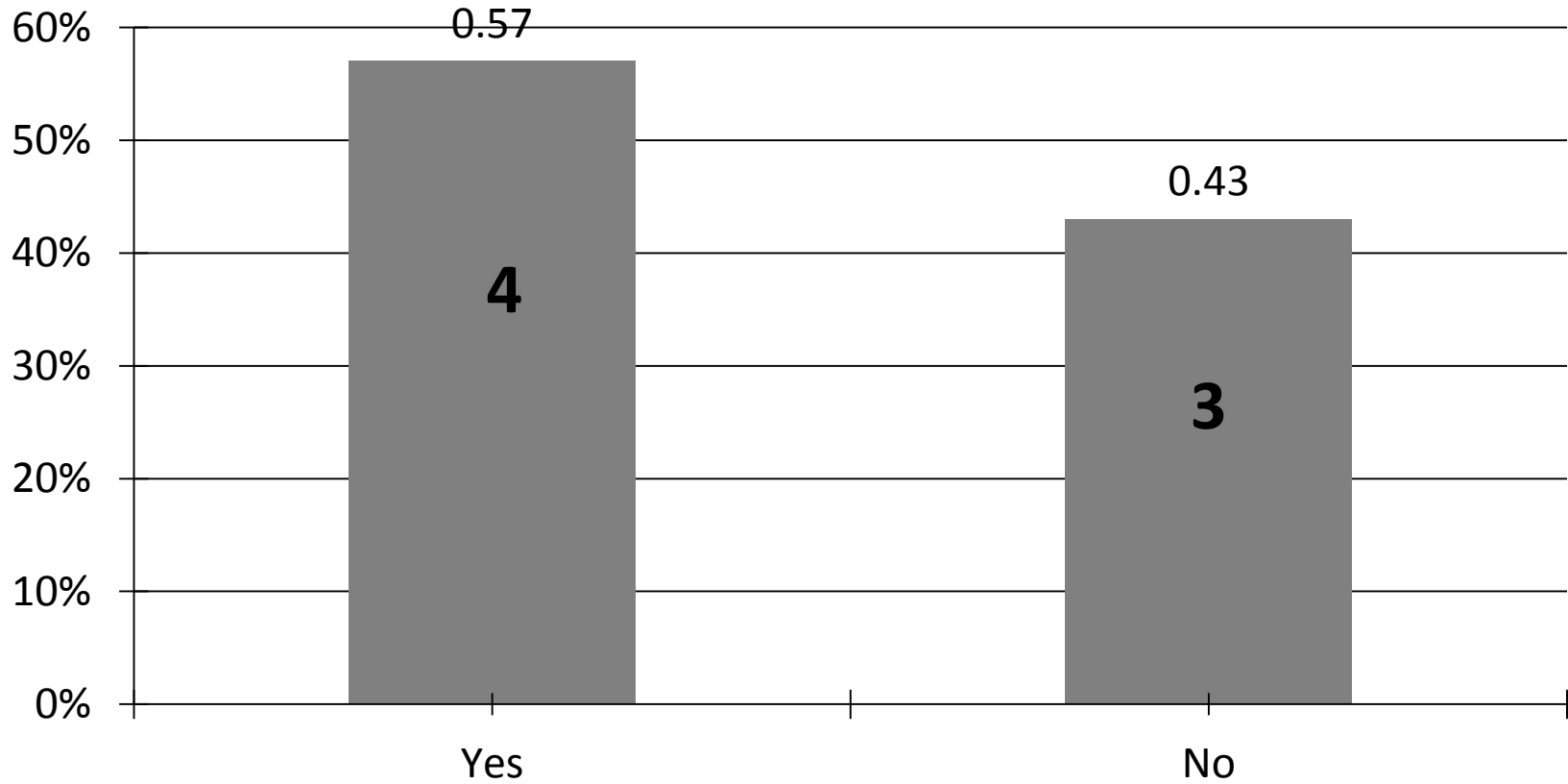
# Do You Remove Or Disturb Snails?



# Snail Responses

- Yes – Drag a section of chain link fence on bottom of lake behind a boat. Received approval from MDEQ. Hard to determine if activity reduced SI. Summer of 2015 will tally snail count; i.e. 2 foot by 2 foot area before raking and count after raking to measure effectiveness of moving/killing snails from swim areas.

