Lake Huron Citizens
Fishery Advisory Committee

Established by the Michigan Department of Natural Resources to improve and maintain fishery resources of Lake Huron through better communication and partnership.

Lake Huron Citizens Fishery Advisory Committee
Jay's Sporting Goods, Inc., Clare, Michigan
Tuesday, January 31, 2017
Approved

Attendees: Jim Baker, Dave Borgeson, Doreen Campbell, Lance Campbell, Dave Caroffino, Randy Claramunt, Dave Clements, Bryan Darland, Jim DeClerck, Larry Desloover, Dennis Gulau, Tom Hamilton, Ji He, Lindsey Henski, Tom Heritier, Jim Johnson, Rick Kretzschmar, Frank Krist, Steve Lepeak, Scott Lutz, Alex Maguffee, Ken Merckel, Bob Miller, Eric Morrow, Gary Nelkie, Tess Nelkie, Judy Ogden, Dustin Phelps, Bob Reider, Brandon Schroeder, Julie Shafto, Dave Shaw, Aaron Switzer, Randy Terrian, Terry Walsh, Gary Whelan, Tod Williams, Tyler Williams, Todd Wills.

Welcome and Introductions: Frank Krist called the meeting to order. Attendees introduced themselves.

Review of the Chinook salmon biology and management options in relation to other trout and salmon species; Randy Claramunt, DNR Lake Huron Basin Coordinator:

Several aspects of the Chinook salmon program were considered and after each point was reviewed, the participants were asked their opinions with TurningPoint software with the assistance of Brandon Schroeder. This allowed each participant to digitally enter their response with a clicker and the results were immediately projected on the screen. Below, the points reviewed are grouped with the discussion highlights and a TurningPoint question and results.

Before Discussions Began: To determine the views of the participants before the discussions began, the question below was asked:

TurningPoint Question: Based on your experiences, how do you feel about the DNR's current Chinook salmon stocking program in Lake Huron?

Results:

A – Increase stocking, a good investment of my license dollars	13%
B – Keep about the same stocking plan, a good investment	42%
C – Decrease stocking, my dollars could be better spent	19%
D – Cease stocking, my license dollars could be better spent	10%
E – Unsure	16.3%

Point 1: Maintain the egg take operations at the Swan River Weir by stocking 375,000 Chinook salmon annually.

Discussion:
The egg take for the Chinook Salmon Program is primarily conducted at the Little Manistee and Swan River Weirs. The Boardman, Plate and Medusa weirs serve as backup. Since the zebra and quagga mussel invasion, the Swan River Weir returns have been stable and, most recently, higher than the other weirs. During the last 2 years, the eggs from the Swan River Weir were needed to raise enough Chinook Salmon for the program. Having at least 2 egg take sources is important to ensure the egg requirements are met, especially since Chinook salmon weir returns have been at low levels.

The discussion then centered on how the Chinook salmon stocked in Lake Huron provided reliable fisheries for both Lake Huron and Lake Michigan. The recovery of the coded wire tags in the heads of Chinook salmon has provided much data on the survival at specific stocking sites and the migration patterns of the fish.

During the spring and summer, the majority of Chinook salmon travel to Lake Michigan and feed in Green Bay and the adjacent waters of northern Lake Michigan. A smaller number of those Chinook travel along the Michigan side of Lake Michigan where some are also caught. During late summer and fall, a large number of Chinook salmon return to Lake Huron and are caught by Tribal commercial fishers in the north, the recreational fishery throughout the northern area and at the Swan Weir. The percentage of the Chinook salmon caught and originating from the Lake Huron stockings vary from year to year but approximately ½ are harvested in Lake Huron and ½ in Lake Michigan.

The Chinook salmon stocked in Lake Huron appear to migrate to Green Bay because that area of Lake Michigan is more productive and contains more forage fish. Despite this higher productivity, few Chinook salmon stocked in Green Bay or even along the Michigan shore of Lake Michigan survive so the Lake Huron fish that travel there are providing fishing opportunities for both the Wisconsin and northern Michigan waters of Lake Michigan. Stocking Chinook salmon in Lake Huron is a win/win situation for both Lakes Huron and Michigan anglers.

