

Lake Michigan Citizen's Fishery Advisory Committee Meeting

October 17th, 2017
Cabela's in Grandville

Attendees: Bill Binowiecki, Matt Groleau, Eric Andersen, Ron Tabiadon, Mike Verhamme, Jim Bedford, Paul Jensen, Chip Klein, Gary Smith, Jason Phelps, Mike Ryan, Wes Newberry, Jim Schramm, Dave Peterson, Steve VanderLaan, Rick Kretzschmar, Frank Krist, Dennis Eade, Denny Kuenzer, Scott Heintzelman, Dan O'Keefe, John Stegmeier, Gregg Mariuz, Randy Claramunt, Ed Eisch, Martha Wolgamood, Denny Grinold, Jim Fenner, and Jay Wesley.

Committee Roster and Guest Update

Tom Gudwer was added as a guest from Moonshine Lures.

Additions or changes to committee:

Gregg Mariuz added and representing Bloodrun Tackle. Big Jon Sports reps have been removed. Mark Williams added and representing Detroit Area Steelheaders.

Chuck Pistis added as Great Lakes Fishery Commission Advisor (alternate).

Bill Winowiecki added as Michigan Charter Boat Association (primary) with Eric Anderson (alternate).

Scott Stoney retired as MI Steelhead and Salmon Fishermens Association (alternate).

Ed Emery retired from White Lake Sportfish Association.

Fishing Reports

Lake Huron – lake trout fishing exceptional; walleye good in Saginaw Bay; and steelhead are down some.

Holland – depended on if bait fish were in area; good coho from spring through summer; lake trout was good.

Manistee – little better than last year; kings were spotty and coho were good; lake trout decent in June and then too warm.

Betsie and Platte Rivers – great king and coho runs.

Upper Peninsula – kings good for a while; steelhead spotty; walleye really bad in Bays de Noc; yellow perch was good in the bays.

Grand Haven – Spring kings were good; coho was good; bait was all over; steelhead did not stick around; lake trout hard to find; coho run this fall was good but hard to catch; king run in Grand River is dismal and only lasted a couple of days; the kings were big.

Indian waters – catching small yellow perch but not many keepers; Chinook were hit or miss; coho salmon and lake trout fishing was good; good runs of coho in the St. Joseph River; good summer run steelhead in Trail Creek; steelhead are big this year.

Frankfort – lake trout fishing was outstanding; chinook salmon better than last year; coho very good; bait was plentiful and stuck around; steelhead were non-existent.

Grand Traverse Bay – yellow perch has been good; coho salmon has been very good.

Benzie Co/Onekema/Arcadia – better Chinook and coho salmon fishing that lasted a long time; Betsie River run is fantastic and brought a lot of anglers up to that part of the state; Manistee River was a late run but good.

Glen Harbor/Empire – few brown trout caught; Leland was tough for lake trout; lake trout are smaller; Manitou Island good for Chinook salmon and lake trout; steelhead were big but numbers were down; coho were great in Glen Harbor; several 20 pound kings caught; bait fish were good all year.

Grand River and Tributaries – ten times the normal run of summer steelhead; must be some natural fish or a lot of strays; record number of coho in the tributaries this year.

Ludington – ten days in May was great for Chinooks; lake trout good through mid-June; coho and kings around in mid-July to August and then done; very few steelhead; Coho really made up fishery and would have been tough without them; bait more than what has been seen in years.

New Buffalo – coho salmon fishing great in spring and left by first week in July; they seemed to stay on bait; lake trout fishing was good and appear to be more naturals; lake trout eating lots of alewife in summer.

