

Central Lake Michigan Management Unit



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What is the CLMMU?

The Central Lake Michigan Management Unit (CLMMU) encompasses all of the waters that make up the watersheds that drain into the central portion of Lake Michigan. Our work area includes all or portions of the following counties; Emmet, Charlevoix, Antrim, Otsego, Crawford, Kalkaska, Grand Traverse, Benzie, Leelanau, Manistee, Wexford, Missaukee, Roscommon, Clare, Osceola, Lake, Mason, Oceana, Newaygo, Mecosta, Montcalm, Kent, and Muskegon. Fisheries staff working in this unit include a Management Biologist and Basin Coordinator who work out of the Traverse City Field Office, a Management Biologist and Unit Manager/Technician Supervisor who work out of the Cadillac Operations Service Center, a Management Biologist who works out of the Muskegon Field Office, two Fisheries Technicians and a Fisheries Assistant Lead Worker who work out of the Harrietta Field Office, and six Fisheries Assistants (creel clerks) who work out of various ports.



Walleye Rearing Ponds

In 2012 CLMMU operated three walleye rearing ponds; Beaver Island, Mason County, and I-75. Both Beaver Island and Mason County are ponds where we provide the fish, and cooperative agreements with sportsman's groups allow those folks to rear the walleye until they are ready to be stocked. Unfortunately some mechanical failures in 2012 did not allow for the Beaver Island pond to be successful, however our two remaining ponds both had productive seasons. A total of 13 different lakes in CLMMU were stocked during 2012 with spring fingerling walleye. Thanks once again to the Beaver Island Wildlife Club and the Mason County Walleye Association for all of their hard work!

Mason Pond

Lake Mitchell	143,730
Lake Cadillac	59,686
Big Star	27,586
Upper Hamlin	25,755 (Club stocked fish after drawdown)

Total Harvest 256,757 1.6" average 937/lb

I-75 Pond

Bear Lake	86,108
Portage Lake	55,937
Lower Herring	22,428
Upper Herring	23,229
Paradise Lake	27,368
Cub Lake	6,675
Pickrel Lake	7,343
Fife Lake	24,030
Lake Cadillac	12,148

Total Harvest 265,266 1.5" average 1,335/lb

Weir Operations



Little Manistee Steelhead Egg Take

The 2012 steelhead egg take was the fastest on record for CLMMU, lasting only three days! We began on Monday March 26, and met the egg quota this year by Wednesday March 28th. This is also the earliest in the year that we have ever collected eggs.

We spawned 309 pairs of steelhead the first day, 374 pairs the second day, and 430 pairs the third to complete the egg take. On the fourth day we passed the remaining fish, drained the ponds, and removed the weir grates. The run total in 2012 was over 4,795 steelhead, two Chinook salmon, two brown trout, one coho salmon, and many suckers. This was the largest run since 2002 and several year classes were represented.

A total of 4,912,747 steelhead eggs were produced for the state-wide steelhead stocking program through this effort, including 315,657 eggs that we collected for the Indiana Department of Natural Resources.

Did you know?

The Central lake Michigan Management Unit is home to more egg take and salmon harvest facilities than any other management unit in the state? The Little Manistee Weir, Platte River Weirs, Boardman Weir, and Medusa Weir are all found within the geographical boundaries of CLMMU.



Little Manistee Salmon Egg Take & Harvest

The total quota of Chinook eggs were collected during a five day period in 2012. The annual fish health exam was conducted on October 9th and additional samples were collected for studies by MSU and EMS samples for MDNR Fisheries Division. During the first four days of operations tours were given by Wolf Lake Interpretive Center personnel to over 700 students plus 200 walk-ins. Many of the schools that came for tours participate in Salmon in the Classroom and brought back eggs that day.

We harvested a total of 12,327 Chinook, passed 1,333 Coho, passed 283 Steelhead, and passed 103 brown trout. This resulted in the production of 3,765,503 Chinook eggs, including 742,150 eggs for the Indiana DNR and 860,016 eggs for the Illinois DNR. The facility was drained, the weir grates were removed, and the weir was officially closed up on October 18th.

