Lake Michigan Citizen's Fishery Advisory Committee

November 1st, 2016

Jay's Sporting Goods

Clare, Michigan

Attendees: Denny Grinold, Chip Klein, Jim Bos, Jim Bedford, Tom Hamilton, Mike Verhamme, Jim Schramm, Bill Winowiecki, Frank Krist, Theresa Krist, Denny Kuenzer, Jim Fenner, Chuck Pistis, Paul Jensen, Dennis Eade, Ed Szymanski, Wes Newberry, John Stegmeier, Dan O'Keefe, Bob Reider, Donna Wesander, Dave Peterson, Ed Eisch, Jim Dexter, Lauren McKee, Bob McKee, Dave Clapp, Tony Radjenovich, Gary Smith, John Trimberger, Terry Welsh, Michael Ryan, Darren Kramer, Matt Groleau, Scott Lutz, Mark Tonello, Dave Carolfino, and Jay Wesley.

Introductions:

Gary Smith of the Great Lakes Salmon Initiative was welcomed as a new member.

Fishing Report:

Saginaw Bay – Walleye fishing has improved along with good yellow perch fishing this fall. Cormorants are still an issue. Good numbers of 4 to 8 pound steelhead are being caught.

Bays de Noc – Fairport and Manistique were really good for steelhead and Chinook salmon for about three weeks this summer. Big Chinook were around with some over 30 pounds caught. Large walleye were caught but not many small walleye. Yellow perch has been good. Cormorants are an issue.

Manistee – No brown trout this year. Lake trout fishing has been great. Offshore steelhead was poor. There were a few Chinook salmon in August through Labor Day. Manistee River was the same as last year with steelhead picking up this fall.

Ludington – Trips were down this year. It was a really slow start this year with lake trout catches up 30% and Chinook catches down 40%. The PM River was better this year compared to the last two years. Another report indicated nine kings per trip in 2015 and only four per trip in 2016. Lake trout were good. The lake set up late and the water remained warm nearshore into the fall. Charter captains and sports fishermen reported the worst year ever for kings, browns, and steelhead.

Glen Arbor/Leland – No mature Chinook salmon, but there were a few small kings. Steelhead numbers were up some, and lake trout numbers were great. Tribal gill netting may be impacting fishing. Angler catch rates declined soon after nets went in.

Grand Traverse Bay – No lake trout in west bay because stocking was changed in 2007. We need to move some fish there. East Bay was good for Chinook salmon and lake trout. Cisco numbers have been fantastic with some really big fish.

Grand River – Steelhead numbers are better than last year; however, fishing pressure is very light.

Grand Haven – April was good for kings and cohos. Lake trout mostly this summer (August). May was decent, June/July was great for steelhead, and got some nice kings in mid-July. About 70% natural and kings were eating gizzard shad this spring near the pier heads. Early spring coho were deep feeding on mysis.

Holland – Lake Macatawa has some really nice northern pike, walleye and now muskies. Lots of gizzard shad. How could a Chinook smolt live there with all the predators? There is concern with the musky stocking in Lake Macatawa.

PM River – Overall the run was down again this year.

White River – Good for smallmouth bass, channel catfish and walleye. There was very low effort in White Lake this fall with just a few jigging for salmon.

Frankfort – Brown trout were poor, and there were no steelhead. Coho fishing was good this fall.