Fish Division Updates

- FishPass – This will be a collaborative project among federal, state, tribal, and local agencies and universities to engineer and evaluate fish passage technologies on the Boardman River below Union Street Dam in Traverse City. The project will evaluate video fish recognition, fish sorting designs, fish ladders, traps, etc. to allow desirable fish to move upstream while trapping or stopping undesirable fish like sea lamprey. If the project is successful, this technology could be applied at other dams throughout the Great Lakes. The DNR and Tribe will be working with the community and angler groups to determine what desirable species of fish will be allowed to pass.
- Mass Marking – Starting in spring of 2018, all steelhead will be marked with an adipose fin clip and most will have a coded-wire tag in the snout. All lake trout are also marked and Chinook salmon in lakes Michigan and Huron will have an adipose fin clip only. It will be important for river anglers to turn in steelhead snouts for tag recovery.
- Strategic Plan – Fisheries Division's updated strategic plan is available for comment.
- Prey Fish Update – the 2017 bottom trawl and acoustic surveys are complete throughout the lake. Preliminary estimates are that over-all prey biomass is still low compared to historic levels. Alewife density was highest nearshore, which matches what anglers have been seeing the last two years. Alewife population is mostly 2015 and 2016 year classes with some 2012 still around. Offshore densities of alewife are very low. There appears to be a good smelt and bloater year class out there, which is good news. With zebra and quagga mussel densities lower in nearshore areas, there may be more nutrients available holding the alewife in shallower waters. Even if the gear is underestimating alewife biomass in the nearshore, the lake-wide biomass is still low. If you double the estimate of nearshore, it would probably be 5 additional kilotons. Fish weight is good, so there seems to be a much better balance between available prey and the number of predators.
- Steelhead Update – anglers have reported poor steelhead fishing in the lake this year. We have no data at this time to evaluate catch rates, harvest, or weir returns. Steelhead fishing in rivers has been good and the size of steelhead is up, so this may just be a water temperature and current issue on Lake Michigan.
- Thompson Hatchery and Little Manistee Weir Update – the project to improve steelhead production at Thompson State Fish Hatchery to upgrade LMW is moving to design phase. A new well will be put in at the hatchery allowing for approximately 200,000

larger yearling steelhead. LMW improvements will be made to the pond complex, generators, pumps, lighting, and alarm systems.

- Weir Update: All weirs are seeing better returns than last year with coho numbers really strong. At the time of this meeting, Little Manistee had 1,200 Chinook salmon with more coming in. There was enough for Michigan's egg take as well as Illinois. Platte River lower weir passed and/or handled over 30,000 coho, so plenty for an egg take for Michigan and other states. Boardman weir has harvested 1,300 Chinook salmon and 9,900 coho. Medusa harvested about 2,000 Chinook.

Salmon Ambassadors and Great Lakes Angler Diary

Volunteers are always needed for the Salmon Ambassadors and Great Lakes Angler Diary programs. With steelhead coming on board with mass marking, it will be even more important for anglers to report their catches on rivers so we can determine the contribution of wild and stocked fish. The Great Lakes Angler Diary takes advantage of the fact that most anglers are now equipped with mobile devices (phones and tablets) that can aid in capturing quality data. The data can instantly be tabulated and the information can be instantly available to participants or other researchers.

The Great Lakes Angler Diary asks participants to:

- Record length, fin clip, and general location for all Great Lakes salmon and trout.
- Enter data for cisco, walleye, muskie and sturgeon.
- Record information on lamprey wounds.
- Upload photos to verify species identification, fin clips and wounds.
- Upload fish finder photos of "bait balls."

Lake Michigan Fishery Management Plan

A high level overview of the plan was given with most time spent discussing outcomes. Advisors were encouraged to provide comments at any time. The plan will be going out to public comment in late November/December. Comments received at the meeting included the need for a table of contents and more emphasis on lake whitefish, which is an important state and tribal commercial fishery.

Zonal Management:

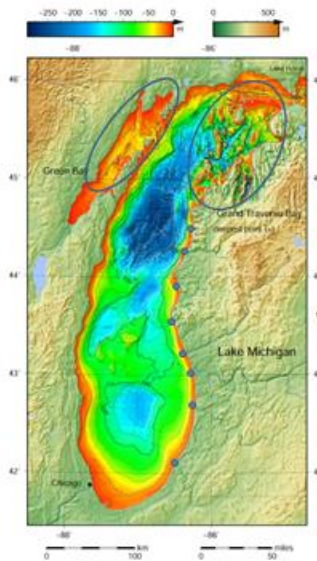
The Zonal Management concept was reviewed using the following slides below. Turning Point polling indicated that 50% really liked it, 25% liked it, and 25% thought it was ok.

Zonal Management

- Lake-wide management through consensus of the Lake Michigan Committee is the primary level of fisheries management for Lake Michigan.
 - Fish Community Objectives
 - Ecosystem Principles
 - Lake-wide management plans, documents and policies.
- Zonal Management is a second level of fishery management that MDNR will use to explain habitat and other regional differences within the lake and how different management (i.e. stocking and regulations) could be used in Michigan waters of Lake Michigan.
 - A tool for public education, regional fishery promotion, and regional focus to match up with existing habitat, nutrient, and climate conditions.