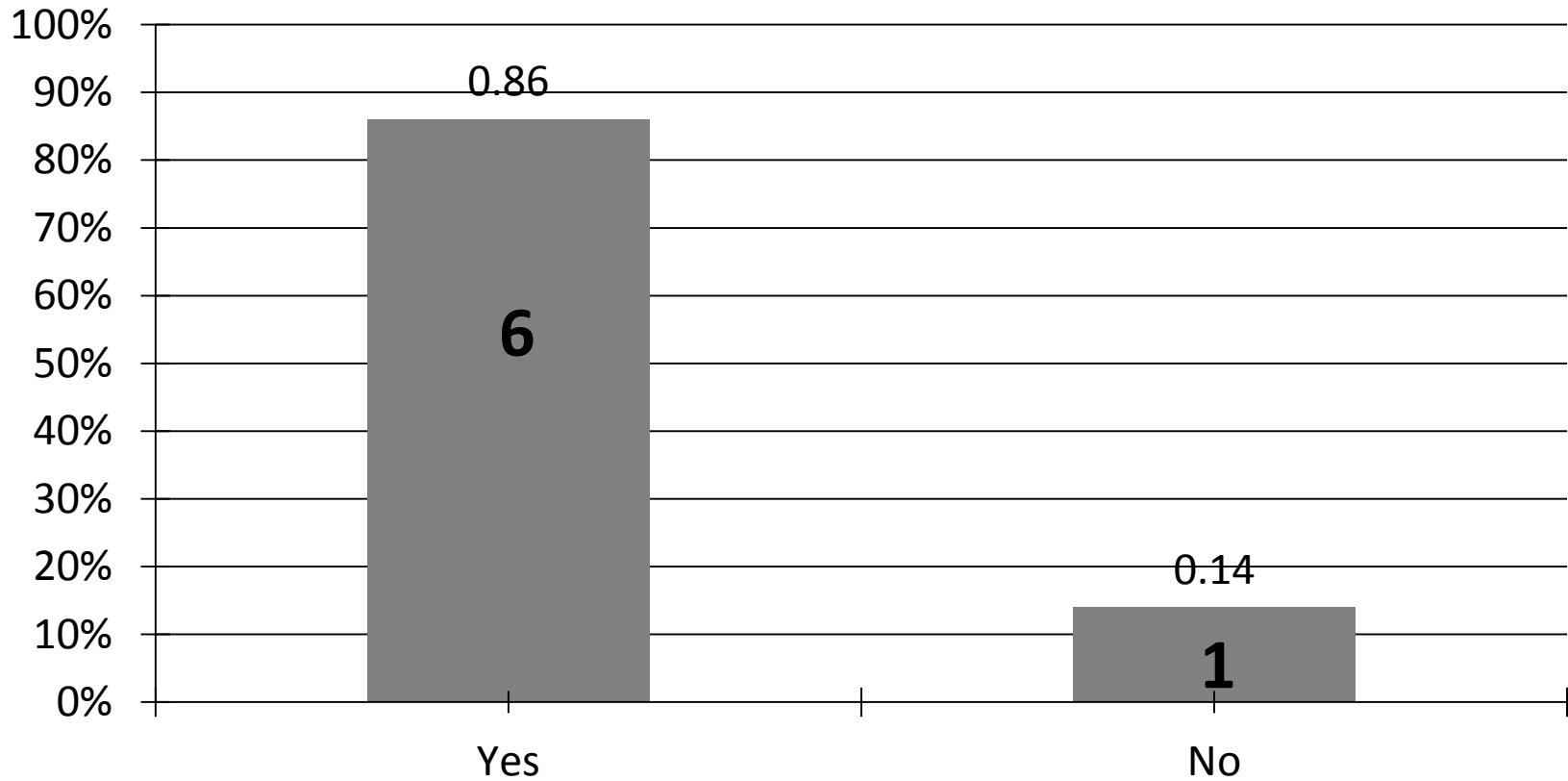
# Have You Tested SI Repellants?



# Repellant Responses

- Yes – We have done studies on the effectiveness of repellants. We have only advertised the fact the various creams, lotions, are available and can be purchased locally. We have also heard of “home brewed” repellants people are using with varied success.
- Yes – Tested a new repellant product in 2014. Volunteer results were inconclusive. One exposure test showed very positive results (125 pustules on placebo leg & 10 on product treated leg). Plan more tests in 2015 with eye towards commercialization. Cost to date approximately \$500.
- Yes – When I was President, I received information on Swimmers Itch Guard. I bought some jars and have given them to people to use. I have received good feedback from those who have used the product.
- Yes – Described above. May do additional test summer 2016.