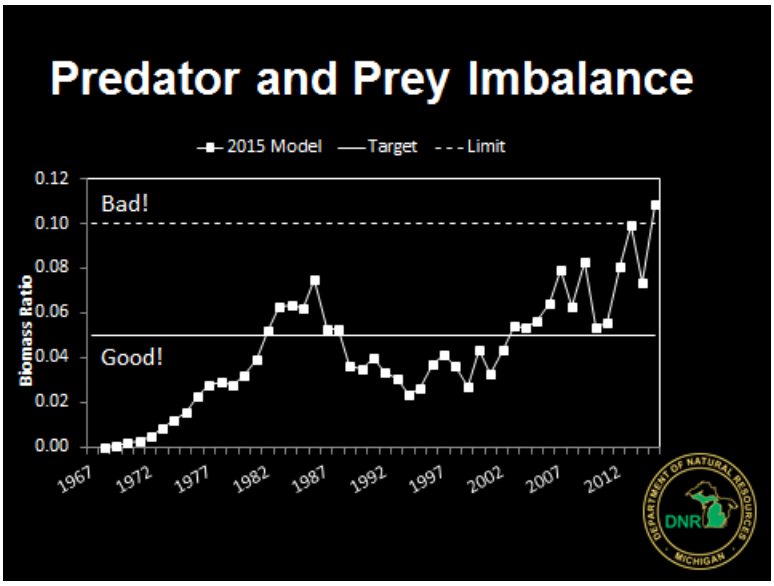
Lake Huron – Chinook are eating gobies. Atlantics and steelhead are eating gobies, smelt, and bugs.

Indiana – Coho was good this year, and steelhead were decent. The weight of fish was up this year.

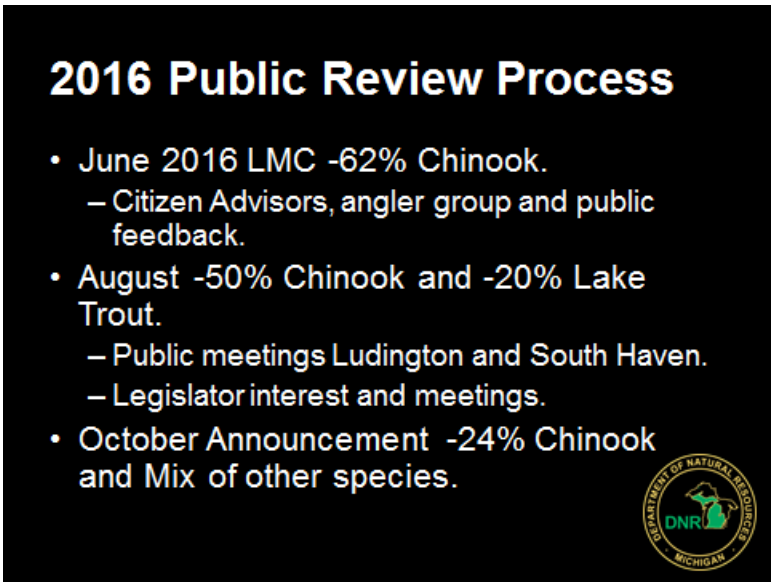
West Michigan Walleye – walleye tournaments have been slow and will be until water turns over. There was great success with the fall fingerling walleye program at the DNR Belmont Ponds. Over 98 students from various schools helped with the walleye harvest this fall.

Salmon and Trout Stocking Decision:

Jay Wesley discussed the Chinook salmon stocking process for 2016.



The primary prey for salmon is alewife. The Lake Michigan prey abundance is at historic lows. Evaluating the abundance of Chinook salmon to the abundance of alewife is perhaps the most important tool that informs stocking decisions. When there are 20 pounds of alewife for one pound of Chinook (biomass ratio 0.05), the relationship is in balance. This is a good place to be to maintain healthy salmon populations. When there are only 10 pounds of alewife for one pound of Chinook (biomass ratio 0.10), the relationship is out of balance. This is a bad place to be and is quite similar to conditions in Lake Huron before the alewife and Chinook salmon crashed in 2004. In 2015, the Lake Michigan ratio was above this bad line indicating that stocking reductions were warranted. In between the (0.05) and (0.10) lines is a cautionary area and indicates a need to think about a stocking reduction if trending up towards 0.10 or a stocking increase if trending towards 0.05. Our goal with this stocking plan is to allow alewife to restore their population levels and to maintain a world-class and diverse salmon and trout fishery in Lake Michigan.