It was also noted that Chinook salmon caught in Lake Huron are beginning to eat gobies and there is a chance that over time the Chinook salmon will continue adapting to the new food web and increase significantly in abundance.

TurningPoint Question: There are currently 375,000 Chinook salmon stocked at the Swan River Weir for the primary purpose of maintaining egg take operations. Based on the returns to the weir and the stated objective, which management option would you prefer for the Swan River weir?

Results:

A – Reduce all stocking	3%
B – Reduce stocking by 50%	3%
C – Maintain the current level of stocking	65%
D – Increase stocking by 50%	16%
E – Increase stocking by 100%	3%
F – Not sure/need more information	10%

The results show that 84% of the participants wanted to maintain or increase Chinook salmon stocking at the Swan Weir.

Point 2: Provide a return fall fishery or seasonal fishery to a port or river with good public access and interest from anglers by stocking 65,000 Chinook salmon in the Cheboygan River.

Discussion: Creel data from 2016 collected at the Cheboygan River in September showed that over 1,000 Chinook salmon were harvested. There are few sites along Lake Huron that provide Chinook salmon fishing opportunities for shore anglers. This fishery draws anglers from many states around the country and it is important to the community. There is extensive public land located along the river and adjacent to the dam that provides access for shore anglers. In addition, there are excellent boating launching facilities near the mouth of the river.

TurningPoint Question: State your First Choice. There are currently 65,000 Chinook salmon stocked in the Cheboygan River to maintain a seasonal fall fishery. Based on the returns to the river fishery and the stated objective, which management option would you prefer for seasonal fishing management?

A – Reduce all stocking for seasonal fisheries	3%
B – Reduce stocking at Cheboygan	0%
C – Maintain the current level of stocking	65%
D – Increase stocking only at Cheboygan	13%
E – Increase stocking at other ports also	10%
F – Not sure/need more information	10%

Discussion Continued: Participants discussed alewife survival in Lake Michigan and it was noted that even though Lake Huron has few alewives it has an excellent diverse fishery. The news media often reported during the recent public debates that the Lake Huron fishery crashed. The opposite is true with Lake Huron having an excellent diverse fishing that includes lake trout, Chinook salmon, steelhead, Atlantic salmon, pink salmon, walleye, yellow perch, smallmouth bass and others. It was mentioned again that gobies are more often appearing in the stomachs of Chinook salmon caught in Lake Huron. As long as Chinook salmon are present, then there is a chance that the fish will continue adapting to the new food web.

TurningPoint Question: Same question as above but state your Second Choice: There are currently 65,000 Chinook salmon stocked at the Cheboygan River to maintain a seasonal fall fishery. Based on the returns to the river fishery and the stated objective, which management option would you prefer for seasonal fishing management?

A – Reduce all stocking for seasonal fisheries	0%
B – Reduce stocking at Cheboygan	6%
C – Maintain the current level of stocking	32**%**
D – Increase stocking only at Cheboygan	26%
E – Increase stocking at other ports also	26%
F – Not sure/need more information	10%

Point 3: The 2000 Great Lakes State/Tribal/US Fishing Consent Decree requires that 250,000 Chinook salmon be stocked at Nunns Creek.

Discussion: The goal of this fishery is to provide commercial fishing opportunities for the Tribal commercial fisheries during late summer and fall. The current agreement will expire in 2020 and

preparations for negotiating a new agreement are ongoing. It was reemphasized that even though the majority of the fish stocked at Nunns Creek move into Lake Michigan, about 50% return later in the season and contribute to both the Tribal and recreational fisheries in Lake Huron.

TurningPoint Question: There are currently 250,000 Chinook salmon stocked at Nunn's Creek per legal obligations from the 2000 Great Lakes Consent Decree. Based on the premise for this stocking, which management option would you prefer post 2020?

A – Reduce all stocking	8%
B – Reduce stocking by some proportion	4%
C – Maintain the current level of stocking	27 %
D – Move some to other sites to create fall fisheries	27%
E – Move all fish to other sites to create fall fisheries	15%
F – Not sure/need more information	19%

These discussions of the potential salmon and trout management options for Lake Huron are just beginning and the review will continue at most meeting during the next year or until a plan is completed.