# Do You Use A SI Reporting System?

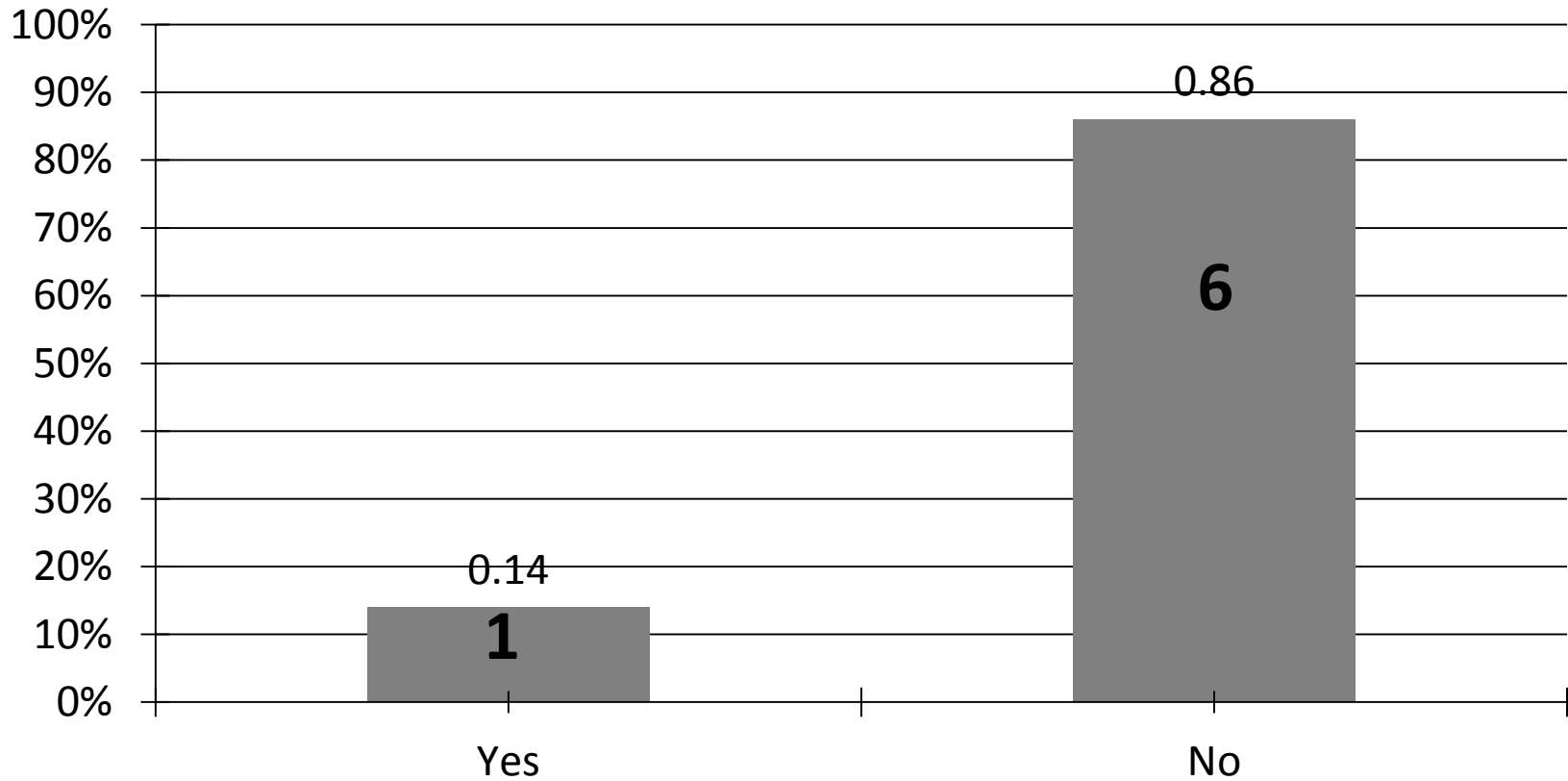




# Reporting System Responses

- Yes – The Twp’s Task Force has a phone number for people to call in their complaints as well as forms to submit to the Twp to document SI incidents.
- Yes – MAPS (Mullet Lake Pres Society) has a volunteer group of Beach Watchers for various areas—we have 28 miles of shoreline-and they usually use phone to reach the Board member who is Beach Watcher Committee Chair.
- Yes – Cases reported to telephone hotline 1993-1995. Reinstated an online reporting in 2012. Approximate costs \$250. Information communicated via newsletter and on website.
- Yes – We utilize the Congregational Summer Assembly (CSA) Recreation Program (170 families participate) for our data collection. Data is collected by life guards and other paid employees. No cost involved. Data collected; i.e. wind direction, water temperature, cases of SI by time of day, etc is collected on hard paper sheets on daily basis. Data is collected at end of summer – 6 week period. Data is then interpreted in report form by Al Flory. Information then distributed to SLSIP, CLWA and CSA.
- Yes – We have informal system...blogging on our website and on our Facebook page. We pay about \$45/year for our Weebly website. We have a member who sends out two newsletters per year to all members; ½ by email, ½ by snail mail.
- Yes – Our prescription shop kept track of cases for four years. Also cases are tracked by using swimmer’s itch website.

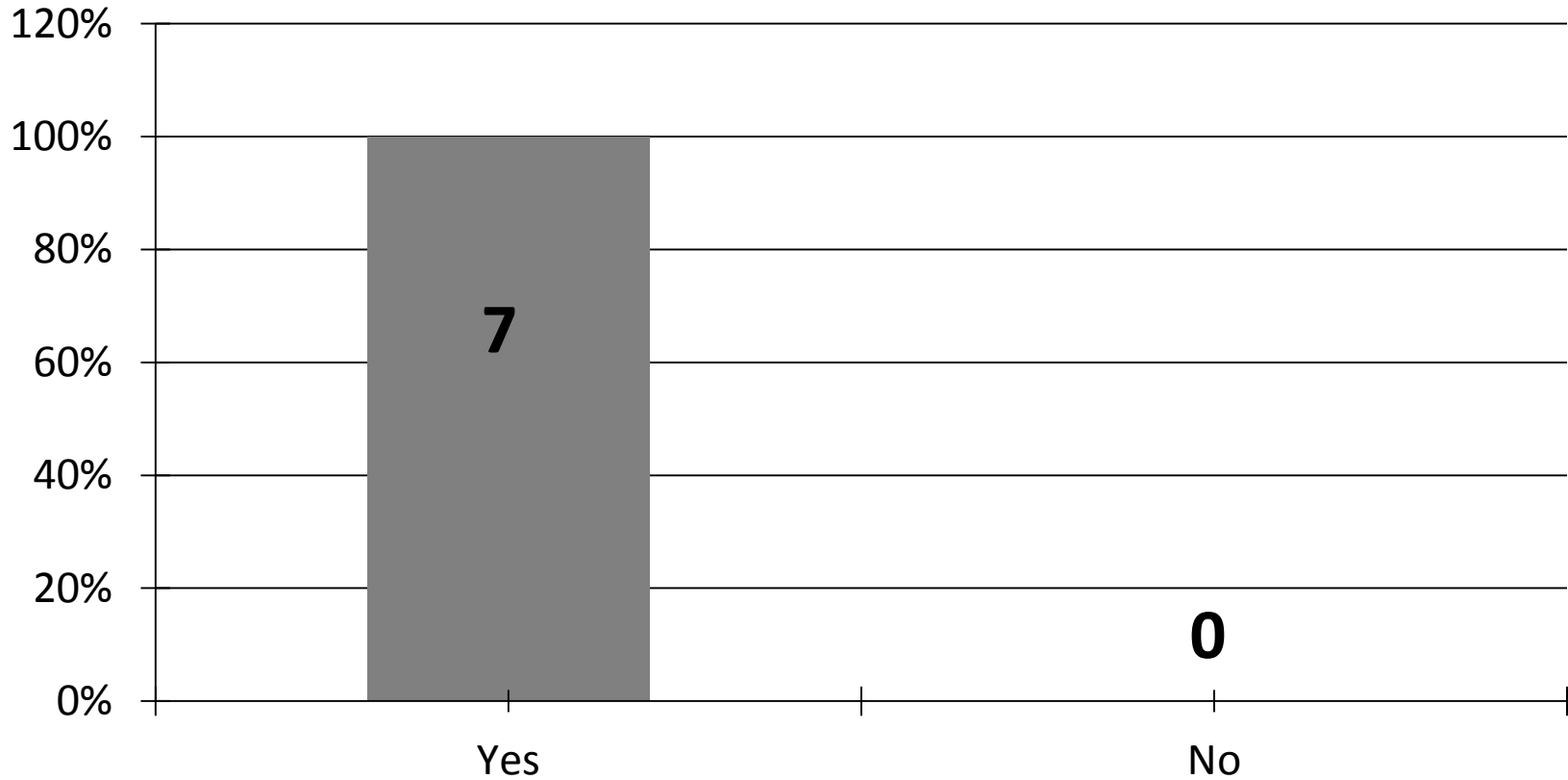
# Do you post signs warning of SI?