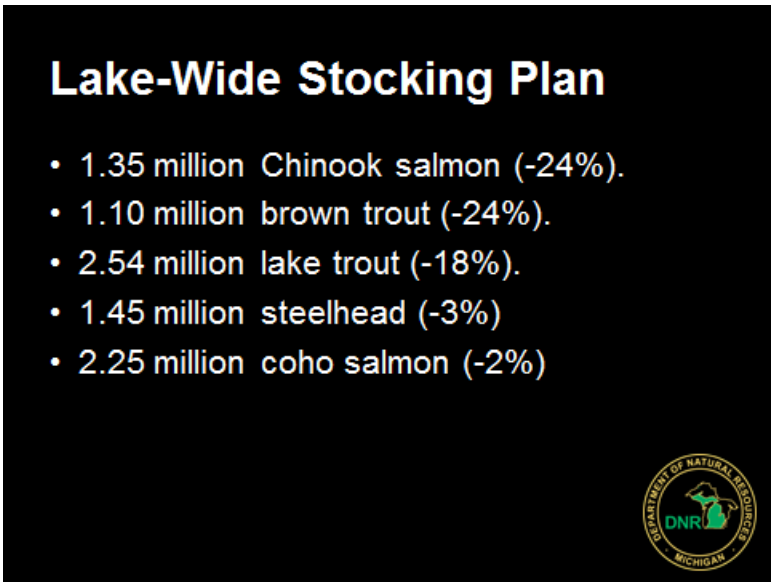


The Lake Michigan Committee navigated through a two year process in 2011 and 2012 to develop fishery goals and objectives with stakeholder groups and to assess their level of risk in regards to

stocking and potentially collapsing the alewife population. This stakeholder process lead to a stocking policy that the Lake Michigan Committee now follows that provides criteria to determine when to stock more or less chinook salmon as well as what the stocking levels would be.
After reviewing the 2015 prey data, the committee agreed to reduce Chinook stocking and proposed a 62% reduction. That percentage was predetermined in 2012.
This proposal was announced in June and received considerable feedback from our citizen advisors and angler groups. The feedback included:

1. We were taken by surprise and did not get a chance to be part of the proposal process.
2. Prey numbers appear to be better than what the 2015 numbers indicate.
3. Prefer more lake trout reductions rather than Chinook.
4. Consider waiting another year.
5. Negative press is bad for charter business.

The Committee took this feedback, which was similar around the lake, and proposed a 50% chinook and 20% lake trout reduction in August. This proposal was discussed at two public meetings - one in Ludington and the other in South Haven. There was also interest from many legislators regarding the proposal.
After reviewing all the public comments from each state, the committee agreed to only reduce Chinook salmon by 24% and to reduce a mix of other trout and salmon to provide the same predator relief in Lake Michigan.



This is the lake-wide stocking plan for Lake Michigan that begins in 2017 and will be fully implemented by 2018.
1.32 million Chinook salmon will be stocked in 2017, which is a 24% reduction.
The rest of the stocking changes will be in 2018. Lake trout, steelhead, coho salmon, and brown trout all spend at least 18 months in the hatchery, so it takes more time to adjust stocking levels with these species.
The percentage listed for each species is the lake-wide reduction.
Wisconsin would stock 810,000 chinook salmon and would reduce 818,626 lake trout and brown trout (25% of Wisconsin's total stocking).
Illinois would stock 150,000 chinook salmon and would reduce 83,824 chinook salmon and lake trout (15% of Illinois' total stocking).

Indiana would stock 60,000 chinook salmon and would reduce 225,371 chinook salmon and lake trout (21% of Indiana's total stocking).
Michigan would stock 330,000 chinook salmon and would reduce 639,570 chinook salmon, coho salmon, and lake trout (11% of Michigan's total stocking).
A total of 1.77 million fish to be reduced to date with an additional 50,000 Chinook equivalents from Wisconsin by 2018.