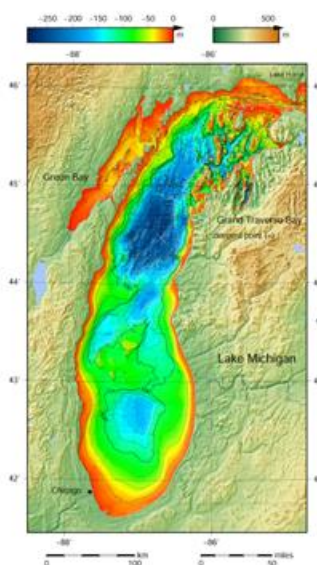
Smallmouth Bass

- Prefer relatively shallow water around structure.
- Coarse substrate required for spawning.
- Green Bay, Grand Traverse Bay, Beaver Island, Manitou Island, and Waugoshance Point are good examples of large areas that support smallmouth bass fisheries.
- Harbors and piers also provide good smallmouth bass fisheries.
- Management options include:
 - Regulations with some encouraging trophy fishing opportunities.
 - Protection and enhancement of spawning habitat.
 - Promoting local areas as good fishing opportunities.



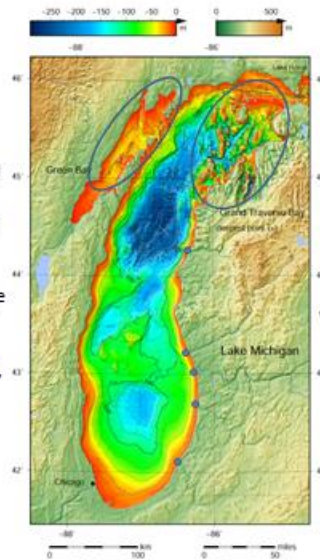
Lake Michigan Habitat

- Varies from north to south
- Lake temperatures exceed 70 degrees in south during summer.
- Northern half deeper than southern
- Cold tributaries to north and large warm water tributaries to south
- Bays offer unique shallow (Green Bay) and deep (Grand Traverse) habitats.
- More rocky reefs in north around island complexes



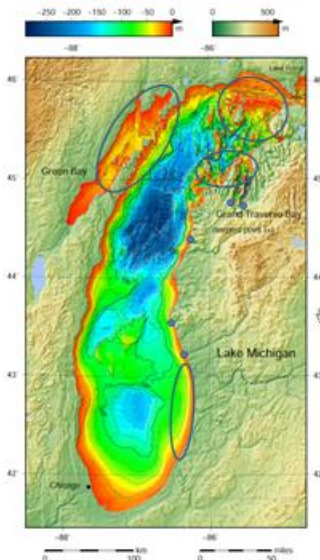
Walleye

- Prefer relatively shallow water around structure.
- Coarse substrate required for spawning and most populations use tributaries.
- Green Bay is the primary area managed for walleye along with some management in Grand Traverse Bay.
- Harbors and piers also provide good walleye fisheries.
- Major walleye tributaries include those in Green Bay and Manistee, Muskegon, Grand, Kalamazoo, and St. Joseph rivers.
- Management options include
 - Stocking, habitat improvement, and regulations.
 - Promote local fishing opportunities.



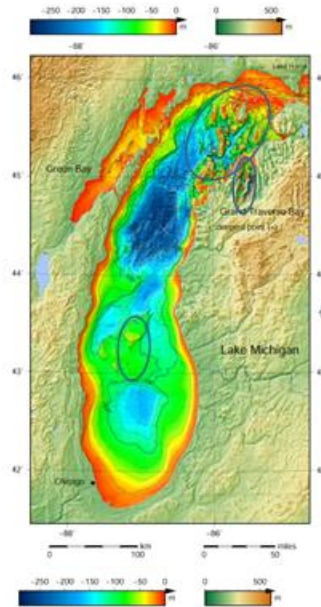
Yellow Perch

- Prefer nearshore and shallow water habitat often near structure.
- Spawning in Lake Michigan occurs in southern Wisconsin and northern Illinois waters and larvae and fry often drift on currents to southern Michigan nearshore areas from Grand Haven to St. Joseph.
- Green Bay offers a shallow habitat system that supports yellow perch as well as northern nearshore waters.
- Drowned river mouth lakes and shallow bays also provide yellow perch habitat and fisheries (i.e. southern Grand Traverse Bay, Portage Lake, Pentwater Lake, White Lake, and Muskegon Lake).
- Management options include:
 - Regulations and habitat protection
 - Promote local fishing opportunities.