Results of the new lake trout hooking mortality study; Dave Caroffino, DNR Fisheries Biologist:

Anglers release lake trout for a variety of reasons, including preference for other species, fun fishing, tournament fishing and due to regulations, such as harvest limits. Creel survey data include both the number of lake trout harvested and an estimate of the number of released fish that die. This information is needed because the 2000 Great Lakes Fishing Decree requires that all lake trout mortality caused by anglers be included when calculating if the recreational harvest quota is exceeded.

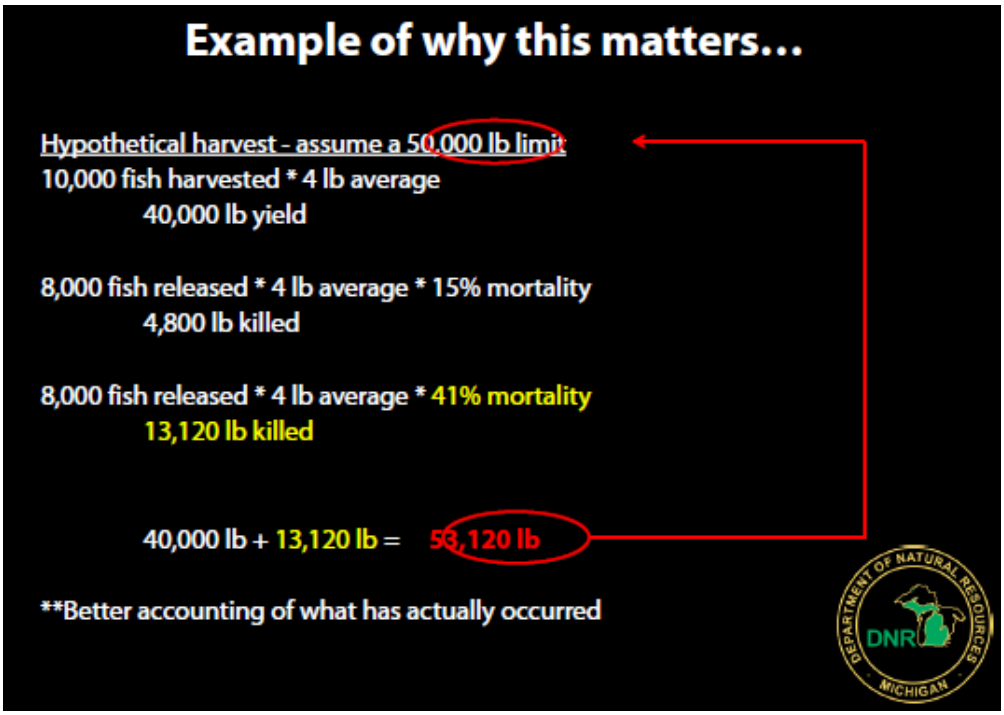
A wide range of values have been reported across North America from hooking mortality studies. A 1980s study in Lake Superior indicated a mortality rate of 15%. Anglers questioned this percentage so a new study was initiated in Lakes Superior and Huron. From 2010 to 2014, 2,329 lake trout trap netted lake trout and 1,800 angler caught lake trout were tagged. From previous studies, the mortality rate of trap netted lake was known so a comparison was made between the tag return rates of both the commercially and anger tagged fish. The result indicated that 41% of the lake trout released by anglers did not survive.

Several potential causes of lake trout mortality were evaluated including:

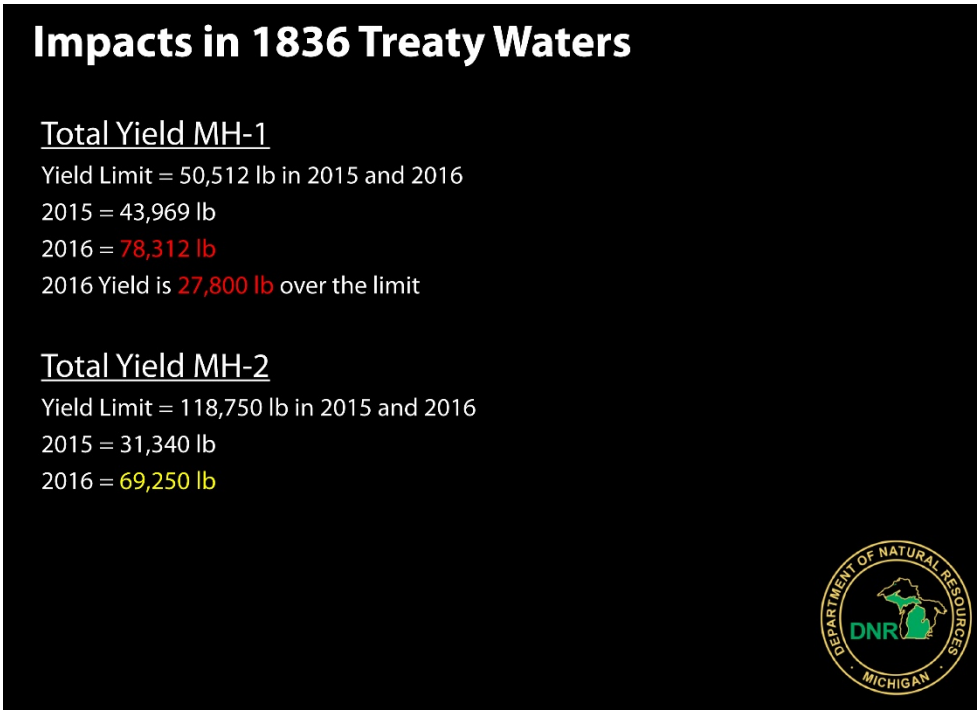
- Fish length
- Barotrauma (bloating)
- Fishing method
- Hooking location
- Fight time
- Surface water temperature

The only item that had a significant impact on the mortality was water temperature above 50^0F. Beginning in 2016 this 41% hooking mortality will be applied when determining the recreational harvest quotas in the 1836 Treaty Waters of the Great Lakes.

Since hooking mortality counts against the recreational TAC, the following is an example why this is important:



During 2016, the quota in lake trout unit MH-1 from Rogers City to Drummond Island was exceeded by 28,000 pounds as shown in the slide below.