Given that Michigan's rivers and streams produce most of the wild chinook salmon, Michigan will stock 330,000 Chinook salmon starting in 2017, which is a 41% reduction.
Other states will see reductions in Chinook, lake trout, steelhead, brown trout, and coho as part of this plan. Michigan will continue to stock brown trout and steelhead at current levels. Coho were reduced by 96,000 to keep an additional 30,000 Chinook salmon. There will be a reduction of 80,000 federally raised lake trout that were typically stocked in Grand Haven, Holland, and New Buffalo. Michigan will also discontinue stocking 50,000 lake trout raised at the Marquette State Fish Hatchery and replace those with steelhead once upgrades are completed at the Thompson State Fish Hatchery.

Michigan and other state, tribal, and federal partners will continue to gather important creel, charter boat, prey and predator data on an annual basis to see how these management adjustments are working.
If we obtain target predator and prey ratios and higher chinook weights, we will consider increased Chinook stocking in the future. We will also be bringing proposals next year to the NRC to open the lake trout season to all year from Arcadia to New Buffalo on Lake Michigan and on all drowned river mouth lakes.

Discussion items:

- Questions about the Wisconsin DNR salmon stocking process.
- Preliminary acoustic survey shows a decent number of 2015 and 2016 alewife year classes. There was one really good transect off of Grand Haven. The rest showed a sporadic distribution throughout Lake Michigan.
- Questions were raised about the Chinook equivalents. Originally they were based on diet data and consumption estimates from a 1980s paper. They were also described in the "Connect Model". Recently, new consumption estimates were created using the Predator and Prey Model that showed much more annual variation. Overall, many in the group questioned the diet data and the amount of alewife consumed by lake trout.

Action Items: DNR staff will prepare or provide reports for the following:

- Analysis of weather conditions, water temperature, depth, and other variables in relation to acoustic transect prey assessment results.
- 2014 Lake Michigan Committee Chinook salmon stocking feedback policy.
- A brief write-up on stocking equivalents.
- Diet write-up for salmon and trout.
- Lake trout implementation strategy and criteria for stocking reductions to be presented at the spring meeting.
- MSU micro-chemistry study on Chinook salmon: where are wild fish coming from?
- What is drowned river mouth predation on salmon smolts from muskellunge and walleye?

Chinook Salmon Stocking Location Options:

With only 330,000 Chinook salmon smolts to be stocked in Michigan waters, DNR is seeking the Citizen Advisor and public comments on potential options. The options range from stocking them all at the Little Manistee weir to maximizing the number of sites stocked with fewer stocking numbers per site.

The current stocking numbers and locations are below based on the 2013 plan. A few sites have changed slightly.

Port	Previous Stocking	2013 Stocking
1836 Treaty Waters		
Ford River	27,500	12,000
Fairport	21,000	0
Manistique	45,000	34,000
Medusa	220,000	72,000
Boardman	75,000	24,000
Kids Creek	150,000	36,000
Manistee River	70,000	22,000
Little Manistee River	375,000	150,000
Big Sable River	120,000	38,000
Muskegon River	60,000	18,000
Non-Treaty Waters		
Grand Haven	175,000	59,000
Grand River	75,000	0
Holland	45,000	15,000
Black River	45,000	15,000
Saugatuck	45,000	16,000
St. Joseph	140,000	48,000
Total	**1,688,500**	**559,000**

Here are the options that were presented:

Chinook Stocking Site Options

1. Put all 330,000 at Little Manistee Weir (LMW).
2. 150,000 LMW; 130,000 at Medusa; 50,000 at roving net pen.
3. 150,000 LMW; 80,000 Medusa; 50,000 at two roving net pens.
4. 150,000 LMW; 180,000 at several roving sites including Medusa.
5. Convert some sites from Chinook to Coho (Sable, Boardman)

Example for Option 3

- St. Joe and Grand Haven 2017
- Saugatuck and Manistique 2018
- St. Joe and Grand haven 2019

Each site would be stocked with 50,000 every other year.