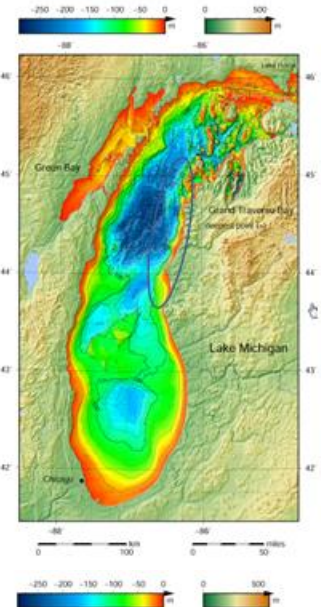
Lake Trout

- Lake trout require rock reefs and clay banks to spawn. These areas are concentrated in Northern Lake Michigan, Grand Traverse Bay, and the Mid-Lake Reef.
- Lake trout are typically nearshore in the spring and move offshore to deeper water as the water warms.
- Rehabilitation goals are to increase natural reproduction and increase the age structure.
- Management options include:
 - Allocating harvest between tribal nations and state fishers.
 - Concentrate stocking in northern Lake Michigan where spawning habitat exists and where mortality rates have been highest.
 - Regulations are more conservative in north to increase age structure and more liberal to south where rehabilitation goals are starting to be met.
 - Promote fishing opportunities.



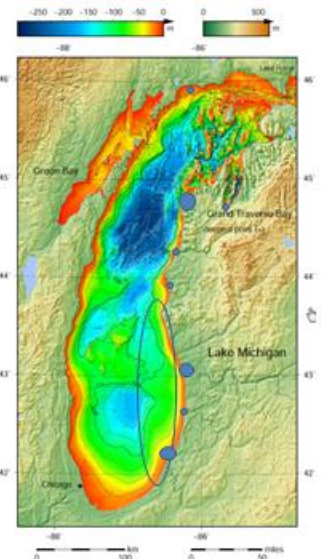
Brown Trout

- Prefer some structure and cooler water – especially in summer.
- Southern Lake Michigan waters are generally shallower and warmer in the summer months so trout need to go offshore to seek cooler temperatures.
- Generally provide better fisheries when stocked at high densities.
- Management options include:
 - Stocking areas with more structure and close to temperature refuge (i.e. deepwater or cold tributaries).
 - More concentrated stocking.
 - Promote fishing opportunities especially the early spring fishery.



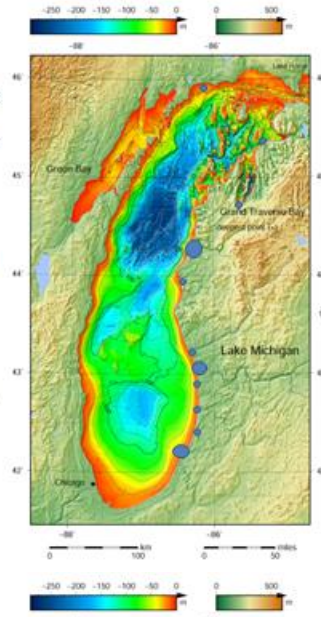
Coho Salmon

- Generally move to southern Lake Michigan in winter and begin to move north along Michigan shoreline during spring and then disperse to the western shore of Lake Michigan during summer before returning to Michigan nearshore areas in late summer and fall.
- Fall fisheries concentrated at stocking locations.
- Platte River stocked at high concentration to maintain broodstock.
- Some natural reproduction in cold river but probably limited to 20% or less of population.
- Management options include:
 - Stocking Platte River for broodstock.
 - Stocking high use ports and rivers for fall returns with emphasis on southern Lake Michigan.
 - Regulations mainly include bag limit.
 - Habitat improvement through river connectivity.
 - Promote fishing opportunities.



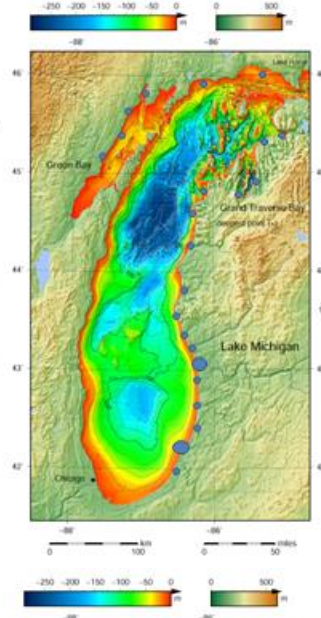
Chinook Salmon

- Chinook move throughout the lake from age 1 to maturity (i.e. age 2, 3, or 4).
- Spring and summer fisheries depend on lake temperature and bait availability.
- Fall fisheries concentrated at stocking locations and rivers that produce wild salmon. Wild rivers tend to be the Muskegon, PM, Manistee, Betsie, and small rivers and streams in northern lower Michigan and the Upper Peninsula.
- Medusa stocking traditionally provided to fisheries throughout the lake.
- Salmon moving to and from Lake Huron provide fisheries near Green Bay and across northern Lake Michigan.
- Management options include:
 - Stocking Little Manistee River for broodstock.
 - Stocking high use ports and rivers for fall returns with emphasis on southern Lake Michigan.
 - Regulations mainly include bag limit.
 - Habitat improvement through river connectivity.
 - Promote fishing opportunities.