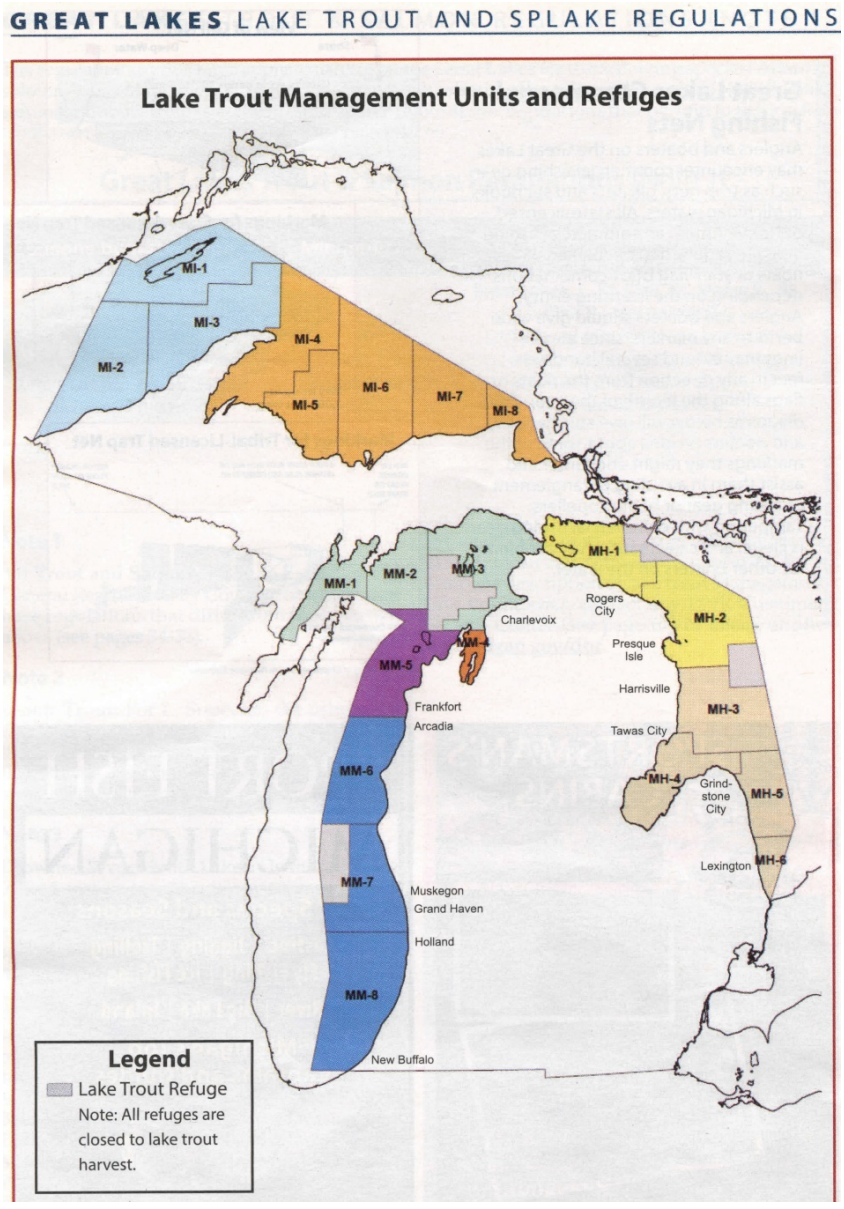


Note: Since the Lake Huron Citizens Fishery Advisory Committee meeting, the DNR submitted a proposal to the Tribes and US to deal with the overharvest of lake trout in MH-1 and the following provides an overview:

The 2000 Great Lakes State, Tribal and US Consent Decree requires that lake trout quotas be established each year for both the Tribal and State fisheries. During 2015 and 2016, the recreational lake trout quota for Management Unit MH-1, Rogers City to Drummond Island, (see map below) was established at 50, 512 pounds. During the 2015 season, 43,969 pounds of lake trout were harvested by anglers but during the 2016 season, the lake trout quota was exceeded by 27,800 pounds since the anglers harvested 78,312 pounds. This large increase was caused by an increase in the lake trout catch rate (easier to catch) and the average size of the lake trout harvested in 2016 increased by 0.7 pounds.

Since the angler's quota for 2016 was exceeded, a penalty equal to the overage of 27,800 pounds must be invoked so the quota this season will require that 27,800 pounds be subtracted from the 2017 quota. This would leave a small final quota for 2017 and make it difficult to even have a season with so few fish available for harvest.

Lake Trout Management Unit MH-2 from Rogers City to Black River (see map above) had a much higher lake trout quota during 2016 of 118,750 pounds yet the harvest was only 69,250 pounds. This unit had significantly more room for harvest. Since both MH-1 and MH-2 are treated as one unit biologically



when the quotas are generated with the model, the DNR is approaching the Tribes and US with a proposal to combine both MH-1 and MH-2 and have a single quota established from Drummond Island to Black River. If this proposal is approved, there would be a better opportunity to stay under the quota in both units. The goal is to have a 2-lake trout per day bag limit for 2017 in both MH-1 and MH-2. It appears this would enable the anglers to stay under the quota for 2017 and for 2018 there is a chance that the bag limit for lake trout could return to 3 fish per day.

As anyone knows that fishes Lake Huron regularly, it is very easy to catch lake trout and it appears that the lake trout abundance has been increasing steadily the last several years. Under the Decree, there is a Modeling Subcommittee composed of biologists from the State, Tribes and US that calculate the lake trout quotas for the Treaty Waters each year. In Lake Huron, there has been problems with the model attempting to account for the amount of wild lake trout produced each year. Work is being done to correct this problem so it is possible that the quotas may increase over the next few years.

The potential reduction during 2017 to a 2 lake trout daily bag limit is obviously not good news for MH-1 and MH-2 from Drummond Island to Black River but there is a significant chance that the bag limit could move back to a 3 fish bag limit during 2018. It appears the bag limit changes could be implemented by mid-May.