Example of Option 4

- 2017 - St. Joe (50,000), South Haven (50,000), Grand Haven (50,000), Holland (30,000).
- 2018 – Saugatuck (50,000), Manistique (40,000), Medusa (50,000), Sable River (20,000), Boardman (20,000).

There seemed to be some interest to try coho salmon at some traditional net pen sites that would not likely be stocked given their close proximity to wild fish producing rivers. The Sable River (Ludington State Park) could possibly hold coho for a short period of time. This would be more of an acclimation project than a net pen. Coho smolts would need to be able to passively leave the net.

Most of the advisors preferred options 2 and 3; next was option 4; and option 1 was least preferred.

Discussion Items:

- Sites should be selected based on effectiveness of stocking to provide a lake fishery and then return to rivers and to ensure an egg take.
- Questions were raised about Swan returns and why more Chinook will be stocked in Lake Huron in 2017 compared to Lake Michigan. These Chinook are coming over to Lake Michigan to feed. The Lake Huron Citizen's Fishery Advisory Committee will be working on Chinook salmon stocking numbers in Lake Huron.
- Salmon in the Classroom will continue for 2017. The number of eggs for each participant was reduced to 150 to make for better densities and survival in tanks.

Action Item:

- Advisors need to notify their represented groups and send any feedback to Jay Wesley by November 11th. The Lake Michigan Basin Team will make a decision on November 17th, so eyed eggs can be distributed to the appropriate hatcheries prior to hatching.

Role of Advisors on the Committee (two way communication):

Chair Grinold distributed a copy of the Terms of Reference and discussed the need for both the DNR and advisors to communicate properly. The 2016 decision to reduce stocking in Lake Michigan was a contentious process, which reduced trust among the committee. The Lake Michigan Committee and DNR noticed this early on and now realize that all management changes need to be vetted out with citizen advisors being able to comment on multiple options. This process was used in 2012 and most advisors preferred that process. Despite the pre-determined stocking policy developed in 2012 and signed off in 2014, open dialogue so that everyone is informed on the current data and has an opportunity to inform possible options and the decision is a much better process and is worth the time.

Social media is the primary tool for most anglers to receive information. It is important that organizations post accurate information because false information can travel fast through social networks. It is essential that the DNR and advisors improve communications. DNR needs to provide timely information to the Advisors, and the Advisors need to take back information and decision items to their organizations and membership and forward that feedback to DNR.

Action Items:

- DNR will create a Share Point Access site to share documents. Past agendas and minutes can go on the site as well as pertinent documents of interest to the advisors.

- DNR and advisors should look at new communication tools such as YouTube or other social media to get information out to the public. No one likes to read lengthy meeting minutes.
- Presentations will have more texts/notes on them so advisors can take those directly to their groups.
- DNR will do their best to notify advisors before news media.

Law Enforcement Update:

No updates for this meeting

Fish Division Updates:

- Planning for hatchery upgrades is underway. These upgrades will provide a deep geothermal well to increase steelhead production and pond and other facility improvements to increase walleye and muskellunge at Thompson State Fish Hatchery. Funds are also available to improve infrastructure at the Little Manistee Weir, which is the primary steelhead and chinook egg take facility for Michigan.
- Weir returns were better this year for both Chinook and coho. Many jacks indicating that there was good growth this year, so this could also mean better lake catches and returns next year. Below are preliminary weir numbers:

Little Manistee

	Spring STS	CHS	COS	Fall STS	Fall BNT
2000	4,239	13,029	600	319	74
2001	7,029	18,279	911	2,262	59
2002	6,290	19,385	538	120	38
2003	3,209	14,419	616	1,404	43
2004	2,571	15,618	1,102	1,074	60
2005	3,483	11,075	2,100	665	53
2006	2,949	12,772	238	417	56
2007	2,880	10,946	303	738	50
2008	3,441	5,169	172	406	58
2009	4,191	8,274	126	343	86
2010	1,961	5,776	203	91	32
2011	3,196	14,124	1,815	901	40
2012	4,818	12,327	1,333	283	103
2013	3,667	6,427	1,021	988	80
2014	2,767	2,781	760	392	79
2015	2,857	654	259	51	65
2016	1,834	1,379	528	310	44