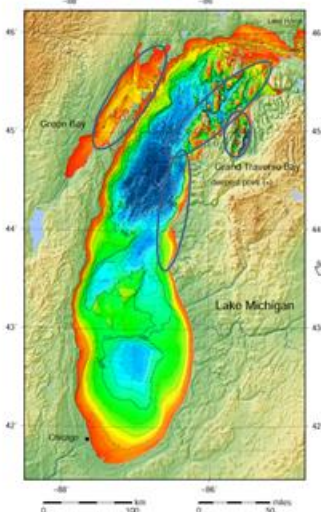
Steelhead

- Steelhead move throughout the lake until majority when they return to spawn in rivers.
- Steelhead tend to stay over deep water unless cold water is nearshore and then provide good nearshore fisheries.
- Fall and spring fisheries concentrated at stocking locations and rivers that produce wild steelhead. Wild rivers tend to be the Muskegon, PM, Manistee, Betsie, and small rivers and streams in northern lower Michigan and the Upper Peninsula.
- Management options include:
 - Stocking rivers that produce good fall, winter and spring fisheries.
 - Stocking more oriented to river runs while supporting a diverse lake fishery.
 - Regulations mainly include bag limit.
 - Habitat improvement through river connectivity.
 - Promote fishing opportunities locally.



Cisco

- Cisco are expanding from Grand Traverse Bay north to Charlevoix and south as far as Ludington.
- Cisco prefer nearshore areas and typically spawn on rock reefs and coarse substrate.
- Traditionally cisco were abundant in Green Bay.
- Management options include:
 - Experimental stocking in Grand Traverse Bay.
 - Regulations for bag limit.
 - Reef habitat protection and enhancement.
 - Assess expansion throughout the lake.
 - Promote fishing opportunities locally.



Adopting Zonal Management Stocking Options Issue Statement:

Issue Statement for Lake Michigan Citizen's Fishery Advisory Committee

Prepared by: Jay Wesley

October 2017

Action/Information

Suggested Time Frame: 120 minutes

Labeled Decision Style: IIB (will live with) fallback is IIA (Wesley/Dexter)

Issue: Adopting zonal management in Lake Michigan – where and how many trout and salmon should be stocked?

Background: The Lake Michigan Basin Team agreed to consider the Zonal Management Concept at the June 2017 meeting. To help increase interest in the Lake Michigan Fishery Management Plan at public meetings this fall, Zonal Management will be unveiled with some options for stocking changes. The Zonal Management Concept and maps are in a separate document. Based on the thoughts for management for each species, what is your comfort level for stocking changes? We will work through each salmon and trout species to seek agreement as a committee. Other species that require habitat or regulation considerations will not be discussed with this issue statement.

Lake Trout

Lake trout stocking creates fishing opportunities and is required to meet rehabilitation goals. Angler attitudes for lake trout have decreased through the years, especially with less productivity in the lake creating competition for prey with more valued fish such as Chinook, coho, steelhead and brown trout. Are there opportunities to continue to work towards rehabilitation goals while reducing some lake trout stocking?

Below are some options to discuss for future lake trout stocking:

Site	2018	Option 1	Option 2	Option 3	Option 4	Option 5			
W. Beaver Complex	480,000	480,000	480,000	480,000	456,000	456,000			
East Beaver Complex	600,000	600,000	600,000	600,000	570,000	570,000			
Charlevoix Complex	360,000	360,000	360,000	360,000	342,000	342,000			
Elk Rapids	50,000	50,000	50,000	50,000	40,000	40,000			
Torch Lake outlet	50,000	50,000	50,000	50,000	40,000	40,000			
Old Mission	80,000	80,000	80,000	80,000	70,000	70,000			
GTB Shoal	60,000	60,000	60,000	60,000	50,000	50,000			
Ingalls Point	50,000	50,000	50,000	50,000	40,000	40,000			
Lee's Reef	50,000	50,000	50,000	50,000	40,000	40,000			
Greilickville	60,000	0	0	0	0	0			
Good Harbor	100,000	100,000	70,000	40,000	40,000	30,000			
Point Betsie	100,000	100,000	70,000	40,000	40,000	30,000			
Portage Lake	40,000	40,000	40,000	40,000	30,000	30,000			
Ludington	40,000	40,000	40,000	40,000	30,000	30,000			
Grand Haven	0	0	0	0	0	20,000			
Holland	0	0	0	0	0	20,000			
St. Joseph	0	0	0	0	0	20,000			
	2,120,000	2,060,000	2,000,000	1,940,000	1,788,000	1,828,000			
Option 1: TFC approved 40,000 at Ludington and Manistee creating 60,000 extra that went to Greilickville - suggest eliminating this 60,000 in 2019.									
Option 2: Option 1 and reduce Good Harbor and Point Betsie by 30,000 each.									
Option 3: Option 1 and reduce Good Harbor and Point Betsie by 60,000 each.									
Option 4: Option 1 and 2 and reduce Grand Traverse area and reduce MM1-3 by 5% considering natural reproduction.									
Option 5: Overall reduces stocking and redistributes nearshore secondary fish throughout the lake.									