Boardman Weir Salmon Harvest

During the 2012 season the Boardman Harvest Weir was operated for a total of seven days, from September 20th through October 19th. At this facility Chinook salmon and coho salmon are harvested and sent to a contractor for processing, while all other species are passed upstream. No eggs are collected for hatchery rearing purposes from this weir. During the Fall of 2012 a total of 13 steelhead and 14 brown trout were passed upstream, while 4,516 Chinook salmon and 2,534 coho salmon were harvested for a total salmon harvest of 7,050 fish.



Kids Fishing Events

Many of the staff from CLMMU participate in Kids Fishing events during the summer months. These Kids Fishing events include opportunities to take kids fishing in Leelanau County, Petoskey, Traverse City, and Manistee. All of these events are cooperative projects between local Trout Unlimited chapters, Sportsman's clubs, local units of government, and the DNR.

Rods, Reels, and bait are provided at no cost to the participants, and these events typically see anywhere from 200 to 600 people who come out to participate!



Habitat Enhancement Spotlight

Brown Bridge Dam Removal



Almost hard to believe these pictures were taken in the same location only four months apart!

Left: Brown Bridge Dam in August 2012, prior to removal .

Above: Former Brown Bridge Dam site in December 2012.

Brown Bridge Dam on the Boardman River was constructed in 1921 as a hydropower facility, and is the furthest dam upstream from Lake Michigan. This dam was selected as the first to be removed because of its significant ecological benefits— the removal of this dam alone has resulted in the restoration of 1.5 miles of cold-water trout stream, 156 acres of wetlands and 25 acres of upland habitat. During the dam removal process not only was the powerhouse structure demolished, nearly 13,500 feet of lineal river was re-shaped to follow its original course through the area that was formerly Brown Bridge Pond bottomlands. This re-shaping involved rebuilding river banks, vegetating the floodplain, adding large woody debris to the river, and the removal of thousands of yards of sediment to reduce the amount of sediment moved downstream by the river during the process. Deconstruction on this dam began in August of 2012, and by mid- December 2012 the structure was completely demolished. This dam removal has turned out very well, but its progress was not without challenges— a breach of the dam during the removal process in early October caused significant flooding and concerns about environmental impacts. However the removal of sediments during the removal process reduced the amount of impact that could have potentially occurred. Subsequent water quality monitoring and fish population monitoring have shown that impacts to the river were minimal. The removal process was allowed to continue, and the enhancements to the Boardman River seen above are tremendous. Discussions and design work for the removal of Sabin Dam and Boardman Dam are currently underway; these dams are expected to be removed in 2013.

Three Streams Running Free in NW MI

In recent years removing dams has been added to the list of tasks for many DNR Fisheries Biologists. This is evident in the Manistee River watershed, where a number of dams have been removed in the past several years. High-profile projects have been completed on tributaries to the Manistee River including Wheeler Creek, Manton Creek, and the North Branch of the Manistee River. These projects were all completed by working with Conservation Resource Alliance (CRA), a non-profit in Traverse City.

The Wheeler Creek Dam was the oldest dam in Wexford County history, constructed in 1867. In the fall of 2006, the owner of the dam contacted DNR about potentially removing the dam. With the help of CRA removal took place in the fall of 2009. Although the actual dam removal took place three years ago, site work that includes excavation (peeling back steep slopes that developed when the stream downcut through the old impoundment bed), tree planting, and in stream habitat installation has continued. Funding sources for the project include the Consumers Energy Habitat Improvement Account (HIA), grant funding from the USFWS, NOAA, NRCS, FishAmerica Foundation, and the CRA Rivercare account.