# SI Signage Responses

- Yes – Approvals are required by villages/cities, clubs, camps where signs are posted on their beaches. Costs approximately \$500. Effectiveness hard to determine.

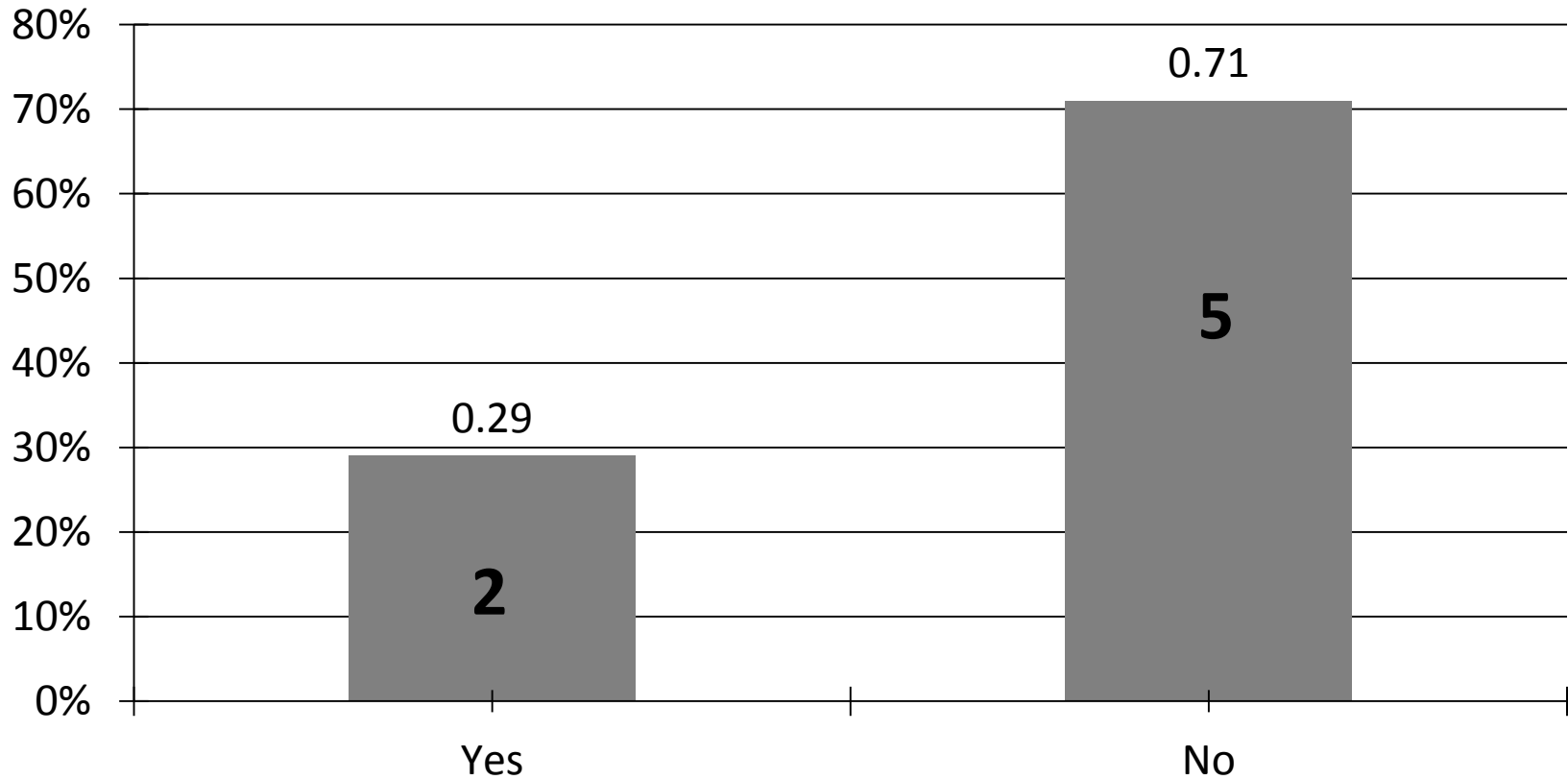
# Do You Provide SI Preventive Information?