Considerations:

- May have an effect on models and total allowable catch in future perhaps requiring a regulation change.
- May see decrease in nearshore fishery if fish don't move off reefs.
- Requires LMC and TFC (Technical Fishery Committee 2000 Consent Decree) approval.

1) Decision 1: What lake trout stocking options are you willing to live with?

- 2018 Status Quo
- Option 1
- Option 2
- Option 3
- Option 4
- Option 5
- Other options? Describe

Turning point polling of Citizen's Advisor Committee members only (17 polled) resulted with 38% for option 5; 25% for option 2018 Status Quo; 19% for option 3; and 19% for option 5. One member would not live with option 4 due to elimination of Greilickville.

Brown Trout

Brown trout stocking adds to a diverse fishery in Lake Michigan. The fishery is mostly an early spring fishery with the odd brown trout caught throughout the season. It is a very expensive fish to raise (\$130

per fish harvested) and in recent years has produced an improved fishery with some ports doing better than most. Impediments include warm water, lack of habitat structure at some ports, and predation of stocked fish. Wisconsin stocks at a higher rate (30,000 to 50,000 per port) and has good brown trout fishing, especially in ports with structure. The west side of the lake typically has more favorable temperatures throughout the year too. To maximize survival and to create destination brown trout fisheries, brown trout stocking should be concentrated to areas with structure and deep water closer to shore.

Below are some options to consider for brown trout stocking:

Site	2017	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Bark River	22,000	22,000	22,000	22,000	22,000	0	0
Manistique	10,000	10,000	10,000	10,000	10,000	0	0
Big Bay De Noc - Hallsteads	28,500	28,500	28,500	28,500	28,500	0	0
Little Bay De Noc	20,000	20,000	20,000	20,000	20,000	0	0
Menominee	17,500	17,500	17,500	17,500	17,500	0	0
Petoskey	20,000	20,000	20,000	20,000	20,000	20,000	0
East Grand Traverse	15,000	15,000	15,000	15,000	15,000	30,000	0
Leland	20,000	20,000	20,000	20,000	20,000	20,000	0
Glen Arbor	15,000	15,000	15,000	15,000	15,000	0	0
Platte Bay	30,000	30,000	30,000	38,000	70,000	70,000	70,000
Frankfort	46,000	50,000	68,000	70,000	83,000	81,000	76,000
Arcadia	15,000	15,000	0	0	0	0	0
Manistee	30,000	44,000	70,000	70,000	75,000	75,000	70,000
Ludington	56,000	100,000	110,000	110,000	110,000	110,000	90,000
Pentwater	19,000	19,000	0	0	0	0	0
White Lake	19,000	0	0	0	0	0	0
Muskegon	19,000	20,000	0	0	0	0	0
Grand River	15,000	20,000	20,000	0	0	0	0
Holland	24,000	20,000	20,000	0	0	0	0
Saugatuck	19,000	0	0	0	0	0	0
South Haven	8,000	0	0	0	0	0	0
St. Joseph	19,000	20,000	20,000	0	0	0	0
New Buffalo	19,000	0	0	0	0	0	0
	506,000	506,000	506,000	456,000	506,000	406,000	306,000

Option 1: Maintain current stocking levels and move fish north to Ludington, Manistee, and Frankfort leaving some stocking in the south.

Option 2: Option 1 and concentrate more stocking in Ludington, Manistee, and Frankfort.

Option 3: Concentrate stocking in Ludington, Manistee, Frankfort, and Platte Bay and reduce stocking by 50,000.

Option 4: Concentrate stocking in Ludington, Manistee, Frankfort, and Platte Bay.

Option 5: Concentrate stocking and reduce 100,000

Option 6: Concentrate stocking and reduce 200,000

Considerations:

- High cost to creel with a 10 year average of \$130 per fish lake-wide in Michigan waters (\$258 per fish in 2016).
- 20,000 to 30,000 may be required to swamp predators.