The use of Chinook salmon otoliths to determine where the fish are born; Alexander Maguffee, MSU Graduate Student:

Lake Michigan has seen an increase in natural reproduction of Chinook salmon. Currently, naturally reproduced Chinook salmon are contributing about 70% to the fishery. Lake Huron stocked Chinook salmon tend to move into Lake Michigan and their movement can be tracked with coded wire tags placed in the heads of stocked fish. There is interest in determining if a similar movement pattern occurs with wild Chinook salmon. Evidence is showing that otolith microchemistry can be used to determine which streams the wild Chinook salmon originate from, so it appears possible to track the migration patterns of wild fish.

Trace elements in the bottom soils and rocks of streams differ from stream to stream and from basin to basin. The distinct geology of various sites around the Great Lakes gives streams unique microchemistry that is incorporated into the otoliths or the ear born of Chinook salmon directly after they hatch in streams. The absorbed trace elements are stable in the otolith and the otoliths can later be analyzed to determine the natal stream of each tested fish.

Otoliths of Chinook salmon were obtained from several sites around Lakes Michigan and Huron including:

1- Upper Peninsula, Lake Michigan
2- Northern Lower Peninsula, Lake Michigan
3- Southern Lower Peninsula, Lake Michigan
4- Wisconsin
5- North Channel
6- Southern Georgian Bay

Research questions and answers:

1. Do juvenile otoliths from different regions have different microchemistry? Yes
    a. What results in the best accuracy?

        i. Compared 252 models to determine best accuracy. Random Forest model, 83.8% accuracy regionally and 95.9% accuracy basin wide.
2. Can adult otoliths collected in the streams be classified correctly to their natal origin? Yes, but accuracy is lower in adult salmon.
    a. Juvenile accuracy is 83.8% regionally and 95.9% basin wide.
    b. Adult accuracy is 61.8% regionally and 78.7% basin wide.
3. What is the magnitude and direction of Chinook salmon movement between Lake Michigan and Lake Huron?

Grants are being pursued to use this technique to measure the movement of wild Chinook salmon between Lake Huron and Lake Michigan.

Introduction of student Dustin Phelps who is part of the Michigan State University Student Committee for Fisheries and Wildlife; Randy Claramunt DNR Lake Huron Basin Coordinator:

Randy Claramunt introduced Dustin Phelps. Dustin is a student at MSU, and will be working with us to improve communications with the younger generations. Dustin met Randy last fall at a MSU lecture. After the presentation, Dustin asked Randy if he would talk to the ***Undergraduate Fish and Wildlife Committee.*** Dustin commented that students would like to learn more about how management decisions are made. Dustin will carry the message back to MSU that students are always welcome to attend the Advisory meetings and participate. Dustin commented that social media is a great way to communicate with undergraduate anglers. Facebook, twitter and other outlets are highly utilized by the younger generations!

Overview of the 2016 Lake Huron forage survey results, report on a recent seminar discussing potential round goby survey methods and a potential predator diet study in Lake Huron:

Because of heavy snow in the Ann Abor area, the presenters from USGS were not able to attend the meeting and the presentations were not given.

Discussion of the Sea Grant Lake Huron Fishery Workshops; Brandon Schroeder, Michigan Sea Grant:

Spring Lake Huron Fishery Sea Grant Workshops are coming in April. These educational sessions are regional from Port Huron up to Cedarville. The series is accomplished through partnerships with Sea Grant, the DNR, many other agencies and Associations along with the Lake Huron Citizens Fishery Advisory Committee

There are 4 evening workshops scheduled from 6:00-9:00 pm again during 2017 at the following locations:

- PORT HURON - Tuesday, April 4, 2017
- BAY CITY – Wednesday April 12, 2017
- OSCODA – Wednesday April 26, 2017
- CEDARVILLE – Thursday April 27, 2017

Please distribute the completed flyers and material to your organization and news media. This is a great opportunity for the public to learn more about the Lake Huron fishery and provide input.