# SI Preventive Info Reponses

- Yes – SI educational materials have been made available to the public by the Twp’s TF. I believe these materials are also located at the two State Park facilities on our Lake.
- We have in the past used Newsletter—nothing recently.
- Newsletters, email blasts, and websites are used to communicate SI issues.
- Yes – Most of our information is through newsletters and our two membership meetings. We give the basics at the meetings for prevention. Use a good sunscreen, towel down vigorously each time you come out of the water.
- Yes – We communicate as much information about SI as space permits. CLWA newsletters, webpage, brochures, articles in local newspapers.
- Yes – We used the DEQ document, Aquatic Nuisance Control & Remediation Action Unit, October 2005, to post a short article in our Environment section ([www.lakemargrethe.weebly.com](http://www.lakemargrethe.weebly.com)) and then have a downloadable option for the full report.
- Yes – We produced a Youtube video.

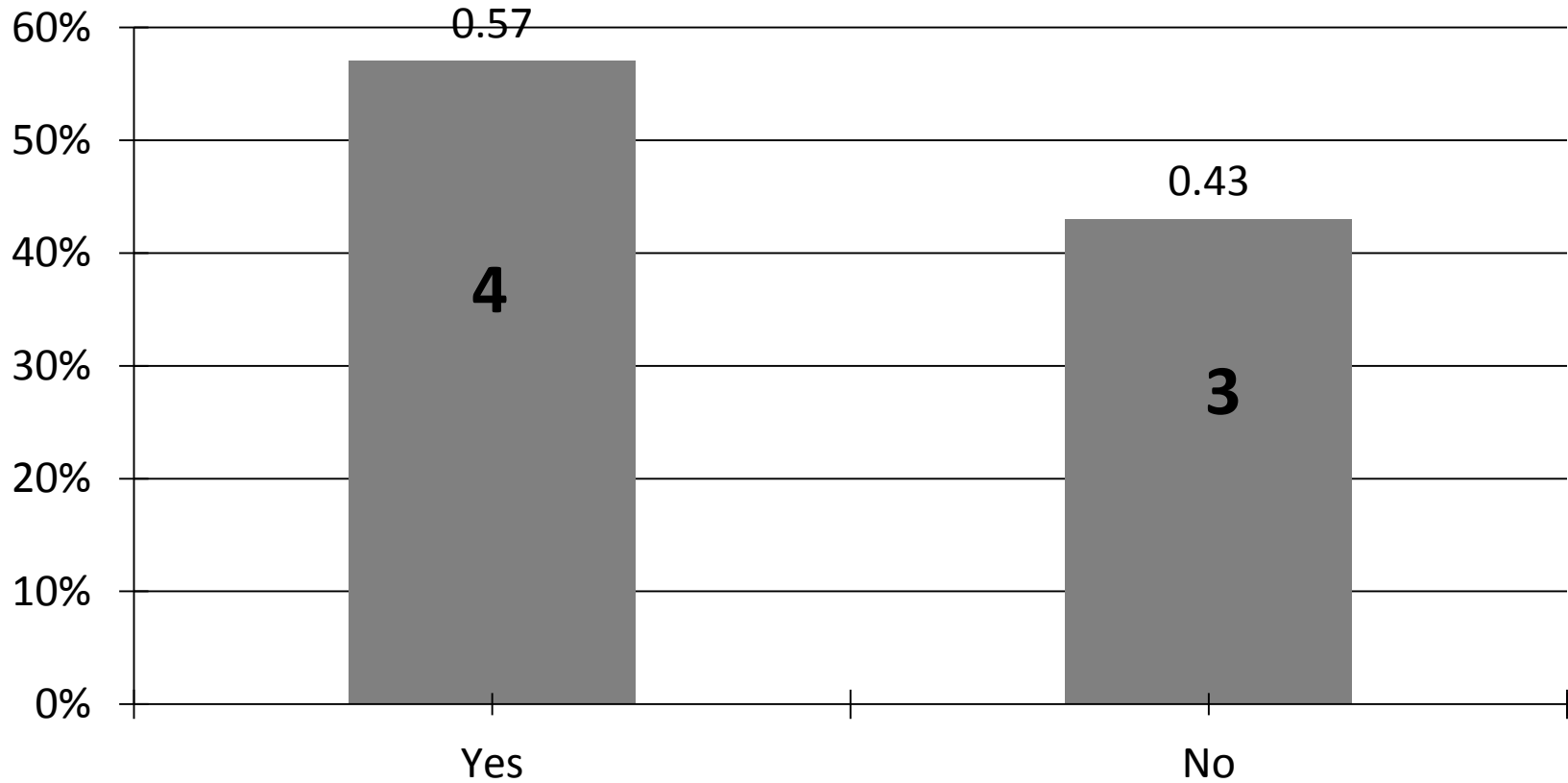
# Have You Conducted SI Economic Impact?



# SI Economic Impact Responses

- Yes – Nothing formal, just anecdotal
- Yes – Economic impact conducted several years ago. Local visitors bureau provided \$142 per day as tourist expenses. Surveyed lost visitor days as result of visitors avoiding the area because of SI cases. Lost visitor dollars ranged from approximately \$200,000 to \$600,000. This is very rudimentary estimation process.