- TFC review of 1836 waters; no LMC approval needed.

2) Decision 2: What brown trout stocking options are you willing to live with?

- Option 1
- Option 2
- Option 3
- Option 4
- Option 5
- Option 6
- Other options? Describe.

Prior to polling an option 8 was added that eliminated all brown trout stocking. Polling results were 44% Option 8 – no brown trout stocking; 13% Status Quo 2017; 13% option 3; and 6% for options 1, 2, 4, and 5. Seven members would not live with option 8 to eliminate brown trout stocking.

Coho Salmon

Coho salmon stocking has remained relatively stable for 50 years. There has been some movement of fish in the Grand River system to increase survival, and this has resulted in better fishing. Coho salmon are becoming more important in the fishery, especially when Chinook salmon numbers are down. They can produce fall fisheries in ports and rivers that don't either don't have or are limited in wild Chinook salmon runs. Stocking changes should consider moving stocking sites downstream and increasing ports to the south where there is a lack of wild production. The main risks to consider is how many coho salmon need to be stocked in Platte River.

Site	Option 1	Option 2	Option 3	Option 4	Option 5			
Manistique River	26,259	26,259	26,259	26,259	51,259			
Boardman River	87,530	87,530	87,530	87,530	87,530			
Platte River	800,000	800,000	750,000	750,000	725,000			
Manistee River	87,530	87,530	87,530	87,530	87,530			
Sable River	43,765	43,765	43,765	43,765	43,765			
Muskegon	0	0	0	40,000	40,000			
Grand River (Lansing)	50,000	50,000	50,000	50,000	50,000			
Grand River (Lyons)	200,719	100,719	100,719	100,719	100,719			
Rogue River	25,000	35,000	35,000	35,000	35,000			
Grand River (Ada)	0	90,000	90,000	90,000	90,000			
Saugatuck	0	0	50,000	40,000	40,000			
St. Joe River (Berrien Springs)	131,295	131,295	131,295	101,295	101,295			
Galien River	21,883	21,883	21,883	21,883	21,883			
	1,473,981	1,473,981	1,473,981	1,473,981	1,473,981			
Option 1: Status quo								
Option 2: Move some Grand River coho downstream to Ada and Rogue River.								
Option 3: Reduce Platte River by 50,000 and move to Saugatuck. Move some Grand River downstream.								
Option 4: Reduce Platte River by 50,000 and move to Muskegon and Saugatuck. Reduce 30,000 from St. Joe due to increased stocking by Indiana.								
Option 5: Reduce Platte River by 75,000 and move to Muskegon, Saugatuck, and Manistique. Reduce St. Joe by 30,000.								
Note: with Options 3-5, any production over level 2 would go to Platte River.								

Considerations:

- Basin Team (DNR staff) very uncomfortable moving coho out of Platte.

- Very little known about coho in general (study proposal requires funding).
- About \$47 per fish harvested in the lake in 2016.
- Should we identify an alternate egg-take location?
- Indiana is stocking more yearlings vs fall fingerlings in the St. Joe.
- Platte would be highest priority for any stocking variations up or down.
- TFC approval for 1836 waters.

3) Decision 3: What coho salmon stocking options are you willing to live with?

- Option 1
- Option 2
- Option 3
- Option 4
- Option 5
- Other options? Describe.

The top option at 38% was option 4 followed by Status Quo (25%), option 5 (19%), option 2 (13%) and option 3 (6%). All members would live with option 4.

Chinook salmon

Chinook salmon stocking has been decreasing since 1999 to balance their biomass with alewife. Natural reproduction now makes up the majority of the fishery (at least half in recent years). Stocking is necessary to maintain Little Manistee River broodstock and fisheries in areas the lack natural reproduction. Options below consider status quo stocking, following LMC/Predator Prey Ratio policies, and increasing to 2016 numbers.

Port	2016	Option 1		Option 2		Option 3		Option 4		Option 5		Option 6		Option 7	
		2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
Escanaba	12,000														30,000
Manistique	34,000	33,334		33,334		40,000		60,000		60,000		60,000		70,000	
Medusa	72,000		50,000		50,000		50,000		70,000		80,000		90,000		85,000
Boardman	60,000	50,000		50,000		50,000		50,000		70,000		80,000		80,000	
Manistee River	22,000													30,000	
Little Manistee	150,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	210,000	210,000
Big Sable River	38,000						22,900		22,900		22,900		25,000		40,000
Muskegon River	18,000				25,000		25,000		25,000		30,000		30,000		25,000
Grand Haven	59,000		50,000		50,000		50,000		50,000		70,000		85,000		85,000
Holland	15,000			25,000		27,900		30,622		30,622		40,000		30,000	
Black River	15,000	33,333		33,333		40,000		40,000		55,000		70,000		70,000	
Saugatuck	16,000	33,333		33,333		40,000		40,000		55,000		62,289		70,000	
St. Joseph	48,000		50,000		50,000		50,000		52,722		67,722		82,289		85,000
Total	559,000	330,000	330,000	355,000	355,000	377,900	377,900	400,622	400,622	450,622	450,622	492,289	492,289	560,000	560,000