Progress toward rehabilitating cisco in Saginaw Bay and the Main Basin; Randy Claramunt, DNR Lake Huron Basin Coordinator:

Cisco or lake herring was the most abundant forage fish species in the Great Lakes and reestablishing it throughout Lake Huron would help fill the pelagic prey fish niche left by alewife and provide more stability to the food web. In addition, cisco has the potential of creating a significant near shore recreational fishery. Saginaw Bay was historically the main producer of cisco in the Main Basin and efforts are underway to begin stocking cisco in the Bay.

Participants discussed the declining prey fish population, poor young yellow perch survival, and the historic balance between walleye, yellow perch and cisco. Originally, Saginaw Bay had large coexisting populations of walleye, yellow perch and cisco so there is hope that cisco could provide an alternate prey for walleye and reduce walleye predation pressure on yellow perch. This might increase the survival of newly hatched yellow perch.

Cisco rehabilitation has been a topic of discussion for the past 10 years; however, the process slowed. Randy would like to propose stocking a large enough quantity that could be measured such as 5 million. The hatcheries can only produce about 2 million cisco and it would require significant additional modifications for the hatcheries to produce 5 million or more cisco. Stocking would have to be continued in Saginaw Bay for at least 5 years. Monitoring and analysis would be required annually and adjustments would be made when needed.

Randy wanted to determine how the participants felt about the various reasons to reestablish cisco in Saginaw Bay. TurningPoint software was used again with the assistance of Brandon Schroeder. This allowed each participant to digitally enter their response with a clicker and the results were immediately projected on the screen. The participants were asked to rate the reasons for introducing cisco into Saginaw Bay. The first set of questions asks which is the primary reason, the second set asks for a second choice and the third set asks for the least important reason to reintroduce cisco in the Bay.

TurningPoint Questions and Results

What is the ***primary reason*** for introducing cisco into Saginaw Bay?

A – Fill the niche left by alewives	6%
B – Fill niche, keep alewives from recovering	3%
C – Rehabilitate a native forage species	32%
D – Provide forage for native species	9%
E – Provide forage for all predators	39%
F – Reduce walleye in Saginaw bay to rehabilitate cisco	0%

What is your ***second choice***?

A – Fill the niche left by alewives	6%
B – Fill niche, keep alewives from recovering	3%
C – Rehabilitate a native forage species	19%
D – Provide forage for native species	23%
E – Provide forage for all predators	45**%**
F – Reduce walleye in Saginaw bay to rehabilitate cisco	4%

What is ***least important***?

A – Fill the niche left by alewives	14%
B – Fill niche, keep alewives from recovering	28%
C – Rehabilitate a native forage species	0%
D – Provide forage for native species	0%
E – Provide forage for all predators	0%
F – Reduce walleye in Saginaw bay to rehabilitate cisco	59**%**

Frank asked the participants if there was any opposition to Randy moving forward with stocking of cisco into Saginaw Bay for at least 5 years. No one objected and it was noted that the Lake Huron Citizens Fishery Advisory Committee has been pushing reestablishing cisco throughout Lake Huron for over 8 years.

It was asked if results would be seen right away? Randy commented that no additional resources have been allocated to this project. Measurements could be made during annual survey operations but it could be challenging since cisco may be hard to catch unless they are targeted.

Gary Whalen commented that cisco seem to be plastic and they adapt over time.

Request: Randy asked if the Committee would support stocking 750,000 up to 5 million cisco for a 5 year period and taking this proposal to the Technical Committee composed of representatives from Ontario, the Tribes, and the DNR?

Results: Frank asked all the participants if they agreed with the request and the results are below:
Yes – 100%
No – 0%

Demographics of the vote:

Agency/Research/Management	17%
Lake Huron Citizen Advisors	52%
Guests	31%

Cormorant Update

The State of Michigan does not have the authority to reinstate the comprehensive cormorant management program. A Federal Judge ruled lase May that the US Fish and Wildlife Service must update the ***Environmental Impact Statement*** and properly document the need for cormorant control before the program will be reauthorized. Unfortunately, the US Fish and Wildlife Service has indicated that updating the ***Environmental Impact Statement*** is not a priority for the agency and it could take years before the work is completed. To solve this threat to the fisheries around the Great Lakes, stakeholders must inform their US Senators and Congressional Representative and encourage them to push the US Fish and Wildlife Service to update and reissue the ***Environmental Impact Statement***.