The Manton Millpond Dam, constructed in 1919, was the next target. Sometime in the 1980s the dam failed, leaving a mess of broken concrete and exposed re-rod. The shallow pond that remained no longer held any fishing potential, and it warmed the water in Manton Creek to the point where trout could no longer survive. In the fall of 2008, the City of Manton contacted DNR and asked for assistance in removing the Millpond Dam. The project began in 2010 and the dam was removed in steps. While the dam was officially gone by the fall of 2011, further excavation work on the stream channel continued in the summer of 2012. The site should look great in the summer of 2013 as it re-vegetates. Funding sources for the project include the Consumers Energy HIA Account, USFWS, NOAA, GLRI, NRCS, and the FishAmerica Foundation.

Although the Wheeler Creek and Manton Millpond Dams had their own difficulties, the Flowing Well project on the North Branch of the Manistee River and Flowing Well Creek was another story. The Flowing Well Trout Farm was a 1700 acre privately-owned trout farm that was acquired by the State in 2008, and had 12 different dams on the property. In the summer of 2011 the dams were removed, restoring natural flow conditions to the area. Further work is ongoing and will continue into next summer, including in stream woody fish cover installation. Don't tell anyone, but the North Branch of the Manistee River was an excellent brook trout stream before this project, and now it's even better! Funding for the project was provided by the Consumers Energy HIA Account, USFWS, GLRI, USDA, Trout Unlimited, and the National Fish and Wildlife Foundation.



Post dam removal- Above: Wheeler Creek
Right: Manton Creek

Lake, River, and Stream Surveys

During the spring, summer, and early fall of 2012, the CLMMU staff completed 49 different surveys. These surveys included spring and fall Serns Index surveys, stream and river electrofishing surveys, and combination netting and electrofishing lake surveys. A total of 11 different lakes and 37 different streams were surveyed (some streams had multiple sampling locations). Those waterbodies include;

Acme Creek	Elm Creek	Preston Creek	Birch Lake
Arcadia Lake	Fife Lake	Seaton Creek	Boardman River
Bear Creek	First Creek	Second creek	Manistee River
Bear River	Higgins lake	Shanty Creek	Starvation Lake
Bennett Creek	Ironton Creek	Slagle Creek	
Big Sable River	Kids Creek	Spencer Creek	
Bigelow Creek	Lake Bellaire	Sprague Creek	
Bonnie Brook	Lake Cadillac	Steele Creek	
Boyne River	Lake Mitchell	Susan Lake	
Brown Creek	Mary Brook	Third Creek	
Cold Creek	Middle Br. Pere Marquette	Unnamed Creek	
Cripple Creek	Mitchell Creek	Veronica Valley	
Dutchman Creek	Muskegon River	Wilkinson Creek	
Dyers Creek	Olstrom Creek	Yuba Creek	
Eastport Creek	Pine River	Bear Lake	



Arcadia Lake - Manistee County

During the 2012 MDNR survey of Arcadia Lake, a total of 2,012 fish representing 32 species were caught. During the June netting portion of the survey, a total of 1,390 fish were caught, representing 21 different species. Brown bullhead were the most frequently collected species, with a total of 581 caught (from 7-12 inches), representing 41.8% of the total catch by number and 19.1% by weight. Although not as numerically abundant, bowfin and northern pike also represented a significant proportion of the biomass, at 15.9% and 16.9% of the catch by weight respectively. Panfish species present in the 2012 netting catch included black crappie (56 from 5-11 inches), bluegill (86 from 4-9 inches), pumpkinseed sunfish (65 from 4-8 inches), and yellow perch (23 from 5-13 inches). Game fish species caught in the netting portion of the 2012 survey included northern pike (99 from 19- 35 inches), walleye (39 from 14-29 inches), largemouth bass (25 from 9-18 inches), smallmouth bass (15 from 12-20 inches), and one 28 inch rainbow trout (steelhead).