Option 1: Status quo

Option 2: Adds 25,000 Chinook salmon based on stocking only 506,000 brown trout leaving 55,000 brown trout to be converted to Chinook. LMC plan has 561,500 for MI BNT.

Option 3: If brown trout are reduced to 456,000 there would be room for 47,900 Chinook salmon based on equivalents.

Option 4: If brown trout are reduced to 406,000 there would be room for 70,622 Chinook salmon based on equivalents.

Option 5: Option 4 and add 50,000 Chinook equivalents from lake trout reductions. Requires TFC and LMC approval.

Option 6: Option 5 and reduce brown trout to 306,000.

Option 7: Go to 560,000 using predator equivalents and adding Chinook salmon resulting in more predation in the lake. Would require LMC approval.

Considerations:

- Basin Team (DNR Staff) had no consensus to increase predation in lake (going to 560,000).
- Although Basin Team is concerned about movement from Lake Huron, the Lake Huron Basin Team and Citizen Advisors need time to work through their own process.
- Concern that wild Chinook production could ramp up quickly (need predictive model to forecast potential smolt survival).

- Disconnect between what anglers are seeing for bait and what assessment gear is collecting. Seems to be high concentration of bait nearshore but not throughout the lake like we used to have.
- Some chinook stocking could increase with reductions of other predators.
- Requires TFC approval and LMC approval if go above current predator cap.
- Swan has been important egg take option with lower returns at LMW.
- Cost \$3.70 per fish harvested in the lake in 2016.

- 4) Decision 3: What Chinook salmon stocking options are you willing to live with?
- Option 1
 - Option 2
 - Option 3
 - Option 4
 - Option 5
 - Option 6
 - Option 7
 - Other options? Describe

Options 4 and 5 had 25% of poll for what option are you most comfortable with followed by option 7 (19%), option 6 (13%), and options 1,2, and 3 received 6% each. Appears that there is interest in increasing Chinook salmon stocking numbers using predator equivalents. The question was asked a different way – which Chinook salmon stocking options will you live with (choose all that apply). Option 5 highest at (22%) followed by option 4 (18%), option 6 (15%), option 1 (13%), options 2 and 3 at (12% each), and option 7 (8%).

Steelhead

This issue statement does not recommend changes to steelhead stocking. Steelhead cost about \$34 per fish harvested in the lake in 2016. Future considerations will be needed with more production at Thompson Hatchery.

- 5) Decision 5: What steelhead stocking options are you willing to live with?
- Option 1: Status quo.
 - Option 2: Changes- describe.

Option 1 received 57% and option 2 received 43%.

Michigan DNR Steelhead			
Site	2017 Yearl	2017 Fall Fingerling Plan	
Brevoort River	8,000		
Cedar River	17,000	10,000	
Days River	5,000		
E.B. Whitefish	12,000		
Ford River	15,000		
Menominee	10,000		
Manistique	28,000		
Bear River	5,000		
Boyne River	8,000		
Elk River	7,000		
Boardman River	15,000		
Jordan River	8,000		
Platte River	20,000	100,000	
Betsie River	20,000		
S.B. PM River	10,000		
Manistee River	51,000	200,000	
Manistee River (Skama	34,000		
Pentwater River	7,000		
White River	22,000		
Muskegon River	55,000		
Grand River (Crockery	5,000		
Grand River (Prairie Cr	5,000		
Grand River (Red Ceda	3,000		
Grand River (Lansing)	22,825		
Grand River (Rogue R.	28,000		
Grand River (Fish Cr.)	5,000		
Grand River (Flatt R.)	5,000		
Kalamazoo River	22,000		
Kalamazoo River (Rab	16,225		
St. Joseph River (Sport	18,000		
St. Joseph River (Berri	30,000	70,000	
St. Joseph River (Niles	25,000	36,000	
Galien River (New Buf	12,000		
	554,050	416,000	

Committee members where asked if the salmon bag limit should stay 5?

50% yes and 50% no; some members had left the meeting prior to this question being asked and it was not on the agenda.

Next meeting date either April 17th or 24th in Lansing.

Meeting Adjourned about 3:15 PM