Platte River Weir

2016				
LOWER	PASSED	HARVEST	TOTAL	
COHO ADULT	16,691	1,491	18,182	
COHO JACKS	4,196	999	5,195	
CHINOOK ADULT	7	103	110	
CHINOOK JACKS	2	3	5	
TOTAL	20,896	2,596	23,492	TOTAL SALMON LOWER WEIR

Swan, Boardman and Medusa

- Swan 2,458 Chinook
- Boardman
  - 1,423 Chinook; 2,542 Coho; 30 steelhead; 4 brown trout; 2 pink salmon.
- Medusa
  - 895 Chinook; 58 coho; Only 692 total in 2015.

Discussion Item:

- Eggs were received from Wisconsin DNR to make sure the 2017 egg quotas were met.

Fish Division Updates Continued:

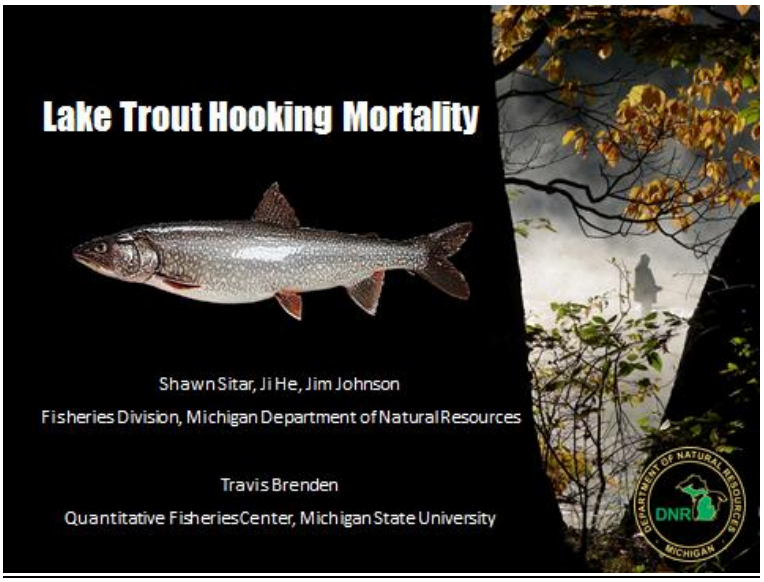
- Manistique Dam/Lamprey Barrier is slowly moving through the permitting process. Looks like there may be some construction in 2018.
- Randy Claramunt recently accepted the Lake Huron Basin Coordinator position. Charlevoix Research Station will put a priority on filling this vacancy.
- A new selective fish passage project on the Boardman River will bring innovative research to Traverse City to develop technology to pass desired fish upstream while stopping undesirable

fish like sea lamprey. This research will be valuable for other river systems throughout the Great Lakes.

- A news release will announce that Lake Superior Chinooks salmon are 99% wild and that stocking will cease.
- Lake Huron lake trout are meeting rehabilitation goals throughout out much of the lake. Significant stocking reductions will occur in the southern portion of Lake Huron.
- The Arctic Grayling Restoration project continues with partners meeting for a second time in December to determine the best approach to restore this species in select river sections in Michigan.
- A Hunting and Fishing Guides Bill has been drafted that will require all hunting and inland fishing guides to get a license. The bill requires fees for the license, safety requirements for guides, higher penalties, and mandatory reporting.

Lake Trout Release Mortality and Possible Regulation Changes:

New and more robust research on lake trout hooking mortality was recently adopted by the State of Michigan, USFWS, and tribes to be used in calculating annual harvest for sport anglers. David Carolfino gave an overview of research and potential regulation changes.