During the July seining and electrofishing portion of the 2012 survey of Arcadia Lake, a total of 622 fish were caught, representing 22 different species. The most frequently collected species during seining and electrofishing included smallmouth bass (163 from 1-17 inches) and yellow perch (171 from 1-11 inches). Other panfish and gamefish species captured included black crappie, bluegill, largemouth bass, northern pike, pumpkinseed sunfish, and rock bass. Other nongame species present included banded killifish, bluntnose minnow, bowfin, brown bulhead, golden redhorse, golden shiner, longnose gar, logperch, mimic shiner, round goby, sand shiner, silver redhorse, spottail shiner, and white perch.

Mitchell Creek— Grand Traverse County

On August 8, 2012 Mitchell Creek was shocked with a backpack electrofishing unit. Conducted as a discretionary survey, the goal of this study was to collect fisheries information from a location that had not been surveyed in many years. One location on Mitchell Creek was shocked; 200 feet of stream from an old foot bridge to the culvert at the Traverse Area Recreational Trail (TART Trail) near the intersection of Parsons Road and Four Mile. The culvert at this trail-stream crossing is very close to becoming perched with the low water levels we are experiencing. Water temperature at the sampling site was 57.3°F. A total of 120 fish were collected at this site and included 60 brown trout, 13 rainbow trout, 10 brook trout, 27 sculpin, four coho salmon, three bluegill, one creek chub, one green sunfish, and one central mudminnow.



Middle Branch Pere Marquette River— Lake County

The mainstem of the Pere Marquette River begins where the Middle Branch and the Little South Branch Pere Marquette River join. The overall purpose of the 2012 survey was to collect information on existing fisheries and habitat conditions in the watershed that can be used to provide direction for future management activities. Eight sampling stations were used to collect information on fish distribution, fish abundance, wood cover, water temperatures, water flows and various other habitat components. A final report on this survey may be completed by fall 2013.

Fish population estimates were completed at Queen's Highway, Nelson Road, Forman Road, and James Road. All stations had very good coldwater fish communities and overall fish production was above average for Michigan streams. This stream contains brown trout, rainbow trout (steelhead), coho salmon and Chinook salmon. Reproduction of trout and salmon was found to be very high. The size structure of the brown trout population was very favorable for anglers with many fish in the size range from 8 inches to 22 inches. Wood cover and sand substrate was about average when compared to other Michigan streams and bank stability was rated good at all sites.

Creel Surveys

Surveys of Great Lakes anglers were conducted by our Fisheries Assistants at the following ports during 2012; Charlevoix, Petoskey (Bear River), Elk Rapids, Grand Traverse Bays, Platte Bay, Frankfort, Arcadia, Onekama (Portage Lake), Manistee, Ludington, Pentwater, and Whitehall. These valuable surveys are used to obtain estimates on fish harvest rates and angling effort. Our clerks work some of the busiest ports in the state and do a phenomenal job collecting data!



Links to our most recent Status of the Fishery Reports;

Duck Lake, Grand Traverse County: http://www.michigan.gov/documents/dnr/2012-128_383112_7.pdf

Lime Lake, Leelanau County: http://www.michigan.gov/documents/dnr/2011-117_407154_7.pdf

Mitchell Creek, Grand Traverse County: http://www.michigan.gov/documents/dnr/2013-154_411286_7.pdf

Arcadia Lake, Manistee County: http://www.michigan.gov/documents/dnr/2012-146_409148_7.pdf

Hodenpyl Dam Pond, Wexford & Manistee Counties: http://www.michigan.gov/documents/dnr/2012-137_401260_7.pdf

Tippy Dam Pond, Manistee County: http://www.michigan.gov/documents/dnr/2012-140_405846_7.pdf

Peterson Creek, Manistee & Wexford Counties: http://www.michigan.gov/documents/dnr/2012-126_387957_7.pdf