# Have You Talked With Legislators About SI?

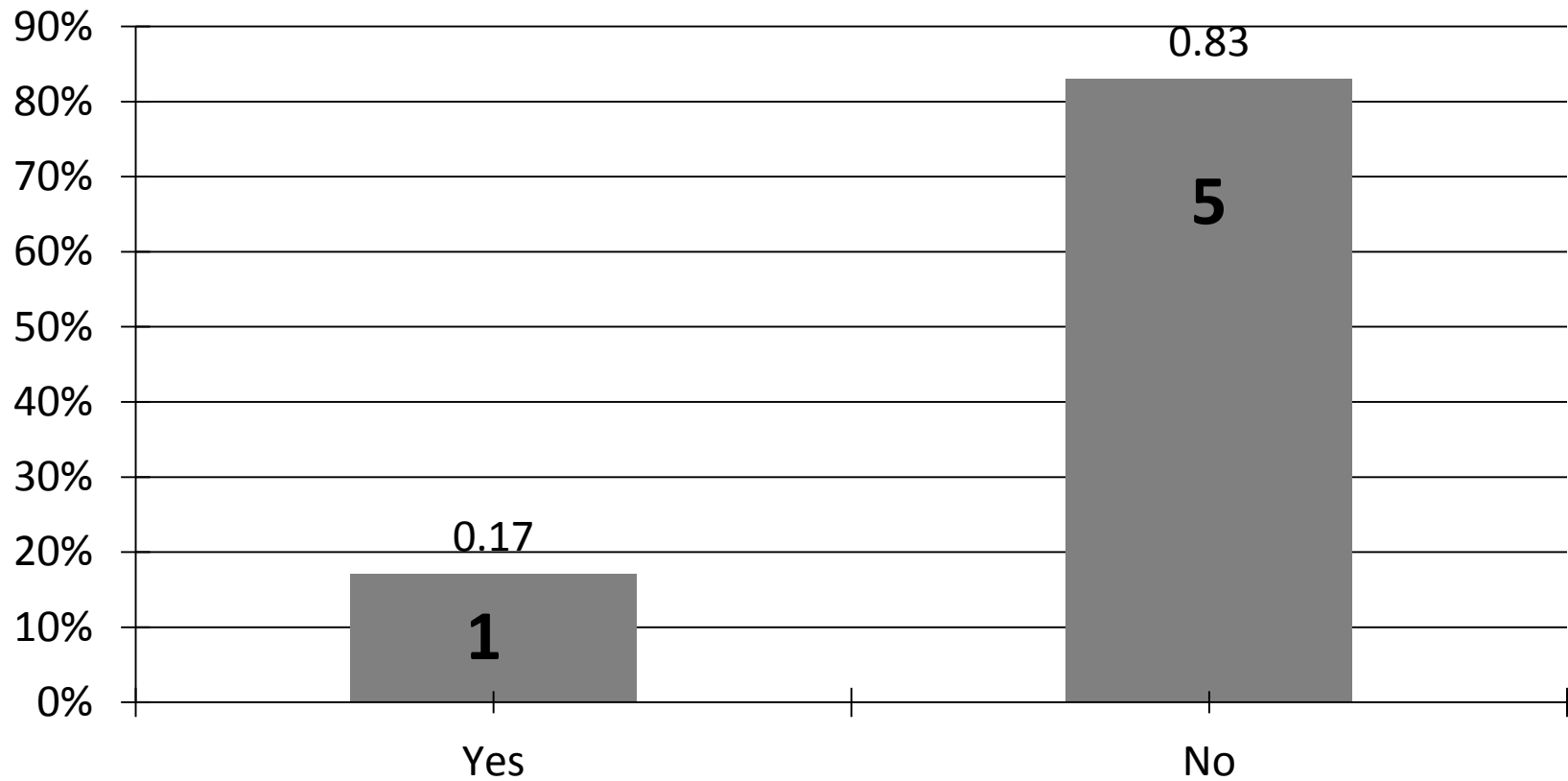




# Legislative Reponses

- Yes – We are in constant communication with Senator Booher and Representative Rendon, both of who have attended several of the Twp’s SI TF meetings this year. The outcome to date has been limited to increasing their awareness of our SI issues.
- Yes – State legislators and regulators were involved in the 1990’s. Meetings were primarily informational. No help was provided.
- Yes – Assistance in gaining approval from DEQ regarding raking of bottom of swim areas for snails. State level Senator Booher. Positive results.
- Yes - We only had one meeting with no followup.