The committee will draft a group letter and encourage other organizations and individuals to do the same. Jim Johnson motioned to authorize a letter to the federal delegation, the Great Lakes Fishery Commission, and representatives. All committee members are in support. Frank and Jim will compose and send out the letters.

Currently, cormorant harassment can take place at fish stocking sites this year without a permit. Care needs to be used when harassing the birds, including:

- All laws must be followed
- It is a good practice to alert neighbors, the community, and police agencies
- Injuring of the birds is prohibited
- It is recommended that USDA Wildlife Services Division be contacted at 989 217-3086 and 517 336-1928 before harassment of cormorants begins

NOTE: Frank Krist later distributed the draft letter explaining the critical need to have comprehensive cormorant management control authorized again in Michigan and the surrounding 24 states on 02/13/2017. That letter was sent by regular mail to all 14 Michigan US Congresspersons and our 2 Senators.

Fisheries and Law Enforcement Manager updates:

Lieutenant Shaw, Law Enforcement – The Governor's budget will come out next month. Law Enforcement has requested an increase in funds for the Great Lakes Enforcement Unit and Special Investigation Unit. If that requests goes through, it would double the Great Lakes Enforcement Unit. The unit focus has shifted over the past few years from commercial and tribal inspections to aquatic invasive species (AIS) inspections. The next grant cycle is coming up.

Gary Whalen, Fisheries Program Manager – We are working with USGS to develop methodology to effectively sample gobies and work will begin on the Great Lakes this season. Renovation work at the hatcheries is ongoing. The RV Tanner was in service this past season. There were a few hick-ups, and the boat is being worked on.

Jim Baker, Southern Lake Huron Unit Supervisor, Fisheries – We surveyed Lexington and Port Sanilac on October 17th for Atlantic salmon and at Lexington we boated 53 along with an additional 3 at Port Sanilac. The staff is busy with winter work and the biologists are writing reports and prescriptions. The technicians are mending nets and repairing equipment. The winter fishery on Saginaw Bay is currently nonexistent due to poor ice.

Todd Wills, Lake Huron-Lake Erie Area Research Manager– Prepping for the field season. Alpena is working on a collaborative goby assessment. The RV Tanner is back at Anderson Boat Works where they are addressing issues to make it more comfortable for us. The old vessel is at home at the Besser Museum in Alpena as an educational/interpretive display.

Dave Borgeson, Northern Lake Huron Unit Supervisor– This weekend is the Black Lake sturgeon season/Black Lake Shivaree. The 2017 budget will allow our unit to hire a few summer state workers to help accomplish surveys and field work. The St. Marys River river-wide survey with assistance from Ontario, the Tribes and USFW is being conducted during 2017. We are working to ensure there is adequate creel survey coverage.

Aaron Switzer, DNR Platte River, Harrietta and Oden Hatchery Manager – Missed the October meeting while in Wisconsin looking at cool water rearing ponds. Visited hatcheries, learning what works for them, what we might want to include in our capital outlay project ($12 million) aimed at increasing steelhead and cool water fish production. Regarding our Atlantic salmon rearing, we are facing disease issues again. We have great growth, but have struggled with bacteria. There will be less than 180,000 yearlings but if there are no more problems the St. Marys River stocking will be reduced and the other

sites will receive the scheduled number. The Au Sable and Thunder Bay salmon have gone through the mass marking trailer. The St. Marys River and Lexington Atlantic salmon have not been clipped at this point. We did that to see if marking was the stressor causing disease. However, both groups got sick. The fish when stocked will be big and healthy again this year from 6.5 to 7 inches long.

Randy Claramunt, Lake Huron Basin Coordinator– Randy thanked Brandon for bringing the TurningPoint technology and thanked everyone for coming.

Adjourn

Next meetings for 2017

Tuesday April 11, 2017
Thursday June 22, 2017
Wednesday October 11, 2017