Releasing Lake Trout…

- Preference for other species
- Fun fishing
- Tournament fishing
- Regulation induced
  - Harvest limits per the 2000 Consent Decree
- Total releases estimated along with harvest

Hooking Mortality Studies

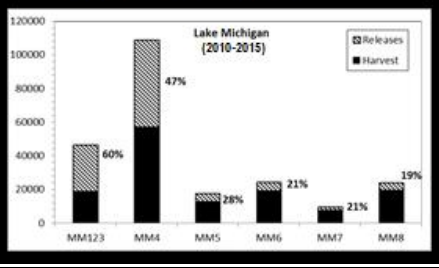
- Wide range of values reported from prior studies across North America
- 1980s study in Lake Superior (15%)
  - Adopted by MDNR, questioned by anglers
- Initiated study in lakes Superior and Huron 2010-2015

What was done?

- Tagged lake trout caught by anglers and in trap nets, 2010-2014
  - 1,800 from trap nets and 2,329 by anglers
- Compared return rates by tagging group through 2015, considering:
  - Fish length
  - Barotrauma (bloating)
  - Fishing method
  - Hooking location
  - Fight time
  - **Surface water temperature**
- Tag recovery models built to incorporate temperature and assess mortality

Bottom Line

- Hooking mortality increases as water warms above 50° F
- 41% of angler-caught fish that are released die
  - Applied to 2016 and beyond



Example of why this matters...

Hypothetical harvest - assume a 50,000 lb limit

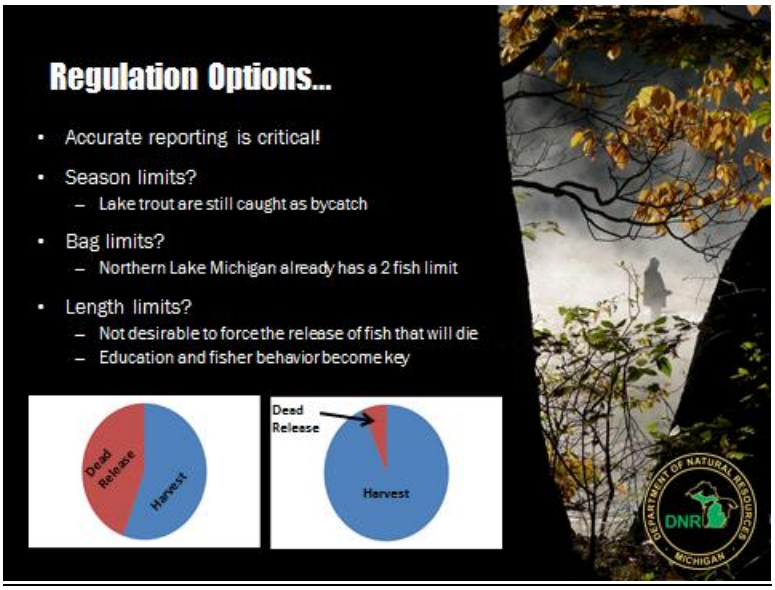
10,000 fish harvested * 4 lb average
40,000 lb harvest