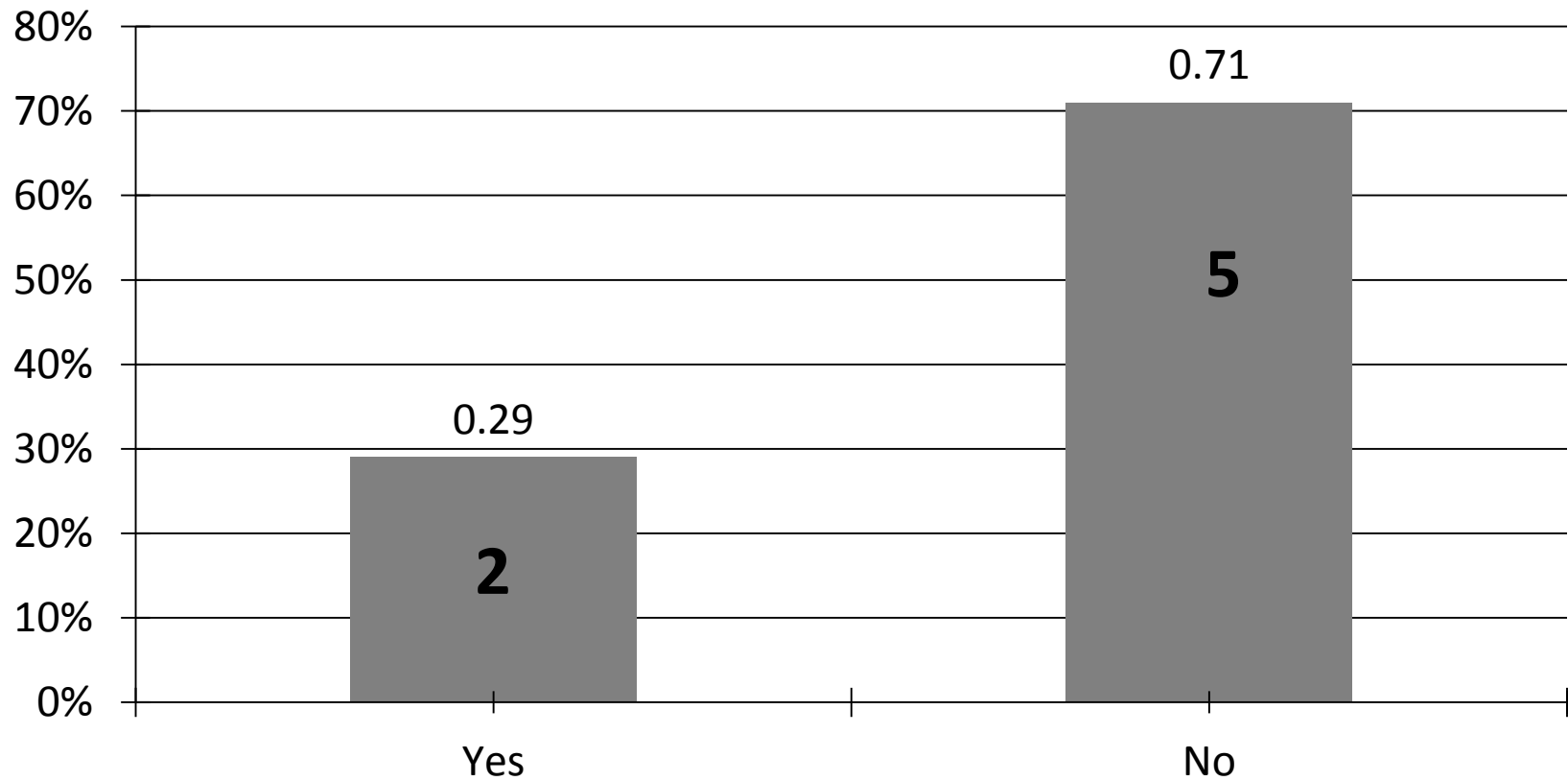
# Have You Used Lobbying Firms For SI



# Lobbying Responses

- Yes – We secured a \$240,000 grant from the state to do research in the 1990's.

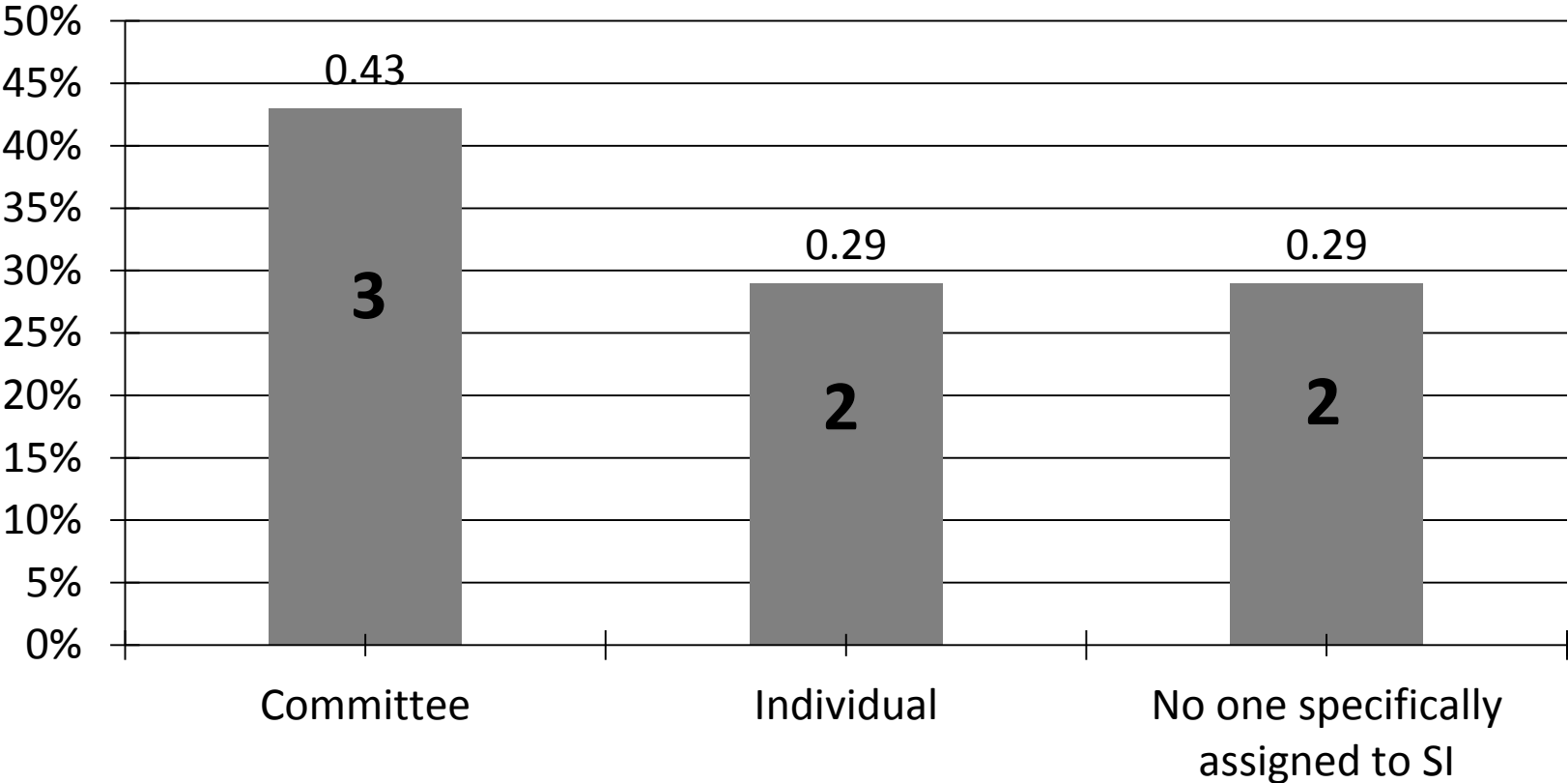
# Did You Do SI Activities Not Covered Above?