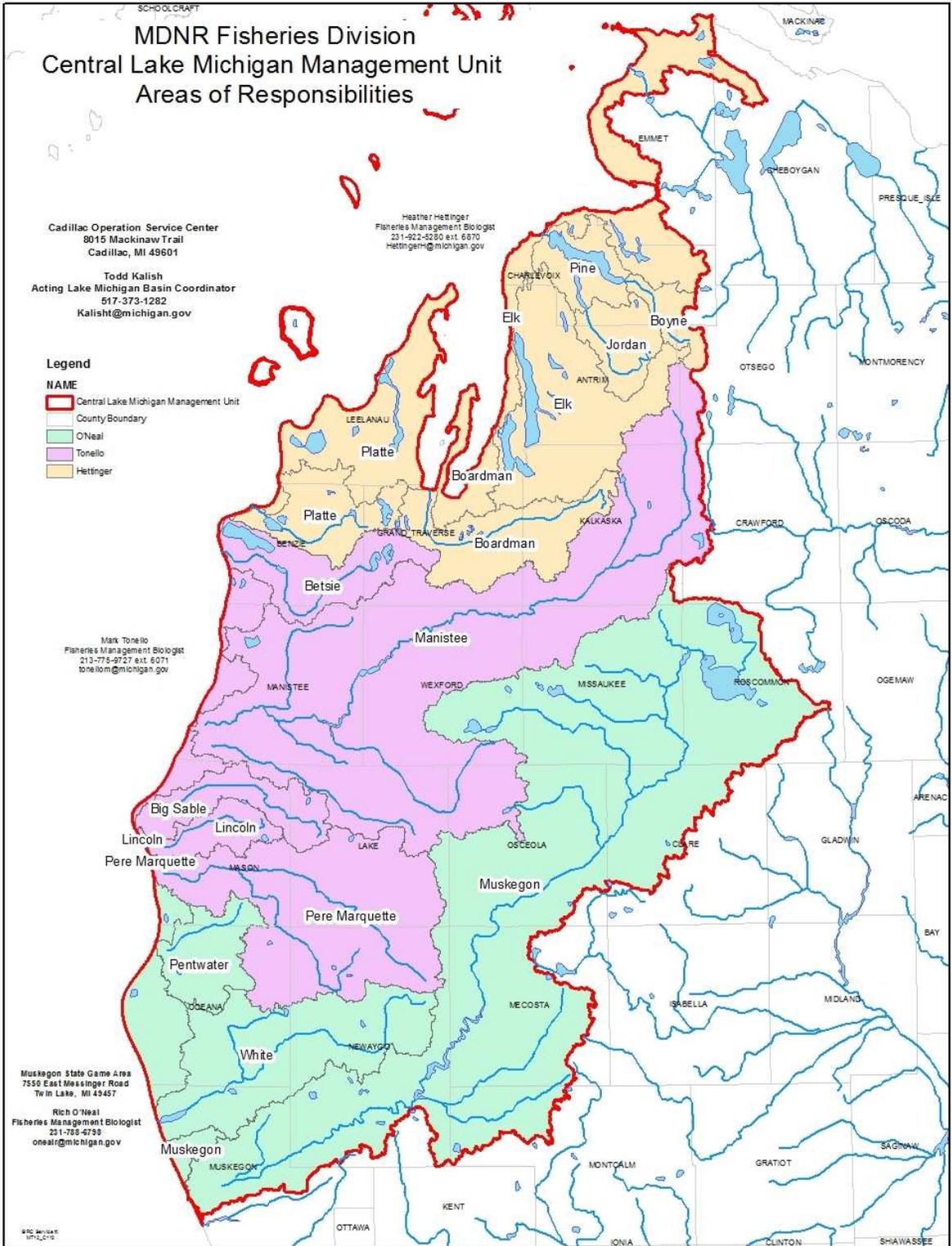
Hamlin Lake, Mason County; http://www.michigan.gov/documents/dnr/2012-132_394439_7.pdf

White River, Muskegon/Newaygo/Oceana Counties: http://www.michigan.gov/documents/dnr/2012-121_388116_7.pdf

Houghton Lake, Roscommon County: http://www.michigan.gov/documents/dnr/2012-141_388115_7.pdf



To obtain information on lake or stream surveys from this year or years prior or to ask any questions, please feel free to contact us. Use the map below to select the most appropriate biologist to contact;



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