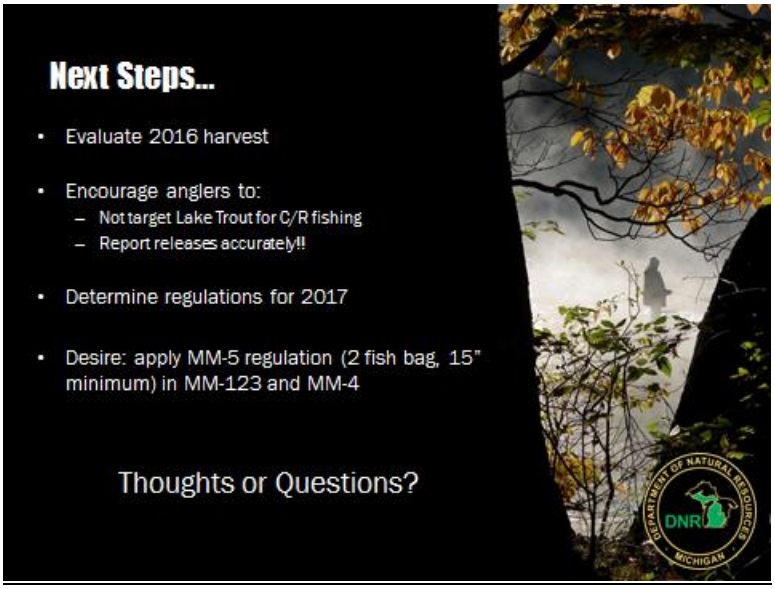
8,000 fish released * 4 lb average * 15% mortality
4,800 lb harvest

8,000 fish released * 4 lb average * 41% mortality
13,120 lb harvest

Changing nothing, added 8,320 lb to the harvest and exceeded limit

**Better accounting of what has actually occurred





The take home message is that a two fish bag limit and 15 inch minimum size limit will be pursued so that anglers can keep fish rather than throw fish back due to a protective slot limit. It is also critical that anglers, charter captains, and tournament directors know that released fish mortality counts against the state's harvest quota. You should stop fish for lake trout once your limit is achieved. Continuing to fish for lake trout and releasing fish may put the sport harvest over quota resulting in future penalties.

Action Item:

- DNR to review West Grand Traverse Bay lake trout stocking history. Catch rates have plummeted since stocking was discontinued in 2007. How can more lake trout be stocked in west bay?

Lake Michigan Fisheries Management Plan:

Five focus group meetings were held throughout the summer. A list of Lake Michigan uses, impediments, and opportunities was used to develop core goals and objectives. These goals and objectives seem to address the uses, impediments and opportunities. The next step is to develop strategies and management actions. Please contact Jay Wesley if you have any comments.

Mission

To protect and enhance Lake Michigan's aquatic life and habitats for the benefit of current and future generations.

Vision

To provide world-class freshwater fishing opportunities, supported by healthy aquatic environments, which enhance the quality of life in Lake Michigan communities.

Values

The following seven values guide the work of the Michigan Department of Natural Resources, Fisheries Division staff in the Lake Michigan Basin:

- Integrity
- Leadership
- Innovation
- Professionalism
- Collaboration
- Transparency
- Communication

Lake Michigan Management Plan Goals

Goal 1: Healthy Aquatic Ecosystems and Sustainable Fish Populations

Objective 1: Enhance control efforts for Aquatic Invasive Species (AIS).

Objective 2: Conserve, rehabilitate, and manage desirable aquatic species and their habitats.

Goal 2: Diverse Fishing Opportunities

Objective 1: Increase public awareness of Lake Michigan's diverse fishing opportunities.

Objective 2: Create, maintain, and enhance fishing opportunities.

Objective 3: Increase participation and interest in fishing among all demographic groups.

Goal 3: Strategic Resource Partnerships

Objective 1: Achieve fisheries management goals through partnerships.

Objective 2: Promote aquatic resource stewardship and watershed management.

Objective 3: Increase angler recruitment and retention.

Goal 4: Strategically Focused Assessment and Decision Support Tools

Objective 1: Conduct comprehensive assessments of fish and other aquatic life, habitat, and aquatic resource users.
Objective 2: Develop new and improve existing decision-support tools to optimize Michigan's fisheries and aquatic resources.
Objective 3: Evaluate fisheries management actions.

Discussion Items:

- Plan should take a watershed approach and consider Lake Michigan and tributaries. Should this be part of the vision statement?
- In the focus group notes, there was a theme in favor of a king salmon fishery and more negative comments towards lake trout.

Next Meeting:

April 25th, 2017 MUCC in Lansing.