# Unlisted Activity Responses

- Yes – The Higgins Lake Environmental and Economic Coalition (HLEEC) used member funds to purchase a total of six 3D bald eagle decoys and 10 bald eagle kites. These deterrents were deployed randomly around the lake in the hopes they would have a positive impact on reducing the number of ducks landing on the lake. The results were mixed.
- Yes – About 20 years ago we made a concerted effort to be sure all members knew to stop feeding ducks and frankly to make them uncomfortable around people. We had great success in informing members and there has been significant negative feedback if anyone is seen feeding ducks.

# How/Who Addresses SI For You?



# How/Who Addresses SI Responses

- Committee – In addition to the Twp’s SI TF & HLEEC activities mentioned earlier, the Higgins Lake Property Owners Assn is in the process of establishing a northern Michigan SI Partnership comprised of representatives from approximately a dozen lakes experiencing SI complaints. Dr. Curt Blankespoor is central to this effort. A steering committee will be formed and they will establish a budget in the near future for implementation of a control plan for Higgins Lake, in conjunction with Dr. Curt Blankespoor, for implementation in the spring of 2015.
- No One Assigned – It is not a big problem for Mullet Lake.
- Individual – The early and mid 1990’s activities were managed by a SI Committee with several members. Currently one person (biologist) manages SI issues, with SI budget of approximately \$900.
- No One Assigned – Our information is in newsletters and at our membership meetings. If this becomes a big issue, our Board would select a committee to address how to control the problem.
- Committee – CLSIP 15 members – Reports to CLWA. CLWA -12 Board members-2015 budget approximately \$5,000.
- Individual – We have an environmental director on the board (me-Sandra Michalik). But SI has not really been a problem.
- Committee – 8-10 on water quality committee. Budget of \$7,000 per year. Committee reports to Board of Directors.

# Projects Partnership Could Undertake

- 1) Sharing of information-what has been tried, what has worked & what has not. 2) Fund additional research on reducing specific snail population that serves as the parasite breeder. 3) Determine an effective and legal way to make the lake “unattractive” to the common merganser. 4) Obtain necessary permits to legally remove merganser eggs and destroy nesting sites.
- 1) Michigan & several USF&W refuges have spring wild turkey hunts. Explore possibility of having spring (duck/merganser) season. 2) Establish dialog with USDA Animal & Plant Inspection Service (APHIS) to assist with mergansers. 3) Support repellent product initiatives.
- The biggest initiative would be the best preventive of control of SI.
- 1) Legislative/Governmental (DEQ/DNR) education leading to influence regarding funding of products testing. 2) Influence/leverage at the University/Pharmaceutical/Business levels to fund/test regarding non-product solutions to SI. 3) Support/create study regarding economic impact on communities/state due to SI.
- We are keenly interested in a more effective and pleasant to use topical cream or “pill” or “diet” or “vaccine” that would reduce or eliminate contacting swimmers itch.



# Your Expectations for Partnership

- Continued scientific research is the key to effectively reducing SI incidents. Partnerships with other lakes who have had some success in reducing the SI is also a key. We hope a statewide SI initiative will bring pressure on our state legislatures to provide badly needed research funding.
- Hope to get information on what is being done by those with a problem so we can deal with it if necessary.
- Explore ways the lake/home owners associations can combine effort to effect positive progress towards combating swimmers itch.
- It is important to get lake associations involved with each and every problem they have. A combined effort helps to get ideas to combat this problem which will be beneficial for all lakes.
- This is the next step in creating an organization that will enable us to exert the influence and leverage necessary to find answers to SI.
- I want to be sure I know who to call in case we do have problems in the future and simply love the idea of meeting other lake association members. It would be nice to have a list of people to contact for other issues as well, like milfoil.
- We want to fully explore the aspect of preventing swimmers itch.